# EUROPEAN CATALOGUE

[ DIN · JIS · ANSI ]

# YEU23



"Reliable screw threads" is YAMAWA's theme



IMROBEX
Machine Tools International


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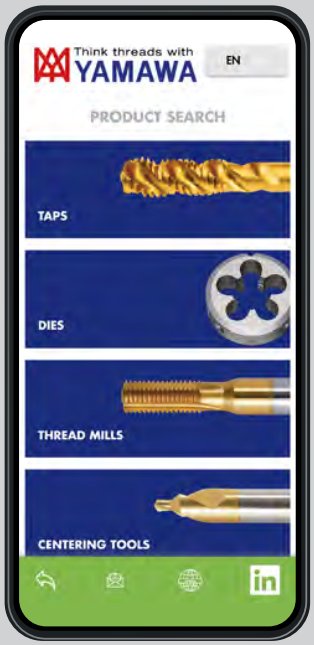
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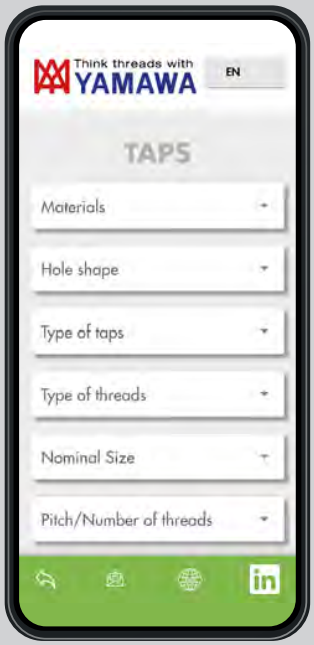
DOWNLOAD THE APP

# APP TOOL FINDER YAMAWA

## Scan the QR code to get the app or look for Tool Finder Yamawa on app stores.

- Find the most suitable Yamawa solution
- Bored-hole calculator
- Cutting parameters calculator
- ISO 513 materials
- Stock and price list available
- Downloadable Technical Sheet



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YAMAWA EUROPE

# APP TOOL FINDER

- FIND THE MOST SUITABLE TOOL
- BORED HOLE CALCULATOR
- PARAMETERS CALCULATOR
- MATERIALS BY ISO 513 STANDARD
- AVAILABLE IN 8 LANGUAGES



## All Yamawa solutions at your fingertips

It takes only a few seconds to choose from the wide range of taps, dies, threading mills, or centering tools.




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# General Index

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45 Line up arranged by type of thread
70 Icons

73 **SP** Spiral fluted taps for blind hole






181 **SL** Left spiral fluted taps for through hole



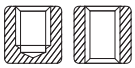



199 **PO** Spiral pointed taps for through hole



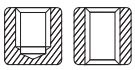



253 **ST** Straight fluted taps for blind and through hole



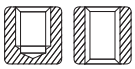



337 **ROLL** Thread forming taps



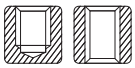



381 **CARBIDE** Carbide taps



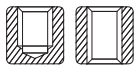



415 **LONG** Long shank taps



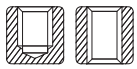


489 **HAND TAPS**
Taps for manual use and for drilling machines






501 **EG (STI)**
Taps for Helical coil wire screw thread inserts






525 **SPECIAL THREADS, GAUGES**
Taps for special threads and simple measuring instruments for internal thread and bored hole diameters




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585 **DIES**



597 **CENTER DRILLS**
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Indice alfanumerico · Alphanumerischer Index · Index alphanumérique · Indice alfanumérico · Алфавитный указатель

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| AUCDS | | | | 608 |
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| CPR-S | | | | 576 |
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| CT LA | 388 | | | |
| CT-PF | | 397 | | |
| DPO | 590 | | | |
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| EH-PO | 220 | | | |
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| HFAHS | 140 | | | |
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|---|---|---|---|---|
| SIT | | | | 552 |
| SITD | | | | 558 |
| SL LH Tr | | 541 | | |
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# Tap Series Classification



## YAMAWA TAP SERIES




**Z PRO** Series

**HAND TAPS** Series

**GENERAL PURPOSE** Series

**MULTI PURPOSE** Series

**MATERIAL SPECIFIC** Series

**HIGH SPEED** Series

Our range is composed by 6 different "TAP SERIES", each defined by specific technical features (raw materials, cutting geometries, surface treatments) and designed to match the various manufacturing reality such as small or large batches, cost or performance orientation, modern or conventional machines.

Classifichiamo i nostri prodotti in diverse "TAP SERIES" caratterizzate da differenti specifiche tecniche in termini di materiale dell'utensile, geometria di taglio, trattamento superficiale per poter soddisfare al meglio le diverse esigenze produttive legate alla fabbricazione di piccoli o grandi lotti, al parco macchine più o meno moderno, alla necessità di porre il focus sul costo o sulle performance dell'utensile.

Wir klassifizieren unsere Produkte nach verschiedenen "GEWINDEBOHRER-SERIEN", die sich durch unterschiedliche technische Spezifikationen in Bezug auf Werkzeugmaterial, Schneidengeometrie, Oberflächenbehandlung auszeichnen, um den unterschiedlichen Produktionsbedürfnissen im Zusammenhang mit der Herstellung von Klein- oder Großserien, dem mehr oder weniger modernen Maschinenpark, der Notwendigkeit, sich auf die Kosten oder die Leistung des Werkzeugs zu konzentrieren, am besten gerecht zu werden.

Nous classons nos produits en différentes « TAP SERIES » caractérisées par des spécifications techniques différentes en termes de matériau de l'outil, de géométrie de coupe et de traitement superficiel pour répondre au mieux aux différents besoins de production liés à la fabrication de petites ou de grandes séries, au parc de machines récent ou traditionnel, à la nécessité de privilégier le coût ou les performances de l'outil.

Nuestra gama de productos está compuesta por 6 diferentes "TAP SERIES", cada una definida por específicas características técnicas (materia prima, geometría de corte, tratamiento superficial) y diseñadas para satisfacer diferentes producciones de pequeño o gran consumo, orientadas al precio o al rendimiento y con máquinas modernas o convencionales.

Наш инструмент классифицирован на 6 "Серий". Они различаются техническими характеристиками (исходный материал, геометрия, покрытие) и предназначены для решения определенных производственных задач. Принимается во внимание размер партии, важность низкой стоимости или высокой производительности, использование станка с ЧПУ или универсального оборудования.

## Z PRO Series



**The evolution of high performance tapping.**
High performance solution for various kinds of workpiece materials and applications. Z-Pro series represent the outstanding result of almost 100 years of expertise in combining high quality raw materials and coatings with innovative cutting geometries.

**L'evoluzione della maschiatura ad alto rendimento.**
Soluzioni alto performanti per un'ampia gamma di materiali e applicazioni. La serie Z-Pro rappresenta l'eccezionale risultato di quasi 100 anni di esperienza nel combinare materiali di base di alta qualità e rivestimenti di ultima generazione con geometrie di taglio innovative.

**Die Evolution des Hochleistungs-Gewindeschneidens.**
Hochleistungswerkzeuge, geeignet für das Gewindeschneiden einer Vielzahl von Materialien. Die Z-Pro Produktlinie ist das hervorragende Ergebis einer fast 100 Jähringen Erfahrung. Die Kombinierung von hochqualitativen Substrate mit spezieller Beschichtung und innovativen Schnittgeometrien.

**L'évolution du taraudage haute performance.**
Solution haute performance pour les machines CNC de dernière génération; produits adaptés au filetage d'une grande variété de matériaux avec utilisation d'émulsion. Pour les entreprises à la recherche d'outils performants, fiables et polyvalents.

**La evolución del roscado de alto rendimiento.**
Solución de alto rendimiento para diferentes materiales y aplicaciones. La serie Z-Pro es el fruto de casi 100 años de experiencia combinando materia prima y recubrimientos de alta calidad con geometrías de corte innovadoras.

**Новое слово в области высокопроизводительного нарезания резьбы.**
Высокопроизводительное решение для обработки различных материалов. Z-Pro серия обладает высокими рабочими характеристиками, благодаря высочайшему качеству исходного материала, специальному покрытию и особой режущей геометрии.

## HT HAND TAPS Series



**HAND TAPS**
Products designed for hand and drilling machine application (HT hand sets and I series).

**MASCHI A MANO**
Gamma sviluppata per applicazioni manuali o su trapani. (HT serie a mano e I Series)

**HANDGEWINDEBOHRER**
Eine Produktreihe, die für manuelle Anwendungen oder für die Bohrmaschine entwickelt wurde (Serie HT Handgewindebohrer und Serie I)

**TARAUDS À MAIN**
Gamme développée pour les applications manuelles ou sur perceuses (série HT manuelle et Séries I).

**MACHOS DE MANO**
Gama desarrollada para aplicaciones manuales o con taladro. (Serie HT a mano y Serie I)

**РУЧНЫЕ МЕТЧИКИ**
Инструмент предназначен для нарезания резьбы вручную или с помощью универсального оборудования (наборы метчиков в серии HT и серия I).

## GP GENERAL PURPOSE Series



**GENERAL PURPOSE**
The ideal solution for small batches on various kind of workpiece materials.

**GENERAL PURPOSE**
La soluzione ideale per produzione di piccoli lotti. Applicabile su vari materiali.

**ALLGEMEINE ANWENDUNG**
Die ideale Lösung für die Kleinserienproduktion. Anwendbar auf verschiedenen Materialien.

**UTILISATION GENERALE**
La solution idéale pour la production de petites séries. Applicable sur différents matériaux.

**USO GENERAL**
La solución ideal para el roscado de lotes pequeños. Aplicable a varios materiales.

**ОБЩЕЕ НАЗНАЧЕНИЕ**
Идеальное решение для обработки небольших партий деталей из различных материалов.



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# MP MULTI PURPOSE Series



**MULTI PURPOSE**
High performance solution for various kind of work-piece materials. Suitable for those users looking for performance (tool life, speed), reliability and flexibility.

**POLIVALENTI**
Soluzione ad alto rendimento per una vasta gamma di materiali. Per aziende che ricercano utensili performanti, affidabili e versatili.

**MULTI-MEHRZWECK**
Hochleistungslösung für eine breite Palette von Materialien. Für Unternehmen, die leistungsstarke, zuverlässige und vielseitige Werkzeuge suchen.

**POLYVALENCE**
Solution à haut rendement pour une vaste gamme de matériaux. Pour les entreprises à la recherche d'outils performants, fiables et polyvalents.

**MULTIUSO**
Solución de alto rendimiento para una amplia gama de materiales. Para clientes que buscan rendimiento (vida útil, velocidad,...), fiabilida y versatilidad.

**УНИВЕРСАЛЬНЫЕ**
Высокопроизводительное решение для широкого спектра материалов. Для предприятий, нуждающихся в высокопроизводительных, надежных и универсальных инструментах.

# MS MATERIAL SPECIFIC Series



**MATERIAL SPECIFIC**
In this product family, each cutting geometry is designed to deliver the best performance (life and reliability) on a specific workpiece materials.

**PER MATERIALI SPECIFICI**
Questa serie di prodotti è caratterizzata da utensili con geometrie di taglio per ottenere le migliori performance (durata e affidabilità) su materiali specifici.

**MATERIALSPEZIFISCHE ANWENDUNG**
Die Schnittgeometrie dieser Werkzeuge sind entwickelt worden um die besten Leistungen auf einer gezielten Materialgruppe garantieren zu können.

**MATÉRIAUX SPÉCIFIQUES**
Pour cette série de tarauds chaque géométrie de coupe est étudiée pour obtenir les meilleures performances (durée et fiabilité) sur des matériaux spécifiques.

**MATERIALES ESPECÍFICOS**
En esta serie, cada geometría de corte está desarrollada para obtener el mejor rendimiento (durabilidad y fiabilidad) en materiales específicos.

**СПЕЦИАЛИЗИРОВАННЫЕ МЕТЧИКИ**
Каждый инструмент этой серии специально разработан для достижения оптимального результата (стойкости и надежности) при обработке определенной группы материалов.

# HS HIGH SPEED Series



**HIGH SPEED**
In this product family, specific geometries, substrates and coatings allow long life even at Fast and Ultra Fast speed. Suitable for those customers looking for cost saving through to cycle-time reduction.

**ALTA VELOCITÀ**
Questa serie di prodotti è stata sviluppata con geometria di taglio, substrato e trattamento superficiale specifici per garantire lunga durata anche alle alte velocità. Per aziende che ricercano il cost-saving grazie alla riduzione del tempo-ciclo.

**HOHE GESCHWINDIGKEIT**
Diese Produktreihe wurde mit einer speziellen Schneidengeometrie, einem speziellen Substrat und einer speziellen Oberflächenbehandlung entwickelt, um eine lange Lebensdauer auch bei hohen Geschwindigkeiten zu garantieren. Für Unternehmen, die Kosteneinsparungen durch die Reduzierung der Zykluszeit anstreben.

**HAUTE VITESSE**
Cette série de produits a été développée avec une géométrie de coupe, un substrat et un traitement superficiel de surface spécifique pour garantir une plus longue durée de vie y compris à haute vitesse. Destinée aux utilisateurs qui veulent réduire leurs coûts en abaissant le temps de cycle.

**ALTA VELOCIDAD**
En esta família de productos, las geometrías de corte específicas, los substratos y los recubrimientos aportan una vida útil mayor en velocidades Fast y Ultra Fast. Adecuado para aquellos clientes que buscan un ahorro de costes a través de la reducción del tiempo de ciclo productivo.

**ВЫСОКОСКОРОСТНЫЕ МЕТЧИКИ**
Инструменты этой серии обладают специальной геометрией и изготовлены из особых материалов с покрытием. Они обеспечивают высокую стойкость при работе с высокими и ультра-высокими скоростями резания. Предназначены для пользователей, которым необходимо снижение себестоимости продукции за счет уменьшения времени цикла обработки.

# Catalogue Structure

Struttura generale · Allgemeine Struktur · Sommaire · Estructura general · Общая структура

## GENERAL INDEX STRUCTURE

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73 **SP** Spiral fluted taps for blind hole

181 **SL** Left spiral fluted taps for through hole

199 **PO** Spiral pointed taps for through hole

253 **ST** Straight fluted taps for blind and through hole

337 **ROLL** Thread forming taps

381 **CARBIDE** Carbide taps

415 **LONG** Long shank taps




### 15 THUMB INDEX MACRO SECTIONS

INTRO - How to read the catalogue and product search
SP - Spiral fluted taps for blind holes
SL - Left spiral fluted taps for through holes
PO - Spiral pointed taps for through holes
ST - Straight fluted taps for blind and through holes
ROLL - Forming taps for blind and through holes
CARBIDE - Carbide taps
LONG - Long shank taps
HAND TAPS - Taps for manual use and for drilling machines
EG (STI) - Taps for helical coil wire thread insert
SPECIAL THREADS, GAUGES - Taps for special threads and simple measuring instruments for internal thread and bored hole diameters
THREAD MILLS - Tools for helical interpolating process
DIES - Solid dies
CENTER DRILLS - Center drills and centering tools
TECHNICAL INFO - Section with technical information

### RUBRICATURA CON 15 MACRO CAPITOLI

INTRO - Guida al catalogo e ricerca dei prodotti
SP - Maschi elicoidali per fori ciechi
SL - Maschi con elica sinistra per fori passanti
PO - Maschi con imbocco corretto per fori passanti
ST - Maschi con scanalature diritte per fori passanti e ciechi
ROLL - Maschi a rullare per fori ciechi e passanti
CARBIDE - Maschi in metallo duro
LONG - Maschi con gambo lungo
HAND TAPS - Serie di maschi a mano e per uso su trapani
EG (STI) - Maschi per filetti riportati Helicoil
SPECIAL THREADS, GAUGES - Maschi per filettature speciali e utensili di misura per filetti interni e prefori
THREAD MILLS - Utensili per filettatura ad interpolazione
DIES - Filiere integrali
CENTER DRILLS - Punte e utensili a centrare
TECHNICAL INFO - Sezione tecnica

### REGISTER MIT 15 MAKROKAPITELN

INTRO - Wie man den Katalog liest und die Produktsuche
SP - Spiralgenuteter Gewindebohrer für Sacklöcher
SL - Gewindebohrer mit linksgedrallter Spiralnut für Durchgangslöcher
PO - Gewindebohrer mit Schälanschnitt für Durchgangslöcher
ST - Geradegenuteter Gewindebohrer für Durchgangs- und Sacklöcher
ROLL - Gewindeformer, für Sack- und Durchgangslöcher
CARBIDE - Hartmetall-Gewindebohrer
LONG - Gewindebohrer mit langem Schaft
HAND TAPS - Serie von Handgewindebohrern für den Einsatz auf Bohrmaschinen
EG (STI) - Gewindebohrer für Helicoil-Gewindeeinsätze
SPECIAL THREADS, GAUGES - Gewindebohrer für Spezialgewinde und spezielle Branchen, Sortiment an Messwerkzeugen der Innengewinde und Kernlöcher
THREAD MILLS - Werkzeuge zum Gewindefräsen mit Interpolation
DIES - Nicht einstellbare Schneideisen
CENTER DRILLS - Zentrierbohrer und -werkzeuge
TECHNICAL INFO - Abschnitt mit technischen Infos



Think threads with YAMAWA

IMROBEX
Machine Tools International

## GENERAL INDEX STRUCTURE

489 **HAND TAPS**
Taps for manual use and for drilling machines

501 **EG (STI)**
Taps for Helical coil wire screw thread inserts

525 **SPECIAL THREADS, GAUGES**
Taps for special threads and simple measuring instruments for internal thread and bored hole diameters

577 **THREAD MILLS**

585 **DIES**

597 **CENTER DRILLS**
Center drills and centering tools

617 **TECHNICAL INFO**

745 **COMPANY INFORMATION**

### RUBRIQUES ET 15 MACRO-CHAPITRES

INTRO - Comment lire le catalogue et rechercher des produits
SP - Tarauds hélicoïdaux pour trous borgnes
SL - Tarauds à hélice à gauche pour trous débouchants
PO - Tarauds à entrée gun pour trous débouchants
ST - Tarauds à goujures droites pour trous débouchants et borgnes
ROLL - Tarauds par déformation matière pour trous borgnes et débouchants
CARBIDE - Tarauds en carbure
LONG - Tarauds série longue
HAND TAPS - Série de tarauds à main et pour perceuses
EG (STI) - Tarauds pour filets rapportés Helicoil
SPECIAL THREADS, GAUGES - Tarauds pour filetages spéciaux et industries spécifiques, gamme pour outils de mesure
THREAD MILLS - Outils pour filetage par interpolation
DIES - Filières intégrales
CENTER DRILLS - Forets et outils à centrer
TECHNICAL INFO - Section technique

### GUÍA CON 15 MACRO CAPÍTULOS

INTRO - Cómo leer el catálogo y la búsqueda de productos
SP - Machos helicoidales para agujeros ciegos
SL - Machos con hélice izquierda para agujeros pasantes
PO - Machos con entrada corregida para agujeros pasantes
ST - Machos con ranuras rectas para agujeros pasantes y ciegos
ROLL - Machos de laminación para agujeros ciegos y pasantes
CARBIDE - Machos de metal duro
LONG - Machos con mango largo
HAND TAPS - Serie de machos de mano y para uso en taladros
EG (STI) - Machos para roscas Helicoil
SPECIAL THREADS, GAUGES - Machos para roscas especiales e industrias específicas, gama de herramientas de medición
THREAD MILLS - Herramientas para roscado e interpolación
DIES - Terrajas integrales
CENTER DRILLS - Brocas y herramientas de centrado
TECHNICAL INFO - Sección técnica

### СХЕМА РУБРИКАЦИИ С 15 РАЗДЕЛАМИ

INTRO - порядок чтения каталога и поиска продуктов
SP - спиральные метчики для глухих отверстий
SL - спиральные метчики с левой спиралью для сквозных отверстий
PO - метчики с подточкой заборной части для сквозных отверстий
ST - метчики с прямыми канавками для сквозных и глухих отверстий
ROLL - накатные метчики для глухих и сквозных отверстий
CARBIDE - твердосплавные метчики
LONG - метчики с удлиненным хвостовиком
HAND TAPS - метчики для ручного и механизированного нарезания резьбы
EG (STI) - метчики для резьбы под проволочную вставку
SPECIAL THREADS, GAUGES - метчики для специальных резьб и контрольный инструмент для внутренних резьб и диметр предварительных отверстий
THREAD MILLS - резьбофрезы
DIES - плашки
CENTER DRILLS - центровочные сверла
TECHNICAL INFO - Техническая информация

# Catalogue Structure

Ricerca prodotto · Produktsuche · Recherche des produits · Búsqueda de productos · Поиск продукта

## SELECTION CHART STRUCTURE

### Selection Chart

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

1

| | VUSP | VUSP ISO3X(6GX) | VUSP 7GX | VUSP ISO2X(6HX)+100 | VUSP E(1.5P) | VUSP CH | AUSP G | AUSP Rp |
|---|---|---|---|---|---|---|---|---|
| 2 | | | | | | | | |
| 3 | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-E COATING | HSS-E COATING |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | DIN | DIN | DIN | DIN | DIN | DIN | DIN | DIN |
| M | 81 | 81 | 81 | 81 | 85 | 87 | | |
| MF | 82 | | | | 85 | 87 | | |
| UNC/UNF | 82 | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | |
| UNEF | | | | | | | | |
| G (BSP) | | | | | | | 88 | |
| Rp (BSPP) | | | | | | | | 89 |
| Rc (BSPT) | | | | | | | | |
| NPT | | | | | | | | |
| NPTF | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | |
| BSW | | | | | | | | |
| EG(STI) M, MF, UNC/UNF | | | | | | | | |
| Pg | | | | | | | | |
| Tr | | | | | | | | |
| S miniature | | | | | | | | |
| Special threads | | | | | | | | |

4

| | Vc (m/min) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 5÷10 | ★ | 5÷10 |
| P2 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 5÷10 | ★ | 5÷10 |
| P3 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 10÷25 | ★ | 5÷10 | ★ | 5÷10 |
| P4 | ★ | 10÷20 | ★ | 10÷20 | ★ | 10÷20 | ★ | 10÷20 | ★ | 10÷20 | ★ | 10÷20 | ☆ | 5÷10 | ☆ | 5÷10 |
| P5 | | | | | | | | | | | | | | | | |
| P6 | | | | | | | | | | | | | | | | |
| P7 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | ≤5 | ★ | ≤5 |
| P8 | | | | | | | | | | | | | | | | |
| M1 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | 5÷15 | ★ | ≤5 | ★ | ≤5 |
| M2 | ☆ | 5÷10 | ☆ | 5÷10 | ☆ | 5÷10 | ☆ | 5÷10 | ☆ | 5÷10 | ☆ | 5÷10 | ★ | ≤5 | ★ | ≤5 |
| M3 | | | | | | | | | | | | | | | | |
| K1 | | | | | | | | | | | | | | | | |
| K2 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | ≤5 | ☆ | ≤5 |
| K3 | | | | | | | | | | | | | | | | |
| K4 | | | | | | | | | | | | | | | | |
| N1 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 5÷15 | ★ | 5÷15 |
| N2 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 10÷30 | ★ | 5÷15 | ★ | 5÷15 |
| N3 | ☆ | 10÷25 | ☆ | 10÷25 | ☆ | 10÷25 | ☆ | 10÷25 | ☆ | 10÷25 | ☆ | 10÷25 | ☆ | 5÷15 | ☆ | 5÷15 |
| N4 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | 10÷20 | ☆ | ≤5 | ☆ | ≤5 |
| N5 | | | | | | | | | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | | | | | | | | | |
| S5 | | | | | | | | | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | | | | | | | | | |

★ 1st choice ☆ suitable

5 6 7

Think threads with YAMAWA

74



Think threads with YAMAWA

IMROBEX
Machine Tools International

## SELECTION CHART STRUCTURE

### SELECTION CHART

At the beginning of each section the SELECTION CHART represents a kind of "technical index" providing information about the available range and application details.

- Choose suitable "Yamawa tap series" (Z-PRO, High Speed…) according to the customer application and expected performance requested.
- Based on "Yamawa tap series" choice, the SELECTION CHART provides the following details:

1. Yamawa tap series
2. product name
3. tap material and surface treatment
4. available range and catalogue page
5. machinable workpiece material groups
6. level of effectiveness (★,☆)
7. suggested cutting speed range

### SELECTION CHART

Die SELECTION CHART am Anfang jedes Makrokapitels stellt eine Art "Technischer Index" dar, der Informationen über das verfügbare Sortiment und die technischen Daten für die Verwendung des Produkts liefert.

- Wählen Sie die "Yamawa-Gewindebohrer-Serie" (Z-PRO, HT, GENERAL PURPOSE, MULTI PURPOSE, MATERIAL SPECIFIC, HIGH SPEED) entsprechend der Kundenanwendung und den erwarteten Leistungen.
- Nach der Auswahl der "Yamawa-Gewindebohrer-Serie" liefert die SELECTION CHART-Methode folgende Informationen:

1. Yamawa-Gewindebohrer-Serie
2. Produktname
3. Material des Gewindebohrers und Oberflächenbehandlung
4. verfügbares Sortiment und Katalogseite
5. bearbeitbare Materialien
6. Wirkungsgrad (★,☆)
7. empfohlene Schnittgeschwindigkeit

### SELECTION CHART

La TABLA DE SELECCIÓN que figura al principio de cada macrocapítulo representa una especie de "índice técnico" que proporciona información sobre la gama disponible y los datos técnicos para el uso del producto

- Elija la "serie de machos Yamawa" (Z-PRO, HT, OBJETIVO GENERAL, MULTIOBJETIVO, MATERIALES ESPECÍFICOS, ALTA VELOCIDAD) según la aplicación y las expectativas de rendimiento del cliente.
- Después de seleccionar la "serie de machos Yamawa", el método TABLA DE SELECCIÓN proporciona la siguiente información:

1. Serie de machos Yamawa
2. nombre del producto
3. material del macho y tratamiento superficial
4. gama disponible y página del catálogo
5. grupos de materiales mecanizables
6. nivel de eficacia (★,☆)
7. velocidad de corte recomendada

### SELECTION CHART

La SELECTION CHART presente all'inizio di ogni macro capitolo, rappresenta una sorta di "indice tecnico" che fornisce informazioni relative alla gamma disponibile e i dati tecnici per l'utilizzo del prodotto.

- Scegli la "Yamawa tap series" (Z-PRO, High Speed…) a seconda dell'applicazione del cliente e delle aspettative in termini di performance.
- Scelta la "Yamawa tap series", il metodo SELECTION CHART fornisce le seguenti informazioni:

1. Yamawa tap series
2. nome del prodotto
3. materiale del maschio e trattamento superficiale
4. gamma disponibile e pag. catalogo
5. materiali lavorabili
6. livello di efficacia (★,☆)
7. velocità di taglio consigliata

### SELECTION CHART

Le GRAPHIQUE DE SELECTION, présent au début de chaque macro-chapitre, représente une sorte *d'index technique* qui fournit des informations relative à la gamme disponible et les données techniques pour l'utilisation du produit.

- Choisir la "Yamawa tap series" (Z-PRO, HT, GENERAL PURPOSE, MULTI PURPOSE, MATERIAL SPECIFIC, HIGH SPEED) en fonction de l'application du client et des attentes en termes de performances.
- Après avoir choisi la "Yamawa tap series", la méthode GRAPHIQUE DE SÉLECTION fournit les informations suivantes:

1. Yamawa tap series
2. nom du produit
3. matériau du taraud et traitement superficiel
4. gamme disponible et page du catalogue
5. matériaux usinables
6. niveau d'efficacité (★,☆)
7. vitesse de coupe recommandée

### SELECTION CHART

ТАБЛИЦА ВЫБОРА, приведенная в начале каждого макрораздела, представляет собой "технический указатель", содержащий информацию о доступном ассортименте и технические данные, необходимые для эксплуатации продукта

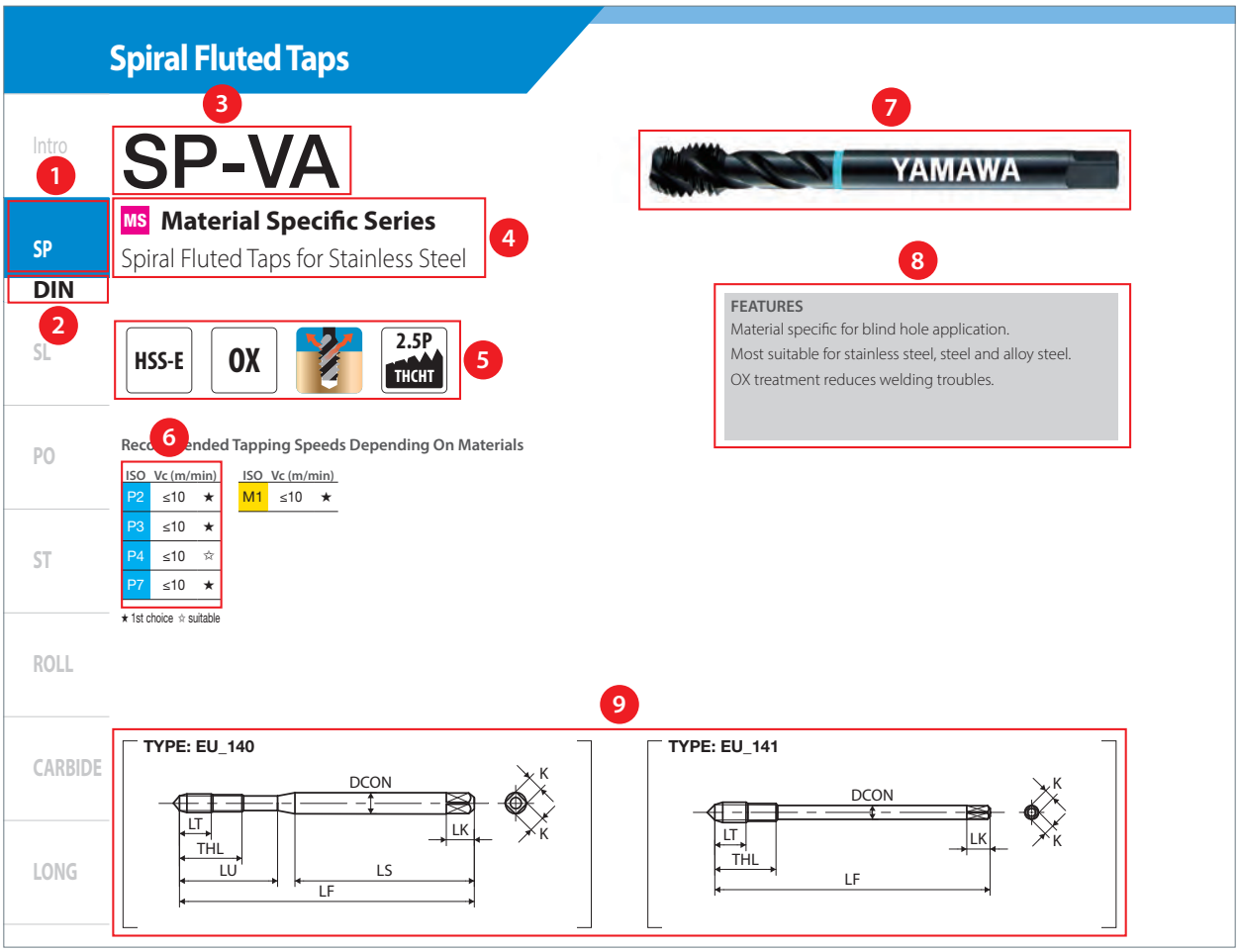
- Выбрать серию продуктов по классификации "Yamawa" (Z-PRO, HT, GENERAL PURPOSE, MULTI PURPOSE, MATERIAL SPECIFIC, HIGH SPEED) в соответствии с заявленными клиентом условиями эксплуатации и необходимыми эксплуатационными характеристиками.
- После выбора серии инструментов, в таблице выбора отображается следующая информация:

1. серия согласно классификации "Yamawa"
2. наименование
3. материал, из которого изготовлен метчик, и способ обработки его поверхности
4. доступный ассортимент и номер соответствующей страницы каталога
5. материалы, которые могут быть обработаны
6. уровень производительности (★,☆)
7. рекомендуемая скорость резания

# Catalogue Structure

Struttura generale · Allgemeine Struktur · Sommaire · Estructura general · Общая структура

## PRODUCT PAGE STRUCTURE




### PRODUCT PAGE
1. Section title and thumb index
2. Manufacturing standard
3. Product name
4. Series name
5. Specification
6. Application and Vc
7. Image
8. Features
9. Drawing

### PRODUKTSEITE
1. Kapitel- und Registerüberschrift
2. Konstruktionsnorm
3. Name des Produkts
4. Produktreihe
5. Spezifikationen
6. Anwendung und Vc
7. Abbildung
8. Merkmale
9. Zeichnung

### PÁGINA PRODUCTO
1. Título del capítulo y guía
2. Estándar de construcción
3. Nombre del producto
4. Serie de productos
5. Especificaciones
6. Aplicación y Vc
7. Imagen
8. Características
9. Dibujo

### PAGINA PRODOTTO
1. Titolo del capitolo e rubricatura
2. Standard costruttivo
3. Nome del prodotto
4. Serie prodotto
5. Specifiche tecniche
6. Applicazione e Vc
7. Immagine
8. Caratteristiche
9. Disegno

### PAGE PRODUIT
1. Titre du chapitre et rubrique
2. Standard de construction
3. Nom du produit
4. Série produit
5. Spécifications
6. Application et Vc
7. Image
8. Caractéristiques
9. Dessin

### ИНФОРМАЦИЯ О ПРОДУКТЕ
1. Заголовок раздела и схема рубрикации
2. Конструкционный стандарт
3. Наименование продукта
4. Серия, к которой относится продукт
5. Спецификация
6. Возможные сферы применения и скорость резания
7. Изображение продукта
8. Характеристики
9. Чертеж



Think threads with YAMAWA
IMROBEX Machine Tools International

## PRODUCT PAGE STRUCTURE

Oversized 12

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| 10 M | 11 TCTR (tolerance) | 13 Ø (mm) | 13 Hole Ø (mm) | 14 Code | 15 THCHT (chamfer) | 16 LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | 17 Type | 18 Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2(6H) | 1.6 | 1.65 | SD2.0EAGEX | 2.5P | 45 | 4 | 8 | - | 32 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| M2.5X0.45 | ISO2(6H) | 2.1 | 2.11 | SD2.5FAGEX | 2.5P | 50 | 4 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | SD3.0GAGEX | 2.5P | 56 | 5 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| | ISO3(6G) | 2.5 | 2.56 | SD3.0GMGEX | 2.5P | 56 | 5 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | SD4.0IAGEX | 2.5P | 63 | 7 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| | ISO3(6G) | 3.3 | 3.38 | SD4.0IMGEX | 2.5P | 63 | 7 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | SD5.0KAGEX | 2.5P | 70 | 9 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO3(6G) | 4.2 | 4.28 | SD5.0KMGEX | 2.5P | 70 | 9 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | SD6.0MAGEX | 2.5P | 80 | 11 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO3(6G) | 5 | 5.09 | SD6.0MMGEX | 2.5P | 80 | 11 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | SD8.0NAGEX | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| | ISO3(6G) | 6.8 | 6.85 | SD8.0NMGEX | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | SD010OAGEX | 2.5P | 100 | - | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |
| | ISO3(6G) | 8.5 | 8.6 | SD010OMGEX | 2.5P | 100 | - | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | | |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | SG8.0NAGEX | 2.5P | 90 | - | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | SG010OAGEX | 2.5P | 100 | - | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | SG012PAGEX | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| | ISO3(6G) | 10.3 | 10.36 | SG012PMGEX | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X2 | ISO2(6H) | 12 | 12.12 | SG014QAGEX | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X2 | ISO2(6H) | 14 | 14.12 | SG016QAGEX | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | SG018RAGEX | 2.5P | 125 | - | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | SG020RAGEX | 2.5P | 140 | - | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | SG022RAGEX | 2.5P | 140 | - | 20 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |

### PRODUCT PAGE
10. Size
11. Tolerance
12. Oversized tolerance
13. Drill Ø and recommended hole Ø
14. Product code
15. Chamfer length
16. General dimensions
17. Drawing No.
18. Stock rank

### PRODUKTSEITE
10. Maße
11. Toleranz
12. Übermaß
13. Ø Empfohlener Bohrer und Ø der Vorbohrung
14. Produkt-Code
15. Länge des Anschnitts
16. Abmessungen
17. Nr. Zeichnung
18. Klassifizierung der Bestände

### PÁGINA PRODUCTO
10. Medida
11. Tolerancia
12. Tolerancia sobredimensionada
13. Ø Broca Ø agujero previo recomendados
14. Código del producto
15. Longitud de la entrada
16. Dimensiones
17. Nº dibujo
18. Clasificación de stock

### PAGINA PRODOTTO
10. Misura
11. Tolleranza
12. Tolleranza maggiorata
13. Ø Punta e Ø pre-foro consigliato
14. Codice prodotto
15. Lunghezza imbocco
16. Dimensioni
17. No. disegno
18. Classificazione stock

### PAGE PRODUIT
10. Mesure
11. Tolérance
12. Tolérance accrue
13. Ø Foret et Ø avant-trou recommandé
14. Code produit
15. Longueur entrée
16. Dimensions
17. N° dessin
18. Classification stock

### ИНФОРМАЦИЯ О ПРОДУКТЕ
10. Размер
11. Допуск
12. Расширенный допуск
13. Рекомендованный тип сверла и диаметр отверстия под нарезание резьбы
14. Код продукта
15. Длина заборной части
16. Размеры
17. Номер чертежа
18. Наличие на складе

# Product Search System

Ricerca prodotto · Produktsuche · Recherche des produits · Búsqueda de productos · Поиск продукта

## PRODUCT SEARCH BY APPLICATION AND SYSTEM CHART

**1**

### System Chart Index by ISO 513 Classification

| | MATERIALS | |
|---|---|---|
| P1 | Free cutting steel and structural steel<br>Acciai automatici e acciai strutturali<br>Automatenstähle und Baustähle | Aciers pour décolletage et aciers structurels<br>Aceros de fácil mecanización y aceros de construcción<br>Автоматные и конструкционные стали |
| P2 | Carbon steel and low alloy steel<br>Acciai al carbonio e acciai basso legati<br>Kohlenstoff-Stähle und niedriglegierte Stähle | Aciers au carbone et aciers faiblement alliés<br>Aceros al carbono y aceros de baja aleación<br>Углеродистые и низколегированные стали |
| P3 | Medium alloy steel and heat treated steel<br>Acciai medio legati e acciai di bonifica<br>Mittellegierte Stähle und Vergütungsstähle | Aciers moyennement alliés et aciers trempés et recuits<br>Aceros de media aleación y aceros bonificados<br>Среднелегированные и отожженные стали |
| P4 | High alloy steel<br>Acciai alto legati<br>Hochlegierte Stähle | Aciers fortement alliés<br>Aceros de alta aleación<br>Высоколегированные стали |
| P5 | Tool steel<br>Acciai per utensili<br>Werkzeugstähle | Aciers pour outils<br>Aceros para herramientas<br>Инструментальные стали |
| P6 | High tensile strength steel<br>Acciai ad alta resistenza<br>HSLA-Stähle | Aciers haute résistance<br>Aceros de alta resistencia<br>Высокопрочная сталь |
| P7 | Ferritic - Martensitic stainless steel<br>Acciai inossidabili ferritici e martensitici<br>Ferritische-Martensitische Stähle | Aciers inoxydables ferritiques-martensitiques<br>Aceros inoxidables ferríticos-martensíticos<br>Ферритно-мартенситная нержавеющая сталь |
| P8 | PH stainless steel<br>Acciai inossidabili PH - induriti per precipitazione<br>Ausscheidungshärtbare Edelstahle | Aciers inoxydables à durcissement par précipitation<br>Aceros inoxidables PH<br>Дисперсионно-твердеющая нержавеющая сталь |
| M1 | Austenitic stainless steel (good machinability)<br>Acciai inossidabili austenitici (buona lavorabilità)<br>Austenitische Edelstähle (niedriglegiert) | Aciers inoxydables austénitiques (faiblement allié)<br>Aceros inoxidables Austeníticos (fácil mecanizado)<br>Аустенитная нержавеющая сталь |
| M2 | Austenitic stainless steel (medium machinability) and Duplex<br>Acciai inossidabili austenitici (buona lavorabilità)<br>Austenitische Edelstähle (niedriglegiert) | Aciers inoxydables austénitiques (faiblement allié)<br>Aceros inoxidables Austeníticos (fácil mecanizado)<br>Аустенитная нержавеющая сталь |
| M3 | Super austenitic stainless steel and super Duplex<br>Acciai inossidabili austenitici (media lavorabilità) e Duplex<br>Austenitische Edelstähle (mittel-legiert) und Duplex | Aciers inoxydables austénitiques (moyennement allié) et Duplex<br>Aceros inoxidables Austeníticos (medio mecanizado) y Duplex<br>Аустенитная и дуплексная нержавеющая сталь |

STEP 1

### System Chart Index by ISO 513 Classification

STEP 2

STEP 3

| DIN | AISI-ASTM | TRADE MARK | SYSTEM CHART (CUTTING TAPS) | | FORMING TAPS | | |
|---|---|---|---|---|---|---|---|
| St 37-3<br>C 15<br>9 SMn 28 | A573 Grade 58<br>1015<br>1213 | AVP | 26 27 | 28 - 29 | 42 | 42 | P1 |
| C 45<br>Ck 60<br>16 MnCr 5<br>20 MnCr 5 | 1045<br>1064<br>5115<br>5120 | - | 26 27 | 28 - 29 | 42 | 42 | P2 |
| 35 CrMo 4<br>41 Cr 4<br>25 CrMo 4<br>42 CrMo 4 | 4135<br>5140<br>4130<br>4142, 4140 | - | 26 27 | 28 - 29 | 42 | 42 | P3 |
| Ck 67<br>C 105 W1<br>100 MnCrW 4<br>100 Cr 6 | 1070<br>W1<br>O1<br>52100 | - | 26 27 | 28 - 29 | 42 | 42 | P4 |
| 40 CrMnMo 7<br>X 38 CrMoV 5 1<br>X 40 CrMoV 5 1<br>55 NiCrMoV 6 | H11<br>H13<br>L6 | ORVAR - W302 | 26 27 | 28 - 29 | 42 | 42 | P5 |
| 40 NiCrMo 2 2 | 8640 | HARDOX 400®<br>TOOLOX 44® | 26 27 | 28 - 29 | 42 | 42 | P6 |
| X 6 Cr 13<br>X 6 Cr 17<br>X 20 Cr 13 | 403<br>430<br>420 | - | 26 27 | 28 - 29 | 42 | 42 | P7 |
| X 4 CrNiCuNb 16 4<br>X 5 CrNiCuNb 17 4 | XM-12<br>630 | 15-5-PH<br>17-4-PH | 26 27 | 28 - 29 | 42 | 42 | P8 |
| X 5 CrNi 18 10<br>X 10 CrNiS 18 9<br>X 2 CrNi 19 11 | 304<br>303<br>304 L | - | 30 - 31 | 30 - 31 | 43 | 43 | M1 |
| X 5 CrNiMo 17 12 2<br>X 2 CrNiMo 18 14 3<br>X10 CrNiMoTi 18 10 | 316<br>316 L<br>316 Ti | - | 30 - 31 | 30 - 31 | 43 | 43 | M2 |
| X 2 CrNiMoN 25 7 4<br>X 2 NiCrMoCu 25 20 5<br>X 4 NiCrTi 25 15 | F 53<br>904L<br>660 | A286 | 30 - 31 | 30 - 31 | 43 | 43 | M3 |

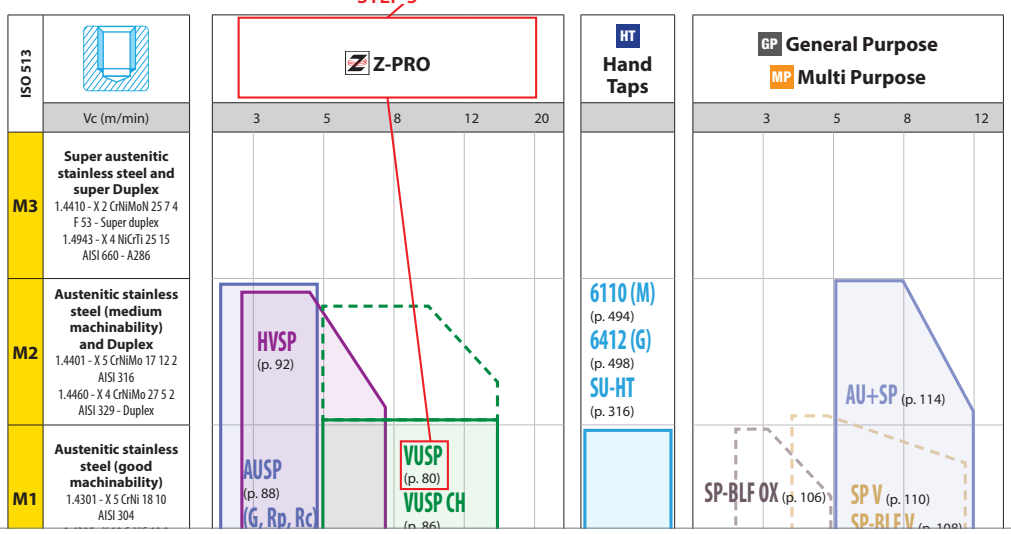
STEP 4

## System Chart - ISO M

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

### CUTTING TAPS

STEP 5






Think threads with YAMAWA
IMROBEX Machine Tools International

## PRODUCT SEARCH BY APPLICATION AND SYSTEM CHART

### APPLICATION AND SYSTEM CHART

System Chart, 5 easy steps, to the definition of the most suitable tap for a specific application (workpiece material, blind or through hole, cutting or forming taps…), within the framework of the "Yamawa tap series" classification system (see page 7)

STEP 1 identify the workpiece material group (ISO513) at page 21 (e.g. austenitic stainless steel - group M1)

STEP 2 choose cutting or forming tap (e.g. cutting tap)

STEP 3 choose tap for blind or through hole (e.g. blind hole)

STEP 4 proceed to the relevant System Chart

STEP 5 select the most suitable tap based on "Yamawa tap series" classification and cutting speed(e.g. Z-PRO series - VUSP suitable for Vc 5-12m/min)

### ANWENDUNG UND SYSTEM CHART

Die System Chart-Methode liefert je nach Kundenanwendung (bearbeitetes Material, Sack- oder Durchgangsloch, Schneiden oder Formen...) in 5 einfachen Schritten die Angabe des geeigneten Gewindebohrers und die Klassifizierung der Yamawa Gewindebohrer-Serie (siehe Seite 7).

SCHRITT 1 Identifizierung der zu bearbeitenden Werkstoffgruppe (ISO513) seite 21 (z.B. austenitischer rostfreier Stahl - Gruppe M1)

SCHRITT 2 Auswahl zwischen Gewindebohrer oder Gewindeformer (z.B. Gewindebohrer)

SCHRITT 3 uswahl zwischen Gewindebohrer für Sackloch oder Durchgangsloch (z.B. Sackloch)

SCHRITT 4 zum resultierenden System Chart gehen

SCHRITT 5 den geeigneten Gewindebohrer entsprechend der Klassifizierung "Yamawa-Gewindebohrer-Serie" und der Schnittgeschwindigkeit auswählen (z.B. Z-PRO-Serie - VUSP geeignet für Vc 5-12 m/min)

### APLICACIÓN Y SYSTEM CHART

El método System Chart proporciona en 5 pasos sencillos la indicación del macho más adecuado según la aplicación del cliente (material, agujero ciego o pasante, corte o laminación...) y la clasificación de la serie de machos Yamawa (véase página 7)

PASO 1 identificar el material (ISO513) que se va a mecanizar página 21 (por ejemplo, acero inoxidable austenítico - grupo M1)

PASO 2 elegir si usar macho de corte o de laminación (por ejemplo, el macho de corte)

PASO 3 elegir el macho según sea para agujero ciego o para agujero pasante (por ejemplo, agujero ciego)

PASO 4 ir a la System Chart correspondiente

PASO 5 seleccionar el macho adecuado según la clasificación "serie de machos Yamawa" y la velocidad de corte (por ejemplo, serie Z-PRO - VUSP adecuado para Vc 5-12 m/min)

### APPLICAZIONE E SYSTEM CHART

Il metodo System Chart fornisce in 5 semplici passaggi, l'indicazione del maschio adatto in base all'applicazione del cliente (materiale lavorato, foro cieco o passante, asportazione o deformazione…) e alla classificazione delle Yamawa tap series (vedi pag. 7)

STEP 1 identificare a pagina 21 il gruppo materiale (ISO513) da lavorare (es. acciaio inossidabile austenitico - gruppo M1)

STEP 2 scegliere se utilizzare maschio ad asportazione o a rullare (es. maschio per asportazione)

STEP 3 scegliere se maschio per foro cieco o per foro passante (es. foro cieco)

STEP 4 andare alla System Chart risultante

STEP 5 selezionare il maschio adatto in base alla classificazione "Yamawa tap series" e alla velocità di taglio(es. Z-PRO series - VUSP adatto per Vc 5-12m/min)

### TABLEAU D'APPLICATION ET SYSTÈME CHART

La méthode System Chart fournit, en 5 étapes simples, l'indication du taraud approprié en fonction de l'application du client (matériau usiné, trou borgne ou débouchant, enlèvement ou déformation, etc.) et de la classification des Yamawa tap series (voir page 7).

ÉTAPE 1 identifier le groupe du matériau (ISO513) à usiner page 21(par exemple acier inoxydable austénitique - groupe M1)

ÉTAPE 2 choisir entre un taraud par enlèvement de matière ou par déformation de matière(par exemple, taraud d'enlèvement)

ÉTAPE 3 choisir d'utiliser un taraud pour trou borgne ou pour trou débouchant (par exemple, trou borgne)

ÉTAPE 4 consulter le System Chart correspondant

ÉTAPE 5 sélectionner le taraud approprié en fonction de la classification "Yamawa tap series" et de la vitesse de coupe (par exemple, Z-PRO series - VUSP adapté pour Vc 5-12 m/min.)

### ПОИСК ПО ОБЛАСТИ ИСПОЛЬЗОВАНИЯ И БЛОК-СХЕМЕ

Блок-схема позволяет с помощью 5 простых действий выбрать наиболее подходящий метчик в соответствии с областью использования, определяемой клиентом (обрабатываемый материал, глухое или сквозное отверстие, применение нарезки или накатки и т. д.), и применяемой компанией Yamawa классификацией (см. стр. 7)

ШАГ 1 определить группу (по ISO 513), к которой относится обрабатываемый материал стр. 21 (напр., аустенитная нержавеющая сталь - группа M1)

ШАГ 2 выбрать тип метчика - режущий или раскатывающий (напр., режущий)

ШАГ 3 выбрать тип отверстия - глухое или сквозное (например, глухое)

ШАГ 4 перейти в соответствующий блок

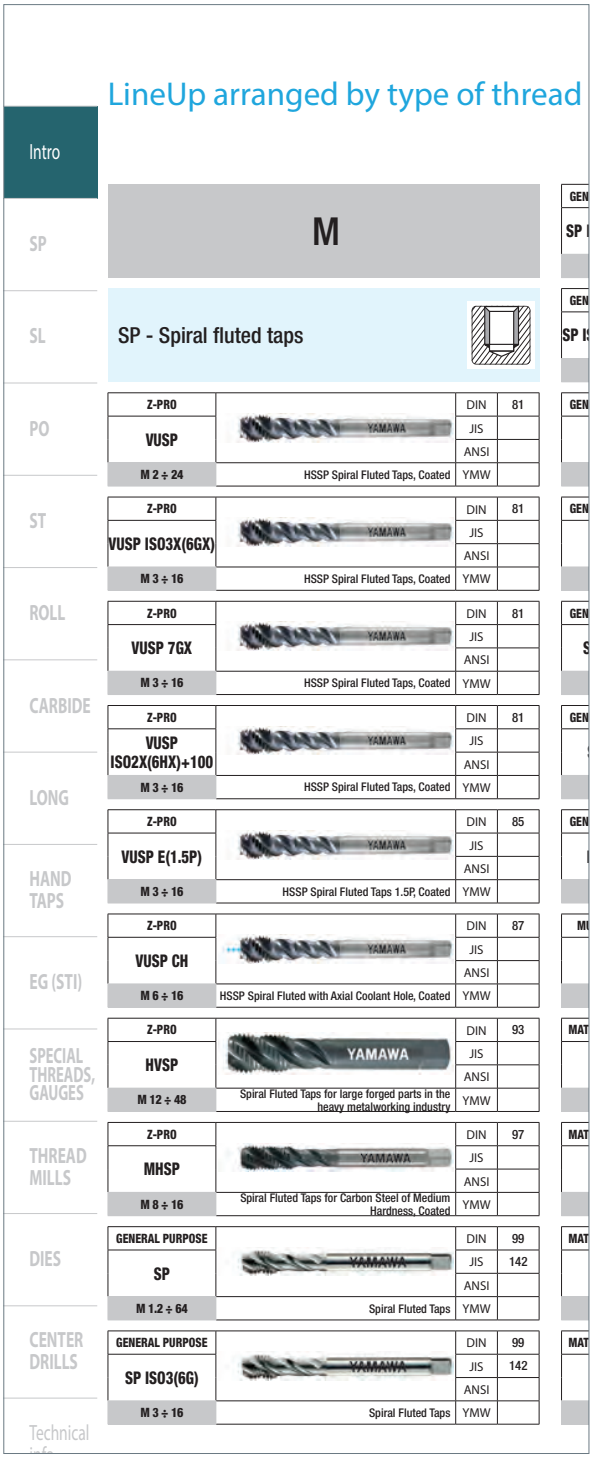
ШАГ 5 выбрать подходящий метчик согласно классификации Yamawa и скорости резания (например серия Z-PRO - метчики - VUSP - предназначены для скоростей резания Vc = 5-12 м/мин)

# Product Search System

Ricerca prodotto · Produktsuche · Recherche des produits · Búsqueda de productos · Поиск продукта

## PRODUCT SEARCH BY TYPE OF THREAD

**2**



LineUp arranged by type of thread

Intro | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | THREAD MILLS | DIES | CENTER DRILLS | Technical info

**M**

SP - Spiral fluted taps

| | | | | |
|---|---|---|---|---|
| Z-PRO VUSP<br>M 2 ÷ 24 | HSSP Spiral Fluted Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 81 | |
| Z-PRO VUSP ISO3X(6GX)<br>M 3 ÷ 16 | HSSP Spiral Fluted Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 81 | |
| Z-PRO VUSP 7GX<br>M 3 ÷ 16 | HSSP Spiral Fluted Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 81 | |
| Z-PRO VUSP ISO2X(6HX)+100<br>M 3 ÷ 16 | HSSP Spiral Fluted Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 81 | |
| Z-PRO VUSP E(1.5P)<br>M 3 ÷ 16 | HSSP Spiral Fluted Taps 1.5P, Coated | DIN<br>JIS<br>ANSI<br>YMW | 85 | |
| Z-PRO VUSP CH<br>M 6 ÷ 16 | HSSP Spiral Fluted with Axial Coolant Hole, Coated | DIN<br>JIS<br>ANSI<br>YMW | 87 | |
| Z-PRO HVSP<br>M 12 ÷ 48 | Spiral Fluted Taps for large forged parts in the heavy metalworking industry | DIN<br>JIS<br>ANSI<br>YMW | 93 | |
| Z-PRO MHSP<br>M 8 ÷ 16 | Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated | DIN<br>JIS<br>ANSI<br>YMW | 97 | |
| GENERAL PURPOSE SP<br>M 1.2 ÷ 64 | Spiral Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | 99<br>142 | |
| GENERAL PURPOSE SP ISO3(6G)<br>M 3 ÷ 16 | Spiral Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | 99<br>142 | |

### LINE-UP ARRANGED BY TYPE OF THREAD

The Line-up arranged by type of thread (page 45) provides the full list of products available for each different type of thread (M, MF, UNC, UNF…)

### INDICE PRODOTTO/TIPO FILETTATURA

L'indice "Line-up arranged on type of thread" (pag. 45) rappresenta l'elenco di tutti i prodotti disponibili nel catalogo, suddivisi per i diversi tipi di filettatura (M, MF, UNC, UNF…)

### AUFSTELLUNG NACH GEWINDETYP

Der Index "Aufstellung nach Gewindetyp" (Seite 45) stellt die Liste aller im Katalog verfügbaren Produkte dar, unterteilt nach den verschiedenen Gewindetypen (M, MF, UNC, UNF...)

### INDEX PRODUITS / FILETAGES

L'index «Produits/Filetages» (page 45) représente la liste de tous les produits disponibles dans le catalogue, subdivisés par type de filetage (M, MF, UNC, UNF, etc.)

### ÍNDICE POR TIPO DE ROSCA

El índice por tipo de rosca (pág. 45) muestra la lista de todos los productos disponibles en el catálogo, divididos por los diferentes tipos de rosca (M, MF, UNC, UNF...)

### УКАЗАТЕЛЬ ПРОДУКТОВ ПО ТИПУ РЕЗЬБЫ

Указатель, составленный по типу резьбы (стр. 45), содержит список присутствующих в каталоге продуктов, сгруппированных по типу резьбы (M, MF, UNC, UNF и т. д.)



Think threads with YAMAWA

IMROBEX Machine Tools International

## PRODUCT SEARCH BY TAP SIZE

**3**

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

### 27. Lineup arranged by size

| M | SP | SL | PO | ST | ROLL |
|---|---|---|---|---|---|
| M1X0.25 | | | | J | J |
| M1.1X0.25 | | | | J | |
| M1.2X0.25 | J | | J | J | J |
| M1.4X0.3 | J | | D - J | J | J |
| M1.6X0.35 | J | | D - J | J | J |
| M1.7X0.35 | J | | J | J | J |
| M1.8X0.35 | J | | J | J | J |
| M2X0.4 | D - J | | D - J | D - J | D - J |
| M2.2X0.45 | D - J | | D - J | J | J |
| M2.3X0.4 | J | | D - J | J | J |
| M2.5X0.45 | D - J | | D - J | D - J | D - J |
| M2.6X0.45 | D - J | | D - J | J | J |
| 3M0.6 | J | | J | J | |
| M3X0.5 | D - J | D | D - J | D - J | D - J |
| M3.5X0.6 | D - J | | D - J | J | D - J |
| 4M0.75 | J | | J | J | |
| M4X0.7 | D - J | D | D - J | D - J | D - J |
| M4.5X0.75 | J | | J | J | |
| 5M0.9 | J | | J | J | |
| M5X0.8 | D - J | D | D - J | D - J | D - J |
| M5.5X0.9 | J | | J | J | |
| M6X1 | D - J | D | D - J | D - J | D - J |
| M7X1 | D - J | | D - J | J | J |
| M8X1.25 | D - J | D | D - J | D - J | D - J |
| M9X1.25 | D - J | | D - J | J | |
| M10X1.5 | D - J | D | D - J | D - J | D - J |
| M11X1.5 | D - J | | D - J | J | |
| M12X1.75 | D - J | D | D - J | D - J | D - J |
| M14X2 | D - J | D | D - J | D - J | D - J |
| M16X2 | D - J | D | D - J | D - J | D - J |
| M18X2.5 | D - J | D | D - J | D - J | |
| M20X2.5 | D - J | D | D - J | D - J | J |
| M22X2.5 | D - J | | D - J | D - J | |
| M24X3 | D - J | | D - J | D - J | |
| M27X3 | D - J | | D - J | J | |
| M30X3.5 | D - J | | D - J | J | |
| M33X3.5 | D - J | | D - J | J | |
| M36X4 | D - J | | D - J | J | |
| M39X4 | D - J | | D - J | J | |
| M42X4.5 | D - J | | D - J | J | |
| M45X4.5 | D - J | | D - J | J | |
| M48X5 | D - J | | D - J | J | |
| M52X5 | J | | | J | |
| M56X5.5 | J | | | J | |
| M60X5.5 | J | | | J | |
| M64X6 | J | | | J | |
| M68X6 | | | | J | |
| M70X6 | | | | J | |
| M72X6 | | | | J | |
| M76X6 | | | | J | |
| M80X6 | | | | J | |
| M85X6 | | | | J | |
| M90X6 | | | | J | |
| M95X6 | | | | J | |
| M100X6 | | | | J | |

**D** = available in DIN standard, **J** = available in JIS standard, **A** = available in ANSI sta

**LINE-UP ARRANGED BY SIZE**
The Line-up arranged by size (page 724 of technical info) provides the list of tap sizes available in each catalogue section (SP, SL, PO...).

**INDICE PRODOTTO/DIMENSIONE FILETTO**
L'indice "Line-up arranged by size" (pag. 724 della technical info) rappresenta l'elenco di tutte le dimensioni di maschi disponibili in ogni sezione (SP, SL, PO...) del catalogo.

**AUFSTELLUNG NACH GRÖSSE**
Der Index "Aufstellung nach Größe" (S. 724 des Abschnittes technische Informationen) stellt die Liste aller im Katalog verfügbaren Größen von Gewindebohrern dar.

**INDEX DIMENSIONS / PRODUITS**
L'index «Dimensions/Produits » (voir page 724 de l'Information Technique) représente la liste de toutes les dimensions de tarauds disponibles dans le catalogue.

**ÍNDICE POR TAMAÑO**
El índice de productos por tamaño (pág. 724 de la información técnica) muestra la lista de todos los tamaños de machos disponibles en el catálogo.

**УКАЗАТЕЛЬ ПРОДУКТОВ ПО РАЗМЕРУ**
Указатель, составленный по размеру резьбы (стр. 724 технического раздела), содержит список присутствующих в каталоге метчиков(SP, SL, PO…), сгруппированных по размеру.

# Hardness conversion table

Durezze Härte Dureté Dureza Твердость

| ROCKWELL C SCALE HARDNESS | VICKERS HARDNESS | BRINELL HARDNESS | | ROCKWELL HARDNESS*2 | | | ROCKWELL SUPERFICIAL HARDNESS | | | SHORE HARDNESS | TENSILE STRENGTH MPA*1 | ROCKWELL C SCALE HARDNESS*2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | STANDARD BALL | TUNGSTEN CARBIDE BALL | A SCALE | B SCALE | D SCALE | 15-N SCALE | 30-N SCALE | 45-N SCALE | | | |
| HRC | HV | HB | | HRA | HRB | HRD | HS15N | HS30N | HS45N | HS | - | HRC |
| 68 | 940 | - | - | 85.6 | - | 76.9 | 93.2 | 84.4 | 75.4 | 97 | - | 68 |
| 67 | 900 | - | - | 85.0 | - | 76.1 | 92.9 | 83.6 | 74.2 | 95 | - | 67 |
| 66 | 865 | - | - | 84.5 | - | 75.4 | 92.5 | 82.8 | 73.3 | 92 | - | 66 |
| 65 | 832 | - | (739) | 83.9 | - | 74.5 | 92.2 | 81.9 | 72.0 | 91 | - | 65 |
| 64 | 800 | - | (722) | 83.4 | - | 73.8 | 91.8 | 81.1 | 71.0 | 88 | - | 64 |
| 63 | 772 | - | (705) | 82.8 | - | 73.0 | 91.4 | 80.1 | 69.9 | 87 | - | 63 |
| 62 | 746 | - | (688) | 82.3 | - | 72.2 | 91.1 | 79.3 | 68.8 | 85 | - | 62 |
| 61 | 720 | - | (670) | 81.8 | - | 71.5 | 90.7 | 78.4 | 67.7 | 83 | - | 61 |
| 60 | 697 | - | (654) | 81.2 | - | 70.7 | 90.2 | 77.5 | 66.7 | 81 | - | 60 |
| 59 | 674 | - | (634) | 80.7 | - | 69.9 | 89.8 | 76.6 | 65.5 | 80 | - | 59 |
| 58 | 653 | - | 615 | 80.1 | - | 69.2 | 89.3 | 75.7 | 64.3 | 78 | - | 58 |
| 57 | 633 | - | 595 | 79.6 | - | 68.5 | 88.9 | 74.8 | 63.2 | 76 | - | 57 |
| 56 | 613 | - | 577 | 79.0 | - | 67.7 | 88.3 | 73.9 | 62.0 | 75 | - | 56 |
| 55 | 595 | - | 560 | 78.5 | - | 66.9 | 87.9 | 73.0 | 60.9 | 74 | 2075 | 55 |
| 54 | 577 | - | 543 | 78.0 | - | 66.1 | 87.4 | 72.0 | 59.8 | 72 | 2015 | 54 |
| 53 | 560 | - | 525 | 77.4 | - | 65.4 | 86.9 | 71.2 | 58.6 | 71 | 1950 | 53 |
| 52 | 544 | (500) | 512 | 76.8 | - | 64.6 | 86.4 | 70.2 | 57.4 | 69 | 1880 | 52 |
| 51 | 528 | (487) | 496 | 76.3 | - | 63.8 | 85.9 | 69.4 | 56.1 | 68 | 1820 | 51 |
| 50 | 513 | (475) | 481 | 75.9 | - | 63.1 | 85.5 | 68.5 | 55.0 | 67 | 1760 | 50 |
| 49 | 498 | (464) | 469 | 75.2 | - | 62.1 | 85.0 | 67.6 | 53.8 | 66 | 1695 | 49 |
| 48 | 484 | 451 | 455 | 74.7 | - | 61.4 | 84.5 | 66.7 | 52.5 | 64 | 1635 | 48 |
| 47 | 471 | 442 | 443 | 74.1 | - | 60.8 | 83.9 | 65.8 | 51.4 | 63 | 1580 | 47 |
| 46 | 458 | 432 | 432 | 73.6 | - | 60.0 | 83.5 | 64.8 | 50.3 | 62 | 1530 | 46 |
| 45 | 446 | 421 | 421 | 73.1 | - | 59.2 | 83.0 | 64.0 | 49.0 | 60 | 1480 | 45 |
| 44 | 434 | 409 | 409 | 72.5 | - | 58.5 | 82.5 | 63.1 | 47.8 | 58 | 1435 | 44 |
| 43 | 423 | 400 | 400 | 72.0 | - | 57.7 | 82.0 | 62.2 | 46.7 | 57 | 1385 | 43 |
| 42 | 412 | 390 | 390 | 71.5 | - | 56.9 | 81.5 | 61.3 | 45.5 | 56 | 1340 | 42 |
| 41 | 402 | 381 | 381 | 70.9 | - | 56.2 | 80.9 | 60.4 | 44.3 | 55 | 1295 | 41 |
| 40 | 392 | 371 | 371 | 70.4 | - | 55.4 | 80.4 | 59.5 | 43.1 | 54 | 1250 | 40 |
| 39 | 382 | 362 | 362 | 69.9 | - | 54.6 | 79.9 | 58.6 | 41.9 | 52 | 1215 | 39 |
| 38 | 372 | 353 | 353 | 69.4 | - | 53.8 | 79.4 | 57.7 | 40.8 | 51 | 1180 | 38 |
| 37 | 363 | 344 | 344 | 68.9 | - | 53.1 | 78.8 | 56.8 | 39.6 | 50 | 1160 | 37 |
| 36 | 354 | 336 | 336 | 68.4 | (109.0) | 52.3 | 78.3 | 55.9 | 38.4 | 49 | 1115 | 36 |
| 35 | 345 | 327 | 327 | 67.9 | (108.5) | 51.5 | 77.7 | 55.0 | 37.2 | 48 | 1080 | 35 |
| 34 | 336 | 319 | 319 | 67.4 | (108.0) | 50.8 | 77.2 | 54.2 | 36.1 | 47 | 1055 | 34 |
| 33 | 327 | 311 | 311 | 66.8 | (107.5) | 50.0 | 76.6 | 53.3 | 34.9 | 46 | 1025 | 33 |
| 32 | 318 | 301 | 301 | 66.3 | (107.0) | 49.2 | 76.1 | 52.1 | 33.7 | 44 | 1000 | 32 |
| 31 | 310 | 294 | 294 | 65.8 | (106.0) | 48.4 | 75.6 | 51.3 | 32.5 | 43 | 980 | 31 |
| 30 | 302 | 286 | 286 | 65.3 | (105.5) | 47.7 | 75.0 | 50.4 | 31.3 | 42 | 950 | 30 |
| 29 | 294 | 279 | 279 | 64.7 | (104.5) | 47.0 | 74.5 | 49.5 | 30.1 | 41 | 930 | 29 |
| 28 | 286 | 271 | 271 | 64.3 | (104.0) | 46.1 | 73.9 | 48.6 | 28.9 | 41 | 910 | 28 |
| 27 | 279 | 264 | 264 | 63.8 | (103.0) | 45.2 | 73.3 | 47.7 | 27.8 | 40 | 880 | 27 |
| 26 | 272 | 258 | 258 | 63.3 | (102.5) | 44.6 | 72.8 | 46.8 | 26.7 | 38 | 860 | 26 |
| 25 | 266 | 253 | 253 | 62.8 | (101.5) | 43.8 | 72.2 | 45.9 | 25.5 | 38 | 840 | 25 |
| 24 | 260 | 247 | 247 | 62.4 | (101.0) | 43.1 | 71.6 | 45.0 | 24.3 | 37 | 825 | 24 |
| 23 | 254 | 243 | 243 | 62.0 | 100.0 | 42.1 | 71.0 | 44.0 | 23.1 | 36 | 805 | 23 |
| 22 | 248 | 237 | 237 | 61.5 | 99.0 | 41.6 | 70.5 | 43.2 | 22.0 | 35 | 785 | 22 |
| 21 | 243 | 231 | 231 | 61.0 | 98.5 | 40.9 | 69.9 | 42.3 | 20.7 | 35 | 770 | 21 |
| 20 | 238 | 226 | 226 | 60.5 | 97.8 | 40.1 | 69.4 | 41.5 | 19.6 | 34 | 760 | 20 |
| 18 | 230 | 219 | 219 | - | 96.7 | - | - | - | - | 33 | 730 | (18) |
| (16) | 222 | 212 | 212 | - | 95.5 | - | - | - | - | 32 | 705 | (16) |
| (14) | 213 | 203 | 203 | - | 93.9 | - | - | - | - | 31 | 675 | (14) |
| (12) | 204 | 194 | 194 | - | 92.3 | - | - | - | - | 29 | 650 | (12) |
| (10) | 196 | 187 | 187 | - | 90.7 | - | - | - | - | 28 | 620 | (10) |
| (8) | 188 | 179 | 179 | - | 89.5 | - | - | - | - | 27 | 600 | 8 |
| (6) | 180 | 171 | 171 | - | 87.1 | - | - | - | - | 26 | 580 | (6) |
| (4) | 173 | 165 | 165 | - | 85.5 | - | - | - | - | 25 | 550 | (4) |
| (2) | 166 | 158 | 158 | - | 83.5 | - | - | - | - | 24 | 530 | (2) |
| (0) | 160 | 152 | 152 | - | 81.7 | - | - | - | - | 24 | 515 | (0) |

*1 : 1MPa=1N/mm2
*2 : In the table above, numbers in brackets are only provide for reference.
This table is abstracted from SAE J 417.



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# SYSTEM CHART BY ISO 513 CLASSIFICATION

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# System Chart Index by ISO 513 Classification

| | MATERIALS | | HARDNESS/Rm |
|---|---|---|---|
| **P1** | Free cutting steel and structural steel<br>Acciai automatici e acciai strutturali<br>Automatenstähle und Baustähle | Aciers pour décolletage et aciers structurels<br>Aceros de fácil mecanización y aceros de construcción<br>Автоматные и конструкционные стали | < 500 N/mm² |
| **P2** | Carbon steel and low alloy steel<br>Acciai al carbonio e acciai basso legati<br>Kohlenstoff-Stähle und niedriglegierte Stähle | Aciers au carbone et aciers faiblement alliés<br>Aceros al carbono y aceros de baja aleación<br>Углеродистые и низколегированные стали | 500 ÷ 700 N/mm² |
| **P3** | Medium alloy steel and heat treated steel<br>Acciai medio legati e acciai di bonifica<br>Mittellegierte Stähle und Vergütungsstähle | Aciers moyennement alliés et aciers trempés et recuits<br>Aceros de media aleación y aceros bonificados<br>Среднелегированные и отоженные стали | 600 ÷ 800 N/mm² |
| **P4** | High alloy steel<br>Acciai alto legati<br>Hochlegierte Stähle | Aciers fortement alliés<br>Aceros de alta aleación<br>Высоколегированные стали | 800 ÷ 1000 N/mm² |
| **P5** | Tool steel<br>Acciai per utensili<br>Werkzeugstähle | Aciers pour outils<br>Aceros para herramientas<br>Инструментальные стали | 900 ÷ 1200 N/mm² |
| **P6** | High tensile strength steel<br>Acciai ad alta resistenza<br>HSLA-Stähle | Aciers haute résistance<br>Aceros de alta resistencia<br>Высокопрочная сталь | 1200 ÷ 1480 N/mm²<br>38 ÷ 45 HRC |
| **P7** | Ferritic - Martensitic stainless steel<br>Acciai inossidabili ferritici e martensitici<br>Ferritische-Martensitische Stähle | Aciers inoxydables ferritiques-martensitiques<br>Aceros inoxidables ferríticos-martensíticos<br>Ферритно-мартенситная нержавеющая сталь | |
| **P8** | PH stainless steel<br>Acciai inossidabili PH - indurenti per precipitazione<br>Ausscheidungshartbare Edelstahle | Aciers inoxydables à durcissement par précipitation<br>Aceros inoxidables PH<br>Дисперсионно-твердеющая нержавеющая сталь | |
| **M1** | Austenitic stainless steel (good machinability)<br>Acciai inossidabili austenitici (buona lavorabilità)<br>Austenitische Edelstähle (niedriglegiert) | Aciers inoxydables austénitiques (faiblement allié)<br>Aceros inoxidables Austeníticos (fácil mecanizado)<br>Аустенитная нержавеющая сталь | |
| **M2** | Austenitic stainless steel (medium machinability) and Duplex<br>Acciai inossidabili austenitici (media lavorabilità) e Duplex<br>Austenitische Edelstähle (mittel-legiert) und Duplex | Aciers inoxydables austénitiques (moyennement allié) et Duplex<br>Aceros inoxidables Austeníticos (medio mecanizado) y Duplex<br>Аустенитная и дуплексная нержавеющая сталь | |
| **M3** | Super austenitic stainless steel and super Duplex<br>Acciai inossidabili super austenitici e super Duplex<br>Super Austenitische Edelstähle und super Duplex Edelstähle | Super aciers inoxydables austénitiques and super Duplex<br>Aceros inoxidables Super Austeníticos y Super Duplex<br>Супер аустенитные и супер дуплексные нержавеющие стали | |
| **K1** | Grey cast iron<br>Ghise grigie<br>Grauguss | Fonte grise<br>Fundición gris<br>Серый чугун | 150 ÷ 250 HB |
| **K2** | Nodular cast iron<br>Ghise sferoidali<br>Sphäroguss | Fonte nodulaire<br>Fundición nodular<br>Чугун с шаровидным графитом | 150 ÷ 350 HB |
| **K3** | Austenitic cast iron<br>Ghise austenitiche<br>Austenitischer Guss | Fonte austénitique<br>Fundición austenítica<br>Аустенитный чугун | 120 ÷ 260 HB |
| **K4** | ADI cast iron<br>Ghise ADI<br>ADI Guss | Fonte ADI<br>Fundición ADI<br>Отпущенный ковкий чугун | 250 ÷ 500 HB |

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| | | | | CUTTING TAPS | | FORMING TAPS | | |
|---|---|---|---|---|---|---|---|---|
| | | | |  |  |  |  | |
| **W.-NR** | **DIN** | **AISI-ASTM** | **TRADE MARK** | **SYSTEM CHART** | | | | |
| 1.0116<br>1.0401<br>1.0715 | St 37-3<br>C 15<br>9 SMn 28 | A573 Grade 58<br>1015<br>1213 | AVP | 26 - 27 | 28 - 29 | 42 | 42 | **P1** |
| 1.0503<br>1.1221<br>1.7131<br>1.7147 | C 45<br>Ck 60<br>16 MnCr 5<br>20 MnCr 5 | 1045<br>1064<br>5115<br>5120 | - | 26 - 27 | 28 - 29 | 42 | 42 | **P2** |
| 1.2330<br>1.7035<br>1.7218<br>1.7225 | 35 CrMo 4<br>41 Cr 4<br>25 CrMo 4<br>42 CrMo 4 | 4135<br>5140<br>4130<br>4142, 4140 | - | 26 - 27 | 28 - 29 | 42 | 42 | **P3** |
| 1.1231<br>1.1545<br>1.2510<br>1.3505 | Ck 67<br>C 105 W1<br>100 MnCrW 4<br>100 Cr 6 | 1070<br>W1<br>O1<br>52100 | - | 26 - 27 | 28 - 29 | 42 | 42 | **P4** |
| 1.2311<br>1.2343<br>1.2344<br>1.2713 | 40 CrMnMo 7<br>X 38 CrMoV 5 1<br>X 40 CrMoV 5 1<br>55 NiCrMoV 6 | H11<br>H13<br>L6 | ORVAR - W302 | 26 - 27 | 28 - 29 | 42 | 42 | **P5** |
| 1.6546 | 40 NiCrMo 2 2 | 8640 | HARDOX 400®<br>TOOLOX 44® | 26 - 27 | 28 - 29 | 42 | 42 | **P6** |
| 1.4000<br>1.4016<br>1.4021 | X 6 Cr 13<br>X 6 Cr 17<br>X 20 Cr 13 | 403<br>430<br>420 | - | 26 - 27 | 28 - 29 | 42 | 42 | **P7** |
| 1.4540<br>1.4548 | X 4 CrNiCuNb 16 4<br>X 5 CrNiCuNb 17 4 | XM-12<br>630 | 15-5-PH<br>17-4-PH | 26 - 27 | 28 - 29 | 42 | 42 | **P8** |
| 1.4301<br>1.4305<br>1.4306 | X 5 CrNi 18 10<br>X 10 CrNiS 18 9<br>X 2 CrNi 19 11 | 304<br>303<br>304 L | - | 30 - 31 | 30 - 31 | 43 | 43 | **M1** |
| 1.4401<br>1.4435<br>1.4571 | X 5 CrNiMo 17 12 2<br>X 2 CrNiMo 18 14 3<br>X10 CrNiMoTi 18 10 | 316<br>316 L<br>316 Ti | - | 30 - 31 | 30 - 31 | 43 | 43 | **M2** |
| 1.4410<br>1.4539<br>1.4943 | X 2 CrNiMoN 25 7 4<br>X 2 NiCrMoCu 25 20 5<br>X 4 NiCrTi 25 15 | F 53<br>904L<br>660 | A286 | 30 - 31 | 30 - 31 | 43 | 43 | **M3** |
| 0.6020<br>0.6025<br>0.6035 | GG-20<br>GG-25<br>GG-35 | A48 30 B<br>A48 35 B<br>A48 50 B | - | 32 - 33 | 34 - 35 | - | - | **K1** |
| 0.7040<br>0.7050<br>0.7070 | GGG 40<br>GGG 50<br>GGG 70 | A536, 80-55-06<br>A536, 100-70-03 | - | 32 - 33 | 34 - 35 | - | - | **K2** |
| 0.6660<br>0.7660 | GGL-NiCr 20 2<br>GGG-NiCr 20 2 | A436 Type 2<br>A436 Type D-2 | Ni-Resist 2<br>Ni-Resist D-2 | 32 - 33 | 34 - 35 | - | - | **K3** |
| - | GJS-800-8<br>GJS-1000-5 | 850/550/10<br>1050/700/7 | ADI 800<br>ADI 1000 | 32 - 33 | 34 - 35 | - | - | **K4** |

# System Chart Index by ISO 513 Classification

| | MATERIALS | | HARDNESS/Rm |
|---|---|---|---|
| **N1** | Aluminium alloys ≤ 12% Si<br>Leghe di alluminio ≤ 12% Si<br>Aluminiumlegierungen ≤ 12% Si | Alliages d'aluminium ≤ 12 % Si<br>Aleación de aluminio ≤ 12% Si<br>Алюминиевое литье ≤ 12% Si | |
| **N2** | Aluminium alloy > 12% Si and Aluminium-Magnesium<br>Leghe di alluminio > 12% Si e alluminio-magnesio<br>Aluminiumlegierungen > 12% Si und Aluminium-Magnesium | Alliages d'aluminium > 12 % Si et Aluminium-Magnesium<br>Aleación de aluminio > 12% Si y Aluminio-Magnesio<br>Алюминиевые сплавы с содержанием Si<12% и алюмо-магниевые сплавы | |
| **N3** | Copper alloy<br>Leghe di rame<br>Kupferlegierungen | Alliages de cuivre<br>Aleación de cobre<br>Медные сплавы | |
| **N4** | Brass alloy and Bronze alloy<br>Leghe di ottone e leghe di bronzo<br>Bronze- und Messinglegierungen | Alliages de bronze et de laiton<br>Aleación de Latón y Aleación de Bronce<br>Латуни и бронзы | |
| **N5** | Plastic material<br>Polimeri<br>Polymere | Polymères<br>Material plástico<br>Пластики | |
| **N6** | Carbon fiber and composite<br>Fibra di carbonio e compositi<br>Faserwerkstoffe und Verbundwerkstoffe | Fibres et composites<br>Fibra de carbonio y compositos<br>Углеволокно и композиты | |
| **S1** | Heat resistant super alloys (HRSA) Ni base (good machinability)<br>Leghe a base di nichel resistenti al calore (buona lavorabilità)<br>Warmfeste Superlegierungen (HRSA) Nickel-Legierungen (einfach zu bearbeiten) | Base Ni de superalliages résistants à la chaleur (HRSA) (bonne usinabilité)<br>Super aleaciones resistentes al calor (HRSA) base Nickel (fácil mecanizado)<br>Жаропрочные сплавы (HRSA) Ni(легкообрабатываемые) | < 25 HRC |
| **S2** | Heat resistant super alloys (HRSA) Ni base (medium machinability)<br>Leghe a base di nichel resistenti al calore (media lavorabilità)<br>Warmfeste Superlegierungen (HRSA) Nickel-Legierungen (mittlere Bearbeitbarkeit) | Superalliages résistants à la chaleur (HRSA) Ni base (usinabilité moyenne)<br>Super aleaciones resistentes al calor (HRSA) base Nickel (medio mecanizado)<br>Жаропрочные сплавы (HRSA) Ni(среднеобрабатываемые) | 25 ÷ 35 HRC |
| **S3** | Heat resistant super alloys (HRSA) Ni base (low machinability)<br>Leghe a base di nichel resistenti al calore (difficile lavorabilità)<br>Warmfeste Superlegierungen (HRSA) Nickel-Legierungen (schwierig zu bearbeiten) | Superalliages résistants à la chaleur (HRSA) Ni base (faible usinabilité)<br>Super aleaciones resistentes al calor (HRSA) base Nickel (difícil mecanizado)<br>Жаропрочные сплавы (HRSA) Ni(труднообрабатываемые) | 35 ÷ 45 HRC |
| **S4** | Low Titanium base alloy (good machinability)<br>Leghe di titanio basso legate (buona lavorabilità)<br>Titanlegierung (gut Bearbeitbarkeit) | Alliages de base à faible teneur en titane (bonne usinabilité)<br>Aleaciones a bajo contenido Titanio (fácil mecanizado)<br>Сплавы с низким содержанием Ti(легкообрабатываемые) | |
| **S5** | High Titanium base alloy (medium machinability)<br>Leghe di titanio alto legate (media lavorabilità)<br>Hochfeste Titanlegierung (mittlere Bearbeitbarkeit) | Alliages à base de titane élevé (usinabilité moyenne)<br>Aleaciones a alto contenido Titanio (medio mecanizado)<br>Сплавы с высоким содержанием Ti (среднеобрабатываемые) | |
| **H1** | Hardened steel<br>Acciai temprati generali<br>Gehärtete Stähle | Aciers trempés<br>Aceros templados<br>Закаленные стали | 45 ÷ 55 HRC |
| **H2** | Hardened steel<br>Acciai temprati generali<br>Gehärtete Stähle | Aciers trempés<br>Aceros templados<br>Закаленные стали | 55 ÷ 63 HRC |

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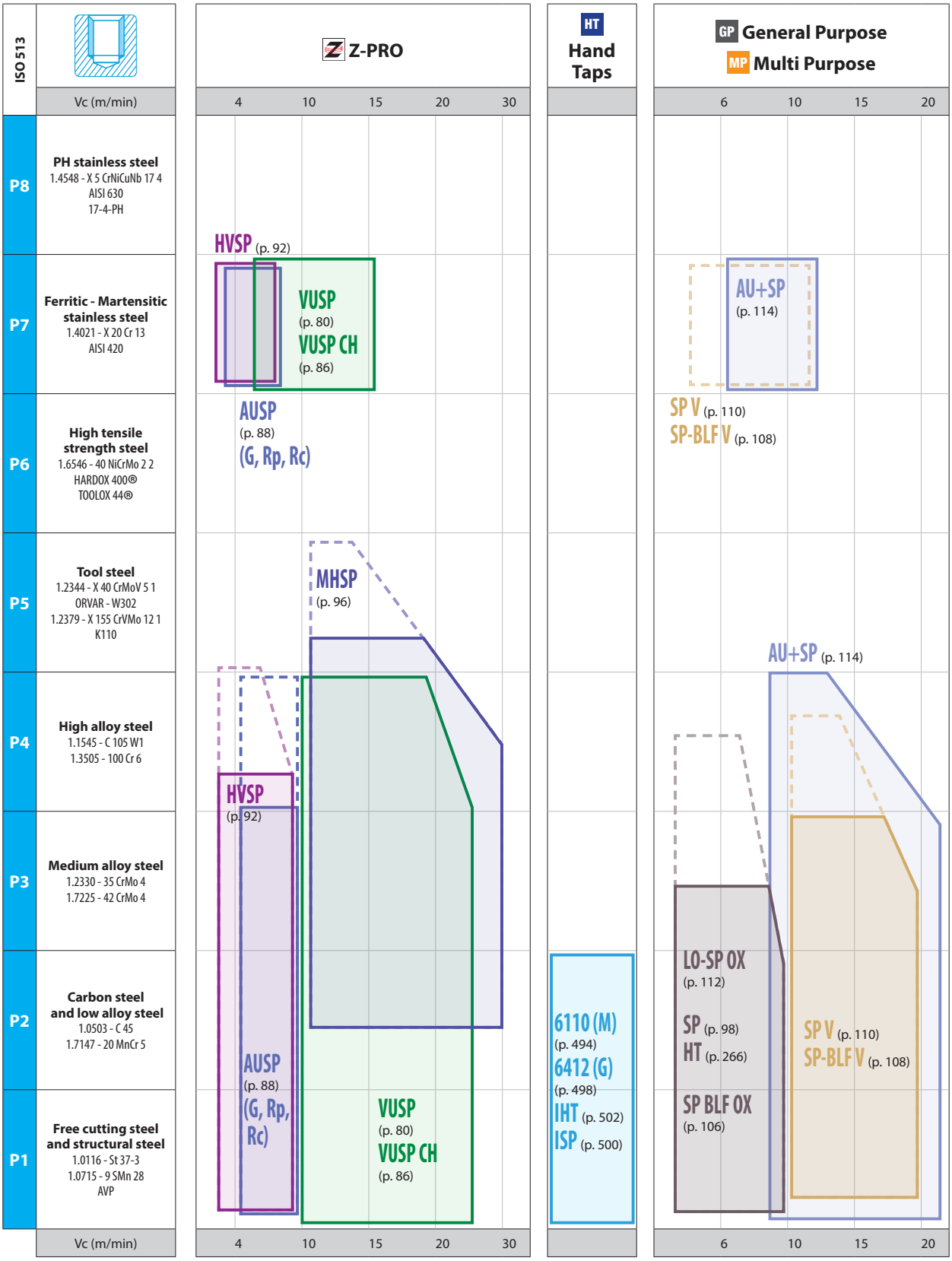
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| | | | | CUTTING TAPS | | FORMING TAPS | | |
|---|---|---|---|---|---|---|---|---|
| | | | |  |  |  |  | |
| **W.-NR** | **DIN** | **AISI-ASTM** | **TRADE MARK** | **SYSTEM CHART** | | | | |
| 3.0505<br>3.3206<br>3.4365 | AlMn0,5Mg0,5<br>AlMgSi0.5<br>AlZn5.5MgCu | 3105<br>7075 | Anticorodal 063<br>Ergal | 36 - 37 | 38 - 39 | 44 | 44 | **N1** |
| 3.2382<br>3.5103 | G-AlSi12<br>G-MgSe3Zn2Zr1 | A413.2<br>AMS 4442 | - | 36 - 37 | 38 - 39 | 44 | 44 | **N2** |
| 2.0060<br>2.0321<br>2.0530 | E-Cu57<br>CuZn37<br>CuZn38Sn1 | - | - | 36 - 37 | 38 - 39 | 44 | 44 | **N3** |
| 2.0220<br>2.0401<br>2.1020 | CuZn5<br>CuZn39Pb3<br>CuSn6 | - | OT-58 | 36 - 37 | 38 - 39 | 44 | 44 | **N4** |
| - | | | | 36 - 37 | 38 - 39 | 44 | 44 | **N5** |
| - | | | | 36 - 37 | 38 - 39 | 44 | 44 | **N6** |
| 2.4856 | NiCr17Mo17Few<br>NiCr19Fe19NbMo | - | Hastelloy C (casting)<br>Inconel 625 (casting) | 40 | 40 | - | - | **S1** |
| 2.4856<br>2.4668 | NiCr22Mo9Nb<br>NiCr19Fe19NbMo | - | Inconel 625 (forged)<br>Inconel 718 (casting) | 40 | 40 | - | - | **S2** |
| 2.4654<br>2.4668 | NiCr20Co14MoTi<br>NiCr19Fe19NbMo | - | Waspalloy (forged)<br>Inconel 718 (forged) | 40 | 40 | - | - | **S3** |
| 3.7055 | TiAl2Sn4Zr2MoSi<br>Ti 99,6 | 265-G1<br>265-G3 | Grade 1<br>Grade 3 | 40 | 40 | - | - | **S4** |
| 3.7164 | TiAl6V4 | - | Grade 5 | 40 | 40 | - | - | **S5** |
| 1.7131 | 16 MnCr 5 | 5115 | - | 41 | 41 | - | - | **H1** |
| 1.3505 | 100 Cr 6 | 52100 | - | 41 | 41 | - | - | **H2** |

# System Chart - ISO P

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

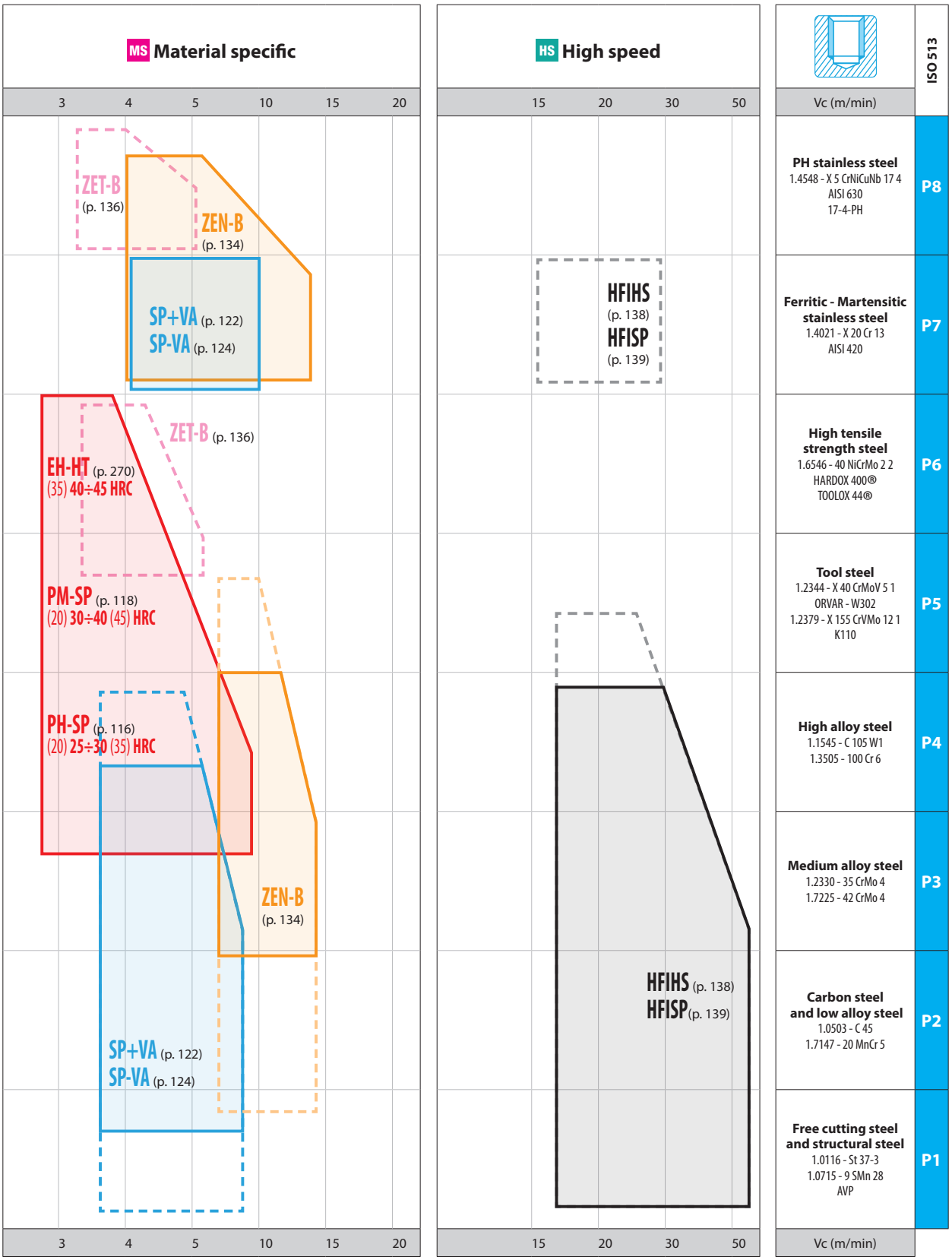
## CUTTING TAPS






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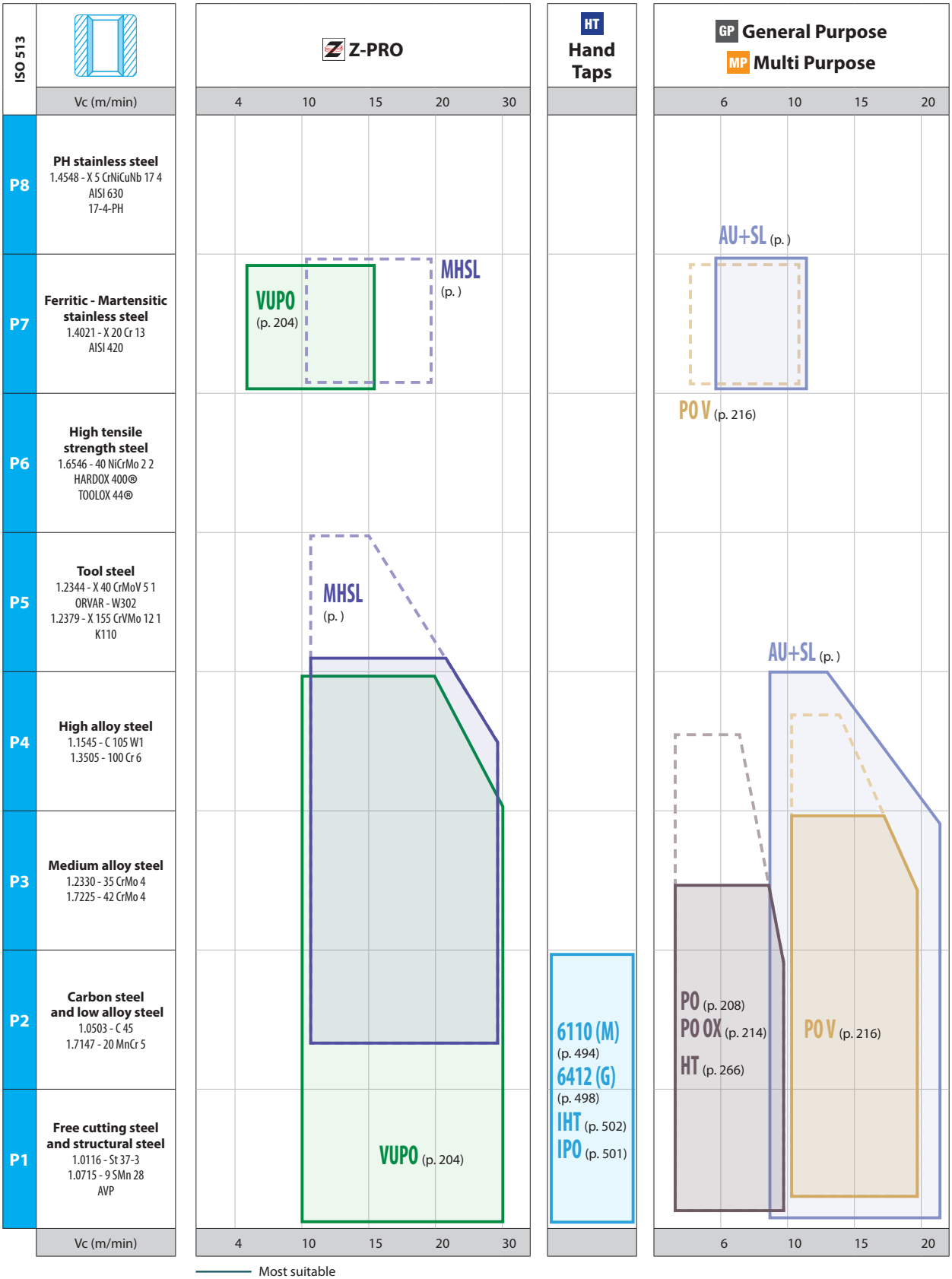
## CUTTING TAPS



# System Chart - ISO P

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

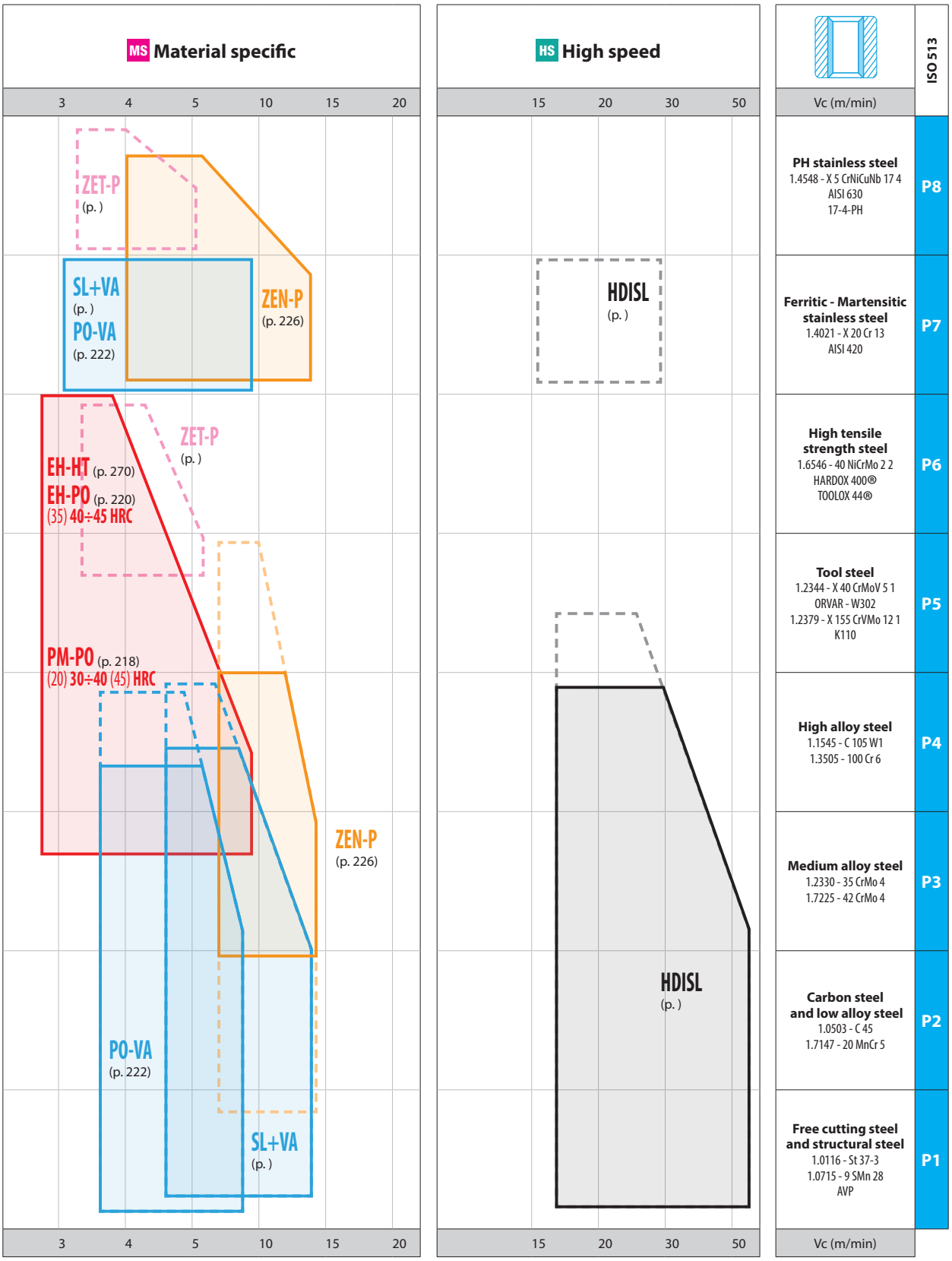
## CUTTING TAPS






Think threads with YAMAWA
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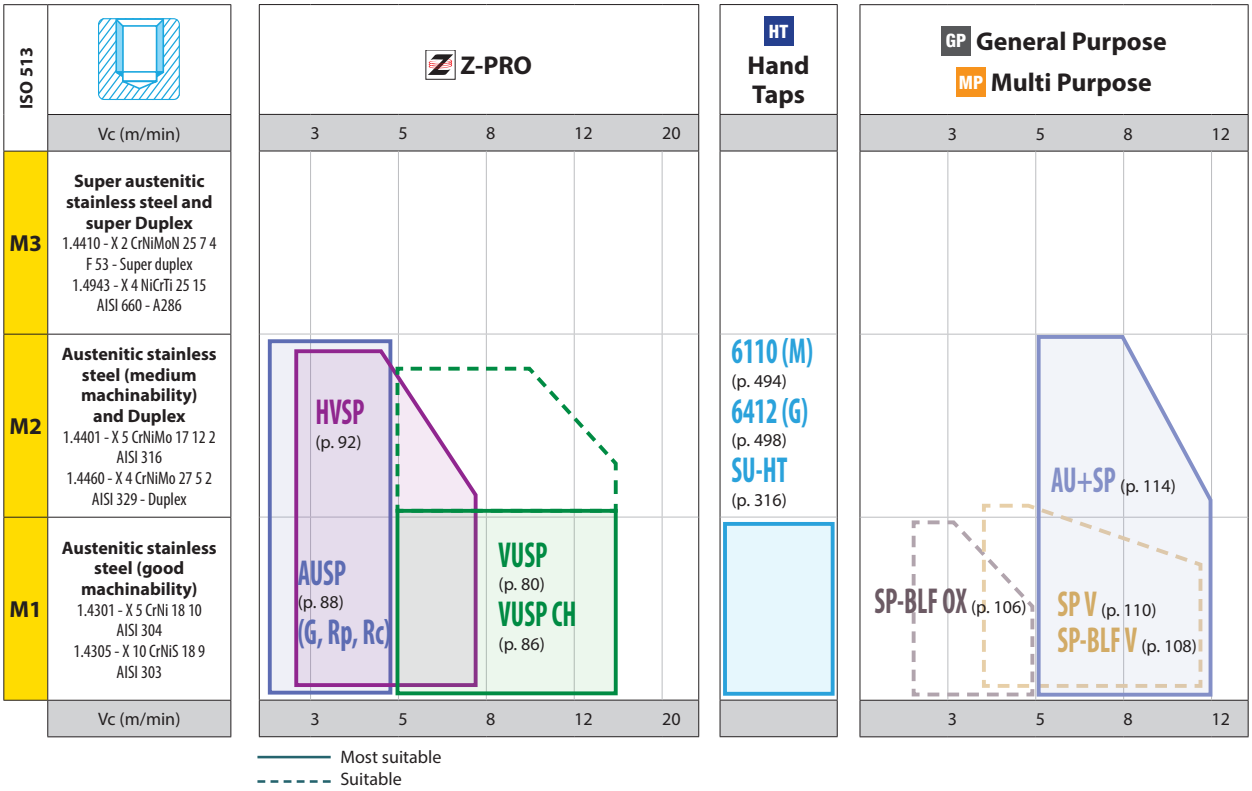
## CUTTING TAPS

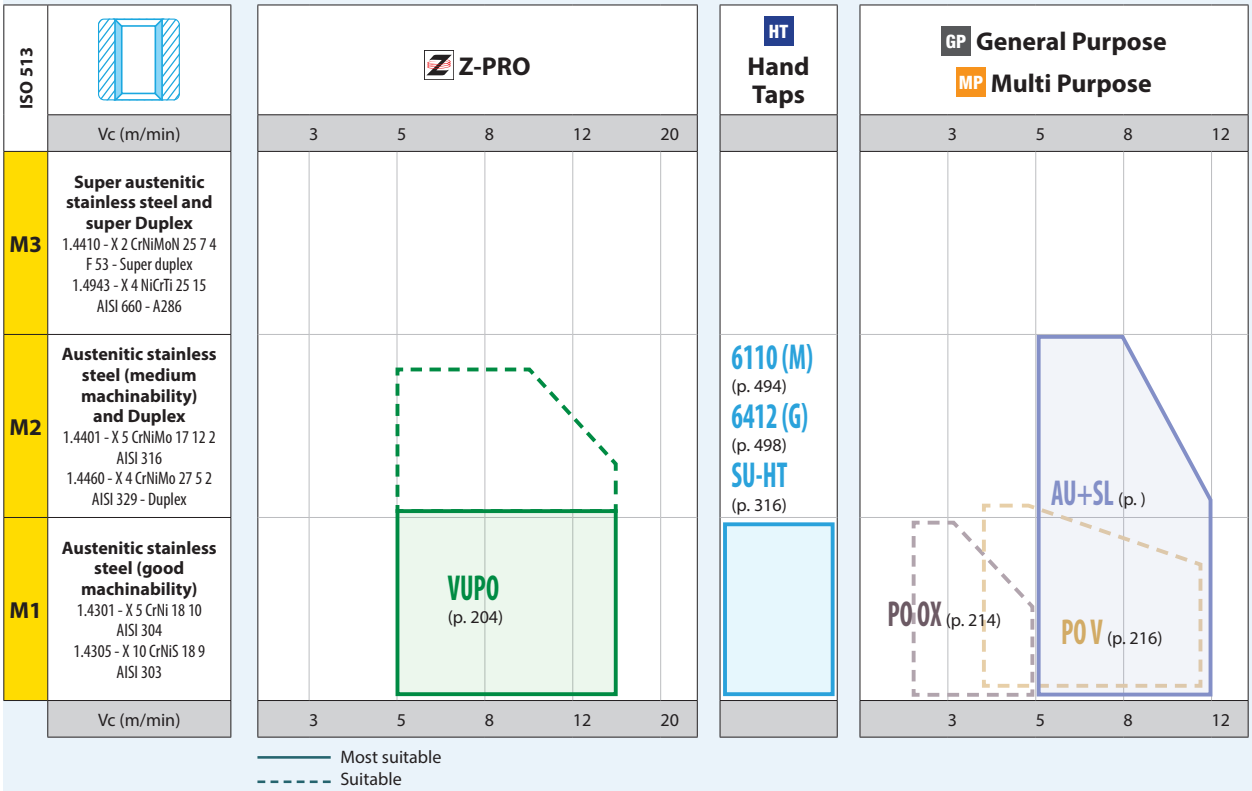


# System Chart - ISO M

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

## CUTTING TAPS

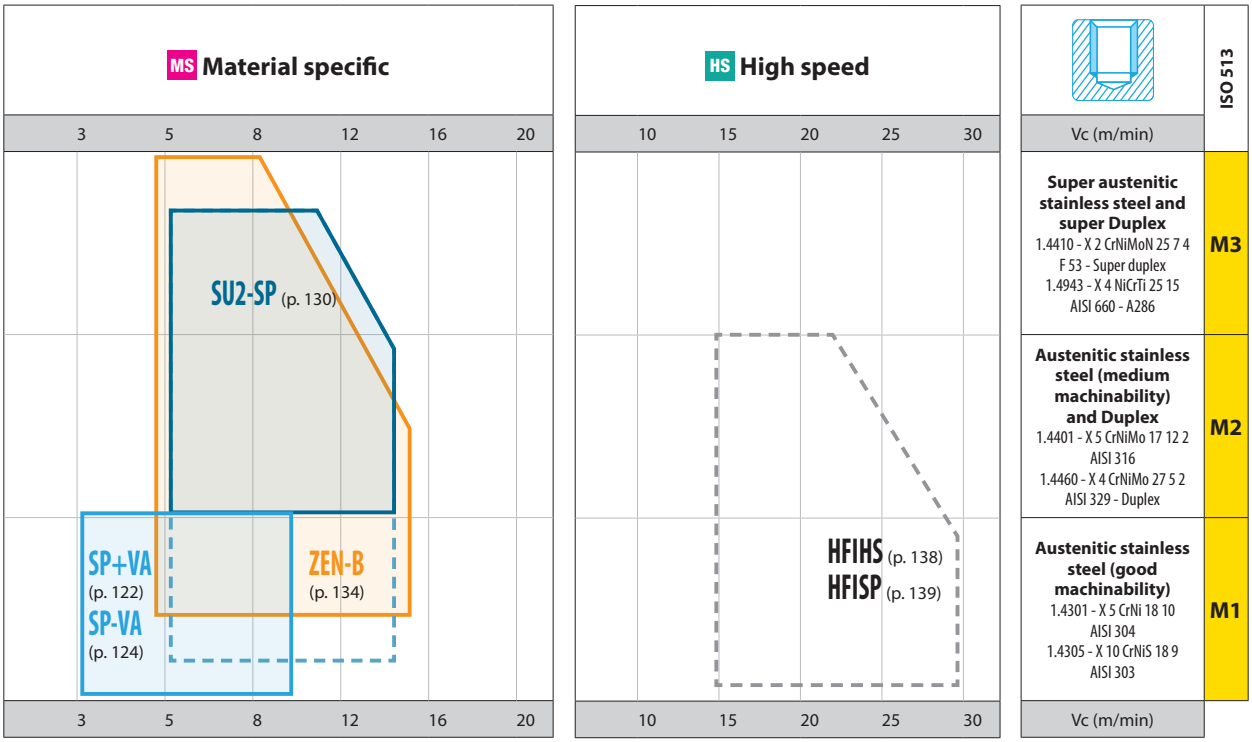


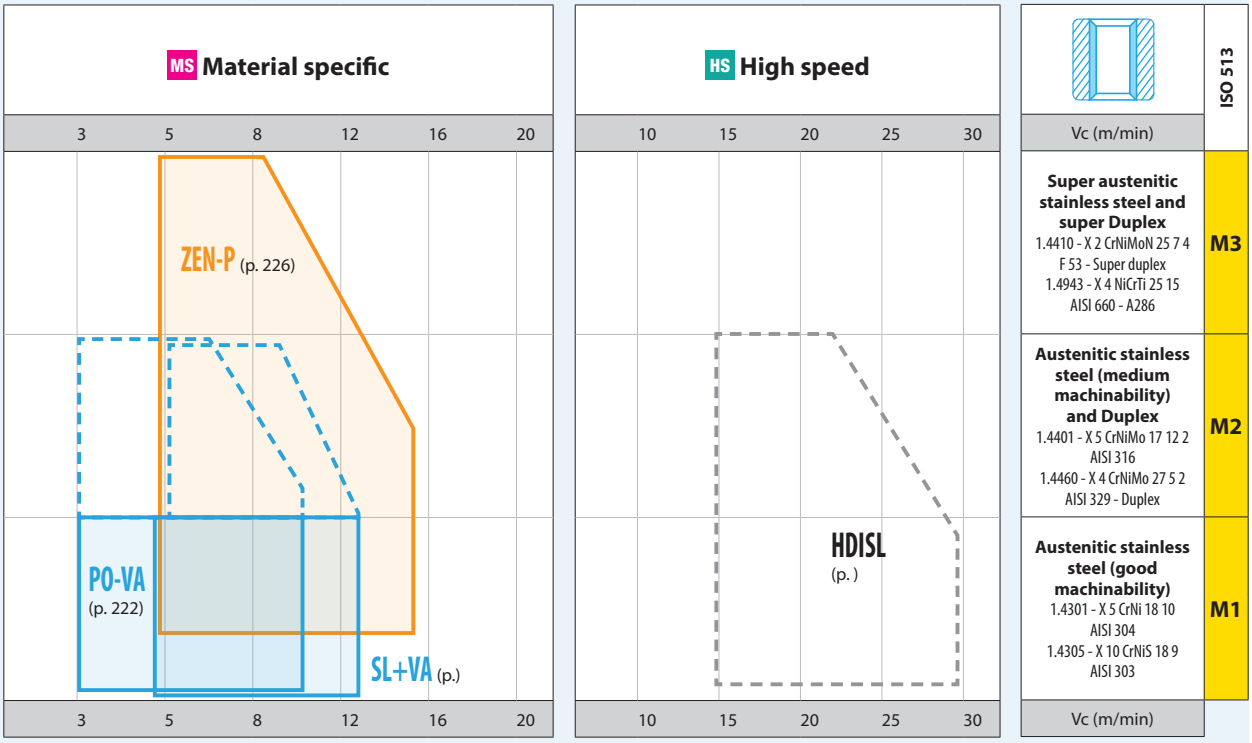



Think threads with YAMAWA
IMROBEX Machine Tools International

## CUTTING TAPS




Most suitable
Suitable

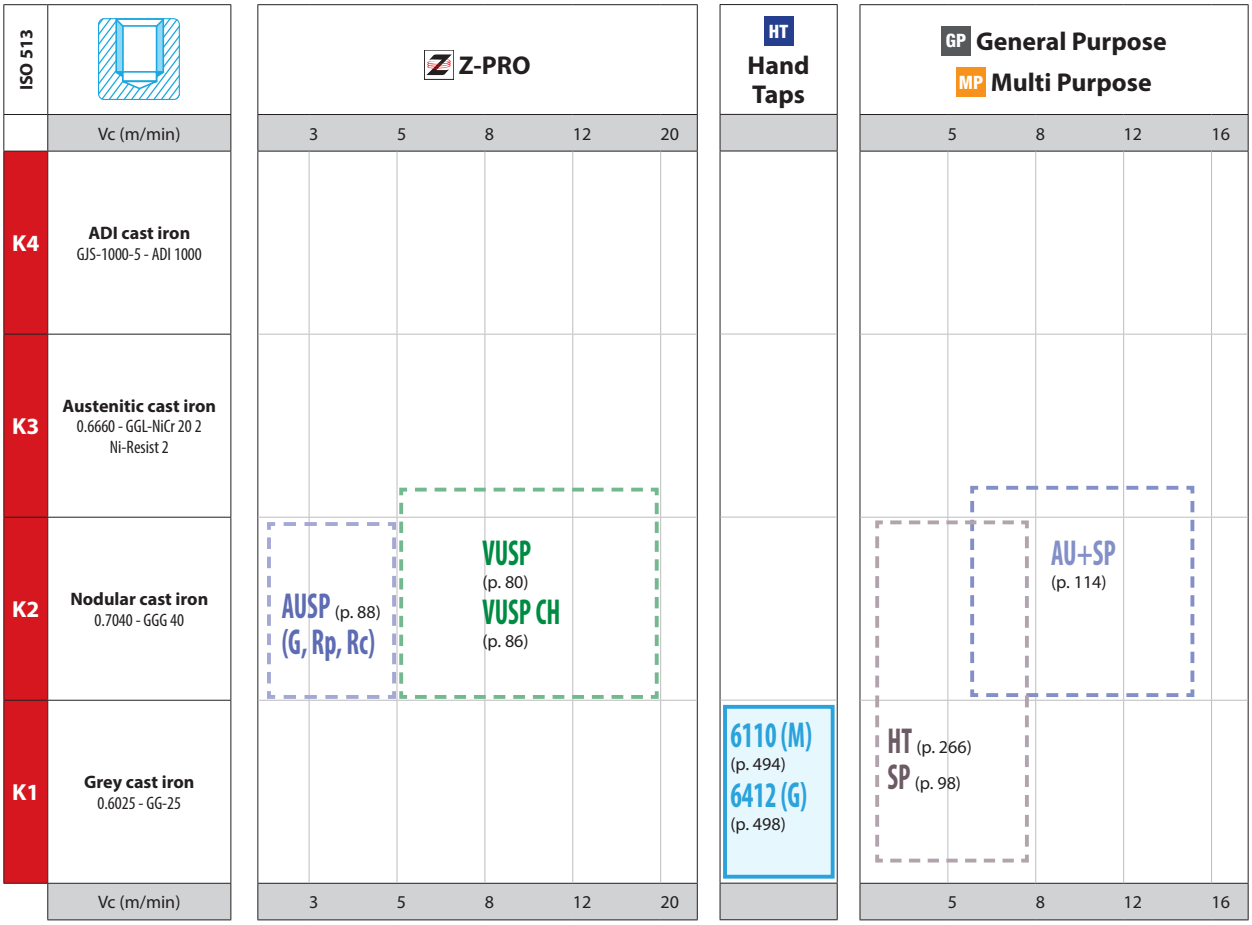



Most suitable
Suitable

# System Chart - ISO K

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

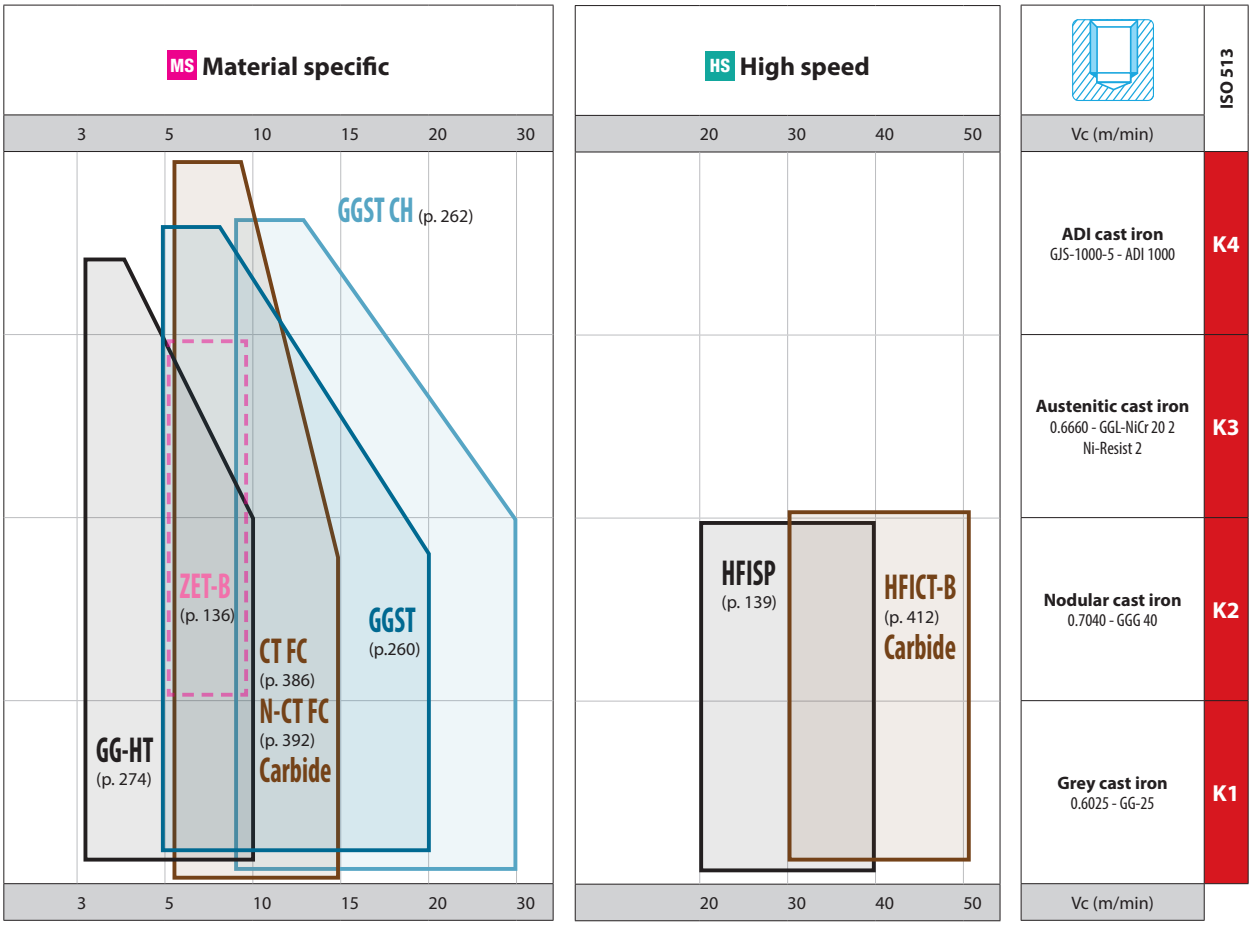
## CUTTING TAPS






Think threads with YAMAWA
IMROBEX Machine Tools International

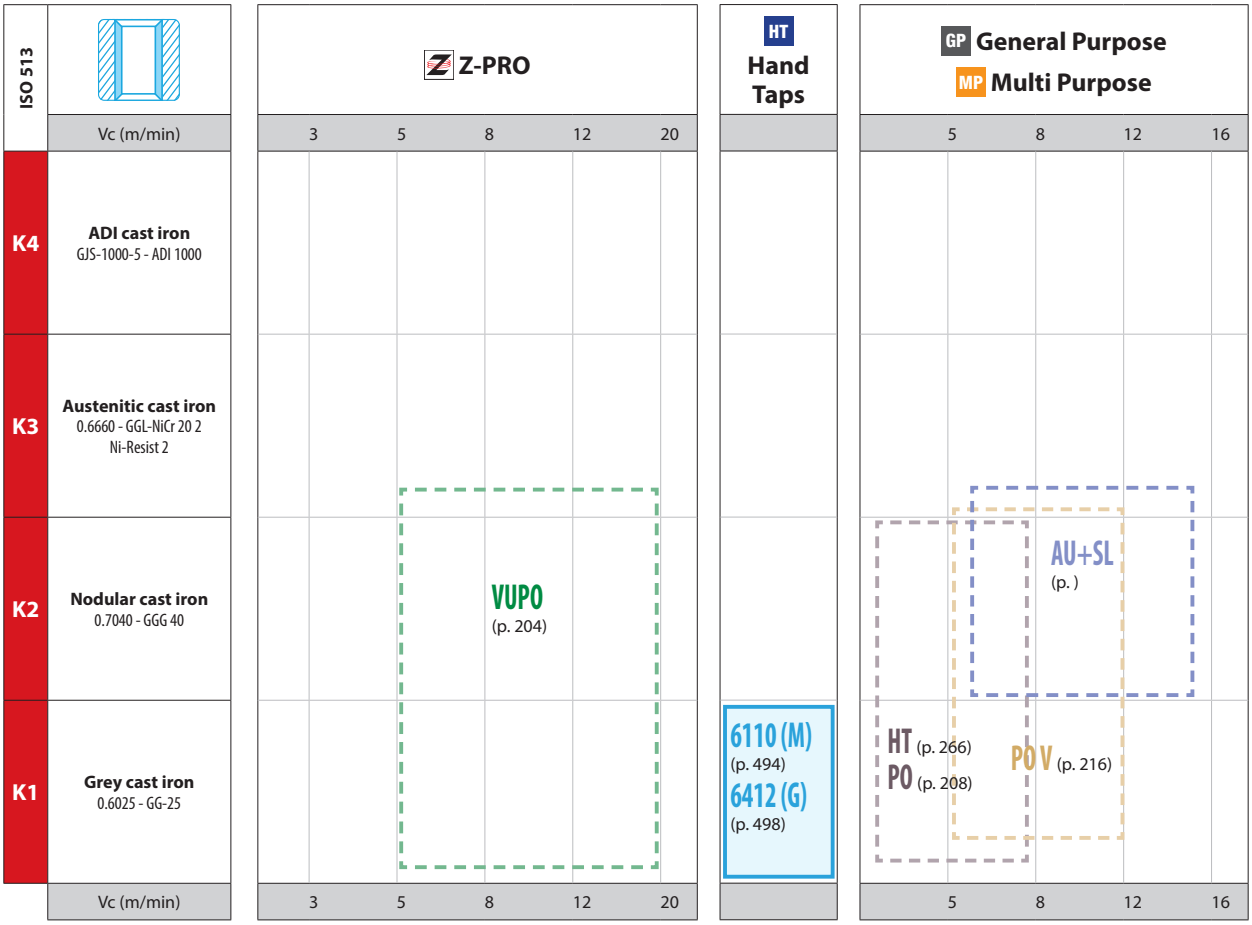
## CUTTING TAPS



# System Chart - ISO K

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

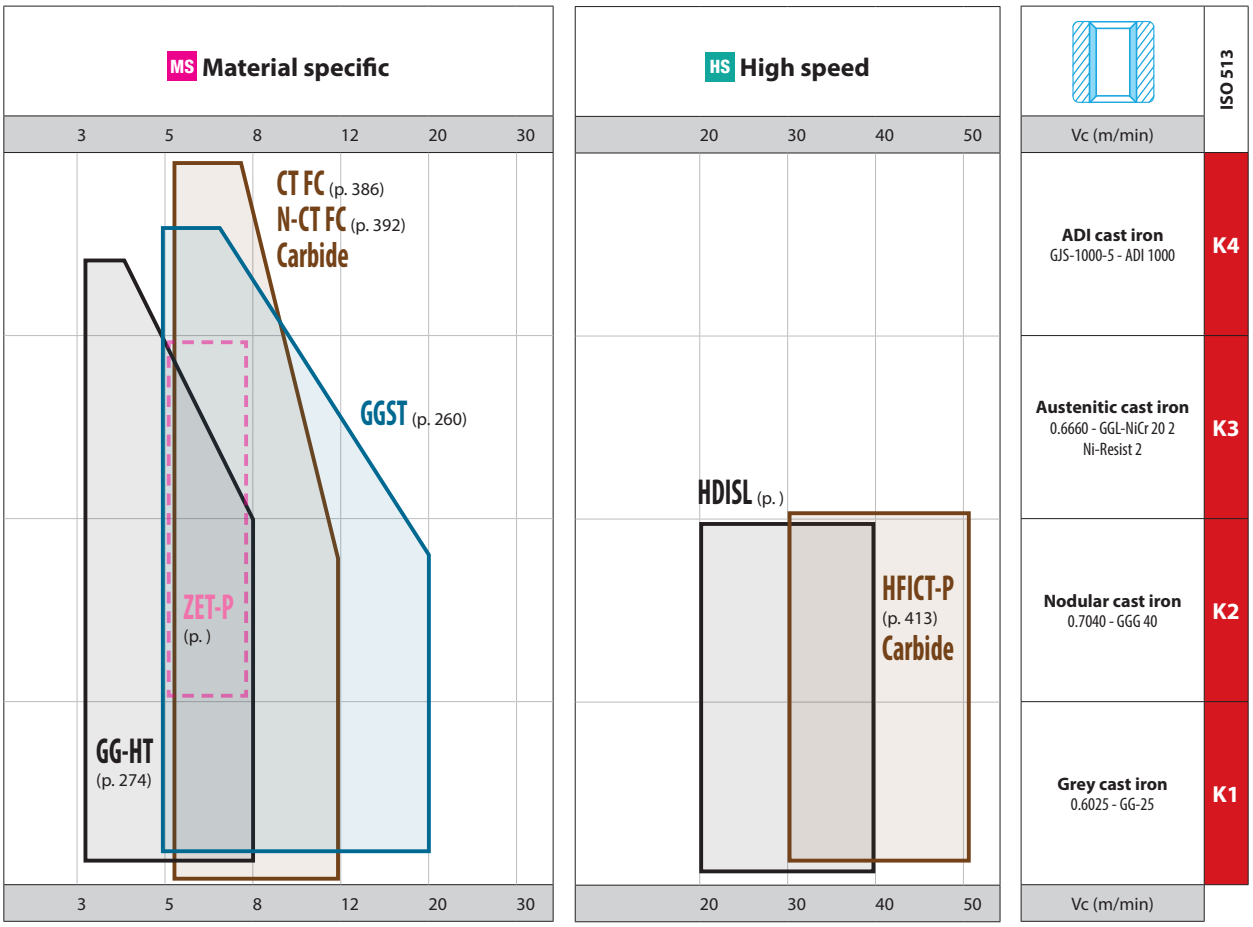
## CUTTING TAPS






Think threads with YAMAWA
IMROBEX Machine Tools International

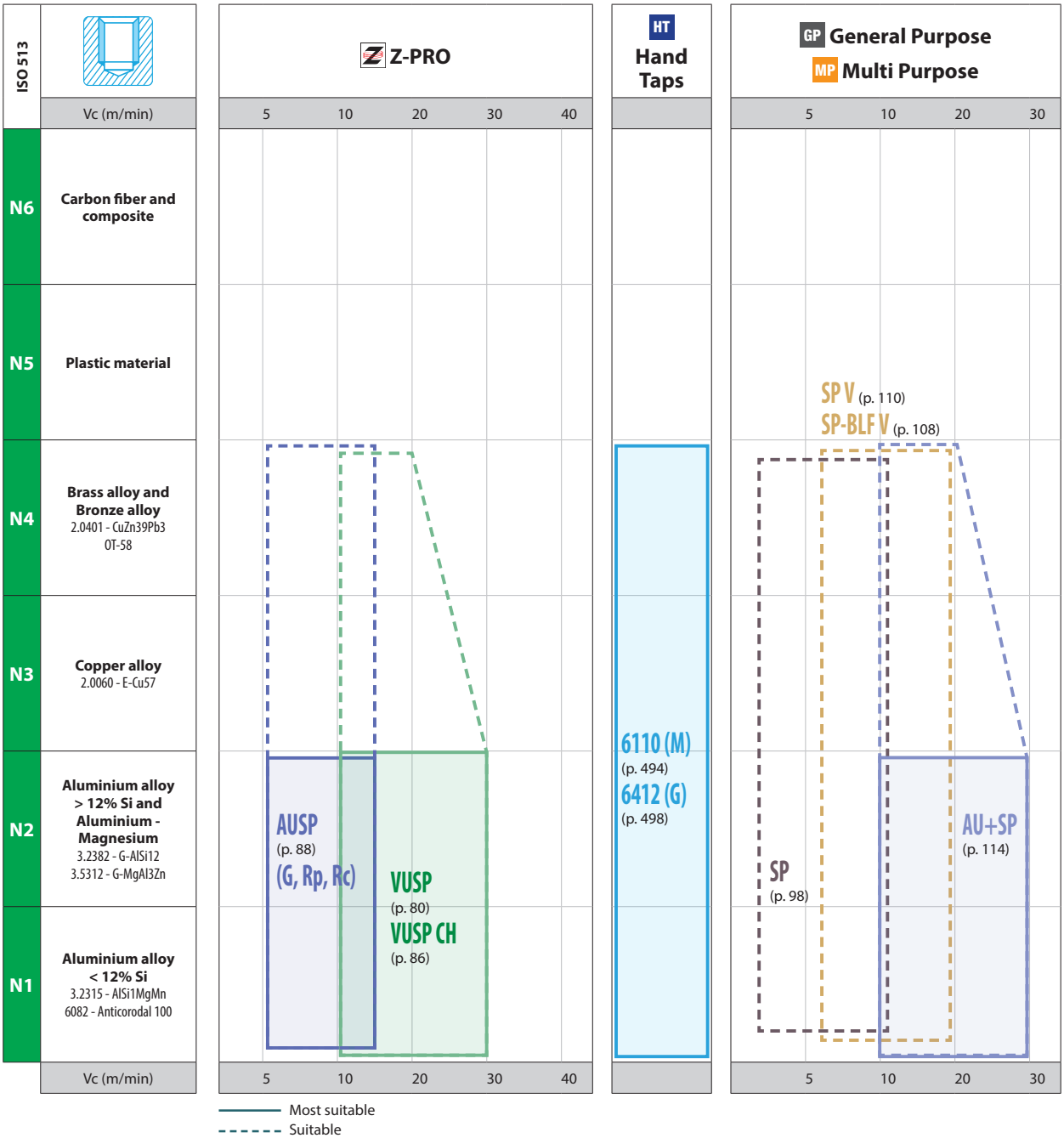
## CUTTING TAPS



# System Chart - ISO N

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

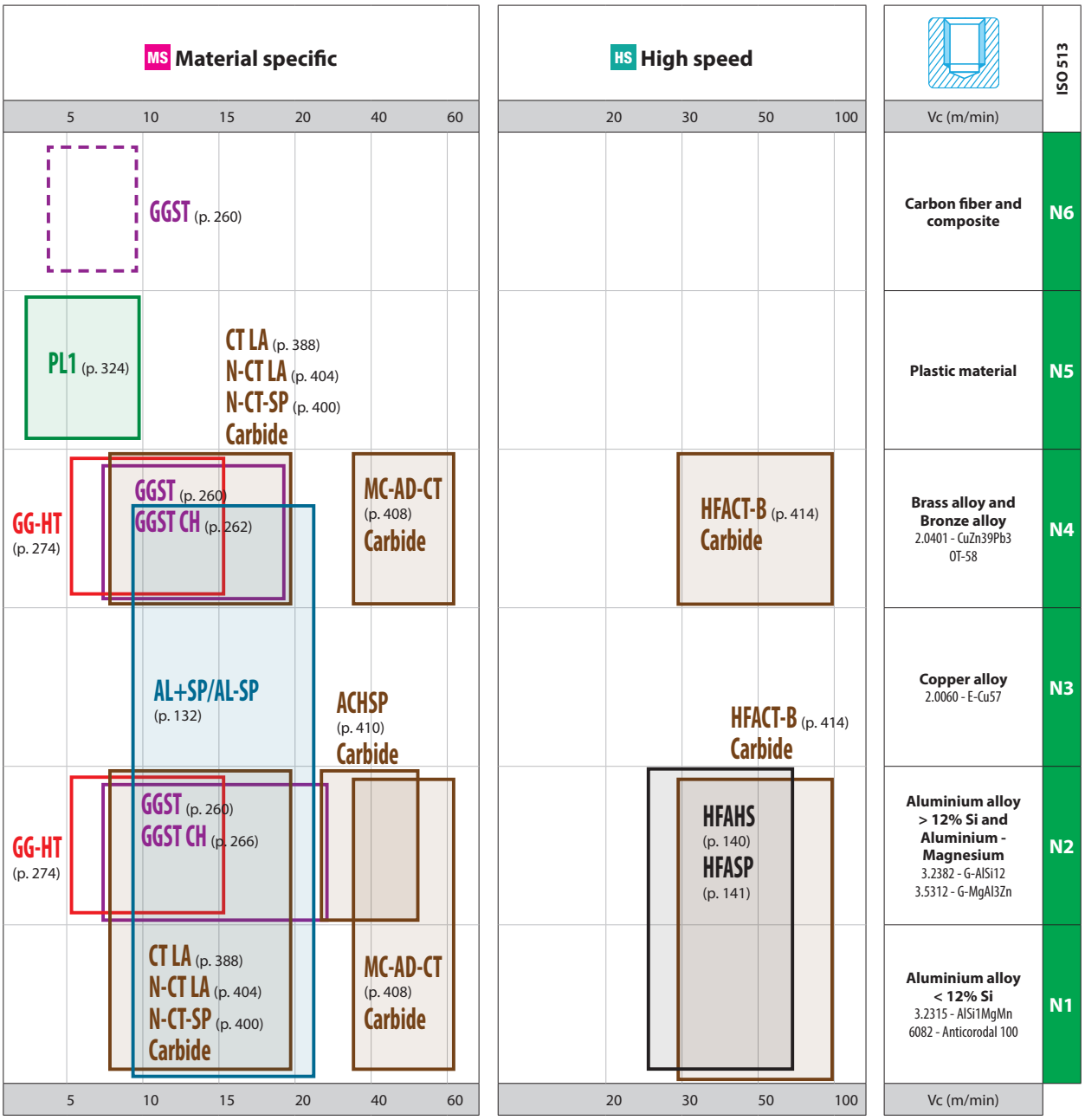
## CUTTING TAPS






Think threads with YAMAWA
IMROBEX Machine Tools International

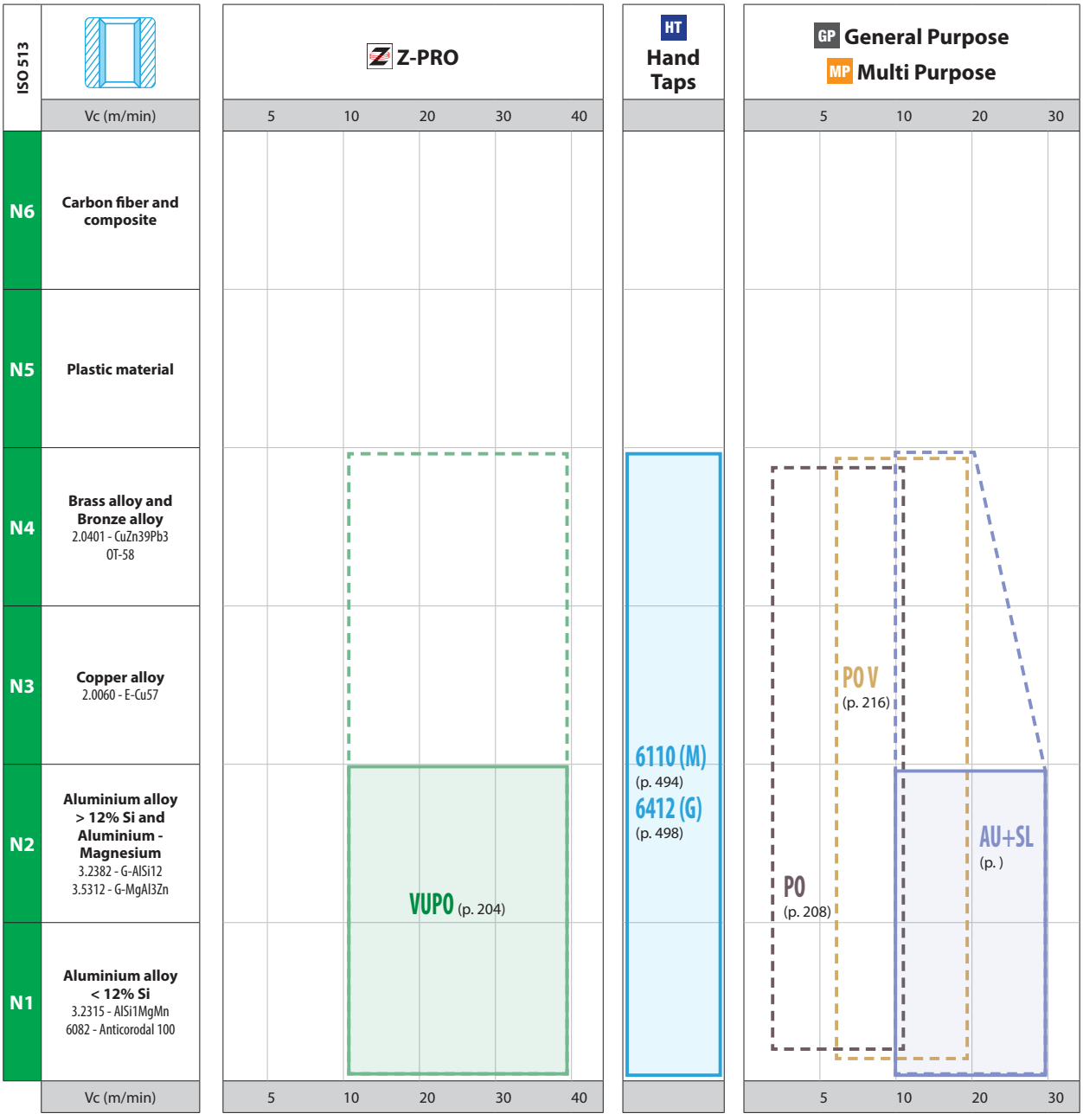
## CUTTING TAPS



# System Chart - ISO N

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

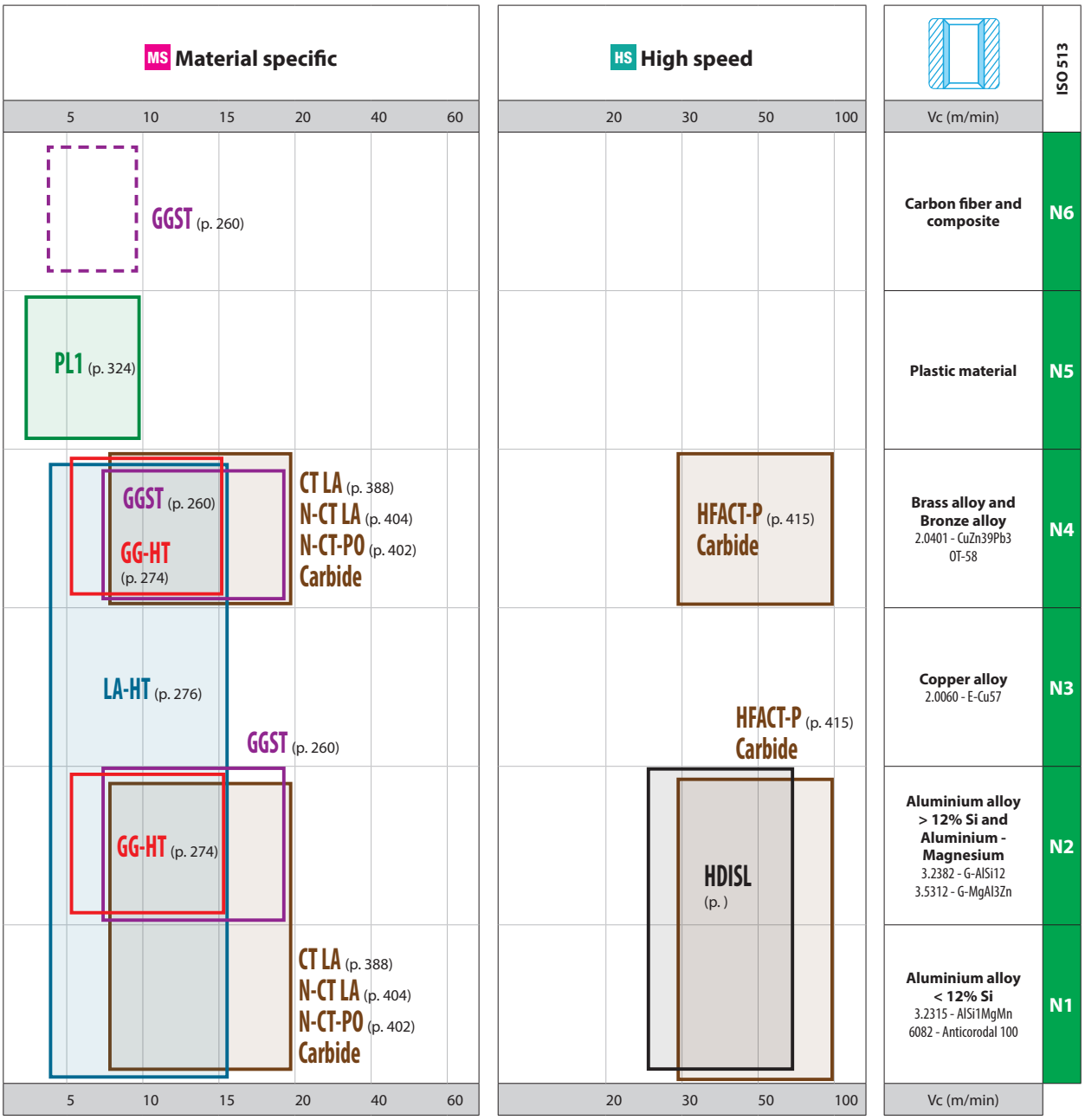
## CUTTING TAPS






Think threads with YAMAWA
IMROBEX Machine Tools International

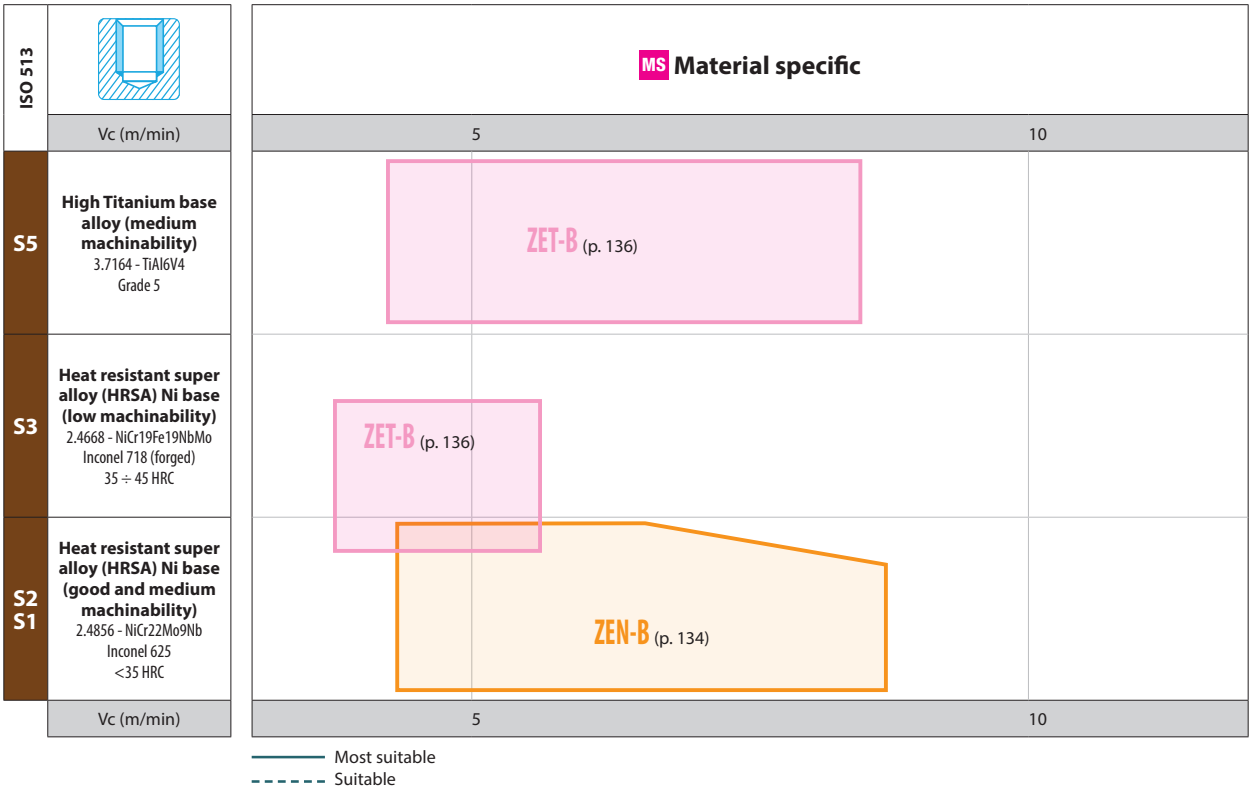
## CUTTING TAPS

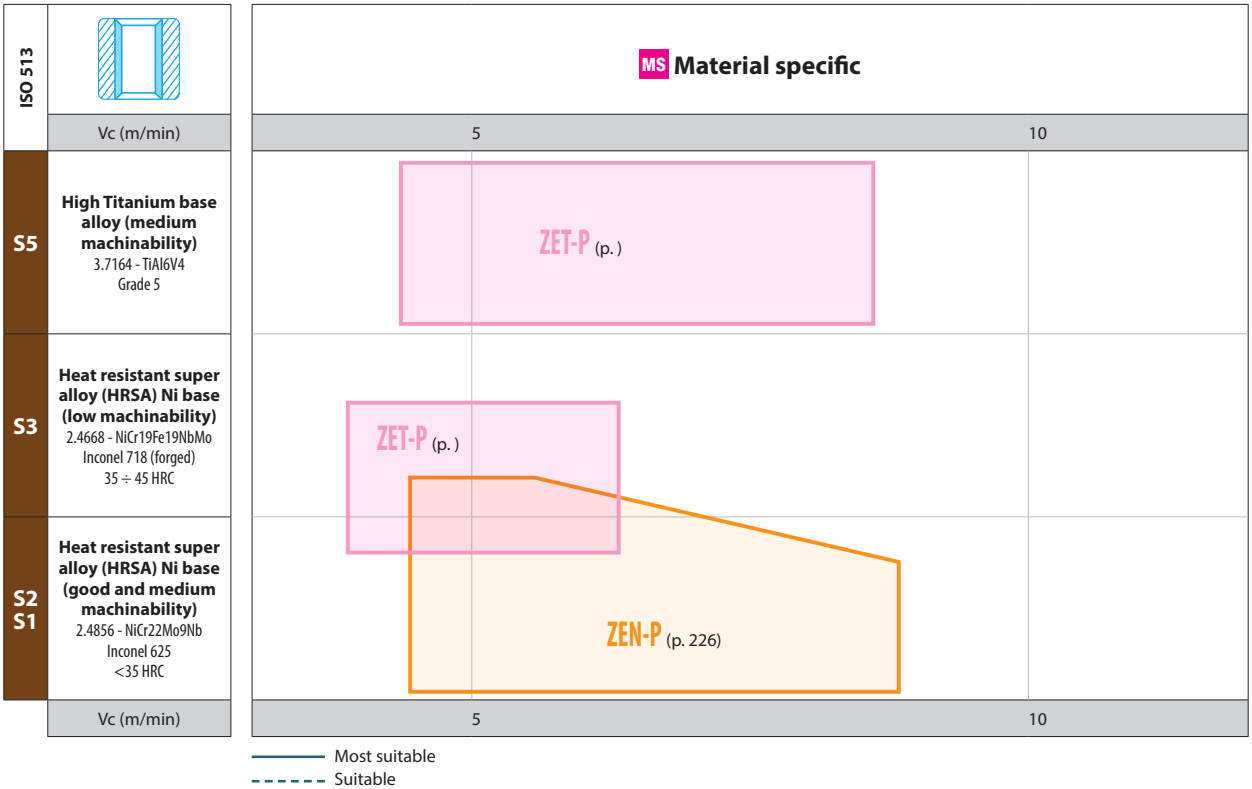


# System Chart - ISO S

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

## CUTTING TAPS



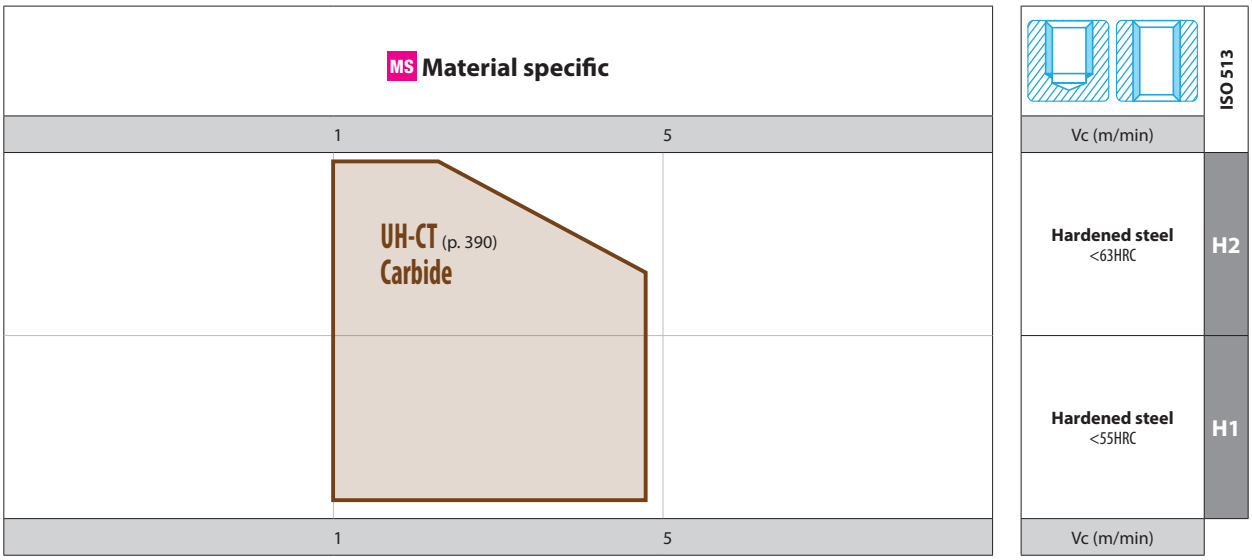



Think threads with YAMAWA
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# System Chart - ISO H

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

## CUTTING TAPS

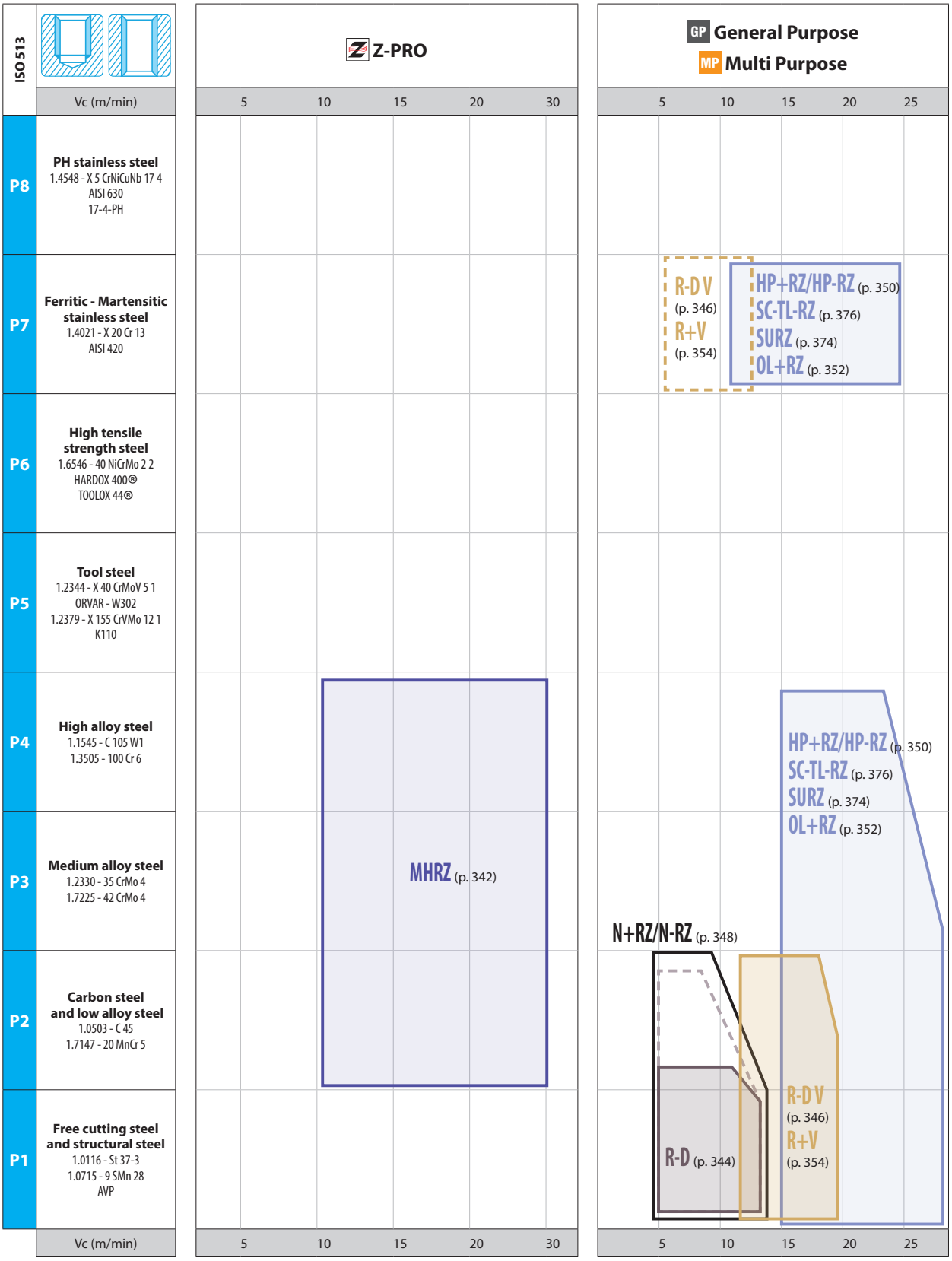



Most suitable
Suitable

# System Chart - ISO P

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

## FORMING TAPS



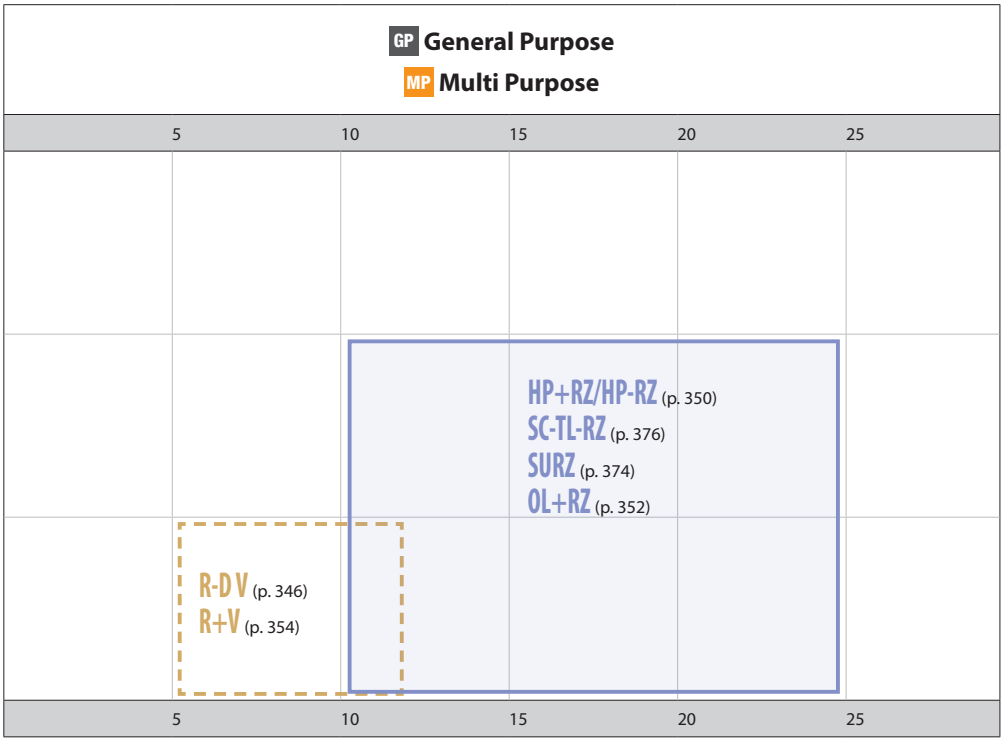



Think threads with YAMAWA
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# System Chart - ISO M

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

## FORMING TAPS



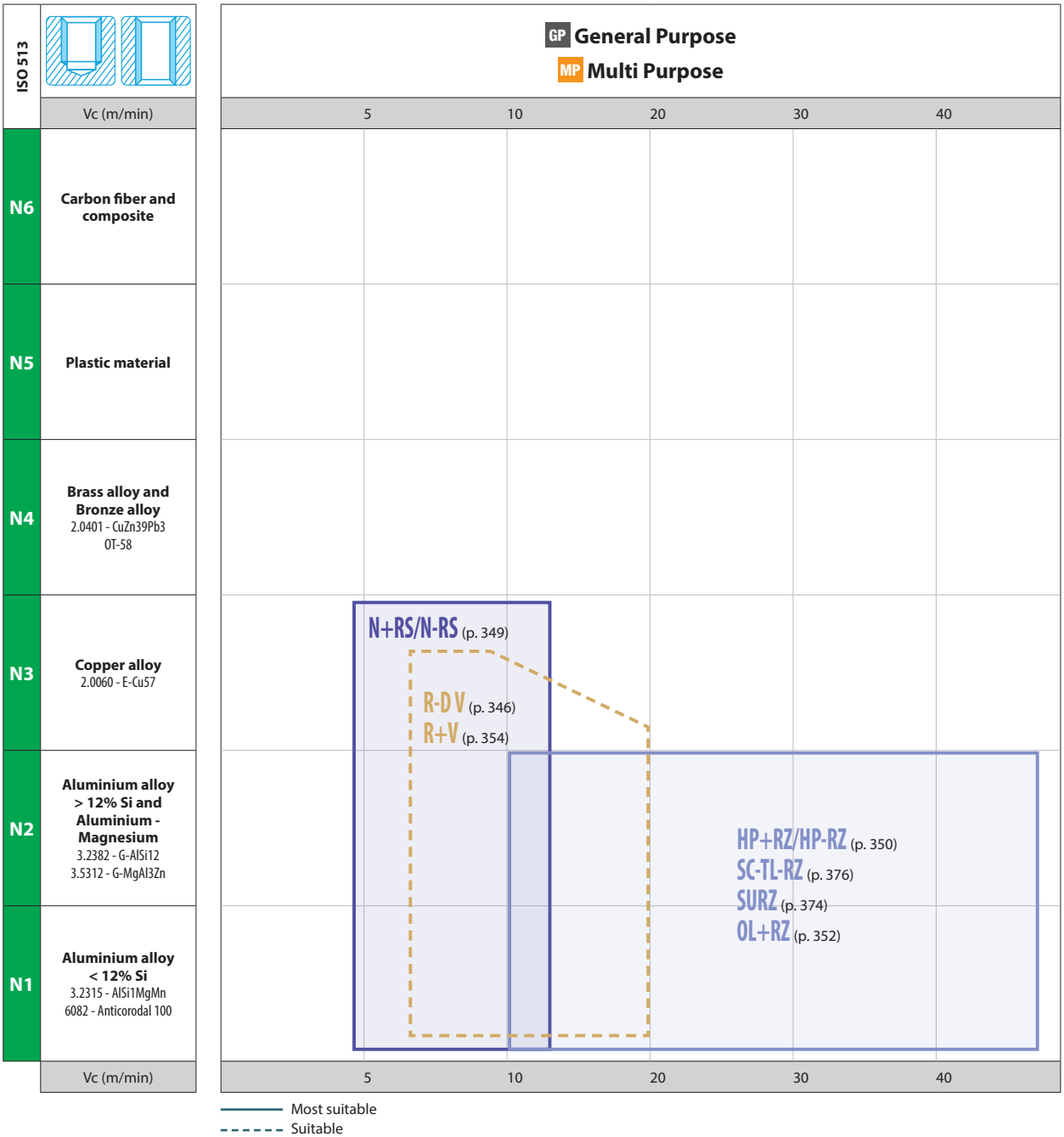

Most suitable
Suitable

| Vc (m/min) | ISO 513 |
|---|---|
| **Super austenitic stainless steel and super Duplex**<br>1.4410 - X 2 CrNiMoN 25 7 4<br>F 53 - Super duplex<br>1.4943 - X 4 NiCrTi 25 15<br>AISI 660 - A286 | M3 |
| **Austenitic stainless steel (medium machinability) and Duplex**<br>1.4401 - X 5 CrNiMo 17 12 2<br>AISI 316<br>1.4460 - X 4 CrNiMo 27 5 2<br>AISI 329 - Duplex | M2 |
| **Austenitic stainless steel (good machinability)**<br>1.4301 - X 5 CrNi 18 10<br>AISI 304<br>1.4305 - X 10 CrNiS 18 9<br>AISI 303 | M1 |
| Vc (m/min) | |

# System Chart - ISO N

Grafici applicativi · Anwendungstabellen · Graphiques d'application · Gráficos de aplicación · Диаграммы области применения

## FORMING TAPS






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# LINE-UP ARRANGED BY TYPE OF THREAD


| | | | |
|---|---|---|---|
| M | 46 | NPS | 64 |
| MF | 51 | NPSF | 65 |
| M-MF | 56 | BSW | 65 |
| UNC | 56 | EG(STI) M | 66 |
| UNF | 58 | EG(STI) MF | 66 |
| UNC-UNF | 60 | EG(STI) UNC | 66 |
| UNS | 60 | EG(STI) UNF | 66 |
| 8UN | 60 | Pg | 67 |
| 12UN | 61 | Tr | 67 |
| 20UN | 61 | S Miniature | 67 |
| 32UN | 61 | TRI | 67 |
| UNEF | 61 | RLS | 67 |
| G(BSP) | 62 | V | 68 |
| Rp(BSPP) | 63 | CTV | 68 |
| Rc(BSPT) | 63 | BC | 68 |
| NPT | 64 | CTC | 68 |
| NPTF | 64 | CTG | 68 |

# LineUp arranged by type of thread

## M

### SP - Spiral fluted taps



| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 81 |
| **VUSP** | | JIS | |
| | | ANSI | |
| **M 2 ÷ 24** | HSSP Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 81 |
| **VUSP ISO3X(6GX)** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 16** | HSSP Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 81 |
| **VUSP 7GX** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 16** | HSSP Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 81 |
| **VUSP ISO2X(6HX)+100** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 16** | HSSP Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 85 |
| **VUSP E(1.5P)** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 16** | HSSP Spiral Fluted Taps 1.5P, Coated | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 87 |
| **VUSP CH** | | JIS | |
| | | ANSI | |
| **M 6 ÷ 16** | HSSP Spiral Fluted with Axial Coolant Hole, Coated | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 93 |
| **HVSP** | | JIS | |
| | | ANSI | |
| **M 12 ÷ 48** | Spiral Fluted Taps for large forged parts in the heavy metalworking industry | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 97 |
| **MHSP** | | JIS | |
| | | ANSI | |
| **M 8 ÷ 16** | Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 99 |
| **SP** | | JIS | 142 |
| | | ANSI | |
| **M 1.2 ÷ 64** | Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 99 |
| **SP ISO3(6G)** | | JIS | 142 |
| | | ANSI | |
| **M 3 ÷ 16** | Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 99 |
| **SP ISO2(6H)+50** | | JIS | 142 |
| | | ANSI | |
| **M 6 ÷ 10** | Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 99 |
| **SP ISO2(6H)+100** | | JIS | 142 |
| | | ANSI | |
| **M 3 ÷ 12** | Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **SP 1.5P** | | JIS | 151 |
| | | ANSI | |
| **M 1.2 ÷ 16** | Spiral Fluted Taps 1.5P | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 105 |
| **SP LH** | | JIS | 152 |
| | | ANSI | |
| **M 2 ÷ 30** | Spiral Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 107 |
| **SP-BLF OX** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 36** | Spiral Fluted Taps, Deep Hole Use, Oxided | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 109 |
| **SP-BLF V** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 24** | Spiral Fluted Taps, Deep Hole Use, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 112 |
| **LO-SP OX** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 30** | Low Spiral Fluted Taps, Oxided | YMW | |

| | | | |
|---|---|---|---|
| **MULTI PURPOSE** |  | DIN | 115 |
| **AU+SP** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 20** | Plus Series Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 117 |
| **PH-SP** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 30** | Spiral Fluted Taps for Hard Materials (<35HRC) | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 119 |
| **PM-SP** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 30** | Spiral Fluted Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 123 |
| **SP+VA** | | JIS | |
| | | ANSI | |
| **M 3 ÷ 12** | Plus Series Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 125 |
| **SP-VA** | | JIS | |
| | | ANSI | |
| **M 2 ÷ 36** | Spiral Fluted Taps for Stainless Steel | YMW | |



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| MATERIAL SPECIFIC | | DIN | 125 |
|---|---|---|---|
| SP-VA ISO3(6G) |  | JIS | |
| | | ANSI | |
| M 3 ÷ 12 | Spiral Fluted Taps for Stainless Steel | YMW | |

| MATERIAL SPECIFIC | | DIN | 129 |
|---|---|---|---|
| SP-VA E(1.5P) |  | JIS | |
| | | ANSI | |
| M 3 ÷ 20 | 1.5P Spiral Fluted Taps for Stainless Steel | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| SU+SP/SU-SP |  | JIS | 154 |
| | | ANSI | |
| M 1.4 ÷ 48 | Spiral Fluted Taps for Stainless Steel | YMW | |

| MATERIAL SPECIFIC | | DIN | 131 |
|---|---|---|---|
| SU2-SP |  | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Spiral Fluted Taps for Tough Stainless Steel | YMW | |

| MATERIAL SPECIFIC | | DIN | 133 |
|---|---|---|---|
| AL+SP/AL-SP |  | JIS | 159 |
| | | ANSI | |
| M 2 ÷ 16 | Spiral Fluted Taps for Aluminium | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| AL-SP 1.5P |  | JIS | 161 |
| | | ANSI | |
| M 2 ÷ 16 | Spiral Fluted Taps for Aluminium 1.5P | YMW | |

| MATERIAL SPECIFIC | | DIN | 134 |
|---|---|---|---|
| ZEN-B |  | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Spiral Fluted Taps for Nickel Base Alloys | YMW | |

| MATERIAL SPECIFIC | | DIN | 136 |
|---|---|---|---|
| ZET-B |  | JIS | |
| | | ANSI | |
| M 2 ÷ 24 | Low Spiral Fluted Taps for Titanium Base Alloys | YMW | |

| HIGH SPEED | | DIN | 138 |
|---|---|---|---|
| HFIHS |  | JIS | |
| | | ANSI | |
| M 6 ÷ 16 | Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

| HIGH SPEED | | DIN | 139 |
|---|---|---|---|
| HFISP |  | JIS | |
| | | ANSI | |
| M 6 ÷ 16 | Low Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

| HIGH SPEED | | DIN | 140 |
|---|---|---|---|
| HFAHS |  | JIS | |
| | | ANSI | |
| M 6 ÷ 12 | Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

| HIGH SPEED | | DIN | 141 |
|---|---|---|---|
| HFASP |  | JIS | |
| | | ANSI | |
| M 6 ÷ 12 | Low Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

## SL - Left spiral fluted taps



| Z-PRO | | DIN | 185 |
|---|---|---|---|
| MHSL Mini |  | JIS | |
| | | ANSI | |
| M 2.5 ÷ 5 | Left Spiral Fluted Taps for Thermal Refined Steel <45HRC, Coated | YMW | |

| Z-PRO | | DIN | 187 |
|---|---|---|---|
| MHSL |  | JIS | |
| | | ANSI | |
| M 6 ÷ 12 | Left Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated | YMW | |

| MULTI PURPOSE | | DIN | 189 |
|---|---|---|---|
| AU+SL |  | JIS | |
| | | ANSI | |
| M 3 ÷ 20 | Plus Series Left Spiral Fluted Taps, Coated | YMW | |

| MATERIAL SPECIFIC | | DIN | 191 |
|---|---|---|---|
| SL+VA |  | JIS | |
| | | ANSI | |
| M 3 ÷ 12 | Plus Series Left Spiral Fluted Taps for Stainless Steel | YMW | |

| MATERIAL SPECIFIC | | DIN | 193 |
|---|---|---|---|
| ZET-P |  | JIS | |
| | | ANSI | |
| M 3 ÷ 16 | Left Spiral Fluted Taps for Titanium Base Alloys | YMW | |

| HIGH SPEED | | DIN | 194 |
|---|---|---|---|
| HDISL |  | JIS | |
| | | ANSI | |
| M 6 ÷ 20 | Left Spiral Fluted Taps with Radial Coolant Holes for Ultra High Speed Tapping, Coated | YMW | |

## PO - Spiral pointed taps



| Z-PRO | | DIN | 205 |
|---|---|---|---|
| VUPO |  | JIS | |
| | | ANSI | |
| M 2 ÷ 24 | HSSP Spiral Pointed Taps, Coated | YMW | |

| Z-PRO | | DIN | 205 |
|---|---|---|---|
| VUPO ISO3X(6GX) |  | JIS | |
| | | ANSI | |
| M 3 ÷ 16 | HSSP Spiral Pointed Taps, Coated | YMW | |

| Z-PRO | | DIN | 205 |
|---|---|---|---|
| VUPO 7GX |  | JIS | |
| | | ANSI | |
| M 3 ÷ 16 | HSSP Spiral Pointed Taps, Coated | YMW | |

| Z-PRO | | DIN | 205 |
|---|---|---|---|
| VUPO ISO2X(6HX)+100 |  | JIS | |
| | | ANSI | |
| M 3 ÷ 16 | HSSP Spiral Pointed Taps, Coated | YMW | |

# LineUp arranged by type of thread

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 209 |
| PO | | JIS | 229 |
| | | ANSI | |
| M 1.2 ÷ 48 | Spiral Pointed Taps | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 209 |
| PO ISO3(6G) | | JIS | 229 |
| | | ANSI | |
| M 3 ÷ 16 | Spiral Pointed Taps | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 209 |
| PO ISO2(6H)+100 | | JIS | 229 |
| | | ANSI | |
| M 4 ÷ 12 | Spiral Pointed Taps | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| PO LH | | JIS | 236 |
| | | ANSI | |
| M 3 ÷ 30 | Spiral Pointed Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 215 |
| PO OX | | JIS | |
| | | ANSI | |
| M 3 ÷ 20 | Spiral Pointed Taps, Oxided | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 217 |
| PO V | | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Spiral Pointed Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 219 |
| PM-PO | | JIS | |
| | | ANSI | |
| M 3 ÷ 30 | Spiral Pointed Taps for Hard Materials (<45HRC) | YMW | |

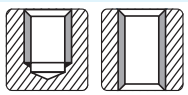
| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 221 |
| EH-PO | | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Spiral Pointed Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 223 |
| PO-VA | | JIS | |
| | | ANSI | |
| M 2 ÷ 36 | Spiral Pointed Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| SU+PO/SU-PO | | JIS | 238 |
| | | ANSI | |
| M 1.4 ÷ 42 | Spiral Pointed Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 226 |
| ZEN-P | | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Spiral Pointed Taps for Nickel Base Alloys | YMW | |

## ST - Straight fluted taps



| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | 261 |
| GGST | | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Straight Fluted Taps for Cast Iron, Coated | YMW | |

| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | 263 |
| GGST CH | | JIS | |
| | | ANSI | |
| M 6 ÷ 24 | Straight Fluted Taps for Cast Iron with Axial Coolant Hole, Coated | YMW | |

| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | 265 |
| GGST CH E(1.5P) | | JIS | |
| | | ANSI | |
| M 6 ÷ 16 | Straight Fluted Taps 1.5P, for Cast Iron with Axial Coolant Hole, Coated | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 267 |
| HT | | JIS | 281 |
| | | ANSI | |
| M 1 ÷ 100 | Straight Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| HT LH | | JIS | 307 |
| | | ANSI | |
| M 1 ÷ 48 | Straight Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 271 |
| EH-HT | | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Straight Fluted Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| SU-HT | | JIS | 317 |
| | | ANSI | |
| M 2 ÷ 30 | Straight Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 275 |
| GG-HT | | JIS | |
| | | ANSI | |
| M 3 ÷ 24 | Straight Fluted Taps for Cast Iron | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 277 |
| LA-HT | | JIS | 321 |
| | | ANSI | |
| M 1.4 ÷ 24 | Straight Fluted Taps for Die Cast Materials | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 279 |
| AXE-HT | | JIS | |
| | | ANSI | |
| M 6 ÷ 12 | AXE Straight Fluted Taps for Die Cast Aluminium Alloys, Coated | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| MG-HT | | JIS | 323 |
| | | ANSI | |
| M 1.4 ÷ 3 | Straight Fluted Taps with Short Chamfer for Magnesium Alloy Castings | YMW | |



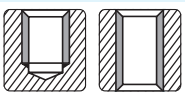
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| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| PL1 |  | JIS | 325 |
| | | ANSI | |
| M 2 ÷ 8 | Straight Fluted Taps for Thermosetting Plastics | YMW | |

| MULTI PURPOSE | | DIN | 353 |
|---|---|---|---|
| OL+RZ/OL-RZ |  | JIS | 378 |
| | | ANSI | |
| M 1 ÷ 6 | Thread Forming Taps for Dry Tapping, Coated | YMW | |

## ROLL - Forming taps



| Z-PRO | | DIN | 343 |
|---|---|---|---|
| MHRZ |  | JIS | |
| | | ANSI | |
| M 6 ÷ 16 | Roll Taps for Carbon Steel of Medium Hardness, Coated | YMW | |

| GENERAL PURPOSE | | DIN | 345 |
|---|---|---|---|
| R-D |  | JIS | |
| | | ANSI | |
| M 2 ÷ 16 | Thread Forming Taps for Low Hardness Materials | YMW | |

| GENERAL PURPOSE | | DIN | 347 |
|---|---|---|---|
| R-D V |  | JIS | |
| | | ANSI | |
| M 2 ÷ 16 | Thread Forming Taps for Low Hardness Materials, Coated | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| R+V |  | JIS | 355 |
| | | ANSI | |
| M 1 ÷ 6 | Thread Forming Taps, Coated | YMW | |

| GENERAL PURPOSE | | DIN | 348 |
|---|---|---|---|
| N+RZ/N-RZ |  | JIS | 359 |
| | | ANSI | |
| M 1 ÷ 16 | Thread Forming Taps for Steel | YMW | |

| GENERAL PURPOSE | | DIN | 349 |
|---|---|---|---|
| N+RS/N-RS |  | JIS | 364 |
| | | ANSI | |
| M 1 ÷ 20 | Thread Forming Taps for Non-Ferrous Materials | YMW | |

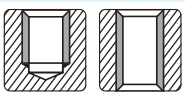
| MULTI PURPOSE | | DIN | 351 |
|---|---|---|---|
| HP+RZ/HP-RZ |  | JIS | 371 |
| | | ANSI | |
| M 1 ÷ 16 | High Performance Thread Forming Taps, Coated | YMW | |

| MULTI PURPOSE | | DIN | 351 |
|---|---|---|---|
| HP+RZ/HP-RZ ISO3X(6GX) |  | JIS | 371 |
| | | ANSI | |
| M 2 ÷ 12 | High Performance Thread Forming Taps, Coated | YMW | |

| MULTI PURPOSE | | DIN | |
|---|---|---|---|
| SURZ |  | JIS | 375 |
| | | ANSI | |
| M 1 ÷ 3 | Thread Forming Taps for Stainless Steel, Coated | YMW | |

| MULTI PURPOSE | | DIN | |
|---|---|---|---|
| SC-TL-RZ |  | JIS | 377 |
| | | ANSI | |
| M 1 ÷ 6 | Torqueless Thread Forming Taps with short chamfer, Coated | YMW | |

## CT - Carbide taps



| MATERIAL SPECIFIC | | DIN | 387 |
|---|---|---|---|
| CT FC |  | JIS | |
| | | ANSI | |
| M 3 ÷ M12 | Carbide Taps for Cast Iron | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| N-CT FC |  | JIS | 393 |
| | | ANSI | |
| M 1.4 ÷ M30 | Carbide Taps for Cast Iron | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| LS-N-CT |  | JIS | 398 |
| | | ANSI | |
| M 3 ÷ 24 | Long Shank Carbide Taps | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| N-CT-SP |  | JIS | 401 |
| | | ANSI | |
| M 3 ÷ 20 | Carbide Taps Spiral Fluted for Non-Ferrous Materials | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| N-CT-PO |  | JIS | 403 |
| | | ANSI | |
| M 3 ÷ 12 | Carbide Taps Spiral Pointed for Non-Ferrous Materials | YMW | |

| MATERIAL SPECIFIC | | DIN | 389 |
|---|---|---|---|
| CT LA |  | JIS | |
| | | ANSI | |
| M 3 ÷ M12 | Carbide Taps for Light Alloys | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| N-CT LA |  | JIS | 405 |
| | | ANSI | |
| M 1.4 ÷ 20 | Carbide Taps for Light Alloys | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| ACHSP |  | JIS | 411 |
| | | ANSI | |
| M 6 ÷ 10 | Carbide Taps Spiral Fluted with Axial Coolant Hole for Cored Holes in Aluminium, Coated | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| MC-AD-CT |  | JIS | 409 |
| | | ANSI | |
| M 6 ÷ 12 | Carbide Taps with Axial Coolant Hole, Coated | YMW | |

| MATERIAL SPECIFIC | | DIN | 391 |
|---|---|---|---|
| UH-CT |  | JIS | |
| | | ANSI | |
| M 3 ÷ M20 | Carbide Taps for Ultra Hard Materials (<63HRC), Coated | YMW | |

# LineUp arranged by type of thread

| | | | |
|---|---|---|---|
| **HIGH SPEED** |  | DIN | |
| **HFICT-B** | | JIS | 412 |
| | | ANSI | |
| **M 6 ÷ 12** | Carbide Taps with Axial Coolant Hole for Cast Iron Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| **HIGH SPEED** |  | DIN | |
| **HFICT-P** | | JIS | 413 |
| | | ANSI | |
| **M 6 ÷ 12** | Carbide Taps with Radial Coolant Holes for Cast Iron Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| **HIGH SPEED** |  | DIN | |
| **HFACT-B** | | JIS | 414 |
| | | ANSI | |
| **M 6 ÷ 12** | Carbide Taps with Axial Coolant Hole for Non-Ferrous Materials Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| **HIGH SPEED** |  | DIN | |
| **HFACT-P** | | JIS | 415 |
| | | ANSI | |
| **M 6 ÷ 12** | Carbide Taps with Radial Coolant Holes for Non-Ferrous Materials Ultra Fast Tapping, Coated | YMW | |

## LONG - Long shank taps



| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | |
| **VUSP (LS)** | | JIS | 423 |
| | | ANSI | |
| **M 3 ÷ 16** | Long Shank HSSP Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-SP** | | JIS | 425 |
| | | ANSI | |
| **M 2 ÷ 30** | Long Shank Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-SP-K** | | JIS | 431 |
| | | ANSI | |
| **M 3 ÷ 6** | Long Shank Spiral Fluted Taps with Long Neck | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-SP LH** | | JIS | 432 |
| | | ANSI | |
| **M 3 ÷ 16** | Long Shank Spiral Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-SP V** | | JIS | 433 |
| | | ANSI | |
| **M 3 ÷ 12** | Long Shank Spiral Fluted Taps, coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **MC-SP** | | JIS | 434 |
| | | ANSI | |
| **M 6 ÷ 30** | Long Shank Spiral Fluted Taps with Axial Coolant Hole | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **LS-PM-SP** | | JIS | 437 |
| | | ANSI | |
| **M 3 ÷ 30** | Long Shank Spiral Fluted Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **LS-SU-S-SP** | | JIS | 439 |
| | | ANSI | |
| **M 3 ÷ 24** | Long Shank Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | |
| **VUPO (LS)** | | JIS | 441 |
| | | ANSI | |
| **M 3 ÷ 16** | Long Shank HSSP Spiral Pointed Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-PO** | | JIS | 443 |
| | | ANSI | |
| **M 2 ÷ 30** | Long Shank Spiral Pointed Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-PO-K** | | JIS | 448 |
| | | ANSI | |
| **M 3 ÷ 6** | Long Shank Spiral Pointed Taps with Long Neck | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-PO V** | | JIS | 449 |
| | | ANSI | |
| **M 3 ÷ 12** | Long Shank Spiral Pointed Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **MC-PO** | | JIS | 450 |
| | | ANSI | |
| **M 6 ÷ 30** | Long Shank Spiral Pointed Taps with Radial Coolant Holes | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **LS-PM-PO** | | JIS | 453 |
| | | ANSI | |
| **M 3 ÷ 30** | Long Shank Spiral Pointed Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **LS-SU-S-PO** | | JIS | 455 |
| | | ANSI | |
| **M 3 ÷ 24** | Long Shank Spiral Pointed Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-HT** | | JIS | 457 |
| | | ANSI | |
| **M 2 ÷ 48** | Long Shank Straight Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-HT LH** | | JIS | 475 |
| | | ANSI | |
| **M 3 ÷ 30** | Long Shank Straight Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **LS-HT V** | | JIS | 479 |
| | | ANSI | |
| **M 3 ÷ 12** | Long Shank Straight Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **MC-HT** | | JIS | 481 |
| | | ANSI | |
| **M 6 ÷ 30** | Long Shank Straight Fluted Taps with Axial (Blind) and Radial (Through) Coolant Holes | YMW | |



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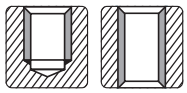
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| Z-PRO | | DIN | |
|---|---|---|---|
| MHRZ (LS) | | JIS | 485 |
| | | ANSI | |
| M 6 ÷ 12 | Long Shank Roll Taps for Carbon Steel of Medium Hardness, Coated | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-N-RZ | | JIS | 487 |
| | | ANSI | |
| M 3 ÷ 10 | Long Shank Thread Forming Taps for Steel | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-N-RS | | JIS | 489 |
| | | ANSI | |
| M 3 ÷ 10 | Long Shank Thread Forming Taps for Non-Ferrous Materials | YMW | |

## HAND TAPS - Taps for hand and drilling machine application



| HAND TAPS | | DIN | 495 |
|---|---|---|---|
| 6110 | | JIS | |
| | | ANSI | |
| M 2 ÷ 24 | Serial taps for manual use | YMW | |

| HAND TAPS | | DIN | 497 |
|---|---|---|---|
| HT DIN352 | | JIS | |
| | | ANSI | |
| M 2 ÷ 24 | Straight Fluted Taps for manual and drilling machine use | YMW | |

| HAND TAPS | | DIN | |
|---|---|---|---|
| ISP | | JIS | 500 |
| | | ANSI | |
| M 3 ÷ 10 | Spiral Fluted Taps for manual and drilling machine use | YMW | |

| HAND TAPS | | DIN | |
|---|---|---|---|
| IPO | | JIS | 501 |
| | | ANSI | |
| M 3 ÷ 10 | Spiral Pointed Taps for manual drilling machine use | YMW | |

| HAND TAPS | | DIN | |
|---|---|---|---|
| IHT | | JIS | 502 |
| | | ANSI | |
| M 3 ÷ 10 | Straight Fluted Taps for manual and drilling machine use | YMW | |

## Special threads, gauges



| GENERAL PURPOSE | | DIN | 533 |
|---|---|---|---|
| 6000 | | JIS | |
| | | ANSI | |
| M 3 ÷ 10 | Nut Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| NT | | JIS | 535 |
| | | ANSI | |
| M 2 ÷ 42 | Nut Taps | YMW | |

## Dies

| DIES | | DIN | 590 |
|---|---|---|---|
| DPO | | JIS | |
| | | ANSI | |
| M 1 ÷ 36 | HSS Spiral Pointed Dies | YMW | |

| DIES | | DIN | |
|---|---|---|---|
| HS-D | | JIS | 595 |
| | | ANSI | |
| M 1 ÷ 10 | HSS Round Dies for Automatic Lathe for Stainless Steel | YMW | |

# MF

## SP - Spiral fluted taps



| Z-PRO | | DIN | 82 |
|---|---|---|---|
| VUSP | | JIS | |
| | | ANSI | |
| MF 3 ÷ 24 | HSSP Spiral Fluted Taps, Coated | YMW | |

| Z-PRO | | DIN | 85 |
|---|---|---|---|
| VUSP E(1.5P) | | JIS | |
| | | ANSI | |
| MF 3 ÷ 16 | HSSP Spiral Fluted Taps 1.5P, Coated | YMW | |

| Z-PRO | | DIN | 87 |
|---|---|---|---|
| VUSP CH | | JIS | |
| | | ANSI | |
| MF 8 ÷ 16 | HSSP Spiral Fluted with Axial Coolant Hole, Coated | YMW | |

| Z-PRO | | DIN | 93 |
|---|---|---|---|
| HVSP | | JIS | |
| | | ANSI | |
| MF 30 ÷ 48 | Spiral Fluted Taps for large forged parts in the heavy metalworking industry | YMW | |

| Z-PRO | | DIN | 97 |
|---|---|---|---|
| MHSP | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated | YMW | |

| GENERAL PURPOSE | | DIN | 100 |
|---|---|---|---|
| SP | | JIS | 144 |
| | | ANSI | |
| MF 2 ÷ 48 | Spiral Fluted Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| SP 1.5P | | JIS | 151 |
| | | ANSI | |
| MF 8 ÷ 16 | Spiral Fluted Taps 1.5P | YMW | |

# LineUp arranged by type of thread

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 105 |
| SP LH | | JIS | 153 |
| | | ANSI | |
| MF 8 ÷ 30 | Spiral Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 111 |
| SP V | | JIS | |
| | | ANSI | |
| MF 8 ÷ 20 | Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | 113 |
| LO-SP OX | | JIS | |
| | | ANSI | |
| MF 8 ÷ 30 | Low Spiral Fluted Taps, Oxided | YMW | |

| | | | |
|---|---|---|---|
| MULTI PURPOSE |  | DIN | 115 |
| AU+SP | | JIS | |
| | | ANSI | |
| MF 8 ÷ 20 | Plus Series Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 117 |
| PH-SP | | JIS | |
| | | ANSI | |
| MF 8 ÷ 30 | Spiral Fluted Taps for Hard Materials (<35HRC) | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 119 |
| PM-SP | | JIS | |
| | | ANSI | |
| MF 8 ÷ 30 | Spiral Fluted Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 125 |
| SP-VA | | JIS | |
| | | ANSI | |
| MF 6 ÷ 30 | Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 129 |
| SP-VA E(1.5P) | | JIS | |
| | | ANSI | |
| MF 8 ÷ 16 | 1.5P Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| SU+SP/SU-SP | | JIS | 156 |
| | | ANSI | |
| MF 6 ÷ 42 | Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| AL+SP/AL-SP | | JIS | 159 |
| | | ANSI | |
| MF 10 ÷ 16 | Spiral Fluted Taps for Aluminium | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| AL-SP 1.5P | | JIS | 161 |
| | | ANSI | |
| MF 10 ÷ 16 | Spiral Fluted Taps for Aluminium 1.5P | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 135 |
| ZEN-B | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Spiral Fluted Taps for Nickel Base Alloys | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 137 |
| ZET-B | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Low Spiral Fluted Taps for Titanium Base Alloys | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | 138 |
| HFIHS | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | 139 |
| HFISP | | JIS | |
| | | ANSI | |
| MF 10 ÷ 18 | Low Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | 140 |
| HFAHS | | JIS | |
| | | ANSI | |
| MF 10 ÷ 12 | Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | 141 |
| HFASP | | JIS | |
| | | ANSI | |
| MF 10 ÷ 12 | Low Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated | YMW | |

## SL - Left spiral fluted taps



| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | 185 |
| MHSL Mini | | JIS | |
| | | ANSI | |
| MF 5 | Left Spiral Fluted Taps for Thermal Refined Steel <45HRC, Coated | YMW | |

| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | 187 |
| MHSL | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Left Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated | YMW | |

| | | | |
|---|---|---|---|
| MULTI PURPOSE |  | DIN | 189 |
| AU+SL | | JIS | |
| | | ANSI | |
| MF 8 ÷ 20 | Plus Series Left Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | 193 |
| ZET-P | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Left Spiral Fluted Taps for Titanium Base Alloys | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | 194 |
| HDISL | | JIS | |
| | | ANSI | |
| MF 10 ÷ 16 | Left Spiral Fluted Taps with Radial Coolant Holes for Ultra High Speed Tapping, Coated | YMW | |



Think threads with YAMAWA

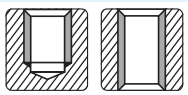
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## PO - Spiral pointed taps



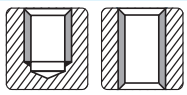
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|---|---|---|---|
| Z-PRO<br>**VUPO**<br>MF 3 ÷ 24 |  <br>HSSP Spiral Pointed Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 206 |
| GENERAL PURPOSE<br>**PO**<br>MF 2 ÷ 50 |  <br>Spiral Pointed Taps | DIN<br>JIS<br>ANSI<br>YMW | 210<br>230 |
| GENERAL PURPOSE<br>**PO LH**<br>MF 8 ÷ 30 |  <br>Spiral Pointed Taps for Left Hand Threads | DIN<br>JIS<br>ANSI<br>YMW | 237 |
| GENERAL PURPOSE<br>**PO V**<br>MF 8 ÷ 20 |  <br>Spiral Pointed Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 217 |
| MATERIAL SPECIFIC<br>**PM-PO**<br>MF 8 ÷ 30 |  <br>Spiral Pointed Taps for Hard Materials (<45HRC) | DIN<br>JIS<br>ANSI<br>YMW | 219 |
| MATERIAL SPECIFIC<br>**PO-VA**<br>MF 8 ÷ 24 |  <br>Spiral Pointed Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 223 |
| MATERIAL SPECIFIC<br>**SU+PO/SU-PO**<br>MF 6 ÷ 30 |  <br>Spiral Pointed Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 240 |
| MATERIAL SPECIFIC<br>**ZEN-P**<br>MF 10 ÷ 16 |  <br>Spiral Pointed Taps for Nickel Base Alloys | DIN<br>JIS<br>ANSI<br>YMW | 227 |

## ST - Straight fluted taps



| | | | |
|---|---|---|---|
| Z-PRO<br>**GGST**<br>MF 8 ÷ 24 |  <br>Straight Fluted Taps for Cast Iron, Coated | DIN<br>JIS<br>ANSI<br>YMW | 261 |
| Z-PRO<br>**GGST CH**<br>MF 8 ÷ 20 |  <br>Straight Fluted Taps for Cast Iron with Axial Coolant Hole, Coated | DIN<br>JIS<br>ANSI<br>YMW | 263 |
| Z-PRO<br>**GGST CH E(1.5P)**<br>MF 10 ÷ 16 |  <br>Straight Fluted Taps 1.5P, for Cast Iron with Axial Coolant Hole, Coated | DIN<br>JIS<br>ANSI<br>YMW | 265 |
| GENERAL PURPOSE<br>**HT**<br>MF 1 ÷ 100 |  <br>Straight Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | 267<br>285 |
| GENERAL PURPOSE<br>**HT LH**<br>MF 3 ÷ 50 |  <br>Straight Fluted Taps for Left Hand Threads | DIN<br>JIS<br>ANSI<br>YMW | 308 |
| MATERIAL SPECIFIC<br>**SU-HT**<br>MF 6 ÷ 30 |  <br>Straight Fluted Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 317 |
| MATERIAL SPECIFIC<br>**GG-HT**<br>MF 8 ÷ 24 |  <br>Straight Fluted Taps for Cast Iron | DIN<br>JIS<br>ANSI<br>YMW | 275 |
| MATERIAL SPECIFIC<br>**LA-HT**<br>MF 8 ÷ 24 |  <br>Straight Fluted Taps for Die Cast Materials | DIN<br>JIS<br>ANSI<br>YMW | 321 |
| MATERIAL SPECIFIC<br>**AXE-HT**<br>MF 10 ÷ 12 |  <br>AXE Straight Fluted Taps for Die Cast Aluminium Alloys, Coated | DIN<br>JIS<br>ANSI<br>YMW | 279 |

## ROLL - Forming taps



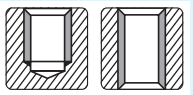
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|---|---|---|---|
| Z-PRO<br>**MHRZ**<br>MF 10 ÷ 20 |  <br>Roll Taps for Carbon Steel of Medium Hardness, Coated | DIN<br>JIS<br>ANSI<br>YMW | 343 |
| GENERAL PURPOSE<br>**N+RZ/N-RZ**<br>MF 2 ÷ 20 |  <br>Thread Forming Taps for Steel | DIN<br>JIS<br>ANSI<br>YMW | 361 |
| GENERAL PURPOSE<br>**N+RS/N-RS**<br>MF 2 ÷ 20 |  <br>Thread Forming Taps for Non-Ferrous Materials | DIN<br>JIS<br>ANSI<br>YMW | 367 |
| MULTI PURPOSE<br>**HP+RZ/HP-RZ**<br>MF 10 ÷ 20 |  <br>High Performance Thread Forming Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 351<br>372 |

# LineUp arranged by type of thread

| | | | |
|---|---|---|---|
| MULTI PURPOSE |  | DIN | |
| SURZ | | JIS | 375 |
| | | ANSI | |
| MF 1.6 | Thread Forming Taps for Stainless Steel, Coated | YMW | |

| | | | |
|---|---|---|---|
| MULTI PURPOSE |  | DIN | |
| SC-TL-RZ | | JIS | 377 |
| | | ANSI | |
| MF 1.4 ÷ 1.6 | Torqueless Thread Forming Taps with short chamfer, Coated | YMW | |

## CT - Carbide taps



| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| N-CT FC | | JIS | 394 |
| | | ANSI | |
| MF 3 ÷ M24 | Carbide Taps for Cast Iron | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| LS-N-CT | | JIS | 399 |
| | | ANSI | |
| MF 10 ÷ 24 | Long Shank Carbide Taps | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| N-CT-SP | | JIS | 401 |
| | | ANSI | |
| MF 10 ÷ 24 | Carbide Taps Spiral Fluted for Non-Ferrous Materials | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| N-CT LA | | JIS | 406 |
| | | ANSI | |
| MF 4 ÷ 20 | Carbide Taps for Light Alloys | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| ACHSP | | JIS | 411 |
| | | ANSI | |
| MF 10 | Carbide Taps Spiral Fluted with Axial Coolant Hole for Cored Holes in Aluminium, Coated | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| MC-AD-CT | | JIS | 409 |
| | | ANSI | |
| MF 10 ÷ 12 | Carbide Taps with Axial Coolant Hole, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | |
| HFICT-B | | JIS | 412 |
| | | ANSI | |
| MF 10 ÷ 12 | Carbide Taps with Axial Coolant Hole for Cast Iron Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | |
| HFICT-P | | JIS | 413 |
| | | ANSI | |
| MF 10 ÷ 12 | Carbide Taps with Radial Coolant Holes for Cast Iron Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | |
| HFACT-B | | JIS | 414 |
| | | ANSI | |
| MF 10 ÷ 12 | Carbide Taps with Axial Coolant Hole for Non-Ferrous Materials Ultra Fast Tapping, Coated | YMW | |

| | | | |
|---|---|---|---|
| HIGH SPEED |  | DIN | |
| HFACT-P | | JIS | 415 |
| | | ANSI | |
| MF 10 ÷ 12 | Carbide Taps with Radial Coolant Holes for Non-Ferrous Materials Ultra Fast Tapping, Coated | YMW | |

## LONG - Long shank taps



| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | |
| VUSP (LS) | | JIS | 423 |
| | | ANSI | |
| MF 3 ÷ 16 | Long Shank HSSP Spiral Fluted Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| LS-SP | | JIS | 426 |
| | | ANSI | |
| MF 6 ÷ 30 | Long Shank Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| LS-SP LH | | JIS | 432 |
| | | ANSI | |
| MF 10 ÷ 16 | Long Shank Spiral Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| LS-SP V | | JIS | 433 |
| | | ANSI | |
| MF 10 ÷ 12 | Long Shank Spiral Fluted Taps, coated | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| MC-SP | | JIS | 435 |
| | | ANSI | |
| MF 10 ÷ 30 | Long Shank Spiral Fluted Taps with Axial Coolant Hole | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| LS-PM-SP | | JIS | 437 |
| | | ANSI | |
| MF 10 ÷ 30 | Long Shank Spiral Fluted Taps for Hard Materials (<45HRC) | YMW | |

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | |
| LS-SU-S-SP | | JIS | 439 |
| | | ANSI | |
| MF 10 ÷ 24 | Long Shank Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| Z-PRO |  | DIN | |
| VUPO (LS) | | JIS | 441 |
| | | ANSI | |
| MF 3 ÷ 16 | Long Shank HSSP Spiral Pointed Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| LS-PO | | JIS | 444 |
| | | ANSI | |
| MF 8 ÷ 30 | Long Shank Spiral Pointed Taps | YMW | |

| | | | |
|---|---|---|---|
| GENERAL PURPOSE |  | DIN | |
| LS-PO V | | JIS | 449 |
| | | ANSI | |
| MF 10 ÷ 12 | Long Shank Spiral Pointed Taps, Coated | YMW | |



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| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| MC-PO | | JIS | 451 | |
| | | ANSI | | |
| MF 10 ÷ 30 | Long Shank Spiral Pointed Taps with Radial Coolant Holes | YMW | | |

| | | | | |
|---|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | | |
| LS-PM-PO | | JIS | 453 | |
| | | ANSI | | |
| MF 10 ÷ 30 | Long Shank Spiral Pointed Taps for Hard Materials (<45HRC) | YMW | | |

| | | | | |
|---|---|---|---|---|
| MATERIAL SPECIFIC |  | DIN | | |
| LS-SU-S-PO | | JIS | 455 | |
| | | ANSI | | |
| MF 10 ÷ 24 | Long Shank Spiral Pointed Taps for Stainless Steel | YMW | | |

| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| LS-HT | | JIS | 461 | |
| | | ANSI | | |
| MF 8 ÷ 48 | Long Shank Straight Fluted Taps | YMW | | |

| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| LS-HT LH | | JIS | 476 | |
| | | ANSI | | |
| MF 10 ÷ 30 | Long Shank Straight Fluted Taps for Left Hand Threads | YMW | | |

| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| LS-HT V | | JIS | 479 | |
| | | ANSI | | |
| MF 10 ÷ 12 | Long Shank Straight Fluted Taps, Coated | YMW | | |

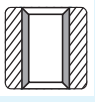
| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| MC-HT | | JIS | 482 | |
| | | ANSI | | |
| MF 10 ÷ 30 | Long Shank Straight Fluted Taps with Axial (Blind) and Radial (Through) Coolant Holes | YMW | | |

| | | | | |
|---|---|---|---|---|
| Z-PRO |  | DIN | | |
| MHRZ (LS) | | JIS | 485 | |
| | | ANSI | | |
| MF 10 ÷ 16 | Long Shank Roll Taps for Carbon Steel of Medium Hardness, Coated | YMW | | |

| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| LS-N-RZ | | JIS | 487 | |
| | | ANSI | | |
| MF 10 | Long Shank Thread Forming Taps for Steel | YMW | | |

| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| LS-N-RS | | JIS | 489 | |
| | | ANSI | | |
| MF 10 | Long Shank Thread Forming Taps for Non-Ferrous Materials | YMW | | |

## Special threads, gauges



| | | | | |
|---|---|---|---|---|
| GENERAL PURPOSE |  | DIN | | |
| NT | | JIS | 535 | |
| | | ANSI | | |
| MF 6 ÷ 30 | Nut Taps | YMW | | |

## Dies

| | | | | |
|---|---|---|---|---|
| DIES |  | DIN | 591 | |
| DPO | | JIS | | |
| | | ANSI | | |
| MF 2 ÷ 30 | HSS Spiral Pointed Dies | YMW | | |

| | | | | |
|---|---|---|---|---|
| DIES |  | DIN | | |
| HS-D | | JIS | 596 | |
| | | ANSI | | |
| MF 2 ÷ 10 | HSS Round Dies for Automatic Lathe for Stainless Steel | YMW | | |

# M-MF

## Special threads, gauges

| | | | | |
|---|---|---|---|---|
| INSPECTION TOOLS |  | DIN | | |
| SIT | | JIS | | |
| | | ANSI | | |
| M-MF 2 ÷ 24 | Simple Thread Inspection Tools | YMW | 553 | |

| | | | | |
|---|---|---|---|---|
| INSPECTION TOOLS |  | DIN | | |
| SITD | | JIS | | |
| | | ANSI | | |
| M-MF 2 ÷ 18 | Simple Thread Inspection Tools, Tandem Type | YMW | 559 | |

| | | | | |
|---|---|---|---|---|
| INSPECTION TOOLS |  | DIN | | |
| CPC-S | | JIS | | |
| | | ANSI | | |
| M-MF 2 ÷ 12 | Check Pins (Straight Type) for Bored Hole for Cutting Taps | YMW | 565 | |

| | | | | |
|---|---|---|---|---|
| INSPECTION TOOLS |  | DIN | | |
| CPR-S | | JIS | | |
| | | ANSI | | |
| M-MF 2 ÷ 12 | Check Pins (Straight Type) for Bored Hole for Forming Taps | YMW | 577 | |

## Thread mills

| | | | | |
|---|---|---|---|---|
| THREAD MILLS |  | DIN | | |
| PRML | | JIS | | |
| | | ANSI | | |
| M-MF 5 ÷ 12 | Premium Thread Mills | YMW | 583 | |

| | | | | |
|---|---|---|---|---|
| THREAD MILLS |  | DIN | | |
| PRML TI | | JIS | | |
| | | ANSI | | |
| M-MF 8 ÷ 12 | Premium Thread Mills | YMW | 585 | |

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# LineUp arranged by type of thread

## UNC

### SP - Spiral fluted taps



| | | | |
|---|---|---|---|
| Z-PRO<br>**VUSP**<br>UNC No.5 ÷ 5/8 |  <br>HSSP Spiral Fluted Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 82 |
| Z-PRO<br>**HVSP**<br>UNC 1 ÷ 2 |  <br>Spiral Fluted Taps for large forged parts in the heavy metalworking industry | DIN<br>JIS<br>ANSI<br>YMW | 94 |
| GENERAL PURPOSE<br>**SP**<br>UNC No.1 ÷ 2 |  <br>Spiral Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | 101<br>147<br>163 |
| GENERAL PURPOSE<br>**SP LH**<br>UNC 1/4 ÷ 1/2 |  <br>Spiral Fluted Taps for Left Hand Threads | DIN<br>JIS<br>ANSI<br>YMW | 153 |
| MATERIAL SPECIFIC<br>**SP-VA**<br>UNC No.4 ÷ 1 1/2 |  <br>Spiral Fluted Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 126 |
| MATERIAL SPECIFIC<br>**SU+SP/SU-SP**<br>UNC No.2 ÷ 1 |  <br>Spiral Fluted Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 157 |
| MATERIAL SPECIFIC<br>**ZELX SS SP**<br>UNC No.2 ÷ 2 |  <br>Spiral Fluted Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 166 |
| MATERIAL SPECIFIC<br>**ZELX AL SP**<br>UNC No.2 ÷ 1/2 |  <br>Spiral Fluted Taps for Aluminium | DIN<br>JIS<br>ANSI<br>YMW | 173 |
| MATERIAL SPECIFIC<br>**ZEN-B**<br>UNC No.4 ÷ 3/4 |  <br>Spiral Fluted Taps for Nickel Base Alloys | DIN<br>JIS<br>ANSI<br>YMW | 135 |
| MATERIAL SPECIFIC<br>**ZELX NI SP**<br>UNC No.2 ÷ 3/4 |  <br>Spiral Fluted Taps for Nickel Base Alloys | DIN<br>JIS<br>ANSI<br>YMW | 175 |
| MATERIAL SPECIFIC<br>**ZET-B**<br>UNC No.4 ÷ 3/4 |  <br>Low Spiral Fluted Taps for Titanium Base Alloys | DIN<br>JIS<br>ANSI<br>YMW | 137 |
| MATERIAL SPECIFIC<br>**ZELX TI SP**<br>UNC No.2 ÷ 1/2 |  <br>Low Spiral Fluted Taps for Titanium Base Alloys | DIN<br>JIS<br>ANSI<br>YMW | 178 |

### SL - Left spiral fluted taps



| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC<br>**ZELX TI LHSP**<br>UNC No.2 ÷ 3/4 |  <br>Left Spiral Fluted Taps for Titanium Base Alloys | DIN<br>JIS<br>ANSI<br>YMW | 196 |

### PO - Spiral pointed taps



| | | | |
|---|---|---|---|
| Z-PRO<br>**VUPO**<br>UNC No.5 ÷ 3/4 |  <br>HSSP Spiral Pointed Taps, Coated | DIN<br>JIS<br>ANSI<br>YMW | 206 |
| GENERAL PURPOSE<br>**PO**<br>UNC No.1 ÷ 1 1/2 |  <br>Spiral Pointed Taps | DIN<br>JIS<br>ANSI<br>YMW | 211<br>233<br>243 |
| GENERAL PURPOSE<br>**PO LH**<br>UNC 1/4 ÷ 1/2 |  <br>Spiral Pointed Taps for Left Hand Threads | DIN<br>JIS<br>ANSI<br>YMW | 237 |
| MATERIAL SPECIFIC<br>**PO-VA**<br>UNC No.4 ÷ 1 |  <br>Spiral Pointed Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 223 |
| MATERIAL SPECIFIC<br>**SU+PO/SU-PO**<br>UNC No.2 ÷ 5/8 |  <br>Spiral Pointed Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 240 |
| MATERIAL SPECIFIC<br>**ZELX SS PO**<br>UNC No.2 ÷ 2 |  <br>Spiral Pointed Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | 247 |
| MATERIAL SPECIFIC<br>**ZELX AL PO**<br>UNC No.2 ÷ 1/2 |  <br>Spiral Pointed Taps for Aluminium | DIN<br>JIS<br>ANSI<br>YMW | 251 |



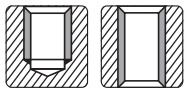
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| MATERIAL SPECIFIC | | DIN | 227 |
|---|---|---|---|
| ZEN-P |  | JIS | |
| | | ANSI | |
| UNC No.6 ÷ 3/4 | Spiral Pointed Taps for Nickel Base Alloys | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| ZELX NI PO |  | JIS | |
| | | ANSI | 253 |
| UNC No.2 ÷ 3/4 | Spiral Pointed Taps for Nickel Base Alloys | YMW | |

## ST - Straight fluted taps



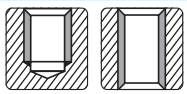
| GENERAL PURPOSE | | DIN | 267 |
|---|---|---|---|
| HT |  | JIS | 298 |
| | | ANSI | 327 |
| UNC No.1 ÷ 2 | Straight Fluted Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT LH |  | JIS | 313 |
| | | ANSI | |
| UNC No.5 ÷ 1 | Straight Fluted Taps for Left Hand Threads | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| ZELX MOLD |  | JIS | |
| | | ANSI | 337 |
| UNC No.4 ÷ 3/4 | Straight Fluted Taps for Hard Materials (<45HRC) | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| SU-HT |  | JIS | 318 |
| | | ANSI | |
| UNC 1/4 ÷ 3/4 | Straight Fluted Taps for Stainless Steel | YMW | |

## ROLL - Forming taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| N+RZ/N-RZ |  | JIS | 362 |
| | | ANSI | |
| UNC No.4 ÷ 1/2 | Thread Forming Taps for Steel | YMW | |

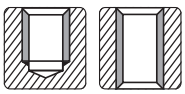
| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| N+RS/N-RS |  | JIS | 368 |
| | | ANSI | |
| UNC No.2 ÷ 1/4 | Thread Forming Taps for Non-Ferrous Materials | YMW | |

| MULTI PURPOSE | | DIN | |
|---|---|---|---|
| HP+RZ/HP-RZ |  | JIS | 372 |
| | | ANSI | 381 |
| UNC No.2 ÷ 1/2 | High Performance Thread Forming Taps, Coated | YMW | |

| MULTI PURPOSE | | DIN | |
|---|---|---|---|
| SURZ |  | JIS | 375 |
| | | ANSI | |
| UNC No.2 ÷ No.6 | Thread Forming Taps for Stainless Steel, Coated | YMW | |

| MULTI PURPOSE | | DIN | |
|---|---|---|---|
| SC-TL-RZ |  | JIS | 377 |
| | | ANSI | |
| UNC No.2 ÷ No.4 | Torqueless Thread Forming Taps with short chamfer, Coated | YMW | |

## CT - Carbide taps



| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| N-CT FC |  | JIS | 395 |
| | | ANSI | |
| UNC No.4 ÷ 3/4 | Carbide Taps for Cast Iron | YMW | |

## LONG - Long shank taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-SP |  | JIS | 427 |
| | | ANSI | |
| UNC 1/4 ÷ 1 | Long Shank Spiral Fluted Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-PO |  | JIS | 445 |
| | | ANSI | |
| UNC 1/4 ÷ 1 | Long Shank Spiral Pointed Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-HT |  | JIS | 465 |
| | | ANSI | |
| UNC 1/4 ÷ 1 | Long Shank Straight Fluted Taps | YMW | |

## Dies

| DIES | | DIN | 592 |
|---|---|---|---|
| DPO |  | JIS | |
| | | ANSI | |
| UNC No.1 ÷ 1 | HSS Spiral Pointed Dies | YMW | |

## UNF

## SP - Spiral fluted taps



| Z-PRO | | DIN | 83 |
|---|---|---|---|
| VUSP |  | JIS | |
| | | ANSI | |
| UNF No.5 ÷ 1/4 | HSSP Spiral Fluted Taps, Coated | YMW | |

# LineUp arranged by type of thread

| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 94 |
| **HVSP** | | JIS | |
| | | ANSI | |
| **UNF 1 ÷ 1 1/2** | Spiral Fluted Taps for large forged parts in the heavy metalworking industry | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 102 |
| **SP** | | JIS | 148 |
| | | ANSI | 164 |
| **UNF No.2 ÷ 1 1/2** | Spiral Fluted Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **SP LH** | | JIS | 153 |
| | | ANSI | |
| **UNF 1/4 ÷ 1/2** | Spiral Fluted Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 126 |
| **SP-VA** | | JIS | |
| | | ANSI | |
| **UNF No.10 ÷ 1 1/2** | Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **SU+SP/SU-SP** | | JIS | 157 |
| | | ANSI | |
| **UNF No.4 ÷ 1** | Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX SS SP** | | JIS | |
| | | ANSI | 168 |
| **UNF No.4 ÷ 1 1/2** | Spiral Fluted Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX AL SP** | | JIS | |
| | | ANSI | 173 |
| **UNF No.10 ÷ 1/2** | Spiral Fluted Taps for Aluminium | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 135 |
| **ZEN-B** | | JIS | |
| | | ANSI | |
| **UNF No.10 ÷ 3/4** | Spiral Fluted Taps for Nickel Base Alloys | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX NI SP** | | JIS | |
| | | ANSI | 176 |
| **UNF No.10 ÷ 3/4** | Spiral Fluted Taps for Nickel Base Alloys | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 137 |
| **ZET-B** | | JIS | |
| | | ANSI | |
| **UNF No.6 ÷ 1/2** | Low Spiral Fluted Taps for Titanium Base Alloys | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX TI SP** | | JIS | |
| | | ANSI | 179 |
| **UNF No.10 ÷ 1/2** | Low Spiral Fluted Taps for Titanium Base Alloys | YMW | |

## SL - Left spiral fluted taps



| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX TI LHSP** | | JIS | |
| | | ANSI | 197 |
| **UNF No.6 ÷ 3/4** | Left Spiral Fluted Taps for Titanium Base Alloys | YMW | |

## PO - Spiral pointed taps



| | | | |
|---|---|---|---|
| **Z-PRO** |  | DIN | 207 |
| **VUPO** | | JIS | |
| | | ANSI | |
| **UNF No.5 ÷ 3/4** | HSSP Spiral Pointed Taps, Coated | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 211 |
| **PO** | | JIS | 234 |
| | | ANSI | 244 |
| **UNF No.0 ÷ 1 1/2** | Spiral Pointed Taps | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **PO LH** | | JIS | 237 |
| | | ANSI | |
| **UNF 1/4 ÷ 1/2** | Spiral Pointed Taps for Left Hand Threads | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 224 |
| **PO-VA** | | JIS | |
| | | ANSI | |
| **UNF No.10 ÷ 1** | Spiral Pointed Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **SU+PO/SU-PO** | | JIS | 241 |
| | | ANSI | |
| **UNF No.4 ÷ 9/16** | Spiral Pointed Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX SS PO** | | JIS | |
| | | ANSI | 248 |
| **UNF No.4 ÷ 1 1/2** | Spiral Pointed Taps for Stainless Steel | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX AL PO** | | JIS | |
| | | ANSI | 251 |
| **UNF No.10 ÷ 1/2** | Spiral Pointed Taps for Aluminium | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | 227 |
| **ZEN-P** | | JIS | |
| | | ANSI | |
| **UNF No.10 ÷ 3/4** | Spiral Pointed Taps for Nickel Base Alloys | YMW | |

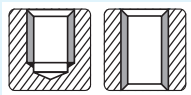
| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX NI PO** | | JIS | |
| | | ANSI | 253 |
| **UNF No.6 ÷ 3/4** | Spiral Pointed Taps for Nickel Base Alloys | YMW | |



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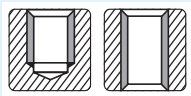
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## ST - Straight fluted taps



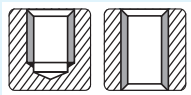
| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**HT** |  | DIN | 267 |
| | | JIS | 300 |
| | | ANSI | 329 |
| UNF No.0 ÷ 1 1/2 | Straight Fluted Taps | YMW | |
| GENERAL PURPOSE<br>**HT LH** |  | DIN | |
| | | JIS | 313 |
| | | ANSI | |
| UNF No.12 ÷ 1 | Straight Fluted Taps for Left Hand Threads | YMW | |
| MATERIAL SPECIFIC<br>**ZELX MOLD** |  | DIN | |
| | | JIS | |
| | | ANSI | 337 |
| UNF No.10 ÷ 3/4 | Straight Fluted Taps for Hard Materials (<45HRC) | YMW | |
| MATERIAL SPECIFIC<br>**SU-HT** |  | DIN | |
| | | JIS | 319 |
| | | ANSI | |
| UNF 1/4 ÷ 3/4 | Straight Fluted Taps for Stainless Steel | YMW | |

## ROLL - Forming taps



| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**N+RZ/N-RZ** |  | DIN | |
| | | JIS | 363 |
| | | ANSI | |
| UNF 3/8 ÷ 1/2 | Thread Forming Taps for Steel | YMW | |
| GENERAL PURPOSE<br>**N+RS/N-RS** |  | DIN | |
| | | JIS | 369 |
| | | ANSI | |
| UNF No.0 ÷ 1/4 | Thread Forming Taps for Non-Ferrous Materials | YMW | |
| MULTI PURPOSE<br>**HP+RZ/HP-RZ** |  | DIN | |
| | | JIS | 373 |
| | | ANSI | 381 |
| UNF No.2 ÷ 1/2 | High Performance Thread Forming Taps, Coated | YMW | |

## CT - Carbide taps



| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC<br>**N-CT FC** |  | DIN | |
| | | JIS | 396 |
| | | ANSI | |
| UNF No.4 ÷ 3/4 | Carbide Taps for Cast Iron | YMW | |

## LONG - Long shank taps



| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**LS-SP** |  | DIN | |
| | | JIS | 428 |
| | | ANSI | |
| UNF 1/4 ÷ 1 | Long Shank Spiral Fluted Taps | YMW | |
| GENERAL PURPOSE<br>**LS-PO** |  | DIN | |
| | | JIS | 446 |
| | | ANSI | |
| UNF 1/4 ÷ 1 | Long Shank Spiral Pointed Taps | YMW | |
| GENERAL PURPOSE<br>**LS-HT** |  | DIN | |
| | | JIS | 466 |
| | | ANSI | |
| UNF 1/4 ÷ 1 | Long Shank Straight Fluted Taps | YMW | |

## Dies

| | | | |
|---|---|---|---|
| DIES<br>**DPO** |  | DIN | 593 |
| | | JIS | |
| | | ANSI | |
| UNF No.0 ÷ 1 | HSS Spiral Pointed Dies | YMW | |

# UNC-UNF

## Special threads, gauges

| | | | |
|---|---|---|---|
| INSPECTION TOOLS<br>**SIT** |  | DIN | |
| | | JIS | |
| | | ANSI | |
| UNC-UNF No.2 ÷ 5/8 | Simple Thread Inspection Tools | YMW | 556 |
| INSPECTION TOOLS<br>**SITD** |  | DIN | |
| | | JIS | |
| | | ANSI | |
| UNC-UNF No.2 ÷ 5/8 | Simple Thread Inspection Tools, Tandem Type | YMW | 560 |
| INSPECTION TOOLS<br>**CPC-S** |  | DIN | |
| | | JIS | |
| | | ANSI | |
| UNC-UNF No.2 ÷ 1/2 | Check Pins (Straight Type) for Bored Hole for Cutting Taps | YMW | 570 |
| INSPECTION TOOLS<br>**CPR-S** |  | DIN | |
| | | JIS | |
| | | ANSI | |
| UNC-UNF No.2 ÷ 1/2 | Check Pins (Straight Type) for Bored Hole for Forming Taps | YMW | 577 |

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# LineUp arranged by type of thread

## Thread mills

| THREAD MILLS | | | | |
|---|---|---|---|---|
| PRML |  | | DIN | |
| | | | JIS | |
| | | | ANSI | |
| UNC-UNF No.10 ÷ 1/2 | Premium Thread Mills | | YMW | 583 |

| THREAD MILLS | | | | |
|---|---|---|---|---|
| PRML TI |  | | DIN | |
| | | | JIS | |
| | | | ANSI | |
| UNC-UNF 5/16 ÷ 1/2 | Premium Thread Mills | | YMW | 585 |

## UNS

### SP - Spiral fluted taps

| GENERAL PURPOSE | | | | |
|---|---|---|---|---|
| SP |  | | DIN | |
| | | | JIS | 148 |
| | | | ANSI | |
| UNS 1 ÷ 1 1/8 | Spiral Fluted Taps | | YMW | |

### PO - Spiral pointed taps

| GENERAL PURPOSE | | | | |
|---|---|---|---|---|
| PO |  | | DIN | |
| | | | JIS | 234 |
| | | | ANSI | |
| UNS 1 | Spiral Pointed Taps | | YMW | |

### ST - Straight fluted taps

| GENERAL PURPOSE | | | | |
|---|---|---|---|---|
| HT |  | | DIN | |
| | | | JIS | 302 |
| | | | ANSI | |
| UNS 7/16 ÷ 1 5/8 | Straight Fluted Taps | | YMW | |

## 8UN

### SP - Spiral fluted taps

| Z-PRO | | | | |
|---|---|---|---|---|
| HVSP |  | | DIN | 94 |
| | | | JIS | |
| | | | ANSI | |
| 8UN 1 1/8 ÷ 2 | Spiral Fluted Taps for large forged parts in the heavy metalworking industry | | YMW | |

| GENERAL PURPOSE | | | | |
|---|---|---|---|---|
| SP |  | | DIN | |
| | | | JIS | 149 |
| | | | ANSI | |
| 8UN 1 1/8 ÷ 1 1/2 | Spiral Fluted Taps | | YMW | |

| MATERIAL SPECIFIC | | | | |
|---|---|---|---|---|
| SP-VA |  | | DIN | 127 |
| | | | JIS | |
| | | | ANSI | |
| 8UN 1 1/8 ÷ 2 | Spiral Fluted Taps for Stainless Steel | | YMW | |

### ST - Straight fluted taps

| GENERAL PURPOSE | | | | |
|---|---|---|---|---|
| HT |  | | DIN | |
| | | | JIS | 302 |
| | | | ANSI | |
| 8UN 1 1/8 ÷ 3 | Straight Fluted Taps | | YMW | |

## 12UN

### SP - Spiral fluted taps

| Z-PRO | | | | |
|---|---|---|---|---|
| HVSP |  | | DIN | 94 |
| | | | JIS | |
| | | | ANSI | |
| 12UN 1 3/4 | Spiral Fluted Taps for large forged parts in the heavy metalworking industry | | YMW | |

| GENERAL PURPOSE | | | | |
|---|---|---|---|---|
| SP |  | | DIN | |
| | | | JIS | 149 |
| | | | ANSI | |
| 12UN 1 3/4 ÷ 2 | Spiral Fluted Taps | | YMW | |



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## ST - Straight fluted taps

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT |  | JIS | 303 |
| | | ANSI | |
| 12UN 1 1/16 ÷ 2 | Straight Fluted Taps | YMW | |

## 20UN

## ST - Straight fluted taps

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT |  | JIS | 303 |
| | | ANSI | |
| 20UN 9/16 ÷ 5/8 | Straight Fluted Taps | YMW | |

## 32UN

## ST - Straight fluted taps

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT |  | JIS | 303 |
| | | ANSI | |
| 32UN 1/2 | Straight Fluted Taps | YMW | |

## UNEF

## SP - Spiral fluted taps

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| SP |  | JIS | 149 |
| | | ANSI | |
| UNEF 1/4 ÷ 1 | Spiral Fluted Taps | YMW | |

## PO - Spiral pointed taps

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| PO |  | JIS | 234 |
| | | ANSI | |
| UNEF 1/4 ÷ 3/4 | Spiral Pointed Taps | YMW | |

## ST - Straight fluted taps

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT |  | JIS | 303 |
| | | ANSI | |
| UNEF No.12 ÷ 1 | Straight Fluted Taps | YMW | |

## G(BSP)

## SP - Spiral fluted taps

| Z-PRO | | DIN | 88 |
|---|---|---|---|
| AUSP G |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Spiral Fluted Taps for Parallel Pipe Threads, Coated | YMW | |

| GENERAL PURPOSE | | DIN | 102 |
|---|---|---|---|
| SP |  | JIS | |
| | | ANSI | |
| G 1/16 ÷ 1 1/2 | Spiral Fluted Taps | YMW | |

| GENERAL PURPOSE | | DIN | 111 |
|---|---|---|---|
| SP V |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1/2 | Spiral Fluted Taps, Coated | YMW | |

| GENERAL PURPOSE | | DIN | 113 |
|---|---|---|---|
| LO-SP OX |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Low Spiral Fluted Taps, Oxided | YMW | |

| MATERIAL SPECIFIC | | DIN | 117 |
|---|---|---|---|
| PH-SP |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1/2 | Spiral Fluted Taps for Hard Materials (<35HRC) | YMW | |

| MATERIAL SPECIFIC | | DIN | 127 |
|---|---|---|---|
| SP-VA |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Spiral Fluted Taps for Stainless Steel | YMW | |

# LineUp arranged by type of thread

| MATERIAL SPECIFIC | | DIN | 131 |
|---|---|---|---|
| SU2-SP |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 3/4 | Spiral Fluted Taps for Tough Stainless Steel | YMW | |

## PO - Spiral pointed taps

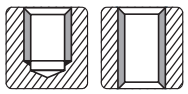


| GENERAL PURPOSE | | DIN | 212 |
|---|---|---|---|
| PO |  | JIS | |
| | | ANSI | |
| G 1/16 ÷ 1 1/2 | Spiral Pointed Taps | YMW | |

| GENERAL PURPOSE | | DIN | 217 |
|---|---|---|---|
| PO V |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1/2 | Spiral Pointed Taps, Coated | YMW | |

| MATERIAL SPECIFIC | | DIN | 224 |
|---|---|---|---|
| PO-VA |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Spiral Pointed Taps for Stainless Steel | YMW | |

## ST - Straight fluted taps



| Z-PRO | | DIN | 261 |
|---|---|---|---|
| GGST |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Straight Fluted Taps for Cast Iron, Coated | YMW | |

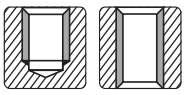
| GENERAL PURPOSE | | DIN | 268 |
|---|---|---|---|
| HT |  | JIS | |
| | | ANSI | |
| G 1/16 ÷ 1 1/2 | Straight Fluted Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| PF LH |  | JIS | 315 |
| | | ANSI | |
| G 1/8 ÷ 2 | Straight Fluted Taps for Parallel Pipe Threads, for Left Hand Threads | YMW | |

| MATERIAL SPECIFIC | | DIN | 271 |
|---|---|---|---|
| EH-HT |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1/2 | Straight Fluted Taps for Hard Materials (<45HRC) | YMW | |

| MATERIAL SPECIFIC | | DIN | 275 |
|---|---|---|---|
| GG-HT |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Straight Fluted Taps for Cast Iron | YMW | |

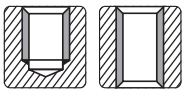
## ROLL - Forming taps



| GENERAL PURPOSE | | DIN | 345 |
|---|---|---|---|
| R-D |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 3/8 | Thread Forming Taps for Low Hardness Materials | YMW | |

| GENERAL PURPOSE | | DIN | 347 |
|---|---|---|---|
| R-D V |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 3/8 | Thread Forming Taps for Low Hardness Materials, Coated | YMW | |

## CT - Carbide taps



| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| CT-PF |  | JIS | 397 |
| | | ANSI | |
| G 1/8 ÷ 1 | Carbide Taps for Parallel Pipe Threads, for Cast Iron and Non-Ferrous Materials | YMW | |

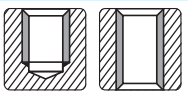
## LONG - Long shank taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-SP-PF |  | JIS | 430 |
| | | ANSI | |
| G 1/8 ÷ 1 | Long Shank Spiral Fluted Taps for Parallel Pipe Threads | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-PF |  | JIS | 468 |
| | | ANSI | |
| G 1/8 ÷ 2 | Long Shank Straight Fluted Taps for Parallel Pipe Threads | YMW | |

## HAND TAPS - Taps for hand and drilling machine application



| HAND TAPS | | DIN | 498 |
|---|---|---|---|
| 6412 |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Serial taps for manual use | YMW | |

| HAND TAPS | | DIN | 499 |
|---|---|---|---|
| HT DIN5157 |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 | Straight Fluted Taps for manual and drilling machine use | YMW | |



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## Dies

| DIES | | DIN | 593 |
|---|---|---|---|
| DPO |  | JIS | |
| | | ANSI | |
| G 1/8 ÷ 1 1/2 | HSS Spiral Pointed Dies | YMW | |

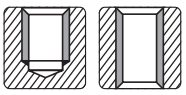
# Rp(BSPP)

## SP - Spiral fluted taps



| Z-PRO | | DIN | 89 |
|---|---|---|---|
| AUSP Rp |  | JIS | |
| | | ANSI | |
| Rp 1/8 ÷ 1 | Spiral Fluted Taps for Parallel Pipe Threads, Coated | YMW | |

## LONG - Long shank taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-PS |  | JIS | 469 |
| | | ANSI | |
| Rp 1/8 ÷ 1 1/2 | Long Shank Straight Fluted Taps for Parallel Pipe Threads | YMW | |

# Rc(BSPT)

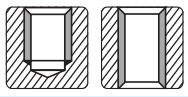
## SP - Spiral fluted taps



| Z-PRO | | DIN | 91 |
|---|---|---|---|
| AUSP Rc |  | JIS | |
| | | ANSI | |
| Rc 1/16 ÷ 1 | Spiral Fluted Taps for Taper Pipe Threads, Coated | YMW | |

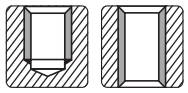
| MATERIAL SPECIFIC | | DIN | 121 |
|---|---|---|---|
| PMSP |  | JIS | |
| | | ANSI | |
| Rc 1/8 ÷ 1 | Spiral Fluted Taps for Hard Materials (<45HRC) | YMW | |

## ST - Straight fluted taps



| MATERIAL SPECIFIC | | DIN | 273 |
|---|---|---|---|
| PMST |  | JIS | |
| | | ANSI | |
| Rc 1/8 ÷ 1 | Straight Fluted Taps for Hard Materials (<45HRC) | YMW | |

## LONG - Long shank taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-PT |  | JIS | 471 |
| | | ANSI | |
| Rp 1/16 ÷ 2 | Long Shank Straight Fluted Taps for Taper Pipe Threads | YMW | |

# NPT

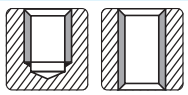
## SP - Spiral fluted taps



| MATERIAL SPECIFIC | | DIN | 127 |
|---|---|---|---|
| SP-VA |  | JIS | |
| | | ANSI | |
| NPT 1/8 ÷ 1 | Spiral Fluted Taps for Stainless Steel | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| ZELX SS NPT |  | JIS | |
| | | ANSI | 170 |
| NPT 1/16 ÷ 1 | Taps for American Taper Pipe Threads, for stainless steel | YMW | |

## ST - Straight fluted taps

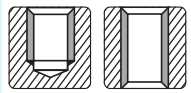


| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| NPT |  | JIS | |
| | | ANSI | 332 |
| NPT 1/16 ÷ 2 | Straight Fluted Taps for American Taper Pipe Threads | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| ZELX MOLD NPT |  | JIS | |
| | | ANSI | 338 |
| NPT 1/8 ÷ 3/4 | Straight Fluted Taps for American Taper Pipe Threads, for Hard Materials (<45HRC) | YMW | |

# LineUp arranged by type of thread

## LONG - Long shank taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-NPT |  | JIS | 472 |
| | | ANSI | |
| NPT 1/16 ÷ 1 | Long Shank Straight Fluted Taps for American Taper Pipe Threads | YMW | |

## Dies

| DIES | | DIN | 593 |
|---|---|---|---|
| DPO |  | JIS | |
| | | ANSI | |
| NPT 1/8 ÷ 1 | HSS Spiral Pointed Dies | YMW | |

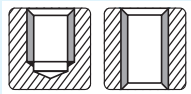
# NPTF

## SP - Spiral fluted taps



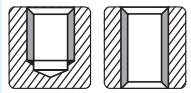
| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| ZELX SS NPTF |  | JIS | |
| | | ANSI | 171 |
| NPTF 1/16 ÷ 1 | Taps for American Dryseal Taper Pipe Threads, for stainless steel | YMW | |

## ST - Straight fluted taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| NPTF |  | JIS | |
| | | ANSI | 333 |
| NPTF 1/16 ÷ 2 | Straight Fluted Taps for American Dryseal Taper Pipe Threads | YMW | |

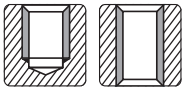
## LONG - Long shank taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| LS-NPTF |  | JIS | 473 |
| | | ANSI | |
| NPTF 1/16 ÷ 1 | Long Shank Straight Fluted Taps for American Dryseal Taper Pipe Threads | YMW | |

# NPS

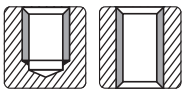
## ST - Straight fluted taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| NPS |  | JIS | |
| | | ANSI | 334 |
| NPS 1/8 ÷ 1 | Straight Fluted Taps for American Parallel Pipe Threads | YMW | |

# NPSF

## ST - Straight fluted taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| NPSF |  | JIS | |
| | | ANSI | 335 |
| NPSF 1/8 ÷ 1 | Straight Fluted Taps for American Dryseal Parallel Pipe Threads | YMW | |

# BSW

## SP - Spiral fluted taps



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| SP |  | JIS | 149 |
| | | ANSI | |
| BSW 1/8 ÷ 2 | Spiral Fluted Taps | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| SP LH |  | JIS | 153 |
| | | ANSI | |
| BSW 1/4 ÷ 3/4 | Spiral Fluted Taps for Left Hand Threads | YMW | |

| MATERIAL SPECIFIC | | DIN | |
|---|---|---|---|
| SU+SP/SU-SP |  | JIS | 157 |
| | | ANSI | |
| BSW 3/16 ÷ 1 | Spiral Fluted Taps for Stainless Steel | YMW | |



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## PO - Spiral pointed taps

| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**PO**<br>BSW 1/8 ÷ 2 |  Spiral Pointed Taps | DIN<br>JIS<br>ANSI<br>YMW | <br>235<br><br> |
| GENERAL PURPOSE<br>**PO LH**<br>BSW 1/4 ÷ 3/4 |  Spiral Pointed Taps for Left Hand Threads | DIN<br>JIS<br>ANSI<br>YMW | <br>237<br><br> |
| MATERIAL SPECIFIC<br>**SU+PO/SU-PO**<br>BSW 3/16 ÷ 1 |  Spiral Pointed Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | <br>241<br><br> |

## ST - Straight fluted taps

| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**HT**<br>BSW 1/16 ÷ 4 |  Straight Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | <br>304<br><br> |
| GENERAL PURPOSE<br>**HT LH**<br>BSW 1/8 ÷ 1 1/8 |  Straight Fluted Taps for Left Hand Threads | DIN<br>JIS<br>ANSI<br>YMW | <br>314<br><br> |
| MATERIAL SPECIFIC<br>**SU-HT**<br>BSW 1/4 ÷ 3/4 |  Straight Fluted Taps for Stainless Steel | DIN<br>JIS<br>ANSI<br>YMW | <br>319<br><br> |

## LONG - Long shank taps

| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**LS-SP**<br>BSW 1/4 ÷ 1 |  Long Shank Spiral Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | <br>428<br><br> |
| GENERAL PURPOSE<br>**LS-PO**<br>BSW 1/4 ÷ 1 |  Long Shank Spiral Pointed Taps | DIN<br>JIS<br>ANSI<br>YMW | <br>446<br><br> |
| GENERAL PURPOSE<br>**LS-HT**<br>BSW 1/4 ÷ 1 |  Long Shank Straight Fluted Taps | DIN<br>JIS<br>ANSI<br>YMW | <br>467<br><br> |

## Special threads, gauges

| | | | |
|---|---|---|---|
| GENERAL PURPOSE<br>**NT**<br>BSW 1/8 ÷ 1 1/2 |  Nut Taps | DIN<br>JIS<br>ANSI<br>YMW | <br>536<br><br> |

## EG(STI) M

## EG(STI)

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC<br>**AL-SP STI**<br>EG M 3 ÷ 24 |  Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | DIN<br>JIS<br>ANSI<br>YMW | <br>507<br><br> |
| MATERIAL SPECIFIC<br>**AL-PO STI**<br>EG M 3 ÷ 12 |  Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | DIN<br>JIS<br>ANSI<br>YMW | <br>509<br><br> |
| MATERIAL SPECIFIC<br>**AL-HT STI**<br>EG M 2.6 ÷ 24 |  Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | DIN<br>JIS<br>ANSI<br>YMW | <br>511<br><br> |
| GENERAL PURPOSE<br>**N-RS STI**<br>EG M 3 ÷ 12 |  Thread Forming Taps for Helical Coil Wire Screw Thread Inserts | DIN<br>JIS<br>ANSI<br>YMW | <br>515<br><br> |

## EG(STI) MF

## EG(STI)

| | | | |
|---|---|---|---|
| MATERIAL SPECIFIC<br>**AL-SP STI**<br>EG MF 10 ÷ 20 |  Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | DIN<br>JIS<br>ANSI<br>YMW | <br>507<br><br> |
| MATERIAL SPECIFIC<br>**AL-HT STI**<br>EG MF 10 ÷ 24 |  Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | DIN<br>JIS<br>ANSI<br>YMW | <br>511<br><br> |

# LineUp arranged by type of thread

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **N-RS STI** | | JIS | 515 |
| | | ANSI | |
| **EG MF 10 ÷ 12** | Thread Forming Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

## EG(STI) UNC

### EG(STI)



| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **SP STI** | | JIS | |
| | | ANSI | 517 |
| **EG UNC No.2 ÷ 1/2** | Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX NI SP STI** | | JIS | |
| | | ANSI | 518 |
| **EG UNC No.2 ÷ 1/2** | Spiral Fluted Taps for Nickel Base Alloys, for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **PO STI** | | JIS | |
| | | ANSI | 521 |
| **EG UNC No.2 ÷ 1/2** | Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX NI PO STI** | | JIS | |
| | | ANSI | 523 |
| **EG UNC No.2 ÷ 1/2** | Spiral Pointed Taps for Nickel Base Alloys for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **AL-HT STI** | | JIS | 512 |
| | | ANSI | |
| **EG UNC No.4 ÷ 3/4** | Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **HT STI** | | JIS | |
| | | ANSI | 525 |
| **EG UNC No.2 ÷ 1/2** | Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

## EG(STI) UNF

### EG(STI)



| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **SP STI** | | JIS | |
| | | ANSI | 517 |
| **EG UNF No.10 ÷ 1/2** | Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX NI SP STI** | | JIS | |
| | | ANSI | 519 |
| **EG UNF No.6 ÷ 1/2** | Spiral Fluted Taps for Nickel Base Alloys, for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **PO STI** | | JIS | |
| | | ANSI | 521 |
| **EG UNF No.10 ÷ 1/2** | Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

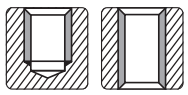
| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **ZELX NI PO STI** | | JIS | |
| | | ANSI | 523 |
| **EG UNF No.6 ÷ 1/2** | Spiral Pointed Taps for Nickel Base Alloys for Helical Coil Wire Screw Thread Inserts | YMW | |

| | | | |
|---|---|---|---|
| **MATERIAL SPECIFIC** |  | DIN | |
| **AL-HT STI** | | JIS | 513 |
| | | ANSI | |
| **EG UNF No.4 ÷ 3/4** | Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **HT STI** | | JIS | |
| | | ANSI | 525 |
| **EG UNF No.10 ÷ 1/2** | Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts | YMW | |

## Pg

### Special threads, gauges



| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | 532 |
| **HT Pg** | | JIS | |
| | | ANSI | |
| **Pg 7 ÷ 36** | Straight Fluted Taps for Pg Threads | YMW | |

## Tr

### Special threads, gauges



| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **SL Tr** | | JIS | 540 |
| | | ANSI | |
| **Tr 10 ÷ 30** | Left Spiral Fluted Taps for Trapezoidal Threads | YMW | |

| | | | |
|---|---|---|---|
| **GENERAL PURPOSE** |  | DIN | |
| **SL LH Tr** | | JIS | 541 |
| | | ANSI | |
| **Tr 10 ÷ 30** | Spiral Fluted Taps for Trapezoidal Left Hand Threads | YMW | |

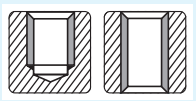


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## S Miniature

Special threads, gauges



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| MS+TR |  | JIS | 537 |
| | | ANSI | |
| S 0.4 ÷ 0.9 | Straight Fluted Taps for Miniature Threads | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| MS+RS |  | JIS | 538 |
| | | ANSI | |
| S 0.6 ÷ 0.9 | Roll Taps for Miniature Threads | YMW | |

| MULTI PURPOSE | | DIN | |
|---|---|---|---|
| HPsRZ |  | JIS | 539 |
| | | ANSI | |
| S 0.6 ÷ 0.9 | High Performance Roll Taps for Miniature Threads, Coated | YMW | |

## TRI

Special threads, gauges

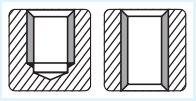


| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| SP TRI |  | JIS | 542 |
| | | ANSI | |
| TRI 1/4 | Spiral Fluted Taps for Tripod Threads | YMW | |

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT TRI |  | JIS | 543 |
| | | ANSI | |
| TRI 1/4 | Straight Fluted Taps for Tripod Threads | YMW | |

## RLS

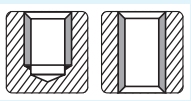
Special threads, gauges



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| RLS-HT |  | JIS | 544 |
| | | ANSI | |
| RLS 3.4 | Straight Fluted Taps for Camera Release Threads | YMW | |

## V

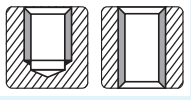
Special threads, gauges



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT TV |  | JIS | 545 |
| | | ANSI | |
| TV 5V1 ÷ 13V2 | Straight fluted Taps for Automobile Tire Valve Threads | YMW | |

## CTV

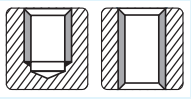
Special threads, gauges



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT CTV |  | JIS | 547 |
| | | ANSI | |
| CTV 5 ÷ 8 | Straight fluted Taps for Bicycle Tire Valve Threads | YMW | |

## BC

Special threads, gauges



| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT BC |  | JIS | 549 |
| | | ANSI | |
| BC 5/16 ÷ 1 9/16 | Straight Fluted Taps for Bicycle Threads | YMW | |

## CTC

Special threads, gauges

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT CTC |  | JIS | 550 |
| | | ANSI | |
| CTC 19 ÷ 39 | Straight Fluted Taps for Metal Thin-Walled Conduit Threads | YMW | |

# LineUp arranged by type of thread

## CTG

### Special threads, gauges

| GENERAL PURPOSE | | DIN | |
|---|---|---|---|
| HT CTG |  | JIS | 551 |
| | | ANSI | |
| CTC 16 ÷ 42 | Straight Fluted Taps for Metal Thick-Walled Conduit Threads | YMW | |

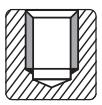
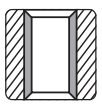


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# Icons

Legenda · Verzeichnis · Légende · Leyenda · Название

| | |
|---|---|
| HSS | High speed steel<br>Acciaio super rapido<br>Schnellarbeitsstahl HSS<br>Acier super rapide<br>Acero super rápido<br>Быстрорежущая сталь |
| HSS-E | Class E high speed steel<br>Acciaio super rapido di classe E<br>Schnellarbeitsstahl HSS Klasse E<br>Acier super rapide de catégorie E<br>Acero super rápido de clase E<br>Быстрорежущая сталь с ванадием |
| HSS-Co | High speed steel (Cobalt HSS)<br>Acciaio super rapido al cobalto<br>Legierter Kobalt Schnellarbeitsstahl HSS<br>Acier super rapide au cobalt<br>Acero super rápido (aleación de cobalto)<br>Быстрорежущая сталь с кобальтом |
| HSS-P | Powder HSS<br>Acciaio super rapido sinterizzato<br>Gesinterter Schnellarbeitsstahl HSS<br>Acier super rapide fritté<br>Acero super rápido sinterizado<br>Порошковая быстрорежущая сталь |
| HF CARBIDE | Ultra micro grain cemented carbide<br>Metallo duro micrograna ultra fine<br>Feinstkornhartmetall<br>Carbure ultramicrograin<br>Metal duro micragrana ultra fina<br>Ультра-мелкозернистый твердый сплав |
| COATING | Coated<br>Rivestito<br>Beschichtet<br>Revêtu<br>Recubierto<br>С покрытием |
| OX | Oxidizing<br>Vaporizzazione<br>Vaporisieren (Dampfangelassen)<br>Traitement vapeur<br>Vaporizado<br>Оксидирование |
| NI | Nitriding<br>Nitrurazione<br>Nitrieren<br>Nitruré<br>Nitrurizado<br>Азотирование |
| NX | Nitriding/Oxidizing<br>Nitrurazione/Vaporizzazione<br>Nitrieren/Vaporisieren<br>Nitruré/Traitement vapeur<br>Nitrurizado/Vaporizado<br>Азотирование/оксидирование |
|  | Central coolant hole<br>Foro di refrigerazione centrale<br>Interner Kühlung<br>Arrosage par le centre<br>Canal de refrigeración central<br>Центральное отверстие для СОЖ |
|  | Radial coolant hole<br>Fori di refrigerazione radiali<br>Radialer Kühlung<br>Arrosage radial<br>Canales de refrigeración radiales<br>Радиальные отверстия для СОЖ |
|  SYNCHRO | Synchronized<br>Per maschiatura sincronizzata<br>Für synchronisierte Gewindebohrung<br>Pour taraudage synchronisé<br>Sincronizado<br>Синхронизация |
|  LH LEFT HAND | For left-hand thread<br>Per filettatura sinistra<br>Für Linksgewinde<br>Pour taraudage pas à gauche<br>Para roscado izquierdo<br>Для левой резьбы |
|  V-F-M SET | V-M-F chamfer for DIN hand set<br>Imbocco V-M-F per serie a mano<br>V-M-F Anschnitt für DIN Handgewindebohrer Sets<br>Entrée V-M-F taraud main<br>Entrada V-M-F para serie a mano DIN<br>Заходные части V-M-F по DIN для набора метчиков |
|  ...P THCHT | Chamfer length (no. of pitches)<br>Numero di filetti di imbocco<br>Anschnittlänge (Anzahl Gänge)<br>Nombre de filet d'entrée<br>Longitud entrada (no. Pasos)<br>Длина заходной части (кол. шагов) |
|  ISO... (6...) TCTR | Tap tolerance<br>Tolleranza del maschio<br>Gewindebohrer Toleranz<br>Tolérance de taraud<br>Tolerancia del macho<br>Допуск метчика |
|  | Blind hole<br>Foro cieco<br>Sackloch<br>Trou borgne<br>Agujero ciego<br>Глухое отверстие |
|  | Through hole<br>Foro passante<br>Durchgangsloch<br>Trou débouchant<br>Agujero pasante<br>Сквозное отверстие |



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Spiral fluted tap blind hole
Maschio elicoidale per fori ciechi
Spiralgenuteter Gewindebohrer für Sacklöcher
Taraud hélicoïdal pour trou borgne
Macho helicoidal para agujeros ciegos
Спиральный метчик для глухого отверстия



Low spiral fluted tap blind hole
Elica 15° per fori ciechi
Sackloch Gewindebohrer mit geringem Drallwinkel
Hélice 15° pour trou débouchant
Hélice 15° para agujeros ciegos
Метчик с малым углом наклона канавки для глухого отверстия



Left spiral fluted tap through hole
Maschio con elica sinistra per fori passanti
Gewindebohrer mit linksgedrallter Spiralnut für Durchgangslöcher
Taraud à hélice gauche pour trou débouchant
Macho con hélice izquierda para agujeros pasantes
Метчик с левой спиралью для сквозного отверстия



Spiral pointed tap through hole
Maschio con imbocco corretto per fori passanti
Gewindebohrer mit Schälanschnitt für Durchgangslöcher
Taraud à entrée corrigée pour trou débouchant
Machos con entrada corregida para agujero pasante
Спиральный метчик с подточкой для сквозного отверстия



Straight fluted taps for blind hole
Maschio a tagliente dritto per fori ciechi
Geradegenuteter Gewindebohrer für Sacklöcher
Taraud à goujures droites pour trou borgne
Macho con ranuras rectas para agujero ciego
Метчик с прямыми канавками для глухого отверстия



Straight fluted taps for through hole
Maschio a tagliente dritto per fori passanti
Geradegenuteter Gewindebohrer für Durchgangslöcher
Taraud à goujures droites pour trou débouchant
Macho con ranuras rectas para agujero pasante
Метчик с прямыми канавками для сквозного отверстия



Roll tap for blind hole
Maschio a rullare per fori ciechi
Gewindeformer für Sacklöcher
Taraud à déformation pour trou borgne
Macho de laminación para agujero ciego
Раскатник для глухого отверстия



Roll tap for through hole
Maschio a rullare per fori passanti
Gewindeformer für Durchgangslöcher
Taraud à déformation pour trou débouchant
Macho de laminación para agujero pasante
Раскатник для сквозного отверстия

# Coloured Rings

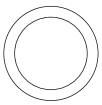
Anelli Colorati · Gefärbte Ringe · Anneaux de Couleur · Anillos Colorados · Цветные кольца



Hard steel 30~45 HRC
Acciaio 30~45 HRC
Stahl 30~45 HRC
Acier 30~45 HRC
Aceros 30~45 HRC
Стали 30~45 HRC



Stainless steel and general steel
Acciai inossidabili e acciai (generale)
Rostfreie Stähle und allgemeine Stähle
Aciers inoxydables et aciers (général)
Aceros inoxidables y aceros
Нержавеющие стали и стали



Cast iron
Ghisa
Gusseisen
Fonte
Fundición
Чугун



Aluminium casting and diecasting (Si≤12%)
Fusioni e pressocolate di alluminio (Si ≤ 12%)
Aluminium-Gusslegierungen (Si ≤ 12%)
Aluminium moulé sous pression (Si ≤ 12%)
Fundiciones de aluminio (Si ≤ 12%)
Алюминий и порошковый алюминий(Si ≤ 12%)



Nickel base alloy, alloy steel (CrMo, NiCrMo) and stainless steel (V4A)
Leghe a base di nichel, leghe di acciaio (CrMo, NiCrMo) e acciaio inox
Nickellegierungen, legierter Stahl (CrMo, NiCrMo) und Edelstahl
Alliage à base de nickel, acier allié (CrMo, NiCrMo) et acier inoxydable
Aleaciones base Nickel, aleaciones de acero (CrMo, NiCrMo) y aceros inoxidables
Сплавы на основе никеля, легированные стали (CrMo, NiCrMo) и нержаеющие стали



Titanium alloy, alloy steel (CrMo, NiCrMo) ≥500 N/mm²
Leghe di titanio, leghe di acciaio (CrMo, NiCrMo) ≥ 500 N/mm²
Titanlegierungen, legierte Stähle (CrMo, NiCrMo) ≥ 500 N/mm²
Alliage de titane, acier allié (CrMo, NiCrMo) ≥ 500 N / mm²
Aleaciones de Titanio, Aleaciones de acero (CrMo, NiCrMo) ≥ 500 N/mm²
Сплавы титана, легированные стали (CrMo, NiCrMo) ≥ 500 N/mm²

MEMO

# SPIRAL FLUTED TAPS



SP - DIN **080**
SP - JIS **142**
SP - ANSI **162**

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# Selection Chart



| | VUSP | VUSP ISO3X(6GX) | VUSP 7GX | VUSP ISO2X(6HX)+100 | VUSP E(1.5P) | VUSP CH | AUSP G | AUSP Rp |
|---|---|---|---|---|---|---|---|---|
| | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-E COATING | HSS-E COATING |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | DIN | DIN | DIN | DIN | DIN | DIN | DIN | DIN |
| M | 81 | 81 | 81 | 81 | 85 | 87 | | |
| MF | 82 | | | | 85 | 87 | | |
| UNC/UNF | 82 | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | |
| UNEF | | | | | | | | |
| G (BSP) | | | | | | | 88 | |
| Rp (BSPP) | | | | | | | | 89 |
| Rc (BSPT) | | | | | | | | |
| NPT | | | | | | | | |
| NPTF | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | |
| BSW | | | | | | | | |
| EG(STI) M, MF, UNC/UNF | | | | | | | | |
| Pg | | | | | | | | |
| Tr | | | | | | | | |
| S miniature | | | | | | | | |
| Special threads | | | | | | | | |
| | Vc (m/min) | | | | | | | |
| P1 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 5÷10 | ★ 5÷10 |
| P2 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 5÷10 | ★ 5÷10 |
| P3 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 5÷10 | ★ 5÷10 |
| P4 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ☆ 5÷10 | ☆ 5÷10 |
| P5 | | | | | | | | |
| P6 | | | | | | | | |
| P7 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ ≤5 | ★ ≤5 |
| P8 | | | | | | | | |
| M1 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ ≤5 | ★ ≤5 |
| M2 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ★ ≤5 | ★ ≤5 |
| M3 | | | | | | | | |
| K1 | | | | | | | | |
| K2 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ ≤5 | ☆ ≤5 |
| K3 | | | | | | | | |
| K4 | | | | | | | | |
| N1 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 5÷15 | ★ 5÷15 |
| N2 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 5÷15 | ★ 5÷15 |
| N3 | ☆ 10÷25 | ☆ 10÷25 | ☆ 10÷25 | ☆ 10÷25 | ☆ 10÷25 | ☆ 10÷25 | ☆ 5÷15 | ☆ 5÷15 |
| N4 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ ≤5 | ☆ ≤5 |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | |
| S5 | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | GP | | | | | | | |
| **AUSP Rc** | **HVSP** | **MHSP** | **SP** | **SP ISO3(6G)** | **SP ISO2(6H)+50** | **SP ISO2(6H)+100** | **SP 1.5P** | | | |
| HSS-E COATING | HSS-E OX | HSS-Co COATING | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | | | |
|  |  |  |  |  |  |  |  | | | |
|  |  |  |  |  |  |  |  | | | |
| | | |  | | | | | | | |
| DIN | DIN | DIN | DIN | JIS | ANSI | DIN | DIN | DIN | JIS | |
| | 93 | 97 | 99 | 142 | | 99 | 99 | 99 | 151 | M |
| | 93 | 97 | 100 | 144 | | | | | 151 | MF |
| | 94 | | 101 | 147 | 163 | | | | | UNC/UNF |
| | 94 | | | 148 | | | | | | UNS, 8, 12, 20, 32UN |
| | | | | 149 | | | | | | UNEF |
| | | | 102 | | | | | | | G (BSP) |
| | | | | | | | | | | Rp (BSPP) |
| 91 | | | | | | | | | | Rc (BSPT) |
| | | | | | | | | | | NPT |
| | | | | | | | | | | NPTF |
| | | | | | | | | | | NPSC, NPSM, NPSF |
| | | | | 149 | | | | | | BSW |
| | | | | | | | | | | EG(STI) M, MF, UNC/UNF |
| | | | | | | | | | | Pg |
| | | | | | | | | | | Tr |
| | | | | | | | | | | S miniature |
| | | | | | | | | | | Special threads |
| **Vc (m/min)** | | | | | | | | | | |
| ★ ≤7 | ★ 3÷8 | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | **P1** |
| ★ ≤7 | ★ 3÷8 | ★ 10÷30 | ★ 5÷10 | | ★ 5÷10 | | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | **P2** |
| ★ ≤7 | ★ 3÷8 | ★ 10÷25 | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | **P3** |
| ☆ ≤5 | ☆ 3÷8 | ★ 10÷20 | ☆ 5÷8 | | ☆ 5÷8 | | ☆ 5÷8 | ☆ 5÷8 | ☆ 5÷8 | **P4** |
| | | ☆ 10÷15 | | | | | | | | **P5** |
| | | | | | | | | | | **P6** |
| ★ ≤3 | ★ 3÷8 | | | | | | | | | **P7** |
| | | | | | | | | | | **P8** |
| ★ ≤3 | ★ 3÷8 | | | | | | | | | **M1** |
| ★ ≤3 | ★ 3÷8 | | | | | | | | | **M2** |
| | | | | | | | | | | **M3** |
| | | | | | | | | | | **K1** |
| ☆ ≤5 | | | | | | | | | | **K2** |
| | | | | | | | | | | **K3** |
| | | | | | | | | | | **K4** |
| ★ ≤10 | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | **N1** |
| ★ ≤10 | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | **N2** |
| ☆ ≤10 | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | **N3** |
| ☆ ≤5 | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | **N4** |
| | | | | | | | | | | **N5** |
| | | | | | | | | | | **S1 (<25 HRC)** |
| | | | | | | | | | | **S2 (<35 HRC)** |
| | | | | | | | | | | **S3 (35 ÷ 45 HRC)** |
| | | | | | | | | | | **S5** |
| | | | | | | | | | | **H (45 ÷ 55 HRC)** |
| | | | | | | | | | | **H (55 ÷ 63 HRC)** |

# Selection Chart



| | GP | | | | | MP | MS | |
|---|---|---|---|---|---|---|---|---|
| | SP LH | SP-BLF OX | SP-BLF V | SP V | LO-SP OX | AU+SP | PH-SP | PM-SP |
| | HSS-E | HSS-E OX | HSS-E COATING | HSS-E COATING | HSS-E OX | HSS-E COATING | HSS-E OX | HSS-P |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | DIN | JIS | DIN | DIN | DIN | DIN | DIN | DIN | DIN |
| M | 105 | 152 | 107 | 109 | | 112 | 115 | 117 | 119 |
| MF | 105 | 153 | | | 111 | 113 | 115 | 117 | 119 |
| UNC/UNF | | 153 | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | | |
| UNEF | | | | | | | | | |
| G (BSP) | | | | | 111 | 113 | | 117 | |
| Rp (BSPP) | | | | | | | | | |
| Rc (BSPT) | | | | | | | | | |
| NPT | | | | | | | | | |
| NPTF | | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | | |
| BSW | | 153 | | | | | | | |
| EG(STI) M, MF, UNC/UNF | | | | | | | | | |
| Pg | | | | | | | | | |
| Tr | | | | | | | | | |
| S miniature | | | | | | | | | |
| Special threads | | | | | | | | | |

| | Vc (m/min) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | ☆ | 5÷10 | ★ | 5÷10 | ★ | 10÷20 | ★ | 10÷20 | | | ★ | 10÷20 | | | | | | | | |
| P2 | ★ | 5÷10 | ★ | 5÷10 | ★ | 10÷20 | ★ | 10÷20 | ★ | 5÷10 | ★ | 10÷20 | | | | | | | | |
| P3 | ☆ | 5÷10 | ☆ | 5÷10 | ★ | 10÷20 | ★ | 10÷20 | ★ | 5÷10 | ★ | 10÷20 | ☆ | 5÷10 | ☆ | 2÷10 | | | | |
| P4 | ☆ | 5÷8 | ☆ | 5÷8 | ★ | 10÷15 | ★ | 10÷15 | ★ | 5÷10 | ★ | 10÷20 | ★ | 2÷7 | ★ | 2÷7 | | | | |
| P5 | | | ☆ | 4÷7 | | | | | | | | | ★ | ≤5 | ★ | 2÷7 | | | | |
| P6 | | | | | | | | | | | | | | | ★ | 2÷5 | | | | |
| P7 | | | ☆ | 4÷8 | ☆ | 6÷12 | ☆ | 6÷12 | | | ★ | 5÷12 | | | | | | | | |
| P8 | | | | | | | | | | | | | | | | | | | | |
| M1 | | | ☆ | 4÷8 | ☆ | 6÷12 | ☆ | 6÷12 | | | ★ | 5÷12 | | | | | | | | |
| M2 | | | | | | | | | | | ★ | 5÷10 | | | | | | | | |
| M3 | | | | | | | | | | | | | | | | | | | | |
| K1 | | | | | | | | | | | | | | | | | | | | |
| K2 | | | | | | | | | | | ☆ | 5÷15 | | | | | | | | |
| K3 | | | | | | | | | | | | | | | | | | | | |
| K4 | | | | | | | | | | | | | | | | | | | | |
| N1 | ☆ | 5÷10 | | | ☆ | 10÷20 | ☆ | 10÷20 | | | ★ | 20÷30 | | | | | | | | |
| N2 | ☆ | 5÷10 | | | ☆ | 10÷20 | ☆ | 10÷20 | | | ★ | 20÷30 | | | | | | | | |
| N3 | ☆ | 5÷10 | | | ☆ | 10÷20 | ☆ | 10÷20 | | | ☆ | 10÷20 | | | | | | | | |
| N4 | ☆ | 5÷10 | | | ☆ | 10÷20 | ☆ | 10÷20 | | | ☆ | 10÷20 | | | | | | | | |
| N5 | | | | | | | | | | | | | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | | | | | | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | | | | | | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | | | | | | | | | | | | | |
| S5 | | | | | | | | | | | | | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | | | | | | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | | | | | | | | | | | | | |

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**MS**

| PMSP | SP+VA | SP-VA | SP-VA ISO3(6G) | SP-VA E(1.5P) | SU+SP/SU-SP | ZELX SS SP | ZELX SS NPT |
|---|---|---|---|---|---|---|---|
| HSS-P OX | HSS-E OX | HSS-E OX | HSS-E OX | HSS-E OX | HSS-E OX | HSS-E OX | HSS-E OX |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

| DIN | DIN | DIN | DIN | DIN | JIS | ANSI | ANSI | |
|---|---|---|---|---|---|---|---|---|
| | 123 | 125 | 125 | 129 | 154 | | | M |
| | | 125 | | 129 | 156 | | | MF |
| | | 126 | | | 157 | 166 | | UNC/UNF |
| | | 127 | | | | | | UNS, 8, 12, 20, 32UN |
| | | | | | | | | UNEF |
| | | 127 | | | | | | G (BSP) |
| | | | | | | | | Rp (BSPP) |
| 121 | | | | | | | | Rc (BSPT) |
| | | 127 | | | | | 170 | NPT |
| | | | | | | | | NPTF |
| | | | | | | | | NPSC, NPSM, NPSF |
| | | | | | 157 | | | BSW |
| | | | | | | | | EG(STI) M, MF, UNC/UNF |
| | | | | | | | | Pg |
| | | | | | | | | Tr |
| | | | | | | | | S miniature |
| | | | | | | | | Special threads |

| Vc (m/min) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | P1 |
| | | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤5 | | P2 |
| ☆ | ≤5 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤5 | | P3 |
| ★ | ≤5 | ☆ | ≤10 | ☆ | ≤10 | ☆ | ≤10 | ☆ | ≤10 | ☆ | ≤10 | ☆ | ≤10 | ☆ | ≤5 | | P4 |
| ★ | ≤5 | | | | | | | | | | | | | | | | P5 |
| ★ | ≤5 | | | | | | | | | | | | | | | | P6 |
| | | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤5 | | P7 |
| | | | | | | | | | | | | | | | | | P8 |
| | | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤10 | ★ | ≤5 | | M1 |
| | | | | | | | | | | | | | | ★ | ≤5 | | M2 |
| | | | | | | | | | | | | | | | | | M3 |
| | | | | | | | | | | | | | | | | | K1 |
| | | | | | | | | | | | | | | | | | K2 |
| | | | | | | | | | | | | | | | | | K3 |
| | | | | | | | | | | | | | | | | | K4 |
| | | | | | | | | | | | | | | | | | N1 |
| | | | | | | | | | | | | | | | | | N2 |
| | | | | | | | | | | | | | | | | | N3 |
| | | | | | | | | | | | | | | | | | N4 |
| | | | | | | | | | | | | | | | | | N5 |
| | | | | | | | | | | | | | | | | | S1 (<25 HRC) |
| | | | | | | | | | | | | | | | | | S2 (<35 HRC) |
| | | | | | | | | | | | | | | | | | S3 (35 ÷ 45 HRC) |
| | | | | | | | | | | | | | | | | | S5 |
| | | | | | | | | | | | | | | | | | H (45 ÷ 55 HRC) |
| | | | | | | | | | | | | | | | | | H (55 ÷ 63 HRC) |

# Selection Chart



MS

| | ZELX SS NPTF | SU2-SP | AL+SP/AL-SP | AL-SP 1.5P | ZELX AL SP | ZEN-B | ZELX NI SP | ZET-B |
|---|---|---|---|---|---|---|---|---|
| | HSS-E OX | HSS-E OX | HSS-E NI | HSS-E NI | HSS-E NI | HSS-P OX | HSS-P NX | HSS-P NI |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | ANSI | DIN | DIN / JIS | JIS | ANSI | DIN | ANSI | DIN |
| M | | 131 | 133 / 159 | 161 | | 134 | | 136 |
| MF | | | / 159 | 161 | | 135 | | 137 |
| UNC/UNF | | | / | | 173 | 135 | 175 | 137 |
| UNS, 8, 12, 20, 32UN | | | / | | | | | |
| UNEF | | | / | | | | | |
| G (BSP) | | 131 | / | | | | | |
| Rp (BSPP) | | | / | | | | | |
| Rc (BSPT) | | | / | | | | | |
| NPT | | | / | | | | | |
| NPTF | 171 | | / | | | | | |
| NPSC, NPSM, NPSF | | | / | | | | | |
| BSW | | | / | | | | | |
| EG(STI) M, MF, UNC/UNF | | | / | | | | | |
| Pg | | | / | | | | | |
| Tr | | | / | | | | | |
| S miniature | | | / | | | | | |
| Special threads | | | / | | | | | |
| | Vc (m/min) | | | | | | | |
| P1 | | | | | | | ☆ 5÷15 | |
| P2 | ★ ≤5 | | | | | | ☆ 5÷15 | |
| P3 | ★ ≤5 | | | | | ★ 5÷15 | ★ 5÷15 | |
| P4 | ☆ ≤5 | | | | | ★ 5÷15 | ★ 5÷15 | ☆ 5÷10 |
| P5 | | | | | | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷8 |
| P6 | | | | | | | | ☆ 3÷6 |
| P7 | ★ ≤5 | | | | | ★ 5÷15 | ★ 5÷15 | |
| P8 | | | | | | ★ 4÷8 | ★ 4÷8 | ☆ 3÷6 |
| M1 | ★ ≤5 | ☆ 5÷15 | | | | ★ 5÷15 | ★ 5÷15 | |
| M2 | ★ ≤5 | ★ 5÷15 | | | | ★ 5÷15 | ★ 5÷15 | |
| M3 | | ★ 5÷12 | | | | ★ 4÷8 | ★ 4÷8 | ☆ 3÷6 |
| K1 | | | | | | | | |
| K2 | | | | | | | | ☆ 5÷10 |
| K3 | | | | | | | | ☆ 5÷10 |
| K4 | | | | | | | | |
| N1 | | | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | | | |
| N2 | | | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | | | |
| N3 | | | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | | | |
| N4 | | | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | | | |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | ☆ 3÷7 | | | | ★ 5÷10 | ★ 5÷10 | ☆ 5÷10 |
| S2 (<35 HRC) | | | | | | ★ 5÷10 | ★ 5÷10 | ☆ 5÷10 |
| S3 (35 ÷ 45 HRC) | | | | | | | | ★ 3÷6 |
| S5 | | | | | | | | ★ 5÷10 |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

| MS | | HS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ZELX TI SP | | HFIHS | | HFISP | | HFAHS | | HFASP | | |
| HSS-P | NI | HSS-Co | COATING | HSS-Co | COATING | HSS-Co | COATING | HSS-Co | COATING | |
|  | |  | |  | |  | |  | | |
|  | |  | |  | |  | |  | | |
|  | | | | | | | | | | |
| ANSI | | DIN | | DIN | | DIN | | DIN | | |
| | | 138 | | 139 | | 140 | | 141 | | M |
| | | 138 | | 139 | | 140 | | 141 | | MF |
| 178 | | | | | | | | | | UNC/UNF |
| | | | | | | | | | | UNS, 8, 12, 20, 32UN |
| | | | | | | | | | | UNEF |
| | | | | | | | | | | G (BSP) |
| | | | | | | | | | | Rp (BSPP) |
| | | | | | | | | | | Rc (BSPT) |
| | | | | | | | | | | NPT |
| | | | | | | | | | | NPTF |
| | | | | | | | | | | NPSC, NPSM, NPSF |
| | | | | | | | | | | BSW |
| | | | | | | | | | | EG(STI) M, MF, UNC/UNF |
| | | | | | | | | | | Pg |
| | | | | | | | | | | Tr |
| | | | | | | | | | | S miniature |
| | | | | | | | | | | Special threads |
| Vc (m/min) | | | | | | | | | | |
| | | ★ | 20÷50 | ★ | 20÷50 | | | | | P1 |
| | | ★ | 20÷50 | ★ | 20÷50 | | | | | P2 |
| | | ★ | 20÷30 | ★ | 20÷30 | | | | | P3 |
| ☆ | 5÷10 | ★ | 20÷30 | ★ | 20÷30 | | | | | P4 |
| ☆ | 5÷8 | ☆ | 15÷25 | ☆ | 15÷25 | | | | | P5 |
| ☆ | 3÷6 | | | | | | | | | P6 |
| | | ☆ | 15÷30 | ☆ | 15÷30 | | | | | P7 |
| ☆ | 3÷6 | | | | | | | | | P8 |
| | | ☆ | 15÷30 | ☆ | 15÷30 | | | | | M1 |
| | | ☆ | 15÷25 | ☆ | 15÷25 | | | | | M2 |
| ☆ | 3÷6 | | | | | | | | | M3 |
| | | ☆ | 20÷40 | ★ | 20÷40 | | | | | K1 |
| ☆ | 5÷10 | ☆ | 20÷40 | ★ | 20÷40 | | | | | K2 |
| ☆ | 5÷10 | | | | | | | | | K3 |
| | | | | | | | | | | K4 |
| | | | | | | ★ | 30÷100 | ★ | 30÷100 | N1 |
| | | | | | | ★ | 30÷100 | ★ | 30÷100 | N2 |
| | | | | | | | | | | N3 |
| | | | | | | ☆ | 30÷60 | ☆ | 30÷60 | N4 |
| | | | | | | | | | | N5 |
| ☆ | 5÷10 | | | | | | | | | S1 (<25 HRC) |
| ☆ | 5÷10 | | | | | | | | | S2 (<35 HRC) |
| ☆ | 3÷6 | | | | | | | | | S3 (35 ÷ 45 HRC) |
| ★ | 5÷10 | | | | | | | | | S5 |
| | | | | | | | | | | H (45 ÷ 55 HRC) |
| | | | | | | | | | | H (55 ÷ 63 HRC) |

# VUSP




## Z-PRO Series

HSSP Spiral Fluted Taps, Coated

HSS-P | COATING | 2.5P THCHT

**FEATURES**

Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

For wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

WATCH THE VIDEO

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 10÷25 | ★ | M1 | 5÷15 | ★ | K2 | 10÷20 | ☆ | N1 | 10÷30 | ★ |
| P2 | 10÷25 | ★ | M2 | 5÷10 | ☆ | | | | N2 | 10÷30 | ★ |
| P3 | 10÷25 | ★ | | | | | | | N3 | 10÷25 | ☆ |
| P4 | 10÷20 | ★ | | | | | | | N4 | 10÷20 | ☆ |
| P7 | 5÷15 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

### Product Features

| Lubricant | Hole shape | Hand tapping | Drilling machine | | Low speed | Middle speed |
|---|---|---|---|---|---|---|
| Emulsion | | | | | | **VUSP** Vc ≤ 25 m/min |
| | | | | | | VUPO |
| Oil | | HTset IHT | ISP | SP | SP V | AU+SP |
| | | | IPO | PO | PO V | AU+SL |

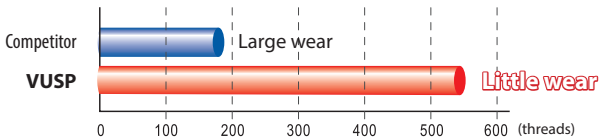
### Process Data

**M3×0.5**

| | |
|---|---|
| Work-material | Ck50 - 1.1213 |
| Thread length | 4.5 mm |
| Tapping speed | 20 m/min |
| Machine | Vertical machining center |
| Lubricant | Water soluble oil |

No wear after 250 threads with VUSP



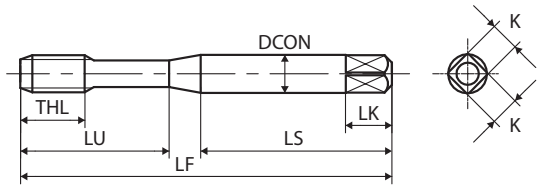




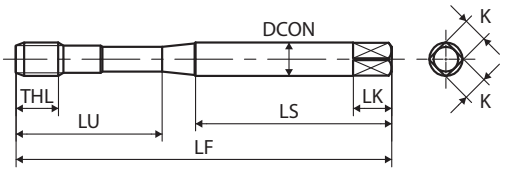

Think threads with YAMAWA

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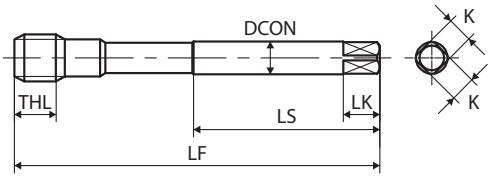
**TYPE: VU_004**




**TYPE: VU_005**




**TYPE: VU_006**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| **M2X0.4** | ISO2X(6HX) | 1.6 | 1.65 | 3101101021 | 2.5P | 45 | - | 4 | 10 | 32 | 2.8 | 2.1 | 5 | 2 | 004 | ● |
| **M2.2X0.45** | ISO2X(6HX) | 1.75 | 1.81 | 3101101024 | 2.5P | 45 | - | 4 | 11 | 32 | 2.8 | 2.1 | 5 | 2 | 004 | ● |
| **M2.3X0.4** | ISO2X(6HX) | 1.9 | 1.95 | 3101101026 | 2.5P | 45 | - | 4 | 11 | 32 | 2.8 | 2.1 | 5 | 2 | 004 | ● |
| **M2.5X0.45** | ISO2X(6HX) | 2.1 | 2.11 | 3101101029 | 2.5P | 50 | - | 4 | 15 | 32 | 2.8 | 2.1 | 5 | 2 | 004 | ● |
| **M2.6X0.45** | ISO2X(6HX) | 2.2 | 2.21 | 3101101032 | 2.5P | 50 | - | 4 | 15 | 32 | 2.8 | 2.1 | 5 | 2 | 004 | ● |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | 3101101035 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ● |
| | ISO3X(6GX) | 2.5 | 2.56 | 3101201035 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ▲ |
| | 7GX | 2.5 | 2.56 | 3101301035 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ▲ |
| | ISO2X(6HX)+100 | 2.5 | 2.56 | 3101501035 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ▲ |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | 3101101042 | 2.5P | 63 | - | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ● |
| | ISO3X(6GX) | 3.3 | 3.38 | 3101201042 | 2.5P | 63 | - | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ▲ |
| | 7GX | 3.3 | 3.38 | 3101301042 | 2.5P | 63 | - | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ▲ |
| | ISO2X(6HX)+100 | 3.3 | 3.38 | 3101501042 | 2.5P | 63 | - | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ▲ |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | 3101101049 | 2.5P | 70 | - | 9 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ● |
| | ISO3X(6GX) | 4.2 | 4.28 | 3101201049 | 2.5P | 70 | - | 9 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ▲ |
| | 7GX | 4.2 | 4.28 | 3101301049 | 2.5P | 70 | - | 9 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ▲ |
| | ISO2X(6HX)+100 | 4.2 | 4.28 | 3101501049 | 2.5P | 70 | - | 9 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ▲ |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | 3101101055 | 2.5P | 80 | - | 11 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ● |
| | ISO3X(6GX) | 5 | 5.09 | 3101201055 | 2.5P | 80 | - | 11 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ▲ |
| | 7GX | 5 | 5.09 | 3101301055 | 2.5P | 80 | - | 11 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ▲ |
| | ISO2X(6HX)+100 | 5 | 5.09 | 3101501055 | 2.5P | 80 | - | 11 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ▲ |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | 3101101064 | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 005 | ● |
| | ISO3X(6GX) | 6.8 | 6.85 | 3101201064 | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 005 | ▲ |
| | 7GX | 6.8 | 6.85 | 3101301064 | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 005 | ▲ |
| | ISO2X(6HX)+100 | 6.8 | 6.85 | 3101501064 | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 005 | ▲ |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | 3101101078 | 2.5P | 100 | - | 13 | 39 | 52.5 | 10 | 8 | 11 | 3 | 005 | ● |
| | ISO3X(6GX) | 8.5 | 8.6 | 3101201078 | 2.5P | 100 | - | 13 | 39 | 52.5 | 10 | 8 | 11 | 3 | 005 | ▲ |
| | 7GX | 8.5 | 8.6 | 3101301078 | 2.5P | 100 | - | 13 | 39 | 52.5 | 10 | 8 | 11 | 3 | 005 | ▲ |
| | ISO2X(6HX)+100 | 8.5 | 8.6 | 3101501078 | 2.5P | 100 | - | 13 | 39 | 52.5 | 10 | 8 | 11 | 3 | 005 | ▲ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | 3101101088 | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 006 | ● |
| | ISO3X(6GX) | 10.3 | 10.36 | 3101201088 | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 006 | ▲ |
| | 7GX | 10.3 | 10.36 | 3101301088 | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 006 | ▲ |
| | ISO2X(6HX)+100 | 10.3 | 10.36 | 3101501088 | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 006 | ▲ |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | 3101101100 | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 006 | ● |
| | ISO3X(6GX) | 12 | 12.12 | 3101201100 | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 006 | ▲ |
| | 7GX | 12 | 12.12 | 3101301100 | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 006 | ▲ |
| | ISO2X(6HX)+100 | 12 | 12.12 | 3101501100 | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 006 | ▲ |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | 3101101114 | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 006 | ● |
| | ISO3X(6GX) | 14 | 14.12 | 3101201114 | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 006 | ▲ |
| | 7GX | 14 | 14.12 | 3101301114 | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 006 | ▲ |
| | ISO2X(6HX)+100 | 14 | 14.12 | 3101501114 | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 006 | ▲ |
| M18x2.5 | ISO2X(6HX) | 15.5 | 15.63 | 3101101128 | 2.5P | 125 | - | 20 | - | 64 | 14 | 11 | 14 | 4 | 006 | ● |
| M20x2.5 | ISO2X(6HX) | 17.5 | 17.63 | 3101101141 | 2.5P | 140 | - | 20 | - | 71 | 16 | 12 | 15 | 4 | 006 | ● |
| M22x2.5 | ISO2X(6HX) | 19.5 | 19.63 | 3101101156 | 2.5P | 140 | - | 20 | - | 71 | 18 | 14.5 | 17 | 4 | 006 | ● |
| M24x3 | ISO2X(6HX) | 21 | 21.13 | 3101101167 | 2.5P | 160 | - | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 006 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| M3X0.35 | ISO2X(6HX) | 2.65 | 2.7 | 3101101036 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ● |
| M4X0.5 | ISO2X(6HX) | 3.5 | 3.56 | 3101101043 | 2.5P | 63 | - | 5 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ● |
| M5X0.5 | ISO2X(6HX) | 4.5 | 4.56 | 3101101051 | 2.5P | 70 | - | 6 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ● |
| M6X0.75 | ISO2X(6HX) | 5.25 | 5.33 | 3101101056 | 2.5P | 80 | - | 8 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ● |
| M6X0.5 | ISO2X(6HX) | 5.5 | 5.56 | 3101101057 | 2.5P | 80 | - | 8 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | | |
| M8X1 | ISO2X(6HX) | 7 | 7.09 | 3101101065 | 2.5P | 90 | - | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 006 | ● |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | 3101101079 | 2.5P | 100 | - | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 006 | ● |
| M10X1 | ISO2X(6HX) | 9 | 9.09 | 3101101080 | 2.5P | 90 | - | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 006 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | 3101101089 | 2.5P | 100 | - | 15 | - | 51 | 9 | 7 | 10 | 3 | 006 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | 3101101090 | 2.5P | 100 | - | 15 | - | 51 | 9 | 7 | 10 | 3 | 006 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | 3101101102 | 2.5P | 100 | - | 14 | - | 51 | 11 | 9 | 12 | 3 | 006 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | 3101101116 | 2.5P | 100 | - | 14 | - | 51 | 12 | 9 | 12 | 3 | 006 | ● |
| M18x1.5 | ISO2X(6HX) | 16.5 | 16.6 | 3101101130 | 2.5P | 110 | - | 14 | - | 56 | 14 | 11 | 14 | 3 | 006 | ● |
| M20x1.5 | ISO2X(6HX) | 18.5 | 18.6 | 3101101144 | 2.5P | 125 | - | 14 | - | 64 | 16 | 12 | 15 | 3 | 006 | ● |
| M22x1.5 | ISO2X(6HX) | 20.5 | 20.6 | 3101101158 | 2.5P | 125 | - | 14 | - | 64 | 18 | 14.5 | 17 | 3 | 006 | ● |
| M24x1.5 | ISO2X(6HX) | 22.5 | 22.6 | 3101101170 | 2.5P | 140 | - | 18 | - | 71 | 18 | 14.5 | 17 | 3 | 006 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| No.5-40UNC | 2BX | 2.6 | 2.64 | 3101103021 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 004 | ● |
| No.6-32UNC | 2BX | 2.8 | 2.83 | 3101103023 | 2.5P | 56 | - | 7 | 19 | 32 | 4 | 3 | 6 | 2 | 004 | ● |
| No.8-32UNC | 2BX | 3.4 | 3.47 | 3101103029 | 2.5P | 63 | - | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 2 | 004 | ● |
| No.10-24UNC | 2BX | 3.89 | 3.9 | 3101103039 | 2.5P | 70 | - | 9 | 24 | 39 | 6 | 4.9 | 8 | 2 | 004 | ● |
| No.12-24UNC | 2BX | 4.5 | 4.53 | 3101103047 | 2.5P | 80 | - | 9 | 28 | 45 | 6 | 4.9 | 8 | 2 | 004 | ● |
| 1/4-20UNC | 2BX | 5.1 | 5.19 | 3101103058 | 2.5P | 80 | - | 11 | 30 | 42 | 7 | 5.5 | 8 | 2 | 004 | ● |
| 5/16-18UNC | 2BX | 6.6 | 6.65 | 3101103071 | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 005 | ● |
| 3/8-16UNC | 2BX | 8 | 8.07 | 3101103082 | 2.5P | 100 | - | 13 | 39 | 54 | 9 | 7 | 10 | 3 | 005 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | | |
| **7/16-14UNC** | 2BX | 9.4 | 9.45 | 3101103098 | 2.5P | 100 | - | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 006 | ● |
| **1/2-13UNC** | 2BX | 10.9 | 10.91 | 3101103111 | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 006 | ● |
| **9/16-12UNC** | 2BX | 12.2 | 12.33 | 3101103126 | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 006 | ● |
| **5/8-11UNC** | 2BX | 13.6 | 13.75 | 3101103138 | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 006 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| **No.5-44UNF** | 2BX | 2.7 | 2.69 | 3101103022 | 2.5P | 56 | - | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 004 | ● |
| **No.6-40UNF** | 2BX | 2.9 | 2.97 | 3101103024 | 2.5P | 56 | - | 7 | 19 | 32 | 4 | 3 | 6 | 2 | 004 | ● |
| **No.8-36UNF** | 2BX | 3.5 | 3.55 | 3101103030 | 2.5P | 63 | - | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 2 | 004 | ● |
| **No.10-32UNF** | 2BX | 4.1 | 4.12 | 3101103041 | 2.5P | 70 | - | 9 | 24 | 39 | 6 | 4.9 | 8 | 2 | 004 | ● |
| **No.12-28UNF** | 2BX | 4.6 | 4.67 | 3101103048 | 2.5P | 80 | - | 9 | 28 | 45 | 6 | 4.9 | 8 | 2 | 004 | ● |
| **1/4-28UNF** | 2BX | 5.5 | 5.53 | 3101103062 | 2.5P | 80 | - | 11 | 30 | 42 | 7 | 5.5 | 8 | 2 | 004 | ● |

# VUSP E(1.5P)




## Z-PRO Series

HSSP Spiral Fluted Taps 1.5P, Coated

HSS-P | COATING | 1.5P THCHT

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 10÷25 | ★ | M1 | 5÷15 | ★ | K2 | 10÷20 | ☆ | N1 | 10÷30 | ★ |
| P2 | 10÷25 | ★ | M2 | 5÷10 | ☆ | | | | N2 | 10÷30 | ★ |
| P3 | 10÷25 | ★ | | | | | | | N3 | 10÷25 | ☆ |
| P4 | 10÷20 | ★ | | | | | | | N4 | 10÷20 | ☆ |
| P7 | 5÷15 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

**FEATURES**

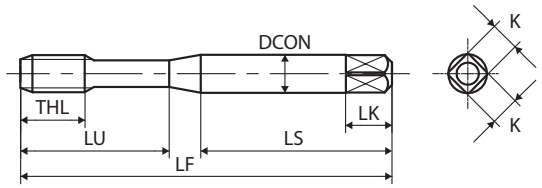
Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

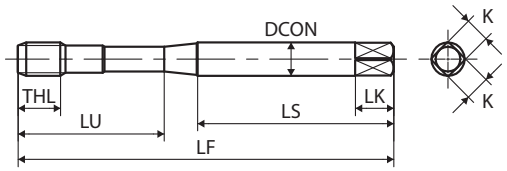
1.5P spiral fluted tap for wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

WATCH THE VIDEO

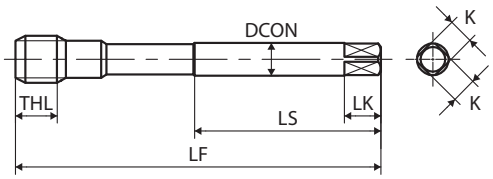
**TYPE: VU_004**




**TYPE: VU_005**




**TYPE: VU_006**






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IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | 3103101035 | 1.5P | 56 | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | 3103101042 | 1.5P | 63 | 7 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | 3103101049 | 1.5P | 70 | 9 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ● |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | 3103101055 | 1.5P | 80 | 11 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | 3103101064 | 1.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 005 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | 3103101078 | 1.5P | 100 | 13 | 39 | 52.5 | 10 | 8 | 11 | 3 | 005 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | 3103101088 | 1.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 006 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | 3103101100 | 1.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 006 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | 3103101114 | 1.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 006 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.35** | ISO2X(6HX) | 2.65 | 2.7 | 3103101036 | 1.5P | 56 | 5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 004 | ○ |
| **M4X0.5** | ISO2X(6HX) | 3.5 | 3.56 | 3103101043 | 1.5P | 63 | 5 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 004 | ○ |
| **M5X0.5** | ISO2X(6HX) | 4.5 | 4.56 | 3103101051 | 1.5P | 70 | 6 | 25 | 39 | 6 | 4.9 | 8 | 3 | 004 | ○ |
| **M6X0.75** | ISO2X(6HX) | 5.25 | 5.33 | 3103101056 | 1.5P | 80 | 8 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ○ |
| **M6X0.5** | ISO2X(6HX) | 5.5 | 5.56 | 3103101057 | 1.5P | 80 | 8 | 30 | 45 | 6 | 4.9 | 8 | 3 | 004 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2X(6HX) | 7 | 7.09 | 3103101065 | 1.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 006 | ● |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | 3103101079 | 1.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 006 | ● |
| **M10X1** | ISO2X(6HX) | 9 | 9.09 | 3103101080 | 1.5P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 006 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | 3103101089 | 1.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 006 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | 3103101090 | 1.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 006 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | 3103101102 | 1.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 006 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | 3103101116 | 1.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 006 | ● |

# VUSP CH




## Z-PRO Series

HSSP Spiral Fluted with Axial Coolant Hole, Coated

HSS-P | COATING | 2.5P THCHT

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 10÷25 | ★ | M1 | 5÷15 | ★ | K2 | 10÷20 | ☆ | N1 | 10÷30 | ★ |
| P2 | 10÷25 | ★ | M2 | 5÷10 | ☆ | | | | N2 | 10÷30 | ★ |
| P3 | 10÷25 | ★ | | | | | | | N3 | 10÷25 | ☆ |
| P4 | 10÷20 | ★ | | | | | | | N4 | 10÷20 | ☆ |
| P7 | 5÷15 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

**FEATURES**

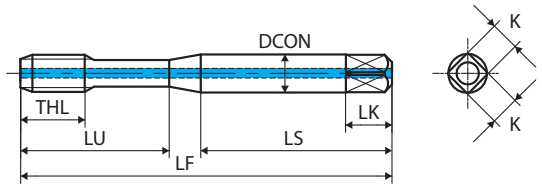
Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

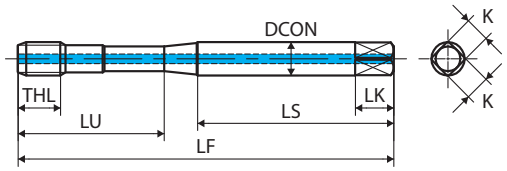
Axial coolant hole for blind hole application on a wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

WATCH THE VIDEO

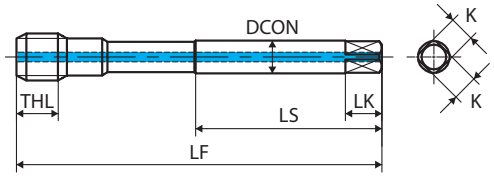
**TYPE: VU_007**




**TYPE: VU_008**




**TYPE: VU_009**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | 3201101055 | 2.5P | 80 | 11 | 30 | 45 | 6 | 4.9 | 8 | 3 | 007 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | 3201101064 | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 008 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | 3201101078 | 2.5P | 100 | 13 | 39 | 52.5 | 10 | 8 | 11 | 3 | 008 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | 3201101088 | 2.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 009 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | 3201101100 | 2.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 009 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | 3201101114 | 2.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 009 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2X(6HX) | 7 | 7.09 | 3201101065 | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 009 | ● |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | 3201101079 | 2.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 009 | ● |
| **M10X1** | ISO2X(6HX) | 9 | 9.09 | 3201101080 | 2.5P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 009 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | 3201101089 | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 009 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | 3201101090 | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 009 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | 3201101102 | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 009 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | 3201101116 | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 009 | ● |

# AUSP G




## Z-PRO Series

Spiral Fluted Taps for Parallel Pipe Threads, Coated

HSS-E | COATING | 2.5P THCHT

**FEATURES**

Z-PRO Series for blind hole application on wide range of materials

A unique cutting edge geometry and special coating allow excellent surface finish and long life.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 5÷10 | ★ | M1 | ≤5 | ★ | K2 | ≤5 | ☆ | N1 | 5÷15 | ★ |
| P2 | 5÷10 | ★ | M2 | ≤5 | ★ | | | | N2 | 5÷15 | ★ |
| P3 | 5÷10 | ★ | | | | | | | N3 | 5÷15 | ☆ |
| P4 | 5÷10 | ☆ | | | | | | | N4 | ≤5 | ☆ |
| P7 | ≤5 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

WATCH THE VIDEO

### Process Data

**AUSP G 1/4-19**

| | |
|---|---|
| Work-material | St 44-3 - 1.0144 |
| Tapping speed | 5 m/min |
| Machine | Machining center |
| Holder | Rigid |
| Lubricant | Water soluble oil |

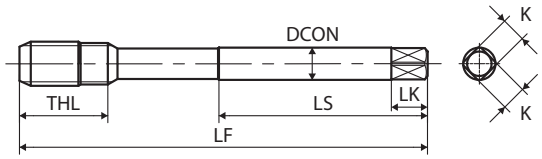
Smooth chip ejection



Excellent surface finish



**TYPE: AU_001**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| 1/8-28 | P3 | 8.75 | 8.78 | SJG0020FET | 2.5P | 90 | 15 | - | 46 | 8 | 6 | 9 | 3 | 001 | ● |
| 1/4-19 | P3.5 | 11.75 | 11.78 | SJG0040FET | 2.5P | 100 | 19 | - | 51 | 11 | 9 | 12 | 3 | 001 | ● |
| 3/8-19 | P3.5 | 15.25 | 15.28 | SJG0060FET | 2.5P | 100 | 21 | - | 51 | 14 | 11 | 14 | 3 | 001 | ● |
| 1/2-14 | P4 | 19 | 19.04 | SJG0080FET | 2.5P | 125 | 26 | - | 64 | 18 | 14 | 17 | 4 | 001 | ● |
| 3/4-14 | P4 | 24.5 | 24.52 | SJG0120FET | 2.5P | 140 | 28 | - | 71 | 23 | 17 | 20 | 4 | 001 | ● |
| 1 -11 | P5 | 30.75 | 30.77 | SJG0160FET | 2.5P | 160 | 33 | - | 82 | 26 | 21 | 24 | 4 | 001 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# AUSP Rp

## Z-PRO Series

Spiral Fluted Taps for Parallel Pipe Threads, Coated




HSS-E | COATING | 2.5P THCHT

**FEATURES**

Z-PRO Series for blind hole application on wide range of materials

A unique cutting edge geometry and special coating allow excellent surface finish and long life.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ★ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ★ |
| P4 | 5÷10 | ☆ |
| P7 | ≤5 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤5 | ★ |
| M2 | ≤5 | ★ |

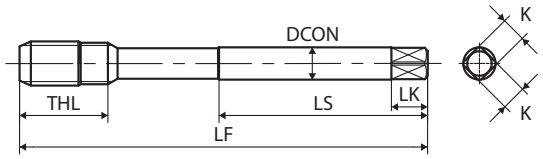
| ISO | Vc (m/min) | |
|---|---|---|
| K2 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷15 | ☆ |
| N4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

WATCH THE VIDEO

**TYPE: AU_001**




| Rp(BSPP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.5 | 8.55 | SJRP020FET | 2.5P | 90 | 15 | - | 46 | 8 | 6 | 9 | 3 | 001 | ● |
| 1/4-19 | - | 11.4 | 11.5 | SJRP040FET | 2.5P | 100 | 19 | - | 51 | 11 | 9 | 12 | 3 | 001 | ● |
| 3/8-19 | - | 14.8 | 14.9 | SJRP060FET | 2.5P | 100 | 21 | - | 51 | 14 | 11 | 14 | 3 | 001 | ● |
| 1/2-14 | - | 18.5 | 18.55 | SJRP080FET | 2.5P | 125 | 26 | - | 64 | 18 | 14 | 17 | 4 | 001 | ● |
| 3/4-14 | - | 24 | 24.1 | SJRP120FET | 2.5P | 140 | 28 | - | 71 | 23 | 17 | 20 | 4 | 001 | ● |
| 1 -11 | - | 30.2 | 30.25 | SJRP160FET | 2.5P | 160 | 33 | - | 82 | 26 | 21 | 24 | 4 | 001 | ● |



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Think threads with YAMAWA

# AUSP Rc




## Z-PRO Series

Spiral Fluted Taps for Taper Pipe Threads, Coated

HSS-E | COATING | 2.5P THCHT

**FEATURES**

Standard and Long shank Z-PRO Series for extended overhang on blind hole application on wide range of materials.

A unique cutting edge geometry and special coating allow excellent surface finish and long life.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤7 | ★ |
| P2 | ≤7 | ★ |
| P3 | ≤7 | ★ |
| P4 | ≤5 | ☆ |
| P7 | ≤3 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤3 | ★ |
| M2 | ≤3 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| K2 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | ≤10 | ★ |
| N2 | ≤10 | ★ |
| N3 | ≤10 | ☆ |
| N4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

WATCH THE VIDEO

### Product Features

**AUSP Rc (PT) 1/4-19**

| | |
|---|---|
| Work-material | St 44-3 - 1.0144 |
| Tapping speed | 5 m/min |
| Machine | Machining center |
| Holder | Tap holder with tension/compression |
| Lubricant | Water soluble oil |

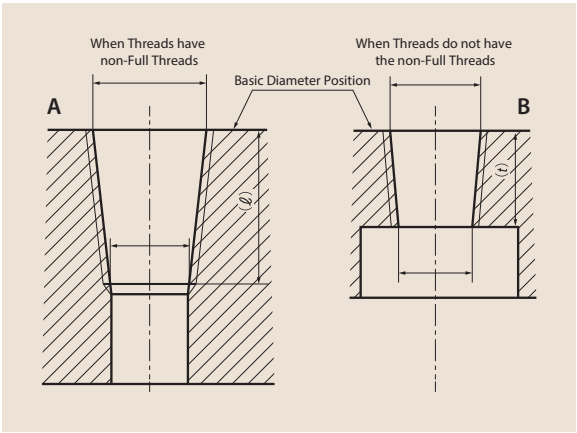
Excellent surface finish



Competitor's spiral fluted tap



### Bored Hole Ø (mm) A - B

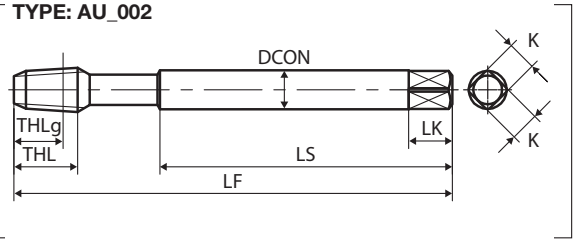





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Machine Tools International

**TYPE: AU_002**




| Rc(BSPT) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| 1/16-28 | - | - | 6.1 | SJRC010FET | 2.5P | 90 | 14 | - | 60 | 8 | 6 | 9 | 3 | 002 | ○ |
| 1/8-28 | - | - | 8.1 | SJRC020FET | 2.5P | 90 | 15 | - | 46 | 8 | 6 | 9 | 3 | 002 | ● |
| | - | | 8.1 | SJRC020FETG | 2.5P | 150 | 15 | - | 40 | 8 | 6 | 9 | 3 | 002 | ○ |
| | - | | 8.1 | SJRC020FETK | 2.5P | 200 | 15 | - | 40 | 8 | 6 | 9 | 3 | 002 | ○ |
| 1/4-19 | - | - | 10.7 | SJRC040FET | 2.5P | 100 | 19 | - | 51 | 11 | 9 | 12 | 3 | 002 | ● |
| | - | | 10.7 | SJRC040FETG | 2.5P | 150 | 19 | - | 50 | 11 | 9 | 12 | 3 | 002 | ○ |
| | - | | 10.7 | SJRC040FETK | 2.5P | 200 | 19 | - | 50 | 11 | 9 | 12 | 3 | 002 | ○ |
| 3/8-19 | - | - | 14.2 | SJRC060FET | 2.5P | 100 | 21 | - | 51 | 14 | 11 | 14 | 3 | 002 | ● |
| | - | | 14.2 | SJRC060FETG | 2.5P | 150 | 21 | - | 50 | 14 | 11 | 14 | 3 | 002 | ○ |
| | - | | 14.2 | SJRC060FETK | 2.5P | 200 | 21 | - | 50 | 14 | 11 | 14 | 3 | 002 | ○ |
| 1/2-14 | - | - | 17.6 | SJRC080FET | 2.5P | 125 | 26 | - | 64 | 18 | 14 | 17 | 4 | 002 | ● |
| | - | | 17.6 | SJRC080FETK | 2.5P | 200 | 26 | - | 60 | 18 | 14 | 17 | 4 | 002 | ○ |
| 3/4-14 | - | - | 23 | SJRC120FET | 2.5P | 140 | 28 | - | 71 | 23 | 17 | 20 | 4 | 002 | ● |
| | - | | 23 | SJRC120FETK | 2.5P | 200 | 28 | - | 70 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 -11 | - | - | 29 | SJRC160FET | 2.5P | 160 | 33 | - | 82 | 26 | 21 | 24 | 4 | 002 | ● |
| | - | | 29 | SJRC160FETK | 2.5P | 200 | 33 | - | 70 | 26 | 21 | 24 | 4 | 002 | ○ |

# HVSP




## Z-PRO Series

Spiral Fluted Taps for large forged parts in the heavy metalworking industry

HSS-E | OX | 2.5P THCHT

**FEATURES**

Z-PRO Series with BLF design for blind hole application.

Special geometry reduces cutting edge chipping resulting in stable and longer life on steel, alloy steel and stainless steel application.

OX treatment reduces welding troubles.

**Recommended Tapping Speeds Depending On Materials**

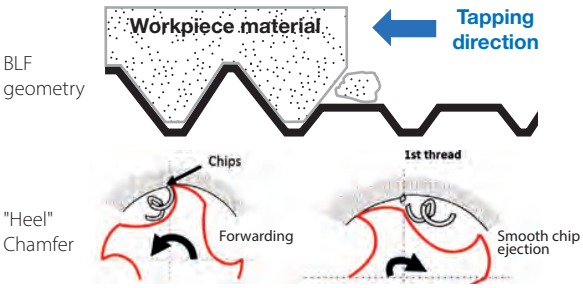
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 3÷8 | ★ |
| P2 | 3÷8 | ★ |
| P3 | 3÷8 | ★ |
| P4 | 3÷8 | ☆ |
| P7 | 3÷8 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 3÷8 | ★ |
| M2 | 3÷8 | ★ |

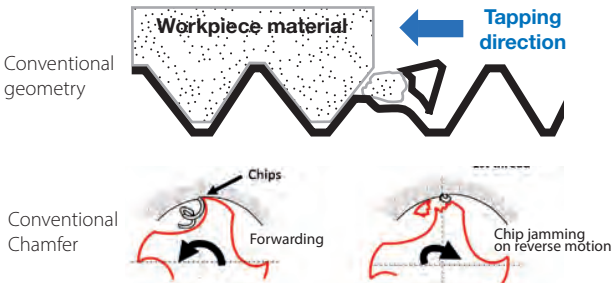
★ 1st choice ☆ suitable

WATCH THE VIDEO

**Tapping with HVSP**
**No chipping**



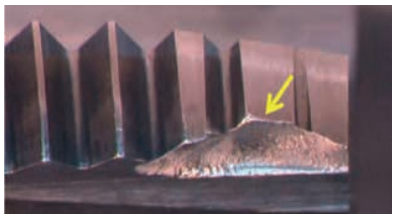

**Tapping with conventional SP**
**Chipping occurs on thread portion**



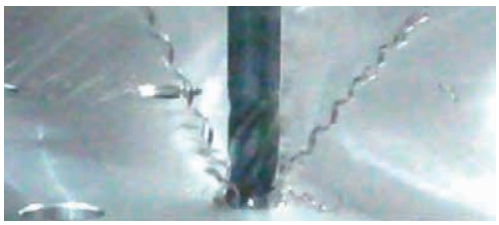

**No chipping**



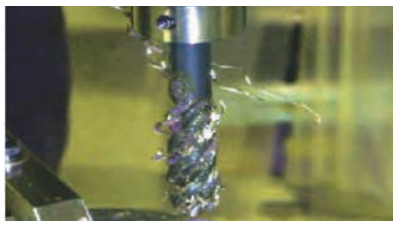
**Chipping**



**Smooth chip ejection by HVSP**



**Entangled chips**

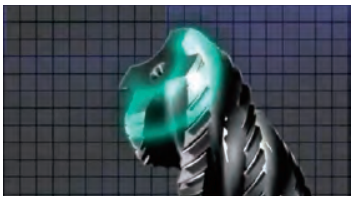




Think threads with YAMAWA

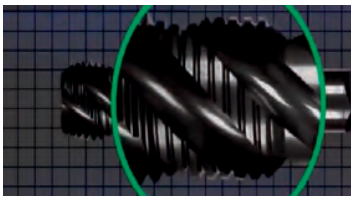
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## Designed to avoid chipping problems



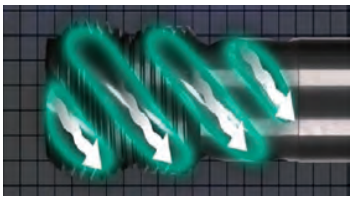
**Advanced cutting edge**

Special cutting edge geometry prevents chip incursion from the back side of chamfer thread portion during reverse motion



**BLF shape on full thread portion**

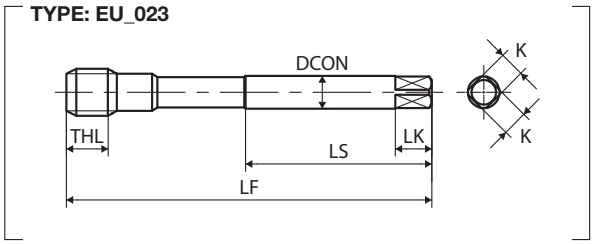
The BLF shape produces excellent cutting performances enabling the prevention of flute chipping problems



**Unique flute design**

Unique flute design for smooth chip ejection

**TYPE: EU_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | IS02X(6HX) | 10.3 | 10.36 | SG012PSEEXJ | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X2** | IS02X(6HX) | 12 | 12.12 | SG014QSEEXJ | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X2** | IS02X(6HX) | 14 | 14.12 | SG016QSEEXJ | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| **M18X2.5** | IS02X(6HX) | 15.5 | 15.63 | SG018RTEEXJ | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X2.5** | IS02X(6HX) | 17.5 | 17.63 | SG020RTEEXJ | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| **M22X2.5** | IS02X(6HX) | 19.5 | 19.63 | SG022RTEEXJ | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| **M24X3** | IS02X(6HX) | 21 | 21.13 | SG024STEEXJ | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |
| **M27X3** | IS02X(6HX) | 24 | 24.13 | SG027STEEXJ | 2.5P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 023 | ● |
| **M30X3.5** | IS02X(6HX) | 26.5 | 26.63 | SG030TBEEXJ | 2.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| **M33X3.5** | IS02X(6HX) | 29.5 | 29.63 | SG033TBEEXJ | 2.5P | 180 | 46 | - | 92 | 25 | 20 | 23 | 4 | 023 | ● |
| **M36X4** | IS02X(6HX) | 32 | 32.12 | SG036UBEEXJ | 2.5P | 200 | 52 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| **M39X4** | IS02X(6HX) | 35 | 35.12 | SG039UBEEXJ | 2.5P | 200 | 52 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| **M42X4.5** | IS02X(6HX) | 37.5 | 37.63 | SG042VBEEXJ | 2.5P | 200 | 59 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| **M48X5** | IS02X(6HX) | 43 | 43.12 | SG048WBEEXJ | 2.5P | 250 | 65 | - | 128 | 36 | 29 | 32 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M30X3** | IS02X(6HX) | 27 | 27.13 | SM030SUEEXJ | 2.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| **M33X3** | IS02X(6HX) | 30 | 30.13 | SM033SUEEXJ | 2.5P | 180 | 46 | - | 92 | 25 | 20 | 23 | 4 | 023 | ● |
| **M36X3** | IS02X(6HX) | 33 | 33.13 | SM036SUEEXJ | 2.5P | 200 | 52 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| **M39X3** | IS02X(6HX) | 36 | 36.13 | SM039SUEEXJ | 2.5P | 200 | 52 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| **M42X3** | IS02X(6HX) | 39 | 39.13 | SM042SUEEXJ | 2.5P | 200 | 59 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| **M48X3** | IS02X(6HX) | 45 | 45.13 | SM048SUEEXJ | 2.5P | 225 | 49 | - | 115 | 36 | 29 | 32 | 4 | 023 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 1 -8UNC | 2BX | 22.3 | 22.45 | SGU16XYEEXJ | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 1/8-7UNC | 2BX | 25 | 25.17 | SGU18YYEEXJ | 2.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 1/4-7UNC | 2BX | 28.2 | 28.35 | SGU20YYEEXJ | 2.5P | 180 | 49 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 3/8-6UNC | 2BX | 30.8 | 30.92 | SGU22ZYEEXJ | 2.5P | 200 | 55 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| 1 1/2-6UNC | 2BX | 34 | 34.1 | SGU24ZYEEXJ | 2.5P | 200 | 59 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| 1 3/4-5UNC | 2BX | 39.5 | 39.61 | SGU280YEEXJ | 2.5P | 220 | 65 | - | 112 | 36 | 29 | 32 | 4 | 023 | ● |
| 2 -4.5UNC | 2BX | 45.2 | 45.37 | SGU329YEEXJ | 2.5P | 250 | 73 | - | 128 | 40 | 32 | 35 | 4 | 023 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 1 -12UNF | 2BX | 23.3 | 23.46 | SMU16SYEEXJ | 2.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 1/8-12UNF | 2BX | 26.5 | 26.63 | SMU18SYEEXJ | 2.5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 1/4-12UNF | 2BX | 29.6 | 29.81 | SMU20SYEEXJ | 2.5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 3/8-12UNF | 2BX | 32.8 | 32.98 | SMU22SYEEXJ | 2.5P | 170 | 29 | - | 87 | 28 | 22 | 25 | 4 | 023 | ● |
| 1 1/2-12UNF | 2BX | 36 | 36.16 | SMU24SYEEXJ | 2.5P | 170 | 29 | - | 87 | 32 | 24 | 27 | 4 | 023 | ● |

| 8UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 1 1/8-8UN | 2BX | 25.5 | 25.62 | SMU18XYEEXJ | 2.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 1/4-8UN | 2BX | 28.5 | 28.8 | SMU20XYEEXJ | 2.5P | 180 | 49 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 3/8-8UN | 2BX | 31.8 | 31.97 | SMU22XYEEXJ | 2.5P | 200 | 55 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| 1 1/2-8UN | 2BX | 35 | 35.15 | SMU24XYEEXJ | 2.5P | 200 | 59 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| 1 3/4-8UN | 2BX | 41.3 | 41.5 | SMU28XYEEXJ | 2.5P | 200 | 49 | - | 102 | 36 | 29 | 32 | 4 | 023 | ● |
| 2 -8UN | 2BX | 47.8 | 47.85 | SMU32XYEEXJ | 2.5P | 225 | 49 | - | 115 | 40 | 32 | 35 | 4 | 023 | ● |

| 12UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 1 3/4-12UN | 2BX | 42.3 | 42.51 | SMU28SYEEXJ | 2.5P | 180 | 31 | - | 92 | 36 | 29 | 32 | 4 | 023 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# MHSP




## Z-PRO Series

Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated

HSS-Co | COATING | SYNCHRO | 2.5P THCHT

**FEATURES**

Z-PRO Series for Medium Hardness workpiece materials.

Most suitable for high carbon steel (C48 ÷ C55) and alloy steel 20 ÷ 30HRC.

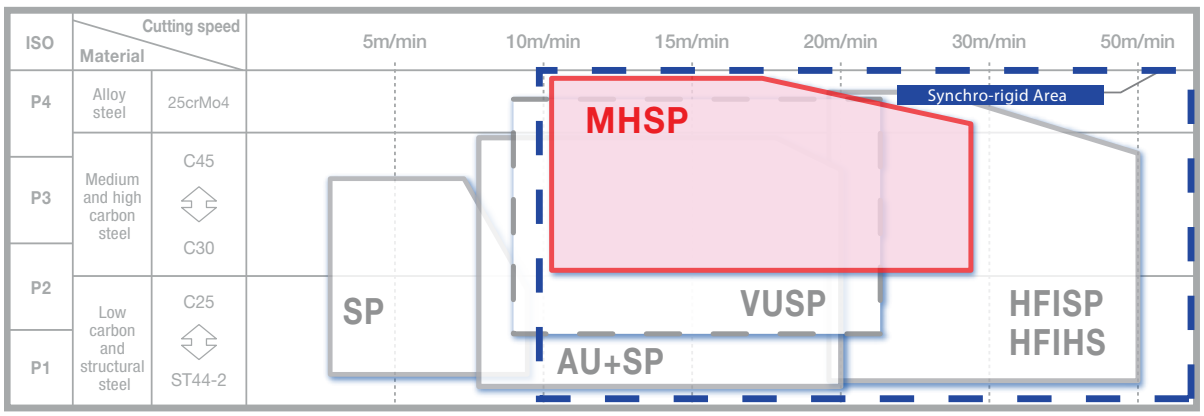
Long life thanks to HSSCo substrate and special coating. High spiral design allows smooth chip ejection at middle-high cutting speed.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | 10÷30 | ★ |
| P3 | 10÷25 | ★ |
| P4 | 10÷20 | ★ |
| P5 | 10÷15 | ☆ |

★ 1st choice ☆ suitable

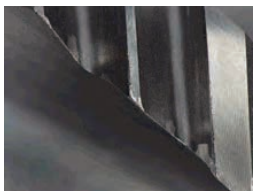
### Product Features

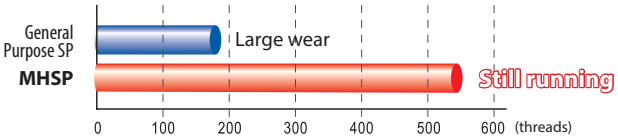



### Process Data

| | |
|---|---|
| Work-material | 42CrMo4 - 1.7225 (35HRC) |
| Threading speed | 12 mm |
| Tapping speed | 15 m/min |
| Machine | Vertical machining center |
| Lubricant | Water soluble oil |

After 550 holes



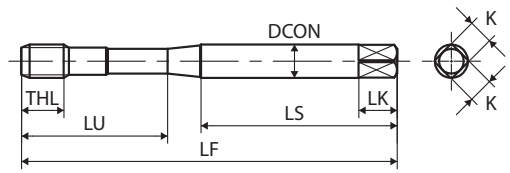




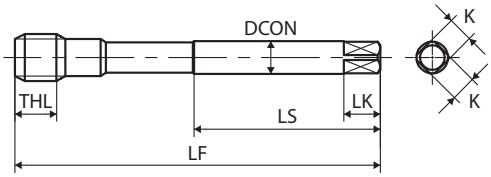

Think threads with YAMAWA

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**TYPE: EU_025**




**TYPE: EU_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | SD8.0NBOCLJ | 2.5P | 90 | 19 | - | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | SD010OBOCLJ | 2.5P | 100 | 23 | - | 52.5 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | SG012PBOCLJ | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 023 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | SG014QBOCLJ | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 023 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | SG016QBOCLJ | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | SM010NBOCLJ | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M10X1** | ISO2X(6HX) | 9 | 9.09 | SM010MBOCLJ | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | SM012OBOCLJ | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 023 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | SM012NBOCLJ | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 023 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | SM014OBOCLJ | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 023 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | SM016OBOCLJ | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 023 | ● |

# SP

## GP General Purpose Series

Spiral Fluted Taps




HSS-E



2.5P THCHT

**FEATURES**

General purpose for blind hole application.

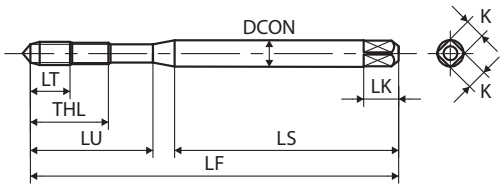
For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

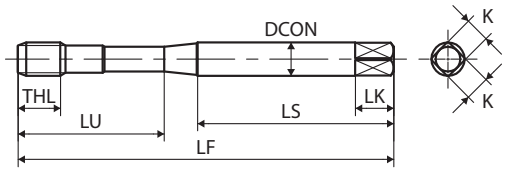
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

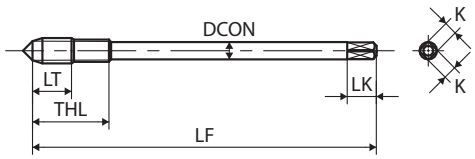
**TYPE: EU_140**



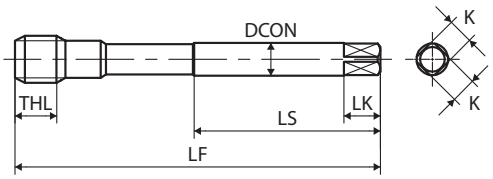

**TYPE: EU_025**




**TYPE: EU_141**




**TYPE: EU_023**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M2X0.4** | ISO2(6H) | 1.6 | 1.65 | SD2.0EANEB | 2.5P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| **M2.2X0.45** | ISO2(6H) | 1.75 | 1.81 | SD2.2FANEB | 2.5P | 45 | 9 | - | 32 | 2.8 | 2.1 | 5 | 2 | 140 | ○ |
| **M2.3X0.4** | ISO2(6H) | 1.9 | 1.95 | SD2.3EANEB | 2.5P | 45 | 9 | - | 32 | 2.8 | 2.1 | 5 | 2 | 140 | ○ |
| **M2.5X0.45** | ISO2(6H) | 2.1 | 2.11 | SD2.5FANEB | 2.5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| **M2.6X0.45** | ISO2(6H) | 2.2 | 2.21 | SD2.6FANEB | 2.5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | SD3.0GANEB | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| | ISO3(6G) | 2.5 | 2.56 | SD3.0GMNEB | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| | ISO2(6H)+100 | 2.5 | 2.56 | 96403.0+100 | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| **M3.5X0.6** | ISO2(6H) | 2.9 | 2.97 | SD3.5HANEB | 2.5P | 56 | 11 | 20 | 32 | 4 | 3 | 6 | 3 | 140 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | SD4.0IANEB | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| | ISO3(6G) | 3.3 | 3.38 | SD4.0IMNEB | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| | ISO2(6H)+100 | 3.3 | 3.38 | 96404.0+100 | 2.5P | 63 | 13 | 21 | 371 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | SD5.0KANEB | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO3(6G) | 4.2 | 4.28 | SD5.0KMNEB | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO2(6H)+100 | 4.2 | 4.28 | 96405.0+100 | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | SD6.0MANEB | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO3(6G) | 5 | 5.09 | SD6.0MMNEB | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO2(6H)+50 | 5 | 5.09 | N96406.0+50 | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO2(6H)+100 | 5 | 5.09 | 96406.0+100 | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M7X1** | ISO2(6H) | 6 | 6.09 | SD7.0MANEB | 2.5P | 80 | 11 | 30 | 45 | 7 | 5.5 | 8 | 3 | 025 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | SD8.0NANEB | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| | ISO3(6G) | 6.8 | 6.85 | SD8.0NMNEB | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| | ISO2(6H)+50 | 6.8 | 6.85 | N96408.0+50 | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| | ISO2(6H)+100 | 6.8 | 6.85 | 96408.0+100 | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M9X1.25** | ISO2(6H) | 7.8 | 7.85 | SD9.0NANEB | 2.5P | 90 | 12 | 35 | 48 | 9 | 7 | 10 | 3 | 025 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | SD010OANEB | 2.5P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |
| | ISO3(6G) | 8.5 | 8.6 | SD010OMNEB | 2.5P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |
| | ISO2(6H)+50 | 8.5 | 8.6 | N9640010+50 | 2.5P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |
| | ISO2(6H)+100 | 8.5 | 8.6 | 9640010+100 | 2.5P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | SG4.0IANEB | 2.5P | 63 | 13 | - | - | 2.8 | 2.1 | 5 | 3 | 141 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | SG5.0KANEB | 2.5P | 70 | 14 | - | - | 3.5 | 2.7 | 6 | 3 | 141 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | SG6.0MANEB | 2.5P | 80 | 15 | - | - | 4.5 | 3.4 | 6 | 3 | 141 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | SG8.0NANEB | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | SG010OANEB | 2.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M11X1.5** | ISO2(6H) | 9.5 | 9.6 | SG011OANEB | 2.5P | 100 | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 023 | ● |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | SG012PANEB | 2.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| | ISO3(6G) | 10.3 | 10.36 | SG012PMNEB | 2.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| | ISO2(6H)+100 | 10.3 | 10.36 | 9740012+100 | 2.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | SG014QANEB | 2.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| | ISO3(6G) | 12 | 12.12 | SG014QMNEB | 2.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ○ |
| **M16X2** | ISO2(6H) | 14 | 14.12 | SG016QANEB | 2.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| | ISO3(6G) | 14 | 14.12 | SG016QMNEB | 2.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | SG018RANEB | 2.5P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | SG020RANEB | 2.5P | 140 | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | SG022RANEB | 2.5P | 140 | 20 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M24X3 | ISO2(6H) | 21 | 21.13 | SG024SANEB | 2.5P | 160 | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M27X3 | ISO2(6H) | 24 | 24.13 | SG027SANEB | 2.5P | 160 | 25 | - | 82 | 20 | 16 | 19 | 4 | 023 | ● |
| M30X3.5 | ISO2(6H) | 26.5 | 26.63 | SG030TANEB | 2.5P | 180 | 30 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| M33X3.5 | ISO2(6H) | 29.5 | 29.63 | SG033TANEB | 2.5P | 180 | 30 | - | 92 | 25 | 20 | 23 | 4 | 023 | ● |
| M36X4 | ISO2(6H) | 32 | 32.12 | SG036UANEB | 2.5P | 200 | 40 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| M39X4 | ISO2(6H) | 35 | 35.12 | SG039UANEB | 2.5P | 200 | 40 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| M42X4.5 | ISO2(6H) | 37.5 | 37.63 | SG042VANEB | 2.5P | 200 | 40 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| M45X4.5 | ISO2(6H) | 40.5 | 40.63 | SG045VANEB | 2.5P | 220 | 45 | - | 112 | 36 | 29 | 32 | 4 | 023 | ● |
| M48X5 | ISO2(6H) | 43 | 43.12 | SG048WANEB | 2.5P | 250 | 45 | - | 128 | 36 | 29 | 32 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M4X0.5 | ISO2(6H) | 3.5 | 3.56 | SM4.0GANEB | 2.5P | 63 | 9 | - | - | 2.8 | 2.1 | 5 | 3 | 141 | ○ |
| M5X0.5 | ISO2(6H) | 4.5 | 4.56 | SM5.0GANEB | 2.5P | 70 | 11 | - | - | 3.5 | 2.7 | 6 | 3 | 141 | ○ |
| M6X0.75 | ISO2(6H) | 5.3 | 5.33 | SM6.0JANEB | 2.5P | 80 | 13 | - | - | 4.5 | 3.4 | 6 | 3 | 141 | ○ |
| M6X0.5 | ISO2(6H) | 5.5 | 5.56 | SM6.0GANEB | 2.5P | 80 | 13 | - | - | 4.5 | 3.4 | 6 | 3 | 141 | ○ |
| M7X0.75 | ISO2(6H) | 6.3 | 6.33 | SM7.0JANEB | 2.5P | 80 | 8 | - | 41 | 5.5 | 4.3 | 7 | 3 | 023 | ○ |
| M7X0.5 | ISO2(6H) | 6.5 | 6.56 | SM7.0GANEB | 2.5P | 80 | 8 | - | 41 | 5.5 | 4.3 | 7 | 3 | 023 | ○ |
| M8X1 | ISO2(6H) | 7 | 7.09 | SM8.0MANEB | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M8X0.75 | ISO2(6H) | 7.3 | 7.33 | SM8.0JANEB | 2.5P | 80 | 12 | - | 41 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M8X0.5 | ISO2(6H) | 7.5 | 7.56 | SM8.0GANEB | 2.5P | 80 | 12 | - | 41 | 6 | 4.9 | 8 | 3 | 023 | ○ |
| M9X1 | ISO2(6H) | 8 | 8.09 | SM9.0MANEB | 2.5P | 90 | 12 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ○ |
| M10X1.25 | ISO2(6H) | 8.8 | 8.85 | SM010NANEB | 2.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M10X1 | ISO2(6H) | 9 | 9.09 | SM010MANEB | 2.5P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M10X0.75 | ISO2(6H) | 9.3 | 9.33 | SM010JANEB | 2.5P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.5 | ISO2(6H) | 10.5 | 10.6 | SM012OANEB | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M12X1.25 | ISO2(6H) | 10.8 | 10.85 | SM012NANEB | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M12X1 | ISO2(6H) | 11 | 11.09 | SM012MANEB | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X1.5 | ISO2(6H) | 12.5 | 12.6 | SM014OANEB | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M14X1.25 | ISO2(6H) | 12.8 | 12.85 | SM014NANEB | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M14X1 | ISO2(6H) | 13 | 13.09 | SM014MANEB | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X1.5 | ISO2(6H) | 14.5 | 14.6 | SM016OANEB | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| M16X1 | ISO2(6H) | 15 | 15.09 | SM016MANEB | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| M18X2 | ISO2(6H) | 16 | 16.12 | SM018QANEB | 2.5P | 125 | 18 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| M18X1.5 | ISO2(6H) | 16.5 | 16.6 | SM018OANEB | 2.5P | 110 | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| M18X1 | ISO2(6H) | 17 | 17.09 | SM018MANEB | 2.5P | 110 | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X2 | ISO2(6H) | 18 | 18.12 | SM020QANEB | 2.5P | 140 | 18 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| M20X1.5 | ISO2(6H) | 18.5 | 18.6 | SM020OANEB | 2.5P | 125 | 14 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| M20X1 | ISO2(6H) | 19 | 19.09 | SM020MANEB | 2.5P | 125 | 14 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| M22X2 | ISO2(6H) | 20 | 20.12 | SM022QANEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M22X1.5 | ISO2(6H) | 20.5 | 20.6 | SM022OANEB | 2.5P | 125 | 14 | - | 64 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M22X1 | ISO2(6H) | 21 | 21.09 | SM022MANEB | 2.5P | 125 | 14 | - | 64 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M24X2 | ISO2(6H) | 22 | 22.12 | SM024QANEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M24X1.5 | ISO2(6H) | 22.5 | 22.6 | SM024OANEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M24X1 | ISO2(6H) | 23 | 23.09 | SM024MANEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M25X1.5 | ISO2(6H) | 23.5 | 23.6 | SM025OANEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M26X1.5 | ISO2(6H) | 24.5 | 24.6 | SM026OANEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M27X2 | ISO2(6H) | 25 | 25.12 | SM027QANEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| M27X1.5 | ISO2(6H) | 25.5 | 25.6 | SM027OANEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| M27X1 | ISO2(6H) | 26 | 26.09 | SM027MANEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ○ |
| M28X2 | ISO2(6H) | 26 | 26.12 | SM028QANEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| M28X1.5 | ISO2(6H) | 26.5 | 26.6 | SM028OANEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| M28X1 | ISO2(6H) | 27 | 27.09 | SM028MANEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ○ |
| M30X2 | ISO2(6H) | 28 | 28.12 | SM030QANEB | 2.5P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| M30X1.5 | ISO2(6H) | 28.5 | 28.6 | SM030OANEB | 2.5P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| M30X1 | ISO2(6H) | 29 | 29.09 | SM030MANEB | 2.5P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| M32X2 | ISO2(6H) | 30 | 30.12 | SM032QANEB | 2.5P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| M32X1.5 | ISO2(6H) | 30.5 | 30.6 | SM032OANEB | 2.5P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| M32X1 | ISO2(6H) | 31 | 31.09 | SM032MANEB | 2.5P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ○ |
| M33X2 | ISO2(6H) | 31 | 31.12 | SM033QANEB | 2.5P | 160 | 20 | - | 82 | 25 | 20 | 23 | 4 | 023 | ● |
| M33X1.5 | ISO2(6H) | 31.5 | 31.6 | SM033OANEB | 2.5P | 160 | 20 | - | 82 | 25 | 20 | 23 | 4 | 023 | ● |
| M33X1 | ISO2(6H) | 32 | 32.09 | SM033MANEB | 2.5P | 160 | 20 | - | 82 | 25 | 20 | 23 | 4 | 023 | ○ |
| M35X1.5 | ISO2(6H) | 33.5 | 33.6 | SM035OANEB | 2.5P | 170 | 20 | - | 87 | 28 | 22 | 25 | 4 | 023 | ○ |
| M36X3 | ISO2(6H) | 33 | 33.13 | SM036SANEB | 2.5P | 200 | 30 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| M36X2 | ISO2(6H) | 34 | 34.12 | SM036QANEB | 2.5P | 170 | 20 | - | 87 | 28 | 22 | 25 | 4 | 023 | ● |
| M36X1.5 | ISO2(6H) | 34.5 | 34.6 | SM036OANEB | 2.5P | 170 | 20 | - | 87 | 28 | 22 | 25 | 4 | 023 | ● |
| M36X1 | ISO2(6H) | 35 | 35.09 | SM036MANEB | 2.5P | 170 | 20 | - | 87 | 28 | 22 | 25 | 4 | 023 | ○ |
| M39X2 | ISO2(6H) | 37 | 37.12 | SM039QANEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ○ |
| M39X1.5 | ISO2(6H) | 37.5 | 37.6 | SM039OANEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ○ |
| M39X1 | ISO2(6H) | 38 | 38.09 | SM039MANEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ○ |
| M42X2 | ISO2(6H) | 40 | 40.12 | SM042QANEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ○ |
| M42X1.5 | ISO2(6H) | 40.5 | 40.6 | SM042OANEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ○ |
| M42X1 | ISO2(6H) | 41 | 41.09 | SM042MANEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ○ |
| M45X3 | ISO2(6H) | 42 | 42.13 | SM045SANEB | 2.5P | 200 | 40 | - | 102 | 36 | 29 | 32 | 4 | 023 | ○ |
| M45X2 | ISO2(6H) | 43 | 43.12 | SM045QANEB | 2.5P | 180 | 25 | - | 92 | 36 | 29 | 32 | 4 | 023 | ○ |
| M45X1.5 | ISO2(6H) | 43.5 | 43.6 | SM045OANEB | 2.5P | 180 | 25 | - | 92 | 36 | 29 | 32 | 4 | 023 | ○ |
| M45X1 | ISO2(6H) | 44 | 44.09 | SM045MANEB | 2.5P | 180 | 25 | - | 92 | 36 | 29 | 32 | 4 | 023 | ○ |
| M48X3 | ISO2(6H) | 45 | 45.13 | SM048SANEB | 2.5P | 225 | 40 | - | 115 | 36 | 29 | 32 | 4 | 023 | ○ |
| M48X2 | ISO2(6H) | 46 | 46.12 | SM048QANEB | 2.5P | 190 | 25 | - | 97 | 36 | 29 | 32 | 4 | 023 | ○ |
| M48X1.5 | ISO2(6H) | 46.5 | 46.6 | SM048OANEB | 2.5P | 190 | 25 | - | 97 | 36 | 29 | 32 | 4 | 023 | ○ |
| M48X1 | ISO2(6H) | 47 | 47.09 | SM048MANEB | 2.5P | 190 | 25 | - | 97 | 36 | 29 | 32 | 4 | 023 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-40UNC | 2B | 2.3 | 2.33 | SDUN4HXNEB | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| No.5-40UNC | 2B | 2.6 | 2.64 | SDUN5HXNEB | 2.5P | 56 | 11 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ○ |
| No.6-32UNC | 2B | 2.8 | 2.83 | SDUN6JXNEB | 2.5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 140 | ● |
| No.8-32UNC | 2B | 3.4 | 3.47 | SDUN8JXNEB | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| No.10-24UNC | 2B | 3.89 | 3.9 | SDUNAMXNEB | 2.5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| No.12-24UNC | 2B | 4.5 | 4.53 | SDUNCMXNEB | 2.5P | 80 | 15 | 28 | 45 | 6 | 4.9 | 8 | 3 | 140 | ○ |
| 1/4-20UNC | 2B | 5.1 | 5.19 | SDU04NXNEB | 2.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 140 | ● |
| 5/16-18UNC | 2B | 6.6 | 6.65 | SDU050XNEB | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| 3/8-16UNC | 2B | 8 | 8.07 | SDU06PXNEB | 2.5P | 100 | 13 | 39 | 54 | 9 | 7 | 10 | 3 | 025 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 7/16-14UNC | 2B | 9.4 | 9.45 | SGU07QXNEB | 2.5P | 100 | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 023 | ● |
| 1/2-13UNC | 2B | 10.9 | 10.91 | SGU08RXNEB | 2.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| 9/16-12UNC | 2B | 12.2 | 12.33 | SGU09SXNEB | 2.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| 5/8-11UNC | 2B | 13.6 | 13.75 | SGU10UXNEB | 2.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| 3/4-10UNC | 2B | 16.6 | 16.7 | SGU12VXNEB | 2.5P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| 7/8-9UNC | 2B | 19.6 | 19.61 | SGU14WXNEB | 2.5P | 140 | 20 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 -8UNC | 2B | 22.3 | 22.45 | SGU16XXNEB | 2.5P | 160 | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-48UNF | 2B | 2.4 | 2.41 | SDUN4FXNEB | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ○ |
| No.5-44UNF | 2B | 2.7 | 2.69 | SDUN5GXNEB | 2.5P | 56 | 11 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ○ |
| No.6-40UNF | 2B | 2.9 | 2.97 | SDUN6HXNEB | 2.5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 140 | ● |
| No.8-36UNF | 2B | 3.5 | 3.55 | SDUN8IXNEB | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ○ |
| No.10-32UNF | 2B | 4.1 | 4.12 | SDUNAJXNEB | 2.5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| No.12-28UNF | 2B | 4.6 | 4.67 | SDUNCKXNEB | 2.5P | 80 | 15 | 28 | 45 | 6 | 4.9 | 8 | 3 | 140 | ○ |
| 1/4-28UNF | 2B | 5.5 | 5.53 | SDU04KXNEB | 2.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 140 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2B | 6.9 | 6.97 | SMU05MXNEB | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| 3/8-24UNF | 2B | 8.5 | 8.57 | SMU06MXNEB | 2.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 7/16-20UNF | 2B | 9.9 | 9.96 | SMU07NXNEB | 2.5P | 100 | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 023 | ● |
| 1/2-20UNF | 2B | 11.5 | 11.54 | SMU08NXNEB | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| 9/16-18UNF | 2B | 12.9 | 13 | SMU090XNEB | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| 5/8-18UNF | 2B | 14.5 | 14.6 | SMU100XNEB | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| 3/4-16UNF | 2B | 17.5 | 17.59 | SMU12PXNEB | 2.5P | 110 | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| 7/8-14UNF | 2B | 20.5 | 20.57 | SMU14QXNEB | 2.5P | 125 | 20 | - | 64 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 -12UNF | 2B | 23.3 | 23.46 | SMU16SXNEB | 2.5P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/16-28 | - | 6.75 | 6.77 | SVG0010NEB | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ○ |
| 1/8-28 | - | 8.75 | 8.78 | SVG0020NEB | 2.5P | 90 | 12 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 1/4-19 | - | 11.75 | 11.78 | SVG0040NEB | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| 3/8-19 | - | 15.25 | 15.28 | SVG0060NEB | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| 1/2-14 | - | 19 | 19.04 | SVG0080NEB | 2.5P | 125 | 18 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| 3/4-14 | - | 24.5 | 24.52 | SVG0120NEB | 2.5P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| 1 -11 | - | 30.75 | 30.77 | SVG0160NEB | 2.5P | 160 | 20 | - | 82 | 25 | 20 | 23 | 4 | 023 | ● |
| 1 1/8-11 | - | 35.3 | 35.42 | SVG0180NEB | 2.5P | 170 | 20 | - | 87 | 28 | 22 | 25 | 4 | 023 | ○ |
| 1 1/4-11 | - | 39.3 | 39.43 | SVG0200NEB | 2.5P | 170 | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ● |
| 1 1/2-11 | - | 45.25 | 45.33 | SVG0240NEB | 2.5P | 190 | 25 | - | 97 | 36 | 29 | 32 | 4 | 023 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

# SP LH




## GP General Purpose Series

Spiral Fluted Taps for Left Hand Threads

HSS-E | LH LEFT HAND | 2.5P THCHT

**FEATURES**

General purpose for blind hole application.

For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

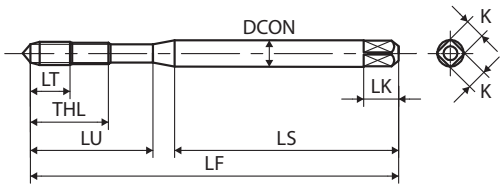
For left hand threads.

**Recommended Tapping Speeds Depending On Materials**

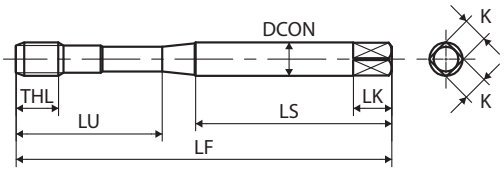
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

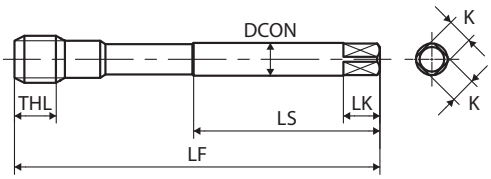
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | HD4.0IANEB | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | HD5.0KANEB | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | HD6.0MANEB | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | HD8.0NANEB | 2.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | HD010OANEB | 2.5P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | HG012PANEB | 2.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | HG014QANEB | 2.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | HG016QANEB | 2.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | HG018RANEB | 2.5P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ○ |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | HG020RANEB | 2.5P | 140 | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2(6H) | 7 | 7.09 | HM8.0MANEB | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ○ |
| **M14X1.5** | ISO2(6H) | 12.5 | 12.6 | HM0140ANEB | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ○ |
| **M16X1.5** | ISO2(6H) | 14.5 | 14.6 | HM0160ANEB | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ○ |

# SP-BLF OX




## GP General Purpose Series

Spiral Fluted Taps, Deep Hole Use, Oxided

HSS-E | OX | 2.5P THCHT

**FEATURES**

General purpose for deep blind hole application.

For tapping steel at medium-low cutting speed, also suitable for alloy steel and stainless steel application.

OX treatment reduces welding troubles, BLF geometry imrpoves chip ejection.

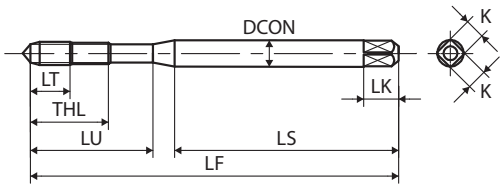
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ★ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ |
| P5 | 4÷7 | ☆ |
| P7 | 4÷8 | ☆ |

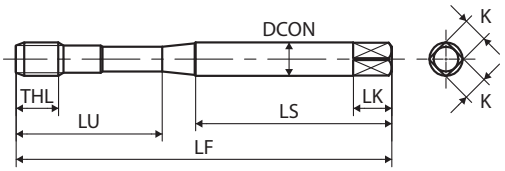
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 4÷8 | ☆ |

★ 1st choice ☆ suitable

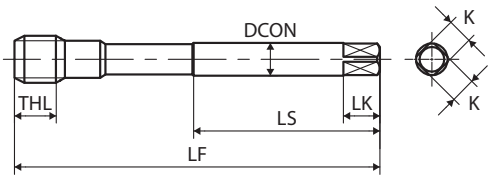
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | SD3.0GANEXJ | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | SD4.0IANEXJ | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | SD5.0KANEXJ | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | SD6.0MANEXJ | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | SD8.0NANEXJ | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | SD010OANEXJ | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | SG012PANEXJ | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | SG014QANEXJ | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | SG016QANEXJ | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | SG018RANEXJ | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | SG020RANEXJ | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| **M22X2.5** | ISO2(6H) | 19.5 | 19.63 | SG022RANEXJ | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| **M24X3** | ISO2(6H) | 21 | 21.13 | SG024SANEXJ | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |
| **M27X3** | ISO2(6H) | 24 | 24.13 | SG027SANEXJ | 2.5P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 023 | ● |
| **M30X3.5** | ISO2(6H) | 26.5 | 26.63 | SG030TANEXJ | 2.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| **M33X3.5** | ISO2(6H) | 29.5 | 29.63 | SG033TANEXJ | 2.5P | 180 | 46 | - | 92 | 25 | 20 | 23 | 4 | 023 | ● |
| **M36X4** | ISO2(6H) | 32 | 32.12 | SG036UANEXJ | 2.5P | 200 | 52 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |

# SP-BLF V




## GP General Purpose Series

Spiral Fluted Taps, Deep Hole Use, Coated

HSS-E | COATING | 2.5P THCHT

**FEATURES**

General purpose for blind hole application.

For tapping steel, also suitable for stainless steel and non-ferrous materials application.

BLF geometry reduces edge chipping trouble and improves chip ejection.

### Recommended Tapping Speeds Depending On Materials

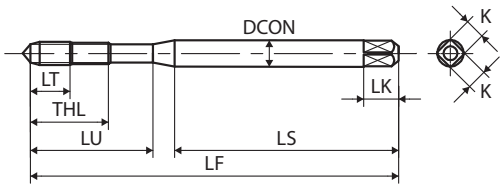
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 10÷20 | ★ |
| P2 | 10÷20 | ★ |
| P3 | 10÷20 | ★ |
| P4 | 10÷15 | ★ |
| P7 | 6÷12 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 6÷12 | ☆ |

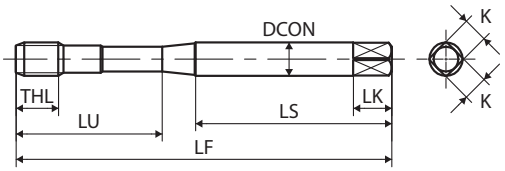
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷20 | ☆ |
| N2 | 10÷20 | ☆ |
| N3 | 10÷20 | ☆ |
| N4 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

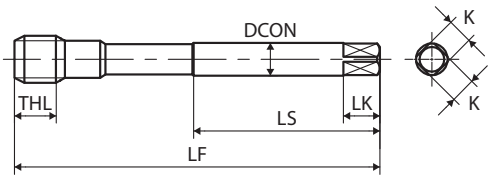
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | 96473.0TI | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | 96474.0TI | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | 96475.0TI | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | 96476.0TI | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | 96478.0TI | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | 9647010TI | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | 9747012TI | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | 9747014TI | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | 9747016TI | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | 9747018TI | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | 9747020TI | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| **M22X2.5** | ISO2(6H) | 19.5 | 19.63 | 9747022TI | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| **M24X3** | ISO2(6H) | 21 | 21.13 | 9747024TI | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |

# SP V

## GP General Purpose Series

Spiral Fluted Taps, Coated




HSS-E | COATING | 2.5P THCHT

**FEATURES**

General purpose for blind hole application.

For tapping steel, also suitable for stainless steel and non-ferrous materials.

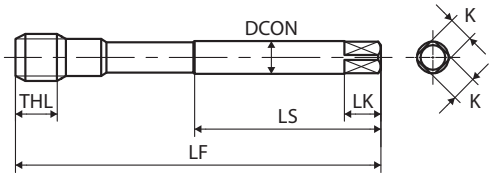
Adopting suitable coating to improve performances.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 10÷20 | ★ | M1 | 6÷12 | ☆ | N1 | 10÷20 | ☆ |
| P2 | 10÷20 | ★ | | | | N2 | 10÷20 | ☆ |
| P3 | 10÷20 | ★ | | | | N3 | 10÷20 | ☆ |
| P4 | 10÷15 | ★ | | | | N4 | 10÷20 | ☆ |
| P7 | 6÷12 | ☆ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: EU_023**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2(6H) | 7 | 7.09 | 98408.0MTI | 2.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| **M10X1.25** | ISO2(6H) | 8.8 | 8.85 | 9840010NTI | 2.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M10X1** | ISO2(6H) | 9 | 9.09 | 9840010MTI | 2.5P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M12X1.5** | ISO2(6H) | 10.5 | 10.6 | 9840012OTI | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| **M12X1.25** | ISO2(6H) | 10.8 | 10.85 | 9840012NTI | 2.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X1.5** | ISO2(6H) | 12.5 | 12.6 | 9840014OTI | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X1.5** | ISO2(6H) | 14.5 | 14.6 | 9840016OTI | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| **M18X1.5** | ISO2(6H) | 16.5 | 16.6 | 9840018OTI | 2.5P | 110 | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X1.5** | ISO2(6H) | 18.5 | 18.6 | 9840020OTI | 2.5P | 125 | 14 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| **1/8-28** | - | 8.75 | 8.78 | 9940R02TI | 2.5P | 90 | 12 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **1/4-19** | - | 11.75 | 11.78 | 9940R04TI | 2.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| **3/8-19** | - | 15.25 | 15.28 | 9940R06TI | 2.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| **1/2-14** | - | 19 | 19.04 | 9940R08TI | 2.5P | 125 | 18 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |

# LO-SP OX




## GP General Purpose Series

Low Spiral Fluted Taps, Oxided

HSS-E | OX | 3.5P THCHT

**FEATURES**

General purpose for blind hole application on medium tensile strength steel.

Low helix produces short chips. OX treatment reduces welding troubles.

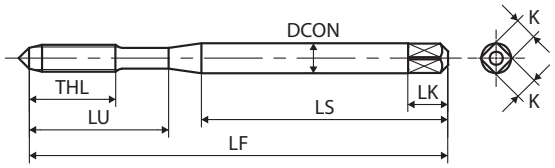
Very suitable for horizontal tapping.

**Recommended Tapping Speeds Depending On Materials**

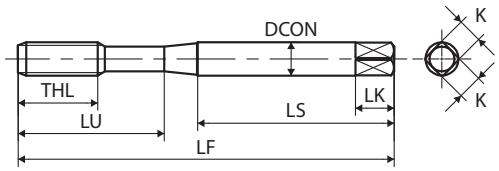
| ISO | Vc (m/min) | |
|---|---|---|
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ★ |
| P4 | 5÷10 | ★ |

★ 1st choice ☆ suitable

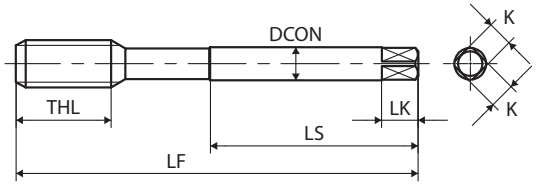
**TYPE: EU_057**




**TYPE: EU_004**




**TYPE: EU_010**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | SD3.0GANEXH | 3.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 057 | ● |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | SD4.0IANEXH | 3.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | SD5.0KANEXH | 3.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | SD6.0MANEXH | 3.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | SD8.0NANEXH | 3.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 004 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | SD010OANEXH | 3.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 004 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | SG012PANEXH | 3.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 010 | ● |
| M14X2 | ISO2(6H) | 12 | 12.12 | SG014QANEXH | 3.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 010 | ● |
| M16X2 | ISO2(6H) | 14 | 14.12 | SG016QANEXH | 3.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 010 | ● |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | SG018RANEXH | 3.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 010 | ○ |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | SG020RANEXH | 3.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 010 | ● |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | SG022RANEXH | 3.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M24X3 | ISO2(6H) | 21 | 21.13 | SG024SANEXH | 3.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M27X3 | ISO2(6H) | 24 | 24.13 | SG027SANEXH | 3.5P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 010 | ○ |
| M30X3.5 | ISO2(6H) | 26.5 | 26.63 | SG030TANEXH | 3.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 010 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2(6H) | 7 | 7.09 | SM8.0MANEXH | 3.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 010 | ● |
| M10X1.25 | ISO2(6H) | 8.8 | 8.85 | SM010NANEXH | 3.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 010 | ● |
| M10X1 | ISO2(6H) | 9 | 9.09 | SM010MANEXH | 3.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 010 | ● |
| M12X1.5 | ISO2(6H) | 10.5 | 10.6 | SM012OANEXH | 3.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 010 | ● |
| M12X1.25 | ISO2(6H) | 10.8 | 10.85 | SM012NANEXH | 3.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 010 | ● |
| M12X1 | ISO2(6H) | 11 | 11.09 | SM012MANEXH | 3.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 010 | ● |
| M14X1.5 | ISO2(6H) | 12.5 | 12.6 | SM014OANEXH | 3.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 010 | ● |
| M16X1.5 | ISO2(6H) | 14.5 | 14.6 | SM016OANEXH | 3.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 010 | ● |
| M18X1.5 | ISO2(6H) | 16.5 | 16.6 | SM018OANEXH | 3.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 010 | ● |
| M20X2 | ISO2(6H) | 18 | 18.12 | SM020QANEXH | 3.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 010 | ○ |
| M20X1.5 | ISO2(6H) | 18.5 | 18.6 | SM020OANEXH | 3.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 010 | ● |
| M22X1.5 | ISO2(6H) | 20.5 | 20.6 | SM022OANEXH | 3.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M24X2 | ISO2(6H) | 22 | 22.12 | SM024QANEXH | 3.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M24X1.5 | ISO2(6H) | 22.5 | 22.6 | SM024OANEXH | 3.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M25X1.5 | ISO2(6H) | 23.5 | 23.6 | SM025OANEXH | 3.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ○ |
| M27X2 | ISO2(6H) | 25 | 25.12 | SM027QANEXH | 3.5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 010 | ● |
| M28X1.5 | ISO2(6H) | 26.5 | 26.6 | SM028OANEXH | 3.5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 010 | ○ |
| M30X2 | ISO2(6H) | 28 | 28.12 | SM030QANEXH | 3.5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 010 | ○ |
| M30X1.5 | ISO2(6H) | 28.5 | 28.6 | SM030OANEXH | 3.5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 010 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | SVG0020NEXH | 3.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 010 | ● |
| 1/4-19 | - | 11.75 | 11.78 | SVG0040NEXH | 3.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 010 | ● |
| 3/8-19 | - | 15.25 | 15.28 | SVG0060NEXH | 3.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 010 | ● |
| 1/2-14 | - | 19 | 19.04 | SVG0080NEXH | 3.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 010 | ● |
| 3/4-14 | - | 24.5 | 24.52 | SVG0120NEXH | 3.5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 010 | ● |
| 1 -11 | - | 30.75 | 30.77 | SVG0160NEXH | 3.5P | 160 | 29 | - | 82 | 25 | 20 | 23 | 4 | 010 | ○ |

# AU+SP

## MP Multi Purpose Series

Plus Series Spiral Fluted Taps, Coated




HSS-E | COATING | 2.5P THCHT

**FEATURES**

Multi purpose for blind hole application on a wide range of materials. High precision blanks and enhanced geometry allow top performance in term of thread accuracy and tool life.

BLF geometry reduces edge chipping trouble and improves chip ejection.

Suitable coating improves wear, heat and welding resistance.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 10÷20 | ★ |
| P2 | 10÷20 | ★ |
| P3 | 10÷20 | ★ |
| P4 | 10÷20 | ★ |
| P7 | 5÷12 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 5÷12 | ★ |
| M2 | 5÷10 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| K2 | 5÷15 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 20÷30 | ★ |
| N2 | 20÷30 | ★ |
| N3 | 10÷20 | ☆ |
| N4 | 10÷20 | ☆ |

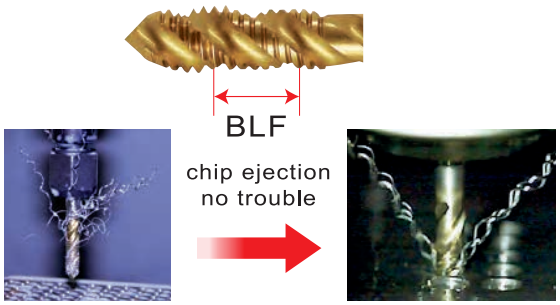
★ 1st choice ☆ suitable

WATCH THE VIDEO

versionUP+ Product Features

**BLF (thread portion of special design) + proprietary flute design: Great improvement in chip ejection efficiency.**

AU+SP has a special thread portion design with thread crests ground off and a few full threads after chamfer.
Effects of AU+SP are as follows:
- Prevention of chipping trouble at full thread portion
- Reduction of tapping torque and tapping friction
- Good chip ejection



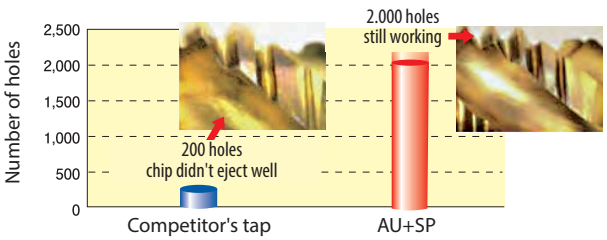

**Change of marking position from shank into square portion**

Laser marking can roughen the shank surface.
In order to keep high accuracy of shank circularity and diameter, marking has been transferred from shank to square portion.




**Wear resistance on a wide range of materials**

AU+SP adopts a special flutes designed enabling coating features to show their best efficency allowing high wear resistance on a wide range of work materials.




**M6×1**

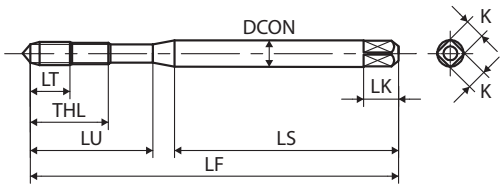
| | |
|---|---|
| Work-material | 42 CrMo 4 - 1.7225 |
| Tapping length | 9 mm, blind hole |
| Tapping speed | 10 m/min |
| Hole diameter | ø 5.0 |
| Machine | Vertical machining center |
| Lubricant | Water soluble oil (x 20) |



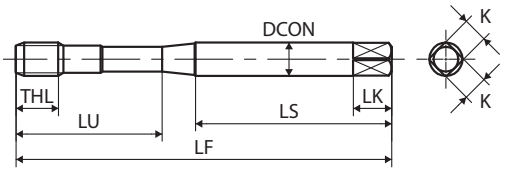
Think threads with YAMAWA

IMROBEX
Machine Tools International

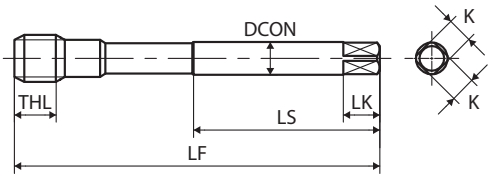
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | SE3.0GANEV | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | SE4.0IANEV | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | SE5.0KANEV | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | SE6.0MANEV | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | SE8.0NANEV | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | SE010OANEV | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | SH012PANEV | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 023 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | SH014QANEV | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 023 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | SH016QANEV | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 023 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | SH018RANEV | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | SH020RANEV | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2(6H) | 7 | 7.09 | SN8.0MANEV | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| **M10X1.25** | ISO2(6H) | 8.8 | 8.85 | SN010NANEV | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 023 | ● |
| **M10X1** | ISO2(6H) | 9 | 9.09 | SN010MANEV | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 4 | 023 | ● |
| **M12X1.5** | ISO2(6H) | 10.5 | 10.6 | SN012OANEV | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 023 | ● |
| **M12X1.25** | ISO2(6H) | 10.8 | 10.85 | SN012NANEV | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 023 | ● |
| **M14X1.5** | ISO2(6H) | 12.5 | 12.6 | SN014OANEV | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 023 | ● |
| **M16X1.5** | ISO2(6H) | 14.5 | 14.6 | SN016OANEV | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 023 | ● |
| **M18X1.5** | ISO2(6H) | 16.5 | 16.6 | SN018OANEV | 2.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X1.5** | ISO2(6H) | 18.5 | 18.6 | SN020OANEV | 2.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |

# PH-SP




## MS Material Specific Series

Spiral Fluted Taps for Hard Materials (<35HRC)

HSS-E | OX | 3P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design for medium-high tensile strength steel (<35HRC) application.

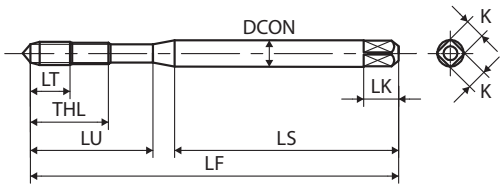
OX treatment reduces welding troubles.

**Recommended Tapping Speeds Depending On Materials**

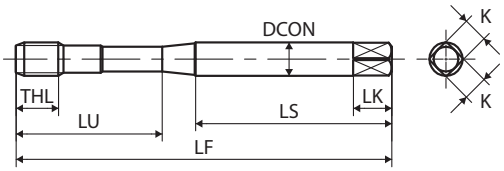
| ISO | Vc (m/min) | |
|---|---|---|
| P3 | 5÷10 | ☆ |
| P4 | 2÷7 | ★ |
| P5 | ≤5 | ★ |

★ 1st choice ☆ suitable

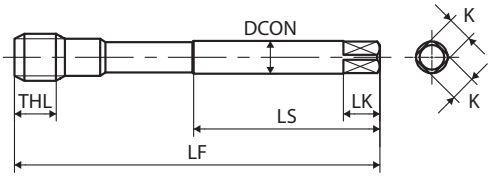
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | SD3.0GAEEX | 3P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | SD4.0IAEEX | 3P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | SD5.0KAEEX | 3P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | SD6.0MAEEX | 3P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | SD8.0NAEEX | 3P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | SD010OAEEX | 3P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | SG012PAEEX | 3P | 110 | 15 | - | 56 | 9 | 7 | 10 | 4 | 023 | ● |
| M14X2 | ISO2(6H) | 12 | 12.12 | SG014QAEEX | 3P | 110 | 18 | - | 56 | 11 | 9 | 12 | 4 | 023 | ● |
| M16X2 | ISO2(6H) | 14 | 14.12 | SG016QAEEX | 3P | 110 | 18 | - | 56 | 12 | 9 | 12 | 4 | 023 | ● |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | SG018RAEEX | 3P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | SG020RAEEX | 3P | 140 | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | SG022RAEEX | 3P | 140 | 20 | - | 71 | 18 | 14.5 | 17 | 5 | 023 | ● |
| M24X3 | ISO2(6H) | 21 | 21.13 | SG024SAEEX | 3P | 160 | 25 | - | 82 | 18 | 14.5 | 17 | 5 | 023 | ● |
| M27X3 | ISO2(6H) | 24 | 24.13 | SG027SAEEX | 3P | 160 | 25 | - | 82 | 20 | 16 | 19 | 5 | 023 | ● |
| M30X3.5 | ISO2(6H) | 26.5 | 26.63 | SG030TAEEX | 3P | 180 | 30 | - | 92 | 22 | 18 | 21 | 5 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2(6H) | 7 | 7.09 | SM8.0MAEEX | 3P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M10X1.25 | ISO2(6H) | 8.8 | 8.85 | SM010NAEEX | 3P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M10X1 | ISO2(6H) | 9 | 9.09 | SM010MAEEX | 3P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.5 | ISO2(6H) | 10.5 | 10.6 | SM0120AEEX | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 4 | 023 | ● |
| M12X1.25 | ISO2(6H) | 10.8 | 10.85 | SM012NAEEX | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 4 | 023 | ● |
| M14X1.5 | ISO2(6H) | 12.5 | 12.6 | SM0140AEEX | 3P | 100 | 14 | - | 51 | 11 | 9 | 12 | 4 | 023 | ● |
| M16X1.5 | ISO2(6H) | 14.5 | 14.6 | SM0160AEEX | 3P | 100 | 14 | - | 51 | 12 | 9 | 12 | 4 | 023 | ● |
| M18X1.5 | ISO2(6H) | 16.5 | 16.6 | SM0180AEEX | 3P | 110 | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X1.5 | ISO2(6H) | 18.5 | 18.6 | SM0200AEEX | 3P | 125 | 14 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| M22X1.5 | ISO2(6H) | 20.5 | 20.6 | SM0220AEEX | 3P | 125 | 14 | - | 64 | 18 | 14.5 | 17 | 5 | 023 | ● |
| M24X2 | ISO2(6H) | 22 | 22.12 | SM024QAEEX | 3P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 5 | 023 | ● |
| M24X1.5 | ISO2(6H) | 22.5 | 22.6 | SM0240AEEX | 3P | 140 | 18 | - | 71 | 18 | 14.5 | 17 | 5 | 023 | ● |
| M27X2 | ISO2(6H) | 25 | 25.12 | SM027QAEEX | 3P | 140 | 20 | - | 71 | 20 | 16 | 19 | 5 | 023 | ● |
| M30X2 | ISO2(6H) | 28 | 28.12 | SM030QAEEX | 3P | 150 | 20 | - | 77 | 22 | 18 | 21 | 5 | 023 | ● |
| M30X1.5 | ISO2(6H) | 28.5 | 28.6 | SM030OAEEX | 3P | 150 | 20 | - | 77 | 22 | 18 | 21 | 5 | 023 | ○ |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | SVG0020EEX | 3P | 90 | 12 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 1/4-19 | - | 11.75 | 11.78 | SVG0040EEX | 3P | 100 | 14 | - | 51 | 11 | 9 | 12 | 4 | 023 | ● |
| 3/8-19 | - | 15.25 | 15.28 | SVG0060EEX | 3P | 100 | 14 | - | 51 | 12 | 9 | 12 | 4 | 023 | ● |
| 1/2-14 | - | 19 | 19.04 | SVG0080EEX | 3P | 125 | 18 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |

# PM-SP




## MS Material Specific Series

Spiral Fluted Taps for Hard Materials (<45HRC)

HSS-P



2.75P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and high class HSSP for stable and long life on alloy steel and tool steel (30 ÷ 45HRC) application.

Reliable and high performance tapping for the mould&die industry.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P3 | 2÷10 | ☆ |
| P4 | 2÷7 | ★ |
| P5 | 2÷7 | ★ |
| P6 | 2÷5 | ★ |

★ 1st choice ☆ suitable

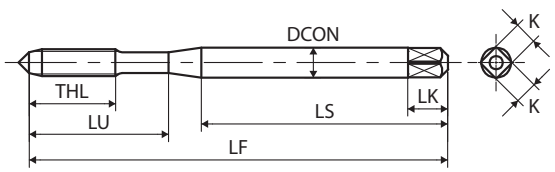
### Product Features

| ISO | Materials | Hardness | Recommended tapping speed (Vc <5m/min) |
|---|---|---|---|
| P6 | High tensile strength steel | 40÷45 HRC | EH (HSS-Co) |
| P5 | Tool steel (100MnCrW4-1.2510 40CrMnMo7-1.2311) | 30÷40 HRC | PM (HSS-P) |
| P4 | High alloy steel (CrMo, NiCrMo) | 25÷30 HRC | PH (HSS-E) |

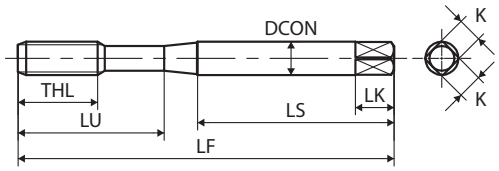
5m/min

Most Suitable — Suitable

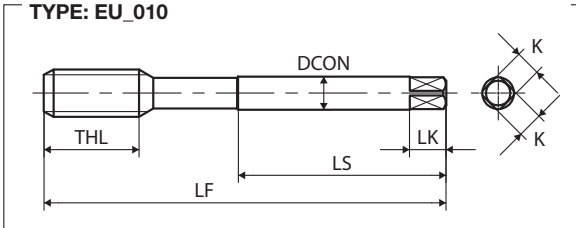
**TYPE: EU_057**




**TYPE: EU_004**




**TYPE: EU_010**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | SD3.0GBDPB | 2.75P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | SD4.0IBDPB | 2.75P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | SD5.0KBDPB | 2.75P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | SD6.0MBDPB | 2.75P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | SD8.0NBDPB | 2.75P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 004 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | SD010OBDPB | 2.75P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 004 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | SG012PBDPB | 2.75P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 010 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | SG014QBDPB | 2.75P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 010 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | SG016QBDPB | 2.75P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 010 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | SG018RBDPB | 2.75P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 010 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | SG020RBDPB | 2.75P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 010 | ● |
| M22X2.5 | ISO2X(6HX) | 19.5 | 19.63 | SG022RBDPB | 2.75P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | SG024SBDPB | 2.75P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M27X3 | ISO2X(6HX) | 24 | 24.13 | SG027SBDPB | 2.75P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 010 | ● |
| M30X3.5 | ISO2X(6HX) | 26.5 | 26.63 | SG030TBDPB | 2.75P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 010 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2X(6HX) | 7 | 7.09 | SM8.0MBDPB | 2.75P | 100 | 12 | - | 51 | 7 | 5.5 | 8 | 3 | 010 | ● |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | SM010NBDPB | 2.75P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 010 | ● |
| M10X1 | ISO2X(6HX) | 9 | 9.09 | SM010MBDPB | 2.75P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 010 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | SM012OBDPB | 2.75P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 010 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | SM012NBDPB | 2.75P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 010 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | SM014OBDPB | 2.75P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 010 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | SM016OBDPB | 2.75P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 010 | ● |
| M18X1.5 | ISO2X(6HX) | 16.5 | 16.6 | SM018OBDPB | 2.75P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 010 | ● |
| M20X1.5 | ISO2X(6HX) | 18.5 | 18.6 | SM020OBDPB | 2.75P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 010 | ● |
| M22X1.5 | ISO2X(6HX) | 20.5 | 20.6 | SM022OBDPB | 2.75P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M24X2 | ISO2X(6HX) | 22 | 22.12 | SM024QBDPB | 2.75P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M24X1.5 | ISO2X(6HX) | 22.5 | 22.6 | SM024OBDPB | 2.75P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 010 | ● |
| M27X2 | ISO2X(6HX) | 25 | 25.12 | SM027QBDPB | 2.75P | 140 | 20 | - | 71 | 20 | 16 | 19 | 4 | 010 | ● |
| M27X1.5 | ISO2X(6HX) | 25.5 | 25.6 | SM027OBDPB | 2.75P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 010 | ● |
| M30X2 | ISO2X(6HX) | 28 | 28.12 | SM030QBDPB | 2.75P | 150 | 20 | - | 77 | 22 | 18 | 21 | 4 | 010 | ● |
| M30X1.5 | ISO2X(6HX) | 28.5 | 28.6 | SM030OBDPB | 2.75P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 010 | ● |

# PMSP




## MS Material Specific Series

Spiral Fluted Taps for Hard Materials (<45HRC)

HSS-P | OX | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and high class HSSP for stable and long life on alloy steel and tool steel (30 ÷ 45HRC) application.

Reliable and high performance tapping for the mould&die industry.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ★ |
| P5 | ≤5 | ★ |
| P6 | ≤5 | ★ |

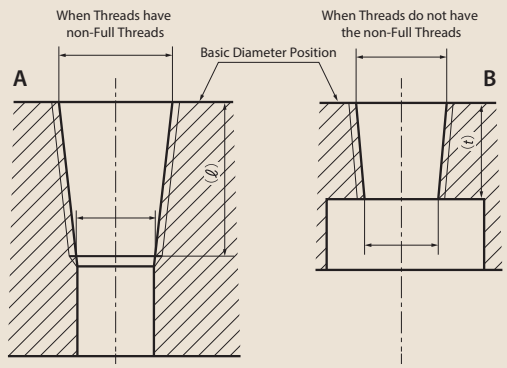
★ 1st choice ☆ suitable

### Product Features

| ISO | Materials | Hardness | Recommended tapping speed (Vc <5m/min) 5m/min |
|---|---|---|---|
| P6 | High tensile strength steel | 40÷45 HRC | |
| P5 | Tool steel (100MnCrW4-1.2510 40CrMnMo7-1.2311) | 30÷40 HRC | PM (HSS-P) |
| P4 | High alloy steel (CrMo, NiCrMo) | 25÷30 HRC | |

Most Suitable — Suitable

### Bored Hole Ø (mm) A - B

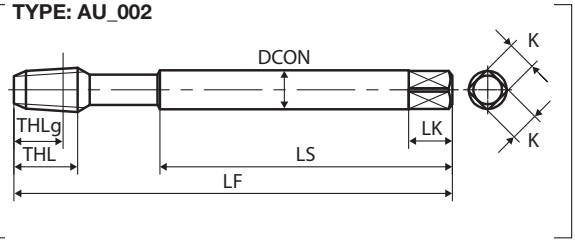





Think threads with YAMAWA

IMROBEX Machine Tools International

**TYPE: AU_002**




| Rc(BSPT) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| **1/8-28** | - | | 8.1 | SJRC020DPX | 2.5P | 90 | 15 | - | 46 | 8 | 6 | 9 | 3 | 002 | ● |
| **1/4-19** | - | | 10.7 | SJRC040DPX | 2.5P | 100 | 19 | - | 51 | 11 | 9 | 12 | 3 | 002 | ● |
| **3/8-19** | - | | 14.2 | SJRC060DPX | 2.5P | 100 | 21 | - | 51 | 14 | 11 | 14 | 3 | 002 | ● |
| **1/2-14** | - | | 17.6 | SJRC080DPX | 2.5P | 125 | 26 | - | 64 | 18 | 14 | 17 | 4 | 002 | ● |
| **3/4-14** | - | | 23 | SJRC120DPX | 2.5P | 140 | 28 | - | 71 | 23 | 17 | 20 | 4 | 002 | ○ |
| **1 -11** | - | | 29 | SJRC160DPX | 2.5P | 160 | 33 | - | 82 | 26 | 21 | 24 | 4 | 002 | ○ |

# SP+VA




## MS Material Specific Series

Plus Series Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 2.5P THCHT

**FEATURES**

Material specific for blind hole application. High precision blank and enhanced geometry allow top performance in term of thread accuracy and tool life.

Most suitable for stainless steel, steel and alloy steel.

OX treatment reduces welding troubles.

### Recommended Tapping Speeds Depending On Materials

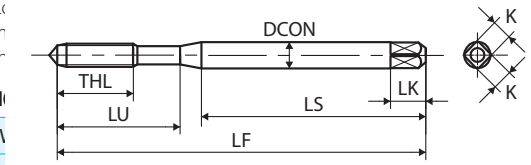
| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |

★ 1st choice ☆ suitable

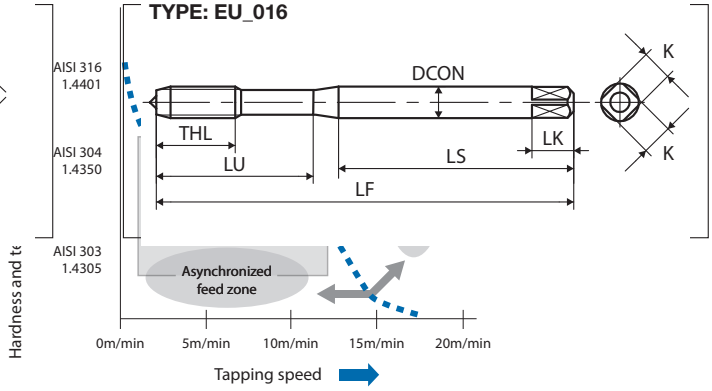
VersionUP+

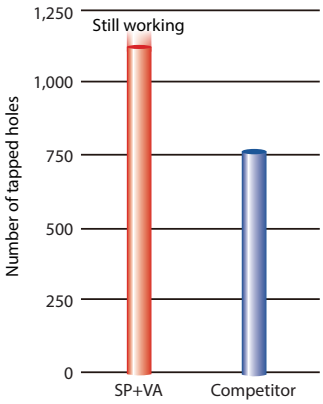
**TYPE: EU_001**

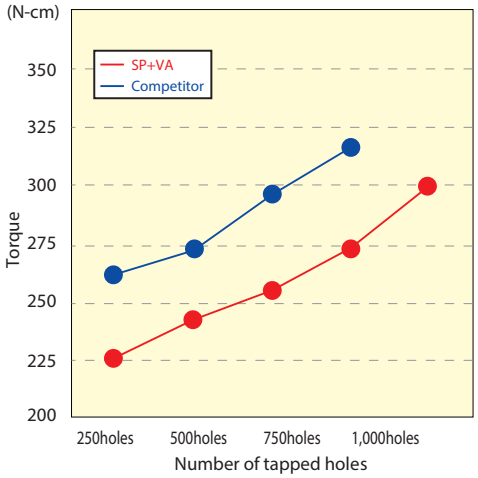



| | |
|---|---|
| Tapping speed | 8 m/min |
| Hole diameter | ø 5.0 |
| Machine | Vertical machining center |
| Lubricant | Tapping oil |

**TYPE: EU_016**



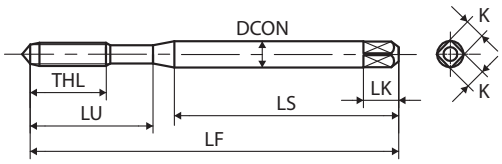





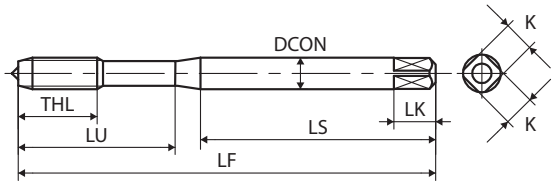

Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: EU_001**




**TYPE: EU_016**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | IS02(6H) | 2.5 | 2.56 | SE3.0GAGEX | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ● |
| **M4X0.7** | IS02(6H) | 3.3 | 3.38 | SE4.0IAGEX | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ● |
| **M5X0.8** | IS02(6H) | 4.2 | 4.28 | SE5.0KAGEX | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| **M6X1** | IS02(6H) | 5 | 5.09 | SZ6.0MAGEX | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 016 | ● |
| **M8X1.25** | IS02(6H) | 6.8 | 6.85 | SZ8.0NAGEX | 2.5P | 90 | 19 | 35 | 48 | 8 | 6.2 | 9 | 3 | 016 | ● |
| **M10X1.5** | IS02(6H) | 8.5 | 8.6 | SZ010OAGEX | 2.5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 4 | 016 | ● |
| **M12X1.75** | IS02(6H) | 10.3 | 10.36 | SZ012PAGEX | 2.5P | 110 | 26 | 45 | 56 | 12 | 9 | 12 | 4 | 016 | ● |

# SP-VA




## MS Material Specific Series

Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

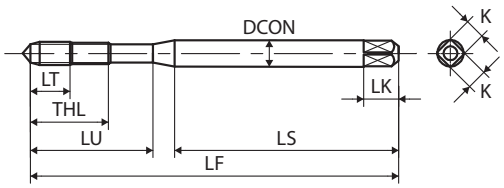
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

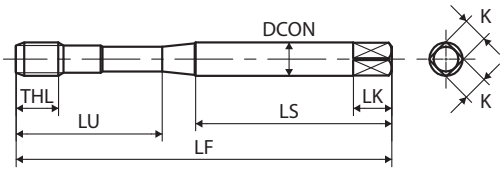
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |

★ 1st choice ☆ suitable

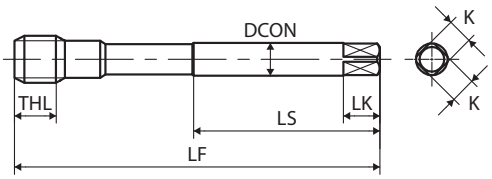
**TYPE: EU_140**



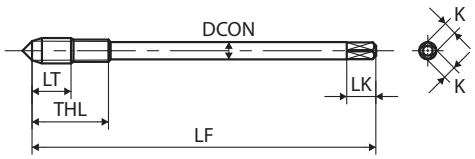

**TYPE: EU_025**



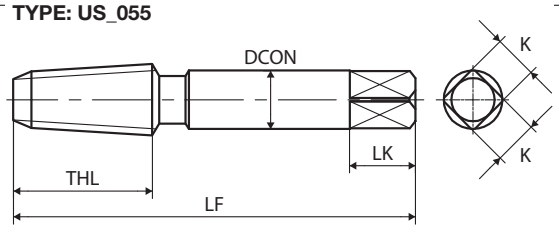

**TYPE: EU_023**



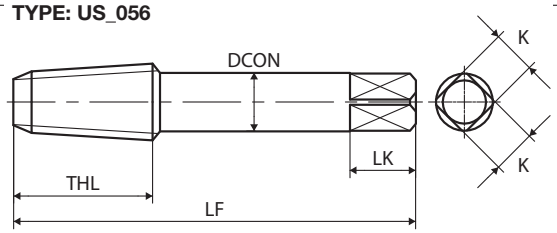

**TYPE: EU_141**




**TYPE: US_055**




**TYPE: US_056**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2(6H) | 1.6 | 1.65 | SD2.0EAGEX | 2.5P | 45 | 4 | 8 | - | 32 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| M2.5X0.45 | ISO2(6H) | 2.1 | 2.11 | SD2.5FAGEX | 2.5P | 50 | 4 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | SD3.0GAGEX | 2.5P | 56 | 5 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| | ISO3(6G) | 2.5 | 2.56 | SD3.0GMGEX | 2.5P | 56 | 5 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | SD4.0IAGEX | 2.5P | 63 | 7 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| | ISO3(6G) | 3.3 | 3.38 | SD4.0IMGEX | 2.5P | 63 | 7 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | SD5.0KAGEX | 2.5P | 70 | 9 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO3(6G) | 4.2 | 4.28 | SD5.0KMGEX | 2.5P | 70 | 9 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | SD6.0MAGEX | 2.5P | 80 | 11 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| | ISO3(6G) | 5 | 5.09 | SD6.0MMGEX | 2.5P | 80 | 11 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | SD8.0NAGEX | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| | ISO3(6G) | 6.8 | 6.85 | SD8.0NMGEX | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | SD010OAGEX | 2.5P | 100 | - | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |
| | ISO3(6G) | 8.5 | 8.6 | SD010OMGEX | 2.5P | 100 | - | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | | |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | SG8.0NAGEX | 2.5P | 90 | - | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | SG010OAGEX | 2.5P | 100 | - | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | SG012PAGEX | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| | ISO3(6G) | 10.3 | 10.36 | SG012PMGEX | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X2 | ISO2(6H) | 12 | 12.12 | SG014QAGEX | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X2 | ISO2(6H) | 14 | 14.12 | SG016QAGEX | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | SG018RAGEX | 2.5P | 125 | - | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | SG020RAGEX | 2.5P | 140 | - | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | SG022RAGEX | 2.5P | 140 | - | 20 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M24X3 | ISO2(6H) | 21 | 21.13 | SG024SAGEX | 2.5P | 160 | - | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M27X3 | ISO2(6H) | 24 | 24.13 | SG027SAGEX | 2.5P | 160 | - | 25 | - | 82 | 20 | 16 | 19 | 4 | 023 | ● |
| M30X3.5 | ISO2(6H) | 26.5 | 26.63 | SG030TAGEX | 2.5P | 180 | - | 30 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| M36X4 | ISO2(6H) | 32 | 32.12 | SG036UAGEX | 2.5P | 200 | - | 40 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | | |
| M6X0.75 | ISO2(6H) | 5.3 | 5.33 | SM6.0JAGEX | 2.5P | 80 | 13 | 13 | - | - | 4.5 | 3.4 | 6 | 3 | 141 | ● |
| M8X1 | ISO2(6H) | 7 | 7.09 | SM8.0MAGEX | 2.5P | 90 | - | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M8X0.75 | ISO2(6H) | 7.3 | 7.33 | SM8.0JAGEX | 2.5P | 80 | - | 12 | - | 41 | 6 | 4.9 | 8 | 3 | 023 | ● |
| M10X1.25 | ISO2(6H) | 8.8 | 8.85 | SM010NAGEX | 2.5P | 100 | - | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M10X1 | ISO2(6H) | 9 | 9.09 | SM010MAGEX | 2.5P | 90 | - | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.5 | ISO2(6H) | 10.5 | 10.6 | SM012OAGEX | 2.5P | 100 | - | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M12X1.25 | ISO2(6H) | 10.8 | 10.85 | SM012NAGEX | 2.5P | 100 | - | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M12X1 | ISO2(6H) | 11 | 11.09 | SM012MAGEX | 2.5P | 100 | - | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X1.5 | ISO2(6H) | 12.5 | 12.6 | SM014OAGEX | 2.5P | 100 | - | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M14X1 | ISO2(6H) | 13 | 13.09 | SM014MAGEX | 2.5P | 100 | - | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X1.5 | ISO2(6H) | 14.5 | 14.6 | SM016OAGEX | 2.5P | 100 | - | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| M16X1 | ISO2(6H) | 15 | 15.09 | SM016MAGEX | 2.5P | 100 | - | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| M18X1.5 | ISO2(6H) | 16.5 | 16.6 | SM018OAGEX | 2.5P | 110 | - | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X1.5 | ISO2(6H) | 18.5 | 18.6 | SM020OAGEX | 2.5P | 125 | - | 14 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| M22X1.5 | ISO2(6H) | 20.5 | 20.6 | SM022OAGEX | 2.5P | 125 | - | 14 | - | 64 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M24X2 | ISO2(6H) | 22 | 22.12 | SM024QAGEX | 2.5P | 140 | - | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | | |
| M24X1.5 | ISO2(6H) | 22.5 | 22.6 | SM0240AGEX | 2.5P | 140 | - | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| M27X2 | ISO2(6H) | 25 | 25.12 | SM027QAGEX | 2.5P | 140 | - | 20 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| M30X2 | ISO2(6H) | 28 | 28.12 | SM030QAGEX | 2.5P | 150 | - | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| M30X1.5 | ISO2(6H) | 28.5 | 28.6 | SM0300AGEX | 2.5P | 150 | - | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| No.4-40UNC | 2B | 2.3 | 2.33 | SDUN4HXGEX | 2.5P | 56 | 5 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| No.6-32UNC | 2B | 2.8 | 2.83 | SDUN6JXGEX | 2.5P | 56 | 7 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 140 | ● |
| No.8-32UNC | 2B | 3.4 | 3.47 | SDUN8JXGEX | 2.5P | 63 | 7 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| No.10-24UNC | 2B | 3.89 | 3.9 | SDUNAMXGEX | 2.5P | 70 | 9 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| 1/4-20UNC | 2B | 5.1 | 5.19 | SDU04NXGEX | 2.5P | 80 | 11 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 140 | ● |
| 5/16-18UNC | 2B | 6.6 | 6.65 | SDU05OXGEX | 2.5P | 90 | - | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| 3/8-16UNC | 2B | 8 | 8.07 | SDU06PXGEX | 2.5P | 100 | - | 13 | 39 | 54 | 9 | 7 | 10 | 3 | 025 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | | |
| 7/16-14UNC | 2B | 9.4 | 9.45 | SGU07QXGEX | 2.5P | 100 | - | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 023 | ● |
| 1/2-13UNC | 2B | 10.9 | 10.91 | SGU08RXGEX | 2.5P | 110 | - | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| 9/16-12UNC | 2B | 12.2 | 12.33 | SGU09SXGEX | 2.5P | 110 | - | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| 5/8-11UNC | 2B | 13.6 | 13.75 | SGU10UXGEX | 2.5P | 110 | - | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| 3/4-10UNC | 2B | 16.6 | 16.7 | SGU12VXGEX | 2.5P | 125 | - | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| 7/8-9UNC | 2B | 19.6 | 19.61 | SGU14WXGEX | 2.5P | 140 | - | 20 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 -8UNC | 2B | 22.3 | 22.45 | SGU16XXGEX | 2.5P | 160 | - | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 1/8-7UNC | 2B | 25 | 25.17 | SGU18YXGEX | 2.5P | 180 | - | 30 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 1/4-7UNC | 2B | 28.2 | 28.35 | SGU20YXGEX | 2.5P | 180 | - | 30 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 3/8-6UNC | 2B | 30.8 | 30.92 | SGU22ZXGEX | 2.5P | 200 | - | 40 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| 1 1/2-6UNC | 2B | 34 | 34.1 | SGU24ZXGEX | 2.5P | 200 | - | 40 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | | |
| No.10-32UNF | 2B | 4.1 | 4.12 | SDUNAJXGEX | 2.5P | 70 | 9 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| 1/4-28UNF | 2B | 5.5 | 5.53 | SDU04KXGEX | 2.5P | 80 | 11 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 140 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2B | 6.9 | 6.97 | SMU05MXGEX | 2.5P | 90 | - | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| 3/8-24UNF | 2B | 8.5 | 8.57 | SMU06MXGEX | 2.5P | 100 | - | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 7/16-20UNF | 2B | 9.9 | 9.96 | SMU07NXGEX | 2.5P | 100 | - | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 023 | ● |
| 1/2-20UNF | 2B | 11.5 | 11.54 | SMU08NXGEX | 2.5P | 100 | - | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| 9/16-18UNF | 2B | 12.9 | 13 | SMU09OXGEX | 2.5P | 100 | - | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| 5/8-18UNF | 2B | 14.5 | 14.6 | SMU10OXGEX | 2.5P | 100 | - | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| 3/4-16UNF | 2B | 17.5 | 17.59 | SMU12PXGEX | 2.5P | 110 | - | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |
| 7/8-14UNF | 2B | 20.5 | 20.57 | SMU14QXGEX | 2.5P | 125 | - | 20 | - | 64 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 -12UNF | 2B | 23.3 | 23.46 | SMU16SXGEX | 2.5P | 140 | - | 18 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ● |
| 1 1/8-12UNF | 2B | 26.5 | 26.63 | SMU18SXGEX | 2.5P | 150 | - | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 1/4-12UNF | 2B | 29.6 | 29.81 | SMU20SXGEX | 2.5P | 150 | - | 20 | - | 77 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 3/8-12UNF | 2B | 32.8 | 32.98 | SMU22SXGEX | 2.5P | 170 | - | 20 | - | 87 | 28 | 22 | 25 | 4 | 023 | ● |
| 1 1/2-12UNF | 2B | 36 | 36.16 | SMU24SXGEX | 2.5P | 170 | - | 20 | - | 87 | 32 | 24 | 27 | 4 | 023 | ● |



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| 8UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | | |
| 1 1/8-8UN | 2B | 25.5 | 25.62 | SMU18XXGEX | 2.5P | 180 | - | 28 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 1/4-8UN | 2B | 28.5 | 28.8 | SMU20XXGEX | 2.5P | 180 | - | 28 | - | 92 | 22 | 18 | 21 | 4 | 023 | ● |
| 1 3/8-8UN | 2B | 31.8 | 31.97 | SMU22XXGEX | 2.5P | 200 | - | 30 | - | 102 | 28 | 22 | 25 | 4 | 023 | ● |
| 1 1/2-8UN | 2B | 35 | 35.15 | SMU24XXGEX | 2.5P | 200 | - | 30 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| 1 5/8-8UN | 2B | 38.1 | 38.32 | SMU26XXGEX | 2.5P | 200 | - | 30 | - | 102 | 32 | 24 | 27 | 4 | 023 | ● |
| 1 3/4-8UN | 2B | 41.3 | 41.5 | SMU28XXGEX | 2.5P | 200 | - | 40 | - | 102 | 36 | 29 | 32 | 4 | 023 | ● |
| 2 -8UN | 2B | 47.8 | 47.85 | SMU32XXGEX | 2.5P | 225 | - | 40 | - | 115 | 40 | 32 | 35 | 4 | 023 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | SVG0020GEX | 2.5P | 9.728 | 90 | 12 | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 1/4-19 | - | 11.75 | 11.78 | SVG0040GEX | 2.5P | 13.157 | 100 | 14 | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| 3/8-19 | - | 15.25 | 15.28 | SVG0060GEX | 2.5P | 16.662 | 100 | 14 | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| 1/2-14 | - | 19 | 19.04 | SVG0080GEX | 2.5P | 20.955 | 125 | 18 | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| 3/4-14 | - | 24.5 | 24.52 | SVG0120GEX | 2.5P | 26.441 | 140 | 20 | 71 | 20 | 16 | 19 | 4 | 023 | ● |
| 1 -11 | - | 30.75 | 30.77 | SVG0160GEX | 2.5P | 33.249 | 160 | 20 | 82 | 25 | 20 | 23 | 4 | 023 | ● |

| NPT | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF () | THL () | LS () | DCON () | K () | LK () | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| 1/8-27 | - | 8.35 | 8.39 | 0AFBZ002 | 2.5P | 10.117 | 90 | 12 | 64 | 10 | 8 | 11 | 3 | 055 | ● |
| 1/4-18 | - | 10.8 | 10.85 | NHFBZ008 | 2.5P | 13.426 | 100 | 18 | 57 | 14 | 11 | 14 | 3 | 055 | ● |

| NPT | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF () | THL () | LS () | DCON () | K () | LK () | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 3/8-18 | - | 14.25 | 14.27 | NFFBZ007 | 2.5P | 16.866 | 110 | 18 | 90 | 14 | 11 | 14 | 4 | 056 | ● |
| 1/2-14 | - | 17.5 | 17.6 | 0DFBZ003 | 2.5P | 20.980 | 140 | 23 | 114 | 16 | 12 | 15 | 4 | 056 | ● |
| 3/4-14 | - | 22.9 | 22.91 | NHFBZ006 | 2.5P | 26.325 | 150 | 24 | 123 | 20 | 16 | 19 | 4 | 056 | ● |
| 1 -11.5 | - | 28.75 | 28.78 | NKYLZ001 | 2.5P | 32.934 | 170 | 30 | 136 | 25 | 20 | 23 | 4 | 056 | ● |

# SP-VA E(1.5P)




## MS Material Specific Series

1.5P Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 1.5P THCHT

**FEATURES**

Material specific for blind hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

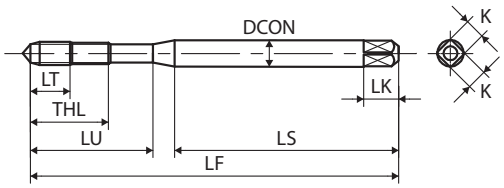
### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

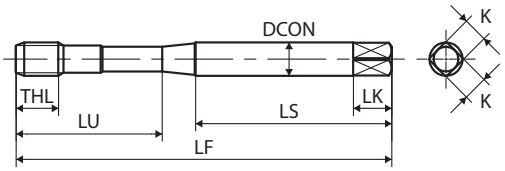
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |

★ 1st choice ☆ suitable

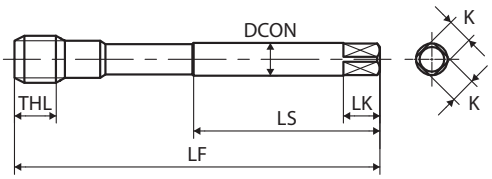
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**






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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | SD3.0GAGEXA | 1.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 140 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | SD4.0IAGEXA | 1.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | SD5.0KAGEXA | 1.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | SD6.0MAGEXA | 1.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | SD8.0NAGEXA | 1.5P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | SD010OAGEXA | 1.5P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | SG012PAGEXA | 1.5P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | SG014QAGEXA | 1.5P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | SG016QAGEXA | 1.5P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | SG020RAGEXA | 1.5P | 140 | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2(6H) | 7 | 7.09 | SM8.0MAGEXA | 1.5P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| **M10X1.25** | ISO2(6H) | 8.8 | 8.85 | SM010NAGEXA | 1.5P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M10X1** | ISO2(6H) | 9 | 9.09 | SM010MAGEXA | 1.5P | 90 | 13 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **M12X1.5** | ISO2(6H) | 10.5 | 10.6 | SM012OAGEXA | 1.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| **M12X1.25** | ISO2(6H) | 10.8 | 10.85 | SM012NAGEXA | 1.5P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| **M14X1.5** | ISO2(6H) | 12.5 | 12.6 | SM014OAGEXA | 1.5P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| **M16X1.5** | ISO2(6H) | 14.5 | 14.6 | SM016OAGEXA | 1.5P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |

# SU2-SP




## MS Material Specific Series

Spiral Fluted Taps for Tough Stainless Steel

HSS-E | OX | SYNCHRO | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

Most suitable for tough stainless steel (ISO M2 - M3).

OX treatment reduces welding troubles, BLF geometry imrpoves chip ejection.

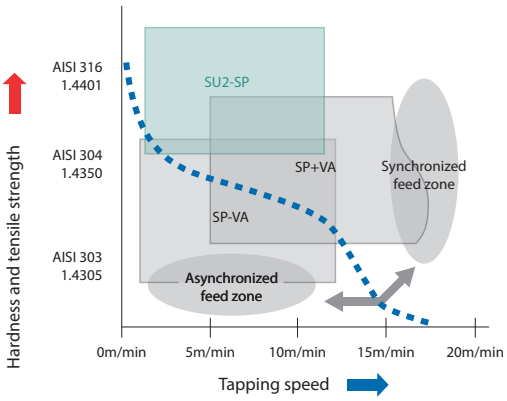
### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 5÷15 | ☆ |
| M2 | 5÷15 | ★ |
| M3 | 5÷12 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| S1 | 3÷7 | ☆ |

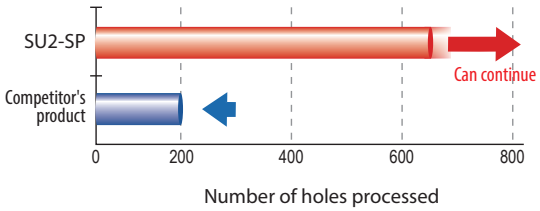
★ 1st choice ☆ suitable

### Product Features




### Tapping Data

| | |
|---|---|
| Work-material | AISI316 - 1.4401 |
| Tapping length | 25 mm, blind hole |
| Tapping speed | 8 m/min |
| Hole diameter | ø 10.3 |
| Machine | CNC tapping machine |
| Lubricant | Tapping oil |

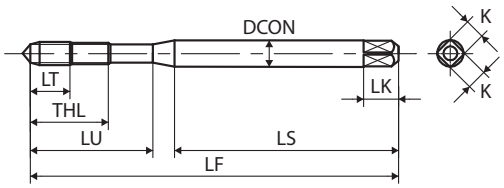




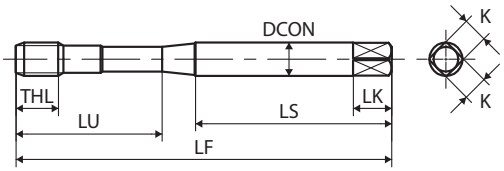

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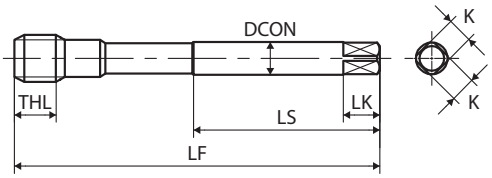
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | IS02(6H) | 2.5 | 2.56 | SD3.0GAGEXJ | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 140 | ● |
| **M4X0.7** | IS02(6H) | 3.3 | 3.38 | SD4.0IAGEXJ | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 140 | ● |
| **M5X0.8** | IS02(6H) | 4.2 | 4.28 | SD5.0KAGEXJ | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M6X1** | IS02(6H) | 5 | 5.09 | SD6.0MAGEXJ | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 140 | ● |
| **M8X1.25** | IS02(6H) | 6.8 | 6.85 | SD8.0NAGEXJ | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| **M10X1.5** | IS02(6H) | 8.5 | 8.6 | SD010OAGEXJ | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | IS02(6H) | 10.3 | 10.36 | SG012PAGEXJ | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 023 | ● |
| **M14X2** | IS02(6H) | 12 | 12.12 | SG014QAGEXJ | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 023 | ● |
| **M16X2** | IS02(6H) | 14 | 14.12 | SG016QAGEXJ | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 023 | ● |
| **M18X2.5** | IS02(6H) | 15.5 | 15.63 | SG018RAGEXJ | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| **M20X2.5** | IS02(6H) | 17.5 | 17.63 | SG020RAGEXJ | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| **M22X2.5** | IS02(6H) | 19.5 | 19.63 | SG022RAGEXJ | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 023 | ○ |
| **M24X3** | IS02(6H) | 21 | 21.13 | SG024SAGEXJ | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| **1/8-28** | - | 8.75 | 8.78 | SVG0020GEXJ | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 023 | ● |
| **1/4-19** | - | 11.75 | 11.78 | SVG0040GEXJ | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 023 | ● |
| **3/8-19** | - | 15.25 | 15.28 | SVG0060GEXJ | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 023 | ● |
| **1/2-14** | - | 19 | 19.04 | SVG0080GEXJ | 2.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 023 | ● |
| **3/4-14** | - | 24.5 | 24.52 | SVG0120GEXJ | 2.5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 023 | ● |

# AL+SP/AL-SP




## MS Material Specific Series

Spiral Fluted Taps for Aluminium

HSS-E | NI | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

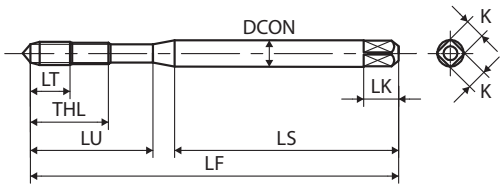
Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

**Recommended Tapping Speeds Depending On Materials**

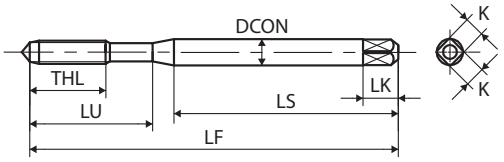
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷25 ★ |
| N2 | 10÷25 ★ |
| N3 | 10÷25 ★ |
| N4 | 10÷25 ★ |

★ 1st choice ☆ suitable

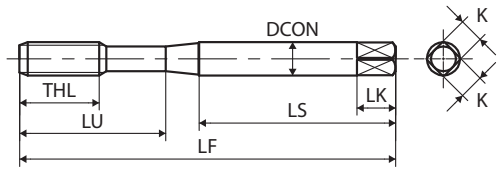
**TYPE: EU_140**



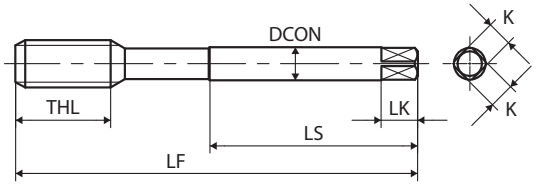

**TYPE: EU_001**




**TYPE: EU_004**

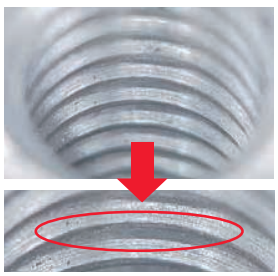



**TYPE: EU_010**

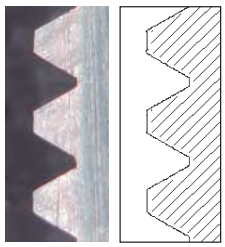



### AL+SP

Internal thread

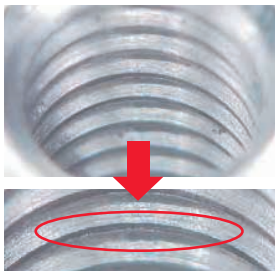


Cross section of internal threads

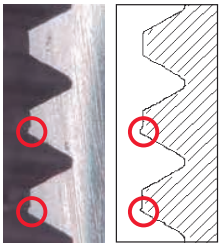


### Competitor

Internal thread



Cross section of internal threads



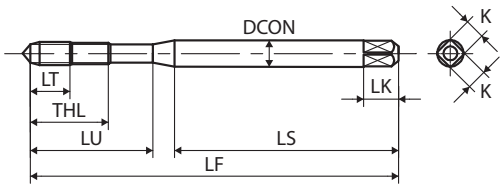
Compared to competitor, AL+SP assures longer tool life and higher quality internal threads



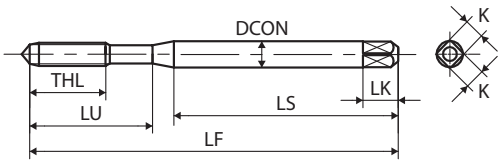
Think threads with YAMAWA

IMROBEX Machine Tools International

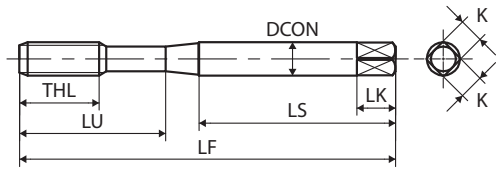
**TYPE: EU_140**



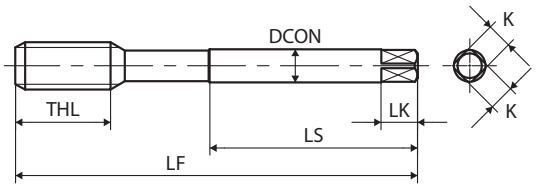

**TYPE: EU_001**




**TYPE: EU_004**




**TYPE: EU_010**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M2X0.4** | ISO2(6H) | 1.6 | 1.65 | SE2.0EALEN | 2.5P | 45 | 8 | - | - | 2.8 | 2.1 | 5 | 2 | 140 | ● |
| **M2.5X0.45** | ISO2(6H) | 2.1 | 2.11 | SE2.5FALEN | 2.5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | SE3.0GALEN | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | SE4.0IALEN | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | SE5.0KALEN | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | SE6.0MALEN | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | SD8.0NALEN | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 004 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | SD010OALEN | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 004 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | SG012PALEN | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 010 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | SG014QALEN | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 010 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | SG016QALEN | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 010 | ● |

# ZEN-B




## MS Material Specific Series

Spiral Fluted Taps for Nickel Base Alloys

HSS-P | OX | SYNCHRO | 3P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and OX treatment allow high performance on Nickel base alloys.

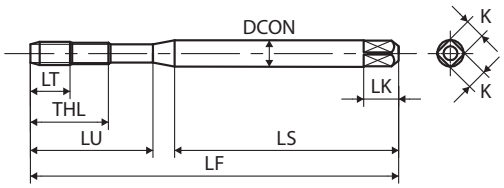
Also suitable for stainless steel and high alloy steel.

### Recommended Tapping Speeds Depending On Materials

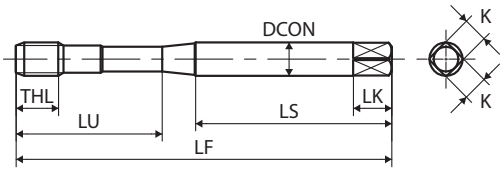
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P3 | 5÷15 | ★ | M1 | 5÷15 | ★ | S1 | 5÷10 | ★ |
| P4 | 5÷15 | ★ | M2 | 5÷15 | ★ | S2 | 5÷10 | ★ |
| P5 | 5÷10 | ☆ | M3 | 4÷8 | ★ | | | |
| P7 | 5÷15 | ★ | | | | | | |
| P8 | 4÷8 | ★ | | | | | | |

★ 1st choice ☆ suitable

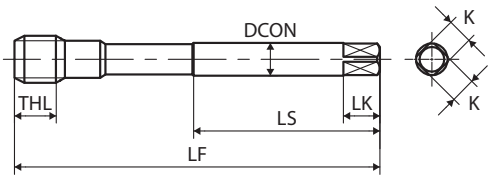
**TYPE: EU_142**




**TYPE: EU_025**




**TYPE: EU_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | IS02X(6HX) | 2.5 | 2.56 | SD3.0GBJPX | 3P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 142 | ● |
| M4X0.7 | IS02X(6HX) | 3.3 | 3.38 | SD4.0IBJPX | 3P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 142 | ● |
| M5X0.8 | IS02X(6HX) | 4.2 | 4.28 | SD5.0KBJPX | 3P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 142 | ● |
| M6X1 | IS02X(6HX) | 5 | 5.09 | SD6.0MBJPX | 3P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 142 | ● |
| M8X1.25 | IS02X(6HX) | 6.8 | 6.85 | SD8.0NBJPX | 3P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| M10X1.5 | IS02X(6HX) | 8.5 | 8.6 | SD0100BJPX | 3P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |



Think threads with YAMAWA

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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | SG012PBJPX | 3P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | SG014QBJPX | 3P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | SG016QBJPX | 3P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | SG018RBJPX | 3P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | SG020RBJPX | 3P | 140 | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | SG024SBJPX | 3P | 160 | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | SM010NBJPX | 3P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | SM012OBJPX | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | SM012NBJPX | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | SM014OBJPX | 3P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | SM016OBJPX | 3P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-40UNC | 2BX | 2.3 | 2.33 | SDUN4HYJPX | 3P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 142 | ● |
| No.6-32UNC | 2BX | 2.8 | 2.83 | SDUN6JYJPX | 3P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 142 | ● |
| No.8-32UNC | 2BX | 3.4 | 3.47 | SDUN8JYJPX | 3P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 142 | ● |
| No.10-24UNC | 2BX | 3.89 | 3.9 | SDUNAMYJPX | 3P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 142 | ● |
| 1/4-20UNC | 2BX | 5.1 | 5.19 | SDU04NYJPX | 3P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 142 | ● |
| 5/16-18UNC | 2BX | 6.6 | 6.65 | SDU050YJPX | 3P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| 3/8-16UNC | 2BX | 8 | 8.07 | SDU06PYJPX | 3P | 100 | 13 | 39 | 54 | 9 | 7 | 10 | 3 | 025 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 1/2-13UNC | 2BX | 10.9 | 10.91 | SGU08RYJPX | 3P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| 5/8-11UNC | 2BX | 13.6 | 13.75 | SGU10UYJPX | 3P | 110 | 18 | - | 56 | 12 | 9 | 12 | 3 | 023 | ● |
| 3/4-10UNC | 2BX | 16.6 | 16.7 | SGU12VYJPX | 3P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.10-32UNF | 2BX | 4.1 | 4.12 | SDUNAJYJPX | 3P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 142 | ● |
| 1/4-28UNF | 2BX | 5.5 | 5.53 | SDU04KYJPX | 3P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 142 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2BX | 6.9 | 6.97 | SMU05MYJPX | 3P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| 3/8-24UNF | 2BX | 8.5 | 8.57 | SMU06MYJPX | 3P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 7/16-20UNF | 2BX | 9.9 | 9.96 | SMU07NYJPX | 3P | 100 | 13 | - | 51 | 8 | 6.2 | 9 | 3 | 023 | ○ |
| 1/2-20UNF | 2BX | 11.5 | 11.54 | SMU08NYJPX | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| 9/16-18UNF | 2BX | 12.9 | 13 | SMU090YJPX | 3P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| 5/8-18UNF | 2BX | 14.5 | 14.6 | SMU100YJPX | 3P | 100 | 14 | - | 51 | 12 | 9 | 12 | 3 | 023 | ● |
| 3/4-16UNF | 2BX | 17.5 | 17.59 | SMU12PYJPX | 3P | 110 | 14 | - | 56 | 14 | 11 | 14 | 4 | 023 | ● |

# ZET-B




## MS Material Specific Series

Low Spiral Fluted Taps for Titanium Base Alloys

HSS-P | NI | SYNCHRO | 3P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and NI treatment allow high performance on Titanium base alloys.

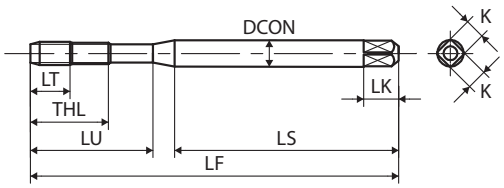
Also suitable for high tensile strength steel, high alloy steel and cast iron.

**Recommended Tapping Speeds Depending On Materials**

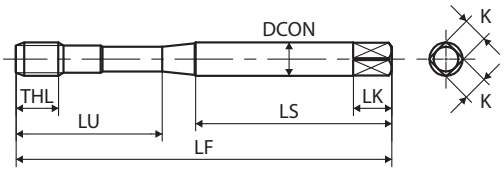
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P4 | 5÷10 | ☆ | M3 | 3÷6 | ☆ | K2 | 5÷10 | ☆ | S1 | 5÷10 | ☆ |
| P5 | 5÷8 | ☆ | | | | K3 | 5÷10 | ☆ | S2 | 5÷10 | ☆ |
| P6 | 3÷6 | ☆ | | | | | | | S3 | 3÷6 | ★ |
| P8 | 3÷6 | ☆ | | | | | | | S5 | 5÷10 | ★ |

★ 1st choice ☆ suitable

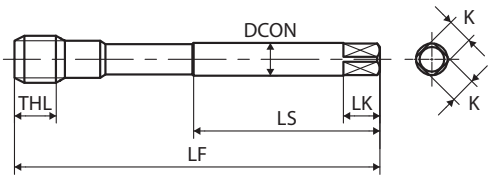
**TYPE: EU_142**




**TYPE: EU_025**




**TYPE: EU_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M2X0.4 (JIS) | P2 | 1.6 | 1.65 | ZETBMQ2.0E | 3P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 142 | ● |
| M2.5X0.45 (JIS) | P2 | 2.1 | 2.11 | ZETBMQ2.5F | 3P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 142 | ● |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | SD3.0GBIPN | 3P | 56 | 7 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 142 | ● |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | SD4.0IBIPN | 3P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 142 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | SD5.0KBIPN | 3P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 142 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | SD6.0MBIPN | 3P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 142 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | SD8.0NBIPN | 3P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | SD010OBIPN | 3P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 3 | 025 | ● |



Think threads with YAMAWA

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| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | SG012PBIPN | 3P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | SG014QBIPN | 3P | 110 | 18 | - | 56 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | SG016QBIPN | 3P | 110 | 18 | - | 56 | 12 | 9 | 12 | 4 | 023 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | SG018RBIPN | 3P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ○ |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | SG020RBIPN | 3P | 140 | 20 | - | 71 | 16 | 12 | 15 | 4 | 023 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | SG024SBIPN | 3P | 160 | 25 | - | 82 | 18 | 14.5 | 17 | 4 | 023 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | SM010NBIPN | 3P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | SM012OBIPN | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | SM012NBIPN | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | SM014OBIPN | 3P | 100 | 14 | - | 51 | 11 | 9 | 12 | 3 | 023 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | SM016OBIPN | 3P | 100 | 14 | - | 51 | 12 | 9 | 12 | 4 | 023 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-40UNC | 2BX | 2.3 | 2.33 | SDUN4HYIPN | 3P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 142 | ● |
| No.6-32UNC | 2BX | 2.8 | 2.83 | SDUN6JYIPN | 3P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 142 | ● |
| No.8-32UNC | 2BX | 3.4 | 3.47 | SDUN8JYIPN | 3P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 142 | ● |
| No.10-24UNC | 2BX | 3.89 | 3.9 | SDUNAMYIPN | 3P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 142 | ● |
| 1/4-20UNC | 2BX | 5.1 | 5.19 | SDU04NYIPN | 3P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 142 | ● |
| 5/16-18UNC | 2BX | 6.6 | 6.65 | SDU050YIPN | 3P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 3 | 025 | ● |
| 3/8-16UNC | 2BX | 8 | 8.07 | SDU06PYIPN | 3P | 100 | 13 | 39 | 54 | 9 | 7 | 10 | 3 | 025 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 1/2-13UNC | 2BX | 10.9 | 10.91 | SGU08RYIPN | 3P | 110 | 15 | - | 56 | 9 | 7 | 10 | 3 | 023 | ● |
| 5/8-11UNC | 2BX | 13.6 | 13.75 | SGU10UYIPN | 3P | 110 | 18 | - | 56 | 12 | 9 | 12 | 4 | 023 | ● |
| 3/4-10UNC | 2BX | 16.6 | 16.7 | SGU12VYIPN | 3P | 125 | 20 | - | 64 | 14 | 11 | 14 | 4 | 023 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.6-40UNF | 2BX | 2.9 | 2.97 | SDUN6HYIPN | 3P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 142 | ● |
| No.10-32UNF | 2BX | 4.1 | 4.12 | SDUNAJYIPN | 3P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 142 | ● |
| 1/4-28UNF | 2BX | 5.5 | 5.53 | SDU04KYIPN | 3P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 142 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2BX | 6.9 | 6.97 | SMU05MYIPN | 3P | 90 | 12 | - | 46 | 6 | 4.9 | 8 | 3 | 023 | ● |
| 3/8-24UNF | 2BX | 8.5 | 8.57 | SMU06MYIPN | 3P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 3 | 023 | ● |
| 1/2-20UNF | 2BX | 11.5 | 11.54 | SMU08NYIPN | 3P | 100 | 15 | - | 51 | 9 | 7 | 10 | 3 | 023 | ● |

# HFIHS




## HS High Speed Series

Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated

HSS-Co | COATING | SYNCHRO | 2.5P THCHT

**FEATURES**

Ultra High Speed with axial coolant hole for blind hole application

Most suitable for steel and alloy steel.

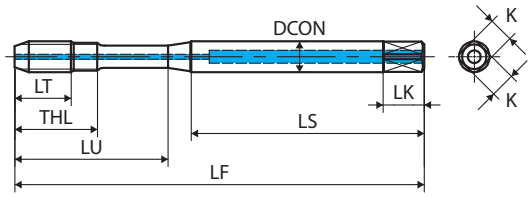
For Synchro-rigid tapping system. High helix for vertical tapping direction.

**Recommended Tapping Speeds Depending On Materials**

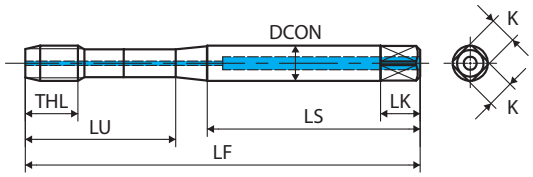
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 20÷50 | ★ | M1 | 15÷30 | ☆ | K1 | 20÷40 | ☆ |
| P2 | 20÷50 | ★ | M2 | 15÷25 | ☆ | K2 | 20÷40 | ☆ |
| P3 | 20÷30 | ★ | | | | | | |
| P4 | 20÷30 | ★ | | | | | | |
| P5 | 15÷25 | ☆ | | | | | | |
| P7 | 15÷30 | ☆ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: EU_070**




**TYPE: EU_073**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | SY6.0MBEDTZ | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 070 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | SY8.0NBEDTZ | 2.5P | 90 | 12 | 35 | 48 | 8 | 6.2 | 9 | 3 | 073 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | SY010OBEDTZ | 2.5P | 100 | 13 | 39 | 53 | 10 | 8 | 11 | 3 | 073 | ● |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | SY012PBEDTZ | 2.5P | 110 | 15 | 44 | 57 | 12 | 9 | 12 | 3 | 073 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | 0HFBZ010 | 2.5P | 110 | 18 | - | 62 | 12 | 9 | 12 | 3 | 073 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | 0HFBZ011 | 2.5P | 110 | 18 | - | 58 | 16 | 12 | 15 | 3 | 073 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | SY010NBEDTZ | 2.5P | 100 | 13 | 39 | 53 | 10 | 8 | 11 | 3 | 073 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | SY012OBEDTZ | 2.5P | 110 | 15 | 44 | 57 | 12 | 9 | 12 | 3 | 073 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | SY012NBEDTZ | 2.5P | 110 | 15 | 44 | 57 | 12 | 9 | 12 | 3 | 073 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | 0HFBZ008 | 2.5P | 110 | 14 | - | 62 | 12 | 9 | 12 | 3 | 073 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | 0HFBZ009 | 2.5P | 110 | 14 | - | 58 | 16 | 12 | 15 | 3 | 073 | ● |



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# HFISP




## HS High Speed Series

Low Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated




**FEATURES**

Ultra High Speed with axial coolant hole for blind hole application

Most suitable for steel, alloy steel and cast iron.

For Synchro-rigid tapping system. Low helix for horizontal tapping direction.

**Recommended Tapping Speeds Depending On Materials**

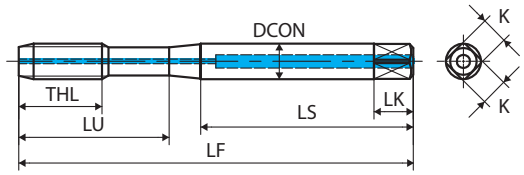
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 20÷50 | ★ |
| P2 | 20÷50 | ★ |
| P3 | 20÷30 | ★ |
| P4 | 20÷30 | ★ |
| P5 | 15÷25 | ☆ |
| P7 | 15÷30 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 15÷30 | ☆ |
| M2 | 15÷25 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 20÷40 | ★ |
| K2 | 20÷40 | ★ |

★ 1st choice ☆ suitable

**TYPE: EU_076**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | SY6.0MBEDTHZ | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 076 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | SY8.0NBEDTHZ | 2.5P | 90 | 19 | 35 | 48 | 8 | 6.2 | 9 | 3 | 076 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | SY010OBEDTHZ | 2.5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 076 | ● |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | SY012PBEDTHZ | 2.5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 076 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | OHFBZ006 | 2.5P | 110 | 26 | - | 62 | 12 | 9 | 12 | 3 | 076 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | OFFBZ004 | 2.5P | 110 | 26 | - | 58 | 16 | 12 | 15 | 3 | 076 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | SY010NBEDTHZ | 2.5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 076 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | SY012OBEDTHZ | 2.5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 076 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | SY012NBEDTHZ | 2.5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 076 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | OHFBZ005 | 2.5P | 110 | 26 | - | 62 | 12 | 9 | 12 | 3 | 076 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | OHFBZ007 | 2.5P | 110 | 26 | - | 58 | 16 | 12 | 15 | 3 | 076 | ● |
| **M18X1.5** | ISO2X(6HX) | 16.5 | 16.6 | PAFBZ010 | 2.5P | 125 | - | - | - | 16 | 12 | 15 | | 076 | ● |



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# HFAHS




## HS High Speed Series

Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated

HSS-Co | COATING | SYNCHRO | 2.5P THCHT

**FEATURES**

Ultra High Speed with axial coolant hole for blind hole application

Most suitable for Aluminium casting.

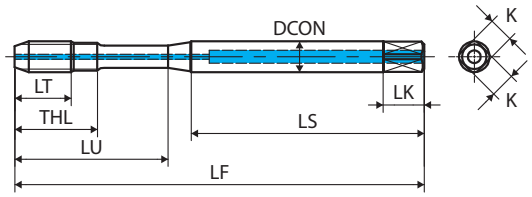
For Synchro-rigid tapping system. High helix for vertical tapping direction.

**Recommended Tapping Speeds Depending On Materials**

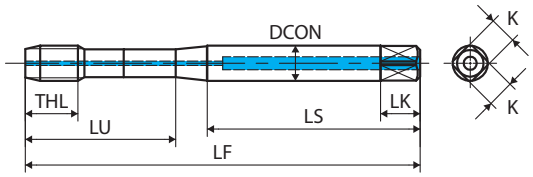
| ISO | Vc (m/min) |
|---|---|
| N1 | 30÷100 ★ |
| N2 | 30÷100 ★ |
| N4 | 30÷60 ☆ |

★ 1st choice ☆ suitable

**TYPE: EU_070**




**TYPE: EU_073**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | SY6.0MBLDTZ | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 070 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | SY8.0NBLDTZ | 2.5P | 90 | 12 | 35 | 48 | 8 | 6.2 | 9 | 3 | 073 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | SY010OBLDTZ | 2.5P | 100 | 13 | 39 | 53 | 10 | 8 | 11 | 3 | 073 | ● |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | SY012PBLDTZ | 2.5P | 110 | 15 | 44 | 57 | 12 | 9 | 12 | 3 | 073 | ● |
| **MF** | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
| DIN YMW | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | SY010NBLDTZ | 2.5P | 100 | 13 | 39 | 53 | 10 | 8 | 11 | 3 | 073 | ○ |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | SY012OBLDTZ | 2.5P | 110 | 15 | 44 | 57 | 12 | 9 | 12 | 3 | 073 | ○ |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | SY012NBLDTZ | 2.5P | 110 | 15 | 44 | 57 | 12 | 9 | 12 | 3 | 073 | ○ |



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Machine Tools International

# HFASP




## HS High Speed Series

Low Spiral Fluted Taps with Axial Coolant Hole for Ultra Fast Tapping, Coated




**FEATURES**

Ultra High Speed with axial coolant hole for blind hole application

Most suitable for Aluminium casting.

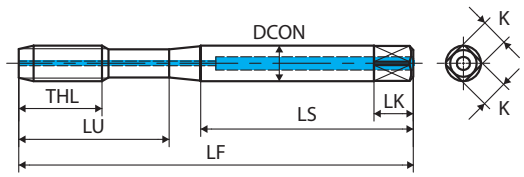
For Synchro-rigid tapping system. Low helix for horizontal tapping direction.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) |
|---|---|
| N1 | 30÷100 ★ |
| N2 | 30÷100 ★ |
| N4 | 30÷60 ☆ |

★ 1st choice ☆ suitable

**TYPE: EU_076**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | SY6.0MBLDTHZ | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 076 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | SY8.0NBLDTHZ | 2.5P | 90 | 19 | 35 | 48 | 8 | 6.2 | 9 | 3 | 076 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | SY010OBLDTHZ | 2.5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 076 | ● |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | SY012PBLDTHZ | 2.5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 076 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | SY010NBLDTHZ | 2.5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 076 | ○ |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | SY012OBLDTHZ | 2.5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 076 | ○ |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | SY012NBLDTHZ | 2.5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 076 | ○ |

# SP




## GP General Purpose Series

Spiral Fluted Taps

HSS-E



2.5P THCHT

**FEATURES**

General purpose for blind hole application.

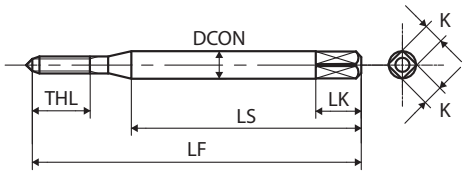
For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

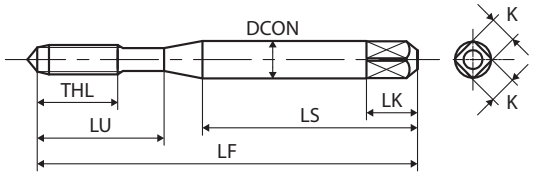
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

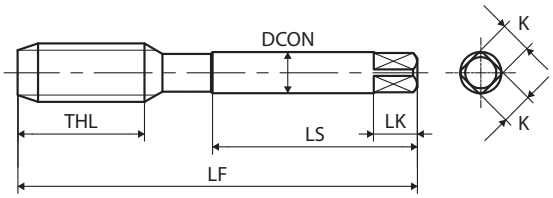
**TYPE: SP_007**



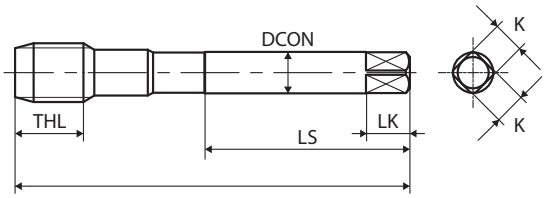

**TYPE: SP_001**




**TYPE: SP_013**




**TYPE: SP_020**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M1.2X0.25 | P1 | 0.95 | 0.97 | SPP1.2B | 2.5P | 36 | - | 4.5 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | O |
| M1.4X0.3 | P1 | 1.1 | 1.13 | SPP1.4C | 2.5P | 36 | - | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | O |
| M1.6X0.35 | P1 | 1.25 | 1.3 | SPP1.6D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ● |
| M1.7X0.35 | P1 | 1.35 | 1.4 | SPP1.7D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | O |
| | P2(P1+15) | 1.35 | 1.4 | SPQ1.7D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| | P3(P1+30) | 1.35 | 1.4 | SPR1.7D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| M1.8X0.35 | P1 | 1.45 | 1.5 | SPP1.8D | 2.5P | 42 | - | 6.3 | - | 27 | 3 | 2.5 | 5 | 2 | 007 | O |
| M2X0.4 | P1 | 1.6 | 1.65 | SPP2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P2(P1+15) | 1.6 | 1.65 | SPQ2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 1.6 | 1.65 | SPR2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P4(P1+45) | 1.6 | 1.65 | SPS2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| **M2.2X0.45** | P1 | 1.75 | 1.81 | SPP2.2F | 2.5P | 42 | - | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | O |
| | P3(P1+30) | 1.75 | 1.81 | SPR2.2F | 2.5P | 42 | - | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M2.3X0.4** | P1 | 1.9 | 1.95 | SPP2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | O |
| | P2(P1+15) | 1.9 | 1.95 | SPQ2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 1.9 | 1.95 | SPR2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P4(P1+45) | 1.9 | 1.95 | SPS2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M2.5X0.45** | P1 | 2.1 | 2.11 | SPP2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P2(P1+15) | 2.1 | 2.11 | SPQ2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 2.1 | 2.11 | SPR2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P4(P1+45) | 2.1 | 2.11 | SPS2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M2.6X0.45** | P1 | 2.2 | 2.21 | SPP2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P2(P1+15) | 2.2 | 2.21 | SPQ2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 2.2 | 2.21 | SPR2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P4(P1+45) | 2.2 | 2.21 | SPS2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **3M0.6** | P1 | 2.45 | 2.47 | SPP3.0H | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| **M3X0.5** | P1 | 2.5 | 2.56 | SPP3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2(P1+15) | 2.5 | 2.56 | SPQ3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | SPR3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P4(P1+45) | 2.5 | 2.56 | SPS3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| **M3.5X0.6** | P1 | 2.9 | 2.97 | SPP3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2(P1+15) | 2.9 | 2.97 | SPQ3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P1+30) | 2.9 | 2.97 | SPR3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P1+45) | 2.9 | 2.97 | SPS3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **4M0.75** | P2 | 3.3 | 3.33 | SPQ4.0J | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **M4X0.7** | P2 | 3.3 | 3.38 | SPQ4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | SPR4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | SPS4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **M4.5X0.75** | P2 | 3.8 | 3.83 | SPQ4.5J | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | O |
| **5M0.9** | P2 | 4.15 | 4.19 | SPQ5.0L | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **M5X0.8** | P2 | 4.2 | 4.28 | SPQ5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | SPR5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 4.2 | 4.28 | SPS5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **M5.5X0.9** | P2 | 4.65 | 4.69 | SPQ5.5L | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | O |
| **M6X1** | P2 | 5 | 5.09 | SPQ6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5 | 5.09 | SPQ6.0M-T | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 5 | 5.09 | SPR6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | SPS6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| **M7X1** | P2 | 6 | 6.09 | SPQ7.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 6 | 6.09 | SPR7.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 6 | 6.09 | SPS7.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| **M8X1.25** | P2 | 6.8 | 6.85 | SPQ8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | SPR8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 6.8 | 6.85 | SPS8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| **M9X1.25** | P2 | 7.8 | 7.85 | SPQ9.0N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **M10X1.5** | P2 | 8.5 | 8.6 | SPQ010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | SPR010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 8.5 | 8.6 | SPS010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **M11X1.5** | P2 | 9.5 | 9.6 | SPQ011O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M12X1.75 | P2 | 10.3 | 10.36 | SPQ012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 10.3 | 10.36 | SPR012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P2+40) | 10.3 | 10.36 | SPS012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X2 | P2 | 12 | 12.12 | SPQ014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3(P2+20) | 12 | 12.12 | SPR014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4(P2+40) | 12 | 12.12 | SPS014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X2 | P2 | 14 | 14.12 | SPQ016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3(P2+20) | 14 | 14.12 | SPR016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P4(P2+40) | 14 | 14.12 | SPS016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P5(P2+60) | 14 | 14.12 | SPT016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | SPR018R | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P3+20) | 15.5 | 15.63 | SPS018R | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | SPR020R | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 17.5 | 17.63 | SPS020R | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | SPR022R | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 19.5 | 19.63 | SPS022R | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X3 | P3 | 21 | 21.13 | SPR024S | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 21 | 21.13 | SPS024S | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X3 | P3 | 24 | 24.13 | SPR027S | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | SPS030T | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M33X3.5 | P4 | 29.5 | 29.63 | SPMS033T | 2.5P | 145 | - | 46 | - | 67 | 25 | 19 | 22 | 4 | 013 | ○ |
| M36X4 | P4 | 32 | 32.12 | SPMS036U | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M39X4 | P4 | 35 | 35.12 | SPMS039U | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| M42X4.5 | P4 | 37.5 | 37.63 | SPMS042V | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| M45X4.5 | P4 | 40.5 | 40.63 | SPMS045V | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| M48X5 | P4 | 43 | 43.12 | SPMS048W | 2.5P | 185 | - | 65 | - | 85 | 38 | 29 | 32 | 4 | 013 | ○ |
| M52X5 | P4 | 47 | 47.1 | SPS052W | 2.5P | 195 | - | 70 | - | 86 | 42 | 35 | 35 | 4 | 013 | ○ |
| M56X5.5 | P4 | 50.5 | 50.6 | SPS056X | 2.5P | 205 | - | 70 | - | 91 | 44 | 38 | 38 | 4 | 013 | ○ |
| M60X5.5 | P4 | 54.5 | 54.6 | SPS060X | 2.5P | 215 | - | 76 | - | 96 | 46 | 38 | 38 | 4 | 013 | ○ |
| M64X6 | P4 | 58 | 58.1 | SPS064Y | 2.5P | 225 | - | 79 | - | 100 | 48 | 42 | 42 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M2X0.25 | P1 | 1.75 | 1.77 | SPP2.0B | 2.5P | 42 | - | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ● |
| M2.3X0.25 | P1 | 2.05 | 2.07 | SPP2.3B | 2.5P | 42 | - | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M2.5X0.35 | P1 | 2.2 | 2.2 | SPP2.5D | 2.5P | 46 | - | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ● |
| M2.6X0.35 | P1 | 2.3 | 2.3 | SPP2.6D | 2.5P | 46 | - | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M3X0.35 | P1 | 2.7 | 2.7 | SPP3.0D | 2.5P | 46 | - | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| M3.5X0.35 | P1 | 3.2 | 3.2 | SPP3.5D | 2.5P | 52 | - | 6.5 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.5 | P1 | 3.5 | 3.56 | SPP4.0G | 2.5P | 52 | - | 9 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| M4.5X0.5 | P1 | 4 | 4.06 | SPP4.5G | 2.5P | 60 | - | 9 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5X0.75 | P2 | 4.3 | 4.33 | SPQ5.0J | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5X0.5 | P1 | 4.5 | 4.56 | SPP5.0G | 2.5P | 60 | - | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| M5.5X0.5 | P1 | 5 | 5.06 | SPP5.5G | 2.5P | 62 | - | 9 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M6X0.75 | P2 | 5.3 | 5.33 | SPQ6.0J | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| | P3(P2+20) | 5.3 | 5.33 | SPR6.0J | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M6X0.5 | P1 | 5.5 | 5.56 | SPP6.0G | 2.5P | 62 | - | 9 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| | P2(P1+15) | 5.5 | 5.56 | SPQ6.0G | 2.5P | 62 | - | 9 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P1+30) | 5.5 | 5.56 | SPR6.0G | 2.5P | 62 | - | 9 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |



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| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M7X0.75 | P2 | 6.3 | 6.33 | SPQ7.0J | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | O |
| M7X0.5 | P2 | 6.5 | 6.56 | SPQ7.0G | 2.5P | 70 | - | 10 | - | 36 | 6.2 | 5 | 8 | 3 | 020 | O |
| M8X1 | P2 | 7 | 7.09 | SPQ8.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 7 | 7.09 | SPR8.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 7 | 7.09 | SPS8.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M8X0.75 | P2 | 7.3 | 7.33 | SPQ8.0J | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 7.3 | 7.33 | SPR8.0J | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M8X0.5 | P2 | 7.5 | 7.56 | SPQ8.0G | 2.5P | 70 | - | 10 | - | 36 | 6.2 | 5 | 8 | 3 | 020 | O |
| M9X1 | P2 | 8 | 8.09 | SPQ9.0M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | O |
| M9X0.75 | P2 | 8.3 | 8.33 | SPQ9.0J | 2.5P | 75 | - | 13 | - | 38 | 7 | 5.5 | 8 | 3 | 020 | O |
| M9X0.5 | P2 | 8.5 | 8.56 | SPQ9.0G | 2.5P | 75 | - | 11 | - | 38 | 7 | 5.5 | 8 | 3 | 020 | ○ |
| M10X1.25 | P2 | 8.8 | 8.85 | SPQ010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 8.8 | 8.85 | SPR010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 8.8 | 8.85 | SPS010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M10X1 | P2 | 9 | 9.09 | SPQ010M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 9 | 9.09 | SPR010M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 9 | 9.09 | SPS010M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M10X0.75 | P2 | 9.3 | 9.33 | SPQ010J | 2.5P | 75 | - | 13 | - | 38 | 7 | 5.5 | 8 | 3 | 020 | ○ |
| M10X0.5 | P2 | 9.5 | 9.56 | SPQ010G | 2.5P | 75 | - | 11 | - | 38 | 7 | 5.5 | 8 | 3 | 020 | O |
| M11X1.25 | P2 | 9.8 | 9.85 | SPQ011N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M11X1 | P2 | 10 | 10.1 | SPQ011M | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | O |
| M11X0.75 | P2 | 10.3 | 10.33 | SPQ011J | 2.5P | 82 | - | 14 | - | 42 | 8.5 | 6.5 | 9 | 3 | 020 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | SPQ012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 10.5 | 10.6 | SPR012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P2+40) | 10.5 | 10.6 | SPS012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | SPQ012N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 10.8 | 10.85 | SPR012N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P2+40) | 10.8 | 10.85 | SPS012N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1 | P2 | 11 | 11.09 | SPQ012M | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 11 | 11.09 | SPR012M | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P2+40) | 11 | 11.09 | SPS012M | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X0.75 | P2 | 11.3 | 11.33 | SPQ012J | 2.5P | 82 | - | 14 | - | 42 | 8.5 | 6.5 | 9 | 3 | 020 | ○ |
| M12X0.5 | P2 | 11.5 | 11.56 | SPQ012G | 2.5P | 82 | - | 12 | - | 42 | 8.5 | 6.5 | 9 | 3 | 020 | ○ |
| M13X1.75 | P2 | 11.3 | 11.4 | SPQ013P | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M13X1.5 | P2 | 11.5 | 11.6 | SPQ013O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M13X1.25 | P2 | 11.8 | 11.85 | SPQ013N | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M13X1 | P2 | 12 | 12.09 | SPQ013M | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | O |
| M14X1.5 | P2 | 12.5 | 12.6 | SPQ014O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3(P2+20) | 12.5 | 12.6 | SPR014O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4(P2+40) | 12.5 | 12.6 | SPS014O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M14X1.25 | P2 | 12.8 | 12.85 | SPQ014N | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M14X1 | P2 | 13 | 13.09 | SPQ014M | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M15X2 | P2 | 13 | 13.12 | SPQ015Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M15X1.5 | P2 | 13.5 | 13.6 | SPQ015O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | O |
| M15X1 | P2 | 14 | 14.09 | SPQ015M | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | O |
| M16X1.5 | P2 | 14.5 | 14.6 | SPQ016O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3(P2+20) | 14.5 | 14.6 | SPR016O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P4(P2+40) | 14.5 | 14.6 | SPS016O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M16X1.25 | P2 | 14.8 | 14.85 | SPQ016N | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M16X1 | P2 | 15 | 15.09 | SPQ016M | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M17X1.5 | P2 | 15.5 | 15.6 | SPQ017O | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ● |
| M17X1 | P2 | 16 | 16.09 | SPQ017M | 2.5P | 100 | - | 18 | - | 51 | 14 | 11 | 14 | 4 | 020 | ● |
| M18X2 | P3 | 16 | 16.12 | SPR018Q | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | SPQ018O | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3(P2+20) | 16.5 | 16.6 | SPR018O | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P2+40) | 16.5 | 16.6 | SPS018O | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| M18X1.25 | P2 | 16.8 | 16.85 | SPQ018N | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| M18X1 | P2 | 17 | 17.09 | SPQ018M | 2.5P | 100 | - | 18 | - | 51 | 14 | 11 | 14 | 4 | 020 | ○ |
| M19X1.5 | P3 | 17.5 | 17.6 | SPR019O | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M19X1 | P2 | 18 | 18.09 | SPQ019M | 2.5P | 105 | - | 18 | - | 50 | 15 | 12 | 15 | 4 | 020 | ● |
| M20X2 | P3 | 18 | 18.12 | SPR020Q | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | SPR020O | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 18.5 | 18.6 | SPS020O | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P5(P3+40) | 18.5 | 18.6 | SPT020O | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M20X1.25 | P2 | 18.8 | 18.85 | SPQ020N | 2.5P | 105 | - | 18 | - | 50 | 15 | 12 | 15 | 4 | 020 | ○ |
| M20X1 | P2 | 19 | 19.09 | SPQ020M | 2.5P | 105 | - | 18 | - | 50 | 15 | 12 | 15 | 4 | 020 | ○ |
| M22X2 | P3 | 20 | 20.12 | SPR022Q | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | SPR022O | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 20.5 | 20.6 | SPS022O | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P5(P3+40) | 20.5 | 20.6 | SPT022O | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| M22X1 | P2 | 21 | 21.09 | SPQ022M | 2.5P | 115 | - | 19 | - | 55 | 17 | 13 | 16 | 4 | 020 | ○ |
| M23X1.5 | P3 | 21.5 | 21.6 | SPR023O | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M24X2 | P3 | 22 | 22.12 | SPR024Q | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | SPR024O | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 22.5 | 22.6 | SPS024O | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M24X1 | P2 | 23 | 23.09 | SPQ024M | 2.5P | 120 | - | 19 | - | 55 | 19 | 15 | 18 | 4 | 020 | ○ |
| M25X2 | P3 | 23 | 23.12 | SPR025Q | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| M25X1.5 | P3 | 23.5 | 23.6 | SPR025O | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| M25X1 | P2 | 24 | 24.09 | SPQ025M | 2.5P | 125 | - | 20 | - | 58 | 19 | 15 | 18 | 4 | 020 | ○ |
| M26X3 | P3 | 23 | 23.12 | SPR026S | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M26X2 | P3 | 24 | 24.12 | SPR026Q | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M26X1.5 | P3 | 24.5 | 24.6 | SPR026O | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M26X1 | P2 | 25 | 25.09 | SPQ026M | 2.5P | 130 | - | 20 | - | 60 | 20 | 15 | 18 | 4 | 020 | ○ |
| M27X2 | P3 | 25 | 25.12 | SPR027Q | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | SPR027O | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M27X1 | P2 | 26 | 26.09 | SPQ027M | 2.5P | 130 | - | 20 | - | 60 | 20 | 15 | 18 | 4 | 020 | ○ |
| M28X2 | P3 | 26 | 26.12 | SPR028Q | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M28X1.5 | P3 | 26.5 | 26.6 | SPR028O | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M28X1 | P2 | 27 | 27.09 | SPQ028M | 2.5P | 135 | - | 20 | - | 62 | 23 | 17 | 20 | 4 | 020 | ○ |
| M30X3 | P3 | 27 | 27.13 | SPR030S | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X2 | P3 | 28 | 28.12 | SPR030Q | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | SPR030O | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X1 | P2 | 29 | 29.09 | SPQ030M | 2.5P | 135 | - | 21 | - | 62 | 23 | 17 | 20 | 4 | 020 | ○ |
| M32X3 | P3 | 29 | 29.13 | SPMR032S | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |
| M32X2 | P3 | 30 | 30.12 | SPMR032Q | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |
| M32X1.5 | P3 | 30.5 | 30.6 | SPMR032O | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M32X1 | P2 | 31 | 31.09 | SPMQ032M | 2.5P | 145 | - | 21 | - | 67 | 24 | 19 | 22 | 4 | 020 | ○ |
| M33X3 | P3 | 30 | 30.13 | SPMR033S | 2.5P | 145 | - | 46 | - | 67 | 25 | 19 | 22 | 4 | 013 | ○ |
| M33X2 | P3 | 31 | 31.12 | SPMR033Q | 2.5P | 145 | - | 46 | - | 67 | 25 | 19 | 22 | 4 | 013 | ○ |
| M33X1.5 | P3 | 31.5 | 31.6 | SPMR033O | 2.5P | 145 | - | 46 | - | 67 | 25 | 19 | 22 | 4 | 013 | ○ |
| M33X1 | P2 | 32 | 32.09 | SPMQ033M | 2.5P | 145 | - | 21 | - | 67 | 25 | 19 | 22 | 4 | 020 | ○ |
| M34X3 | P3 | 31 | 31.13 | SPMR034S | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M34X2 | P3 | 32 | 32.12 | SPMR034Q | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M34X1.5 | P3 | 35.5 | 32.6 | SPMR034O | 2.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 020 | ○ |
| M34X1 | P2 | 33 | 33.09 | SPMQ034M | 2.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 020 | ○ |
| M35X3 | P3 | 32 | 32.13 | SPMR035S | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M35X2 | P3 | 33 | 33.12 | SPMR035Q | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M35X1.5 | P3 | 33.5 | 33.6 | SPMR035O | 2.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 020 | ○ |
| M35X1 | P2 | 34 | 34.09 | SPMQ035M | 2.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 020 | ○ |
| M36X3 | P3 | 33 | 33.13 | SPMR036S | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M36X2 | P3 | 34 | 34.12 | SPMR036Q | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M36X1.5 | P3 | 34.5 | 34.6 | SPMR036O | 2.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 020 | ○ |
| M36X1 | P2 | 35 | 35.09 | SPMQ036M | 2.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 020 | ○ |
| M38X3 | P3 | 35 | 35.13 | SPMR038S | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| M38X2 | P3 | 36 | 36.12 | SPMR038Q | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| M38X1.5 | P3 | 36.5 | 36.6 | SPMR038O | 2.5P | 165 | - | 26 | - | 76 | 30 | 23 | 26 | 4 | 020 | ○ |
| M39X3 | P3 | 36 | 36.13 | SPMR039S | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| M39X2 | P3 | 37 | 37.12 | SPMR039Q | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| M39X1.5 | P3 | 37.5 | 37.6 | SPMR039O | 2.5P | 165 | - | 26 | - | 76 | 30 | 23 | 26 | 4 | 020 | ○ |
| M40X3 | P3 | 37 | 37.13 | SPMR040S | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| M40X2 | P3 | 38 | 38.12 | SPMR040Q | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| M40X1.5 | P3 | 38.5 | 38.6 | SPMR040O | 2.5P | 175 | - | 27 | - | 81 | 32 | 26 | 30 | 4 | 020 | ○ |
| M42X3 | P3 | 39 | 39.13 | SPMR042S | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| M42X2 | P3 | 40 | 40.12 | SPMR042Q | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| M42X1.5 | P3 | 40.5 | 40.6 | SPMR042O | 2.5P | 175 | - | 27 | - | 81 | 32 | 26 | 30 | 4 | 020 | ○ |
| M45X3 | P3 | 42 | 42.13 | SPMR045S | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| M45X2 | P3 | 43 | 43.12 | SPMR045Q | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| M45X1.5 | P3 | 43.5 | 43.6 | SPMR045O | 2.5P | 180 | - | 27 | - | 83 | 35 | 26 | 30 | 4 | 020 | ○ |
| M48X4 | P4 | 44 | 44.12 | SPMS048U | 2.5P | 185 | - | 65 | - | 85 | 38 | 29 | 32 | 4 | 013 | ○ |
| M48X3 | P3 | 45 | 45.13 | SPMR048S | 2.5P | 185 | - | 65 | - | 85 | 38 | 29 | 32 | 4 | 013 | ○ |
| M48X2 | P3 | 46 | 46.12 | SPMR048Q | 2.5P | 185 | - | 65 | - | 85 | 38 | 29 | 32 | 4 | 013 | ○ |
| M48X1.5 | P3 | 46.5 | 46.6 | SPMR048O | 2.5P | 185 | - | 28 | - | 85 | 38 | 29 | 32 | 4 | 020 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| No.1-64UNC | P1 | 1.54 | 1.55 | SPPUN1D | 2.5P | 42 | - | 7.2 | - | 27 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| No.2-56UNC | P1 | 1.8 | 1.83 | SPPUN2E | 2.5P | 42 | - | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ● |
| No.3-48UNC | P1 | 2.09 | 2.1 | SPPUN3F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ● |
| No.4-40UNC | P1 | 2.3 | 2.33 | SPPUN4H | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 2 | 001 | ● |
| No.5-40UNC | P1 | 2.6 | 2.64 | SPPUN5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| No.6-32UNC | P2 | 2.8 | 2.83 | SPQUN6J | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| No.8-32UNC | P2 | 3.4 | 3.47 | SPQUN8J | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| No.10-24UNC | P2 | 3.89 | 3.9 | SPQUNAM | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| No.12-24UNC | P2 | 4.5 | 4.53 | SPQUNCM | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| 1/4-20UNC | P2 | 5.1 | 5.19 | SPQU04N | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P2 | 6.6 | 6.65 | SPQU05O | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-16UNC | P2 | 8 | 8.07 | SPQU06P | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | SPRU07Q | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | SPRU08R | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 9/16-12UNC | P3 | 12.2 | 12.33 | SPRU09S | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | SPRU10U | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4-10UNC | P3 | 16.6 | 16.7 | SPRU12V | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8-9UNC | P3 | 19.6 | 19.61 | SPRU14W | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -8UNC | P3 | 22.3 | 22.45 | SPRU16X | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| 1 1/8-7UNC | P4 | 25 | 25.17 | SPSU18Y | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| 1 1/4-7UNC | P4 | 28.2 | 28.35 | SPMSU20Y | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |
| 1 3/8-6UNC | P4 | 30.8 | 30.92 | SPMSU22Z | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| 1 1/2-6UNC | P4 | 34 | 34.1 | SPMSU24Z | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| 1 3/4-5UNC | P4 | 39.5 | 39.61 | SPMSU280 | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| 2 -4.5UNC | P5 | 45.2 | 45.37 | SPTU329 | 2.5P | 195 | - | 70 | - | 85 | 40 | 32 | 35 | 4 | 013 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| No.2-64UNF | P1 | 1.85 | 1.87 | SPPUN2D | 2.5P | 42 | - | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ● |
| No.3-56UNF | P1 | 2.1 | 2.15 | SPPUN3E | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ● |
| No.4-48UNF | P1 | 2.4 | 2.41 | SPPUN4F | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 2 | 001 | ● |
| No.5-44UNF | P1 | 2.7 | 2.69 | SPPUN5G | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| No.6-40UNF | P1 | 2.9 | 2.97 | SPPUN6H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| No.8-36UNF | P2 | 3.5 | 3.55 | SPQUN8I | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| No.10-32UNF | P2 | 4.1 | 4.12 | SPQUNAJ | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| No.12-28UNF | P2 | 4.6 | 4.67 | SPQUNCK | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| 1/4-28UNF | P2 | 5.5 | 5.53 | SPQU04K | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | SPQU05M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | SPQU06M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-20UNF | P2 | 9.9 | 9.96 | SPQU07N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-20UNF | P2 | 11.5 | 11.54 | SPQU08N | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 9/16-18UNF | P2 | 12.9 | 13 | SPQU09O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 5/8-18UNF | P2 | 14.5 | 14.6 | SPQU10O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | SPRU12P | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8-14UNF | P3 | 20.5 | 20.57 | SPRU14Q | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -12UNF | P3 | 23.3 | 23.46 | SPRU16S | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| 1 1/8-12UNF | P3 | 26.5 | 26.63 | SPRU18S | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| 1 1/4-12UNF | P3 | 29.6 | 29.81 | SPMRU20S | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |
| 1 3/8-12UNF | P3 | 32.8 | 32.98 | SPMRU22S | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| 1 1/2-12UNF | P3 | 36 | 36.16 | SPMRU24S | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |

| UNS | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 1 -14UNS | P3 | 23.6 | 23.7 | SPRU16Q | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| 1 1/8-14UNS | P3 | 26.75 | 26.8 | SPRU18Q | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| 8UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 1 1/8-8UN | P3 | 25.5 | 25.62 | SPRU18X | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| 1 1/4-8UN | P3 | 28.5 | 28.8 | SPMRU20X | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |
| 1 3/8-8UN | P3 | 31.8 | 31.97 | SPMRU22X | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| 1 1/2-8UN | P3 | 35 | 35.15 | SPMRU24X | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| **12UN** | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
| JIS | | | | | | | | | | | | | | | | |
| 1 3/4-12UN | P3 | 42.3 | 42.51 | SPMRU28S | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| 2 -12UN | P3 | 48.6 | 48.86 | SPRU32S | 2.5P | 145 | - | 45 | - | 82 | 40 | 32 | 35 | 4 | 013 | ○ |
| **UNEF** | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
| JIS | | | | | | | | | | | | | | | | |
| 1/4-32UNEF | P2 | 5.6 | 5.64 | SPQU04J | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| 5/16-32UNEF | P2 | 7.1 | 7.22 | SPQU05J | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ● |
| 3/8-32UNEF | P2 | 8.7 | 8.81 | SPQU06J | 2.5P | 75 | - | 13 | - | 38 | 7 | 5.5 | 8 | 3 | 020 | ● |
| 7/16-28UNEF | P2 | 10.2 | 10.29 | SPQU07K | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| 1/2-28UNEF | P2 | 11.8 | 11.88 | SPQU08K | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 9/16-24UNEF | P2 | 13.2 | 13.32 | SPQU09M | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ● |
| 5/8-24UNEF | P2 | 14.8 | 14.92 | SPQU10M | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ● |
| 3/4-20UNEF | P2 | 17.8 | 17.89 | SPQU12N | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ● |
| 7/8-20UNEF | P2 | 21 | 21.06 | SPQU14N | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -20UNEF | P2 | 24.1 | 24.24 | SPQU16N | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| **BSW** | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
| JIS | | | | | | | | | | | | | | | | |
| 1/8W40 | P1 | 2.55 | 2.56 | SPPW02H | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| 5/32W32 | P2 | 3.15 | 3.2 | SPQW2HJ | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| 3/16W24 | P2 | 3.7 | 3.7 | SPQW03M | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| 7/32W24 | P2 | 4.5 | 4.52 | SPQW3HM | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| 1/4W20 | P2 | 5.1 | 5.13 | SPQW04N | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| 5/16W18 | P2 | 6.5 | 6.59 | SPQW05O | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ● |
| 3/8W16 | P2 | 8 | 8.02 | SPQW06P | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ● |
| 7/16W14 | P3 | 9.3 | 9.39 | SPRW07Q | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| 1/2W12 | P3 | 10.6 | 10.7 | SPRW08S | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ● |
| 9/16W12 | P3 | 12.25 | 12.29 | SPRW09S | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ● |
| 5/8W11 | P3 | 13.5 | 13.68 | SPRW10U | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ● |
| 3/4W10 | P3 | 16.5 | 16.63 | SPRW12V | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ● |
| 7/8W9 | P3 | 19.5 | 19.53 | SPRW14W | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ● |
| 1 W8 | P3 | 22.2 | 22.34 | SPRW16X | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ● |
| 1 1/8W7 | P4 | 24.75 | 25.04 | SPSW18Y | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| 1 1/4W7 | P4 | 28 | 28.21 | SPMSW20Y | 2.5P | 145 | - | 46 | - | 67 | 24 | 19 | 22 | 4 | 013 | ○ |
| 1 3/8W6 | P4 | 30.5 | 30.72 | SPMSW22Z | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| 1 1/2W6 | P4 | 33.75 | 33.9 | SPMSW24Z | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| 1 5/8W5 | P4 | 36 | 36.19 | SPMSW260 | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| 1 3/4W5 | P4 | 39.2 | 39.36 | SPMSW280 | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| 1 7/8W4 1/2 | P4 | 41.8 | 42 | SPMSW309 | 2.5P | 185 | - | 65 | - | 85 | 38 | 29 | 32 | 4 | 013 | ○ |
| 2 W4 1/2 | P4 | 45 | 45.15 | SPSW329 | 2.5P | 195 | - | 70 | - | 85 | 40 | 32 | 35 | 4 | 013 | ○ |

# SP 1.5P

## GP General Purpose Series

Spiral Fluted Taps 1.5P




HSS-E



1.5P THCHT

**FEATURES**

General purpose for blind hole application.

For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

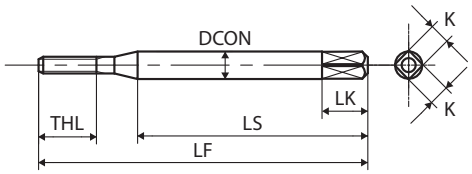
1.5P extra short chamfer for tapping till the bottom of the hole.

**Recommended Tapping Speeds Depending On Materials**

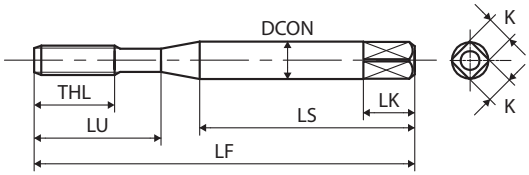
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

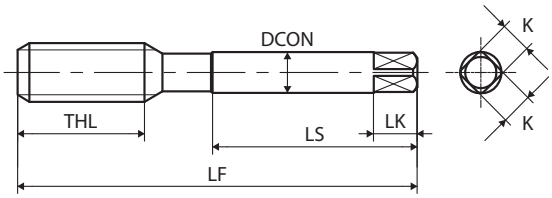
**TYPE: SP_025**




**TYPE: SP_028**




**TYPE: SP_017**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M1.2X0.25 | P1 | 0.95 | 0.97 | SY1.2BPNEBA | 1.5P | 36 | - | 4.5 | - | 24 | 3 | 2.5 | 5 | 2 | 025 | ○ |
| M1.4X0.3 | P1 | 1.1 | 1.13 | SY1.4CPNEBA | 1.5P | 36 | - | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 025 | ○ |
| M1.6X0.35 | P1 | 1.25 | 1.3 | SY1.6DPNEBA | 1.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 025 | ○ |
| M1.7X0.35 | P1 | 1.35 | 1.4 | SY1.7DPNEBA | 1.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 025 | ○ |
| M1.8X0.35 | P1 | 1.45 | 1.5 | SY1.8DPNEBA | 1.5P | 42 | - | 6.3 | - | 27 | 3 | 2.5 | 5 | 2 | 025 | ○ |
| M2X0.4 | P1 | 1.6 | 1.65 | SY2.0EPNEBA | 1.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 028 | ● |
| M2.3X0.4 | P1 | 1.9 | 1.95 | SY2.3EPNEBA | 1.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 028 | ○ |
| M2.5X0.45 | P1 | 2.1 | 2.11 | SY2.5FPNEBA | 1.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 028 | ● |
| M2.6X0.45 | P1 | 2.2 | 2.21 | SY2.6FPNEBA | 1.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 028 | ● |
| M3X0.5 | P1 | 2.5 | 2.56 | SY3.0GPNEBA | 1.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 028 | ● |
| M3.5X0.6 | P1 | 2.9 | 2.97 | SY3.5HPNEBA | 1.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 028 | ● |
| M4X0.7 | P2 | 3.3 | 3.38 | SY4.0IQNEBA | 1.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 028 | ● |
| M5X0.8 | P2 | 4.2 | 4.28 | SY5.0KQNEBA | 1.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 028 | ● |
| M6X1 | P2 | 5 | 5.09 | SY6.0MQNEBA | 1.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 028 | ● |
| M8X1.25 | P2 | 6.8 | 6.85 | SY8.0NQNEBA | 1.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 017 | ● |
| M10X1.5 | P2 | 8.5 | 8.6 | SY010OQNEBA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 017 | ● |
| M12X1.75 | P2 | 10.3 | 10.36 | SY012PQNEBA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ● |
| M14X2 | P2 | 12 | 12.12 | SY014QQNEBA | 1.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 017 | ● |
| M16X2 | P2 | 14 | 14.12 | SY016QQNEBA | 1.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 017 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M8X1 | P2 | 7 | 7.09 | SY8.0MQNEBA | 1.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 017 | ○ |
| M10X1.25 | P2 | 8.8 | 8.85 | SY010NQNEBA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 017 | ○ |
| M10X1 | P2 | 9 | 9.09 | SY010MQNEBA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 017 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | SY012OQNEBA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | SY012NQNEBA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M12X1 | P2 | 11 | 11.09 | SY012MQNEBA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | SY014OQNEBA | 1.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 017 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | SY016OQNEBA | 1.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 017 | ○ |

# SP LH




## GP General Purpose Series

Spiral Fluted Taps for Left Hand Threads

HSS-E | LH LEFT HAND | 2.5P THCHT

**FEATURES**

General purpose for blind hole application.

For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

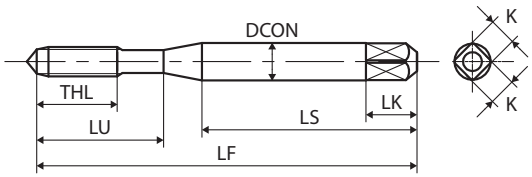
For left hand threads.

**Recommended Tapping Speeds Depending On Materials**

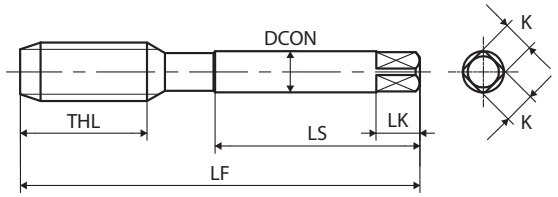
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_001**




**TYPE: SP_013**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M2X0.4 | P1 | 1.6 | 1.65 | SPP2.0E--L | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | O |
| M2.3X0.4 | P1 | 1.9 | 1.95 | SPP2.3E--L | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M2.5X0.45 | P1 | 2.1 | 2.11 | SPP2.5F--L | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | O |
| M2.6X0.45 | P1 | 2.2 | 2.21 | SPP2.6F--L | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M3X0.5 | P1 | 2.5 | 2.56 | SPP3.0G--L | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | O |
| M4X0.7 | P2 | 3.3 | 3.38 | SPQ4.0I--L | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | SPQ5.0K--L | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P2 | 5 | 5.09 | SPQ6.0M--L | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M7X1 | P2 | 6 | 6.09 | SPQ7.0M--L | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | O |
| M8X1.25 | P2 | 6.8 | 6.85 | SPQ8.0N--L | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | SPQ010O--L | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | SPQ012P--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X2 | P2 | 12 | 12.12 | SPQ014Q--L | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | O |
| M16X2 | P2 | 14 | 14.12 | SPQ016Q--L | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | SPR018R--L | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | O |
| M20X2.5 | P3 | 17.5 | 17.63 | SPR020R--L | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | SPR022R--L | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | O |
| M24X3 | P3 | 21 | 21.13 | SPR024S--L | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | O |
| M27X3 | P3 | 24 | 24.13 | SPR027S--L | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | SPS030T--L | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M8X1 | P2 | 7 | 7.09 | SPQ8.0M--L | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ● |
| M10X1.25 | P2 | 8.8 | 8.85 | SPQ010N--L | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ● |
| M10X1 | P2 | 9 | 9.09 | SPQ010M--L | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ● |
| M12X1.5 | P2 | 10.5 | 10.6 | SPQ012O--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| M12X1.25 | P2 | 10.8 | 10.85 | SPQ012N--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| M12X1 | P2 | 11 | 11.09 | SPQ012M--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| M14X1.5 | P2 | 12.5 | 12.6 | SPQ014O--L | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ● |
| M14X1 | P2 | 13 | 13.09 | SPQ014M--L | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | SPQ016O--L | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ● |
| M18X1.5 | P2 | 16.5 | 16.6 | SPQ018O--L | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ● |
| M20X1.5 | P3 | 18.5 | 18.6 | SPR020O--L | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ● |
| M22X1.5 | P3 | 20.5 | 20.6 | SPR022O--L | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X2 | P3 | 22 | 22.12 | SPR024Q--L | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | SPR024O--L | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | SPR027O--L | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X2 | P3 | 28 | 28.12 | SPR030Q--L | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | SPR030O--L | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 1/4-20UNC | P2 | 5.1 | 5.19 | SPQU04N--L | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P2 | 6.6 | 6.65 | SPQU05O--L | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-16UNC | P2 | 8 | 8.07 | SPQU06P--L | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | SPRU07Q--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | SPRU08R--L | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 1/4-28UNF | P2 | 5.5 | 5.53 | SPQU04K--L | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | SPQU05M--L | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | SPQU06M--L | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-20UNF | P2 | 9.9 | 9.96 | SPQU07N--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-20UNF | P2 | 11.5 | 11.54 | SPQU08N--L | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 1/4W20 | P2 | 5.1 | 5.13 | SPQW04N--L | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16W18 | P2 | 6.5 | 6.59 | SPQW05O--L | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8W16 | P2 | 8 | 8.02 | SPQW06P--L | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | SPRW07Q--L | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | SPRW08S--L | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | SPRW10U--L | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4W10 | P3 | 16.5 | 16.63 | SPRW12V--L | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |

# SU+SP/SU-SP




## MS Material Specific Series

Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

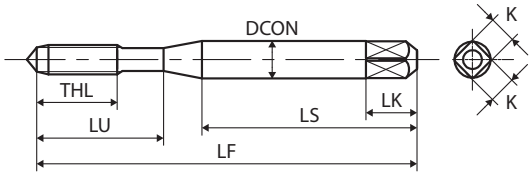
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

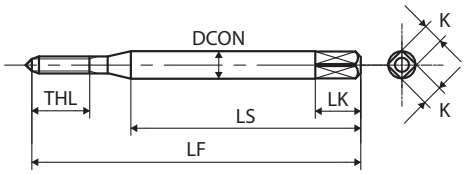
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |

★ 1st choice ☆ suitable

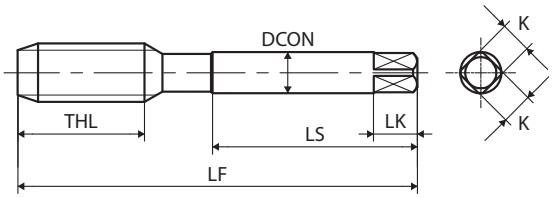
**TYPE: SP_001**




**TYPE: SP_007**




**TYPE: SP_013**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M1.4X0.3 | P1 | 1.1 | 1.13 | SUMP1.4C | 2.5P | 36 | - | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| M1.6X0.35 | P1 | 1.25 | 1.3 | SUMP1.6D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| M1.7X0.35 | P1 | 1.35 | 1.4 | SUMP1.7D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| | P2(P1+15) | 1.35 | 1.4 | SUMQ1.7D | 2.5P | 36 | - | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 007 | ○ |
| M2X0.4 | P1 | 1.6 | 1.65 | SUPP2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P2(P1+15) | 1.6 | 1.65 | SUPQ2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 1.6 | 1.65 | SUPR2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M2.3X0.4 | P1 | 1.9 | 1.95 | SUPP2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ● |
| | P2(P1+15) | 1.9 | 1.95 | SUPQ2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 1.9 | 1.95 | SUPR2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M2.5X0.45 | P1 | 2.1 | 2.11 | SUPP2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P2(P1+15) | 2.1 | 2.11 | SUPQ2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 2.1 | 2.11 | SUPR2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M2.6X0.45 | P1 | 2.2 | 2.21 | SUPP2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | **O** |
| | P2(P1+15) | 2.2 | 2.21 | SUPQ2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P1+30) | 2.2 | 2.21 | SUPR2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| 3M0.6 | P1 | 2.45 | 2.47 | SUPP3.0H | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3X0.5 | P1 | 2.5 | 2.56 | SUPP3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2(P1+15) | 2.5 | 2.56 | SUPQ3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | SUPR3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P1 | 2.9 | 2.97 | SUPP3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | **O** |
| | P3(P1+30) | 2.9 | 2.97 | SUPR3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 4M0.75 | P2 | 3.3 | 3.33 | SUPQ4.0J | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | SUPQ4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | SUPR4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | SUPS4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 5M0.9 | P2 | 4.15 | 4.19 | SUPQ5.0L | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | SUPQ5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | SUPR5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 4.2 | 4.28 | SUPS5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P2 | 5 | 5.09 | SUPQ6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 5 | 5.09 | SUPR6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | SUPS6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | SUMQ8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | SUMR8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 6.8 | 6.85 | SUMS8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | SUMQ010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | SUMR010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 8.5 | 8.6 | SUMS010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | SUMQ012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 10.3 | 10.36 | SUMR012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P2+40) | 10.3 | 10.36 | SUMS012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X2 | P2 | 12 | 12.12 | SUMQ014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3(P2+20) | 12 | 12.12 | SUMR014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4(P2+40) | 12 | 12.12 | SUMS014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X2 | P2 | 14 | 14.12 | SUMQ016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3(P2+20) | 14 | 14.12 | SUMR016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P4(P2+40) | 14 | 14.12 | SUMS016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | SUMR018R | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P3+20) | 15.5 | 15.63 | SUMS018R | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | SUMR020R | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 17.5 | 17.63 | SUMS020R | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | SUMR022R | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 19.5 | 19.63 | SUMS022R | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P5(P3+40) | 19.5 | 19.63 | SUMT022R | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M24X3 | P3 | 21 | 21.13 | SUMR024S | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 21 | 21.13 | SUMS024S | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P5(P3+40) | 21 | 21.13 | SUMT024S | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X3 | P3 | 24 | 24.13 | SUMR027S | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | SUMS030T | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M33X3.5 | P4 | 29.5 | 29.63 | SUMS033T | 2.5P | 145 | - | 46 | - | 67 | 25 | 19 | 22 | 4 | 013 | ○ |
| M36X4 | P4 | 32 | 32.12 | SUMS036U | 2.5P | 155 | - | 52 | - | 71 | 28 | 21 | 24 | 4 | 013 | ○ |
| M39X4 | P4 | 35 | 35.12 | SUMS039U | 2.5P | 165 | - | 52 | - | 76 | 30 | 23 | 26 | 4 | 013 | ○ |
| M42X4.5 | P4 | 37.5 | 37.63 | SUMS042V | 2.5P | 175 | - | 59 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |
| M45X4.5 | P4 | 40.5 | 40.63 | SUMS045V | 2.5P | 180 | - | 59 | - | 83 | 35 | 26 | 30 | 4 | 013 | ○ |
| M48X5 | P4 | 43 | 43.12 | SUMS048W | 2.5P | 185 | - | 65 | - | 85 | 38 | 29 | 32 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M6X0.75 | P2 | 5.3 | 5.33 | SUMQ6.0J | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1 | P2 | 7 | 7.09 | SUMQ8.0M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M8X0.75 | P2 | 7.3 | 7.33 | SUMQ8.0J | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M10X1.25 | P2 | 8.8 | 8.85 | SUMQ010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3(P2+20) | 8.8 | 8.85 | SUMR010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 8.8 | 8.85 | SUMS010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M10X1 | P2 | 9 | 9.09 | SUMQ010M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P2+40) | 9 | 9.09 | SUMS010M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | SUMQ012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 10.5 | 10.6 | SUMR012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P2+40) | 10.5 | 10.6 | SUMS012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | SUMQ012N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3(P2+20) | 10.8 | 10.85 | SUMR012N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1 | P2 | 11 | 11.09 | SUMQ012M | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | SUMQ014O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4(P2+40) | 12.5 | 12.6 | SUMS014O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M14X1 | P2 | 13 | 13.09 | SUMQ014M | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | SUMQ016O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P4(P2+40) | 14.5 | 14.6 | SUMS016O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | SUMQ018O | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P2+40) | 16.5 | 16.6 | SUMS018O | 2.5P | 100 | - | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | SUMR020O | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 18.5 | 18.6 | SUMS020O | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | SUMR022O | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 20.5 | 20.6 | SUMS022O | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X2 | P3 | 22 | 22.12 | SUMR024Q | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | SUMR024O | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 22.5 | 22.6 | SUMS024O | 2.5P | 120 | - | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | SUMR027O | 2.5P | 130 | - | 39 | - | 60 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | SUMR030O | 2.5P | 135 | - | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |
| M42X1.5 | P3 | 40.5 | 40.6 | SUMR042O | 2.5P | 175 | - | 27 | - | 81 | 32 | 26 | 30 | 4 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| No.2-56UNC | P1 | 1.8 | 1.83 | SUMPUN2E | 2.5P | 42 | - | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| No.3-48UNC | P1 | 2.09 | 2.1 | SUMPUN3F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| No.4-40UNC | P1 | 2.3 | 2.33 | SUMPUN4H | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 2 | 001 | ○ |
| No.5-40UNC | P1 | 2.6 | 2.64 | SUMPUN5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-32UNC | P2 | 2.8 | 2.83 | SUMQUN6J | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-32UNC | P2 | 3.4 | 3.47 | SUMQUN8J | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.10-24UNC | P2 | 3.89 | 3.9 | SUMQUNAM | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4-20UNC | P2 | 5.1 | 5.19 | SUMQU04N | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P2 | 6.6 | 6.65 | SUMQU05O | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-16UNC | P2 | 8 | 8.07 | SUMQU06P | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | SUMRU07Q | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | SUMRU08R | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | SUMRU10U | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4-10UNC | P3 | 16.6 | 16.7 | SUMRU12V | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8-9UNC | P3 | 19.6 | 19.61 | SUMRU14W | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -8UNC | P3 | 22.3 | 22.45 | SUMRU16X | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| No.4-48UNF | P1 | 2.4 | 2.41 | SUMPUN4F | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 2 | 001 | ○ |
| No.5-44UNF | P1 | 2.7 | 2.69 | SUMPUN5G | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-40UNF | P1 | 2.9 | 2.97 | SUMPUN6H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-36UNF | P2 | 3.5 | 3.55 | SUMQUN8I | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.10-32UNF | P2 | 4.1 | 4.12 | SUMQUNAJ | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4-28UNF | P2 | 5.5 | 5.53 | SUMQU04K | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | SUMQU05M | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | SUMQU06M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-20UNF | P2 | 9.9 | 9.96 | SUMQU07N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-20UNF | P2 | 11.5 | 11.54 | SUMQU08N | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 5/8-18UNF | P2 | 14.5 | 14.6 | SUMQU10O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | SUMRU12P | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8-14UNF | P3 | 20.5 | 20.57 | SUMRU14Q | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -12UNF | P3 | 23.3 | 23.46 | SUMRU16S | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 3/16W24 | P2 | 3.7 | 3.7 | SUMQW03M | 2.5P | 60 | - | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4W20 | P2 | 5.1 | 5.13 | SUMQW04N | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16W18 | P2 | 6.5 | 6.59 | SUMQW05O | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8W16 | P2 | 8 | 8.02 | SUMQW06P | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | SUMRW07Q | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | SUMRW08S | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 9/16W12 | P3 | 12.25 | 12.29 | SUMRW09S | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | SUMRW10U | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4W10 | P3 | 16.5 | 16.63 | SUMRW12V | 2.5P | 105 | - | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8W9 | P3 | 19.5 | 19.53 | SUMRW14W | 2.5P | 115 | - | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 W8 | P3 | 22.2 | 22.34 | SUMRW16X | 2.5P | 125 | - | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |



IMROBEX
Machine Tools International
Think threads with YAMAWA

# AL+SP/AL-SP




## MS Material Specific Series

Spiral Fluted Taps for Aluminium

HSS-E | NI | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷25 | ★ |
| N2 | 10÷25 | ★ |
| N3 | 10÷25 | ★ |
| N4 | 10÷25 | ★ |

★ 1st choice ☆ suitable

### Product Features

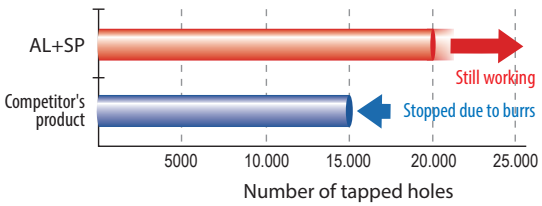
AL+SP guarantees consistent tapping even in medium-high speed cutting area, in forged workpieces of light alloys such as aluminum die castings and aluminum castings.

Featuring an optimized cutting edge design, AL+SP does not produce burrs in minor diameter which usually occours during tapping light alloys. AL+SP ensure reliability and high quality internal threads.

### Process Data

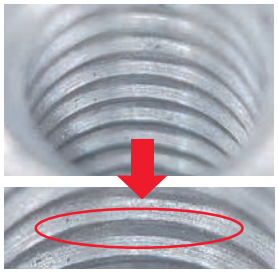
**M6×1**

| | |
|---|---|
| Work-material | DIN G-AlSi7Mg |
| Tapping length | 9mm, blind hole |
| Tapping speed | 20 m/min |
| Hole diameter | ø 5.0 |
| Machine | Vertical machining center |
| Lubricant | Water soluble oil (x 20) |

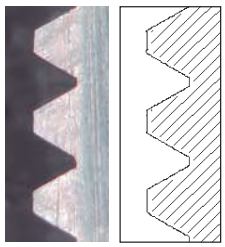



### AL+SP

Internal thread

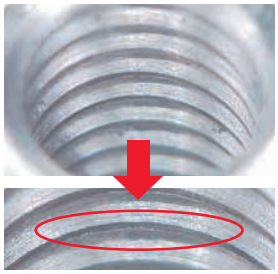


Cross section of internal threads

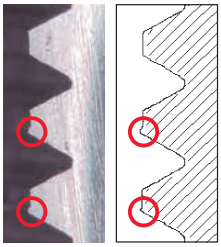


### Competitor

Internal thread



Cross section of internal threads



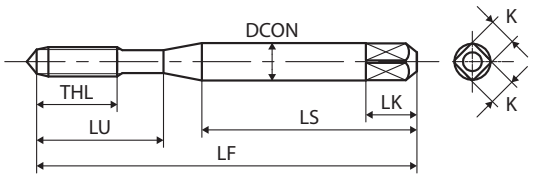
Compared to competitor, AL+SP assures longer tool life and higher quality internal threads



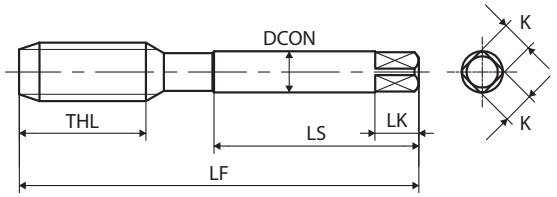
Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: SP_001**




**TYPE: SP_013**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| **M2X0.4** | P2 | 1.6 | 1.65 | ASHPQ2.0E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M2.3X0.4** | P2 | 1.9 | 1.95 | ASHPQ2.3E | 2.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M2.5X0.45** | P2 | 2.1 | 2.11 | ASHPQ2.5F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M2.6X0.45** | P2 | 2.2 | 2.21 | ASHPQ2.6F | 2.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| **M3X0.5** | P2 | 2.5 | 2.56 | ASHPQ3.0G | 2.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| **M3.5X0.6** | P2 | 2.9 | 2.97 | ASHPQ3.5H | 2.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **M4X0.7** | P3 | 3.3 | 3.38 | ASHPR4.0I | 2.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **M5X0.8** | P3 | 4.2 | 4.28 | ASHPR5.0K | 2.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **M6X1** | P3 | 5 | 5.09 | ASHPR6.0M | 2.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| **M8X1.25** | P3 | 6.8 | 6.85 | ASHMR8.0N | 2.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| **M10X1.5** | P3 | 8.5 | 8.6 | ASHMR010O | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **M12X1.75** | P3 | 10.3 | 10.36 | ASHMR012P | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| **M14X2** | P3 | 12 | 12.12 | ASHMR014Q | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| **M16X2** | P3 | 14 | 14.12 | ASHMR016Q | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| **M10X1.25** | P3 | 8.8 | 8.85 | ASHMR010N | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **M10X1** | P3 | 9 | 9.09 | ASHMR010M | 2.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **M12X1.5** | P3 | 10.5 | 10.6 | ASHMR012O | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| **M12X1.25** | P3 | 10.8 | 10.85 | ASHMR012N | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| **M12X1** | P3 | 11 | 11.09 | ASHMR012M | 2.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| **M14X1.5** | P3 | 12.5 | 12.6 | ASHMR014O | 2.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| **M16X1.5** | P3 | 14.5 | 14.6 | ASHMR016O | 2.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |

# AL-SP 1.5P




## MS Material Specific Series

Spiral Fluted Taps for Aluminium 1.5P

HSS-E | NI | 1.5P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

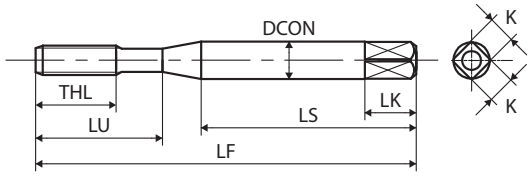
1.5P extra short chamfer for tapping till the bottom of the hole.

**Recommended Tapping Speeds Depending On Materials**

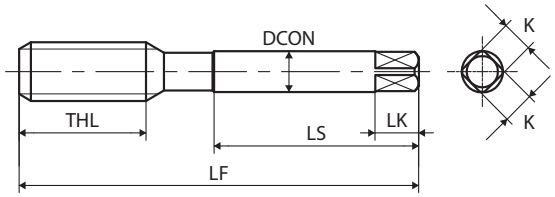
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷25 ★ |
| N2 | 10÷25 ★ |
| N3 | 10÷25 ★ |
| N4 | 10÷25 ★ |

★ 1st choice ☆ suitable

**TYPE: SP_028**




**TYPE: SP_017**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M2X0.4 | P2 | 1.6 | 1.65 | SY2.0EQLENA | 1.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 028 | ○ |
| M2.3X0.4 | P2 | 1.9 | 1.95 | SY2.3EQLENA | 1.5P | 42 | - | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 028 | ○ |
| M2.5X0.45 | P2 | 2.1 | 2.11 | SY2.5FQLENA | 1.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 028 | ○ |
| M2.6X0.45 | P2 | 2.2 | 2.21 | SY2.6FQLENA | 1.5P | 46 | - | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 028 | ○ |
| M3X0.5 | P2 | 2.5 | 2.56 | SY3.0GQLENA | 1.5P | 46 | - | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 028 | ○ |
| M3.5X0.6 | P2 | 2.9 | 2.97 | SY3.5HQLENA | 1.5P | 52 | - | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 028 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | SY4.0IRLENA | 1.5P | 52 | - | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 028 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | SY5.0KRLENA | 1.5P | 60 | - | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 028 | ○ |
| M6X1 | P3 | 5 | 5.09 | SY6.0MRLENA | 1.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 028 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | SY8.0NRLENA | 1.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 017 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | SY010ORLENA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 017 | ○ |
| M12X1.75 | P3 | 10.3 | 10.36 | SY012PRLENA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M14X2 | P3 | 12 | 12.12 | SY014QRLENA | 1.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 017 | ○ |
| M16X2 | P3 | 14 | 14.12 | SY016QRLENA | 1.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 017 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | SY010NRLENA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 017 | ○ |
| M10X1 | P3 | 9 | 9.09 | SY010MRLENA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 017 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | SY012ORLENA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M12X1.25 | P3 | 10.8 | 10.85 | SY012NRLENA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M12X1 | P3 | 11 | 11.09 | SY012MRLENA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 017 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | SY014ORLENA | 1.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 017 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | SY016ORLENA | 1.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 017 | ○ |

Intro
SP
ANSI
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# SP

## GP General Purpose Series

Spiral Fluted Taps




HSS-E



2.5P THCHT

**FEATURES**

General purpose for blind hole application.

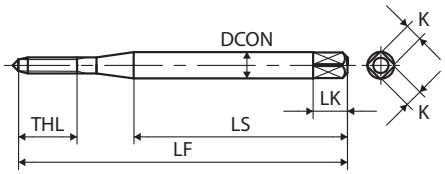
For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

### Recommended Tapping Speeds Depending On Materials

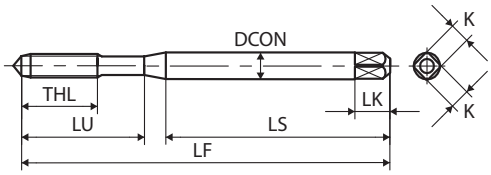
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

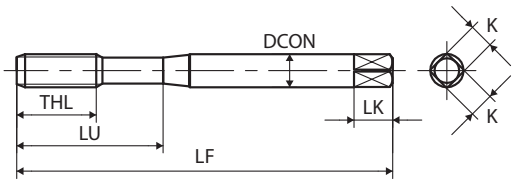
**TYPE: US_004**



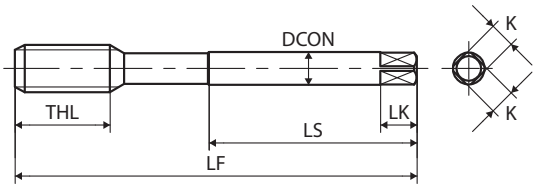

**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.2-56UNC | GH1 | 1.8 | 1.83 | SSUN2E1NEB | 2.5P | 1.772 | - | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.8 | 1.83 | SSUN2E2NEB | 2.5P | 1.772 | - | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.3-48UNC | GH1 | 2.09 | 2.1 | SSUN3F1NEB | 2.5P | 2.205 | - | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.09 | 2.1 | SSUN3F2NEB | 2.5P | 2.205 | - | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.4-40UNC | GH1 | 2.3 | 2.33 | SSUN4H1NEB | 2.5P | 2.205 | - | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.3 | 2.33 | SSUN4H2NEB | 2.5P | 2.205 | - | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.5-40UNC | GH1 | 2.6 | 2.64 | SSUN5H1NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.6 | 2.64 | SSUN5H2NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.6-32UNC | GH1 | 2.8 | 2.83 | SSUN6J1NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.8 | 2.83 | SSUN6J2NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.8 | 2.83 | SSUN6J3NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH4 | 2.8 | 2.83 | SSUN6J4NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.8-32UNC | GH2 | 3.4 | 3.47 | SSUN8J2NEB | 2.5P | 2.48 | - | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH3 | 3.4 | 3.47 | SSUN8J3NEB | 2.5P | 2.48 | - | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| No.10-24UNC | GH2 | 3.89 | 3.9 | SSUNAM2NEB | 2.5P | 2.756 | - | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 3 | 005 | ○ |
| | GH3 | 3.89 | 3.9 | SSUNAM3NEB | 2.5P | 2.756 | - | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 3 | 005 | ○ |
| No.12-24UNC | GH2 | 4.5 | 4.53 | SSUNCM2NEB | 2.5P | 3.15 | - | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| | GH3 | 4.5 | 4.53 | SSUNCM3NEB | 2.5P | 3.15 | - | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| 1/4-20UNC | GH2 | 5.1 | 5.19 | SSU04N2NEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.1 | 5.19 | SSU04N3NEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH5 | 5.1 | 5.19 | SSU04N5NEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH11 | 5.1 | 5.19 | SSU04N-EEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| 5/16-18UNC | GH2 | 6.6 | 6.65 | SSU05O2NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.6 | 6.65 | SSU05O3NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH5 | 6.6 | 6.65 | SSU05O5NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH11 | 6.6 | 6.65 | SSU05O-EEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | SSU06P3NEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH4 | 8 | 8.07 | SSU06P4NEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH5 | 8 | 8.07 | SSU06P5NEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH11 | 8 | 8.07 | SSU06P-EEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| 7/16-14UNC | GH3 | 9.4 | 9.45 | SSU07Q3NEB | 2.5P | 3.937 | - | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH4 | 9.4 | 9.45 | SSU07Q4NEB | 2.5P | 3.937 | - | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | SSU07Q5NEB | 2.5P | 3.937 | - | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | SSU08R3NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH4 | 10.9 | 10.91 | SSU08R4NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | SSU08R5NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH11 | 10.9 | 10.91 | SSU08R-EEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 9/16-12UNC | GH3 | 12.2 | 12.33 | SSU09S3NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH4 | 12.2 | 12.33 | SSU09S4NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH5 | 12.2 | 12.33 | SSU09S5NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | SSU10U3NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 13.6 | 13.75 | SSU10U4NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 13.6 | 13.75 | SSU10U5NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH11 | 13.6 | 13.75 | SSU10U-EEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-10UNC | GH3 | 16.6 | 16.7 | SSU12V3NEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH5 | 16.6 | 16.7 | SSU12V5NEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH11 | 16.6 | 16.7 | SSU12V-EEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 073 of Technical info for full details.



IMPROBEX
Machine Tools International
Think threads with YAMAWA

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 7/8-9UNC | GH4 | 19.6 | 19.61 | SSU14W4NEB | 2.5P | 5.512 | - | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH5 | 19.6 | 19.61 | SSU14W5NEB | 2.5P | 5.512 | - | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH6 | 19.6 | 19.61 | SSU14W6NEB | 2.5P | 5.512 | - | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| 1 -8UNC | GH4 | 22.3 | 22.45 | SSU16X4NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH5 | 22.3 | 22.45 | SSU16X5NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH6 | 22.3 | 22.45 | SSU16X6NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| 1 1/8-7UNC | GH4 | 25 | 25.17 | SSU18Y4NEB | 2.5P | 7.087 | - | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH6 | 25 | 25.17 | SSU18Y6NEB | 2.5P | 7.087 | - | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-7UNC | GH4 | 28.2 | 28.35 | SSU20Y4NEB | 2.5P | 7.087 | - | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH6 | 28.2 | 28.35 | SSU20Y6NEB | 2.5P | 7.087 | - | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-6UNC | GH5 | 30.8 | 30.92 | SSU22Z5NEB | 2.5P | 7.874 | - | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH6 | 30.8 | 30.92 | SSU22Z6NEB | 2.5P | 7.874 | - | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-6UNC | GH5 | 34 | 34.1 | SSU24Z5NEB | 2.5P | 7.874 | - | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH6 | 34 | 34.1 | SSU24Z6NEB | 2.5P | 7.874 | - | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.2-64UNF | GH1 | 1.85 | 1.87 | SSUN2D1NEB | 2.5P | 1.772 | - | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.85 | 1.87 | SSUN2D2NEB | 2.5P | 1.772 | - | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.3-56UNF | GH1 | 2.1 | 2.15 | SSUN3E1NEB | 2.5P | 2.205 | - | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.1 | 2.15 | SSUN3E2NEB | 2.5P | 2.205 | - | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.4-48UNF | GH1 | 2.4 | 2.41 | SSUN4F1NEB | 2.5P | 2.205 | - | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.4 | 2.41 | SSUN4F2NEB | 2.5P | 2.205 | - | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.5-44UNF | GH1 | 2.7 | 2.69 | SSUN5G1NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.7 | 2.69 | SSUN5G2NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.6-40UNF | GH1 | 2.9 | 2.97 | SSUN6H1NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.9 | 2.97 | SSUN6H2NEB | 2.5P | 2.205 | - | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.8-36UNF | GH2 | 3.5 | 3.55 | SSUN8I2NEB | 2.5P | 2.48 | - | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH3 | 3.5 | 3.55 | SSUN8I3NEB | 2.5P | 2.48 | - | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| No.10-32UNF | GH2 | 4.1 | 4.12 | SSUNAJ2NEB | 2.5P | 2.756 | - | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 3 | 005 | ○ |
| | GH3 | 4.1 | 4.12 | SSUNAJ3NEB | 2.5P | 2.756 | - | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 3 | 005 | ○ |
| No.12-28UNF | GH2 | 4.6 | 4.67 | SSUNCK2NEB | 2.5P | 3.15 | - | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| | GH3 | 4.6 | 4.67 | SSUNCK3NEB | 2.5P | 3.15 | - | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| 1/4-28UNF | GH2 | 5.5 | 5.53 | SSU04K2NEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.5 | 5.53 | SSU04K3NEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH4 | 5.5 | 5.53 | SSU04K4NEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH11 | 5.5 | 5.53 | SSU04K-EEB | 2.5P | 3.15 | - | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| 5/16-24UNF | GH2 | 6.9 | 6.97 | SSU05M2NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.9 | 6.97 | SSU05M3NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH4 | 6.9 | 6.97 | SSU05M4NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH5 | 6.9 | 6.97 | SSU05M5NEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH11 | 6.9 | 6.97 | SSU05M-EEB | 2.5P | 3.543 | - | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| 3/8-24UNF | GH2 | 8.5 | 8.57 | SSU06M2NEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH3 | 8.5 | 8.57 | SSU06M3NEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH4 | 8.5 | 8.57 | SSU06M4NEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH11 | 8.5 | 8.57 | SSU06M-EEB | 2.5P | 3.937 | - | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 7/16-20UNF | GH2 | 9.9 | 9.96 | SSU07N2NEB | 2.5P | 3.937 | - | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH3 | 9.9 | 9.96 | SSU07N3NEB | 2.5P | 3.937 | - | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.9 | 9.96 | SSU07N5NEB | 2.5P | 3.937 | - | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-20UNF | GH2 | 11.5 | 11.54 | SSU08N2NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH3 | 11.5 | 11.54 | SSU08N3NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | SSU08N5NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH11 | 11.5 | 11.54 | SSU08N-EEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 9/16-18UNF | GH3 | 12.9 | 13 | SSU09O3NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH4 | 12.9 | 13 | SSU09O4NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH5 | 12.9 | 13 | SSU09O5NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | SSU10O3NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 14.5 | 14.6 | SSU10O4NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 14.5 | 14.6 | SSU10O5NEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH11 | 14.5 | 14.6 | SSU10O-EEB | 2.5P | 4.331 | - | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | SSU12P3NEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH4 | 17.5 | 17.59 | SSU12P4NEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH5 | 17.5 | 17.59 | SSU12P5NEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH11 | 17.5 | 17.59 | SSU12P-EEB | 2.5P | 4.921 | - | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| 7/8-14UNF | GH3 | 20.5 | 20.57 | SSU14Q3NEB | 2.5P | 5.512 | - | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH4 | 20.5 | 20.57 | SSU14Q4NEB | 2.5P | 5.512 | - | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH6 | 20.5 | 20.57 | SSU14Q6NEB | 2.5P | 5.512 | - | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| 1 -12UNF | GH3 | 23.3 | 23.46 | SSU16S3NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH4 | 23.3 | 23.46 | SSU16S4NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH5 | 23.3 | 23.46 | SSU16S5NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH6 | 23.3 | 23.46 | SSU16S6NEB | 2.5P | 6.299 | - | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| 1 1/8-12UNF | GH4 | 26.5 | 26.63 | SSU18S4NEB | 2.5P | 7.087 | - | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH5 | 26.5 | 26.63 | SSU18S5NEB | 2.5P | 7.087 | - | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-12UNF | GH4 | 29.6 | 29.81 | SSU20S4NEB | 2.5P | 7.087 | - | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH5 | 29.6 | 29.81 | SSU20S5NEB | 2.5P | 7.087 | - | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-12UNF | GH4 | 32.8 | 32.98 | SSU22S4NEB | 2.5P | 7.874 | - | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH5 | 32.8 | 32.98 | SSU22S5NEB | 2.5P | 7.874 | - | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-12UNF | GH4 | 36 | 36.16 | SSU24S4NEB | 2.5P | 7.874 | - | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH5 | 36 | 36.16 | SSU24S5NEB | 2.5P | 7.874 | - | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



IMPROBEX Machine Tools International
Think threads with YAMAWA

# ZELX SS SP




## MS Material Specific Series

Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 2.5P THCHT | 1.5P THCHT

**FEATURES**

Material specific for blind hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

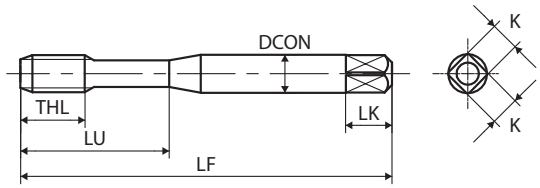
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

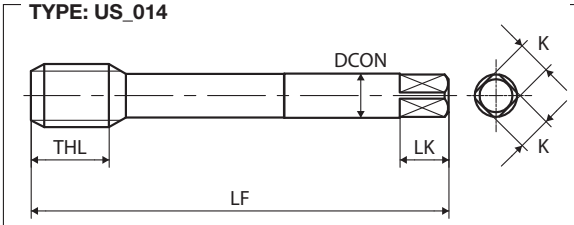
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_002**




**TYPE: US_014**




| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.2-56UNC | GH2 | 1.8 | 1.83 | Y84623 | 2.5P | 1.75 | - | 0.157 | 0.437 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| No.3-48UNC | GH2 | 2.09 | 2.1 | Y84600 | 2.5P | 1.812 | - | 0.197 | 0.5 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| No.4-40UNC | GH2 | 2.3 | 2.33 | Y84601 | 2.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH2 | 2.3 | 2.33 | Y84001 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH3 | 2.3 | 2.33 | Y84602 | 2.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH3 | 2.3 | 2.33 | Y84002 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH4 | 2.3 | 2.33 | Y84629 | 2.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH5 | 2.3 | 2.33 | Y84634 | 2.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH5 | 2.3 | 2.33 | Y84034 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| No.5-40UNC | GH2 | 2.6 | 2.64 | Y84603 | 2.5P | 1.937 | - | 0.236 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH2 | 2.6 | 2.64 | Y84003 | 1.5P | 1.937 | - | 0.236 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.6-32UNC | GH2 | 2.8 | 2.83 | Y84604 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH2 | 2.8 | 2.83 | Y84004 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.8 | 2.83 | Y84605 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.8 | 2.83 | Y84005 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH4 | 2.8 | 2.83 | Y84636 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.8 | 2.83 | Y84635 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH6 | 2.8 | 2.83 | Y84659 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH7 | 2.8 | 2.83 | Y84665 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.8 | 2.83 | Y84035 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.8-32UNC | GH2 | 3.4 | 3.47 | Y84606 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.4 | 3.47 | Y84607 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.4 | 3.47 | Y84007 | 1.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH4 | 3.4 | 3.47 | Y84638 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.4 | 3.47 | Y84637 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH6 | 3.4 | 3.47 | Y84660 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH7 | 3.4 | 3.47 | Y84667 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH2 | 3.4 | 3.47 | Y84006 | 1.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.4 | 3.47 | Y84037 | 1.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| No.10-24UNC | GH2 | 3.89 | 3.9 | Y84624 | 2.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.89 | 3.9 | Y84609 | 2.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.89 | 3.9 | Y84009 | 1.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.89 | 3.9 | Y84639 | 2.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.89 | 3.9 | Y84039 | 1.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH6 | 3.89 | 3.9 | Y84690 | 2.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH7 | 3.89 | 3.9 | Y84669 | 2.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| No.12-24UNC | GH3 | 4.5 | 4.53 | Y84688 | 2.5P | 2.375 | - | 0.354 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 002 | ○ |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | Y84613 | 2.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.1 | 5.19 | Y84013 | 1.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.1 | 5.19 | Y84643 | 2.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.1 | 5.19 | Y84043 | 1.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH7 | 5.1 | 5.19 | Y84673 | 2.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | Y84615 | 2.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.6 | 6.65 | Y84015 | 1.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.6 | 6.65 | Y84645 | 2.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.6 | 6.65 | Y84045 | 1.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH7 | 6.6 | 6.65 | Y84675 | 2.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | Y84617 | 2.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8 | 8.07 | Y84017 | 1.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8 | 8.07 | Y84647 | 2.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8 | 8.07 | Y84047 | 1.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH7 | 8 | 8.07 | Y84677 | 2.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH7 | 8 | 8.07 | Y84077 | 1.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| 7/16-14UNC | GH3 | 9.4 | 9.45 | Y84619 | 2.5P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH3 | 9.4 | 9.45 | Y84019 | 1.5P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.4 | 9.45 | Y84649 | 2.5P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.4 | 9.45 | Y84049 | 1.5P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH7 | 9.4 | 9.45 | Y84679 | 2.5P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 073 of Technical info for full details.



IMROBEX
Machine Tools International
Think threads with YAMAWA

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | Y84621 | 2.5P | 3.375 | - | 0.63 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 10.9 | 10.91 | Y84021 | 1.5P | 3.375 | - | 0.63 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 10.9 | 10.91 | Y84651 | 2.5P | 3.375 | - | 0.63 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 10.9 | 10.91 | Y84051 | 1.5P | 3.375 | - | 0.63 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH7 | 10.9 | 10.91 | Y84681 | 2.5P | 3.375 | - | 0.63 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| 9/16-12UNC | GH3 | 12.2 | 12.33 | Y84653 | 2.5P | 3.593 | - | 0.709 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| | GH3 | 12.2 | 12.33 | Y84053 | 1.5P | 3.593 | - | 0.709 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | Y84625 | 2.5P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH3 | 13.6 | 13.75 | Y84025 | 1.5P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH5 | 13.6 | 13.75 | Y84655 | 2.5P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH5 | 13.6 | 13.75 | Y84055 | 1.5P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| 3/4-10UNC | GH3 | 16.6 | 16.7 | Y84627 | 2.5P | 4.25 | - | 0.827 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH3 | 16.6 | 16.7 | Y84027 | 1.5P | 4.25 | - | 0.827 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH5 | 16.6 | 16.7 | Y84657 | 2.5P | 4.25 | - | 0.827 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| 7/8-9UNC | GH4 | 19.6 | 19.61 | Y84695 | 2.5P | 4.687 | - | 0.827 | - | - | 0.697 | 0.523 | 0.75 | 4 | 014 | ○ |
| 1 -8UNC | GH4 | 22.3 | 22.45 | Y84697 | 2.5P | 5.125 | - | 0.984 | - | - | 0.8 | 0.6 | 0.812 | 4 | 014 | ○ |
| 1 1/8-7UNC | GH6 | 25 | 25.17 | Y84701 | 2.5P | 5.437 | - | 1.181 | - | - | 0.896 | 0.672 | 0.875 | 4 | 014 | ○ |
| 1 1/4-7UNC | GH6 | 28.2 | 28.35 | Y84703 | 2.5P | 5.75 | - | 1.181 | - | - | 1.021 | 0.766 | 1 | 4 | 014 | ○ |
| 1 3/8-6UNC | GH6 | 30.8 | 30.92 | Y84706 | 2.5P | 6.062 | - | 1.575 | - | - | 1.108 | 0.831 | 1.062 | 4 | 014 | ○ |
| 1 1/2-6UNC | GH6 | 34 | 34.1 | Y84709 | 2.5P | 6.375 | - | 1.575 | - | - | 1.233 | 0.925 | 1.125 | 4 | 014 | ○ |
| 1 3/4-5UNC | GH7 | 39.5 | 39.61 | Y84714 | 2.5P | 7 | - | 1.772 | - | - | 1.43 | 1.072 | 1.25 | 4 | 014 | ○ |
| 2 -4.5UNC | GH7 | 45.2 | 45.37 | Y84715 | 2.5P | 7.625 | - | 1.969 | - | - | 1.644 | 1.233 | 1.375 | 4 | 014 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.4-48UNF | GH2 | 2.4 | 2.41 | Y84683 | 2.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| | GH2 | 2.4 | 2.41 | Y84083 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| No.6-40UNF | GH2 | 2.9 | 2.97 | Y84684 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH2 | 2.9 | 2.97 | Y84084 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.9 | 2.97 | Y84685 | 2.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.9 | 2.97 | Y84085 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.8-36UNF | GH3 | 3.5 | 3.55 | Y84687 | 2.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| No.10-32UNF | GH2 | 4.1 | 4.12 | Y84611 | 2.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 4.1 | 4.12 | Y84610 | 2.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 4.1 | 4.12 | Y84010 | 1.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH4 | 4.1 | 4.12 | Y84630 | 2.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 4.1 | 4.12 | Y84640 | 2.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 4.1 | 4.12 | Y84040 | 1.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH6 | 4.1 | 4.12 | Y84662 | 2.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH7 | 4.1 | 4.12 | Y84670 | 2.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| No.12-28UNF | GH3 | 4.6 | 4.67 | Y84689 | 2.5P | 2.375 | - | 0.276 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 002 | ○ |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y84614 | 2.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.5 | 5.53 | Y84014 | 1.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH4 | 5.5 | 5.53 | Y84631 | 2.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.5 | 5.53 | Y84644 | 2.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.5 | 5.53 | Y84044 | 2.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH6 | 5.5 | 5.53 | Y84664 | 2.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH7 | 5.5 | 5.53 | Y84674 | 2.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | Y84616 | 2.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.9 | 6.97 | Y84016 | 1.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH4 | 6.9 | 6.97 | Y84632 | 2.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.9 | 6.97 | Y84646 | 2.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.9 | 6.97 | Y84046 | 2.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH7 | 6.9 | 6.97 | Y84676 | 2.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y84618 | 2.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8.5 | 8.57 | Y84018 | 1.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH4 | 8.5 | 8.57 | Y84633 | 2.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH4 | 8.5 | 8.57 | Y84033 | 1.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8.5 | 8.57 | Y84648 | 2.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8.5 | 8.57 | Y84048 | 1.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH7 | 8.5 | 8.57 | Y84678 | 2.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | Y84620 | 2.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH3 | 9.9 | 9.96 | Y84020 | 1.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.9 | 9.96 | Y84650 | 2.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.9 | 9.96 | Y84050 | 1.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH6 | 9.9 | 9.96 | Y84691 | 2.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH7 | 9.9 | 9.96 | Y84680 | 2.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y84622 | 2.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 11.5 | 11.54 | Y84022 | 1.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 11.5 | 11.54 | Y84652 | 2.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 11.5 | 11.54 | Y84052 | 1.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH6 | 11.5 | 11.54 | Y84692 | 2.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH7 | 11.5 | 11.54 | Y84682 | 2.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| 9/16-18UNF | GH3 | 12.9 | 13 | Y84654 | 2.5P | 3.593 | - | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| | GH3 | 12.9 | 13 | Y84054 | 1.5P | 3.593 | - | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| | GH5 | 12.9 | 13 | Y84698 | 2.5P | 3.593 | - | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | Y84626 | 2.5P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH3 | 14.5 | 14.6 | Y84026 | 1.5P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH5 | 14.5 | 14.6 | Y84656 | 2.5P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH5 | 14.5 | 14.6 | Y84056 | 1.5P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH7 | 14.5 | 14.6 | Y84672 | 2.5P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | Y84628 | 2.5P | 4.25 | - | 0.591 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH3 | 17.5 | 17.59 | Y84028 | 1.5P | 4.25 | - | 0.591 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH5 | 17.5 | 17.59 | Y84658 | 2.5P | 4.25 | - | 0.591 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH7 | 17.5 | 17.59 | Y84686 | 2.5P | 4.25 | - | 0.591 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| 7/8-14UNF | GH4 | 20.5 | 20.57 | Y84696 | 2.5P | 4.687 | - | 0.709 | - | - | 0.697 | 0.523 | 0.75 | 4 | 014 | ○ |
| | GH6 | 20.5 | 20.57 | Y84694 | 2.5P | 4.687 | - | 0.709 | - | - | 0.697 | 0.523 | 0.75 | 4 | 014 | ○ |
| 1 -12UNF | GH4 | 23.3 | 23.46 | Y84668 | 2.5P | 5.125 | - | 0.709 | - | - | 0.8 | 0.6 | 0.812 | 4 | 014 | ○ |
| 1 1/8-12UNF | GH5 | 26.5 | 26.63 | Y84702 | 2.5P | 5.437 | - | 0.787 | - | - | 0.896 | 0.672 | 0.875 | 4 | 014 | ○ |
| 1 1/4-12UNF | GH5 | 29.6 | 29.81 | Y84705 | 2.5P | 5.75 | - | 0.787 | - | - | 1.021 | 0.766 | 1 | 4 | 014 | ○ |
| 1 3/8-12UNF | GH5 | 32.8 | 32.98 | Y84707 | 2.5P | 6.062 | - | 0.787 | - | - | 1.108 | 0.831 | 1.062 | 4 | 014 | ○ |
| 1 1/2-12UNF | GH5 | 36 | 36.16 | Y84711 | 2.5P | 6.375 | - | 0.787 | - | - | 1.233 | 0.925 | 1.125 | 4 | 014 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 073 of Technical info for full details.



IMROBEX
Machine Tools International
Think threads with YAMAWA

# ZELX SS NPT




## MS Material Specific Series

Taps for American Taper Pipe Threads, for stainless steel

HSS-E | OX | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

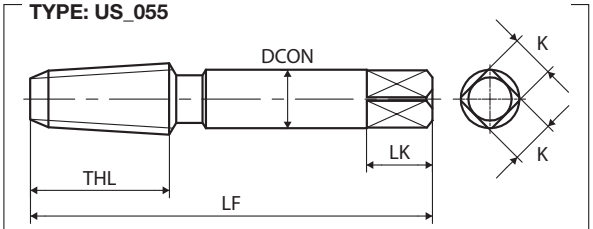
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤5 | ★ |
| P3 | ≤5 | ★ |
| P4 | ≤5 | ☆ |
| P7 | ≤5 | ★ |

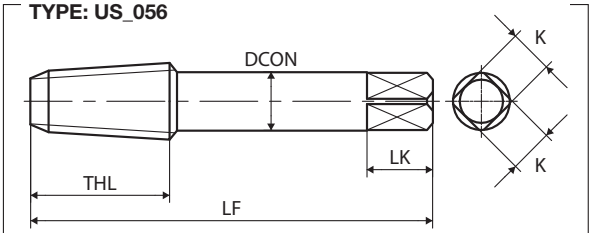
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤5 | ★ |
| M2 | ≤5 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_055**




**TYPE: US_056**




| NPT | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/16-27 | ANSI G | 6 | 6.05 | Y83640 | 2.5P | 7.770 | 2.125 | 0.687 | - | 0.312 | 0.234 | 0.375 | 4 | 055 | ○ |
| 1/8-27 | ANSI G | 8.35 | 8.39 | Y83641 | 2.5P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 055 | ○ |
| | ANSI G | 8.35 | 8.39 | Y83642 | 2.5P | 10.117 | 2.125 | 0.75 | - | 0.312 | 0.234 | 0.375 | 4 | 056 | ○ |
| 1/4-18 | ANSI G | 10.8 | 10.85 | Y83643 | 2.5P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 055 | ○ |
| 3/8-18 | ANSI G | 14.25 | 14.27 | Y83644 | 2.5P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 055 | ○ |
| 1/2-14 | ANSI G | 17.5 | 17.6 | Y83645 | 2.5P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 056 | ○ |
| 3/4-14 | ANSI G | 22.9 | 22.91 | Y83646 | 2.5P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 4 | 056 | ○ |
| 1 -11 1/2 | ANSI G | 28.75 | 28.78 | Y83647 | 2.5P | 32.934 | 3.75 | 1.75 | - | 1.125 | 0.843 | 0.812 | 4 | 056 | ○ |



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# ZELX SS NPTF




## MS Material Specific Series

Taps for American Dryseal Taper Pipe Threads, for stainless steel

HSS-E | OX | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

Most suitable for stainless steel, steel and alloy steel.

OX treatment reduces welding troubles.

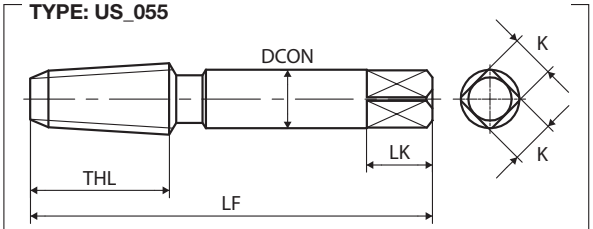
### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤5 | ★ |
| P3 | ≤5 | ★ |
| P4 | ≤5 | ☆ |
| P7 | ≤5 | ★ |

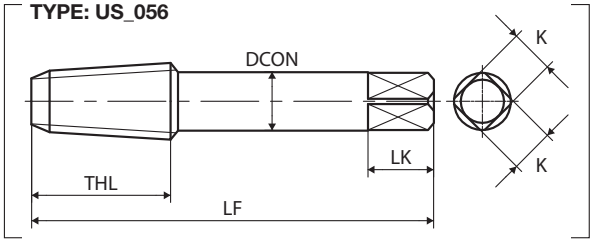
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤5 | ★ |
| M2 | ≤5 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_055**




**TYPE: US_056**




| NPTF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/16-27 | ANSI G | 5.95 | 5.99 | Y83660 | 2.5P | 7.770 | 2.125 | 0.687 | - | 0.312 | 0.234 | 0.375 | 4 | 055 | ○ |
| 1/8-27 | ANSI G | 8.3 | 8.34 | Y83661 | 2.5P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 055 | ○ |
| | ANSI G | 8.3 | 8.34 | Y83662 | 2.5P | 10.117 | 2.125 | 0.75 | - | 0.312 | 0.234 | 0.375 | 4 | 056 | ○ |
| 1/4-18 | ANSI G | 10.7 | 10.75 | Y83663 | 2.5P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 055 | ○ |
| 3/8-18 | ANSI G | 14.1 | 14.17 | Y83664 | 2.5P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 055 | ○ |
| 1/2-14 | ANSI G | 17.4 | 17.44 | Y83665 | 2.5P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 056 | ○ |
| 3/4-14 | ANSI G | 22.7 | 22.75 | Y83666 | 2.5P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 4 | 056 | ○ |
| 1 -11 1/2 | ANSI G | 28.5 | 28.6 | Y83667 | 2.5P | 32.934 | 3.75 | 1.75 | - | 1.125 | 0.843 | 0.812 | 4 | 056 | ○ |

# ZELX AL SP




## MS Material Specific Series

Spiral Fluted Taps for Aluminium

HSS-E | NI | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

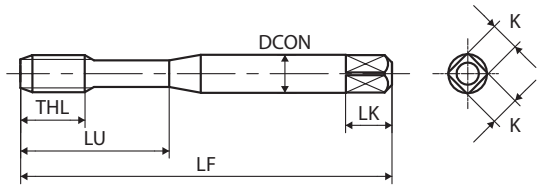
Specific design and NI treatment allow stable and long life on Aluminium casting and die-casting.

**Recommended Tapping Speeds Depending On Materials**

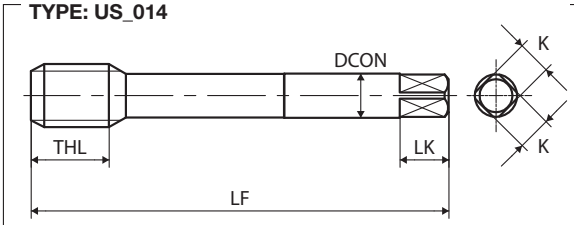
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷25 | ★ |
| N2 | 10÷25 | ★ |
| N3 | 10÷25 | ★ |
| N4 | 10÷25 | ★ |

★ 1st choice ☆ suitable

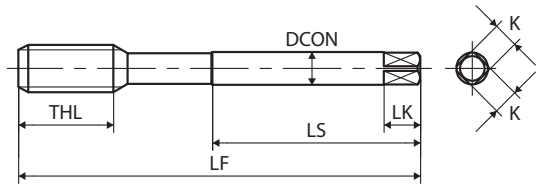
**TYPE: US_002**




**TYPE: US_014**




**TYPE: US_007**






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| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.2-56UNC | GH2 | 1.8 | 1.83 | Y86500 | 2.5P | 1.772 | - | 0.276 | 0.472 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| No.4-40UNC | GH2 | 2.3 | 2.33 | Y86501 | 2.5P | 2.205 | - | 0.433 | 0.709 | - | 0.141 | 0.11 | 0.187 | 2 | 002 | ○ |
| No.5-40UNC | GH2 | 2.6 | 2.64 | Y86502 | 2.5P | 2.205 | - | 0.433 | 0.709 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.6-32UNC | GH3 | 2.8 | 2.83 | Y86503 | 2.5P | 2.205 | - | 0.512 | 0.787 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.8-32UNC | GH3 | 3.4 | 3.47 | Y86504 | 2.5P | 2.48 | - | 0.512 | 0.827 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| No.10-24UNC | GH3 | 3.89 | 3.9 | Y86505 | 2.5P | 2.756 | - | 0.63 | 0.984 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | Y86507 | 2.5P | 3.15 | - | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.1 | 5.19 | Y86508 | 2.5P | 3.15 | - | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | Y86512 | 2.5P | 3.543 | - | 0.866 | 1.378 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | Y86516 | 2.5P | 3.937 | - | 0.945 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8 | 8.07 | Y86517 | 2.5P | 3.937 | - | 0.945 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| 7/16-14UNC | GH3 | 9.4 | 9.45 | Y86520 | 2.5P | 3.937 | - | 0.945 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | Y86524 | 2.5P | 4.331 | - | 1.142 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 10.9 | 10.91 | Y86525 | 2.5P | 4.331 | - | 1.142 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.10-32UNF | GH3 | 4.1 | 4.12 | Y86506 | 2.5P | 2.756 | - | 0.63 | 0.984 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y86509 | 2.5P | 3.15 | - | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH4 | 5.5 | 5.53 | Y86511 | 2.5P | 3.15 | - | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y86518 | 2.5P | 3.543 | - | 0.787 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y86526 | 2.5P | 3.937 | - | 0.866 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



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# ZELX NI SP




## MS Material Specific Series

Spiral Fluted Taps for Nickel Base Alloys

HSS-P | NX | SYNCHRO | 3P THCHT | 1.5P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and NX treatment allow high performance on Nickel base alloys.

Also suitable for stainless steel and high alloy steel.

### Recommended Tapping Speeds Depending On Materials

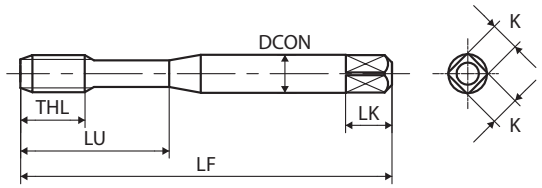
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷15 | ☆ |
| P2 | 5÷15 | ☆ |
| P3 | 5÷15 | ★ |
| P4 | 5÷15 | ★ |
| P5 | 5÷10 | ☆ |
| P7 | 5÷15 | ★ |
| P8 | 4÷8 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 5÷15 | ★ |
| M2 | 5÷15 | ★ |
| M3 | 4÷8 | ★ |

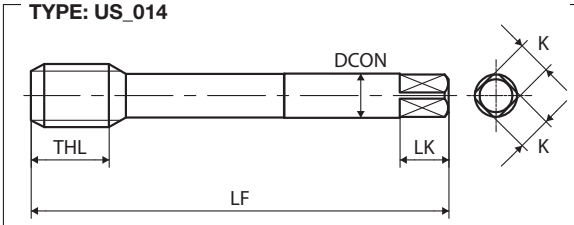
| ISO | Vc (m/min) | |
|---|---|---|
| S1 | 5÷10 | ★ |
| S2 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_002**




**TYPE: US_014**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| **No.2-56UNC** | GH2 | 1.8 | 1.83 | Y87523 | 3P | 1.75 | - | 0.157 | 0.437 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| **No.4-40UNC** | GH2 | 2.3 | 2.33 | Y87501 | 3P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.3 | 2.33 | Y87502 | 3P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.3 | 2.33 | Y87002 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH2 | 2.3 | 2.33 | Y87583 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH4 | 2.3 | 2.33 | Y87512 | 3P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.3 | 2.33 | Y87534 | 3P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.3 | 2.33 | Y87072 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| **No.5-40UNC** | GH2 | 2.6 | 2.64 | Y87504 | 3P | 1937 | - | 0.236 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| **No.6-32UNC** | GH2 | 2.8 | 2.83 | Y87006 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.8 | 2.83 | Y87505 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.8 | 2.83 | Y87005 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH4 | 2.8 | 2.83 | Y87508 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.8 | 2.83 | Y87535 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.8 | 2.83 | Y87035 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH6 | 2.8 | 2.83 | Y87559 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH7 | 2.8 | 2.83 | Y87565 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| **No.8-32UNC** | GH2 | 3.4 | 3.47 | Y87506 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.4 | 3.47 | Y87507 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.4 | 3.47 | Y87580 | 1.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH4 | 3.4 | 3.47 | Y87529 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.4 | 3.47 | Y87537 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.4 | 3.47 | Y87037 | 1.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH6 | 3.4 | 3.47 | Y87560 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH7 | 3.4 | 3.47 | Y87567 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| **No.10-24UNC** | GH3 | 3.89 | 3.9 | Y87509 | 3P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.89 | 3.9 | Y87009 | 1.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.89 | 3.9 | Y87539 | 3P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.89 | 3.9 | Y87039 | 1.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| **1/4-20UNC** | GH3 | 5.1 | 5.19 | Y87513 | 3P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.1 | 5.19 | Y87013 | 1.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.1 | 5.19 | Y87543 | 3P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.1 | 5.19 | Y87043 | 1.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| **5/16-18UNC** | GH3 | 6.6 | 6.65 | Y87515 | 3P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.6 | 6.65 | Y87015 | 1.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.6 | 6.65 | Y87545 | 3P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.6 | 6.65 | Y87045 | 1.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| **3/8-16UNC** | GH3 | 8 | 8.07 | Y87517 | 3P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8 | 8.07 | Y87017 | 1.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8 | 8.07 | Y87547 | 3P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8 | 8.07 | Y87047 | 1.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| **7/16-14UNC** | GH3 | 9.4 | 9.45 | Y87519 | 3P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.4 | 9.45 | Y87549 | 3P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



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Think threads with YAMAWA

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | Y87521 | 3P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 10.9 | 10.91 | Y87500 | 1.5P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 10.9 | 10.91 | Y87551 | 3P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 10.9 | 10.91 | Y87051 | 1.5P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH7 | 10.9 | 10.91 | Y87581 | 3P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | Y87525 | 3P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH5 | 13.6 | 13.75 | Y87555 | 3P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH7 | 13.6 | 13.75 | Y87585 | 3P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH3 | 13.6 | 13.75 | Y87025 | 3P | 3.812 | - | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| 3/4-10UNC | GH3 | 16.6 | 16.7 | Y87527 | 3P | 4.25 | - | 0.827 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH3 | 16.6 | 16.7 | Y87027 | 1.5P | 4.25 | - | 0.827 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH5 | 16.6 | 16.7 | Y87557 | 3P | 4.25 | - | 0.827 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.10-32UNF | GH2 | 4.1 | 4.12 | Y87511 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 4.1 | 4.12 | Y87510 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ● |
| | GH3 | 4.1 | 4.12 | Y81556 | 1.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH4 | 4.1 | 4.12 | Y87530 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 4.1 | 4.12 | Y87540 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 4.1 | 4.12 | Y87040 | 1.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH6 | 4.1 | 4.12 | Y87561 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH7 | 4.1 | 4.12 | Y87570 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y87514 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ● |
| | GH3 | 5.5 | 5.53 | Y87579 | 1.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH4 | 5.5 | 5.53 | Y87531 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH4 | 5.5 | 5.53 | Y87031 | 1.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.5 | 5.53 | Y87544 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.5 | 5.53 | Y87443 | 1.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH6 | 5.5 | 5.53 | Y87562 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH7 | 5.5 | 5.53 | Y87574 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | Y87516 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ● |
| | GH3 | 6.9 | 6.97 | Y87577 | 1.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH4 | 6.9 | 6.97 | Y87532 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.9 | 6.97 | Y87546 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH6 | 6.9 | 6.97 | Y87563 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH7 | 6.9 | 6.97 | Y87576 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH4 | 6.9 | 6.97 | Y87032 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y87518 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ● |
| | GH4 | 8.5 | 8.57 | Y87533 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH4 | 8.5 | 8.57 | Y87033 | 1.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8.5 | 8.57 | Y87548 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH6 | 8.5 | 8.57 | Y87564 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH7 | 8.5 | 8.57 | Y87578 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8.5 | 8.57 | Y87575 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |



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Machine Tools International

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | Y87520 | 3P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH3 | 9.9 | 9.96 | Y87573 | 1.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.9 | 9.96 | Y87550 | 3P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.9 | 9.96 | Y87050 | 1.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y87522 | 3P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 11.5 | 11.54 | Y87022 | 1.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 11.5 | 11.54 | Y87552 | 3P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH7 | 11.5 | 11.54 | Y87582 | 3P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| 9/16-18UNF | GH3 | 12.9 | 13 | Y88554 | 3P | 3.593 | - | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| | GH5 | 12.9 | 13 | Y88542 | 3P | 3.593 | - | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | Y87526 | 3P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH3 | 14.5 | 14.6 | Y81508 | 1.5P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH4 | 14.5 | 14.6 | Y87536 | 3P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH5 | 14.5 | 14.6 | Y87556 | 3P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| | GH7 | 14.5 | 14.6 | Y87586 | 3P | 3.812 | - | 0.512 | - | - | 0.48 | 0.36 | 0.562 | 4 | 014 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | Y87528 | 3P | 4.25 | - | 0.591 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |
| | GH5 | 17.5 | 17.59 | Y87558 | 3P | 4.25 | - | 0.591 | - | - | 0.59 | 0.442 | 0.687 | 4 | 014 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



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# ZELX TI SP




## MS Material Specific Series

Low Spiral Fluted Taps for Titanium Base Alloys

HSS-P | NI | SYNCHRO | 3P THCHT | 1.5P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and NI treatment allow high performance on Titanium base alloys.

Also suitable for high tensile strength steel, high alloy steel and cast iron.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P4 | 5÷10 | ☆ |
| P5 | 5÷8 | ☆ |
| P6 | 3÷6 | ☆ |
| P8 | 3÷6 | ☆ |

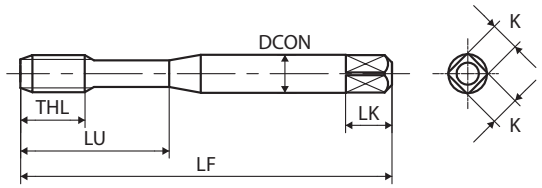
| ISO | Vc (m/min) | |
|---|---|---|
| M3 | 3÷6 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

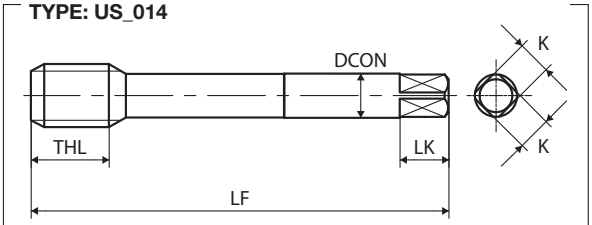
| ISO | Vc (m/min) | |
|---|---|---|
| S1 | 5÷10 | ☆ |
| S2 | 5÷10 | ☆ |
| S3 | 3÷6 | ☆ |
| S5 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_002**




**TYPE: US_014**




| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.2-56UNC | GH2 | 1.8 | 1.83 | Y87623 | 3P | 1.75 | - | 0.157 | 0.437 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.4-40UNC | GH2 | 2.3 | 2.33 | Y87601 | 3P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH4 | 2.3 | 2.33 | Y87612 | 3P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH4 | 2.3 | 2.33 | Y87001 | 1.5P | 1.875 | - | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.6-32UNC | GH3 | 2.8 | 2.83 | Y87605 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 2.8 | 2.83 | Y87606 | 1.5P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH4 | 2.8 | 2.83 | Y87608 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH5 | 2.8 | 2.83 | Y87635 | 3P | 2 | - | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| No.8-32UNC | GH3 | 3.4 | 3.47 | Y87607 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.4 | 3.47 | Y87007 | 1.5P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH4 | 3.4 | 3.47 | Y87629 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.4 | 3.47 | Y87637 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH6 | 3.4 | 3.47 | Y87660 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| | GH7 | 3.4 | 3.47 | Y87667 | 3P | 2.125 | - | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| No.10-24UNC | GH3 | 3.89 | 3.9 | Y87609 | 3P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.89 | 3.9 | Y81608 | 1.5P | 2.375 | - | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | Y87613 | 3P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.1 | 5.19 | Y87628 | 1.5P | 2.5 | - | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | Y87615 | 3P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.6 | 6.65 | Y87695 | 1.5P | 2.718 | - | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | Y87617 | 3P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8 | 8.07 | Y87611 | 1.5P | 2.937 | - | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| 7/16-14UNC | GH3 | 9.4 | 9.45 | Y87619 | 3P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH3 | 9.4 | 9.45 | Y81629 | 1.5P | 3.156 | - | 0.591 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | Y87621 | 3P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 10.9 | 10.91 | Y87021 | 1.5P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 10.9 | 10.91 | Y87626 | 3P | 3.375 | - | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | LT (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | | |
| No.10-32UNF | GH3 | 4.1 | 4.12 | Y87610 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ● |
| | GH3 | 4.1 | 4.12 | Y87010 | 1.5P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH4 | 4.1 | 4.12 | Y87630 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 4.1 | 4.12 | Y87640 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH6 | 4.1 | 4.12 | Y87661 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH7 | 4.1 | 4.12 | Y87670 | 3P | 2.375 | - | 0.276 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y87614 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ● |
| | GH3 | 5.5 | 5.53 | Y87014 | 1.5P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH4 | 5.5 | 5.53 | Y87631 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.5 | 5.53 | Y87644 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH6 | 5.5 | 5.53 | Y87662 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH7 | 5.5 | 5.53 | Y87674 | 3P | 2.5 | - | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | Y87616 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ● |
| | GH3 | 6.9 | 6.97 | Y87016 | 1.5P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH4 | 6.9 | 6.97 | Y87632 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.9 | 6.97 | Y87646 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH6 | 6.9 | 6.97 | Y87663 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH7 | 6.9 | 6.97 | Y87676 | 3P | 2.718 | - | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y87618 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ● |
| | GH4 | 8.5 | 8.57 | Y87633 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH5 | 8.5 | 8.57 | Y87648 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH6 | 8.5 | 8.57 | Y87664 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH7 | 8.5 | 8.57 | Y87678 | 3P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8.5 | 8.57 | Y87018 | 1.5P | 2.937 | - | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | Y87620 | 3P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH3 | 9.9 | 9.96 | Y87020 | 1.5P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.9 | 9.96 | Y87650 | 3P | 3.156 | - | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y87622 | 3P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 11.5 | 11.54 | Y87023 | 1.5P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH5 | 11.5 | 11.54 | Y87652 | 3P | 3.375 | - | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
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MEMO

# LEFT SPIRAL FLUTED TAPS



SL - DIN **184**
SL - ANSI **196**

IMROBEX
Machine Tools International

| | | | MP | MS | | | HS |
|---|---|---|---|---|---|---|---|
| | MHSL Mini | MHSL | AU+SL | SL+VA | ZET-P | ZELX TI LHSP | HDISL |
| | HSS-Co COATING | HSS-Co COATING | HSS-E COATING | HSS-E OX | HSS-P NI | HSS-P NI | HSS-Co COATING |
| |  |  |  |  |  |  |  |
| | DIN | DIN | DIN | DIN | DIN | ANSI | DIN |
| M | 185 | 187 | 189 | 191 | 193 | | 194 |
| MF | 185 | 187 | 189 | | 193 | | 194 |
| UNC/UNF | | | | | | 196 | |
| UNS, 8, 12, 20, 32UN | | | | | | | |
| UNEF | | | | | | | |
| G (BSP) | | | | | | | |
| Rp (BSPP) | | | | | | | |
| Rc (BSPT) | | | | | | | |
| NPT | | | | | | | |
| NPTF | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | |
| BSW | | | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | |
| Pg | | | | | | | |
| Tr | | | | | | | |
| S miniature | | | | | | | |
| Special threads | | | | | | | |
| | Vc (m/min) | | | | | | |
| P1 | | | ★ 10÷20 | ★ 10÷15 | | | ★ 20÷50 |
| P2 | ★ 3÷16 | ★ 10÷30 | ★ 10÷20 | ★ 10÷15 | | | ★ 20÷50 |
| P3 | ★ 3÷16 | ★ 10÷25 | ★ 10÷20 | ★ ≤10 | | | ★ 20÷30 |
| P4 | ★ 3÷16 | ★ 10÷20 | ★ 10÷20 | ☆ ≤10 | ☆ 5÷10 | ☆ 5÷10 | ★ 20÷30 |
| P5 | ★ 3÷10 | ☆ 10÷15 | | | ☆ 5÷8 | ☆ 5÷8 | ☆ 15÷25 |
| P6 | ★ 3÷8 | | | | ☆ 3÷6 | ☆ 3÷6 | |
| P7 | | ☆ 10÷20 | ★ 5÷12 | ★ 5÷15 | | | ☆ 15÷30 |
| P8 | | | | | ☆ 3÷6 | ☆ 3÷6 | |
| M1 | | ☆ 10÷20 | ★ 5÷12 | ★ 5÷15 | | | ☆ 15÷30 |
| M2 | | | ★ 5÷10 | ☆ 5÷10 | | | ☆ 15÷25 |
| M3 | | | | | ☆ 3÷6 | ☆ 3÷6 | |
| K1 | | | | | | | ★ 20÷40 |
| K2 | | | ☆ 10÷15 | | ☆ 5÷10 | ☆ 5÷10 | ★ 20÷40 |
| K3 | | | | | ☆ 5÷10 | ☆ 5÷10 | |
| K4 | | | | | | | |
| N1 | | | ★ 20÷30 | | | | ★ 30÷100 |
| N2 | | | ★ 20÷30 | | | | ★ 30÷100 |
| N3 | | | ☆ 15÷25 | | | | |
| N4 | | | ☆ 15÷25 | | | | ☆ 30÷60 |
| N5 | | | | | | | |
| S1 (<25 HRC) | | | | | ☆ 5÷10 | ☆ 5÷10 | |
| S2 (<35 HRC) | | | | | ☆ 5÷10 | ☆ 5÷10 | |
| S3 (35 ÷ 45 HRC) | | | | | ★ 3÷6 | ☆ 3÷6 | |
| S5 | | | | | ★ 5÷10 | ★ 5÷10 | |
| H (45 ÷ 55 HRC) | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

# MHSL Mini




## Z-PRO Series

Left Spiral Fluted Taps for Thermal Refined Steel <45HRC, Coated

HSS-Co | COATING | SYNCHRO | 5P THCHT

**FEATURES**

Z-PRO Series for tapping through holes on indexable holders.

Suitable for alloy steel (1.7225 - 42 CrMo 4, 1.6582 - 34 CrNiMo 6, 1.2344 - X 40 CrMoV 5 1) <45HRC.

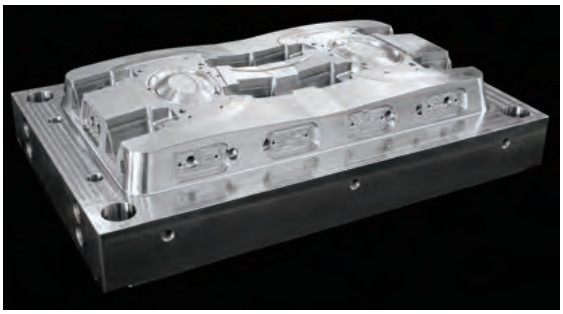
Long life, excellent chip ejection and thread finishing.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | 3÷16 | ★ |
| P3 | 3÷16 | ★ |
| P4 | 3÷16 | ★ |
| P5 | 3÷10 | ★ |
| P6 | 3÷8 | ★ |

★ 1st choice ☆ suitable

**Suitable for tough steel**



Mould parts.



Indexable tool holder.

**Process Data**

**M2.5x0.45**

| | |
|---|---|
| Work-material | 42CrMo4 (45HRC) |
| Hole diameter | Ø 2.1 |
| Tapping length | 5 mm |
| Tapping speed | 5 m/min |
| Machine | CNC machine |
| Lubricant | Water soluble oil |

**Wear condition after 200 threads**

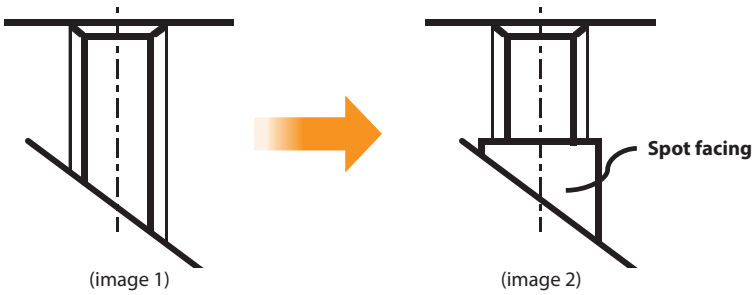


**Thread quality**



**Suggestion for threading on slant exit holes**

When tapping internal threads with slant surface exit (image 1), spot facing (image 2), is recommended to prevent tap breakage.



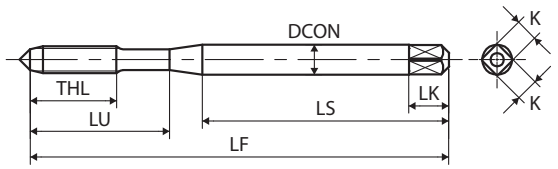

(image 1) (image 2)



Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: EU_057**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M2.5X0.45** | ISO2X(6HX) | 2.1 | 2.11 | 3109101029 | 5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 3 | 057 | ● |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | 3109101035 | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| **M3.5X0.6** | ISO2X(6HX) | 2.9 | 2.97 | 3109101038 | 5P | 63 | 13 | 20 | 32 | 4 | 3 | 6 | 3 | 057 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | 3109101042 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| **M4.5X0.75** | ISO2X(6HX) | 3.8 | 3.83 | 3109101045 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | 3109101049 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M5X0.5** | ISO2X(6HX) | 4.5 | 4.56 | 3109101051 | 5P | 70 | 11 | - | - | 3.5 | 2.7 | 6 | 3 | 057 | ● |

# MHSL




## Z-PRO Series

Left Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated

HSS-Co | COATING | SYNCHRO | 5P THCHT | 7P THCHT

**FEATURES**

Z-PRO Series for Medium Hardness workpiece materials.

Most suitable for high carbon steel (C48 ÷ C55) and alloy steel 20 ÷ 30HRC.

Long life thanks to HSSCo substrate and special coating. Left hand spiral design allows smooth chip ejection.

### Recommended Tapping Speeds Depending On Materials

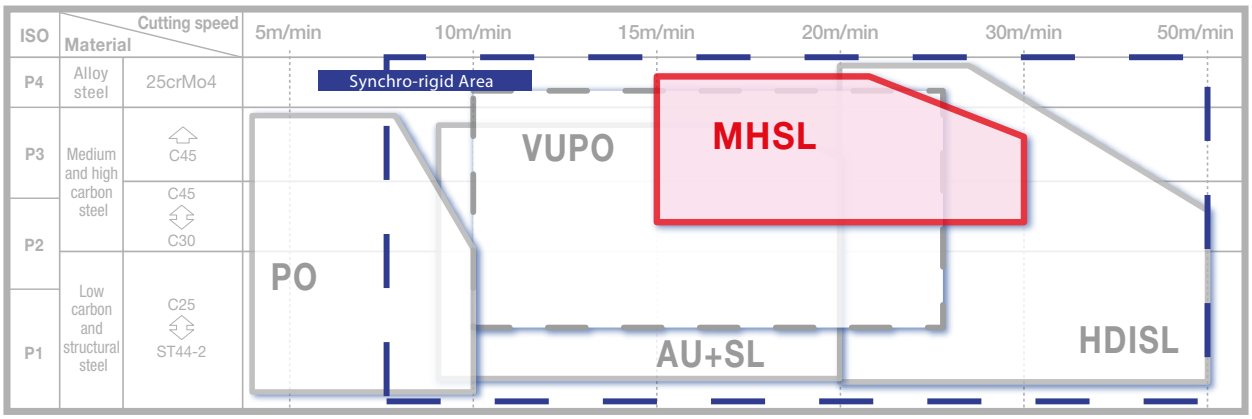
| ISO | Vc (m/min) | |
|---|---|---|
| P2 | 10÷30 | ★ |
| P3 | 10÷25 | ★ |
| P4 | 10÷20 | ★ |
| P5 | 10÷15 | ☆ |
| P7 | 10÷20 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

WATCH THE VIDEO

### Product Features

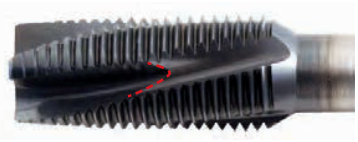



### M12×1.25

| | |
|---|---|
| Work-material | S53C (25HRC) |
| Tapping length | 13 mm |
| Tapping speed | 30 m/min |
| Machine | CNC machine |
| Lubricant | Water soluble oil |

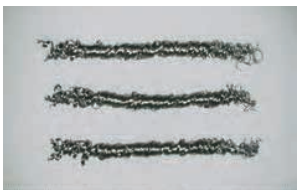
**Flute design**

To improve the chip ejection, MHSL series is designed with special flute shape to push out the chips smoothly.



**Chip shape**

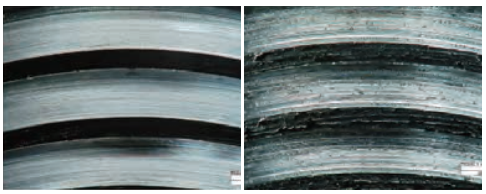
The chips generated by MHSL special flute design, feature regular and narrow shape very easy to be ejected.



**Thread finishing**

Innovative geometry combined with suitable coating result in excellent thread finishing.

**MHSL** **Competitor**

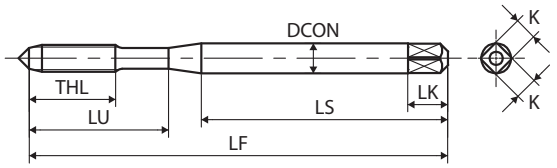




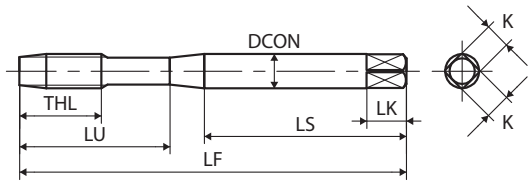
Think threads with YAMAWA

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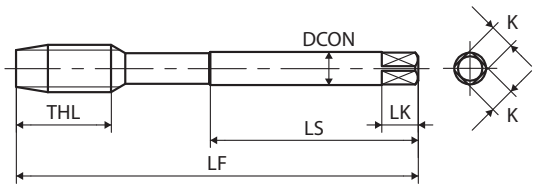
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | LD6.0MBFCL5 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | LD8.0NBFCL5 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | LD010OBFCL5 | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | LG012PBFCL5 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | LM010NBFCL5 | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | LM012OBFCL5 | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 086 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | LM012NBFCL7 | 7P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 086 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | LM014OBFCL7 | 7P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 086 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | LM016OBFCL7 | 7P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 086 | ● |

# AU+SL

## MP Multi Purpose Series

Plus Series Left Spiral Fluted Taps, Coated




HSS-E | COATING | 5P THCHT

**FEATURES**

Multi purpose for through hole application on a wide range of materials.

Left hand helix design improves chip ejection even at higher cutting speed.

Suitable coating improves wear, heat and welding resistance.

### Recommended Tapping Speeds Depending On Materials

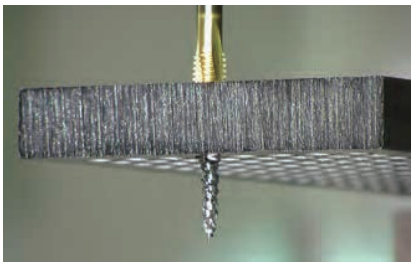
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 10÷20 | ★ | M1 | 5÷12 | ★ | K2 | 10÷15 | ☆ | N1 | 20÷30 | ★ |
| P2 | 10÷20 | ★ | M2 | 5÷10 | ★ | | | | N2 | 20÷30 | ★ |
| P3 | 10÷20 | ★ | | | | | | | N3 | 15÷25 | ☆ |
| P4 | 10÷20 | ★ | | | | | | | N4 | 15÷25 | ☆ |
| P7 | 5÷12 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

### NEW TECHNOLOGY version UP+ Product Features

**Smooth chip ejection**

Special left hand spiral flute design enables the smooth chip ejection even in high speed tapping area, on a wide range of work materials.



**Change of marking position from shank into square portion**

Laser marking can roughen the shank surface.
In order to keep high accuracy of shank circularity and diameter, marking has been transferred from shank to square portion.




**Wear resistance on a wide range of materials**

AU+SL adopts a special flute design enabling coating features to show their best efficiency, allowing high wear resistance on a wide range of work materials




**M6×1**

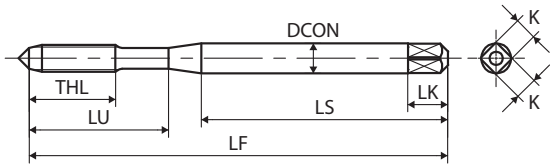
| | |
|---|---|
| Work-material | 42 CrMo 4 - 1.7225 |
| Tapping length | 9mm, through hole |
| Tapping speed | 15m/min |
| Machine | Vertical machining center |
| Lubricant | Water soluble oil (x20) |
| Hole size | φ5.0 |



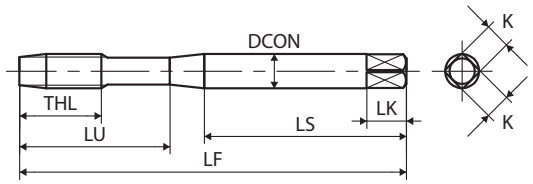
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Machine Tools International

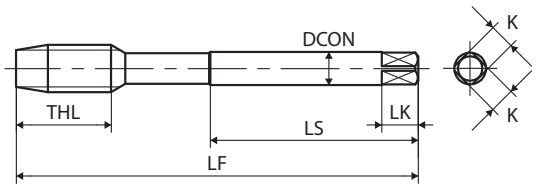
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | IS02X(6HX) | 2.5 | 2.56 | LE3.0GBNEV | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| **M4X0.7** | IS02X(6HX) | 3.3 | 3.38 | LE4.0IBNEV | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| **M5X0.8** | IS02X(6HX) | 4.2 | 4.28 | LE5.0KBNEV | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M6X1** | IS02X(6HX) | 5 | 5.09 | LE6.0MBNEV | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M8X1.25** | IS02X(6HX) | 6.8 | 6.85 | LE8.0NBNEV | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| **M10X1.5** | IS02X(6HX) | 8.5 | 8.6 | LE010OBNEV | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | IS02X(6HX) | 10.3 | 10.36 | LH012PBNEV | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| **M14X2** | IS02X(6HX) | 12 | 12.12 | LH014QBNEV | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| **M16X2** | IS02X(6HX) | 14 | 14.12 | LH016QBNEV | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| **M18X2.5** | IS02X(6HX) | 15.5 | 15.63 | LH018RBNEV | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 086 | ● |
| **M20X2.5** | IS02X(6HX) | 17.5 | 17.63 | LH020RBNEV | 5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | IS02X(6HX) | 7 | 7.09 | LN8.0MBNEV | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| **M10X1.25** | IS02X(6HX) | 8.8 | 8.85 | LN010NBNEV | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| **M10X1** | IS02X(6HX) | 9 | 9.09 | LN010MBNEV | 5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| **M12X1.5** | IS02X(6HX) | 10.5 | 10.6 | LN012OBNEV | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| **M12X1.25** | IS02X(6HX) | 10.8 | 10.85 | LN012NBNEV | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| **M14X1.5** | IS02X(6HX) | 12.5 | 12.6 | LN014OBNEV | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| **M16X1.5** | IS02X(6HX) | 14.5 | 14.6 | LN016OBNEV | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| **M18X1.5** | IS02X(6HX) | 16.5 | 16.6 | LN018OBNEV | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 086 | ● |
| **M20X1.5** | IS02X(6HX) | 18.5 | 18.6 | LN020OBNEV | 5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 086 | ● |

# SL+VA




## MS Material Specific Series

Plus Series Left Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 5P THCHT

**FEATURES**

Material specific for through hole application.

Most suitable for stainless steel, steel and alloy steel.

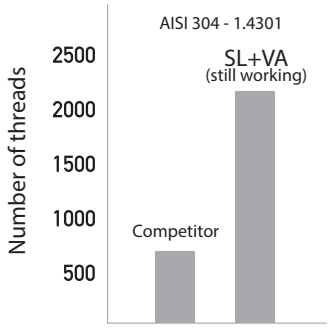
OX treatment reduces welding troubles and left hand helix imrpoves chip ejection.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 10÷15 | ★ | M1 | 5÷15 | ★ |
| P2 | 10÷15 | ★ | M2 | 5÷10 | ☆ |
| P3 | ≤10 | ★ | | | |
| P4 | ≤10 | ☆ | | | |
| P7 | 5÷15 | ★ | | | |

★ 1st choice ☆ suitable

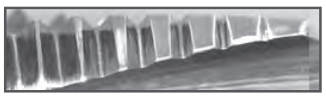
### versionUP+ Product Features




SL+VA 2000 holes



internal thread shape



Worn out tap

**COMPETITOR**

700 holes

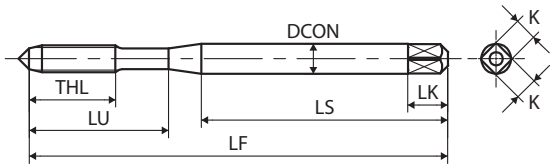


internal thread shape

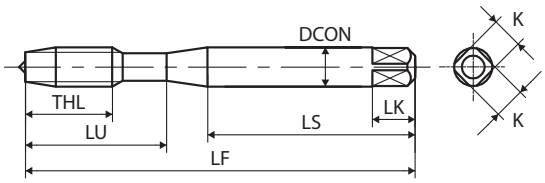


Worn out tap

**TYPE: EU_057**




**TYPE: EU_090**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | LE3.0GBGEX | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | LE4.0IBGEX | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | LE5.0KBGEX | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | LZ6.0MBGEX | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 090 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | LZ8.0NBGEX | 5P | 90 | 19 | 35 | 48 | 8 | 6.2 | 9 | 3 | 090 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | LZ010OBGEX | 5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 090 | ● |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | LZ012PBGEX | 5P | 110 | 26 | 45 | 56 | 12 | 9 | 12 | 3 | 090 | ● |

# ZET-P

## MS Material Specific Series

Left Spiral Fluted Taps for Titanium Base Alloys




HSS-P | NI | SYNCHRO | 5P THCHT

**FEATURES**

Material specific for through hole application.

Specific design and NI treatment allow high performance on Titanium base alloys. Left Hand spiral allows smooth chip ejection.

Also suitable for high tensile strength steel, high alloy steel and cast iron.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P4 | 5÷10 | ☆ |
| P5 | 5÷8 | ☆ |
| P6 | 3÷6 | ☆ |
| P8 | 3÷6 | ☆ |

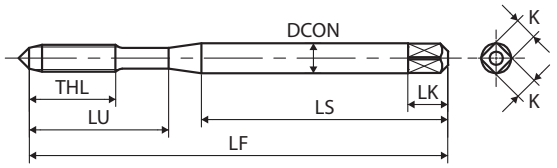
| ISO | Vc (m/min) | |
|---|---|---|
| M3 | 3÷6 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

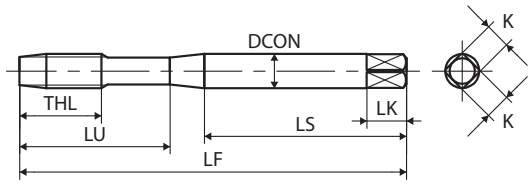
| ISO | Vc (m/min) | |
|---|---|---|
| S1 | 5÷10 | ☆ |
| S2 | 5÷10 | ☆ |
| S3 | 3÷6 | ★ |
| S5 | 5÷10 | ★ |

★ 1st choice ☆ suitable

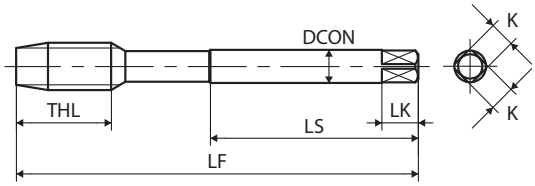
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | LD3.0GBIPN | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | LD4.0IBIPN | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | LD5.0KBIPN | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | LD6.0MBIPN | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | LD8.0NBIPN | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | LD010OBIPN | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | LG012PBIPN | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | LG014QBIPN | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | LG016QBIPN | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | LM010NBIPN | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | LM012OBIPN | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | LM012NBIPN | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | LM014OBIPN | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | LM016OBIPN | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |

# HDISL




## HS High Speed Series

Left Spiral Fluted Taps with Radial Coolant Holes for Ultra High Speed Tapping, Coated




**FEATURES**

Ultra High Speed with radial coolant holes for through hole application

Most suitable for steel, can be used even on stainless steel, cast iron and non-ferrous materials.

For Synchro-rigid tapping system. Left hand spiral allows smooth chip ejection.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 20÷50 | ★ |
| P2 | 20÷50 | ★ |
| P3 | 20÷30 | ★ |
| P4 | 20÷30 | ★ |
| P5 | 15÷25 | ☆ |
| P7 | 15÷30 | ☆ |

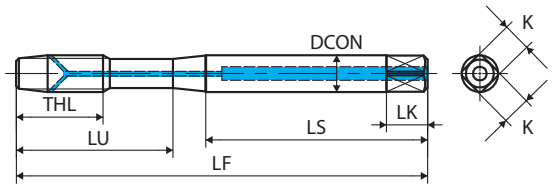
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 15÷30 | ☆ |
| M2 | 15÷25 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 20÷40 | ★ |
| K2 | 20÷40 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 30÷100 | ★ |
| N2 | 30÷100 | ★ |
| N4 | 30÷60 | ☆ |

★ 1st choice ☆ suitable

**TYPE: EU_104-2**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | LY6.0MBEDTLZ | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 104-2 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | LY8.0NBEDTLZ | 5P | 90 | 19 | 35 | 48 | 8 | 6.2 | 9 | 3 | 104-2 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | LY010OBEDTLZ | 5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 104-2 | ● |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | LY012PBEDTLZ | 5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 104-2 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | TCYLZ004 | 5P | 110 | 26 | - | 62 | 12 | 9 | 12 | 3 | 104-2 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | SFYLZ005 | 5P | 110 | 26 | - | 58 | 16 | 12 | 15 | 3 | 104-2 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | UJYLZ004 | 5P | 140 | 33 | - | 80 | 16 | 12 | 15 | 4 | 104-2 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | LY010NBEDTLZ | 5P | 100 | 23 | 39 | 53 | 10 | 8 | 11 | 3 | 104-2 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | LY012OBEDTLZ | 5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 104-2 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | LY012NBEDTLZ | 5P | 110 | 26 | 44 | 57 | 12 | 9 | 12 | 3 | 104-2 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | SFYLZ006 | 5P | 110 | 26 | - | 62 | 12 | 9 | 12 | 3 | 104-2 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | UJYLZ003 | 5P | 110 | 26 | - | 58 | 16 | 12 | 15 | 3 | 104-2 | ● |



Think threads with YAMAWA

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Machine Tools International

# ZELX TI LHSP




## MS Material Specific Series

Left Spiral Fluted Taps for Titanium Base Alloys

HSS-P | NI | SYNCHRO | 5P THCHT

**FEATURES**

Material specific for through hole application.

Specific design and NI treatment allow high performance on Titanium base alloys. Left Hand spiral allows smooth chip ejection.

Also suitable for high tensile strength steel, high alloy steel and cast iron.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P4 | 5÷10 | ☆ |
| P5 | 5÷8 | ☆ |
| P6 | 3÷6 | ☆ |
| P8 | 3÷6 | ☆ |

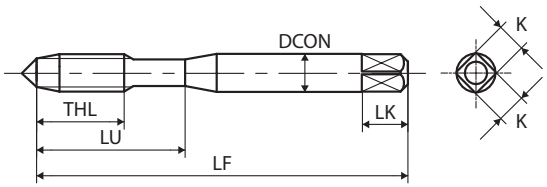
| ISO | Vc (m/min) | |
|---|---|---|
| M3 | 3÷6 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

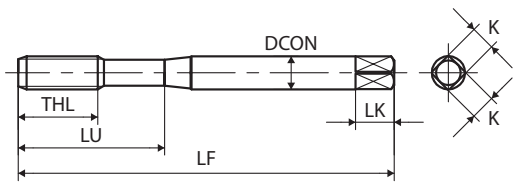
| ISO | Vc (m/min) | |
|---|---|---|
| S1 | 5÷10 | ☆ |
| S2 | 5÷10 | ☆ |
| S3 | 3÷6 | ☆ |
| S5 | 5÷10 | ★ |

★ 1st choice ☆ suitable

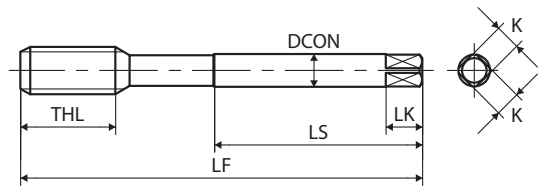
**TYPE: US_030**




**TYPE: US_006**




**TYPE: US_007**




| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.2-56UNC** | GH2 | 1.8 | 1.83 | Y85623 | 5P | 1.75 | 0.256 | 0.437 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.4-40UNC** | GH2 | 2.3 | 2.33 | Y85601 | 5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.5-40UNC** | GH2 | 2.6 | 2.64 | Y85603 | 5P | 1.937 | 0.374 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.6-32UNC** | GH3 | 2.8 | 2.83 | Y85605 | 5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH5 | 2.8 | 2.83 | Y85635 | 5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.8-32UNC** | GH3 | 3.4 | 3.47 | Y85607 | 5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH4 | 3.4 | 3.47 | Y85629 | 5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH5 | 3.4 | 3.47 | Y85637 | 5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH6 | 3.4 | 3.47 | Y85660 | 5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH7 | 3.4 | 3.47 | Y85667 | 5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| **No.10-24UNC** | GH3 | 3.89 | 3.9 | Y85609 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH5 | 3.89 | 3.9 | Y85639 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | Y85613 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ○ |
| | GH5 | 5.1 | 5.19 | Y85643 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ○ |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | Y85615 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH5 | 6.6 | 6.65 | Y85645 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | Y85617 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH5 | 8 | 8.07 | Y85647 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| 7/16-14UNC | GH3 | 9.4 | 9.45 | Y85619 | 5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | Y85649 | 5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | Y85621 | 5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | Y85651 | 5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | Y85625 | 5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-10UNC | GH3 | 16.6 | 16.7 | Y85627 | 5P | 4.25 | 1.201 | - | - | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.10-32UNF | GH3 | 4.1 | 4.12 | Y85610 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ● |
| | GH4 | 4.1 | 4.12 | Y85630 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH5 | 4.1 | 4.12 | Y85640 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH6 | 4.1 | 4.12 | Y85661 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH7 | 4.1 | 4.12 | Y85670 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y85614 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ● |
| | GH4 | 5.5 | 5.53 | Y85631 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ○ |
| | GH5 | 5.5 | 5.53 | Y85644 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ○ |
| | GH6 | 5.5 | 5.53 | Y85662 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ○ |
| | GH7 | 5.5 | 5.53 | Y85674 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 006 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | Y85616 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ● |
| | GH4 | 6.9 | 6.97 | Y85632 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH5 | 6.9 | 6.97 | Y85646 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH6 | 6.9 | 6.97 | Y85663 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH7 | 6.9 | 6.97 | Y85676 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y85618 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ● |
| | GH4 | 8.5 | 8.57 | Y85633 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH5 | 8.5 | 8.57 | Y85648 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH6 | 8.5 | 8.57 | Y85664 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH7 | 8.5 | 8.57 | Y85678 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | Y85620 | 5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.9 | 9.96 | Y85650 | 5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y85622 | 5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | Y85652 | 5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | Y85626 | 5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | Y85628 | 5P | 4.25 | 1.201 | - | - | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 073 of Technical info for full details.



IMPROBEX Machine Tools International
Think threads with YAMAWA

MEMO

# SPIRAL POINTED TAPS



PO - DIN **202**
PO - JIS **226**
PO - ANSI **240**

IMROBEX
Machine Tools International

| | VUPO | VUPO ISO3X(6GX) | VUPO 7GX | VUPO ISO2X(6HX)+100 | PO | PO ISO3(6G) | PO ISO2(6H)+100 | PO LH |
|---|---|---|---|---|---|---|---|---|
| | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-P COATING | HSS-E | HSS-E | HSS-E | HSS-E |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | DIN | DIN | DIN | DIN | DIN | JIS | ANSI | DIN | DIN | JIS |
| M | 205 | 205 | 205 | 205 | 209 | 229 | | 209 | 209 | 236 |
| MF | 206 | | | | 210 | 230 | | | | 237 |
| UNC/UNF | 206 | | | | 211 | 233 | 243 | | | 237 |
| UNS, 8, 12, 20, 32UN | | | | | | 234 | | | | |
| UNEF | | | | | | 234 | | | | |
| G (BSP) | | | | | 212 | | | | | |
| Rp (BSPP) | | | | | | | | | | |
| Rc (BSPT) | | | | | | | | | | |
| NPT | | | | | | | | | | |
| NPTF | | | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | | | |
| BSW | | | | | | 235 | | | | 237 |
| EG(STI), M, MF, UNC/UNF | | | | | | | | | | |
| Pg | | | | | | | | | | |
| Tr | | | | | | | | | | |
| S miniature | | | | | | | | | | |
| Special threads | | | | | | | | | | |
| | Vc (m/min) | | | | | | | | | |
| P1 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | |
| P2 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | | |
| P3 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ★ 10÷30 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | |
| P4 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ★ 10÷25 | ☆ 5÷8 | ☆ 5÷8 | ☆ 5÷8 | ☆ 5÷8 | | |
| P5 | | | | | | | | | | |
| P6 | | | | | | | | | | |
| P7 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | | | | | | |
| P8 | | | | | | | | | | |
| M1 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | | | | | | |
| M2 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | | | | | |
| M3 | | | | | | | | | | |
| K1 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | | | | | | |
| K2 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | | | | | | |
| K3 | | | | | | | | | | |
| K4 | | | | | | | | | | |
| N1 | ★ 10÷40 | ★ 10÷40 | ★ 10÷40 | ★ 10÷40 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | |
| N2 | ★ 10÷40 | ★ 10÷40 | ★ 10÷40 | ★ 10÷40 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | |
| N3 | ☆ 10÷25 | ☆ 10÷25 | ☆ 10÷25 | ☆ 10÷25 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | |
| N4 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 10÷20 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | |
| N5 | | | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | | | |
| S5 | | | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | | | |

★ 1st choice ☆ suitable



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| GP | | MS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PO OX** | **PO V** | **PM-PO** | **EH-PO** | **PO-VA** | **SU+PO/SU-PO** | **ZELX SS PO** | **ZELX AL PO** | |
| HSS-E OX | HSS-E COATING | HSS-P | HSS-Co | HSS-E OX | HSS-E OX | HSS-E OX | HSS-E NI | |
|  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  |  |  | |
|  | | | | | | | | |
| DIN | DIN | DIN | DIN | DIN | JIS | ANSI | ANSI | |
| 215 | 217 | 219 | 221 | 223 | 238 | | | M |
| | 217 | 219 | | 223 | 240 | | | MF |
| | | | | 223 | 240 | 247 | 251 | UNC/UNF |
| | | | | | | | | UNS, 8, 12, 20, 32UN |
| | | | | | | | | UNEF |
| | 217 | | | 224 | | | | G (BSP) |
| | | | | | | | | Rp (BSPP) |
| | | | | | | | | Rc (BSPT) |
| | | | | | | | | NPT |
| | | | | | | | | NPTF |
| | | | | | | | | NPSC, NPSM, NPSF |
| | | | | | 241 | | | BSW |
| | | | | | | | | EG(STI), M, MF, UNC/UNF |
| | | | | | | | | Pg |
| | | | | | | | | Tr |
| | | | | | | | | S miniature |
| | | | | | | | | Special threads |
| **Vc (m/min)** | | | | | | | | |
| ★ 5÷10 | ★ 10÷20 | | | ★ ≤10 | ★ ≤10 | ★ ≤10 | | **P1** |
| ★ 5÷10 | ★ 10÷20 | | | ★ ≤10 | ★ ≤10 | ★ ≤10 | | **P2** |
| ☆ 5÷10 | ★ 10÷20 | ★ 2÷10 | | ★ ≤10 | ★ ≤10 | ★ ≤10 | | **P3** |
| ☆ 5÷8 | ★ 10÷15 | ★ 2÷7 | | ☆ ≤10 | ☆ ≤10 | ☆ ≤10 | | **P4** |
| ☆ 4÷7 | | ★ 2÷7 | ★ ≤5 | | | | | **P5** |
| | | ★ 2÷5 | ★ ≤5 | | | | | **P6** |
| ☆ 4÷8 | ☆ 6÷12 | | | ★ ≤10 | ★ ≤10 | ★ ≤10 | | **P7** |
| | | | | | | | | **P8** |
| ☆ 4÷8 | ☆ 6÷12 | | | ★ ≤10 | ★ ≤10 | ★ ≤10 | | **M1** |
| | | | | ☆ ≤10 | ★ ≤10 | ★ ≤10 | | **M2** |
| | | | | | | | | **M3** |
| | | | | | | | | **K1** |
| | | | | | | | | **K2** |
| | | | | | | | | **K3** |
| | | | | | | | | **K4** |
| | ☆ 10÷20 | | | | | | ★ 5÷15 | **N1** |
| | ☆ 10÷20 | | | | | | ★ 5÷15 | **N2** |
| | ☆ 10÷20 | | | | | | ★ 5÷15 | **N3** |
| | ☆ 10÷20 | | | | | | | **N4** |
| | | | | | | | | **N5** |
| | | | | | | | | **S1 (<25 HRC)** |
| | | | | | | | | **S2 (<35 HRC)** |
| | | | | | | | | **S3 (35 ÷ 45 HRC)** |
| | | | | | | | | **S5** |
| | | | | | | | | **H (45 ÷ 55 HRC)** |
| | | | | | | | | **H (55 ÷ 63 HRC)** |

# Selection Chart



| | MS | |
|---|---|---|
| | ZEN-P | ZELX NI PO |
| | HSS-P NX | HSS-P NX |
| |  |  |
| |  |  |
| | DIN | ANSI |
| M | 226 | |
| MF | 227 | |
| UNC/UNF | 227 | 253 |
| UNS, 8, 12, 20, 32UN | | |
| UNEF | | |
| G (BSP) | | |
| Rp (BSPP) | | |
| Rc (BSPT) | | |
| NPT | | |
| NPTF | | |
| NPSC, NPSM, NPSF | | |
| BSW | | |
| EG(STI), M, MF, UNC/UNF | | |
| Pg | | |
| Tr | | |
| S miniature | | |
| Special threads | | |
| | Vc (m/min) | |
| P1 | | |
| P2 | | |
| P3 | ★ 5÷15 | ★ 5÷15 |
| P4 | ★ 5÷15 | ★ 5÷15 |
| P5 | ☆ 5÷10 | ☆ 5÷10 |
| P6 | | |
| P7 | ★ 5÷15 | ★ 5÷15 |
| P8 | ★ 4÷8 | ★ 4÷8 |
| M1 | ★ 5÷15 | ★ 5÷15 |
| M2 | ★ 5÷15 | ★ 5÷15 |
| M3 | ★ 4÷8 | ★ 4÷8 |
| K1 | | |
| K2 | | |
| K3 | | |
| K4 | | |
| N1 | | |
| N2 | | |
| N3 | | |
| N4 | | |
| N5 | | |
| S1 (<25 HRC) | ★ 5÷10 | ★ 5÷10 |
| S2 (<35 HRC) | ★ 5÷10 | ★ 5÷10 |
| S3 (35 ÷ 45 HRC) | ☆ 3÷6 | ☆ 3÷6 |
| S5 | | |
| H (45 ÷ 55 HRC) | | |
| H (55 ÷ 63 HRC) | | |

★ 1st choice ☆ suitable



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IMROBEX
Machine Tools International

# VUPO




## Z-PRO Series

HSSP Spiral Pointed Taps, Coated

HSS-P | COATING | 5P THCHT

**FEATURES**

Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

For wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

WATCH THE VIDEO

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 10÷30 | ★ | M1 | 5÷15 | ★ | K1 | 10÷20 | ☆ | N1 | 10÷40 | ★ |
| P2 | 10÷30 | ★ | M2 | 5÷10 | ☆ | K2 | 10÷20 | ☆ | N2 | 10÷40 | ★ |
| P3 | 10÷30 | ★ | | | | | | | N3 | 10÷25 | ☆ |
| P4 | 10÷25 | ★ | | | | | | | N4 | 10÷20 | ☆ |
| P7 | 5÷15 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

**Product Features**

| Lubricant | Hole shape | Hand tapping | Drilling machine | Low speed | Middle speed |
|---|---|---|---|---|---|
| Emulsion | | | | | VUSP |
| Emulsion | | | | | VUPO Vc ≤ 30 m/min |
| Oil | | HTset IHT | ISP | SP | SP V | AU+SP |
| Oil | | HTset IHT | IPO | PO | PO V | AU+SL |

**M10×1.5**

| | |
|---|---|
| Work-material | Ck50 - 1.1213 |
| Thread length | 20 mm |
| Tapping speed | 20 m/min |
| Machine | Vertical machining center |
| Lubricant | Water soluble oil |

**Enlarged photo after 560 threads**

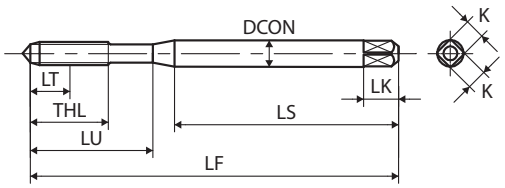
| VUPO - no wear | Competitor |
|---|---|
|  |  |



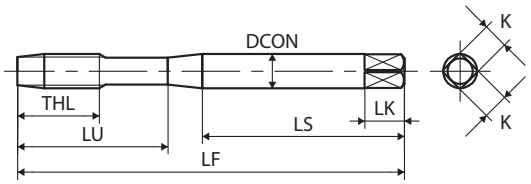
Think threads with YAMAWA

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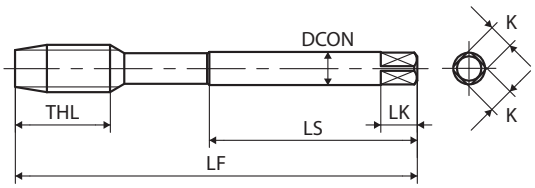
**TYPE: VU_001**




**TYPE: VU_002**




**TYPE: VU_003**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M2X0.4** | ISO2X(6HX) | 1.6 | 1.65 | 3102101021 | 5P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| **M2.2X0.45** | ISO2X(6HX) | 1.75 | 1.81 | 3102101024 | 5P | 45 | 9 | - | 32 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| **M2.3X0.4** | ISO2X(6HX) | 1.9 | 1.95 | 3102101026 | 5P | 45 | 9 | - | 32 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| **M2.5X0.45** | ISO2X(6HX) | 2.1 | 2.11 | 3102101029 | 5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| **M2.6X0.45** | ISO2X(6HX) | 2.2 | 2.21 | 3102101032 | 5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | 3102101035 | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ● |
| | ISO3X(6GX) | 2.5 | 2.56 | 3102201035 | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ▲ |
| | 7GX | 2.5 | 2.56 | 3102301035 | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ▲ |
| | ISO2X(6HX)+100 | 2.5 | 2.56 | 3102501035 | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ▲ |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | 3102101042 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ● |
| | ISO3X(6GX) | 3.3 | 3.38 | 3102201042 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ▲ |
| | 7GX | 3.3 | 3.38 | 3102301042 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ▲ |
| | ISO2X(6HX)+100 | 3.3 | 3.38 | 3102501042 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ▲ |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | 3102101049 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ● |
| | ISO3X(6GX) | 4.2 | 4.28 | 3102201049 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ▲ |
| | 7GX | 4.2 | 4.28 | 3102301049 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ▲ |
| | ISO2X(6HX)+100 | 4.2 | 4.28 | 3102501049 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ▲ |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | 3102101055 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ● |
| | ISO3X(6GX) | 5 | 5.09 | 3102201055 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ▲ |
| | 7GX | 5 | 5.09 | 3102301055 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ▲ |
| | ISO2X(6HX)+100 | 5 | 5.09 | 3102501055 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ▲ |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | 3102101064 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 002 | ● |
| | ISO3X(6GX) | 6.8 | 6.85 | 3102201064 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 002 | ▲ |
| | 7GX | 6.8 | 6.85 | 3102301064 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 002 | ▲ |
| | ISO2X(6HX)+100 | 6.8 | 6.85 | 3102501064 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 002 | ▲ |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | 3102101078 | 5P | 100 | 23 | 39 | 52.5 | 10 | 8 | 11 | 3 | 002 | ● |
| | ISO3X(6GX) | 8.5 | 8.6 | 3102201078 | 5P | 100 | 23 | 39 | 52.5 | 10 | 8 | 11 | 3 | 002 | ▲ |
| | 7GX | 8.5 | 8.6 | 3102301078 | 5P | 100 | 23 | 39 | 52.5 | 10 | 8 | 11 | 3 | 002 | ▲ |
| | ISO2X(6HX)+100 | 8.5 | 8.6 | 3102501078 | 5P | 100 | 23 | 39 | 52.5 | 10 | 8 | 11 | 3 | 002 | ▲ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | 3102101088 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 003 | ● |
| | ISO3X(6GX) | 10.3 | 10.36 | 3102201088 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 003 | ▲ |
| | 7GX | 10.3 | 10.36 | 3102301088 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 003 | ▲ |
| | ISO2X(6HX)+100 | 10.3 | 10.36 | 3102501088 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 003 | ▲ |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | 3102101100 | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 003 | ● |
| | ISO3X(6GX) | 12 | 12.12 | 3102201100 | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 003 | ▲ |
| | 7GX | 12 | 12.12 | 3102301100 | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 003 | ▲ |
| | ISO2X(6HX)+100 | 12 | 12.12 | 3102501100 | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 003 | ▲ |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | 3102101114 | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 003 | ● |
| | ISO3X(6GX) | 14 | 14.12 | 3102201114 | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 003 | ▲ |
| | 7GX | 14 | 14.12 | 3102301114 | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 003 | ▲ |
| | 7GX | 14 | 14.12 | 3102501114 | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 003 | ▲ |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | 3102101128 | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 003 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | 3102101141 | 5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 003 | ● |
| M22X2.5 | ISO2X(6HX) | 19.5 | 19.63 | 3102101156 | 5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 003 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | 3102101167 | 5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 003 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.35 | ISO2X(6HX) | 2.65 | 2.7 | 3102101036 | 5P | 56 | 6.5 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 001 | ● |
| M4X0.5 | ISO2X(6HX) | 3.5 | 3.56 | 3102101043 | 5P | 63 | 9 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 001 | ● |
| M5X0.5 | ISO2X(6HX) | 4.5 | 4.56 | 3102101051 | 5P | 70 | 9 | 25 | 39 | 6 | 4.9 | 8 | 3 | 001 | ● |
| M6X0.75 | ISO2X(6HX) | 5.25 | 5.33 | 3102101056 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ● |
| M6X0.5 | ISO2X(6HX) | 5.5 | 5.56 | 3102101057 | 5P | 80 | 9 | 30 | 45 | 6 | 4.9 | 8 | 3 | 001 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2X(6HX) | 7 | 7.09 | 3102101065 | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 003 | ● |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | 3102101079 | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 003 | ● |
| M10X1 | ISO2X(6HX) | 9 | 9.09 | 3102101080 | 5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 003 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | 3102101089 | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 003 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | 3102101090 | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 003 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | 3102101102 | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 003 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | 3102101116 | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 003 | ● |
| M18X1.5 | ISO2X(6HX) | 16.5 | 16.6 | 3102101130 | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 003 | ● |
| M20X1.5 | ISO2X(6HX) | 18.5 | 18.6 | 3102101144 | 5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 3 | 003 | ● |
| M22X1.5 | ISO2X(6HX) | 20.5 | 20.6 | 3102101158 | 5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 003 | ● |
| M24X1.5 | ISO2X(6HX) | 22.5 | 22.6 | 3102101170 | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 003 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.5-40UNC | 2BX | 2.6 | 2.64 | 3102103021 | 5P | 56 | 11 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 001 | ● |
| No.6-32UNC | 2BX | 2.8 | 2.83 | 3102103023 | 5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 2 | 001 | ● |
| No.8-32UNC | 2BX | 3.4 | 3.47 | 3102103029 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 2 | 001 | ● |
| No.10-24UNC | 2BX | 3.89 | 3.9 | 3102103039 | 5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 2 | 001 | ● |
| No.12-24UNC | 2BX | 4.5 | 4.53 | 3102103047 | 5P | 80 | 15 | 28 | 45 | 6 | 4.9 | 8 | 3 | 001 | ● |
| 1/4-20UNC | 2BX | 5.1 | 5.19 | 3102103058 | 5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 001 | ● |
| 5/16-18UNC | 2BX | 6.6 | 6.65 | 3102103071 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 002 | ● |
| 3/8-16UNC | 2BX | 8 | 8.07 | 3102103082 | 5P | 100 | 23 | 39 | 54 | 9 | 7 | 10 | 3 | 002 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **7/16-14UNC** | 2BX | 9.4 | 9.45 | 3102103098 | 5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 3 | 003 | ● |
| **1/2-13UNC** | 2BX | 10.9 | 10.91 | 3102103111 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 003 | ● |
| **9/16-12UNC** | 2BX | 12.2 | 12.33 | 3102103126 | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 003 | ● |
| **5/8-11UNC** | 2BX | 13.6 | 13.75 | 3102103138 | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 003 | ● |
| **3/4-10UNC** | 2BX | 16.6 | 16.7 | 3102103161 | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 003 | ● |
| **7/8-9UNC** | 2BX | 19.6 | 19.61 | 3102103181 | 5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 003 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **No.5-44UNF** | 2BX | 2.7 | 2.69 | 3102103022 | 5P | 56 | 11 | 18 | 34 | 3.5 | 2.7 | 6 | 2 | 001 | ● |
| **No.6-40UNF** | 2BX | 2.9 | 2.97 | 3102103024 | 5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 2 | 001 | ● |
| **No.8-36UNF** | 2BX | 3.5 | 3.55 | 3102103030 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 2 | 001 | ● |
| **No.10-32UNF** | 2BX | 4.1 | 4.12 | 3102103041 | 5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 2 | 001 | ● |
| **No.12-28UNF** | 2BX | 4.6 | 4.67 | 3102103048 | 5P | 80 | 15 | 28 | 45 | 6 | 4.9 | 8 | 3 | 001 | ● |
| **1/4-28UNF** | 2BX | 5.5 | 5.53 | 3102103062 | 5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 001 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **5/16-24UNF** | 2BX | 6.9 | 6.97 | 3102103074 | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 003 | ● |
| **3/8-24UNF** | 2BX | 8.5 | 8.57 | 3102103085 | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 003 | ● |
| **7/16-20UNF** | 2BX | 9.9 | 9.96 | 3102103101 | 5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 3 | 003 | ● |
| **1/2-20UNF** | 2BX | 11.5 | 11.54 | 3102103115 | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 003 | ● |
| **9/16-18UNF** | 2BX | 12.9 | 13 | 3102103129 | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 003 | ● |
| **5/8-18UNF** | 2BX | 14.5 | 14.6 | 3102103142 | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 003 | ● |
| **3/4-16UNF** | 2BX | 17.5 | 17.59 | 3102103164 | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 003 | ● |
| **7/8-14UNF** | 2BX | 20.5 | 20.57 | 3102103184 | 5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 003 | ● |

# PO

## GP General Purpose Series

Spiral Pointed Taps




HSS-E



5P THCHT

**FEATURES**

General purpose for through hole application.

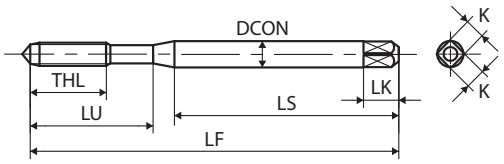
For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

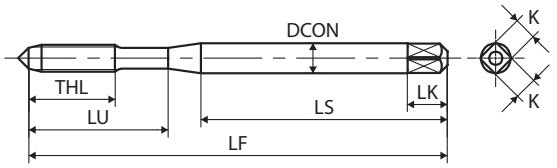
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

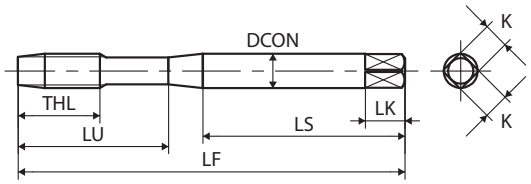
**TYPE: EU_001**



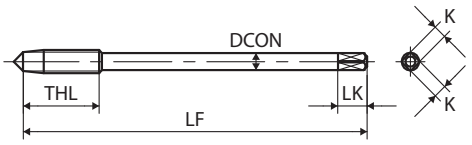

**TYPE: EU_057**



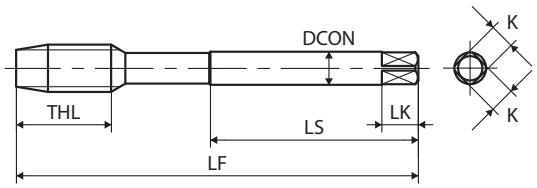

**TYPE: EU_084**




**TYPE: EU_083**




**TYPE: EU_086**






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Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M1.4X0.3 | ISO1(4H) | 1.1 | 1.13 | 96301.4 | 5P | 40 | 7 | - | 28 | 2.5 | 2.1 | 5 | 3 | 001 | ● |
| M1.6X0.35 | ISO2(6H) | 1.25 | 1.3 | 96301.6 | 5P | 40 | 8 | - | 28 | 2.5 | 2.1 | 5 | 3 | 001 | ● |
| M2X0.4 | ISO2(6H) | 1.6 | 1.65 | PD2.0EANEB | 5P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 3 | 001 | ● |
| M2.2X0.45 | ISO2(6H) | 1.75 | 1.81 | PD2.2FANEB | 5P | 45 | 9 | - | 32 | 2.8 | 2.1 | 5 | 3 | 001 | ○ |
| M2.3X0.4 | ISO2(6H) | 1.9 | 1.95 | PD2.3EANEB | 5P | 45 | 9 | - | 32 | 2.8 | 2.1 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | ISO2(6H) | 2.1 | 2.11 | PD2.5FANEB | 5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 3 | 057 | ● |
| M2.6X0.45 | ISO2(6H) | 2.2 | 2.21 | PD2.6FANEB | 5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 3 | 057 | ● |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | PD3.0GANEB | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| | ISO3(6G) | 2.5 | 2.56 | PD3.0GMNEB | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M3.5X0.6 | ISO2(6H) | 2.9 | 2.97 | PD3.5HANEB | 5P | 56 | 11 | 20 | 32 | 4 | 3 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | PD4.0IANEB | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| | ISO3(6G) | 3.3 | 3.38 | PD4.0IMNEB | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| | ISO2(6H)+100 | 3.3 | 3.38 | FFYCZ002 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | PD5.0KANEB | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| | ISO3(6G) | 4.2 | 4.28 | PD5.0KMNEB | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| | ISO2(6H)+100 | 4.2 | 4.28 | SKYCZ013 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | PD6.0MANEB | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| | ISO3(6G) | 5 | 5.09 | PD6.0MMNEB | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| | ISO2(6H)+100 | 5 | 5.09 | FFYCZ004 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M7X1 | ISO2(6H) | 6 | 6.09 | PD7.0MANEB | 5P | 80 | 15 | 30 | 45 | 7 | 5.5 | 8 | 3 | 084 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | PD8.0NANEB | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| | ISO3(6G) | 6.8 | 6.85 | PD8.0NMNEB | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| | ISO2(6H)+100 | 6.8 | 6.85 | FFYCZ005 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| M9X1.25 | ISO2(6H) | 7.8 | 7.85 | PD9.0NANEB | 5P | 90 | 19 | 35 | 48 | 9 | 7 | 10 | 3 | 084 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | PD010OANEB | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |
| | ISO3(6G) | 8.5 | 8.6 | PD010OMNEB | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |
| | ISO2(6H)+100 | 8.5 | 8.6 | FEYCZ002 | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | PG4.0IANEB | 5P | 63 | 13 | - | - | 2.8 | 2.1 | 5 | 3 | 083 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | PG5.0KANEB | 5P | 70 | 14 | - | - | 3.5 | 2.7 | 6 | 3 | 083 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | PG6.0MANEB | 5P | 80 | 15 | - | - | 4.5 | 3.4 | 6 | 3 | 083 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | PG8.0NANEB | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | PG010OANEB | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M11X1.5 | ISO2(6H) | 9.5 | 9.6 | PG011OANEB | 5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 3 | 086 | ● |
| M12X1.75 | ISO2(6H)+100 | 10.3 | 10.36 | FFYCZ001 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ○ |
| | ISO2(6H) | 10.3 | 10.36 | PG012PANEB | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| | ISO3(6G) | 10.3 | 10.36 | PG012PMNEB | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X2 | ISO2(6H) | 12 | 12.12 | PG014QANEB | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| | ISO3(6G) | 12 | 12.12 | PG014QMNEB | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ○ |
| M16X2 | ISO2(6H) | 14 | 14.12 | PG016QANEB | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| | ISO3(6G) | 14 | 14.12 | PG016QMNEB | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ○ |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | PG018RANEB | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | PG020RANEB | 5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | PG022RANEB | 5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X3 | ISO2(6H) | 21 | 21.13 | PG024SANEB | 5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M27X3 | ISO2(6H) | 24 | 24.13 | PG027SANEB | 5P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 086 | ● |
| M30X3.5 | ISO2(6H) | 26.5 | 26.63 | PG030TANEB | 5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 086 | ● |

# Spiral Pointed Taps



| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M33X3.5 | IS02(6H) | 29.5 | 29.63 | PG033TANEB | 5P | 180 | 46 | - | 92 | 25 | 20 | 23 | 4 | 086 | ● |
| M36X4 | IS02(6H) | 32 | 32.12 | PG036UANEB | 5P | 200 | 52 | - | 102 | 28 | 22 | 25 | 4 | 086 | ● |
| M39X4 | IS02(6H) | 35 | 35.12 | PG039UANEB | 5P | 200 | 52 | - | 102 | 32 | 24 | 27 | 4 | 086 | ○ |
| M42X4.5 | IS02(6H) | 37.5 | 37.63 | PG042VANEB | 5P | 200 | 59 | - | 102 | 32 | 24 | 27 | 4 | 086 | ○ |
| M45X4.5 | IS02(6H) | 40.5 | 40.63 | PG045VANEB | 5P | 220 | 59 | - | 112 | 36 | 29 | 32 | 4 | 086 | ○ |
| M48X5 | IS02(6H) | 43 | 43.12 | PG048WANEB | 5P | 250 | 65 | - | 128 | 36 | 29 | 32 | 4 | 086 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M4X0.5 | IS02(6H) | 3.5 | 3.56 | PM4.0GANEB | 5P | 63 | 9 | - | - | 2.8 | 2.1 | 5 | 3 | 083 | ● |
| M5X0.5 | IS02(6H) | 4.5 | 4.56 | PM5.0GANEB | 5P | 70 | 11 | - | - | 3.5 | 2.7 | 6 | 3 | 083 | ● |
| M6X0.75 | IS02(6H) | 5.3 | 5.33 | PM6.0JANEB | 5P | 80 | 13 | - | - | 4.5 | 3.4 | 6 | 3 | 083 | ● |
| M6X0.5 | IS02(6H) | 5.5 | 5.56 | PM6.0GANEB | 5P | 80 | 13 | - | - | 4.5 | 3.4 | 6 | 3 | 083 | ● |
| M7X0.75 | IS02(6H) | 6.3 | 6.33 | PM7.0JANEB | 5P | 80 | 13 | - | 41 | 5.5 | 4.3 | 7 | 3 | 086 | ○ |
| M7X0.5 | IS02(6H) | 6.5 | 6.56 | PM7.0GANEB | 5P | 80 | 13 | - | 41 | 5.5 | 4.3 | 7 | 3 | 086 | ○ |
| M8X1 | IS02(6H) | 7 | 7.09 | PM8.0MANEB | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| M8X0.75 | IS02(6H) | 7.3 | 7.33 | PM8.0JANEB | 5P | 80 | 19 | - | 41 | 6 | 4.9 | 8 | 3 | 086 | ● |
| M8X0.5 | IS02(6H) | 7.5 | 7.56 | PM8.0GANEB | 5P | 80 | 19 | - | 41 | 6 | 4.9 | 8 | 3 | 086 | ○ |
| M9X1 | IS02(6H) | 8 | 8.09 | PM9.0MANEB | 5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 086 | ○ |
| M10X1.25 | IS02(6H) | 8.8 | 8.85 | PM010NANEB | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M10X1 | IS02(6H) | 9 | 9.09 | PM010MANEB | 5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M10X0.75 | IS02(6H) | 9.3 | 9.33 | PM010JANEB | 5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M12X1.5 | IS02(6H) | 10.5 | 10.6 | PM012OANEB | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1.25 | IS02(6H) | 10.8 | 10.85 | PM012NANEB | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1 | IS02(6H) | 11 | 11.09 | PM012MANEB | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X1.5 | IS02(6H) | 12.5 | 12.6 | PM014OANEB | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M14X1.25 | IS02(6H) | 12.8 | 12.85 | PM014NANEB | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M14X1 | IS02(6H) | 13 | 13.09 | PM014MANEB | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X1.5 | IS02(6H) | 14.5 | 14.6 | PM016OANEB | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| M16X1 | IS02(6H) | 15 | 15.09 | PM016MANEB | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X2 | IS02(6H) | 16 | 16.12 | PM018QANEB | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| M18X1.5 | IS02(6H) | 16.5 | 16.6 | PM018OANEB | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |
| M18X1 | IS02(6H) | 17 | 17.09 | PM018MANEB | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |
| M20X2 | IS02(6H) | 18 | 18.12 | PM020QANEB | 5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |
| M20X1.5 | IS02(6H) | 18.5 | 18.6 | PM020OANEB | 5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 3 | 086 | ● |
| M20X1 | IS02(6H) | 19 | 19.09 | PM020MANEB | 5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 3 | 086 | ● |
| M22X2 | IS02(6H) | 20 | 20.12 | PM022QANEB | 5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M22X1.5 | IS02(6H) | 20.5 | 20.6 | PM022OANEB | 5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M22X1 | IS02(6H) | 21 | 21.09 | PM022MANEB | 5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X2 | IS02(6H) | 22 | 22.12 | PM024QANEB | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X1.5 | IS02(6H) | 22.5 | 22.6 | PM024OANEB | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X1 | IS02(6H) | 23 | 23.09 | PM024MANEB | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M25X1.5 | IS02(6H) | 23.5 | 23.6 | PM025OANEB | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M26X1.5 | IS02(6H) | 24.5 | 24.6 | PM026OANEB | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 086 | ● |
| M27X2 | IS02(6H) | 25 | 25.12 | PM027QANEB | 5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ● |
| M27X1.5 | IS02(6H) | 25.5 | 25.6 | PM027OANEB | 5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ● |
| M27X1 | IS02(6H) | 26 | 26.09 | PM027MANEB | 5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ○ |
| M28X2 | IS02(6H) | 26 | 26.12 | PM028QANEB | 5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ● |
| M28X1.5 | IS02(6H) | 26.5 | 26.6 | PM028OANEB | 5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ● |



Think threads with YAMAWA

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Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M28X1 | ISO2(6H) | 27 | 27.09 | PM028MANEB | 5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ○ |
| M30X2 | ISO2(6H) | 28 | 28.12 | PM030QANEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ● |
| M30X1.5 | ISO2(6H) | 28.5 | 28.6 | PM030OANEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ● |
| M30X1 | ISO2(6H) | 29 | 29.09 | PM030MANEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ● |
| M32X2 | ISO2(6H) | 30 | 30.12 | PM032QANEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ● |
| M32X1.5 | ISO2(6H) | 30.5 | 30.6 | PM032OANEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ● |
| M32X1 | ISO2(6H) | 31 | 31.09 | PM032MANEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ○ |
| M33X2 | ISO2(6H) | 31 | 31.12 | PM033QANEB | 5P | 160 | 29 | - | 82 | 25 | 20 | 23 | 4 | 086 | ● |
| M33X1.5 | ISO2(6H) | 31.5 | 31.6 | PM033OANEB | 5P | 160 | 29 | - | 82 | 25 | 20 | 23 | 4 | 086 | ● |
| M33X1 | ISO2(6H) | 32 | 32.09 | PM033MANEB | 5P | 160 | 29 | - | 82 | 25 | 20 | 23 | 4 | 086 | ○ |
| M36X3 | ISO2(6H) | 33 | 33.13 | PM036SANEB | 5P | 200 | 52 | - | 102 | 28 | 22 | 25 | 4 | 086 | ● |
| M36X2 | ISO2(6H) | 34 | 34.12 | PM036QANEB | 5P | 170 | 29 | - | 87 | 28 | 22 | 25 | 4 | 086 | ● |
| M36X1.5 | ISO2(6H) | 34.5 | 34.6 | PM036OANEB | 5P | 170 | 29 | - | 87 | 28 | 22 | 25 | 4 | 086 | ● |
| M36X1 | ISO2(6H) | 35 | 35.09 | PM036MANEB | 5P | 170 | 29 | - | 87 | 28 | 22 | 25 | 4 | 086 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-40UNC | 2B | 2.3 | 2.33 | PDUN4HXNEB | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| No.5-40UNC | 2B | 2.6 | 2.64 | PDUN5HXNEB | 5P | 56 | 11 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ○ |
| No.6-32UNC | 2B | 2.8 | 2.83 | PDUN6JXNEB | 5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 057 | ● |
| No.8-32UNC | 2B | 3.4 | 3.47 | PDUN8JXNEB | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| No.10-24UNC | 2B | 3.89 | 3.9 | PDUNAMXNEB | 5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 057 | ○ |
| No.12-24UNC | 2B | 4.5 | 4.53 | PDUNCMXNEB | 5P | 80 | 15 | 28 | 45 | 6 | 4.9 | 8 | 3 | 057 | ○ |
| 1/4-20UNC | 2B | 5.1 | 5.19 | PDU04NXNEB | 5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ● |
| 5/16-18UNC | 2B | 6.6 | 6.65 | PDU05OXNEB | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| 3/8-16UNC | 2B | 8 | 8.07 | PDU06PXNEB | 5P | 100 | 23 | 39 | 52 | 9 | 7 | 10 | 3 | 084 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 7/16-14UNC | 2B | 9.4 | 9.45 | PGU07QXNEB | 5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 3 | 086 | ○ |
| 1/2-13UNC | 2B | 10.9 | 10.91 | PGU08RXNEB | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| 9/16-12UNC | 2B | 12.2 | 12.33 | PGU09SXNEB | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ○ |
| 5/8-11UNC | 2B | 13.6 | 13.75 | PGU10UXNEB | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| 3/4-10UNC | 2B | 16.6 | 16.7 | PGU12VXNEB | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| 7/8-9UNC | 2B | 19.6 | 19.61 | PGU14WXNEB | 5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ○ |
| 1 -8UNC | 2B | 22.3 | 22.45 | PGU16XXNEB | 5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |
| 1 1/8-7UNC | 2B | 25 | 25.17 | PGU18YXNEB | 5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 086 | ○ |
| 1 1/4-7UNC | 2B | 28.2 | 28.35 | PGU20YXNEB | 5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 086 | ○ |
| 1 3/8-6UNC | 2B | 30.8 | 30.92 | PGU22ZXNEB | 5P | 200 | 52 | - | 102 | 28 | 20 | 23 | 4 | 086 | ○ |
| 1 1/2-6UNC | 2B | 34 | 34.1 | PGU24ZXNEB | 5P | 200 | 52 | - | 102 | 32 | 24 | 27 | 4 | 086 | ○ |
| 1 3/4-5UNC | 2B | 39.5 | 39.61 | PGU287XNEB | 5P | 220 | 66 | - | 112 | 36 | 29 | 32 | 4 | 086 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-48UNF | 2B | 2.4 | 2.41 | PDUN4FXNEB | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ○ |
| No.5-44UNF | 2B | 2.7 | 2.69 | PDUN5GXNEB | 5P | 56 | 11 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ○ |
| No.6-40UNF | 2B | 2.9 | 2.97 | PDUN6HXNEB | 5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 057 | ○ |
| No.8-36UNF | 2B | 3.5 | 3.55 | PDUN8IXNEB | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ○ |
| No.10-32UNF | 2B | 4.1 | 4.12 | PDUNAJXNEB | 5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.12-28UNF | 2B | 4.6 | 4.67 | PDUNCKXNEB | 5P | 80 | 15 | 28 | 45 | 6 | 4.9 | 8 | 3 | 057 | ○ |
| 1/4-28UNF | 2B | 5.5 | 5.53 | PDU04KXNEB | 5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2B | 6.9 | 6.97 | PMU05MXNEB | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| 3/8-24UNF | 2B | 8.5 | 8.57 | PMU06MXNEB | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| 7/16-20UNF | 2B | 9.9 | 9.96 | PMU07NXNEB | 5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 3 | 086 | ● |
| 1/2-20UNF | 2B | 11.5 | 11.54 | PMU08NXNEB | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ○ |
| 9/16-18UNF | 2B | 12.9 | 13 | PMU090XNEB | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| 5/8-18UNF | 2B | 14.5 | 14.6 | PMU100XNEB | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| 3/4-16UNF | 2B | 17.5 | 17.59 | PMU12PXNEB | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |
| 7/8-14UNF | 2B | 20.5 | 20.57 | PMU14QXNEB | 5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 086 | ● |
| 1 -12UNF | 2B | 23.3 | 23.46 | PMU16SXNEB | 5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| 1 1/8-12UNF | 2B | 26.5 | 26.63 | PMU18SXNEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ○ |
| 1 1/4-12UNF | 2B | 29.6 | 29.81 | PMU20SXNEB | 5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ○ |
| 1 3/8-12UNF | 2B | 32.8 | 32.98 | PMU22SXNEB | 5P | 170 | 29 | - | 87 | 28 | 20 | 23 | 4 | 086 | ○ |
| 1 1/2-12UNF | 2B | 36 | 36.16 | PMU24SXNEB | 5P | 170 | 29 | - | 87 | 32 | 24 | 27 | 4 | 086 | ○ |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/16-28 | - | 6.75 | 6.77 | PVG0010NEB | 5P | 7.723 | 90 | 19 | 46 | 6 | 4.9 | 8 | 3 | 086 | ○ |
| 1/8-28 | - | 8.75 | 8.78 | PVG0020NEB | 5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| 1/4-19 | - | 11.75 | 11.78 | PVG0040NEB | 5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| 3/8-19 | - | 15.25 | 15.28 | PVG0060NEB | 5P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| 1/2-14 | - | 19 | 19.04 | PVG0080NEB | 5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 3 | 086 | ● |
| 5/8-14 | - | 21 | 21 | PVG0100NEB | 5P | 22.911 | 125 | 24 | 64 | 18 | 14.5 | 17 | 3 | 086 | ○ |
| 3/4-14 | - | 24.5 | 24.52 | PVG0120NEB | 5P | 26.441 | 140 | 27 | 71 | 20 | 16 | 19 | 4 | 086 | ● |
| 7/8-14 | - | 28.25 | 28.28 | PVG0140NEB | 5P | 30.201 | 150 | 27 | 77 | 22 | 18 | 21 | 4 | 086 | ○ |
| 1 -11 | - | 30.75 | 30.77 | PVG0160NEB | 5P | 33.249 | 160 | 29 | 82 | 25 | 20 | 23 | 4 | 086 | ● |
| 1 1/8-11 | - | 35.3 | 35.42 | PVG0180NEB | 5P | 37.897 | 170 | 29 | 87 | 28 | 22 | 25 | 4 | 086 | ○ |
| 1 1/4-11 | - | 39.3 | 39.43 | PVG0200NEB | 5P | 41.910 | 170 | 29 | 87 | 32 | 24 | 27 | 4 | 086 | ● |
| 1 1/2-11 | - | 45.25 | 45.33 | PVG0240NEB | 5P | 47.803 | 190 | 31 | 97 | 36 | 29 | 32 | 4 | 086 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# PO OX




## GP General Purpose Series

Spiral Pointed Taps, Oxided

HSS-E | OX | 5P THCHT

**FEATURES**

General purpose for through hole application.

For steel application at medium-low cutting speed, also suitable for stainless steel.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ★ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ |
| P5 | 4÷7 | ☆ |
| P7 | 4÷8 | ☆ |

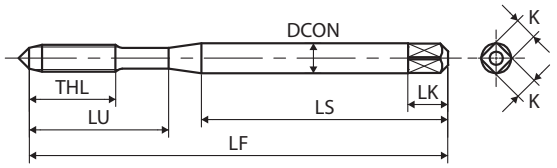
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 4÷8 | ☆ |

★ 1st choice ☆ suitable

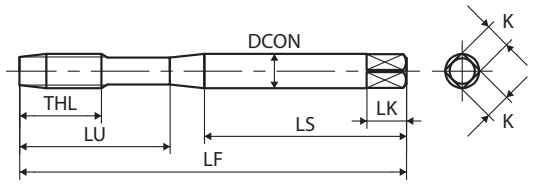
**This item will be gradually replaced by:**

· **PO page 212**
· **PO-VA page 226**

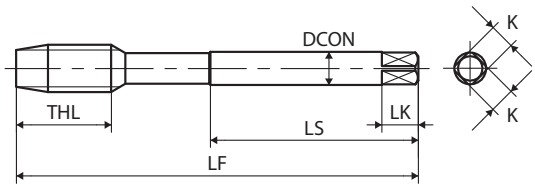
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | PD3.0GANEX | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | PD4.0IANEX | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | PD5.0KANEX | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | PD6.0MANEX | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | PD8.0NANEX | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | PD010OANEX | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | PG012PANEX | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | PG014QANEX | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | PG016QANEX | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | PG018RANEX | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | PG020RANEX | 5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |

# PO V

## GP General Purpose Series

Spiral Pointed Taps, Coated




HSS-E | COATING | 5P THCHT

**FEATURES**

General purpose for through hole application.

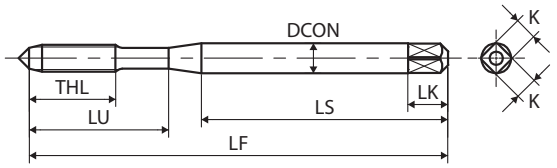
For tapping steel, also suitable for stainless steel and non-ferrous materials.

### Recommended Tapping Speeds Depending On Materials

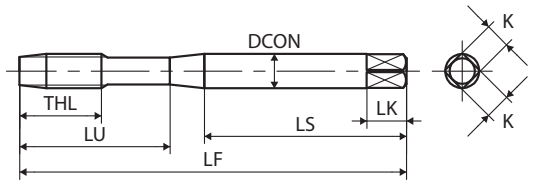
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 10÷20 | ★ | M1 | 6÷12 | ☆ | N1 | 10÷20 | ☆ |
| P2 | 10÷20 | ★ | | | | N2 | 10÷20 | ☆ |
| P3 | 10÷20 | ★ | | | | N3 | 10÷20 | ☆ |
| P4 | 10÷15 | ★ | | | | N4 | 10÷20 | ☆ |
| P7 | 6÷12 | ☆ | | | | | | |

★ 1st choice ☆ suitable

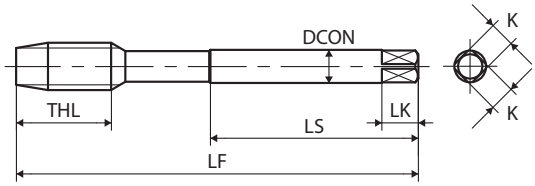
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | 96303.0TI | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | 96304.0TI | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | 96305.0TI | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2(6H) | 5 | 5.09 | 96306.0TI | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | 96308.0TI | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | 9630010TI | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | 9730012TI | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X2 | ISO2(6H) | 12 | 12.12 | 9730014TI | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X2 | ISO2(6H) | 14 | 14.12 | 9730016TI | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | 9730018TI | 5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | 9730020TI | 5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |
| M22X2.5 | ISO2(6H) | 19.5 | 19.63 | 9730022TI | 5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X3 | ISO2(6H) | 21 | 21.13 | 9730024TI | 5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2(6H) | 7 | 7.09 | 98308.0MTI | 5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| M10X1.25 | ISO2(6H) | 8.8 | 8.85 | 9830010NTI | 5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M10X1 | ISO2(6H) | 9 | 9.09 | 9830010MTI | 5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M12X1.5 | ISO2(6H) | 10.5 | 10.6 | 9830012OTI | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1.25 | ISO2(6H) | 10.8 | 10.85 | 9830012NTI | 5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X1.5 | ISO2(6H) | 12.5 | 12.6 | 9830014OTI | 5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X1.5 | ISO2(6H) | 14.5 | 14.6 | 9830016OTI | 5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X1.5 | ISO2(6H) | 16.5 | 16.6 | 9830018OTI | 5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |
| M20X1.5 | ISO2(6H) | 18.5 | 18.6 | 98300200TI | 5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 3 | 086 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | 9930R02TI | 5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| 1/4-19 | - | 11.75 | 11.78 | 9930R04TI | 5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| 3/8-19 | - | 15.25 | 15.28 | 9930R06TI | 5P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| 1/2-14 | - | 19 | 19.04 | 9930R08TI | 5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 3 | 086 | ● |

# PM-PO




## MS Material Specific Series

Spiral Pointed Taps for Hard Materials (<45HRC)

HSS-P



5.5P THCHT

**FEATURES**

Material specific for through hole application.

Specific design and high class HSSP for stable and long life on alloy steel and tool steel (30 ÷ 45HRC) application.

Reliable and high performance tapping for the mould&die industry.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P3 | 2÷10 | ★ |
| P4 | 2÷7 | ★ |
| P5 | 2÷7 | ★ |
| P6 | 2÷5 | ★ |

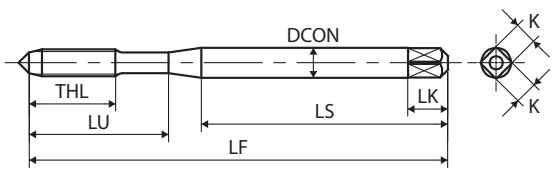
★ 1st choice ☆ suitable

### Product Features

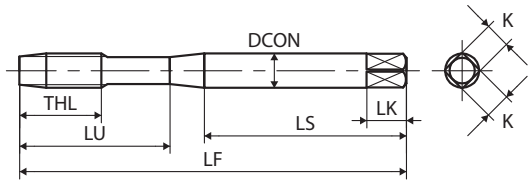
| ISO | Materials | Hardness | Recommended tapping speed (Vc <5m/min) 5m/min |
|---|---|---|---|
| P6 | High tensile strength steel | 40÷45 HRC | EH (HSS-Co) |
| P5 | Tool steel (100MnCrW4-1.2510 40CrMnMo7-1.2311) | 30÷40 HRC | PM (HSS-P) |
| P4 | High alloy steel (CrMo, NiCrMo) | 25÷30 HRC | |

Most Suitable — Suitable

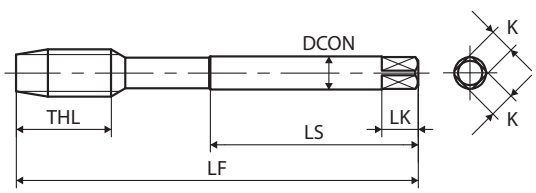
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | PD3.0GBDPB | 5.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | PD4.0IBDPB | 5.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | PD5.0KBDPB | 5.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | PD6.0MBDPB | 5.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | PD8.0NBDPB | 5.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | PD010OBDPB | 5.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | PG012PBDPB | 5.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | PG014QBDPB | 5.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | PG016QBDPB | 5.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | PG018RBDPB | 5.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 086 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | PG020RBDPB | 5.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 086 | ● |
| M22X2.5 | ISO2X(6HX) | 19.5 | 19.63 | PG022RBDPB | 5.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 086 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | PG024SBDPB | 5.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 086 | ● |
| M27X3 | ISO2X(6HX) | 24 | 24.13 | PG027SBDPB | 5.5P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 086 | ● |
| M30X3.5 | ISO2X(6HX) | 26.5 | 26.63 | PG030TBDPB | 5.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | PM010NBDPB | 5.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | PM012OBDPB | 5.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | PM012NBDPB | 5.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | PM014OBDPB | 5.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | PM016OBDPB | 5.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X1.5 | ISO2X(6HX) | 16.5 | 16.6 | PM018OBDPB | 5.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 086 | ● |
| M20X1.5 | ISO2X(6HX) | 18.5 | 18.6 | PM020OBDPB | 5.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 086 | ● |
| M22X1.5 | ISO2X(6HX) | 20.5 | 20.6 | PM022OBDPB | 5.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 4 | 086 | ● |
| M24X1.5 | ISO2X(6HX) | 22.5 | 22.6 | PM024OBDPB | 5.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 086 | ● |
| M27X1.5 | ISO2X(6HX) | 25.5 | 25.6 | PM027OBDPB | 5.5P | 140 | 27 | - | 71 | 20 | 16 | 19 | 4 | 086 | ● |
| M30X1.5 | ISO2X(6HX) | 28.5 | 28.6 | PM030OBDPB | 5.5P | 150 | 27 | - | 77 | 22 | 18 | 21 | 4 | 086 | ● |

Intro
SP
SL
PO
DIN
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# EH-PO




## MS Material Specific Series

Spiral Pointed Taps for Hard Materials (<45HRC)

HSS-Co



4.5P THCHT

**FEATURES**

Material specific for through hole application.

For high tensile strength steel <45HRC.

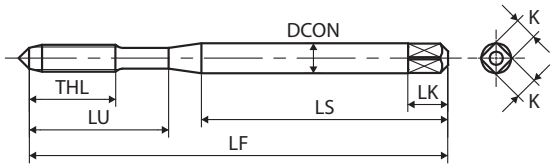
Specific geometry and HSSCo substrate allow stable and long life.

**Recommended Tapping Speeds Depending On Materials**

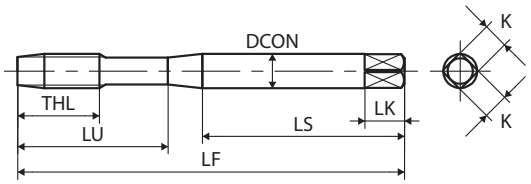
| ISO | Vc (m/min) | |
|---|---|---|
| P5 | ≤5 | ★ |
| P6 | ≤5 | ★ |

★ 1st choice ☆ suitable

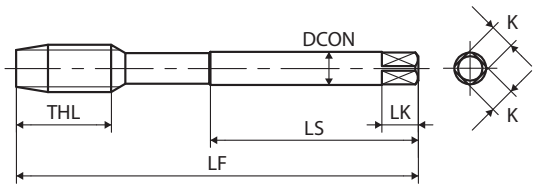
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | IS02X(6HX) | 2.5 | 2.56 | PD3.0GBDCB | 4.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| **M4X0.7** | IS02X(6HX) | 3.3 | 3.38 | PD4.0IBDCB | 4.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| **M5X0.8** | IS02X(6HX) | 4.2 | 4.28 | PD5.0KBDCB | 4.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M6X1** | IS02X(6HX) | 5 | 5.09 | PD6.0MBDCB | 4.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| **M8X1.25** | IS02X(6HX) | 6.8 | 6.85 | PD8.0NBDCB | 4.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| **M10X1.5** | IS02X(6HX) | 8.5 | 8.6 | PD010OBDCB | 4.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | IS02X(6HX) | 10.3 | 10.36 | PG012PBDCB | 4.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| **M14X2** | IS02X(6HX) | 12 | 12.12 | PG014QBDCB | 4.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| **M16X2** | IS02X(6HX) | 14 | 14.12 | PG016QBDCB | 4.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| **M18X2.5** | IS02X(6HX) | 15.5 | 15.63 | PG018RBDCB | 4.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| **M20X2.5** | IS02X(6HX) | 17.5 | 17.63 | PG020RBDCB | 4.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |
| **M22X2.5** | IS02X(6HX) | 19.5 | 19.63 | PG022RBDCB | 4.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ○ |
| **M24X3** | IS02X(6HX) | 21 | 21.13 | PG024SBDCB | 4.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |

# PO-VA




## MS Material Specific Series

Spiral Pointed Taps for Stainless Steel

HSS-E | OX | 4.5P THCHT

**FEATURES**

Material specific for through hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

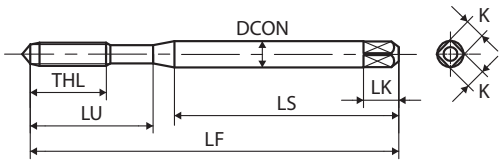
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

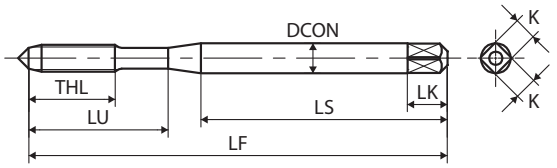
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |
| M2 | ≤10 | ☆ |

★ 1st choice ☆ suitable

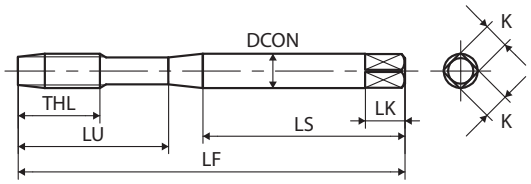
**TYPE: EU_001**



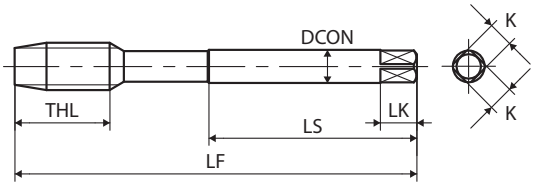

**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2X(6HX) | 1.6 | 1.65 | PD2.0EBGEX | 4.5P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 2 | 001 | ● |
| M2.5X0.45 | ISO2X(6HX) | 2.1 | 2.11 | PD2.5FBGEX | 4.5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 2 | 057 | ● |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | PD3.0GBGEX | 4.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | PD4.0IBGEX | 4.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | PD5.0KBGEX | 4.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | PD6.0MBGEX | 4.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | PD8.0NBGEX | 4.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | PD010OBGEX | 4.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | PG8.0NBGEX | 4.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | PG010OBGEX | 4.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | PG012PBGEX | 4.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | PG014QBGEX | 4.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | PG016QBGEX | 4.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | PG018RBGEX | 4.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | PG020RBGEX | 4.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |
| M22X2.5 | ISO2X(6HX) | 19.5 | 19.63 | PG022RBGEX | 4.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | PG024SBGEX | 4.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M27X3 | ISO2X(6HX) | 24 | 24.13 | PG027SBGEX | 4.5P | 160 | 37 | - | 82 | 20 | 16 | 19 | 4 | 086 | ● |
| M30X3.5 | ISO2X(6HX) | 26.5 | 26.63 | PG030TBGEX | 4.5P | 180 | 44 | - | 92 | 22 | 18 | 21 | 4 | 086 | ● |
| M36X4 | ISO2X(6HX) | 32 | 32.12 | PG036UBGEX | 4.5P | 200 | 52 | - | 102 | 28 | 22 | 25 | 4 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2X(6HX) | 7 | 7.09 | PM8.0MBGEX | 4.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | PM010NBGEX | 4.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M10X1 | ISO2X(6HX) | 9 | 9.09 | PM010MBGEX | 4.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | PM012OBGEX | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | PM012NBGEX | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1 | ISO2X(6HX) | 11 | 11.09 | PM012MBGEX | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | PM014OBGEX | 4.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | PM016OBGEX | 4.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X1.5 | ISO2X(6HX) | 16.5 | 16.6 | PM018OBGEX | 4.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |
| M20X1.5 | ISO2X(6HX) | 18.5 | 18.6 | PM020OBGEX | 4.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 3 | 086 | ● |
| M22X1.5 | ISO2X(6HX) | 20.5 | 20.6 | PM022OBGEX | 4.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 086 | ● |
| M24X1.5 | ISO2X(6HX) | 22.5 | 22.6 | PM024OBGEX | 4.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.4-40UNC | 2BX | 2.3 | 2.33 | PDUN4HYGEX | 4.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| No.6-32UNC | 2BX | 2.8 | 2.83 | PDUN6JYGEX | 4.5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 057 | ● |
| No.8-32UNC | 2BX | 3.4 | 3.47 | PDUN8JYGEX | 4.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| No.10-24UNC | 2BX | 3.89 | 3.9 | PDUNAMYGEX | 4.5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| 1/4-20UNC | 2BX | 5.1 | 5.19 | PDU04NYGEX | 4.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ● |
| 5/16-18UNC | 2BX | 6.6 | 6.65 | PDU05OYGEX | 4.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| 3/8-16UNC | 2BX | 8 | 8.07 | PDU06PYGEX | 4.5P | 100 | 23 | 39 | 54 | 9 | 7 | 10 | 3 | 084 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 7/16-14UNC | 2BX | 9.4 | 9.45 | PGU07QYGEX | 4.5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 3 | 086 | ● |
| 1/2-13UNC | 2BX | 10.9 | 10.91 | PGU08RYGEX | 4.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| 9/16-12UNC | 2BX | 12.2 | 12.33 | PGU09SYGEX | 4.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| 5/8-11UNC | 2BX | 13.6 | 13.75 | PGU10UYGEX | 4.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| 3/4-10UNC | 2BX | 16.6 | 16.7 | PGU12VYGEX | 4.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |
| 7/8-9UNC | 2BX | 19.6 | 19.61 | PGU14WYGEX | 4.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |
| 1 -8UNC | 2BX | 22.3 | 22.45 | PGU16XYGEX | 4.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.10-32UNF | 2BX | 4.1 | 4.12 | PDUNAJYGEX | 4.5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| 1/4-28UNF | 2BX | 5.5 | 5.53 | PDU04KYGEX | 4.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2BX | 6.9 | 6.97 | PMU05MYGEX | 4.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| 3/8-24UNF | 2BX | 8.5 | 8.57 | PMU06MYGEX | 4.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| 1/2-20UNF | 2BX | 11.5 | 11.54 | PMU08NYGEX | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| 9/16-18UNF | 2BX | 12.9 | 13 | PMU09OYGEX | 4.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| 5/8-18UNF | 2BX | 14.5 | 14.6 | PMU10OYGEX | 4.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| 3/4-16UNF | 2BX | 17.5 | 17.59 | PMU12PYGEX | 4.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |
| 7/8-14UNF | 2BX | 20.5 | 20.57 | PMU14QYGEX | 4.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 3 | 086 | ● |
| 1 -12UNF | 2BX | 23.3 | 23.46 | PMU16SYGEX | 4.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 3 | 086 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | PVG0020GEX | 4.5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 3 | 086 | ● |
| 1/4-19 | - | 11.75 | 11.78 | PVG0040GEX | 4.5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| 3/8-19 | - | 15.25 | 15.28 | PVG0060GEX | 4.5P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| 1/2-14 | - | 19 | 19.04 | PVG0080GEX | 4.5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 3 | 086 | ● |
| 3/4-14 | - | 24.5 | 24.52 | PVG0120GEX | 4.5P | 26.441 | 140 | 27 | 71 | 20 | 16 | 19 | 4 | 086 | ● |
| 1 -11 | - | 30.75 | 30.77 | PVG0160GEX | 4.5P | 33.249 | 160 | 29 | 82 | 25 | 20 | 23 | 4 | 086 | ● |



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# ZEN-P




## MS Material Specific Series

Spiral Pointed Taps for Nickel Base Alloys

HSS-P | NX | SYNCHRO | 4.5P THCHT

**FEATURES**

Material specific for through hole application.

Specific design and NI+OX treatment allow high performance on Nickel base alloys.

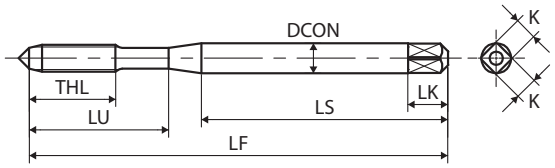
Also suitable for stainless steel and high alloy steel.

### Recommended Tapping Speeds Depending On Materials

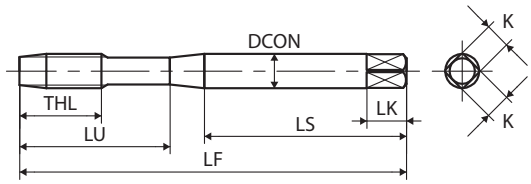
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P3 | 5÷15 | ★ | M1 | 5÷15 | ★ | S1 | 5÷10 | ★ |
| P4 | 5÷15 | ★ | M2 | 5÷15 | ★ | S2 | 5÷10 | ★ |
| P5 | 5÷10 | ☆ | M3 | 4÷8 | ★ | S3 | 3÷6 | ☆ |
| P7 | 5÷15 | ★ | | | | | | |
| P8 | 4÷8 | ★ | | | | | | |

★ 1st choice ☆ suitable

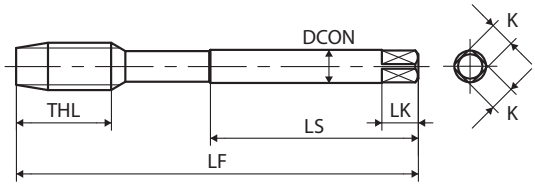
**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | PD3.0GBJPW | 4.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | PD4.0IBJPW | 4.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | PD5.0KBJPW | 4.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | PD6.0MBJPW | 4.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | PD8.0NBJPW | 4.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | PD010OBJPW | 4.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 084 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | PG012PBJPW | 4.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | PG014QBJPW | 4.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | PG016QBJPW | 4.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | PG018RBJPW | 4.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ○ |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | PG020RBJPW | 4.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 086 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | PG024SBJPW | 4.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 086 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | PM010NBJPW | 4.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | PM012OBJPW | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | PM012NBJPW | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | PM014OBJPW | 4.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 086 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | PM016OBJPW | 4.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.6-32UNC | 2BX | 2.8 | 2.83 | PDUN6JYJPW | 4.5P | 56 | 11 | 19 | 32 | 4 | 3 | 6 | 3 | 057 | ● |
| No.8-32UNC | 2BX | 3.4 | 3.47 | PDUN8JYJPW | 4.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| No.10-24UNC | 2BX | 3.89 | 3.9 | PDUNAMYJPW | 4.5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| 1/4-20UNC | 2BX | 5.1 | 5.19 | PDU04NYJPW | 4.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ● |
| 5/16-18UNC | 2BX | 6.6 | 6.65 | PDU05OYJPW | 4.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| 3/8-16UNC | 2BX | 8 | 8.07 | PDU06PYJPW | 4.5P | 100 | 23 | 39 | 54 | 9 | 7 | 10 | 3 | 084 | ● |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 1/2-13UNC | 2BX | 10.9 | 10.91 | PGU08RYJPW | 4.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 086 | ● |
| 5/8-11UNC | 2BX | 13.6 | 13.75 | PGU10UYJPW | 4.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 086 | ● |
| 3/4-10UNC | 2BX | 16.6 | 16.7 | PGU12VYJPW | 4.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 3 | 086 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| No.10-32UNF | 2BX | 4.1 | 4.12 | PDUNAJYJPW | 4.5P | 70 | 14 | 24 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| 1/4-28UNF | 2BX | 5.5 | 5.53 | PDU04KYJPW | 4.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ● |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2BX | 6.9 | 6.97 | PMU05MYJPW | 4.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 086 | ● |
| 3/8-24UNF | 2BX | 8.5 | 8.57 | PMU06MYJPW | 4.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 086 | ● |
| 1/2-20UNF | 2BX | 11.5 | 11.54 | PMU08NYJPW | 4.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 086 | ● |
| 5/8-18UNF | 2BX | 14.5 | 14.6 | PMU10OYJPW | 4.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 086 | ● |
| 3/4-16UNF | 2BX | 17.5 | 17.59 | PMU12PYJPW | 4.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 3 | 086 | ● |

# PO

## GP General Purpose Series

Spiral Pointed Taps




HSS-E



5P THCHT

**FEATURES**

General purpose for through hole application.

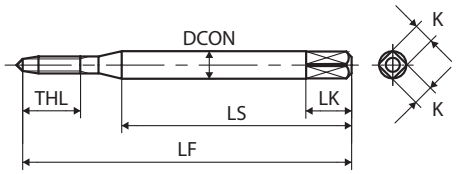
For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

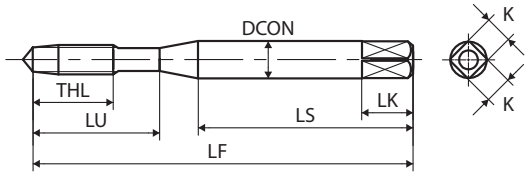
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

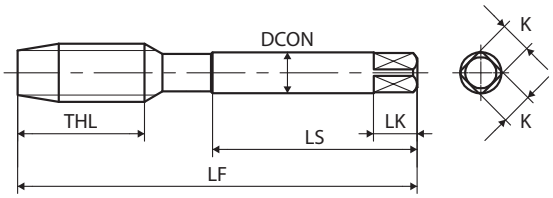
**TYPE: PO_005**



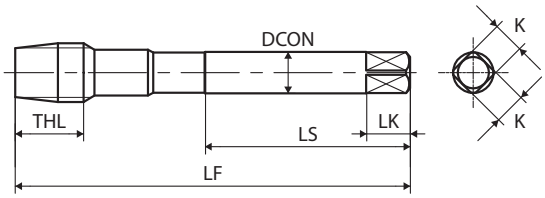

**TYPE: PO_001**




**TYPE: PO_002**




**TYPE: PO_037**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1.2X0.25** | P1 | 0.95 | 0.97 | POP1.2B | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| **M1.4X0.3** | P1 | 1.1 | 1.13 | POP1.4C | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| | P2(P1+15) | 1.1 | 1.13 | POQ1.4C | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| | P3(P1+30) | 1.1 | 1.13 | POR1.4C | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M1.6X0.35** | P2 | 1.25 | 1.3 | POQ1.6D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| | P3(P2+15) | 1.25 | 1.3 | POR1.6D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M1.7X0.35** | P2 | 1.35 | 1.4 | POQ1.7D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| | P3(P2+15) | 1.35 | 1.4 | POR1.7D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| | P4(P2+30) | 1.35 | 1.4 | POS1.7D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M1.8X0.35** | P2 | 1.45 | 1.5 | POQ1.8D | 5P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 2 | 005 | O |
| **M2X0.4** | P2 | 1.6 | 1.65 | POQ2.0E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P2+15) | 1.6 | 1.65 | POR2.0E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P2+30) | 1.6 | 1.65 | POS2.0E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.2X0.45** | P2 | 1.75 | 1.81 | POQ2.2F | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | O |
| **M2.3X0.4** | P2 | 1.9 | 1.95 | POQ2.3E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | O |
| | P3(P2+15) | 1.9 | 1.95 | POR2.3E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P2+30) | 1.9 | 1.95 | POS2.3E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.5X0.45** | P2 | 2.1 | 2.11 | POQ2.5F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P2+15) | 2.1 | 2.11 | POR2.5F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P2+30) | 2.1 | 2.11 | POS2.5F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.6X0.45** | P2 | 2.2 | 2.21 | POQ2.6F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P2+15) | 2.2 | 2.21 | POR2.6F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P2+30) | 2.2 | 2.21 | POS2.6F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **3M0.6** | P2 | 2.45 | 2.47 | POQ3.0H | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| **M3X0.5** | P2 | 2.5 | 2.56 | POQ3.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P2+15) | 2.5 | 2.56 | POR3.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P4(P2+30) | 2.5 | 2.56 | POS3.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| **M3.5X0.6** | P2 | 2.9 | 2.97 | POQ3.5H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+15) | 2.9 | 2.97 | POR3.5H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+30) | 2.9 | 2.97 | POS3.5H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **4M0.75** | P2 | 3.3 | 3.33 | POQ4.0J | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **M4X0.7** | P2 | 3.3 | 3.38 | POQ4.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | POR4.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | POS4.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **M4.5X0.75** | P2 | 3.8 | 3.83 | POQ4.5J | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | O |
| **5M0.9** | P2 | 4.15 | 4.19 | POQ5.0L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **M5X0.8** | P2 | 4.2 | 4.28 | POQ5.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | POR5.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 4.2 | 4.28 | POS5.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **M5.5X0.9** | P2 | 4.65 | 4.69 | POQ5.5L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | O |
| **M6X1** | P2 | 5 | 5.09 | POQ6.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 5 | 5.09 | POR6.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | POS6.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| **M7X1** | P2 | 6 | 6.09 | POQ7.0M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3(P2+20) | 6 | 6.09 | POR7.0M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| **M8X1.25** | P3 | 6.8 | 6.85 | POR8.0N | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 6.8 | 6.85 | POS8.0N | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |

# Spiral Pointed Taps



| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M9X1.25 | P3 | 7.8 | 7.85 | POR9.0N | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | POR010O | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 8.5 | 8.6 | POS010O | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M11X1.5 | P4 | 9.5 | 9.6 | POS011O | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | POS012P | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P4+20) | 10.3 | 10.36 | POT012P | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P6(P4+40) | 10.3 | 10.36 | POU012P | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M14X2 | P4 | 12 | 12.12 | POS014Q | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P5(P4+20) | 12 | 12.12 | POT014Q | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M16X2 | P4 | 14 | 14.12 | POS016Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P5(P4+20) | 14 | 14.12 | POT016Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P6(P4+40) | 14 | 14.12 | POU016Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | POS018R | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| | P5(P4+20) | 15.5 | 15.63 | POT018R | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | POS020R | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| | P5(P4+20) | 17.5 | 17.63 | POT020R | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| | P6(P4+40) | 17.5 | 17.63 | POU020R | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | POS022R | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| | P5(P4+20) | 19.5 | 19.63 | POT022R | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M24X3 | P4 | 21 | 21.13 | POS024S | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| | P5(P4+20) | 21 | 21.13 | POT024S | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| | P6(P4+40) | 21 | 21.13 | POU024S | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M27X3 | P4 | 24 | 24.13 | POS027S | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | POT030T | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M33X3.5 | P5 | 29.5 | 29.63 | POMT033T | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M36X4 | P5 | 32 | 32.12 | POMT036U | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M39X4 | P5 | 35 | 35.12 | POMT039U | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M42X4.5 | P5 | 37.5 | 37.63 | POMT042V | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M45X4.5 | P5 | 40.5 | 40.63 | POMT045V | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M48X5 | P5 | 43 | 43.12 | POMT048W | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2X0.25 | P1 | 1.75 | 1.77 | POP2.0B | 5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.2X0.25 | P2 | 1.95 | 1.97 | POQ2.2B | 5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.35 | P2 | 2.2 | 2.2 | POQ2.5D | 5P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.6X0.35 | P2 | 2.3 | 2.3 | POQ2.6D | 5P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M3X0.35 | P2 | 2.7 | 2.7 | POQ3.0D | 5P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.35 | P2 | 3.2 | 3.2 | POQ3.5D | 5P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.5 | P2 | 3.5 | 3.56 | POQ4.0G | 5P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4.5X0.5 | P2 | 4 | 4.06 | POQ4.5G | 5P | 60 | 9 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5X0.5 | P2 | 4.5 | 4.56 | POQ5.0G | 5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5.5X0.5 | P2 | 5 | 5.06 | POQ5.5G | 5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M6X0.75 | P2 | 5.3 | 5.33 | POQ6.0J | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 5.3 | 5.33 | POR6.0J | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M6X0.5 | P2 | 5.5 | 5.56 | POQ6.0G | 5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M7X0.75 | P2 | 6.3 | 6.33 | POQ7.0J | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3(P2+20) | 6.3 | 6.33 | POR7.0J | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M7X0.5 | P2 | 6.5 | 6.56 | POQ7.0G | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 3 | 037 | ○ |
| M8X1 | P3 | 7 | 7.09 | POR8.0M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 7 | 7.09 | POS8.0M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M8X0.75 | P3 | 7.3 | 7.33 | POR8.0J | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M8X0.5 | P2 | 7.5 | 7.56 | POQ8.0G | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 3 | 037 | ○ |
| M9X1 | P3 | 8 | 8.09 | POR9.0M | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M9X0.75 | P3 | 8.3 | 8.33 | POR9.0J | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 3 | 037 | ○ |
| M9X0.5 | P2 | 8.5 | 8.56 | POQ9.0G | 5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 3 | 037 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | POR010N | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 8.8 | 8.85 | POS010N | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M10X1 | P3 | 9 | 9.09 | POR010M | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 9 | 9.09 | POS010M | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M10X0.75 | P3 | 9.3 | 9.33 | POR010J | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 3 | 037 | ○ |
| M10X0.5 | P2 | 9.5 | 9.56 | POQ010G | 5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 3 | 037 | ○ |
| M11X1.25 | P3 | 9.8 | 9.85 | POR011N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M11X1 | P3 | 10 | 10.1 | POR011M | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M11X0.75 | P3 | 10.3 | 10.33 | POR011J | 5P | 82 | 14 | - | 42 | 8.5 | 6.5 | 9 | 3 | 037 | ○ |
| M11X0.5 | P2 | 10.5 | 10.56 | POQ011G | 5P | 82 | 12 | - | 42 | 8.5 | 6.5 | 9 | 3 | 037 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | POR012O | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P4(P3+20) | 10.5 | 10.6 | POS012O | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P3+40) | 10.5 | 10.6 | POT012O | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | POS012N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P4+20) | 10.8 | 10.85 | POT012N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1 | P3 | 11 | 11.09 | POR012M | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P4(P3+20) | 11 | 11.09 | POS012M | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X0.75 | P3 | 11.3 | 11.33 | POR012J | 5P | 82 | 14 | - | 42 | 8.5 | 6.5 | 9 | 3 | 037 | ○ |
| M12X0.5 | P2 | 11.5 | 11.56 | POQ012G | 5P | 82 | 12 | - | 42 | 8.5 | 6.5 | 9 | 3 | 037 | ○ |
| M13X1.75 | P4 | 11.3 | 11.4 | POS013P | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M13X1.5 | P3 | 11.6 | 11.6 | POR013O | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M13X1 | P3 | 12 | 12.09 | POR013M | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M13X0.75 | P3 | 12.3 | 12.33 | POR013J | 5P | 88 | 14 | - | 45 | 10.5 | 8 | 11 | 3 | 037 | ○ |
| M13X0.5 | P2 | 12.5 | 12.56 | POQ013G | 5P | 88 | 12 | - | 45 | 10.5 | 8 | 11 | 3 | 037 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | POR014O | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P4(P3+20) | 12.5 | 12.6 | POS014O | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P5(P3+40) | 12.5 | 12.6 | POT014O | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M14X1.25 | P3 | 12.8 | 12.85 | POR014N | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M14X1 | P3 | 13 | 13.09 | POR014M | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P4(P3+20) | 13 | 13.09 | POS014M | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M14X0.75 | P3 | 13.3 | 13.33 | POR014J | 5P | 88 | 15 | - | 45 | 10.5 | 8 | 11 | 3 | 037 | ○ |
| M14X0.5 | P2 | 13.5 | 13.56 | POQ014G | 5P | 88 | 12 | - | 45 | 10.5 | 8 | 11 | 3 | 037 | ○ |
| M15X2 | P4 | 13 | 13.12 | POS015Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M15X1.5 | P3 | 13.5 | 13.6 | POR015O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M15X1 | P3 | 14 | 14.09 | POR015M | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |

# Spiral Pointed Taps



| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M16X1.5 | P3 | 14.5 | 14.6 | POR016O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P4(P3+20) | 14.5 | 14.6 | POS016O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P5(P3+40) | 14.5 | 14.6 | POT016O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M16X1.25 | P3 | 14.8 | 14.85 | POR016N | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M16X1 | P3 | 15 | 15.09 | POR016M | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M17X1.5 | P4 | 15.5 | 15.6 | POS017O | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M17X1 | P4 | 16 | 16.09 | POS017M | 5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 3 | 037 | ○ |
| M18X2 | P4 | 16 | 16.12 | POS018Q | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | POS018O | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| | P5(P4+20) | 16.5 | 16.6 | POT018O | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M18X1.25 | P3 | 16.8 | 16.85 | POR018N | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M18X1 | P3 | 17 | 17.09 | POR018M | 5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 3 | 037 | ○ |
| M19X1.5 | P4 | 17.5 | 17.6 | POS019O | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M19X1 | P3 | 18 | 18.09 | POR019M | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 3 | 037 | ○ |
| M20X2 | P4 | 18 | 18.12 | POS020Q | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | POS020O | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| | P5(P4+20) | 18.5 | 18.6 | POT020O | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M20X1 | P3 | 19 | 19.09 | POR020M | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 3 | 037 | ○ |
| M22X2 | P4 | 20 | 20.12 | POS022Q | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | POS022O | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| | P5(P4+20) | 20.5 | 20.6 | POT022O | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M22X1 | P3 | 21 | 21.09 | POR022M | 5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 3 | 037 | ○ |
| M24X2 | P4 | 22 | 22.12 | POS024Q | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | POS024O | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| | P5(P4+20) | 22.5 | 22.6 | POT024O | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M24X1 | P3 | 23 | 23.09 | POR024M | 5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 3 | 037 | ○ |
| M25X2 | P4 | 23 | 23.12 | POS025Q | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |
| M25X1.5 | P4 | 23.5 | 23.6 | POS025O | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |
| M25X1 | P3 | 24 | 24.09 | POR025M | 5P | 125 | 20 | - | 58 | 19 | 15 | 18 | 3 | 037 | ○ |
| M26X3 | P4 | 23 | 23.12 | POS026S | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X2 | P4 | 24 | 24.12 | POS026Q | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X1.5 | P4 | 24.5 | 24.6 | POS026O | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X1 | P3 | 25 | 25.09 | POR026M | 5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| M27X2 | P4 | 25 | 25.12 | POS027Q | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | POS027O | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M27X1 | P3 | 26 | 26.09 | POR027M | 5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| M28X2 | P4 | 26 | 26.12 | POS028Q | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X1.5 | P4 | 26.5 | 26.6 | POS028O | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X1 | P3 | 27 | 27.09 | POR028M | 5P | 135 | 20 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| M30X3 | P4 | 27 | 27.13 | POS030S | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X2 | P4 | 28 | 28.12 | POS030Q | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | POS030O | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X1 | P3 | 29 | 29.09 | POR030M | 5P | 135 | 21 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| M32X3 | P4 | 29 | 29.13 | POMS032S | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M32X2 | P4 | 30 | 30.12 | POMS032Q | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M32X1.5 | P4 | 30.5 | 30.6 | POMS032O | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M33X3 | P4 | 30 | 30.13 | POMS033S | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M33X2 | P4 | 31 | 31.12 | POMS033Q | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M33X1.5 | P4 | 31.5 | 31.6 | POMS033O | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M34X2 | P4 | 32 | 32.12 | POMS034Q | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M34X1.5 | P4 | 35.5 | 32.6 | POMS034O | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M35X2 | P4 | 33 | 33.12 | POMS035Q | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M35X1.5 | P4 | 33.5 | 33.6 | POMS035O | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M36X3 | P4 | 33 | 33.13 | POMS036S | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M36X2 | P4 | 34 | 34.12 | POMS036Q | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M36X1.5 | P4 | 34.5 | 34.6 | POMS036O | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M38X2 | P4 | 36 | 36.12 | POMS038Q | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M38X1.5 | P4 | 36.5 | 36.6 | POMS038O | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M39X3 | P4 | 36 | 36.13 | POMS039S | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M39X2 | P4 | 37 | 37.12 | POMS039Q | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M39X1.5 | P4 | 37.5 | 37.6 | POMS039O | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M40X3 | P4 | 37 | 37.13 | POMS040S | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X2 | P4 | 38 | 38.12 | POMS040Q | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X1.5 | P4 | 38.5 | 38.6 | POMS040O | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M42X3 | P4 | 39 | 39.13 | POMS042S | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X2 | P4 | 40 | 40.12 | POMS042Q | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X1.5 | P4 | 40.5 | 40.6 | POMS042O | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M45X3 | P4 | 42 | 42.13 | POMS045S | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X2 | P4 | 43 | 43.12 | POMS045Q | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X1.5 | P4 | 43.5 | 43.6 | POMS045O | 5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| M48X3 | P4 | 45 | 45.13 | POMS048S | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X2 | P4 | 46 | 46.12 | POMS048Q | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X1.5 | P4 | 46.5 | 46.6 | POMS048O | 5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| M50X1.5 | P4 | 48.5 | 48.6 | POS050O | 5P | 145 | 45 | - | 81 | 40 | 32 | 35 | 4 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.1-64UNC | P1 | 1.54 | 1.55 | POPUN1D | 5P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| No.2-56UNC | P1 | 1.8 | 1.83 | POPUN2E | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.3-48UNC | P1 | 2.09 | 2.1 | POPUN3F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.4-40UNC | P2 | 2.3 | 2.33 | POQUN4H | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| No.5-40UNC | P2 | 2.6 | 2.64 | POQUN5H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-32UNC | P2 | 2.8 | 2.83 | POQUN6J | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-32UNC | P2 | 3.4 | 3.47 | POQUN8J | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.10-24UNC | P2 | 3.89 | 3.9 | POQUNAM | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.12-24UNC | P2 | 4.5 | 4.53 | POQUNCM | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4-20UNC | P2 | 5.1 | 5.19 | POQU04N | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | PORU05O | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-16UNC | P3 | 8 | 8.07 | PORU06P | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | PORU07Q | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | PORU08R | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 9/16-12UNC | P3 | 12.2 | 12.33 | PORU09S | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | PORU10U | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 3/4-10UNC | P4 | 16.6 | 16.7 | POSU12V | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 7/8-9UNC | P4 | 19.6 | 19.61 | POSU14W | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| 1 -8UNC | P4 | 22.3 | 22.45 | POSU16X | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |
| 1 1/8-7UNC | P4 | 25 | 25.17 | POSU18Y | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4-7UNC | P4 | 28.2 | 28.35 | POMSU20Y | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8-6UNC | P5 | 30.8 | 30.92 | POMTU22Z | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2-6UNC | P5 | 34 | 34.1 | POMTU24Z | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.0-80UNF | P1 | 1.25 | 1.27 | POPUN0B | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| No.1-72UNF | P1 | 1.55 | 1.58 | POPUN1C | 5P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| No.2-64UNF | P1 | 1.85 | 1.87 | POPUN2D | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.3-56UNF | P1 | 2.1 | 2.15 | POPUN3E | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.4-48UNF | P1 | 2.4 | 2.41 | POPUN4F | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| No.5-44UNF | P1 | 2.7 | 2.69 | POPUN5G | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-40UNF | P2 | 2.9 | 2.97 | POQUN6H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-36UNF | P2 | 3.5 | 3.55 | POQUN8I | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.10-32UNF | P2 | 4.1 | 4.12 | POQUNAJ | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.12-28UNF | P2 | 4.6 | 4.67 | POQUNCK | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4-28UNF | P2 | 5.5 | 5.53 | POQU04K | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | POQU05M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | POQU06M | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | PORU07N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | PORU08N | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 9/16-18UNF | P3 | 12.9 | 13 | PORU09O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 5/8-18UNF | P3 | 14.5 | 14.6 | PORU10O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | PORU12P | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| 7/8-14UNF | P3 | 20.5 | 20.57 | PORU14Q | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| 1 -12UNF | P4 | 23.3 | 23.46 | POSU16S | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |
| 1 1/8-12UNF | P4 | 26.5 | 26.63 | POSU18S | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4-12UNF | P4 | 29.6 | 29.81 | POMSU20S | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8-12UNF | P4 | 32.8 | 32.98 | POMSU22S | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2-12UNF | P4 | 36 | 36.16 | POMSU24S | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |

| UNS | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1 -14UNS | P4 | 23.6 | 23.7 | POSU16Q | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |

| UNEF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-32UNEF | P2 | 5.6 | 5.64 | POQU04J | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-32UNEF | P2 | 7.1 | 7.22 | POQU05J | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-32UNEF | P2 | 8.7 | 8.81 | POQU06J | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 3 | 037 | ○ |
| 7/16-28UNEF | P2 | 10.2 | 10.29 | POQU07K | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-28UNEF | P2 | 11.8 | 11.88 | POQU08K | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 5/8-24UNEF | P3 | 14.8 | 14.92 | PORU10M | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 3/4-20UNEF | P3 | 17.8 | 17.89 | PORU12N | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |



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| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8W40 | P2 | 2.55 | 2.56 | POQW02H | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 5/32W32 | P2 | 3.15 | 3.2 | POQW2HJ | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 3/16W24 | P2 | 3.7 | 3.7 | POQW03M | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 7/32W24 | P2 | 4.5 | 4.52 | POQW3HM | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4W20 | P3 | 5.1 | 5.13 | PORW04N | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16W18 | P3 | 6.5 | 6.59 | PORW05O | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8W16 | P3 | 8 | 8.02 | PORW06P | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | PORW07Q | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | PORW08S | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 9/16W12 | P3 | 12.25 | 12.29 | PORW09S | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | PORW10U | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 3/4W10 | P4 | 16.5 | 16.63 | POSW12V | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| 7/8W9 | P4 | 19.5 | 19.53 | POSW14W | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| 1 W8 | P4 | 22.2 | 22.34 | POSW16X | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |
| 1 1/8W7 | P4 | 24.75 | 25.04 | POSW18Y | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4W7 | P4 | 28 | 28.21 | POMSW20Y | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8W6 | P5 | 30.5 | 30.72 | POMTW22Z | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2W6 | P5 | 33.75 | 33.9 | POMTW24Z | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| 2 W4 1/2 | P5 | 45 | 45.15 | POTW329 | 5P | 195 | 70 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |

# PO LH




## GP General Purpose Series

Spiral Pointed Taps for Left Hand Threads

HSS-E | LH LEFT HAND | 5P THCHT

**FEATURES**

General purpose for through hole application.

For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

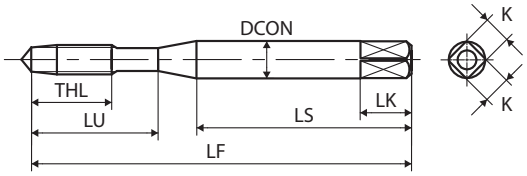
For left hand threads.

**Recommended Tapping Speeds Depending On Materials**

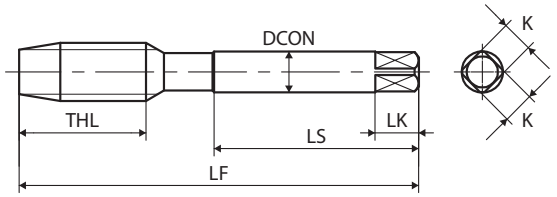
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

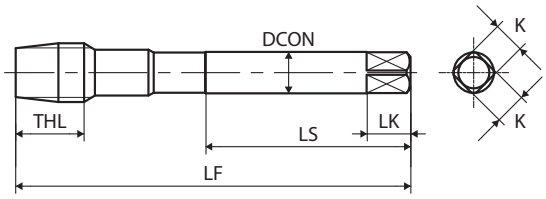
**TYPE: PO_001**




**TYPE: PO_002**




**TYPE: PO_037**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P2 | 2.5 | 2.56 | POQ3.0G--L | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | POQ4.0I--L | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | POQ5.0K--L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P2 | 5 | 5.09 | POQ6.0M--L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | POR8.0N--L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | POR010O--L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | POS012P--L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M14X2 | P4 | 12 | 12.12 | POS014Q--L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M16X2 | P4 | 14 | 14.12 | POS016Q--L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |



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| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M18X2.5 | P4 | 15.5 | 15.63 | POS018R--L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | POS020R--L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | POS022R--L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M24X3 | P4 | 21 | 21.13 | POS024S--L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M27X3 | P4 | 24 | 24.13 | POS027S--L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | POT030T--L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X1 | P3 | 7 | 7.09 | POR8.0M--L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | POR010N--L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M10X1 | P3 | 9 | 9.09 | POR010M--L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | POR012O--L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | POS012N--L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1 | P3 | 11 | 11.09 | POR012M--L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | POR014O--L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | POR016O--L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | POS018O--L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | POS020O--L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M20X1 | P3 | 19 | 19.09 | POR020M--L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 037 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | POS022O--L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | POS024O--L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | POS027O--L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | POS030O--L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20UNC | P2 | 5.1 | 5.19 | POQU04N--L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | PORU05O--L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-16UNC | P3 | 8 | 8.07 | PORU06P--L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | PORU07Q--L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | PORU08R--L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-28UNF | P2 | 5.5 | 5.53 | POQU04K--L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | POQU05M--L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | POQU06M--L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | PORU07N--L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | PORU08N--L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4W20 | P3 | 5.1 | 5.13 | PORW04N--L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16W18 | P3 | 6.5 | 6.59 | PORW05O--L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8W16 | P3 | 8 | 8.02 | PORW06P--L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | PORW08S--L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | PORW10U--L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 3/4W10 | P4 | 16.5 | 16.63 | POSW12V--L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |

# SU+PO/SU-PO




## MS Material Specific Series

Spiral Pointed Taps for Stainless Steel

HSS-E | OX | 5P THCHT



**FEATURES**

Material specific for through hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

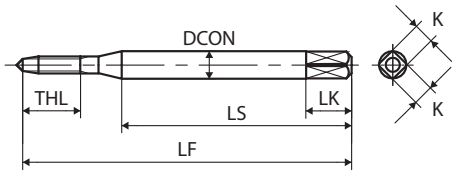
### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

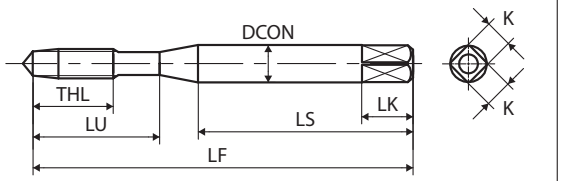
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |
| M2 | ≤10 | ★ |

★ 1st choice ☆ suitable

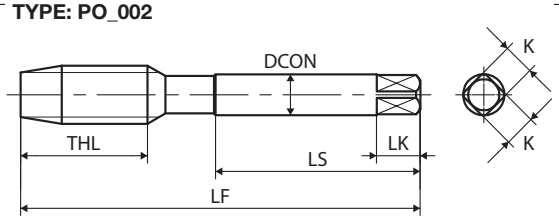
**TYPE: PO_005**




**TYPE: PO_001**




**TYPE: PO_002**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1.4X0.3 | P1 | 1.1 | 1.13 | PUPP1.4C | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| M1.6X0.35 | P2 | 1.25 | 1.3 | PUPQ1.6D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| M1.7X0.35 | P2 | 1.35 | 1.4 | PUPQ1.7D | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 2 | 005 | O |
| M2X0.4 | P2 | 1.6 | 1.65 | PUPQ2.0E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P2+15) | 1.6 | 1.65 | PUPR2.0E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M2.3X0.4 | P2 | 1.9 | 1.95 | PUPQ2.3E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | O |
| | P3(P2+15) | 1.9 | 1.95 | PUPR2.3E | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| M2.5X0.45 | P2 | 2.1 | 2.11 | PUPQ2.5F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| | P3(P2+15) | 2.1 | 2.11 | PUPR2.5F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2.6X0.45 | P2 | 2.2 | 2.21 | PUPQ2.6F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | O |
| | P3(P2+15) | 2.2 | 2.21 | PUPR2.6F | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| 3M0.6 | P2 | 2.45 | 2.47 | PUMQ3.0H | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3X0.5 | P2 | 2.5 | 2.56 | PUMQ3.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P2+15) | 2.5 | 2.56 | PUMR3.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P4(P2+30) | 2.5 | 2.56 | PUMS3.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P2 | 2.9 | 2.97 | PUMQ3.5H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | O |
| 4M0.75 | P2 | 3.3 | 3.33 | PUMQ4.0J | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | PUMQ4.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | PUMR4.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | PUMS4.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 5M0.9 | P2 | 4.15 | 4.19 | PUMQ5.0L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | PUMQ5.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | PUMR5.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 4.2 | 4.28 | PUMS5.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P2 | 5 | 5.09 | PUMQ6.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 5 | 5.09 | PUMR6.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | PUMS6.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M7X1 | P2 | 6 | 6.09 | PUMQ7.0M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | PUMR8.0N | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 6.8 | 6.85 | PUMS8.0N | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P5(P3+40) | 6.8 | 6.85 | PUMT8.0N | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | PUMR010O | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 8.5 | 8.6 | PUMS010O | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P5(P3+40) | 8.5 | 8.6 | PUMT010O | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | PUMS012P | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P4+20) | 10.3 | 10.36 | PUMT012P | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M14X2 | P4 | 12 | 12.12 | PUMS014Q | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P5(P4+20) | 12 | 12.12 | PUMT014Q | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M16X2 | P4 | 14 | 14.12 | PUMS016Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P5(P4+20) | 14 | 14.12 | PUMT016Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P6(P4+40) | 14 | 14.12 | PUMU016Q | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | PUMS018R | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| | P5(P4+20) | 15.5 | 15.63 | PUMT018R | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| | P6(P4+40) | 15.5 | 15.63 | PUMU018R | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | PUMS020R | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| | P5(P4+20) | 17.5 | 17.63 | PUMT020R | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| | P6(P4+40) | 17.5 | 17.63 | PUMU020R | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | PUMS022R | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| | P5(P4+20) | 19.5 | 19.63 | PUMT022R | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| | P6(P4+40) | 19.5 | 19.63 | PUMU022R | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M24X3 | P4 | 21 | 21.13 | PUMS024S | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| | P5(P4+20) | 21 | 21.13 | PUMT024S | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| | P6(P4+40) | 21 | 21.13 | PUMU024S | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M27X3 | P4 | 24 | 24.13 | PUMS027S | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | PUMT030T | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M33X3.5 | P5 | 29.5 | 29.63 | PUMT033T | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M36X4 | P5 | 32 | 32.12 | PUMT036U | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M39X4 | P5 | 35 | 35.12 | PUMT039U | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M42X4.5 | P5 | 37.5 | 37.63 | PUMT042V | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X0.75 | P2 | 5.3 | 5.33 | PUMQ6.0J | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1 | P3 | 7 | 7.09 | PUMR8.0M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | PUMR010N | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P4(P3+20) | 8.8 | 8.85 | PUMS010N | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M10X1 | P3 | 9 | 9.09 | PUMR010M | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | PUMR012O | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P3+40) | 10.5 | 10.6 | PUMT012O | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | PUMS012N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P4+20) | 10.8 | 10.85 | PUMT012N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M12X1 | P3 | 11 | 11.09 | PUMR012M | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | PUMR014O | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P5(P3+40) | 12.5 | 12.6 | PUMT014O | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M14X1 | P3 | 13 | 13.09 | PUMR014M | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| M15X1.5 | P3 | 13.5 | 13.6 | PUMR015O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M15X1 | P3 | 14 | 14.09 | PUMR015M | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | PUMR016O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| | P5(P3+40) | 14.5 | 14.6 | PUMT016O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M16X1 | P3 | 15 | 15.09 | PUMR016M | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | PUMS018O | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| | P5(P4+20) | 16.5 | 16.6 | PUMT018O | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 002 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | PUMS020O | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| | P5(P4+20) | 18.5 | 18.6 | PUMT020O | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | PUMS022O | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| | P5(P4+20) | 20.5 | 20.6 | PUMT022O | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 3 | 002 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | PUMS024O | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 3 | 002 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | PUMS027O | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | PUMS030O | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.2-56UNC | P1 | 1.8 | 1.83 | PUMPUN2E | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 2 | 001 | ○ |
| No.4-40UNC | P2 | 2.3 | 2.33 | PUMQUN4H | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 2 | 001 | ○ |
| No.5-40UNC | P2 | 2.6 | 2.64 | PUMQUN5H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-32UNC | P2 | 2.8 | 2.83 | PUMQUN6J | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-32UNC | P2 | 3.4 | 3.47 | PUMQUN8J | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.10-24UNC | P2 | 3.89 | 3.9 | PUMQUNAM | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4-20UNC | P2 | 5.1 | 5.19 | PUMQU04N | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | PUMRU05O | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-16UNC | P3 | 8 | 8.07 | PUMRU06P | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | PUMRU07Q | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | PUMRU08R | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |



Think threads with YAMAWA

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Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 5/8-11UNC | P3 | 13.6 | 13.75 | PUMRU10U | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.4-48UNF | P1 | 2.4 | 2.41 | PUMPUN4F | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 2 | 001 | ○ |
| No.5-44UNF | P1 | 2.7 | 2.69 | PUMPUN5G | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-40UNF | P2 | 2.9 | 2.97 | PUMQUN6H | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-36UNF | P2 | 3.5 | 3.55 | PUMQUN8I | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| No.10-32UNF | P2 | 4.1 | 4.12 | PUMQUNAJ | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4-28UNF | P2 | 5.5 | 5.53 | PUMQU04K | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | PUMQU05M | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | PUMQU06M | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | PUMRU07N | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | PUMRU08N | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 9/16-18UNF | P3 | 12.9 | 13 | PUMRU09O | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 3/16W24 | P2 | 3.7 | 3.7 | PUMQW03M | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 1/4W20 | P3 | 5.1 | 5.13 | PUMRW04N | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16W18 | P3 | 6.5 | 6.59 | PUMRW05O | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| 3/8W16 | P3 | 8 | 8.02 | PUMRW06P | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | PUMRW07Q | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | PUMRW08S | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | PUMRW10U | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |
| 3/4W10 | P4 | 16.5 | 16.63 | PUMSW12V | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 3 | 002 | ○ |
| 1 W8 | P4 | 22.2 | 22.34 | PUMSW16X | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 3 | 002 | ○ |

Intro
SP
SL
PO
ANSI
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# PO




## GP General Purpose Series

Spiral Pointed Taps

HSS-E | 5P THCHT | 4.5P THCHT

**FEATURES**

General purpose for through hole application.

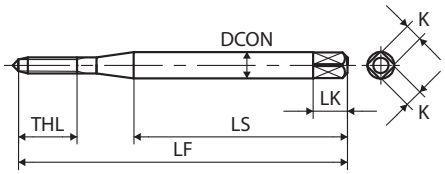
For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

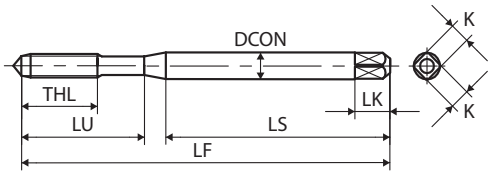
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

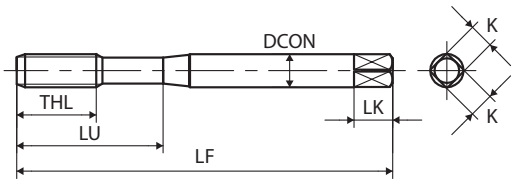
**TYPE: US_004**



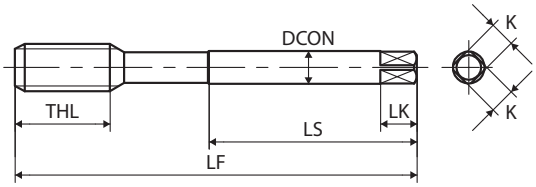

**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.1-64UNC | GH1 | 1.54 | 1.55 | PSUN1D1NEB | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.54 | 1.55 | PSUN1D2NEB | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.2-56UNC | GH1 | 1.8 | 1.83 | PSUN2E1NEB | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.8 | 1.83 | PSUN2E2NEB | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.3-48UNC | GH1 | 2.09 | 2.1 | PSUN3F1NEB | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.09 | 2.1 | PSUN3F2NEB | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.4-40UNC | GH2 | 2.3 | 2.33 | PSUN4H2NEB | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH3 | 2.3 | 2.33 | PSUN4H3NEB | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.5-40UNC | GH2 | 2.6 | 2.64 | PSUN5H2NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH3 | 2.6 | 2.64 | PSUN5H3NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.6-32UNC | GH2 | 2.8 | 2.83 | PSUN6J2NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH3 | 2.8 | 2.83 | PSUN6J3NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.8-32UNC | GH2 | 3.4 | 3.47 | PSUN8J2NEB | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| | GH3 | 3.4 | 3.47 | PSUN8J3NEB | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| No.10-24UNC | GH2 | 3.89 | 3.9 | PSUNAM2NEB | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2 | 005 | ○ |
| | GH3 | 3.89 | 3.9 | PSUNAM3NEB | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2 | 005 | ○ |
| No.12-24UNC | GH2 | 4.5 | 4.53 | PSUNCM2NEB | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 2 | 005 | ○ |
| | GH3 | 4.5 | 4.53 | PSUNCM3NEB | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 2 | 005 | ○ |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | PSU04N3NEB | 4.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH4 | 5.1 | 5.19 | PSU04N4NEB | 4.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH5 | 5.1 | 5.19 | PSU04N5NEB | 4.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | PSU05O3NEB | 4.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH4 | 6.6 | 6.65 | PSU05O4NEB | 4.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH5 | 6.6 | 6.65 | PSU05O5NEB | 4.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | PSU06P3NEB | 4.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH5 | 8 | 8.07 | PSU06P5NEB | 4.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| 7/16-14UNC | GH4 | 9.4 | 9.45 | PSU07Q4NEB | 4.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | PSU07Q5NEB | 4.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | PSU08R3NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH4 | 10.9 | 10.91 | PSU08R4NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | PSU08R5NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 9/16-12UNC | GH3 | 12.2 | 12.33 | PSU09S3NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH4 | 12.2 | 12.33 | PSU09S4NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH5 | 12.2 | 12.33 | PSU09S5NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | PSU10U3NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 13.6 | 13.75 | PSU10U4NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 13.6 | 13.75 | PSU10U5NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH6 | 13.6 | 13.75 | PSU10U6NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-10UNC | GH5 | 16.6 | 16.7 | PSU12V5NEB | 4.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| | GH6 | 16.6 | 16.7 | PSU12V6NEB | 4.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| 7/8-9UNC | GH4 | 19.6 | 19.61 | PSU14W4NEB | 4.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| | GH5 | 19.6 | 19.61 | PSU14W5NEB | 4.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| | GH6 | 19.6 | 19.61 | PSU14W6NEB | 4.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| 1 -8UNC | GH4 | 22.3 | 22.45 | PSU16X4NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| | GH5 | 22.3 | 22.45 | PSU16X5NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| | GH6 | 22.3 | 22.45 | PSU16X6NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| | GH7 | 22.3 | 22.45 | PSU16X7NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



Think threads with YAMAWA

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1 1/8-7UNC | GH6 | 25 | 25.17 | PSU18Y6NEB | 4.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH7 | 25 | 25.17 | PSU18Y7NEB | 4.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-7UNC | GH6 | 28.2 | 28.35 | PSU20Y6NEB | 4.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH8 | 28.2 | 28.35 | PSU20Y8NEB | 4.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-6UNC | GH6 | 30.8 | 30.92 | PSU22Z6NEB | 4.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH8 | 30.8 | 30.92 | PSU22Z8NEB | 4.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-6UNC | GH6 | 34 | 34.1 | PSU24Z6NEB | 4.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH8 | 34 | 34.1 | PSU24Z8NEB | 4.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.0-80UNF | GH1 | 1.25 | 1.27 | PSUN0B1NEB | 5P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.25 | 1.27 | PSUN0B2NEB | 5P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.1-72UNF | GH1 | 1.55 | 1.58 | PSUN1C1NEB | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.55 | 1.58 | PSUN1C2NEB | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.2-64UNF | GH1 | 1.85 | 1.87 | PSUN2D1NEB | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.85 | 1.87 | PSUN2D2NEB | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.3-56UNF | GH1 | 2.1 | 2.15 | PSUN3E1NEB | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.1 | 2.15 | PSUN3E2NEB | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.4-48UNF | GH1 | 2.4 | 2.41 | PSUN4F1NEB | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.4 | 2.41 | PSUN4F2NEB | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.5-44UNF | GH1 | 2.7 | 2.69 | PSUN5G1NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.7 | 2.69 | PSUN5G2NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH3 | 2.7 | 2.69 | PSUN5G3NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.6-40UNF | GH2 | 2.9 | 2.97 | PSUN6H2NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH3 | 2.9 | 2.97 | PSUN6H3NEB | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| No.8-36UNF | GH2 | 3.5 | 3.55 | PSUN8I2NEB | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| | GH3 | 3.5 | 3.55 | PSUN8I3NEB | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| No.10-32UNF | GH2 | 4.1 | 4.12 | PSUNAJ2NEB | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2 | 005 | ○ |
| | GH3 | 4.1 | 4.12 | PSUNAJ3NEB | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2 | 005 | ○ |
| No.12-28UNF | GH2 | 4.6 | 4.67 | PSUNCK2NEB | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 2 | 005 | ○ |
| | GH3 | 4.6 | 4.67 | PSUNCK3NEB | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 2 | 005 | ○ |
| 1/4-28UNF | GH2 | 5.5 | 5.53 | PSU04K2NEB | 4.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.5 | 5.53 | PSU04K3NEB | 4.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH4 | 5.5 | 5.53 | PSU04K4NEB | 4.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | PSU05M3NEB | 4.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH4 | 6.9 | 6.97 | PSU05M4NEB | 4.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | PSU06M3NEB | 4.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH4 | 8.5 | 8.57 | PSU06M4NEB | 4.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | PSU07N3NEB | 4.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH4 | 9.9 | 9.96 | PSU07N4NEB | 4.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.9 | 9.96 | PSU07N5NEB | 4.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | PSU08N3NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH4 | 11.5 | 11.54 | PSU08N4NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | PSU08N5NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 9/16-18UNF | GH3 | 12.9 | 13 | PSU09O3NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH4 | 12.9 | 13 | PSU09O4NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH5 | 12.9 | 13 | PSU09O5NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | PSU10O3NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 14.5 | 14.6 | PSU10O4NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 14.5 | 14.6 | PSU10O5NEB | 4.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | PSU12P3NEB | 4.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| | GH4 | 17.5 | 17.59 | PSU12P4NEB | 4.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| | GH5 | 17.5 | 17.59 | PSU12P5NEB | 4.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| 7/8-14UNF | GH4 | 20.5 | 20.57 | PSU14Q4NEB | 4.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| | GH6 | 20.5 | 20.57 | PSU14Q6NEB | 4.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| 1 -12UNF | GH4 | 23.3 | 23.46 | PSU16S4NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| | GH5 | 23.3 | 23.46 | PSU16S5NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| | GH6 | 23.3 | 23.46 | PSU16S6NEB | 4.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| 1 1/8-12UNF | GH5 | 26.5 | 26.63 | PSU18S5NEB | 4.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH6 | 26.5 | 26.63 | PSU18S6NEB | 4.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-12UNF | GH5 | 29.6 | 29.81 | PSU20S5NEB | 4.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH6 | 29.6 | 29.81 | PSU20S6NEB | 4.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-12UNF | GH5 | 32.8 | 32.98 | PSU22S5NEB | 4.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH6 | 32.8 | 32.98 | PSU22S6NEB | 4.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-12UNF | GH5 | 36 | 36.16 | PSU24S5NEB | 4.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH7 | 36 | 36.16 | PSU24S7NEB | 4.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |



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Machine Tools International

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

# ZELX SS PO




## MS Material Specific Series

Spiral Pointed Taps for Stainless Steel

HSS-E | OX | 4.5P THCHT



**FEATURES**

Material specific for through hole application.
Most suitable for stainless steel, steel and alloy steel.
OX treatment reduces welding troubles.

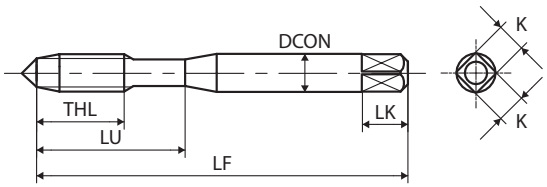
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

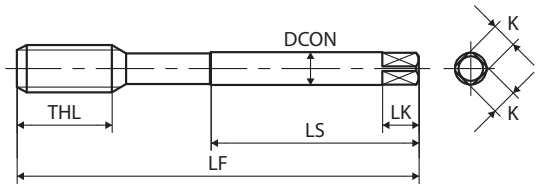
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |
| M2 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_030**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.2-56UNC** | GH2 | 1.8 | 1.83 | Y82623 | 4.5P | 1.75 | 0.256 | 0.437 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| | GH3 | 1.8 | 1.83 | Y82624 | 4.5P | 1.75 | 0.256 | 0.437 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| **No.3-48UNC** | GH2 | 2.09 | 2.1 | Y82600 | 4.5P | 1.812 | 0.295 | 0.5 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| **No.4-40UNC** | GH2 | 2.3 | 2.33 | Y82601 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| | GH3 | 2.3 | 2.33 | Y82602 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| | GH4 | 2.3 | 2.33 | Y82612 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| | GH5 | 2.3 | 2.33 | Y82634 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| **No.5-40UNC** | GH2 | 2.6 | 2.64 | Y82603 | 4.5P | 1.937 | 0.374 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.6-32UNC** | GH2 | 2.8 | 2.83 | Y82604 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH3 | 2.8 | 2.83 | Y82605 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH4 | 2.8 | 2.83 | Y82608 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH5 | 2.8 | 2.83 | Y82635 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH6 | 2.8 | 2.83 | Y82659 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH7 | 2.8 | 2.83 | Y82665 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.8-32UNC** | GH2 | 3.4 | 3.47 | Y82606 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH3 | 3.4 | 3.47 | Y82607 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH4 | 3.4 | 3.47 | Y82629 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH5 | 3.4 | 3.47 | Y82637 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH6 | 3.4 | 3.47 | Y82660 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH7 | 3.4 | 3.47 | Y82667 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| **No.10-24UNC** | GH3 | 3.89 | 3.9 | Y82609 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH5 | 3.89 | 3.9 | Y82639 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH6 | 3.89 | 3.9 | Y82690 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH7 | 3.89 | 3.9 | Y82669 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| **No.12-24UNC** | GH3 | 4.5 | 4.53 | Y82688 | 4.5P | 2.375 | 0.571 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 030 | ○ |
| **1/4-20UNC** | GH3 | 5.1 | 5.19 | Y82613 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH5 | 5.1 | 5.19 | Y82643 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH6 | 5.1 | 5.19 | Y82590 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH7 | 5.1 | 5.19 | Y82673 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| **5/16-18UNC** | GH3 | 6.6 | 6.65 | Y82615 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH5 | 6.6 | 6.65 | Y82645 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH7 | 6.6 | 6.65 | Y82675 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| **3/8-16UNC** | GH3 | 8 | 8.07 | Y82617 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH5 | 8 | 8.07 | Y82647 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH7 | 8 | 8.07 | Y82668 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| **7/16-14UNC** | GH3 | 9.4 | 9.45 | Y82619 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | Y82649 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| **1/2-13UNC** | GH3 | 10.9 | 10.91 | Y82621 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | Y82651 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH7 | 10.9 | 10.91 | Y82681 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| **9/16-12UNC** | GH3 | 12.2 | 12.33 | Y82653 | 4.5P | 3.593 | 0.984 | - | - | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| **5/8-11UNC** | GH3 | 13.6 | 13.75 | Y82625 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 13.6 | 13.75 | Y82655 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| **3/4-10UNC** | GH3 | 16.6 | 16.7 | Y82627 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 3 | 007 | ○ |
| | GH5 | 16.6 | 16.7 | Y82657 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 3 | 007 | ○ |
| **7/8-9UNC** | GH4 | 19.6 | 19.61 | Y82695 | 4.5P | 4.687 | 1.339 | - | - | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| **1 -8UNC** | GH4 | 22.3 | 22.45 | Y82697 | 4.5P | 5.125 | 1.496 | - | - | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



Think threads with YAMAWA

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1 1/8-7UNC | GH6 | 25 | 25.17 | Y82700 | 4.5P | 5.437 | 1.535 | - | - | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-7UNC | GH6 | 28.2 | 28.35 | Y82702 | 4.5P | 5.75 | 1.535 | - | - | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-6UNC | GH6 | 30.8 | 30.92 | Y82705 | 4.5P | 6.062 | 1.811 | - | - | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-6UNC | GH6 | 34 | 34.1 | Y82707 | 4.5P | 6.375 | 1.811 | - | - | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| 1 3/4-5UNC | GH7 | 39.5 | 39.61 | Y82709 | 4.5P | 7 | 1.929 | - | - | 1.43 | 1.072 | 1.25 | 4 | 007 | ○ |
| 2 -4.5UNC | GH7 | 45.2 | 45.37 | Y82710 | 4.5P | 7.625 | 1.929 | - | - | 1.644 | 1.233 | 1.375 | 4 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.4-48UNF | GH2 | 2.4 | 2.41 | Y82683 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| No.6-40UNF | GH2 | 2.9 | 2.97 | Y82684 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH3 | 2.9 | 2.97 | Y82642 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| No.8-36UNF | GH2 | 3.5 | 3.55 | Y82686 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| No.10-32UNF | GH2 | 4.1 | 4.12 | Y82611 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH3 | 4.1 | 4.12 | Y82610 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH4 | 4.1 | 4.12 | Y82630 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH5 | 4.1 | 4.12 | Y82640 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH6 | 4.1 | 4.12 | Y82661 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH7 | 4.1 | 4.12 | Y82670 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| No.12-28UNF | GH3 | 4.6 | 4.67 | Y82689 | 4.5P | 2.375 | 0.571 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 030 | ○ |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y82614 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH4 | 5.5 | 5.53 | Y82631 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH5 | 5.5 | 5.53 | Y82644 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH6 | 5.5 | 5.53 | Y82662 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH7 | 5.5 | 5.53 | Y82674 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | Y82616 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH4 | 6.9 | 6.97 | Y82632 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH5 | 6.9 | 6.97 | Y82646 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH6 | 6.9 | 6.97 | Y82663 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH7 | 6.9 | 6.97 | Y82676 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y82618 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH4 | 8.5 | 8.57 | Y82633 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH5 | 8.5 | 8.57 | Y82648 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH6 | 8.5 | 8.57 | Y82664 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH7 | 8.5 | 8.57 | Y82678 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | Y82620 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.9 | 9.96 | Y82650 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH6 | 9.9 | 9.96 | Y82691 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH7 | 9.9 | 9.96 | Y82680 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y82622 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | Y82652 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH6 | 11.5 | 11.54 | Y82692 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH7 | 11.5 | 11.54 | Y82682 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH9 | 11.5 | 11.54 | Y82685 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 9/16-18UNF | GH3 | 12.9 | 13 | Y82654 | 4.5P | 3.593 | 0.984 | - | - | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH5 | 12.9 | 13 | Y82666 | 4.5P | 3.593 | 0.984 | - | - | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | Y82626 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 14.5 | 14.6 | Y82636 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 14.5 | 14.6 | Y82656 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH6 | 14.5 | 14.6 | Y82694 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH7 | 14.5 | 14.6 | Y82591 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | Y82628 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 3 | 007 | ○ |
| | GH5 | 17.5 | 17.59 | Y82658 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 3 | 007 | ○ |
| | GH7 | 17.5 | 17.59 | Y82592 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 3 | 007 | ○ |
| 7/8-14UNF | GH4 | 20.5 | 20.57 | Y82696 | 4.5P | 4.687 | 1.339 | - | - | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| | GH6 | 20.5 | 20.57 | Y82699 | 4.5P | 4.687 | 1.339 | - | - | 0.697 | 0.523 | 0.75 | 3 | 007 | ○ |
| 1 -12UNF | GH4 | 23.3 | 23.46 | Y82679 | 4.5P | 5.125 | 1.496 | - | - | 0.8 | 0.6 | 0.812 | 3 | 007 | ○ |
| 1 1/8-12UNF | GH5 | 26.5 | 26.63 | Y82701 | 4.5P | 5.437 | 1.535 | - | - | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-12UNF | GH5 | 29.6 | 29.81 | Y82703 | 4.5P | 5.75 | 1.535 | - | - | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-12UNF | GH5 | 32.8 | 32.98 | Y82706 | 4.5P | 6.062 | 1.811 | - | - | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-12UNF | GH5 | 36 | 36.16 | Y82708 | 4.5P | 6.375 | 1.811 | - | - | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |



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The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Intro
SP
SL
PO
ANSI
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# ZELX AL PO




## MS Material Specific Series

Spiral Pointed Taps for Aluminium

HSS-E | NI | 5P THCHT



**FEATURES**

Material specific for through hole application.

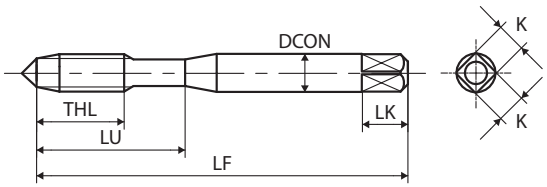
Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

**Recommended Tapping Speeds Depending On Materials**

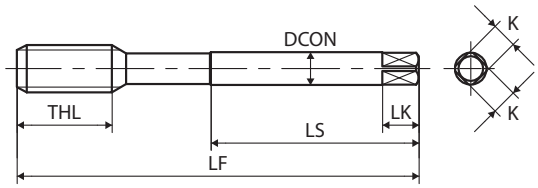
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷15 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_030**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.2-56UNC** | GH2 | 1.8 | 1.83 | Y86200 | 5P | 1.772 | 0.276 | 0.472 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| **No.4-40UNC** | GH2 | 2.3 | 2.33 | Y86201 | 5P | 2.205 | 0.433 | 0.709 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| **No.5-40UNC** | GH2 | 2.6 | 2.64 | Y86202 | 5P | 2.205 | 0.433 | 0.709 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.6-32UNC** | GH3 | 2.8 | 2.83 | Y86203 | 5P | 2.205 | 0.512 | 0.787 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.8-32UNC** | GH3 | 3.4 | 3.47 | Y86204 | 5P | 2.48 | 0.512 | 0.827 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| **No.10-24UNC** | GH3 | 3.89 | 3.9 | Y86205 | 5P | 2.756 | 0.63 | 0.984 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| **1/4-20UNC** | GH3 | 5.1 | 5.19 | Y86207 | 5P | 3.15 | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH5 | 5.1 | 5.19 | Y86208 | 5P | 3.15 | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| **5/16-18UNC** | GH3 | 6.6 | 6.65 | Y86212 | 5P | 3.543 | 0.866 | 1.378 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH5 | 6.6 | 6.65 | Y86213 | 5P | 3.543 | 0.866 | 1.378 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| **3/8-16UNC** | GH3 | 8 | 8.07 | Y86216 | 5P | 3.937 | 0.945 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH5 | 8 | 8.07 | Y86217 | 5P | 3.937 | 0.945 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| **7/16-14UNC** | GH3 | 9.4 | 9.45 | Y86220 | 5P | 3.937 | 0.945 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | Y86221 | 5P | 3.937 | 0.945 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| **1/2-13UNC** | GH3 | 10.9 | 10.91 | Y86224 | 5P | 4.331 | 1.142 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | Y86225 | 5P | 4.331 | 1.142 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.10-32UNF** | GH3 | 4.1 | 4.12 | Y86206 | 5P | 2.756 | 0.63 | 0.984 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| **1/4-28UNF** | GH3 | 5.5 | 5.53 | Y86209 | 5P | 3.15 | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH4 | 5.5 | 5.53 | Y86211 | 5P | 3.15 | 0.748 | 1.181 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| **5/16-24UNF** | GH3 | 6.9 | 6.97 | Y86214 | 5P | 3.543 | 0.866 | 1.378 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH4 | 6.9 | 6.97 | Y86215 | 5P | 3.543 | 0.866 | 1.378 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| **3/8-24UNF** | GH3 | 8.5 | 8.57 | Y86218 | 5P | 3.543 | 0.787 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH4 | 8.5 | 8.57 | Y86219 | 5P | 3.543 | 0.787 | 1.535 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| **7/16-20UNF** | GH3 | 9.9 | 9.96 | Y86222 | 5P | 3.937 | 0.945 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.9 | 9.96 | Y86223 | 5P | 3.937 | 0.945 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| **1/2-20UNF** | GH3 | 11.5 | 11.54 | Y86226 | 5P | 3.937 | 0.866 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | Y86227 | 5P | 3.937 | 0.866 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |



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The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

# ZELX NI PO




## MS Material Specific Series

Spiral Pointed Taps for Nickel Base Alloys

HSS-P | NX | SYNCHRO | 4.5P THCHT

**FEATURES**

Material specific for through hole application.

Specific design and NI+OX treatment allow high performance on Nickel base alloys.

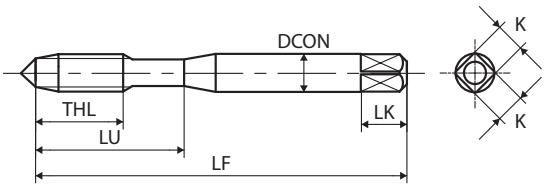
Also suitable for stainless steel and high alloy steel.

### Recommended Tapping Speeds Depending On Materials

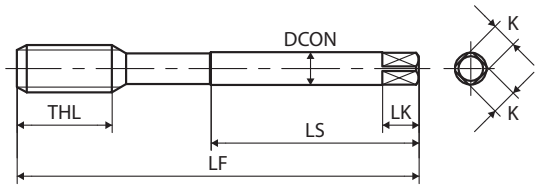
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P3 | 5÷15 | ★ | M1 | 5÷15 | ★ | S1 | 5÷10 | ★ |
| P4 | 5÷15 | ★ | M2 | 5÷15 | ★ | S2 | 5÷10 | ★ |
| P5 | 5÷10 | ☆ | M3 | 4÷8 | ★ | S3 | 3÷6 | ☆ |
| P7 | 5÷15 | ★ | | | | | | |
| P8 | 4÷8 | ★ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: US_030**




**TYPE: US_007**






Think threads with YAMAWA

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Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.2-56UNC | GH2 | 1.8 | 1.83 | Y85523 | 4.5P | 1.75 | 0.256 | 0.437 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| No.4-40UNC | GH2 | 2.3 | 2.33 | Y85501 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| | GH3 | 2.3 | 2.33 | Y85502 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| | GH4 | 2.3 | 2.33 | Y85504 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| No.5-40UNC | GH2 | 2.6 | 2.64 | Y85503 | 4.5P | 1.937 | 0.374 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| No.6-32UNC | GH3 | 2.8 | 2.83 | Y85505 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH4 | 2.8 | 2.83 | Y85524 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH5 | 2.8 | 2.83 | Y85535 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH7 | 2.8 | 2.83 | Y85511 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| No.8-32UNC | GH3 | 3.4 | 3.47 | Y85507 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH4 | 3.4 | 3.47 | Y85529 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH5 | 3.4 | 3.47 | Y85537 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH6 | 3.4 | 3.47 | Y85560 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| | GH7 | 3.4 | 3.47 | Y85567 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| No.10-24UNC | GH3 | 3.89 | 3.9 | Y85509 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH5 | 3.89 | 3.9 | Y85539 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | Y85513 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH5 | 5.1 | 5.19 | Y85543 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | Y85515 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH5 | 6.6 | 6.65 | Y85545 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH7 | 6.6 | 6.65 | Y85553 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | Y85517 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH5 | 8 | 8.07 | Y85547 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| 7/16-14UNC | GH3 | 9.4 | 9.45 | Y85519 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | Y85549 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | Y85521 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | Y85551 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH7 | 10.9 | 10.91 | Y85581 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | Y85525 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 13.6 | 13.75 | Y85555 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH7 | 13.6 | 13.75 | Y85585 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-10UNC | GH3 | 16.6 | 16.7 | Y85527 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| | GH5 | 16.6 | 16.7 | Y85557 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.6-40UNF | GH2 | 2.9 | 2.97 | Y85512 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| No.10-32UNF | GH3 | 4.1 | 4.12 | Y85510 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ● |
| | GH4 | 4.1 | 4.12 | Y85530 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH5 | 4.1 | 4.12 | Y85540 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH6 | 4.1 | 4.12 | Y85561 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH7 | 4.1 | 4.12 | Y85570 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH2 | 4.1 | 4.12 | Y85541 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |



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The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Think threads with YAMAWA

# Spiral Pointed Taps



| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/4-28UNF | GH3 | 5.5 | 5.53 | Y85514 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ● |
| | GH4 | 5.5 | 5.53 | Y85531 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH5 | 5.5 | 5.53 | Y85544 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH6 | 5.5 | 5.53 | Y85562 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH7 | 5.5 | 5.53 | Y85574 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | Y85516 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ● |
| | GH4 | 6.9 | 6.97 | Y85532 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH5 | 6.9 | 6.97 | Y85546 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH6 | 6.9 | 6.97 | Y85563 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH7 | 6.9 | 6.97 | Y85576 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | Y85518 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ● |
| | GH4 | 8.5 | 8.57 | Y85533 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH5 | 8.5 | 8.57 | Y85548 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH6 | 8.5 | 8.57 | Y85564 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH7 | 8.5 | 8.57 | Y85578 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | Y85520 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH5 | 9.9 | 9.96 | Y85550 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | Y85522 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | Y85552 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH7 | 11.5 | 11.54 | Y85582 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | Y85526 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH5 | 14.5 | 14.6 | Y85556 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH7 | 14.5 | 14.6 | Y85586 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | Y85528 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |
| | GH5 | 17.5 | 17.59 | Y85558 | 4.5P | 4.25 | 1.201 | - | - | 0.59 | 0.442 | 0.687 | 3 | 007 | ○ |



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# STRAIGHT FLUTED TAPS

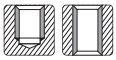
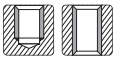
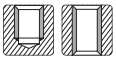
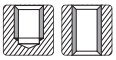
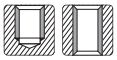
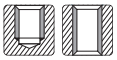


ST - DIN **258**
ST - JIS **278**
ST - ANSI **324**

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# Selection Chart



| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | GP | | | | | |
| | GGST | GGST CH | GGST CH E(1.5P) | HT | HT LH | PF LH | NPT | NPTF | |
| | HSS-E COATING | HSS-E COATING | HSS-E COATING | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | OX |
| |  |  |  |  |  |  |  |  | |
| |  |  |  |  |  |  |  |  | |
| | DIN | DIN | DIN | DIN | JIS | ANSI | JIS | JIS | ANSI | ANSI |
| M | 261 | 263 | 265 | 267 | 281 | | 307 | | | |
| MF | 261 | 263 | 265 | 267 | 285 | | 308 | | | |
| UNC/UNF | | | | 267 | 298 | 327 | 313 | | | |
| UNS, 8, 12, 20, 32UN | | | | | 302 | | | | | |
| UNEF | | | | | 303 | | | | | |
| G (BSP) | 261 | | | 268 | | | | 315 | | |
| Rp (BSPP) | | | | | | | | | | |
| Rc (BSPT) | | | | | | | | | | |
| NPT | | | | | | | | | 332 | |
| NPTF | | | | | | | | | | 333 |
| NPSC, NPSM, NPSF | | | | | | | | | | |
| BSW | | | | | 304 | | 314 | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | | | | |
| Pg | | | | | | | | | | |
| Tr | | | | | | | | | | |
| S miniature | | | | | | | | | | |
| Special threads | | | | | | | | | | |
| | Vc (m/min) | | | | | | | | | |
| P1 | | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ★ ≤5 | ★ ≤5 |
| P2 | | | | ★ 5÷10 | | ★ 5÷10 | | ★ 5÷10 | ★ ≤5 | ★ ≤5 |
| P3 | | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 |
| P4 | | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 |
| P5 | | | | | | | | | | |
| P6 | | | | | | | | | | |
| P7 | | | | | | | | | | |
| P8 | | | | | | | | | | |
| M1 | | | | | | | | | | |
| M2 | | | | | | | | | | |
| M3 | | | | | | | | | | |
| K1 | ★ 5÷20 | ★ 10÷30 | ★ 10÷30 | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ ≤5 | |
| K2 | ★ 5÷20 | ★ 10÷30 | ★ 10÷30 | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ ≤5 | |
| K3 | ★ ≤10 | ★ ≤15 | ★ ≤15 | ☆ 5÷10 | | ☆ 5÷10 | | | | |
| K4 | I | I | I | | | | | | | |
| N1 | | | | | | | | | | |
| N2 | ☆ 10÷20 | ☆ 10÷30 | ☆ 10÷30 | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ ≤5 | |
| N3 | | | | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | | |
| N4 | ★ 10÷20 | ★ 10÷30 | ★ 10÷30 | ☆ 5÷10 | | ☆ 5÷10 | | ☆ 5÷10 | ☆ ≤5 | |
| N5 | | | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | | | |
| S5 | | | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | | | |

★ 1st choice ☆ suitable



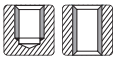
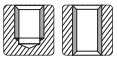
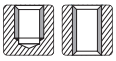
Think threads with YAMAWA

IMROBEX
Machine Tools International

| GP | | MS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NPS** | **NPSF** | **EH-HT** | **PMST** | **ZELX MOLD** | **ZELX MOLD NPT** | **SU-HT** | **GG-HT** | |
| HSS-E OX | HSS-E OX | HSS-Co | HSS-P OX | HSS-Co | HSS-Co | HSS-E OX | HSS-E NI | |
|  |  |  |  |  |  |  |  | |
| ANSI | ANSI | DIN | DIN | ANSI | ANSI | JIS | DIN | |
| | | 271 | | | | 317 | 275 | M |
| | | | | | | 317 | 275 | MF |
| | | | | 337 | | 318 | | UNC/UNF |
| | | | | | | | | UNS, 8, 12, 20, 32UN |
| | | | | | | | | UNEF |
| | | 271 | | | | | 275 | G (BSP) |
| | | | | | | | | Rp (BSPP) |
| | | | 273 | | | | | Rc (BSPT) |
| | | | | | 338 | | | NPT |
| | | | | | | | | NPTF |
| 334 | 335 | | | | | | | NPSC, NPSM, NPSF |
| | | | | | | 319 | | BSW |
| | | | | | | | | EG(STI), M, MF, UNC/UNF |
| | | | | | | | | Pg |
| | | | | | | | | Tr |
| | | | | | | | | S miniature |
| | | | | | | | | Special threads |
| **Vc (m/min)** | | | | | | | | |
| ☆ 5÷10 | ☆ 5÷10 | | | | | | | **P1** |
| ★ 5÷10 | ★ 5÷10 | | | | | ☆ ≤5 | | **P2** |
| ☆ ≤5 | ☆ ≤5 | | ★ ≤5 | | | ☆ ≤5 | | **P3** |
| ☆ ≤5 | ☆ ≤5 | | ★ ≤5 | | | ☆ ≤5 | | **P4** |
| | | ★ ≤5 | ★ ≤5 | ★ ≤5 | ★ ≤5 | | | **P5** |
| | | ★ ≤5 | ★ ≤5 | ★ ≤5 | ★ ≤5 | | | **P6** |
| | | | | | | ★ ≤5 | | **P7** |
| | | | | | | | | **P8** |
| | | | | | | ★ ≤5 | | **M1** |
| | | | | | | | | **M2** |
| | | | | | | | | **M3** |
| | | | | | | | ★ 5÷10 | **K1** |
| | | ☆ ≤5 | | ☆ ≤5 | ☆ ≤5 | | ★ 5÷10 | **K2** |
| | | ☆ ≤5 | | ☆ ≤5 | ☆ ≤5 | | ★ ≤5 | **K3** |
| | | | | | | | × I | **K4** |
| | | | | | | | | **N1** |
| | | | | | | | ☆ 5÷15 | **N2** |
| | | | | | | | | **N3** |
| | | | | | | | ★ 5÷15 | **N4** |
| | | | | | | | | **N5** |
| | | | | | | | | **S1 (<25 HRC)** |
| | | | | | | | | **S2 (<35 HRC)** |
| | | | | | | | | **S3 (35 ÷ 45 HRC)** |
| | | | | | | | | **S5** |
| | | | | | | | | **H (45 ÷ 55 HRC)** |
| | | | | | | | | **H (55 ÷ 63 HRC)** |

# Selection Chart



| | MS | | | | | |
|---|---|---|---|---|---|---|
| | LA-HT | | AXE-HT | | MG-HT | PL1 |
| | HSS-E | NI | HSS-P | COATING | HSS-E | HSS-E / NI |
| |  | |  | |  |  |
| |  | |  | |  |  |
| | DIN | JIS | DIN | JIS | JIS | |
| M | 277 | 321 | 279 | 323 | 325 | |
| MF | | 321 | 279 | | | |
| UNC/UNF | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | |
| UNEF | | | | | | |
| G (BSP) | | | | | | |
| Rp (BSPP) | | | | | | |
| Rc (BSPT) | | | | | | |
| NPT | | | | | | |
| NPTF | | | | | | |
| NPSC, NPSM, NPSF | | | | | | |
| BSW | | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | |
| Pg | | | | | | |
| Tr | | | | | | |
| S miniature | | | | | | |
| Special threads | | | | | | |
| | Vc (m/min) | | | | | |
| P1 | | | | | | |
| P2 | | | | | | |
| P3 | | | | | | |
| P4 | | | | | | |
| P5 | | | | | | |
| P6 | | | | | | |
| P7 | | | | | | |
| P8 | | | | | | |
| M1 | | | | | | |
| M2 | | | | | | |
| M3 | | | | | | |
| K1 | | | ☆ 10÷20 | | | |
| K2 | | | | | | |
| K3 | | | | | | |
| K4 | | | | | | |
| N1 | ★ 5÷15 | | ☆ 10÷20 | | ★ 5÷15 | |
| N2 | ★ 5÷15 | | ★ 10÷20 | | ★ 5÷15 | |
| N3 | ★ 5÷10 | | | | | |
| N4 | ★ 5÷10 | | ★ 10÷20 | | | |
| N5 | | | | | | ★ 5÷10 |
| S1 (<25 HRC) | | | | | | |
| S2 (<35 HRC) | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | |
| S5 | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

Intro
SP
SL
PO
ST
DIN
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# GGST

## Z-PRO Series

Straight Fluted Taps for Cast Iron, Coated




HSS-E | COATING | 2.5P THCHT

**FEATURES**

Material specific for blind and through hole application.

Specific design for best performance on cast iron application.

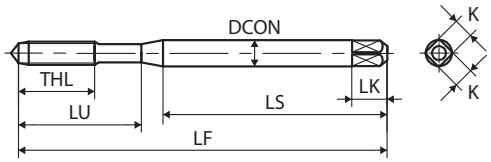
Special coating allows stable and long life even at high speed.

**Recommended Tapping Speeds Depending On Materials**

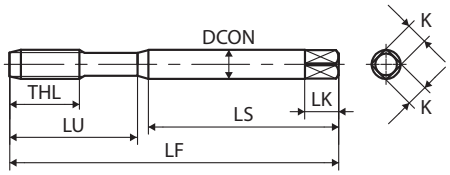
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| K1 | 5÷20 | ★ | N2 | 10÷20 | ☆ |
| K2 | 5÷20 | ★ | N4 | 10÷20 | ★ |
| K3 | ≤10 | ★ | | | |
| K4 | ≤10 | ☆ | | | |

★ 1st choice ☆ suitable

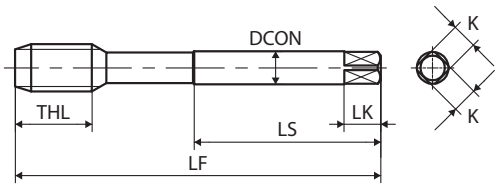
**TYPE: EU_108**




**TYPE: EU_109**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | 3104101035 | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 108 | ○ |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | 3104101042 | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 4 | 108 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | 3104101049 | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 4 | 108 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | 3104101055 | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4 | 108 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | 3104101064 | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 109 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | 3104101078 | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 109 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | 3104101088 | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 116 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | 3104101100 | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 116 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | 3104101114 | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 116 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | 3104101128 | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 116 | ● |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | 3104101141 | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 116 | ● |
| M22X2.5 | ISO2X(6HX) | 19.5 | 19.63 | 3104101156 | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 116 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | 3104101167 | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 116 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2X(6HX) | 7 | 7.09 | 3104101065 | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 4 | 116 | ● |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | 3104101079 | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 116 | ● |
| M10X1 | ISO2X(6HX) | 9 | 9.09 | 3104101080 | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 4 | 116 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | 3104101089 | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | 3104101090 | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ● |
| M12X1 | ISO2X(6HX) | 11 | 11.09 | 3104101091 | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ○ |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | 3104101102 | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 116 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | 3104101116 | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 116 | ● |
| M18X1.5 | ISO2X(6HX) | 16.5 | 16.6 | 3104101130 | 2.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 116 | ● |
| M20X1.5 | ISO2X(6HX) | 18.5 | 18.6 | 3104101144 | 2.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 116 | ● |
| M22X1.5 | ISO2X(6HX) | 20.5 | 20.6 | 3104101158 | 2.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 4 | 116 | ● |
| M24X1.5 | ISO2X(6HX) | 22.5 | 22.6 | 3104101170 | 2.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 116 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | 3104130004 | 2.5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 4 | 116 | ● |
| 1/4-19 | - | 11.75 | 11.78 | 3104130006 | 2.5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 4 | 116 | ● |
| 3/8-19 | - | 15.25 | 15.28 | 3104130008 | 2.5P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 4 | 116 | ● |
| 1/2-14 | - | 19 | 19.04 | 3104130009 | 2.5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 4 | 116 | ● |
| 3/4-14 | - | 24.5 | 24.52 | 3104130011 | 2.5P | 26.441 | 140 | 27 | 71 | 20 | 16 | 19 | 4 | 116 | ○ |
| 1 -11 | - | 30.75 | 30.77 | 3104130013 | 2.5P | 33.249 | 160 | 29 | 82 | 25 | 20 | 23 | 4 | 116 | ○ |

# GGST CH




## Z-PRO Series

Straight Fluted Taps for Cast Iron with Axial Coolant Hole, Coated

HSS-E | COATING | 2.5P THCHT

**FEATURES**

Material specific with axial oil hole for blind hole application.

Specific design for best performance on cast iron application.

Special coating allows stable and long life even at high speed.

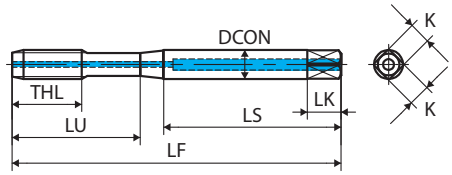
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 10÷30 | ★ |
| K2 | 10÷30 | ★ |
| K3 | ≤15 | ★ |
| K4 | ≤10 | ☆ |

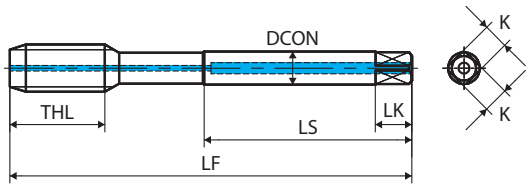
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 10÷30 | ☆ |
| N4 | 10÷30 | ★ |

★ 1st choice ☆ suitable

**TYPE: EU_110**




**TYPE: EU_114**






Think threads with YAMAWA

IMROBEX
Machine Tools International

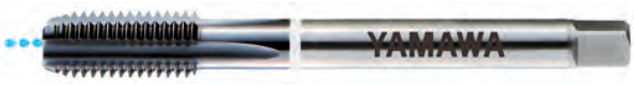
| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | 3205101055 | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4 | 110 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | 3205101064 | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 110 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | 3205101078 | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 110 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | 3205101088 | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 114 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | 3205101100 | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 114 | ● |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | 3205101114 | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 114 | ● |
| M18X2.5 | ISO2X(6HX) | 15.5 | 15.63 | 3205101128 | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 114 | ○ |
| M20X2.5 | ISO2X(6HX) | 17.5 | 17.63 | 3205101141 | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 114 | ● |
| M24X3 | ISO2X(6HX) | 21 | 21.13 | 3205101167 | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 114 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2X(6HX) | 7 | 7.09 | 3205101065 | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 4 | 114 | ● |
| M10X1.25 | ISO2X(6HX) | 8.8 | 8.85 | 3205101079 | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 114 | ● |
| M10X1 | ISO2X(6HX) | 9 | 9.09 | 3205101080 | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 4 | 114 | ● |
| M12X1.5 | ISO2X(6HX) | 10.5 | 10.6 | 3205101089 | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 114 | ● |
| M12X1.25 | ISO2X(6HX) | 10.8 | 10.85 | 3205101090 | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 114 | ● |
| M14X1.5 | ISO2X(6HX) | 12.5 | 12.6 | 3205101102 | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 114 | ● |
| M16X1.5 | ISO2X(6HX) | 14.5 | 14.6 | 3205101116 | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 114 | ● |
| M18X1.5 | ISO2X(6HX) | 16.5 | 16.6 | 3205101130 | 2.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 114 | ● |
| M20X1.5 | ISO2X(6HX) | 18.5 | 18.6 | 3205101144 | 2.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 114 | ● |

Intro
SP
SL
PO
ST
DIN
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# GGST CH E(1.5P)




## Z-PRO Series

Straight Fluted Taps 1.5P, for Cast Iron with Axial Coolant Hole, Coated




**FEATURES**

Material specific with axial oil hole and extra short chamfer (1.5P) for blind hole application.

Specific design for best performance on cast iron application.

Special coating allows stable and long life even at higher speed.

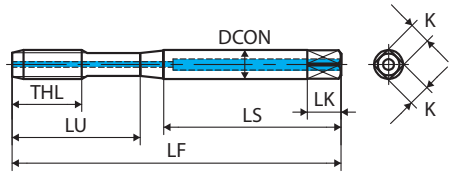
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 10÷30 | ★ |
| K2 | 10÷30 | ★ |
| K3 | ≤15 | ★ |
| K4 | ≤10 | ☆ |

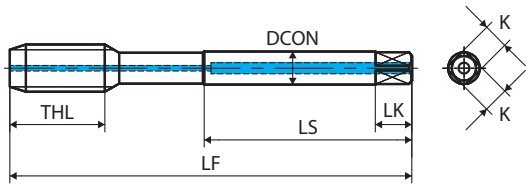
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 10÷30 | ☆ |
| N4 | 10÷30 | ★ |

★ 1st choice ☆ suitable

**TYPE: EU_110**




**TYPE: EU_114**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | 3206101055 | 1.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4 | 110 | ● |
| **M7x1** | ISO2X(6HX) | 6 | 6.09 | 3206101060 | 1.5P | 80 | 15 | 30 | 45 | 7 | 5.5 | 8 | 4 | 110 | ○ |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | 3206101064 | 1.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 110 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | 3206101078 | 1.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 110 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | 3206101088 | 1.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 114 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | 3206101100 | 1.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 114 | ○ |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | 3206101114 | 1.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 114 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | 3206101079 | 1.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 114 | ○ |
| **M10X1** | ISO2X(6HX) | 9 | 9.09 | 3206101080 | 1.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 4 | 114 | ○ |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | 3206101089 | 1.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 114 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | 3206101090 | 1.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 114 | ○ |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | 3206101102 | 1.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 114 | ○ |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | 3206101116 | 1.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 114 | ○ |

# HT

## GP General Purpose Series

Straight Fluted Taps




HSS-E





2.5P THCHT

**FEATURES**

General purpose for blind and through hole application.

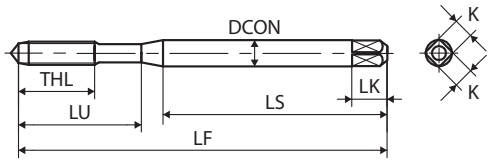
For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

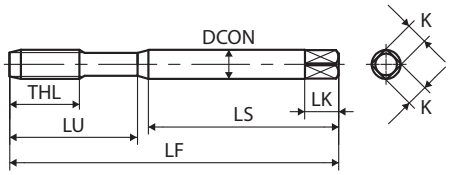
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | K1 | 5÷10 | ☆ | N2 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | K2 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | K3 | 5÷10 | ☆ | N4 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ | | | | | | |

★ 1st choice ☆ suitable

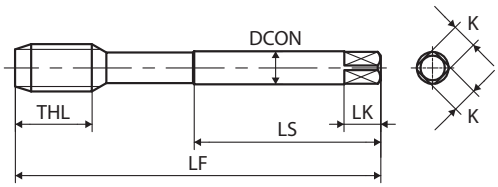
**TYPE: EU_108**



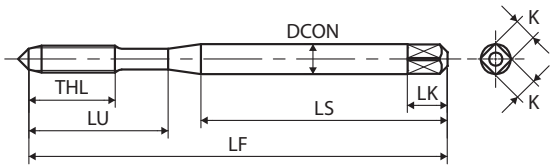

**TYPE: EU_109**




**TYPE: EU_116**




**TYPE: EU_057**






Think threads with YAMAWA

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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | TD3.0GANEBC | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 108 | ○ |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | TD4.0IANEBC | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 108 | ○ |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | TD5.0KANEBC | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 108 | ○ |
| M6X1 | ISO2(6H) | 5 | 5.09 | TD6.0MANEBC | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 108 | ○ |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | TD8.0NANEBC | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 109 | ○ |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | TD010OANEBC | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 3 | 109 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | TG012PANEBC | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 3 | 116 | ○ |
| M14X2 | ISO2(6H) | 12 | 12.12 | TG014QANEBC | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 3 | 116 | ○ |
| M16X2 | ISO2(6H) | 14 | 14.12 | TG016QANEBC | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 3 | 116 | ○ |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | TG020RANEBC | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 3 | 116 | ○ |
| M24X3 | ISO2(6H) | 21 | 21.13 | TG024SANEBC | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 3 | 116 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| M8X1 | ISO2(6H) | 7 | 7.09 | TM8.0MANEBC | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 3 | 116 | ○ |
| M10X1.25 | ISO2(6H) | 8.8 | 8.85 | TM010NANEBC | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 3 | 116 | ○ |
| M10X1 | ISO2(6H) | 9 | 9.09 | TM010MANEBC | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 3 | 116 | ○ |
| M12X1.5 | ISO2(6H) | 10.5 | 10.6 | TM012OANEBC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 116 | ○ |
| M12X1.25 | ISO2(6H) | 10.8 | 10.85 | TM012NANEBC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 116 | ○ |
| M12X1 | ISO2(6H) | 11 | 11.09 | TM012MANEBC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 3 | 116 | ○ |
| M14X1.5 | ISO2(6H) | 12.5 | 12.6 | TM014OANEBC | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 3 | 116 | ○ |
| M16X1.5 | ISO2(6H) | 14.5 | 14.6 | TM016OANEBC | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 3 | 116 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| 1/4-20UNC | 2B | 5.1 | 5.19 | TDU04NXNEBC | 2.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ○ |
| 5/16-18UNC | 2B | 6.6 | 6.65 | TDU05OXNEBC | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 057 | ○ |
| 3/8-16UNC | 2B | 8 | 8.07 | TDU06PXNEBC | 2.5P | 100 | 23 | 39 | 54 | 9 | 7 | 10 | 4 | 109 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| 7/16-14UNC | 2B | 9.4 | 9.45 | TGU07QXNEBC | 2.5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 4 | 116 | ○ |
| 1/2-13UNC | 2B | 10.9 | 10.91 | TGU08RXNEBC | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 116 | ○ |
| 9/16-12UNC | 2B | 12.2 | 12.33 | TGU09SXNEBC | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 116 | ○ |
| 5/8-11UNC | 2B | 13.6 | 13.75 | TGU10UXNEBC | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 116 | ○ |
| 3/4-10UNC | 2B | 16.6 | 16.7 | TGU12VXNEBC | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 116 | ○ |
| 7/8-9UNC | 2B | 19.6 | 19.61 | TGU14WXNEBC | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 116 | ○ |
| 1 -8UNC | 2B | 22.3 | 22.45 | TGU16XXNEBC | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 116 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| 1/4-28UNF | 2B | 5.5 | 5.53 | TDU04KXNEBC | 2.5P | 80 | 15 | 30 | 42 | 7 | 5.5 | 8 | 3 | 057 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| 5/16-24UNF | 2B | 6.9 | 6.97 | TMU05MXNEBC | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 4 | 116 | ○ |
| 3/8-24UNF | 2B | 8.5 | 8.57 | TMU06MXNEBC | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 116 | ○ |
| 7/16-20UNF | 2B | 9.9 | 9.96 | TMU07NXNEBC | 2.5P | 100 | 23 | - | 51 | 8 | 6.2 | 9 | 4 | 116 | ○ |
| 1/2-20UNF | 2B | 11.5 | 11.54 | TMU08NXNEBC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ○ |
| 9/16-18UNF | 2B | 12.9 | 13 | TMU09OXNEBC | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 116 | ○ |
| 5/8-18UNF | 2B | 14.5 | 14.6 | TMU10OXNEBC | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 116 | ○ |
| 3/4-16UNF | 2B | 17.5 | 17.59 | TMU12PXNEBC | 2.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 116 | ○ |
| 7/8-14UNF | 2B | 20.5 | 20.57 | TMU14QXNEBC | 2.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 4 | 116 | ○ |
| 1 -12UNF | 2B | 23.3 | 23.46 | TMU16SXNEBC | 2.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 116 | ○ |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | TVG0020NEBC | 2.5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 3 | 116 | ○ |
| 1/4-19 | - | 11.75 | 11.78 | TVG0040NEBC | 2.5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 3 | 116 | ○ |
| 3/8-19 | - | 15.25 | 15.28 | TVG0060NEBC | 2.5P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 3 | 116 | ○ |
| 1/2-14 | - | 19 | 19.04 | TVG0080NEBC | 2.5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 3 | 116 | ○ |
| 3/4-14 | - | 24.5 | 24.52 | TVG0120NEBC | 2.5P | 26.441 | 140 | 27 | 71 | 20 | 16 | 19 | 4 | 116 | ○ |
| 1 -11 | - | 30.75 | 30.77 | TVG0160NEBC | 2.5P | 33.249 | 160 | 29 | 82 | 25 | 20 | 23 | 4 | 116 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

# EH-HT




## MS Material Specific Series

Straight Fluted Taps for Hard Materials (<45HRC)




**FEATURES**

Material specific for blind and through hole application.

For high tensile strength steel <45HRC.

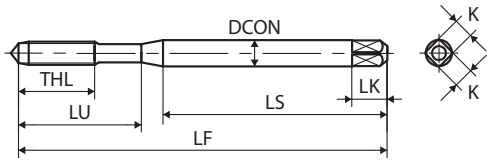
Specific geometry and HSSCo substrate allow stable and long life.

**Recommended Tapping Speeds Depending On Materials**

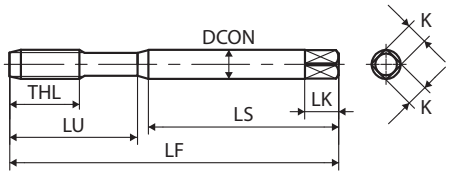
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P5 | ≤5 | ★ | K2 | ≤5 | ☆ |
| P6 | ≤5 | ★ | K3 | ≤5 | ☆ |

★ 1st choice ☆ suitable

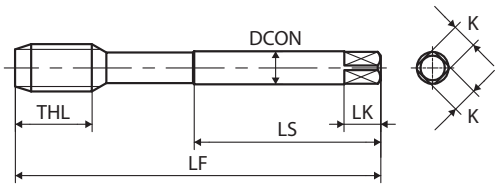
**TYPE: EU_108**




**TYPE: EU_109**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | IS02X(6HX) | 2.5 | 2.56 | TD3.0GBDCBC | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 108 | ● |
| **M4X0.7** | IS02X(6HX) | 3.3 | 3.38 | TD4.0IBDCBC | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 108 | ● |
| **M5X0.8** | IS02X(6HX) | 4.2 | 4.28 | TD5.0KBDCBC | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 108 | ● |
| **M6X1** | IS02X(6HX) | 5 | 5.09 | TD6.0MBDCBC | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 108 | ● |
| **M8X1.25** | IS02X(6HX) | 6.8 | 6.85 | TD8.0NBDCBC | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 109 | ● |
| **M10X1.5** | IS02X(6HX) | 8.5 | 8.6 | TD0100BDCBC | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 109 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | IS02X(6HX) | 10.3 | 10.36 | TG012PBDCBC | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 116 | ● |
| **M14X2** | IS02X(6HX) | 12 | 12.12 | TG014QBDCBC | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 116 | ● |
| **M16X2** | IS02X(6HX) | 14 | 14.12 | TG016QBDCBC | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 116 | ● |
| **M18X2.5** | IS02X(6HX) | 15.5 | 15.63 | TG018RBDCBC | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 116 | ○ |
| **M20X2.5** | IS02X(6HX) | 17.5 | 17.63 | TG020RBDCBC | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 116 | ● |
| **M24X3** | IS02X(6HX) | 21 | 21.13 | TG024SBDCBC | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 116 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| **1/8-28** | - | 8.75 | 8.78 | TVG0020DCBC | 2.5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 4 | 116 | ● |
| **1/4-19** | - | 11.75 | 11.78 | TVG0040DCBC | 2.5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 4 | 116 | ● |
| **3/8-19** | - | 15.25 | 15.28 | TVG0060DCBC | 2.5P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 4 | 116 | ● |
| **1/2-14** | - | 19 | 19.04 | TVG0080DCBC | 2.5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 4 | 116 | ● |

# PMST




## MS Material Specific Series

Straight Fluted Taps for Hard Materials (<45HRC)

HSS-P | OX | 2.5P THCHT

**FEATURES**

Material specific for blind and through hole application.

Specific design and premium grade HSSP for stable and long life on alloy steel and tool steel (30 ÷ 45HRC) application.

Reliable and high performance tapping for the mould&die industry.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P3 | ≤5 | ★ |
| P4 | ≤5 | ★ |
| P5 | ≤5 | ★ |
| P6 | ≤5 | ★ |

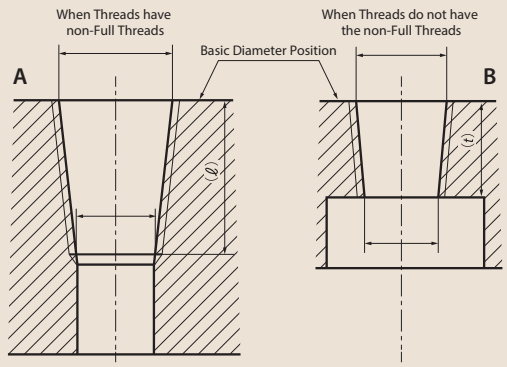
★ 1st choice ☆ suitable

### Product Features

| ISO | Materials | Hardness | Recommended tapping speed (Vc <5m/min) 5m/min |
|---|---|---|---|
| P6 | High tensile strength steel | 40÷45 HRC | |
| P5 | Tool steel (100MnCrW4-1.2510 40CrMnMo7-1.2311) | 30÷40 HRC | PM (HSS-P) |
| P4 | High alloy steel (CrMo, NiCrMo) | 25÷30 HRC | |

Most Suitable — Suitable

### Bored Hole Ø (mm) A - B

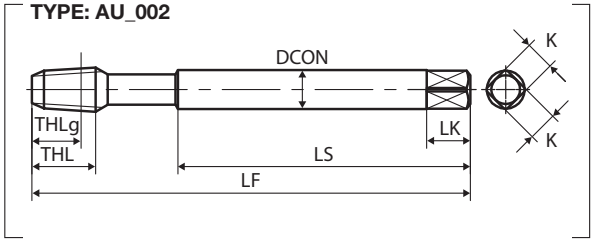





Think threads with YAMAWA

IMROBEX Machine Tools International

**TYPE: AU_002**




| Rc(BSPT) | TCTR (tolerance) | Bored Hole Ø (mm) A | Bored Hole Ø (mm) B | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | THLg (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN YMW | | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.1 | 8.2 | TJRC020DPX | 2.5P | 9.728 | 90 | 15 | 10.1 | 46 | 8 | 6 | 9 | 4 | 002 | ● |
| 1/4-19 | - | 10.7 | 10.9 | TJRC040DPX | 2.5P | 13.157 | 100 | 19 | 15 | 51 | 11 | 9 | 12 | 4 | 002 | ● |
| 3/8-19 | - | 14.2 | 14.4 | TJRC060DPX | 2.5P | 16.662 | 100 | 21 | 15.4 | 51 | 14 | 11 | 14 | 4 | 002 | ● |
| 1/2-14 | - | 17.6 | 17.9 | TJRC080DPX | 2.5P | 20.955 | 125 | 26 | 20.5 | 64 | 18 | 14 | 17 | 4 | 002 | ● |
| 3/4-14 | - | 23 | 23.3 | TJRC120DPX | 2.5P | 26.441 | 140 | 28 | 21.8 | 71 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 -11 | - | 29 | 29.3 | TJRC160DPX | 2.5P | 33.249 | 160 | 33 | 26 | 82 | 26 | 21 | 24 | 4 | 002 | ○ |

# GG-HT

## MS Material Specific Series

Straight Fluted Taps for Cast Iron




HSS-E | NI | 2.5P THCHT





**FEATURES**

Material specific for blind and through hole application.

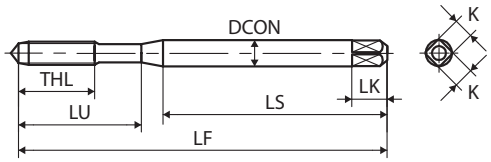
Specific design and NI treatment for stable and long life on cast iron application.

**Recommended Tapping Speeds Depending On Materials**

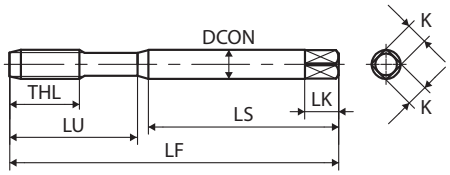
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| K1 | 5÷10 | ★ | N2 | 5÷15 | ☆ |
| K2 | 5÷10 | ★ | N4 | 5÷15 | ★ |
| K3 | ≤5 | ★ | | | |
| K4 | ≤5 | ☆ | | | |

★ 1st choice ☆ suitable

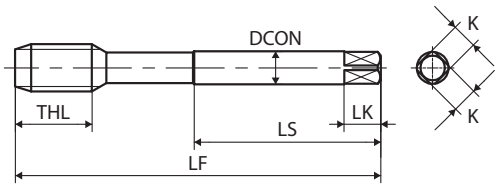
**TYPE: EU_108**




**TYPE: EU_109**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | TD3.0GBAENC | 2.5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 108 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | TD4.0IBAENC | 2.5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 4 | 108 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | TD5.0KBAENC | 2.5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 4 | 108 | ● |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | TD6.0MBAENC | 2.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4 | 108 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | TD8.0NBAENC | 2.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 109 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | TD010OBAENC | 2.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 109 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | TG5.0KBAENC | 2.5P | 70 | 14 | - | - | 3.5 | 2.7 | 6 | 4 | 116 | ○ |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | TG6.0MBAENC | 2.5P | 80 | 15 | - | - | 4.5 | 3.4 | 6 | 4 | 116 | ○ |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | TG8.0NBAENC | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 4 | 116 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | TG010OBAENC | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 116 | ● |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | TG012PBAENC | 2.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 116 | ● |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | TG014QBAENC | 2.5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 116 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | TG016QBAENC | 2.5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 116 | ● |
| **M18X2.5** | ISO2X(6HX) | 15.5 | 15.63 | TG018RBAENC | 2.5P | 125 | 33 | - | 64 | 14 | 11 | 14 | 4 | 116 | ● |
| **M20X2.5** | ISO2X(6HX) | 17.5 | 17.63 | TG020RBAENC | 2.5P | 140 | 33 | - | 71 | 16 | 12 | 15 | 4 | 116 | ● |
| **M22X2.5** | ISO2X(6HX) | 19.5 | 19.63 | TG022RBAENC | 2.5P | 140 | 33 | - | 71 | 18 | 14.5 | 17 | 4 | 116 | ● |
| **M24X3** | ISO2X(6HX) | 21 | 21.13 | TG024SBAENC | 2.5P | 160 | 37 | - | 82 | 18 | 14.5 | 17 | 4 | 116 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M8X1** | ISO2X(6HX) | 7 | 7.09 | TM8.0MBAENC | 2.5P | 90 | 19 | - | 46 | 6 | 4.9 | 8 | 4 | 116 | ● |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | TM010NBAENC | 2.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 116 | ● |
| **M10X1** | ISO2X(6HX) | 9 | 9.09 | TM010MBAENC | 2.5P | 90 | 19 | - | 46 | 7 | 5.5 | 8 | 4 | 116 | ● |
| **M12X1.5** | ISO2X(6HX) | 10.5 | 10.6 | TM012OBAENC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | TM012NBAENC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ● |
| **M12X1** | ISO2X(6HX) | 11 | 11.09 | TM012MBAENC | 2.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ● |
| **M14X1.5** | ISO2X(6HX) | 12.5 | 12.6 | TM014OBAENC | 2.5P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4 | 116 | ● |
| **M16X1.5** | ISO2X(6HX) | 14.5 | 14.6 | TM016OBAENC | 2.5P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4 | 116 | ● |
| **M18X1.5** | ISO2X(6HX) | 16.5 | 16.6 | TM018OBAENC | 2.5P | 110 | 24 | - | 56 | 14 | 11 | 14 | 4 | 116 | ● |
| **M20X1.5** | ISO2X(6HX) | 18.5 | 18.6 | TM020OBAENC | 2.5P | 125 | 24 | - | 64 | 16 | 12 | 15 | 4 | 116 | ● |
| **M22X1.5** | ISO2X(6HX) | 20.5 | 20.6 | TM022OBAENC | 2.5P | 125 | 24 | - | 64 | 18 | 14.5 | 17 | 4 | 116 | ● |
| **M24X1.5** | ISO2X(6HX) | 22.5 | 22.6 | TM024OBAENC | 2.5P | 140 | 27 | - | 71 | 18 | 14.5 | 17 | 4 | 116 | ● |

| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| **1/8-28** | - | 8.75 | 8.78 | TVG0020AENC | 2.5P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 4 | 116 | ● |
| **1/4-19** | - | 11.75 | 11.78 | TVG0040AENC | 2.5P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 4 | 116 | ● |
| **1/2-14** | - | 19 | 19.04 | TVG0080AENC | 2.5P | 20.955 | 125 | 24 | 64 | 16 | 12 | 15 | 4 | 116 | ● |
| **3/4-14** | - | 24.5 | 24.52 | TVG0120AENC | 2.5P | 26.441 | 140 | 27 | 71 | 20 | 16 | 19 | 4 | 116 | ● |
| **1 -11** | - | 30.75 | 30.77 | TVG0160AENC | 2.5P | 33.249 | 160 | 29 | 82 | 25 | 20 | 23 | 4 | 116 | ● |

Intro
SP
SL
PO
ST
DIN
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LA-HT




## MS Material Specific Series

Straight Fluted Taps for Die Cast Materials

HSS-E | NI | 5P THCHT

**FEATURES**

Material specific for through hole application.

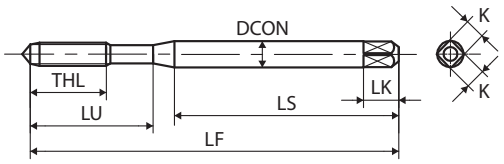
Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

**Recommended Tapping Speeds Depending On Materials**

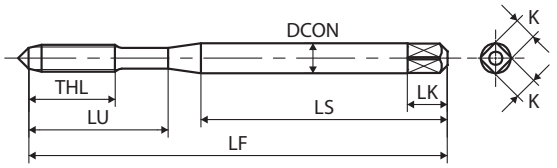
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷10 | ★ |
| N4 | 5÷10 | ★ |

★ 1st choice ☆ suitable

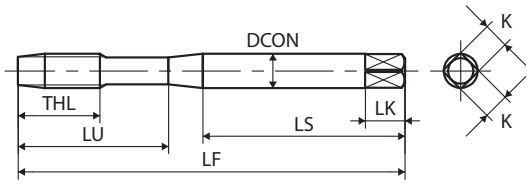
**TYPE: EU_001**



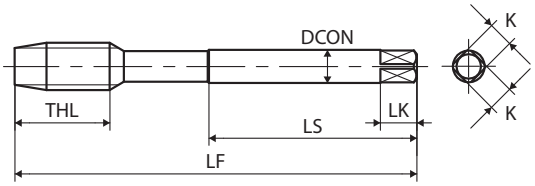

**TYPE: EU_057**




**TYPE: EU_084**




**TYPE: EU_086**






Think threads with YAMAWA

IMROBEX Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2X(6HX) | 1.6 | 1.65 | TD2.0EBLEN5 | 5P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | ISO2X(6HX) | 2.1 | 2.11 | TD2.5FBLEN5 | 5P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 3 | 057 | ○ |
| M3X0.5 | ISO2X(6HX) | 2.5 | 2.56 | TD3.0GBLEN5 | 5P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 3 | 057 | ● |
| M4X0.7 | ISO2X(6HX) | 3.3 | 3.38 | TD4.0IBLEN5 | 5P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 3 | 057 | ● |
| M5X0.8 | ISO2X(6HX) | 4.2 | 4.28 | TD5.0KBLEN5 | 5P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M6X1 | ISO2X(6HX) | 5 | 5.09 | TD6.0MBLEN5 | 5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 057 | ● |
| M8X1.25 | ISO2X(6HX) | 6.8 | 6.85 | TD8.0NBLEN5 | 5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3 | 084 | ● |
| M10X1.5 | ISO2X(6HX) | 8.5 | 8.6 | TD010OBLEN5 | 5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 084 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 10.3 | 10.36 | TG012PBLEN5 | 5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 086 | ● |
| M14X2 | ISO2X(6HX) | 12 | 12.12 | TG014QBLEN5 | 5P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4 | 086 | ○ |
| M16X2 | ISO2X(6HX) | 14 | 14.12 | TG016QBLEN5 | 5P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4 | 086 | ○ |

# AXE-HT




## MS Material Specific Series

AXE Straight Fluted Taps for Die Cast Aluminium Alloys, Coated




**FEATURES**

Material specific for blind hole application. 1.5P extra short chamfer length.

Specific cutting edge design to minimize chipping trouble on Aluminium die-casting application.

HSSP and suitable coating for extraordinary long life.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 10÷20 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷20 | ☆ |
| N2 | 10÷20 | ★ |
| N4 | 10÷20 | ★ |

★ 1st choice ☆ suitable

### Product Features

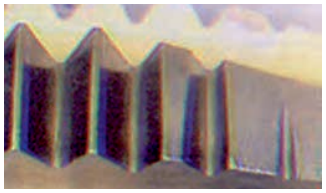
Comparison of tool life between AXE and competitor

**M8×1.25**

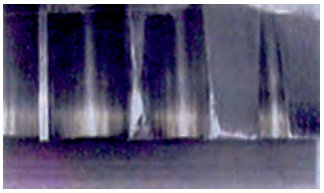
| | |
|---|---|
| AXE | HSS-P Special coating |
| Work-material | G-AlMg5 |
| Thread length | 13mm (blind hole) |
| Tapping speed | 10m/min |
| Bored hole | ø6.8 |
| Feed | Lead screw feed |
| Machine | Transfer machine |
| Lubricant | Water soluble oil (x30) |

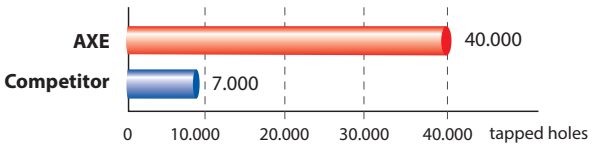
Wear condition after 7000 threads

AXE

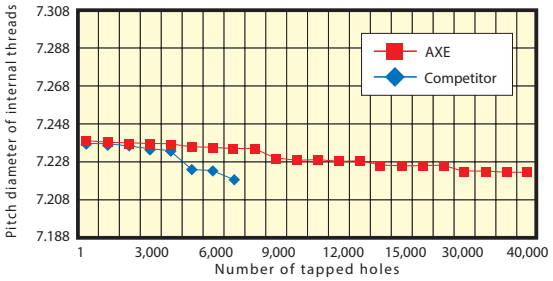


Competitor






Change of pitch diameter of internal threads

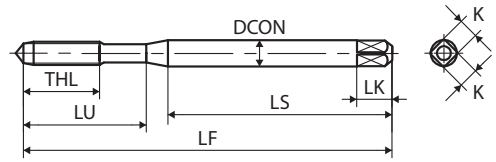




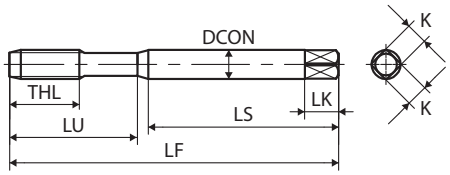

Think threads with YAMAWA

IMROBEX
Machine Tools International

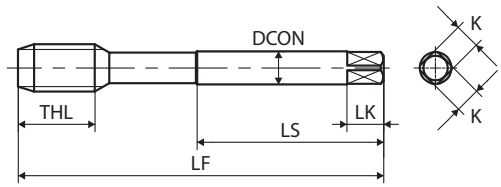
**TYPE: EU_108**




**TYPE: EU_109**




**TYPE: EU_116**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | TD6.0MBLPVA | 1.5P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 3 | 108 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | TD8.0NBLPVA | 1.5P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 4 | 109 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | TD010OBLPVA | 1.5P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4 | 109 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | TG012PBLPVA | 1.5P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4 | 116 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 8.8 | 8.85 | TM010NBLPVA | 1.5P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4 | 116 | ● |
| **M12X1.25** | ISO2X(6HX) | 10.8 | 10.85 | TM012NBLPVA | 1.5P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4 | 116 | ● |

# HT

## GP General Purpose Series

Straight Fluted Taps




HSS-E





5P THCHT

1.5P THCHT

**FEATURES**

General purpose for blind and through hole application.

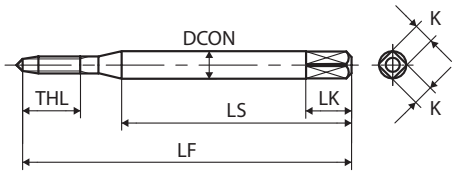
For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

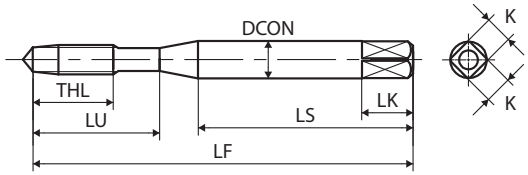
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | K1 | 5÷10 | ☆ | N2 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | K2 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | K3 | 5÷10 | ☆ | N4 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ | | | | | | |

★ 1st choice ☆ suitable

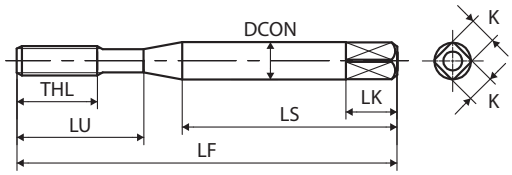
**TYPE: HT_005**



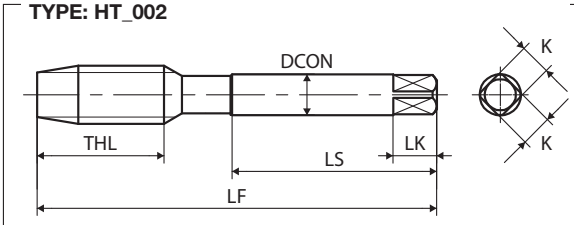

**TYPE: HT_001**



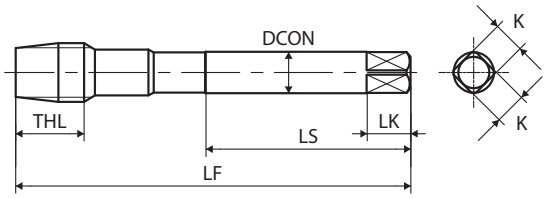

**TYPE: HT_025**




**TYPE: HT_002**




**TYPE: HT_037**






Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1X0.25** | P1 | 0.75 | 0.77 | TNMP1.0B5 | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.75 | 0.77 | TNMP1.0B1 | 1.5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| **M1.1X0.25** | P1 | 0.85 | 0.87 | TNMP1.1B5 | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.85 | 0.87 | TNMP1.1B1 | 1.5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| **M1.2X0.25** | P1 | 0.95 | 0.97 | TNMP1.2B5 | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.95 | 0.97 | TNMP1.2B1 | 1.5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| | P3(P1+30) | 0.95 | 0.97 | TNMR1.2B5 | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P3(P1+30) | 0.95 | 0.97 | TNMR1.2B1 | 1.5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| **M1.4X0.3** | P1 | 1.1 | 1.13 | TNMP1.4C5 | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| | P1 | 1.1 | 1.13 | TNMP1.4C1 | 1.5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P3(P1+30) | 1.1 | 1.13 | TNMR1.4C5 | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P3(P1+30) | 1.1 | 1.13 | TNMR1.4C1 | 1.5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| **M1.6X0.35** | P2 | 1.25 | 1.3 | TNMQ1.6D5 | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P2 | 1.25 | 1.3 | TNMQ1.6D1 | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| **M1.7X0.35** | P1 | 1.35 | 1.4 | TNMP1.7D5 | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.35 | 1.4 | TNMP1.7D1 | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| | P3(P1+30) | 1.35 | 1.4 | TNMR1.7D5 | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P3(P1+30) | 1.35 | 1.4 | TNMR1.7D1 | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| **M1.8X0.35** | P2 | 1.45 | 1.5 | TNMQ1.8D5 | 5P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P2 | 1.45 | 1.5 | TNMQ1.8D1 | 1.5P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | **O** |
| **M2X0.4** | P1 | 1.6 | 1.65 | TNMP2.0E5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.6 | 1.65 | TNMP2.0E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | **O** |
| | P3(P1+30) | 1.6 | 1.65 | TNMR2.0E5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P1+30) | 1.6 | 1.65 | TNMR2.0E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P1+45) | 1.6 | 1.65 | TNMS2.0E5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P1+45) | 1.6 | 1.65 | TNMS2.0E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.2X0.45** | P2 | 1.75 | 1.81 | TNMQ2.2F5 | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 1.75 | 1.81 | TNMQ2.2F1 | 1.5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | **O** |
| **M2.3X0.4** | P1 | 1.9 | 1.95 | TNMP2.3E5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.9 | 1.95 | TNMP2.3E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | **O** |
| | P3(P1+30) | 1.9 | 1.95 | TNMR2.3E5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P1+30) | 1.9 | 1.95 | TNMR2.3E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P1+45) | 1.9 | 1.95 | TNMS2.3E5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P1+45) | 1.9 | 1.95 | TNMS2.3E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.5X0.45** | P2 | 2.1 | 2.11 | TNMQ2.5F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.1 | 2.11 | TNMQ2.5F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | **O** |
| | P3(P2+15) | 2.1 | 2.11 | TNMR2.5F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P2+15) | 2.1 | 2.11 | TNMR2.5F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P2+30) | 2.1 | 2.11 | TNMS2.5F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P2+30) | 2.1 | 2.11 | TNMS2.5F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.6X0.45** | P1 | 2.2 | 2.21 | TNMP2.6F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 2.2 | 2.21 | TNMP2.6F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | **O** |
| | P3(P1+30) | 2.2 | 2.21 | TNMR2.6F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3(P1+30) | 2.2 | 2.21 | TNMR2.6F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P1+45) | 2.2 | 2.21 | TNMS2.6F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P4(P1+45) | 2.2 | 2.21 | TNMS2.6F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **3M0.6** | P2 | 2.45 | 2.47 | TNMQ3.0H5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.45 | 2.47 | TNMQ3.0H1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P2 | 2.5 | 2.56 | TNMQ3.0G5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.5 | 2.56 | TNMQ3.0G1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| | P3(P2+15) | 2.5 | 2.56 | TNMR3.0G5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P2+15) | 2.5 | 2.56 | TNMR3.0G1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P4(P2+30) | 2.5 | 2.56 | TNMS3.0G5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P4(P2+30) | 2.5 | 2.56 | TNMS3.0G1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P5(P2+45) | 2.5 | 2.56 | TNMT3.0G5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P5(P2+45) | 2.5 | 2.56 | TNMT3.0G1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P2 | 2.9 | 2.97 | TNMQ3.5H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.9 | 2.97 | TNMQ3.5H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| | P3(P2+15) | 2.9 | 2.97 | TNMR3.5H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+15) | 2.9 | 2.97 | TNMR3.5H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+30) | 2.9 | 2.97 | TNMS3.5H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+30) | 2.9 | 2.97 | TNMS3.5H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 4M0.75 | P2 | 3.3 | 3.33 | TNMQ4.0J53 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.3 | 3.33 | TNMQ4.0J13 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.3 | 3.33 | TNMQ4.0J5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.3 | 3.33 | TNMQ4.0J1 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | TNMQ4.0I5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.3 | 3.38 | TNMQ4.0I1 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| | P3(P2+20) | 3.3 | 3.38 | TNMR4.0I53 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | TNMR4.0I13 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | TNMS4.0I53 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | TNMS4.0I13 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P5(P2+60) | 3.3 | 3.38 | TNMT4.0I53 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P5(P2+60) | 3.3 | 3.38 | TNMT4.0I13 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P5(P2+60) | 3.3 | 3.38 | TNMT4.0I5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P5(P2+60) | 3.3 | 3.38 | TNMT4.0I1 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| M4.5X0.75 | P2 | 3.8 | 3.83 | TNMQ4.5J5 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 3.8 | 3.83 | TNMQ4.5J1 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ● |
| | P2 | 3.8 | 3.83 | TNMQ4.5J53 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 3.8 | 3.83 | TNMQ4.5J13 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| 5M0.9 | P2 | 4.15 | 4.19 | TNMQ5.0L53 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 4.15 | 4.19 | TNMQ5.0L13 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 4.15 | 4.19 | TNMQ5.0L5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.15 | 4.19 | TNMQ5.0L1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | TNMR5.0K5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TNMR5.0K1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| | P4(P3+20) | 4.2 | 4.28 | TNMS5.0K53 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P3+20) | 4.2 | 4.28 | TNMS5.0K13 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P3+20) | 4.2 | 4.28 | TNMS5.0K5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P3+20) | 4.2 | 4.28 | TNMS5.0K1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P5(P3+40) | 4.2 | 4.28 | TNMT5.0K53 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P5(P3+40) | 4.2 | 4.28 | TNMT5.0K13 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P5(P3+40) | 4.2 | 4.28 | TNMT5.0K5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P5(P3+40) | 4.2 | 4.28 | TNMT5.0K1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TNMR5.0K1F | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 025 | ○ |
| | P4(P3+20) | 4.2 | 4.28 | TNMS5.0K13F | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 025 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M5.5X0.9 | P2 | 4.65 | 4.69 | TNMQ5.5L5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.65 | 4.69 | TNMQ5.5L1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | **O** |
| M6X1 | P2 | 5 | 5.09 | TNMQ6.0M5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5 | 5.09 | TNMQ6.0M1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | **O** |
| | P3(P2+20) | 5 | 5.09 | TNMR6.0M53 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 5 | 5.09 | TNMR6.0M13 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | TNMS6.0M53 | 5P | 62 | 19 | 28 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | TNMS6.0M13 | 1.5P | 62 | 19 | 28 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | TNMS6.0M5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5 | 5.09 | TNMS6.0M1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P5(P2+60) | 5 | 5.09 | TNMT6.0M53 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P5(P2+60) | 5 | 5.09 | TNMT6.0M13 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P5(P2+60) | 5 | 5.09 | TNMT6.0M5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P5(P2+60) | 5 | 5.09 | TNMT6.0M1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5 | 5.09 | TNMQ6.0M1F | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 025 | ○ |
| | P3(P2+20) | 5 | 5.09 | TNMR6.0M13F | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 025 | ○ |
| | P4(P2+40) | 5 | 5.09 | TNMS6.0M13F | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 025 | ○ |
| M7X1 | P2 | 6 | 6.09 | TNMQ7.0M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6 | 6.09 | TNMQ7.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | **O** |
| | P4(P2+40) | 6 | 6.09 | TNMS7.0M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P2+40) | 6 | 6.09 | TNMS7.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6 | 6.09 | TNMQ7.0M5T | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P2 | 6 | 6.09 | TNMQ7.0M1T | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3(P2+20) | 6 | 6.09 | TNMR7.0M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3(P2+20) | 6 | 6.09 | TNMR7.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | TNMR8.0N5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.8 | 6.85 | TNMR8.0N1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | **O** |
| | P3 | 6.8 | 6.85 | TNMR8.0N5F | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3 | 6.8 | 6.85 | TNMR8.0N1F | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 6.8 | 6.85 | TNMS8.0N5F | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 6.8 | 6.85 | TNMS8.0N1F | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P5(P3+40) | 6.8 | 6.85 | TNMT8.0N5F | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P5(P3+40) | 6.8 | 6.85 | TNMT8.0N1F | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| M9X1.25 | P3 | 7.8 | 7.85 | TNMR9.0N5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 7.8 | 7.85 | TNMR9.0N1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | **O** |
| M10X1.5 | P3 | 8.5 | 8.6 | TNMR01005T | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8.5 | 8.6 | TNMR01001T | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8.5 | 8.6 | TNMR01005 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.5 | 8.6 | TNMR01001 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | **O** |
| | P4(P3+20) | 8.5 | 8.6 | TNMS01005 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 8.5 | 8.6 | TNMS01001 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P5(P3+40) | 8.5 | 8.6 | TNMT01005 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P5(P3+40) | 8.5 | 8.6 | TNMT01001 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M11X1.5 | P4 | 9.5 | 9.6 | TNMS01105 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 9.5 | 9.6 | TNMS01101 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | **O** |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M12X1.75 | P3 | 10.3 | 10.36 | TNMR012P5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10.3 | 10.36 | TNMR012P1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| | P4(P3+20) | 10.3 | 10.36 | TNMS012P5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 10.3 | 10.36 | TNMS012P1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10.3 | 10.36 | TNMR012P5T | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P3 | 10.3 | 10.36 | TNMR012P1T | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P3+40) | 10.3 | 10.36 | TNMT012P5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P5(P3+40) | 10.3 | 10.36 | TNMT012P1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M14X2 | P3 | 12 | 12.12 | TNMR014Q5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12 | 12.12 | TNMR014Q1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| | P4(P3+20) | 12 | 12.12 | TNMS014Q5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 12 | 12.12 | TNMS014Q1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P5(P3+40) | 12 | 12.12 | TNMT014Q5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P5(P3+40) | 12 | 12.12 | TNMT014Q1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M16X2 | P3 | 14 | 14.12 | TNMR016Q5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14 | 14.12 | TNMR016Q1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| | P4(P3+20) | 14 | 14.12 | TNMS016Q5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 14 | 14.12 | TNMS016Q1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P5(P3+40) | 14 | 14.12 | TNMT016Q5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P5(P3+40) | 14 | 14.12 | TNMT016Q1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | TNMS018R5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 15.5 | 15.63 | TNMS018R1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P5(P4+20) | 15.5 | 15.63 | TNMT018R5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P5(P4+20) | 15.5 | 15.63 | TNMT018R1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | TNMS020R5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 17.5 | 17.63 | TNMS020R1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P5(P4+20) | 17.5 | 17.63 | TNMT020R5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P5(P4+20) | 17.5 | 17.63 | TNMT020R1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | TNMS022R5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19.5 | 19.63 | TNMS022R1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P5(P4+20) | 19.5 | 19.63 | TNMT022R5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P5(P4+20) | 19.5 | 19.63 | TNMT022R1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M24X3 | P4 | 21 | 21.13 | TNMS024S5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 21 | 21.13 | TNMS024S1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P5(P4+20) | 21 | 21.13 | TNMT024S5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P5(P4+20) | 21 | 21.13 | TNMT024S1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M27X3 | P4 | 24 | 24.13 | TNMS027S5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 24 | 24.13 | TNMS027S1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | TNMS030T5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M33X3.5 | P4 | 29.5 | 29.63 | TNMS033T5 | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 29.5 | 29.63 | TNMS033T1 | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M36X4 | P5 | 32 | 32.12 | TNMT036U5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 32 | 32.12 | TNMT036U1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M39X4 | P5 | 35 | 35.12 | TNMT039U5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 35 | 35.12 | TNMT039U1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M42X4.5 | P5 | 37.5 | 37.63 | TNMT042V5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 37.5 | 37.63 | TNMT042V1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M45X4.5 | P5 | 40.5 | 40.63 | TNMT045V5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 40.5 | 40.63 | TNMT045V1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M48X5 | P5 | 43 | 43.12 | TNMT048W5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P5 | 43 | 43.12 | TNMT048W1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M52X5 | II | 47 | 47.1 | TH2052W5 | 5P | 195 | 90 | - | 105 | 42 | 32 | 35 | 4 | 002 | ○ |
| | II | 47 | 47.1 | TH2052W1 | 1.5P | 195 | 90 | - | 105 | 42 | 32 | 35 | 4 | 002 | ○ |
| M56X5.5 | II | 50.5 | 50.6 | TH2056X5 | 5P | 205 | 95 | - | 110 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 50.5 | 50.6 | TH2056X1 | 1.5P | 205 | 95 | - | 110 | 44 | 35 | 38 | 4 | 002 | ○ |
| M60X5.5 | II | 54.5 | 54.6 | TH2060X5 | 5P | 215 | 100 | - | 115 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 54.5 | 54.6 | TH2060X1 | 1.5P | 215 | 100 | - | 115 | 46 | 35 | 38 | 4 | 002 | ○ |
| M64X6 | II | 58 | 58.1 | TH2064Y5 | 5P | 225 | 105 | - | 120 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 58 | 58.1 | TH2064Y1 | 1.5P | 225 | 105 | - | 120 | 48 | 38 | 42 | 4 | 002 | ○ |
| M68X6 | II | 62 | 62.1 | TH2068Y5 | 5P | 235 | 110 | - | 125 | 52 | 41 | 44 | 4 | 002 | ○ |
| | II | 62 | 62.1 | TH2068Y1 | 1.5P | 235 | 110 | - | 125 | 52 | 41 | 44 | 4 | 002 | ○ |
| M70X6 | II | 64 | 64.1 | TH2070Y5 | 5P | 240 | 115 | - | 125 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 64 | 64.1 | TH2070Y1 | 1.5P | 240 | 115 | - | 125 | 55 | 41 | 44 | 4 | 002 | ○ |
| M72X6 | II | 66 | 66.1 | TH2072Y5 | 5P | 240 | 115 | - | 125 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 66 | 66.1 | TH2072Y1 | 1.5P | 240 | 115 | - | 125 | 55 | 41 | 44 | 4 | 002 | ○ |
| M76X6 | II | 70 | 70.1 | TH2076Y5 | 5P | 240 | 115 | - | 125 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 70 | 70.1 | TH2076Y1 | 1.5P | 240 | 115 | - | 125 | 58 | 46 | 50 | 4 | 002 | ○ |
| M80X6 | II | 74 | 74.1 | TH2080Y5 | 5P | 245 | 115 | - | 130 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 74 | 74.1 | TH2080Y1 | 1.5P | 245 | 115 | - | 130 | 58 | 46 | 50 | 6 | 002 | ○ |
| M85X6 | II | 79 | 79.1 | TH2085Y5 | 5P | 245 | 115 | - | 130 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 79 | 79.1 | TH2085Y1 | 1.5P | 245 | 115 | - | 130 | 60 | 46 | 50 | 6 | 002 | ○ |
| M90X6 | II | 84 | 84.1 | TH2090Y5 | 5P | 250 | 120 | - | 130 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 84 | 84.1 | TH2090Y1 | 1.5P | 250 | 120 | - | 130 | 60 | 46 | 50 | 6 | 002 | ○ |
| M95X6 | II | 89 | 89.1 | TH2095Y5 | 5P | 250 | 120 | - | 130 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 89 | 89.1 | TH2095Y1 | 1.5P | 250 | 120 | - | 130 | 65 | 50 | 52 | 6 | 002 | ○ |
| M100X6 | II | 94 | 94.1 | TH2100Y5 | 5P | 250 | 120 | - | 130 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 94 | 94.1 | TH2100Y1 | 1.5P | 250 | 120 | - | 130 | 65 | 50 | 52 | 6 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.2 | P1 | 0.8 | 0.81 | TNMP1.0A5 | 5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.8 | 0.81 | TNMP1.0A1 | 1.5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.1X0.2 | P1 | 0.9 | 0.91 | TNMP1.1A5 | 5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.9 | 0.91 | TNMP1.1A1 | 1.5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.2X0.2 | P1 | 1 | 1.01 | TNMP1.2A5 | 5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1 | 1.01 | TNMP1.2A1 | 1.5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.4X0.2 | P1 | 1.2 | 1.21 | TNMP1.4A5 | 5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.2 | 1.21 | TNMP1.4A1 | 1.5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.6X0.2 | P1 | 1.4 | 1.41 | TNMP1.6A5 | 5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.4 | 1.41 | TNMP1.6A1 | 1.5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.7X0.2 | P1 | 1.5 | 1.51 | TNMP1.7A5 | 5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.5 | 1.51 | TNMP1.7A1 | 1.5P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1.8X0.2 | P1 | 1.6 | 1.61 | TNMP1.8A5 | 5P | 42 | 3.6 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.6 | 1.61 | TNMP1.8A1 | 1.5P | 42 | 3.6 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M2X0.25 | P1 | 1.75 | 1.77 | TNMP2.0B5 | 5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.75 | 1.77 | TNMP2.0B1 | 1.5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.2X0.25 | P1 | 1.95 | 1.97 | TNMP2.2B5 | 5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.95 | 1.97 | TNMP2.2B1 | 1.5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.3X0.25 | P1 | 2.05 | 2.07 | TNMP2.3B5 | 5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 2.05 | 2.07 | TNMP2.3B1 | 1.5P | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.35 | P2 | 2.2 | 2.2 | TNMQ2.5D5 | 5P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.2 | 2.2 | TNMQ2.5D1 | 1.5P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ● |
| M2.6X0.35 | P2 | 2.3 | 2.3 | TNMQ2.6D5 | 5P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.3 | 2.3 | TNMQ2.6D1 | 1.5P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ● |
| M3X0.35 | P2 | 2.7 | 2.7 | TNMQ3.0D5 | 5P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.7 | 2.7 | TNMQ3.0D1 | 1.5P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| M3.5X0.35 | P2 | 3.2 | 3.2 | TNMQ3.5D5 | 5P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.2 | 3.2 | TNMQ3.5D1 | 1.5P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| M4X0.5 | P2 | 3.5 | 3.56 | TNMQ4.0G5 | 5P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.5 | 3.56 | TNMQ4.0G1 | 1.5P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ● |
| M4.5X0.5 | P2 | 4 | 4.06 | TNMQ4.5G5 | 5P | 60 | 9 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4 | 4.06 | TNMQ4.5G1 | 1.5P | 60 | 9 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M5X0.75 | P2 | 4.3 | 4.33 | TNMQ5.0J5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.3 | 4.33 | TNMQ5.0J1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M5X0.5 | P2 | 4.5 | 4.56 | TNMQ5.0G5 | 5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.5 | 4.56 | TNMQ5.0G1 | 1.5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ● |
| | P3(P2+15) | 4.5 | 4.56 | TNMR5.0G5 | 5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+15) | 4.5 | 4.56 | TNMR5.0G1 | 1.5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M5.5X0.75 | P2 | 4.8 | 4.83 | TNMQ5.5J5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.8 | 4.83 | TNMQ5.5J1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| M5.5X0.5 | P2 | 5 | 5.06 | TNMQ5.5G5 | 5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5 | 5.06 | TNMQ5.5G1 | 1.5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| M6X0.75 | P2 | 5.3 | 5.33 | TNMQ6.0J5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.3 | 5.33 | TNMQ6.0J1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| | P3(P2+20) | 5.3 | 5.33 | TNMR6.0J5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 5.3 | 5.33 | TNMR6.0J1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5.3 | 5.33 | TNMS6.0J5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5.3 | 5.33 | TNMS6.0J1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| M6X0.5 | P2 | 5.5 | 5.56 | TNMQ6.0G5 | 5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.5 | 5.56 | TNMQ6.0G1 | 1.5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| M6.5X0.5 | P2 | 6 | 6.06 | TNMQ6.5G5 | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| | P2 | 6 | 6.06 | TNMQ6.5G1 | 1.5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| M7X0.75 | P2 | 6.3 | 6.33 | TNMQ7.0J5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6.3 | 6.33 | TNMQ7.0J1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| M7X0.5 | P2 | 6.5 | 6.56 | TNMQ7.0G5 | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| | P2 | 6.5 | 6.56 | TNMQ7.0G1 | 1.5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ● |
| M7.5X0.5 | P2 | 7 | 7.06 | TNMQ7.5G5 | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| | P2 | 7 | 7.06 | TNMQ7.5G1 | 1.5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X1 | P2 | 7 | 7.09 | TNMQ8.0M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | **O** |
| | P4(P2+40) | 7 | 7.09 | TNMS8.0M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P2+40) | 7 | 7.09 | TNMS8.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M5T | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M1T | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3(P2+20) | 7 | 7.09 | TNMR8.0M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3(P2+20) | 7 | 7.09 | TNMR8.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| M8X0.75 | P2 | 7.3 | 7.33 | TNMQ8.0J5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 7.3 | 7.33 | TNMQ8.0J1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | **O** |
| M8X0.5 | P2 | 7.5 | 7.56 | TNMQ8.0G5 | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| | P2 | 7.5 | 7.56 | TNMQ8.0G1 | 1.5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | **O** |
| M8.5X1 | P2 | 7.5 | 7.59 | TNMQ8.5M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P2 | 7.5 | 7.59 | TNMQ8.5M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M8.5X0.75 | P2 | 7.8 | 7.81 | TNMQ8.5J5 | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 7.8 | 7.81 | TNMQ8.5J1 | 1.5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M8.5X0.5 | P2 | 8 | 8.06 | TNMQ8.5G5 | 5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 8 | 8.06 | TNMQ8.5G1 | 1.5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M9X1 | P2 | 8 | 8.09 | TNMQ9.0M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P2 | 8 | 8.09 | TNMQ9.0M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | **O** |
| M9X0.75 | P2 | 8.3 | 8.33 | TNMQ9.0J5 | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 8.3 | 8.33 | TNMQ9.0J1 | 1.5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M9X0.5 | P2 | 8.5 | 8.56 | TNMQ9.0G5 | 5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 8.5 | 8.56 | TNMQ9.0G1 | 1.5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M9.5X1 | P2 | 8.5 | 8.59 | TNMQ9.5M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P2 | 8.5 | 8.59 | TNMQ9.5M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M9.5X0.75 | P2 | 8.8 | 8.83 | TNMQ9.5J5 | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 8.8 | 8.83 | TNMQ9.5J1 | 1.5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M9.5X0.5 | P2 | 9 | 9.06 | TNMQ9.5G5 | 5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 9 | 9.06 | TNMQ9.5G1 | 1.5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | TNMR010N5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.8 | 8.85 | TNMR010N1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | **O** |
| | P4(P3+20) | 8.8 | 8.85 | TNMS010N5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 8.8 | 8.85 | TNMS010N1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.8 | 8.85 | TNMR010N5T | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8.8 | 8.85 | TNMR010N1T | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P5(P3+40) | 8.8 | 8.85 | TNMT010N5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P5(P3+40) | 8.8 | 8.85 | TNMT010N1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M10X1 | P3 | 9 | 9.09 | TNMR010M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 9 | 9.09 | TNMR010M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | **O** |
| | P4(P3+20) | 9 | 9.09 | TNMS010M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 9 | 9.09 | TNMS010M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M10X0.75 | P3 | 9.3 | 9.33 | TNMR010J5 | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P3 | 9.3 | 9.33 | TNMR010J1 | 1.5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | **O** |
| M10X0.5 | P2 | 9.5 | 9.56 | TNMQ010G5 | 5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 9.5 | 9.56 | TNMQ010G1 | 1.5P | 75 | 11 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | **O** |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M11X1.25 | P3 | 9.8 | 9.85 | TNMR011N5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 9.8 | 9.85 | TNMR011N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M11X1 | P3 | 10 | 10.1 | TNMR011M5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10 | 10.1 | TNMR011M1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| M11X0.75 | P3 | 10.3 | 10.33 | TNMR011J5 | 5P | 82 | 14 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| | P3 | 10.3 | 10.33 | TNMR011J1 | 1.5P | 82 | 14 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| M11X0.5 | P2 | 10.5 | 10.56 | TNMQ011G5 | 5P | 82 | 12 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| | P2 | 10.5 | 10.56 | TNMQ011G1 | 1.5P | 82 | 12 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | TNMR012O5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10.5 | 10.6 | TNMR012O1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| | P4(P3+20) | 10.5 | 10.6 | TNMS012O5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 10.5 | 10.6 | TNMS012O1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P5(P3+40) | 10.5 | 10.6 | TNMT012O5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P5(P3+40) | 10.5 | 10.6 | TNMT012O1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | TNMS012N5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 10.8 | 10.85 | TNMS012N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| | P4 | 10.8 | 10.85 | TNMS012N5T | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P4 | 10.8 | 10.85 | TNMS012N1T | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P5(P4+20) | 10.8 | 10.85 | TNMT012N5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P5(P4+20) | 10.8 | 10.85 | TNMT012N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1 | P3 | 11 | 11.09 | TNMR012M5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 11 | 11.09 | TNMR012M1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| | P4(P3+20) | 11 | 11.09 | TNMS012M5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 11 | 11.09 | TNMS012M1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X0.75 | P3 | 11.3 | 11.33 | TNMR012J5 | 5P | 82 | 14 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| | P3 | 11.3 | 11.33 | TNMR012J1 | 1.5P | 82 | 14 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| M12X0.5 | P2 | 11.5 | 11.56 | TNMQ012G5 | 5P | 82 | 12 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| | P2 | 11.5 | 11.56 | TNMQ012G1 | 1.5P | 82 | 12 | - | 42 | 8.5 | 6.5 | 9 | 4 | 037 | ○ |
| M13X1.75 | P3 | 11.3 | 11.4 | TNMR013P5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 11.3 | 11.4 | TNMR013P1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M13X1.5 | P3 | 11.6 | 11.6 | TNMR013O5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 11.6 | 11.6 | TNMR013O1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| M13X1.25 | P4 | 11.8 | 11.85 | TNMS013N5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 11.8 | 11.85 | TNMS013N1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M13X1 | P3 | 12 | 12.09 | TNMR013M5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12 | 12.09 | TNMR013M1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| M13X0.75 | P3 | 12.3 | 12.33 | TNMR013J5 | 5P | 88 | 14 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| | P3 | 12.3 | 12.33 | TNMR013J1 | 1.5P | 88 | 14 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| M13X0.5 | P2 | 12.5 | 12.56 | TNMQ013G5 | 5P | 88 | 12 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| | P2 | 12.5 | 12.56 | TNMQ013G1 | 1.5P | 88 | 12 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| M14X1.75 | P3 | 12.3 | 12.4 | TNMR014P5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12.3 | 12.4 | TNMR014P1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | TNMR014O5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12.5 | 12.6 | TNMR014O1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| | P4(P3+20) | 12.5 | 12.6 | TNMS014O5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 12.5 | 12.6 | TNMS014O1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P5(P3+40) | 12.5 | 12.6 | TNMT014O5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P5(P3+40) | 12.5 | 12.6 | TNMT014O1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |



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| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M14X1.25** | P4 | 12.8 | 12.85 | TNMS014N5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 12.8 | 12.85 | TNMS014N1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | **O** |
| **M14X1** | P3 | 13 | 13.09 | TNMR014M5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 13 | 13.09 | TNMR014M1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | **O** |
| | P4(P3+20) | 13 | 13.09 | TNMS014M5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 13 | 13.09 | TNMS014M1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| **M14X0.75** | P3 | 13.3 | 13.33 | TNMR014J5 | 5P | 88 | 15 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| | P3 | 13.3 | 13.33 | TNMR014J1 | 1.5P | 88 | 15 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| **M14X0.5** | P2 | 13.5 | 13.56 | TNMQ014G5 | 5P | 88 | 12 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| | P2 | 13.5 | 13.56 | TNMQ014G1 | 1.5P | 88 | 12 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| **M15X2** | P3 | 13 | 13.12 | TNMR015Q5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 13 | 13.12 | TNMR015Q1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| **M15X1.5** | P3 | 13.5 | 13.6 | TNMR015O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 13.5 | 13.6 | TNMR015O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | **O** |
| **M15X1.25** | P4 | 13.8 | 13.85 | TNMS015N5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 13.8 | 13.85 | TNMS015N1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| **M15X1** | P3 | 14 | 14.09 | TNMR015M5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14 | 14.09 | TNMR015M1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | **O** |
| **M15X0.75** | P3 | 14.3 | 14.33 | TNMR015J5 | 5P | 95 | 15 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| | P3 | 14.3 | 14.33 | TNMR015J1 | 1.5P | 95 | 15 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| **M15X0.5** | P2 | 14.5 | 14.56 | TNMQ015G5 | 5P | 95 | 13 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| | P2 | 14.5 | 14.56 | TNMQ015G1 | 1.5P | 95 | 13 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| **M16X1.5** | P3 | 14.5 | 14.6 | TNMR016O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.5 | 14.6 | TNMR016O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | **O** |
| | P4(P3+20) | 14.5 | 14.6 | TNMS016O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 14.5 | 14.6 | TNMS016O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P5(P3+40) | 14.5 | 14.6 | TNMT016O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P5(P3+40) | 14.5 | 14.6 | TNMT016O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| **M16X1.25** | P4 | 14.8 | 14.85 | TNMS016N5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 14.8 | 14.85 | TNMS016N1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | **O** |
| **M16X1** | P3 | 15 | 15.09 | TNMR016M5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 15 | 15.09 | TNMR016M1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | **O** |
| | P4(P3+20) | 15 | 15.09 | TNMS016M5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 15 | 15.09 | TNMS016M1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| **M16X0.75** | P3 | 15.3 | 15.33 | TNMR016J5 | 5P | 95 | 15 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| | P3 | 15.3 | 15.33 | TNMR016J1 | 1.5P | 95 | 15 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| **M16X0.5** | P2 | 15.5 | 15.56 | TNMQ016G5 | 5P | 95 | 13 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| | P2 | 15.5 | 15.56 | TNMQ016G1 | 1.5P | 95 | 13 | - | 48 | 12.5 | 10 | 13 | 4 | 037 | ○ |
| **M17X2** | P3 | 15 | 15.1 | TNMR017Q5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P3 | 15 | 15.1 | TNMR017Q1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| **M17X1.5** | P4 | 15.5 | 15.6 | TNMS017O5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 15.5 | 15.6 | TNMS017O1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | **O** |
| **M17X1.25** | P4 | 15.8 | 15.85 | TNMS017N5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 15.8 | 15.85 | TNMS017N1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| **M17X1** | P3 | 16 | 16.09 | TNMR017M5 | 5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P3 | 16 | 16.09 | TNMR017M1 | 1.5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | **O** |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M17X0.75 | P3 | 16.3 | 16.33 | TNMR017J5 | 5P | 100 | 16 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P3 | 16.3 | 16.33 | TNMR017J1 | 1.5P | 100 | 16 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| M17X0.5 | P2 | 16.5 | 16.56 | TNMQ017G5 | 5P | 100 | 13 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P2 | 16.5 | 16.56 | TNMQ017G1 | 1.5P | 100 | 13 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| M18X2 | P4 | 16 | 16.12 | TNMS018Q5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 16 | 16.12 | TNMS018Q1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ● |
| M18X1.5 | P3 | 16.5 | 16.6 | TNMR018O5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P3 | 16.5 | 16.6 | TNMR018O1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ● |
| | P4(P3+20) | 16.5 | 16.6 | TNMS018O5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4(P3+20) | 16.5 | 16.6 | TNMS018O1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P5(P3+40) | 16.5 | 16.6 | TNMT018O5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P5(P3+40) | 16.5 | 16.6 | TNMT018O1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M18X1.25 | P4 | 16.8 | 16.85 | TNMS018N5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 16.8 | 16.85 | TNMS018N1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M18X1 | P3 | 17 | 17.09 | TNMR018M5 | 5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P3 | 17 | 17.09 | TNMR018M1 | 1.5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ● |
| M18X0.75 | P3 | 17.3 | 17.33 | TNMR018J5 | 5P | 100 | 16 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P3 | 17.3 | 17.33 | TNMR018J1 | 1.5P | 100 | 16 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| M18X0.5 | P2 | 17.5 | 17.56 | TNMQ018G5 | 5P | 100 | 13 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P2 | 17.5 | 17.56 | TNMQ018G1 | 1.5P | 100 | 13 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| M19X2.5 | P4 | 16.5 | 16.6 | TNMS019R5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 16.5 | 16.6 | TNMS019R1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M19X2 | P4 | 17 | 17.12 | TNMS019Q5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 17 | 17.12 | TNMS019Q1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M19X1.5 | P3 | 17.5 | 17.6 | TNMR019O5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P3 | 17.5 | 17.6 | TNMR019O1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| M19X1 | P3 | 18 | 18.09 | TNMR019M5 | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P3 | 18 | 18.09 | TNMR019M1 | 1.5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ● |
| M19X0.75 | P3 | 18.3 | 18.33 | TNMR019J5 | 5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P3 | 18.3 | 18.33 | TNMR019J1 | 1.5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| M19X0.5 | P2 | 18.5 | 18.56 | TNMQ019G5 | 5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P2 | 18.5 | 18.56 | TNMQ019G1 | 1.5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| M20X2 | P4 | 18 | 18.12 | TNMS020Q5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 18 | 18.12 | TNMS020Q1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| M20X1.5 | P3 | 18.5 | 18.6 | TNMR020O5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P3 | 18.5 | 18.6 | TNMR020O1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| | P4(P3+20) | 18.5 | 18.6 | TNMS020O5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4(P3+20) | 18.5 | 18.6 | TNMS020O1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P5(P3+40) | 18.5 | 18.6 | TNMT020O5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P5(P3+40) | 18.5 | 18.6 | TNMT020O1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M20X1.25 | P4 | 18.8 | 18.85 | TNMS020N5 | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P4 | 18.8 | 18.85 | TNMS020N1 | 1.5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| M20X1 | P3 | 19 | 19.09 | TNMR020M5 | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P3 | 19 | 19.09 | TNMR020M1 | 1.5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ● |
| M20X0.75 | P3 | 19.3 | 19.33 | TNMR020J5 | 5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P3 | 19.3 | 19.33 | TNMR020J1 | 1.5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M20X0.5 | P2 | 19.5 | 19.56 | TNMQ020G5 | 5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P2 | 19.5 | 19.56 | TNMQ020G1 | 1.5P | 105 | 14 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| M21X2 | P4 | 19 | 19.1 | TNMS021Q5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19 | 19.1 | TNMS021Q1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M21X1.5 | P3 | 19.5 | 19.6 | TNMR021O5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P3 | 19.5 | 19.6 | TNMR021O1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M21X1 | P3 | 20 | 20.09 | TNMR021M5 | 5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P3 | 20 | 20.09 | TNMR021M1 | 1.5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M22X2 | P4 | 20 | 20.12 | TNMS022Q5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 20 | 20.12 | TNMS022Q1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | TNMR022O5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P3 | 20.5 | 20.6 | TNMR022O1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4(P3+20) | 20.5 | 20.6 | TNMS022O5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4(P3+20) | 20.5 | 20.6 | TNMS022O1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P5(P3+40) | 20.5 | 20.6 | TNMT022O5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P5(P3+40) | 20.5 | 20.6 | TNMT022O1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M22X1.25 | P4 | 20.8 | 20.85 | TNMS022N5 | 5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P4 | 20.8 | 20.85 | TNMS022N1 | 1.5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M22X1 | P3 | 21 | 21.09 | TNMR022M5 | 5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P3 | 21 | 21.09 | TNMR022M1 | 1.5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M22X0.75 | P3 | 21.3 | 21.33 | TNMR022J5 | 5P | 115 | 14 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P3 | 21.3 | 21.33 | TNMR022J1 | 1.5P | 115 | 14 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M22X0.5 | P2 | 21.5 | 21.56 | TNMQ022G5 | 5P | 115 | 14 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P2 | 21.5 | 21.56 | TNMQ022G1 | 1.5P | 115 | 14 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M23X2 | P4 | 21 | 21.1 | TNMS023Q5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 21 | 21.1 | TNMS023Q1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M23X1.5 | P3 | 21.5 | 21.6 | TNMR023O5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 21.5 | 21.6 | TNMR023O1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M23X1 | P3 | 22 | 22.09 | TNMR023M5 | 5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 22 | 22.09 | TNMR023M1 | 1.5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| M24X2 | P4 | 22 | 22.12 | TNMS024Q5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22 | 22.12 | TNMS024Q1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | TNMR024O5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 22.5 | 22.6 | TNMR024O1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4(P3+20) | 22.5 | 22.6 | TNMS024O5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4(P3+20) | 22.5 | 22.6 | TNMS024O1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P5(P3+40) | 22.5 | 22.6 | TNMT024O5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P5(P3+40) | 22.5 | 22.6 | TNMT024O1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M24X1.25 | P4 | 22.8 | 22.85 | TNMS024N5 | 5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P4 | 22.8 | 22.85 | TNMS024N1 | 1.5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| M24X1 | P3 | 23 | 23.09 | TNMR024M5 | 5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 23 | 23.09 | TNMR024M1 | 1.5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| M24X0.75 | P3 | 23.3 | 23.33 | TNMR024J5 | 5P | 120 | 15 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 23.3 | 23.33 | TNMR024J1 | 1.5P | 120 | 15 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| M24X0.5 | P2 | 23.5 | 23.56 | TNMQ024G5 | 5P | 120 | 15 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P2 | 23.5 | 23.56 | TNMQ024G1 | 1.5P | 120 | 15 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M25X3 | P4 | 22 | 22.12 | TNMS025S5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22 | 22.12 | TNMS025S1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| M25X2 | P4 | 23 | 23.12 | TNMS025Q5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 23 | 23.12 | TNMS025Q1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| M25X1.5 | P3 | 23.5 | 23.6 | TNMR025O5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 23.5 | 23.6 | TNMR025O1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| M25X1 | P3 | 24 | 24.09 | TNMR025M5 | 5P | 125 | 20 | - | 58 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 24 | 24.09 | TNMR025M1 | 1.5P | 125 | 20 | - | 58 | 19 | 15 | 18 | 4 | 037 | ○ |
| M26X3 | P4 | 23 | 23.12 | TNMS026S5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 23 | 23.12 | TNMS026S1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X2 | P4 | 24 | 24.12 | TNMS026Q5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 24 | 24.12 | TNMS026Q1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X1.5 | P3 | 24.5 | 24.6 | TNMR026O5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 24.5 | 24.6 | TNMR026O1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X1 | P3 | 25 | 25.09 | TNMR026M5 | 5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 25 | 25.09 | TNMR026M1 | 1.5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| M27X2 | P5 | 25 | 25.12 | TNMT027Q5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P5 | 25 | 25.12 | TNMT027Q1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | TNMR027O5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 25.5 | 25.6 | TNMR027O1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M27X1 | P3 | 26 | 26.09 | TNMR027M5 | 5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 26 | 26.09 | TNMR027M1 | 1.5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| M28X3 | P4 | 25 | 25.12 | TNMS028S5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 25 | 25.12 | TNMS028S1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X2 | P4 | 26 | 26.12 | TNMS028Q5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 26 | 26.12 | TNMS028Q1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X1.5 | P3 | 26.5 | 26.6 | TNMR028O5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P3 | 26.5 | 26.6 | TNMR028O1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X1 | P3 | 27 | 27.09 | TNMR028M5 | 5P | 135 | 20 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| | P3 | 27 | 27.09 | TNMR028M1 | 1.5P | 135 | 20 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| M29X1.5 | P3 | 27.5 | 27.6 | TNMR029O5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P3 | 27.5 | 27.6 | TNMR029O1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X3 | P5 | 27 | 27.13 | TNMT030S5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 27 | 27.13 | TNMT030S1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X2 | P4 | 28 | 28.12 | TNMS030Q5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 28 | 28.12 | TNMS030Q1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | TNMR030O5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P3 | 28.5 | 28.6 | TNMR030O1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X1 | P3 | 29 | 29.09 | TNMR030M5 | 5P | 135 | 21 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| | P3 | 29 | 29.09 | TNMR030M1 | 1.5P | 135 | 21 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| M32X3.5 | P4 | 28.5 | 28.6 | TNMS032T5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 28.5 | 28.6 | TNMS032T1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M32X3 | P5 | 29 | 29.13 | TNMT032S5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P5 | 29 | 29.13 | TNMT032S1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M32X2 | P4 | 30 | 30.12 | TNMS032Q5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 30 | 30.12 | TNMS032Q1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |



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| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M32X1.5 | P4 | 30.5 | 30.6 | TNMS03205 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 30.5 | 30.6 | TNMS03201 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M32X1 | P3 | 31 | 31.09 | TNMR032M5 | 5P | 145 | 21 | - | 67 | 24 | 19 | 22 | 4 | 037 | ○ |
| | P3 | 31 | 31.09 | TNMR032M1 | 1.5P | 145 | 21 | - | 67 | 24 | 19 | 22 | 4 | 037 | ○ |
| M33X3 | P5 | 30 | 30.13 | TNMT033S5 | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P5 | 30 | 30.13 | TNMT033S1 | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M33X2 | P4 | 31 | 31.12 | TNMS033Q5 | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 31 | 31.12 | TNMS033Q1 | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M33X1.5 | P4 | 31.5 | 31.6 | TNMS03305 | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 31.5 | 31.6 | TNMS03301 | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M33X1 | P3 | 32 | 32.09 | TNMR033M5 | 5P | 145 | 21 | - | 67 | 25 | 19 | 22 | 4 | 037 | ○ |
| | P3 | 32 | 32.09 | TNMR033M1 | 1.5P | 145 | 21 | - | 67 | 25 | 19 | 22 | 4 | 037 | ○ |
| M34X3 | P5 | 31 | 31.13 | TNMT034S5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 31 | 31.13 | TNMT034S1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M34X2 | P4 | 32 | 32.12 | TNMS034Q5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P4 | 32 | 32.12 | TNMS034Q1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M34X1.5 | P4 | 35.5 | 32.6 | TNMS03405 | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P4 | 35.5 | 32.6 | TNMS03401 | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M34X1 | P3 | 33 | 33.09 | TNMR034M5 | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P3 | 33 | 33.09 | TNMR034M1 | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M35X3 | P5 | 32 | 32.13 | TNMT035S5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 32 | 32.13 | TNMT035S1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M35X2 | P5 | 33 | 33.12 | TNMT035Q5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 33 | 33.12 | TNMT035Q1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M35X1.5 | P4 | 33.5 | 33.6 | TNMS03505 | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P4 | 33.5 | 33.6 | TNMS03501 | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M35X1 | P3 | 34 | 34.09 | TNMR035M5 | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P3 | 34 | 34.09 | TNMR035M1 | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M36X3 | P5 | 33 | 33.13 | TNMT036S5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 33 | 33.13 | TNMT036S1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M36X2 | P4 | 34 | 34.12 | TNMS036Q5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P4 | 34 | 34.12 | TNMS036Q1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M36X1.5 | P4 | 34.5 | 34.6 | TNMS03605 | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P4 | 34.5 | 34.6 | TNMS03601 | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M36X1 | P3 | 35 | 35.09 | TNMR036M5 | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P3 | 35 | 35.09 | TNMR036M1 | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M37X1.5 | P4 | 35.5 | 35.6 | TNMS03705 | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P4 | 35.5 | 35.6 | TNMS03701 | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M38X3 | P5 | 35 | 35.13 | TNMT038S5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 35 | 35.13 | TNMT038S1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M38X2 | P4 | 36 | 36.12 | TNMS038Q5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P4 | 36 | 36.12 | TNMS038Q1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M38X1.5 | P4 | 36.5 | 36.6 | TNMS03805 | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P4 | 36.5 | 36.6 | TNMS03801 | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M38X1 | P3 | 37 | 37.09 | TNMR038M5 | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P3 | 37 | 37.09 | TNMR038M1 | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M39X3 | P5 | 36 | 36.13 | TNMT039S5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 36 | 36.13 | TNMT039S1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M39X2 | P5 | 37 | 37.12 | TNMT039Q5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 37 | 37.12 | TNMT039Q1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M39X1.5 | P4 | 37.5 | 37.6 | TNMS039O5 | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P4 | 37.5 | 37.6 | TNMS039O1 | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M39X1 | P3 | 38 | 38.09 | TNMR039M5 | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P3 | 38 | 38.09 | TNMR039M1 | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M40X4 | P5 | 36 | 36.14 | TNMT040U5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 36 | 36.14 | TNMT040U1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X3 | P5 | 37 | 37.13 | TNMT040S5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 37 | 37.13 | TNMT040S1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X2 | P4 | 38 | 38.12 | TNMS040Q5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 38 | 38.12 | TNMS040Q1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X1.5 | P4 | 38.5 | 38.6 | TNMS040O5 | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 38.5 | 38.6 | TNMS040O1 | 1.5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M40X1 | P3 | 39 | 39.09 | TNMR040M5 | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| | P3 | 39 | 39.09 | TNMR040M1 | 1.5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M42X4 | P6 | 38 | 38.12 | TNMU042U5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P6 | 38 | 38.12 | TNMU042U1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X3 | P5 | 39 | 39.13 | TNMT042S5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 39 | 39.13 | TNMT042S1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X2 | P4 | 40 | 40.12 | TNMS042Q5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 40 | 40.12 | TNMS042Q1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X1.5 | P4 | 40.5 | 40.6 | TNMS042O5 | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 40.5 | 40.6 | TNMS042O1 | 1.5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M42X1 | P3 | 41 | 41.09 | TNMR042M5 | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| | P3 | 41 | 41.09 | TNMR042M1 | 1.5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M44X4 | P6 | 40 | 40.14 | TNMU044U5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P6 | 40 | 40.14 | TNMU044U1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M44X3 | P5 | 41 | 41.13 | TNMT044S5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 41 | 41.13 | TNMT044S1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M44X2 | P4 | 42 | 42.12 | TNMS044Q5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 42 | 42.12 | TNMS044Q1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M44X1.5 | P4 | 42.5 | 42.6 | TNMS044O5 | 5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 42.5 | 42.6 | TNMS044O1 | 1.5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| M44X1 | P3 | 43 | 43.09 | TNMR044M5 | 5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| | P3 | 43 | 43.09 | TNMR044M1 | 1.5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| M45X4 | P6 | 41 | 41.12 | TNMU045U5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P6 | 41 | 41.12 | TNMU045U1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X3 | P5 | 42 | 42.13 | TNMT045S5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 42 | 42.13 | TNMT045S1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X2 | P4 | 43 | 43.12 | TNMS045Q5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 43 | 43.12 | TNMS045Q1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X1.5 | P4 | 43.5 | 43.6 | TNMS045O5 | 5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 43.5 | 43.6 | TNMS045O1 | 1.5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |



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| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M45X1 | P3 | 44 | 44.09 | TNMR045M5 | 5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| | P3 | 44 | 44.09 | TNMR045M1 | 1.5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| M46X4 | P6 | 42 | 42.12 | TNMU046U5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P6 | 42 | 42.12 | TNMU046U1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M46X3 | P6 | 43 | 43.13 | TNMU046S5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P6 | 43 | 43.13 | TNMU046S1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M46X2 | P4 | 44 | 44.12 | TNMS046Q5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P4 | 44 | 44.12 | TNMS046Q1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M46X1.5 | P4 | 44.5 | 44.6 | TNMS046O5 | 5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| | P4 | 44.5 | 44.6 | TNMS046O1 | 1.5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| M48X4 | P6 | 44 | 44.12 | TNMU048U5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P6 | 44 | 44.12 | TNMU048U1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X3 | P6 | 45 | 45.13 | TNMU048S5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P6 | 45 | 45.13 | TNMU048S1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X2 | P4 | 46 | 46.12 | TNMS048Q5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P4 | 46 | 46.12 | TNMS048Q1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X1.5 | P4 | 46.5 | 46.6 | TNMS048O5 | 5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| | P4 | 46.5 | 46.6 | TNMS048O1 | 1.5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| M48X1 | P3 | 47 | 47.09 | TNMR048M5 | 5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| | P3 | 47 | 47.09 | TNMR048M1 | 1.5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| M50X5 | II | 45 | 45.12 | TH2050W5 | 5P | 195 | 90 | - | 105 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 45 | 45.12 | TH2050W1 | 1.5P | 195 | 90 | - | 105 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X4 | II | 46 | 46.12 | TH2050U5 | 5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 46 | 46.12 | TH2050U1 | 1.5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X3 | II | 47 | 47.13 | TH2050S5 | 5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 47 | 47.13 | TH2050S1 | 1.5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X2 | II | 48 | 48.12 | TH2050Q5 | 5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 48 | 48.12 | TH2050Q1 | 1.5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X1.5 | II | 48.5 | 48.6 | TH2050O5 | 5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 48.5 | 48.6 | TH2050O1 | 1.5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X1 | II | 49 | 49.09 | TH2050M5 | 5P | 130 | 30 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 49 | 49.09 | TH2050M1 | 1.5P | 130 | 30 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| M52X4 | II | 48 | 48.1 | TH2052U5 | 5P | 180 | 80 | - | 100 | 42 | 32 | 35 | 4 | 002 | ○ |
| | II | 48 | 48.1 | TH2052U1 | 1.5P | 180 | 80 | - | 100 | 42 | 32 | 35 | 4 | 002 | ○ |
| M52X3 | II | 49 | 49.1 | TH2052S5 | 5P | 180 | 80 | - | 100 | 42 | 32 | 35 | 4 | 002 | ○ |
| | II | 49 | 49.1 | TH2052S1 | 1.5P | 180 | 80 | - | 100 | 42 | 32 | 35 | 4 | 002 | ○ |
| M52X2 | II | 50 | 50.1 | TH2052Q5 | 5P | 130 | 50 | - | 80 | 42 | 32 | 35 | 4 | 002 | ○ |
| | II | 50 | 50.1 | TH2052Q1 | 1.5P | 130 | 50 | - | 80 | 42 | 32 | 35 | 4 | 002 | ○ |
| M52X1.5 | II | 50.5 | 50.6 | TH2052O5 | 5P | 130 | 45 | - | 85 | 42 | 32 | 35 | 4 | 002 | ○ |
| | II | 50.5 | 50.6 | TH2052O1 | 1.5P | 130 | 45 | - | 85 | 42 | 32 | 35 | 4 | 002 | ○ |
| M55X4 | II | 51 | 51.1 | TH2055U5 | 5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 51 | 51.1 | TH2055U1 | 1.5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| M55X3 | II | 52 | 52.1 | TH2055S5 | 5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 52 | 52.1 | TH2055S1 | 1.5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| M55X2 | II | 53 | 53.1 | TH2055Q5 | 5P | 135 | 50 | - | 85 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 53 | 53.1 | TH2055Q1 | 1.5P | 135 | 50 | - | 85 | 44 | 35 | 38 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M55X1.5 | II | 53.5 | 53.6 | TH2055O5 | 5P | 135 | 45 | - | 90 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 53.5 | 53.6 | TH2055O1 | 1.5P | 135 | 45 | - | 90 | 44 | 35 | 38 | 4 | 002 | ○ |
| M56X4 | II | 52 | 52.1 | TH2056U5 | 5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 52 | 52.1 | TH2056U1 | 1.5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| M56X3 | II | 53 | 53.1 | TH2056S5 | 5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 53 | 53.1 | TH2056S1 | 1.5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| M56X2 | II | 54 | 54.1 | TH2056Q5 | 5P | 135 | 50 | - | 85 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 54 | 54.1 | TH2056Q1 | 1.5P | 135 | 50 | - | 85 | 44 | 35 | 38 | 4 | 002 | ○ |
| M56X1.5 | II | 54.5 | 54.6 | TH2056O5 | 5P | 135 | 45 | - | 90 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 54.5 | 54.6 | TH2056O1 | 1.5P | 135 | 45 | - | 90 | 44 | 35 | 38 | 4 | 002 | ○ |
| M58X4 | II | 54 | 54.1 | TH2058U5 | 5P | 180 | 80 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 54 | 54.1 | TH2058U1 | 1.5P | 180 | 80 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| M58X3 | II | 55 | 55.1 | TH2058S5 | 5P | 180 | 80 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 55 | 55.1 | TH2058S1 | 1.5P | 180 | 80 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| M58X2 | II | 56 | 56.1 | TH2058Q5 | 5P | 135 | 50 | - | 85 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 56 | 56.1 | TH2058Q1 | 1.5P | 135 | 50 | - | 85 | 46 | 35 | 38 | 4 | 002 | ○ |
| M58X1.5 | II | 56.5 | 56.6 | TH2058O5 | 5P | 135 | 45 | - | 90 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 56.5 | 56.6 | TH2058O1 | 1.5P | 135 | 45 | - | 90 | 46 | 35 | 38 | 4 | 002 | ○ |
| M60X4 | II | 56 | 56.1 | TH2060U5 | 5P | 185 | 85 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 56 | 56.1 | TH2060U1 | 1.5P | 185 | 85 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| M60X3 | II | 57 | 57.1 | TH2060S5 | 5P | 185 | 85 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 57 | 57.1 | TH2060S1 | 1.5P | 185 | 85 | - | 100 | 46 | 35 | 38 | 4 | 002 | ○ |
| M60X2 | II | 58 | 58.1 | TH2060Q5 | 5P | 140 | 55 | - | 85 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 58 | 58.1 | TH2060Q1 | 1.5P | 140 | 55 | - | 85 | 46 | 35 | 38 | 4 | 002 | ○ |
| M60X1.5 | II | 58.5 | 58.6 | TH2060O5 | 5P | 140 | 45 | - | 95 | 46 | 35 | 38 | 4 | 002 | ○ |
| | II | 58.5 | 58.6 | TH2060O1 | 1.5P | 140 | 45 | - | 95 | 46 | 35 | 38 | 4 | 002 | ○ |
| M62X4 | II | 58 | 58.1 | TH2062U5 | 5P | 185 | 85 | - | 100 | 48 | 38 | 48 | 4 | 002 | ○ |
| | II | 58 | 58.1 | TH2062U1 | 1.5P | 185 | 85 | - | 100 | 48 | 38 | 48 | 4 | 002 | ○ |
| M62X3 | II | 59 | 59.1 | TH2062S5 | 5P | 185 | 85 | - | 100 | 48 | 38 | 48 | 4 | 002 | ○ |
| | II | 59 | 59.1 | TH2062S1 | 1.5P | 185 | 85 | - | 100 | 48 | 38 | 48 | 4 | 002 | ○ |
| M62X2 | II | 60 | 60.1 | TH2062Q5 | 5P | 140 | 55 | - | 85 | 48 | 38 | 48 | 4 | 002 | ○ |
| | II | 60 | 60.1 | TH2062Q1 | 1.5P | 140 | 55 | - | 85 | 48 | 38 | 48 | 4 | 002 | ○ |
| M62X1.5 | II | 60.5 | 60.6 | TH2062O5 | 5P | 140 | 45 | - | 95 | 48 | 38 | 48 | 4 | 002 | ○ |
| | II | 60.5 | 60.6 | TH2062O1 | 1.5P | 140 | 45 | - | 95 | 48 | 38 | 48 | 4 | 002 | ○ |
| M64X4 | II | 60 | 60.1 | TH2064U5 | 5P | 185 | 85 | - | 100 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 60 | 60.1 | TH2064U1 | 1.5P | 185 | 85 | - | 100 | 48 | 38 | 42 | 4 | 002 | ○ |
| M64X3 | II | 61 | 61.1 | TH2064S5 | 5P | 185 | 85 | - | 100 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 61 | 61.1 | TH2064S1 | 1.5P | 185 | 85 | - | 100 | 48 | 38 | 42 | 4 | 002 | ○ |
| M64X2 | II | 62 | 62.1 | TH2064Q5 | 5P | 140 | 55 | - | 85 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 62 | 62.1 | TH2064Q1 | 1.5P | 140 | 55 | - | 85 | 48 | 38 | 42 | 4 | 002 | ○ |
| M64X1.5 | II | 62.5 | 62.6 | TH2064O5 | 5P | 140 | 45 | - | 95 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 62.5 | 62.6 | TH2064O1 | 1.5P | 140 | 45 | - | 95 | 48 | 38 | 42 | 4 | 002 | ○ |
| M65X6 | II | 59 | 59.1 | TH2065Y5 | 5P | 225 | 105 | - | 120 | 50 | 38 | 42 | 4 | 002 | ○ |
| | II | 59 | 59.1 | TH2065Y1 | 1.5P | 225 | 105 | - | 120 | 50 | 38 | 42 | 4 | 002 | ○ |
| M65X4 | II | 61 | 61.1 | TH2065U5 | 5P | 185 | 85 | - | 100 | 50 | 38 | 42 | 4 | 002 | ○ |
| | II | 61 | 61.1 | TH2065U1 | 1.5P | 185 | 85 | - | 100 | 50 | 38 | 42 | 4 | 002 | ○ |



Think threads with YAMAWA

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Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M65X3 | II | 62 | 62.1 | TH2065S5 | 5P | 185 | 85 | - | 100 | 50 | 38 | 42 | 4 | 002 | ○ |
| | II | 62 | 62.1 | TH2065S1 | 1.5P | 185 | 85 | - | 100 | 50 | 38 | 42 | 4 | 002 | ○ |
| M65X2 | II | 63 | 63.1 | TH2065Q5 | 5P | 140 | 55 | - | 85 | 50 | 38 | 42 | 4 | 002 | ○ |
| | II | 63 | 63.1 | TH2065Q1 | 1.5P | 140 | 55 | - | 85 | 50 | 38 | 42 | 4 | 002 | ○ |
| M65X1.5 | II | 63.5 | 63.6 | TH2065O5 | 5P | 140 | 45 | - | 95 | 50 | 38 | 42 | 4 | 002 | ○ |
| | II | 63.5 | 63.6 | TH2065O1 | 1.5P | 140 | 45 | - | 95 | 50 | 38 | 42 | 4 | 002 | ○ |
| M68X4 | II | 64 | 64.1 | TH2068U5 | 5P | 190 | 85 | - | 105 | 52 | 41 | 44 | 4 | 002 | ○ |
| | II | 64 | 64.1 | TH2068U1 | 1.5P | 190 | 85 | - | 105 | 52 | 41 | 44 | 4 | 002 | ○ |
| M68X3 | II | 65 | 65.1 | TH2068S5 | 5P | 190 | 85 | - | 105 | 52 | 41 | 44 | 4 | 002 | ○ |
| | II | 65 | 65.1 | TH2068S1 | 1.5P | 190 | 85 | - | 105 | 52 | 41 | 44 | 4 | 002 | ○ |
| M68X2 | II | 66 | 66.1 | TH2068Q5 | 5P | 140 | 55 | - | 85 | 52 | 41 | 44 | 4 | 002 | ○ |
| | II | 66 | 66.1 | TH2068Q1 | 1.5P | 140 | 55 | - | 85 | 52 | 41 | 44 | 4 | 002 | ○ |
| M68X1.5 | II | 66.5 | 66.6 | TH2068O5 | 5P | 140 | 45 | - | 95 | 52 | 41 | 44 | 4 | 002 | ○ |
| | II | 66.5 | 66.6 | TH2068O1 | 1.5P | 140 | 45 | - | 95 | 52 | 41 | 44 | 4 | 002 | ○ |
| M70X4 | II | 66 | 66.1 | TH2070U5 | 5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 66 | 66.1 | TH2070U1 | 1.5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| M70X3 | II | 67 | 67.1 | TH2070S5 | 5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 67 | 67.1 | TH2070S1 | 1.5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| M70X2 | II | 68 | 68.1 | TH2070Q5 | 5P | 140 | 55 | - | 85 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 68 | 68.1 | TH2070Q1 | 1.5P | 140 | 55 | - | 85 | 55 | 41 | 44 | 4 | 002 | ○ |
| M70X1.5 | II | 68.5 | 68.6 | TH2070O5 | 5P | 140 | 45 | - | 95 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 68.5 | 68.6 | TH2070O1 | 1.5P | 140 | 45 | - | 95 | 55 | 41 | 44 | 4 | 002 | ○ |
| M72X4 | II | 68 | 68.1 | TH2072U5 | 5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 68 | 68.1 | TH2072U1 | 1.5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| M72X3 | II | 69 | 69.1 | TH2072S5 | 5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 69 | 69.1 | TH2072S1 | 1.5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| M72X2 | II | 70 | 70.1 | TH2072Q5 | 5P | 140 | 55 | - | 85 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 70 | 70.1 | TH2072Q1 | 1.5P | 140 | 55 | - | 85 | 55 | 41 | 44 | 4 | 002 | ○ |
| M72X1.5 | II | 70.5 | 70.6 | TH2072O5 | 5P | 140 | 45 | - | 95 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 70.5 | 70.6 | TH2072O1 | 1.5P | 140 | 45 | - | 95 | 55 | 41 | 44 | 4 | 002 | ○ |
| M75X6 | II | 69 | 69.1 | TH2075Y5 | 5P | 240 | 115 | - | 125 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 69 | 69.1 | TH2075Y1 | 1.5P | 240 | 115 | - | 125 | 58 | 46 | 50 | 4 | 002 | ○ |
| M75X4 | II | 71 | 71.1 | TH2075U5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 71 | 71.1 | TH2075U1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| M75X3 | II | 72 | 72.1 | TH2075S5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 72 | 72.1 | TH2075S1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| M75X2 | II | 73 | 73.1 | TH2075Q5 | 5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 73 | 73.1 | TH2075Q1 | 1.5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 4 | 002 | ○ |
| M75X1.5 | II | 73.5 | 73.6 | TH2075O5 | 5P | 145 | 50 | - | 95 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 73.5 | 73.6 | TH2075O1 | 1.5P | 145 | 50 | - | 95 | 58 | 46 | 50 | 4 | 002 | ○ |
| M76X4 | II | 72 | 72.1 | TH2076U5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 72 | 72.1 | TH2076U1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| M76X3 | II | 73 | 73.1 | TH2076S5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 73 | 73.1 | TH2076S1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| M76X2 | II | 74 | 74.1 | TH2076Q5 | 5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 74 | 74.1 | TH2076Q1 | 1.5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M76X1.5 | II | 74.5 | 74.6 | TH2076O5 | 5P | 145 | 50 | - | 95 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 74.5 | 74.6 | TH2076O1 | 1.5P | 145 | 50 | - | 95 | 58 | 46 | 50 | 4 | 002 | ○ |
| M78X3 | II | 75 | 75.1 | TH2078S5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 75 | 75.1 | TH2078S1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 6 | 002 | ○ |
| M78X2 | II | 76 | 76.1 | TH2078Q5 | 5P | 150 | 55 | - | 95 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 76 | 76.1 | TH2078Q1 | 1.5P | 150 | 55 | - | 95 | 58 | 46 | 50 | 6 | 002 | ○ |
| M80X4 | II | 76 | 76.1 | TH2080U5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 76 | 76.1 | TH2080U1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 6 | 002 | ○ |
| M80X3 | II | 77 | 77.1 | TH2080S5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 77 | 77.1 | TH2080S1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 6 | 002 | ○ |
| M80X2 | II | 78 | 78.1 | TH2080Q5 | 5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 78 | 78.1 | TH2080Q1 | 1.5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 6 | 002 | ○ |
| M80X1.5 | II | 78.5 | 78.6 | TH2080O5 | 5P | 145 | 50 | - | 95 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 78.5 | 78.6 | TH2080O1 | 1.5P | 145 | 50 | - | 95 | 58 | 46 | 50 | 6 | 002 | ○ |
| M82X2 | II | 80 | 80.1 | TH2082Q5 | 5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 80 | 80.1 | TH2082Q1 | 1.5P | 145 | 55 | - | 90 | 58 | 46 | 50 | 6 | 002 | ○ |
| M85X4 | II | 81 | 81.1 | TH2085U5 | 5P | 190 | 85 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 81 | 81.1 | TH2085U1 | 1.5P | 190 | 85 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| M85X3 | II | 82 | 82.1 | TH2085S5 | 5P | 190 | 85 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 82 | 82.1 | TH2085S1 | 1.5P | 190 | 85 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| M85X2 | II | 83 | 83.1 | TH2085Q5 | 5P | 150 | 55 | - | 95 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 83 | 83.1 | TH2085Q1 | 1.5P | 150 | 55 | - | 95 | 60 | 46 | 50 | 6 | 002 | ○ |
| M90X4 | II | 86 | 86.1 | TH2090U5 | 5P | 195 | 90 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 86 | 86.1 | TH2090U1 | 1.5P | 195 | 90 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| M90X3 | II | 87 | 87.1 | TH2090S5 | 5P | 195 | 90 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 87 | 87.1 | TH2090S1 | 1.5P | 195 | 90 | - | 105 | 60 | 46 | 50 | 6 | 002 | ○ |
| M90X2 | II | 88 | 88.1 | TH2090Q5 | 5P | 155 | 60 | - | 95 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 88 | 88.1 | TH2090Q1 | 1.5P | 155 | 60 | - | 95 | 60 | 46 | 50 | 6 | 002 | ○ |
| M95X4 | II | 91 | 91.1 | TH2095U5 | 5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 91 | 91.1 | TH2095U1 | 1.5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| M95X3 | II | 92 | 92.1 | TH2095S5 | 5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 92 | 92.1 | TH2095S1 | 1.5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| M95X2 | II | 93 | 93.1 | TH2095Q5 | 5P | 155 | 60 | - | 95 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 93 | 93.1 | TH2095Q1 | 1.5P | 155 | 60 | - | 95 | 65 | 50 | 52 | 6 | 002 | ○ |
| M100X4 | II | 96 | 96.1 | TH2100U5 | 5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 96 | 96.1 | TH2100U1 | 1.5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| M100X3 | II | 97 | 97.1 | TH2100S5 | 5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 97 | 97.1 | TH2100S1 | 1.5P | 200 | 90 | - | 110 | 65 | 50 | 52 | 6 | 002 | ○ |
| M100X2 | II | 98 | 98.1 | TH2100Q5 | 5P | 155 | 60 | - | 95 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 98 | 98.1 | TH2100Q1 | 1.5P | 155 | 60 | - | 95 | 65 | 50 | 52 | 6 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.1-64UNC | P1 | 1.54 | 1.55 | TNMPUN1D5 | 5P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.54 | 1.55 | TNMPUN1D1 | 1.5P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| No.2-56UNC | P1 | 1.8 | 1.83 | TNMPUN2E5 | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.8 | 1.83 | TNMPUN2E1 | 1.5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.3-48UNC | P1 | 2.09 | 2.1 | TNMPUN3F5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 2.09 | 2.1 | TNMPUN3F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.4-40UNC | P2 | 2.3 | 2.33 | TNMQUN4H5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.3 | 2.33 | TNMQUN4H1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P2+15) | 2.3 | 2.33 | TNMRUN4H5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P2+15) | 2.3 | 2.33 | TNMRUN4H1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| No.5-40UNC | P2 | 2.6 | 2.64 | TNMQUN5H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.6 | 2.64 | TNMQUN5H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+15) | 2.6 | 2.64 | TNMRUN5H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+15) | 2.6 | 2.64 | TNMRUN5H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-32UNC | P2 | 2.8 | 2.83 | TNMQUN6J5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.8 | 2.83 | TNMQUN6J1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 2.8 | 2.83 | TNMRUN6J5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+20) | 2.8 | 2.83 | TNMRUN6J1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.8-32UNC | P2 | 3.4 | 3.47 | TNMQUN8J5 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 3.4 | 3.47 | TNMQUN8J1 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 3.4 | 3.47 | TNMRUN8J5 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 3.4 | 3.47 | TNMRUN8J1 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| No.10-24UNC | P2 | 3.89 | 3.9 | TNMQUNAM5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 3.89 | 3.9 | TNMQUNAM1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 3.89 | 3.9 | TNMRUNAM5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 3.89 | 3.9 | TNMRUNAM1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| No.12-24UNC | P2 | 4.5 | 4.53 | TNMQUNCM5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.5 | 4.53 | TNMQUNCM1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 4.5 | 4.53 | TNMRUNCM5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 1/4-20UNC | P2 | 5.1 | 5.19 | TNMQU04N5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.1 | 5.19 | TNMQU04N1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 5.1 | 5.19 | TNMRU04N5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 5.1 | 5.19 | TNMRU04N1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5.1 | 5.19 | TNMSU04N5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5.1 | 5.19 | TNMSU04N1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | TNMRU05O5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3 | 6.6 | 6.65 | TNMRU05O1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 6.6 | 6.65 | TNMSU05O5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 6.6 | 6.65 | TNMSU05O1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 3/8-16UNC | P3 | 8 | 8.07 | TNMRU06P5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8 | 8.07 | TNMRU06P1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 8 | 8.07 | TNMSU06P5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 8 | 8.07 | TNMSU06P1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | TNMRU07Q5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 9.4 | 9.45 | TNMRU07Q1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 9.4 | 9.45 | TNMSU07Q5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 9.4 | 9.45 | TNMSU07Q1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | TNMRU08R5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 10.9 | 10.91 | TNMRU08R1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 10.9 | 10.91 | TNMSU08R5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 10.9 | 10.91 | TNMSU08R1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 9/16-12UNC | P3 | 12.2 | 12.33 | TNMRU09S5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 12.2 | 12.33 | TNMRU09S1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 5/8-11UNC | P4 | 13.6 | 13.75 | TNMSU10U5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 13.6 | 13.75 | TNMSU10U1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 3/4-10UNC | P4 | 16.6 | 16.7 | TNMSU12V5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 16.6 | 16.7 | TNMSU12V1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| 7/8-9UNC | P4 | 19.6 | 19.61 | TNMSU14W5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19.6 | 19.61 | TNMSU14W1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| 1 -8UNC | P4 | 22.3 | 22.45 | TNMSU16X5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22.3 | 22.45 | TNMSU16X1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| 1 1/8-7UNC | P5 | 25 | 25.17 | TNMTU18Y5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 25 | 25.17 | TNMTU18Y1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4-7UNC | P5 | 28.2 | 28.35 | TNMTU20Y5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P5 | 28.2 | 28.35 | TNMTU20Y1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8-6UNC | P5 | 30.8 | 30.92 | TNMTU22Z5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 30.8 | 30.92 | TNMTU22Z1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2-6UNC | P5 | 34 | 34.1 | TNMTU24Z5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 34 | 34.1 | TNMTU24Z1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| 1 3/4-5UNC | P6 | 39.5 | 39.61 | TNMUU2805 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P6 | 39.5 | 39.61 | TNMUU2801 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| 2 -4.5UNC | II | 45.2 | 45.37 | TH2U3295 | 5P | 195 | 92 | - | 103 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 45.2 | 45.37 | TH2U3291 | 1.5P | 195 | 92 | - | 103 | 40 | 32 | 35 | 4 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.0-80UNF | P1 | 1.25 | 1.27 | TNMPUN0B5 | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.25 | 1.27 | TNMPUN0B1 | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| No.1-72UNF | P1 | 1.55 | 1.58 | TNMPUN1C5 | 5P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.55 | 1.58 | TNMPUN1C1 | 1.5P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| No.2-64UNF | P1 | 1.85 | 1.87 | TNMPUN2D5 | 5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.85 | 1.87 | TNMPUN2D1 | 1.5P | 42 | 8.1 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.3-56UNF | P1 | 2.1 | 2.15 | TNMPUN3E5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 2.1 | 2.15 | TNMPUN3E1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.4-48UNF | P1 | 2.4 | 2.41 | TNMPUN4F5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P1 | 2.4 | 2.41 | TNMPUN4F1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P1+30) | 2.4 | 2.41 | TNMRUN4F5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3(P1+30) | 2.4 | 2.41 | TNMRUN4F1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| No.5-44UNF | P1 | 2.7 | 2.69 | TNMPUN5G5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P1 | 2.7 | 2.69 | TNMPUN5G1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P1+30) | 2.7 | 2.69 | TNMRUN5G5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P1+30) | 2.7 | 2.69 | TNMRUN5G1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.6-40UNF | P2 | 2.9 | 2.97 | TNMQUN6H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.9 | 2.97 | TNMQUN6H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+15) | 2.9 | 2.97 | TNMRUN6H5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3(P2+15) | 2.9 | 2.97 | TNMRUN6H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |



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| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.8-36UNF | P2 | 3.5 | 3.55 | TNMQUN8I5 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 3.5 | 3.55 | TNMQUN8I1 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 3.5 | 3.55 | TNMRUN8I5 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 3.5 | 3.55 | TNMRUN8I1 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| No.10-32UNF | P2 | 4.1 | 4.12 | TNMQUNAJ5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.1 | 4.12 | TNMQUNAJ1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 4.1 | 4.12 | TNMRUNAJ5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 4.1 | 4.12 | TNMRUNAJ1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| No.12-28UNF | P2 | 4.6 | 4.67 | TNMQUNCK5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.6 | 4.67 | TNMQUNCK1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 4.6 | 4.67 | TNMRUNCK5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3(P2+20) | 4.6 | 4.67 | TNMRUNCK1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 1/4-28UNF | P2 | 5.5 | 5.53 | TNMQU04K5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.5 | 5.53 | TNMQU04K1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5.5 | 5.53 | TNMSU04K5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P4(P2+40) | 5.5 | 5.53 | TNMSU04K1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | TNMQU05M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6.9 | 6.97 | TNMQU05M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P2+40) | 6.9 | 6.97 | TNMSU05M5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P4(P2+40) | 6.9 | 6.97 | TNMSU05M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 3/8-24UNF | P3 | 8.5 | 8.57 | TNMRU06M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.5 | 8.57 | TNMRU06M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 8.5 | 8.57 | TNMSU06M5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4(P3+20) | 8.5 | 8.57 | TNMSU06M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | TNMRU07N5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 9.9 | 9.96 | TNMRU07N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 9.9 | 9.96 | TNMSU07N5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4(P3+20) | 9.9 | 9.96 | TNMSU07N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | TNMRU08N5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 11.5 | 11.54 | TNMRU08N1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 11.5 | 11.54 | TNMSU08N5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4(P3+20) | 11.5 | 11.54 | TNMSU08N1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| 9/16-18UNF | P3 | 12.9 | 13 | TNMRU09O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 12.9 | 13 | TNMRU09O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 12.9 | 13 | TNMSU09O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 12.9 | 13 | TNMSU09O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 5/8-18UNF | P3 | 14.5 | 14.6 | TNMRU10O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.5 | 14.6 | TNMRU10O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 14.5 | 14.6 | TNMSU10O5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4(P3+20) | 14.5 | 14.6 | TNMSU10O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | TNMRU12P5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P3 | 17.5 | 17.59 | TNMRU12P1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4(P3+20) | 17.5 | 17.59 | TNMSU12P5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4(P3+20) | 17.5 | 17.59 | TNMSU12P1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| 7/8-14UNF | P4 | 20.5 | 20.57 | TNMSU14Q5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 20.5 | 20.57 | TNMSU14Q1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1 -12UNF | P4 | 23.3 | 23.46 | TNMSU16S5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 23.3 | 23.46 | TNMSU16S1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| 1 1/8-12UNF | P4 | 26.5 | 26.63 | TNMSU18S5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 26.5 | 26.63 | TNMSU18S1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4-12UNF | P4 | 29.6 | 29.81 | TNMSU20S5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 29.6 | 29.81 | TNMSU20S1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8-12UNF | P4 | 32.8 | 32.98 | TNMSU22S5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P4 | 32.8 | 32.98 | TNMSU22S1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2-12UNF | P4 | 36 | 36.16 | TNMSU24S5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P4 | 36 | 36.16 | TNMSU24S1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |

| UNS | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 7/16-24UNS | P3 | 10.1 | 10.16 | TNMRU07M5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10.1 | 10.16 | TNMRU07M1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2-24UNS | P3 | 11.65 | 11.75 | TNMRU08M5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 11.65 | 11.75 | TNMRU08M1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| 1 -14UNS | P4 | 23.6 | 23.7 | TNMSU16Q5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 23.6 | 23.7 | TNMSU16Q1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| 1 1/16-14UNS | P4 | 25.2 | 25.3 | TNMSU17Q5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 25.2 | 25.3 | TNMSU17Q1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| 1 5/8-5UNS | P5 | 36.2 | 36.4 | TNMTU2605 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 36.2 | 36.4 | TNMTU2601 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |

| 8UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1 1/8-8UN | P5 | 25.5 | 25.62 | TNMTU18X5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 25.5 | 25.62 | TNMTU18X1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4-8UN | P5 | 28.5 | 28.8 | TNMTU20X5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P5 | 28.5 | 28.8 | TNMTU20X1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8-8UN | P5 | 31.8 | 31.97 | TNMTU22X5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 31.8 | 31.97 | TNMTU22X1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2-8UN | P5 | 35 | 35.15 | TNMTU24X5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 35 | 35.15 | TNMTU24X1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| 1 5/8-8UN | P5 | 38.1 | 38.32 | TNMTU26X5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 38.1 | 38.32 | TNMTU26X1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| 1 3/4-8UN | P5 | 41.3 | 41.5 | TNMTU28X5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 41.3 | 41.5 | TNMTU28X1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| 1 7/8-8UN | P5 | 44.5 | 44.7 | TNMTU30X5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P5 | 44.5 | 44.7 | TNMTU30X1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| 2 -8UN | II | 47.8 | 47.85 | TH2U32X5 | 5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 47.8 | 47.85 | TH2U32X1 | 1.5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| 2 1/4-8UN | II | 54 | 54.2 | TH2U36X5 | 5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 54 | 54.2 | TH2U36X1 | 1.5P | 180 | 80 | - | 100 | 44 | 35 | 38 | 4 | 002 | ○ |
| 2 1/2-8UN | II | 60.5 | 60.6 | TH2U40X5 | 5P | 185 | 85 | - | 100 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 60.5 | 60.6 | TH2U40X1 | 1.5P | 185 | 85 | - | 100 | 48 | 38 | 42 | 4 | 002 | ○ |



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| 8UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 2 3/4-8UN | II | 67 | 67.1 | TH2U44X5 | 5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 67 | 67.1 | TH2U44X1 | 1.5P | 190 | 85 | - | 105 | 55 | 41 | 44 | 4 | 002 | ○ |
| 3 -8UN | II | 73 | 73.3 | TH2U48X5 | 5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 73 | 73.3 | TH2U48X1 | 1.5P | 190 | 85 | - | 105 | 58 | 46 | 50 | 4 | 002 | ○ |

| 12UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1 1/16-12UN | P4 | 24.9 | 25 | TNMSU17S5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 24.9 | 25 | TNMSU17S1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| 1 3/16-12UN | P4 | 28 | 28.2 | TNMSU19S5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 28 | 28.2 | TNMSU19S1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 5/16-12UN | P4 | 31.2 | 31.4 | TNMSU21S5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P4 | 31.2 | 31.4 | TNMSU21S1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 5/8-12UN | P4 | 39.1 | 39.33 | TNMSU26S5 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 39.1 | 39.33 | TNMSU26S1 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| 1 3/4-12UN | P4 | 42.3 | 42.51 | TNMSU28S5 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 42.3 | 42.51 | TNMSU28S1 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| 1 7/8-12UN | P4 | 45.5 | 45.7 | TNMSU30S5 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P4 | 45.5 | 45.7 | TNMSU30S1 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| 2 -12UN | II | 48.6 | 48.86 | TH2U32S5 | 5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 48.6 | 48.86 | TH2U32S1 | 1.5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |

| 20UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 9/16-20UN | P3 | 12.9 | 13 | TNMRU09N5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 12.9 | 13 | TNMRU09N1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 5/8-20UN | P3 | 14.7 | 14.71 | TNMRU10N5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.7 | 14.71 | TNMRU10N1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |

| 32UN | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/2-32UN | P2 | 11.9 | 11.99 | TNMQU08J5 | 5P | 88 | 14 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |
| | P2 | 11.9 | 11.99 | TNMQU08J1 | 1.5P | 88 | 14 | - | 45 | 10.5 | 8 | 11 | 4 | 037 | ○ |

| UNEF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.12-32UNEF | P2 | 4.7 | 4.78 | TNMQUNCJ5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.7 | 4.78 | TNMQUNCJ1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| 1/4-32UNEF | P2 | 5.6 | 5.64 | TNMQU04J5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.6 | 5.64 | TNMQU04J1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| 5/16-32UNEF | P2 | 7.1 | 7.22 | TNMQU05J5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 7.1 | 7.22 | TNMQU05J1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| 3/8-32UNEF | P2 | 8.7 | 8.81 | TNMQU06J5 | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 8.7 | 8.81 | TNMQU06J1 | 1.5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ● |
| 7/16-28UNEF | P2 | 10.2 | 10.29 | TNMQU07K5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| | P2 | 10.2 | 10.29 | TNMQU07K1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |

| UNEF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/2-28UNEF | P2 | 11.8 | 11.88 | TNMQU08K5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P2 | 11.8 | 11.88 | TNMQU08K1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| 9/16-24UNEF | P3 | 13.2 | 13.32 | TNMRU09M5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 13.2 | 13.32 | TNMRU09M1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| 5/8-24UNEF | P3 | 14.8 | 14.92 | TNMRU10M5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.8 | 14.92 | TNMRU10M1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| 3/4-20UNEF | P3 | 17.8 | 17.89 | TNMRU12N5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| | P3 | 17.8 | 17.89 | TNMRU12N1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| 7/8-20UNEF | P3 | 21 | 21.06 | TNMRU14N5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P3 | 21 | 21.06 | TNMRU14N1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ● |
| 1 -20UNEF | P3 | 24.1 | 24.24 | TNMRU16N5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 24.1 | 24.24 | TNMRU16N1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ● |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/16W60 | P2 | 1.15 | 1.2 | TNMQW01-5 | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P2 | 1.15 | 1.2 | TNMQW01-1 | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| 3/32W48 | P2 | 1.85 | 1.88 | TNMQW1HF5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 1.85 | 1.88 | TNMQW1HF1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| 1/8W40 | P2 | 2.55 | 2.56 | TNMQW02H5 | 5P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.55 | 2.56 | TNMQW02H1 | 1.5P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 3 | 001 | ● |
| 5/32W32 | P2 | 3.15 | 3.2 | TNMQW2HJ5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.15 | 3.2 | TNMQW2HJ1 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ● |
| 3/16W24 | P3 | 3.7 | 3.7 | TNMRW03M5 | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 3.7 | 3.7 | TNMRW03M1 | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ● |
| 7/32W24 | P3 | 4.5 | 4.52 | TNMRW3HM5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 4.5 | 4.52 | TNMRW3HM1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| 1/4W20 | P3 | 5.1 | 5.13 | TNMRW04N5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 5.1 | 5.13 | TNMRW04N1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| 5/16W18 | P3 | 6.5 | 6.59 | TNMRW05O5T | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.5 | 6.59 | TNMRW05O1T | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.5 | 6.59 | TNMRW05O5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3 | 6.5 | 6.59 | TNMRW05O1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| 3/8W16 | P3 | 8 | 8.02 | TNMRW06P5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8 | 8.02 | TNMRW06P1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ● |
| 7/16W14 | P4 | 9.3 | 9.39 | TNMSW07Q5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 9.3 | 9.39 | TNMSW07Q1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| 1/2W12 | P4 | 10.6 | 10.7 | TNMSW08S5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 10.6 | 10.7 | TNMSW08S1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| 9/16W12 | P4 | 12.25 | 12.29 | TNMSW09S5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 12.25 | 12.29 | TNMSW09S1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| 5/8W11 | P4 | 13.5 | 13.68 | TNMSW10U5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 13.5 | 13.68 | TNMSW10U1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| 3/4W10 | P4 | 16.5 | 16.63 | TNMSW12V5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 16.5 | 16.63 | TNMSW12V1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| 7/8W9 | P5 | 19.5 | 19.53 | TNMTW14W5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P5 | 19.5 | 19.53 | TNMTW14W1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ● |



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| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1 W8 | P5 | 22.2 | 22.34 | TNMTW16X5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P5 | 22.2 | 22.34 | TNMTW16X1 | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ● |
| 1 1/8W7 | P5 | 24.75 | 25.04 | TNMTW18Y5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 24.75 | 25.04 | TNMTW18Y1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| 1 1/4W7 | P5 | 28 | 28.21 | TNMTW20Y5 | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P5 | 28 | 28.21 | TNMTW20Y1 | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| 1 3/8W6 | P6 | 30.5 | 30.72 | TNMUW22Z5 | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P6 | 30.5 | 30.72 | TNMUW22Z1 | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| 1 1/2W6 | P6 | 33.75 | 33.9 | TNMUW24Z5 | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P6 | 33.75 | 33.9 | TNMUW24Z1 | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| 1 5/8W5 | P6 | 36 | 36.19 | TNMUW2605 | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P6 | 36 | 36.19 | TNMUW2601 | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| 1 3/4W5 | P6 | 39.2 | 39.36 | TNMUW2805 | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P6 | 39.2 | 39.36 | TNMUW2801 | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| 1 7/8W4 1/2 | P6 | 41.8 | 42 | TNMUW3095 | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P6 | 41.8 | 42 | TNMUW3091 | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| 2 W4 1/2 | II | 45 | 45.15 | TH2W3295 | 5P | 195 | 92 | - | 103 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 45 | 45.15 | TH2W3291 | 1.5P | 195 | 92 | - | 103 | 40 | 32 | 35 | 4 | 002 | ○ |
| 2 1/4W4 | II | 50.5 | 50.79 | TH2W3685 | 5P | 210 | 100 | - | 110 | 44 | 35 | 38 | 4 | 002 | ○ |
| | II | 50.5 | 50.79 | TH2W3681 | 1.5P | 210 | 100 | - | 110 | 44 | 35 | 38 | 4 | 002 | ○ |
| 2 1/2W4 | II | 57 | 57.14 | TH2W4085 | 5P | 225 | 105 | - | 120 | 48 | 38 | 42 | 4 | 002 | ○ |
| | II | 57 | 57.14 | TH2W4081 | 1.5P | 225 | 105 | - | 120 | 48 | 38 | 42 | 4 | 002 | ○ |
| 2 3/4W3 1/2 | II | 62.5 | 62.52 | TH2W4475 | 5P | 240 | 115 | - | 125 | 55 | 41 | 44 | 4 | 002 | ○ |
| | II | 62.5 | 62.52 | TH2W4471 | 1.5P | 240 | 115 | - | 125 | 55 | 41 | 44 | 4 | 002 | ○ |
| 3 W3 1/2 | II | 68.5 | 68.87 | TH2W4875 | 5P | 250 | 120 | - | 130 | 58 | 46 | 50 | 4 | 002 | ○ |
| | II | 68.5 | 68.87 | TH2W4871 | 1.5P | 250 | 120 | - | 130 | 58 | 46 | 50 | 4 | 002 | ○ |
| 3 1/4W3 1/4 | II | 74.5 | 74.6 | TH2W52-5 | 5P | 265 | 125 | - | 140 | 58 | 46 | 50 | 6 | 002 | ○ |
| | II | 74.5 | 74.6 | TH2W52-1 | 1.5P | 265 | 125 | - | 140 | 58 | 46 | 50 | 6 | 002 | ○ |
| 3 1/2W3 1/4 | II | 81 | 81.1 | TH2W56-5 | 5P | 275 | 130 | - | 145 | 60 | 46 | 50 | 6 | 002 | ○ |
| | II | 81 | 81.1 | TH2W56-1 | 1.5P | 275 | 130 | - | 145 | 60 | 46 | 50 | 6 | 002 | ○ |
| 3 3/4W3 | II | 86.5 | 86.6 | TH2W6065 | 5P | 285 | 135 | - | 150 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 86.5 | 86.6 | TH2W6061 | 1.5P | 285 | 135 | - | 150 | 65 | 50 | 52 | 6 | 002 | ○ |
| 4 W3 | II | 92.8 | 92.95 | TH2W6465 | 5P | 295 | 135 | - | 160 | 65 | 50 | 52 | 6 | 002 | ○ |
| | II | 92.8 | 92.95 | TH2W6461 | 1.5P | 295 | 135 | - | 160 | 65 | 50 | 52 | 6 | 002 | ○ |

Intro
SP
SL
PO
ST
JIS
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HT LH




## GP General Purpose Series

Straight Fluted Taps for Left Hand Threads




**FEATURES**

General purpose for blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

For left hand threads.

**Recommended Tapping Speeds Depending On Materials**

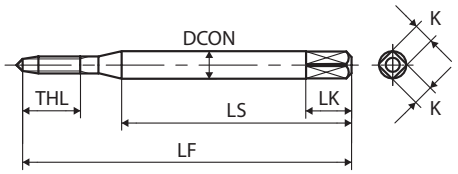
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

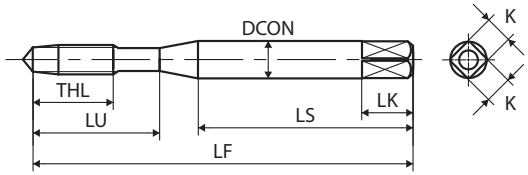
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

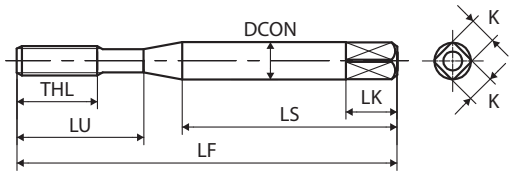
**TYPE: HT_005**



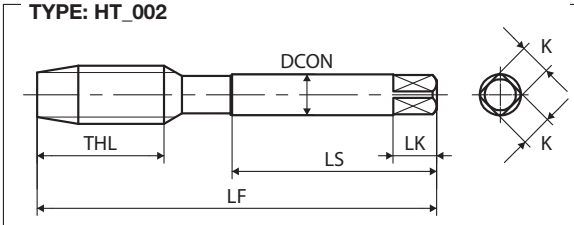

**TYPE: HT_001**



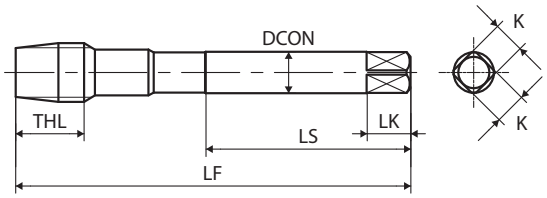

**TYPE: HT_025**




**TYPE: HT_002**




**TYPE: HT_037**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.25 | P1 | 0.75 | 0.77 | TNMP1.0B5-L | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.75 | 0.77 | TNMP1.0B1-L | 1.5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.2X0.25 | P1 | 0.95 | 0.97 | TNMP1.2B5-L | 5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 0.95 | 0.97 | TNMP1.2B1-L | 1.5P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.4X0.3 | P1 | 1.1 | 1.13 | TNMP1.4C5-L | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.1 | 1.13 | TNMP1.4C1-L | 1.5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.6X0.35 | P2 | 1.25 | 1.3 | TNMQ1.6D5-L | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P2 | 1.25 | 1.3 | TNMQ1.6D1-L | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.7X0.35 | P1 | 1.35 | 1.4 | TNMP1.7D5-L | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P1 | 1.35 | 1.4 | TNMP1.7D1-L | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M2X0.4 | P1 | 1.6 | 1.65 | TNMP2.0E5-L | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.6 | 1.65 | TNMP2.0E1-L | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ● |
| M2.3X0.4 | P1 | 1.9 | 1.95 | TNMP2.3E5-L | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 1.9 | 1.95 | TNMP2.3E1-L | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | P2 | 2.1 | 2.11 | TNMQ2.5F5-L | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.1 | 2.11 | TNMQ2.5F1-L | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ● |
| M2.6X0.45 | P1 | 2.2 | 2.21 | TNMP2.6F5-L | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P1 | 2.2 | 2.21 | TNMP2.6F1-L | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ● |
| 3M0.6 | P2 | 2.45 | 2.47 | TNMQ3.0H5-L | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.45 | 2.47 | TNMQ3.0H1-L | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3X0.5 | P2 | 2.5 | 2.56 | TNMQ3.0G5-L | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.5 | 2.56 | TNMQ3.0G1-L | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| M3.5X0.6 | P2 | 2.9 | 2.97 | TNMQ3.5H5-L | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.9 | 2.97 | TNMQ3.5H1-L | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| 4M0.75 | P2 | 3.3 | 3.33 | TNMQ4.0J5-L | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.3 | 3.33 | TNMQ4.0J1-L | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.3 | 3.33 | TNMQ4.0J53-L | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.3 | 3.33 | TNMQ4.0J13-L | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | TNMQ4.0I5-L | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.3 | 3.38 | TNMQ4.0I1-L | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ● |
| | P2 | 3.3 | 3.38 | TNMQ4.0I53-L | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.3 | 3.38 | TNMQ4.0I13-L | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| 5M0.9 | P2 | 4.15 | 4.19 | TNMQ5.0L5-L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.15 | 4.19 | TNMQ5.0L1-L | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.15 | 4.19 | TNMQ5.0L53-L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 4.15 | 4.19 | TNMQ5.0L13-L | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | TNMR5.0K5-L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TNMR5.0K1-L | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ● |
| | P3 | 4.2 | 4.28 | TNMR5.0K53-L | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TNMR5.0K13-L | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TNMR5.0K13FL | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 025 | ○ |
| M6X1 | P2 | 5 | 5.09 | TNMQ6.0M5-L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5 | 5.09 | TNMQ6.0M1-L | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| | P2 | 5 | 5.09 | TNMQ6.0M53-L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5 | 5.09 | TNMQ6.0M13-L | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5 | 5.09 | TNMQ6.0M13FL | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 025 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M7X1 | P2 | 6 | 6.09 | TNMQ7.0M5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6 | 6.09 | TNMQ7.0M1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | TNMR8.0N5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3 | 6.8 | 6.85 | TNMR8.0N1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| | P3 | 6.8 | 6.85 | TNMR8.0N5TL | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.8 | 6.85 | TNMR8.0N1TL | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M9X1.25 | P3 | 7.8 | 7.85 | TNMR9.0N5-L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 7.8 | 7.85 | TNMR9.0N1-L | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | TNMR010O5-L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.5 | 8.6 | TNMR010O1-L | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ● |
| M11X1.5 | P4 | 9.5 | 9.6 | TNMS011O5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 9.5 | 9.6 | TNMS011O1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1.75 | P3 | 10.3 | 10.36 | TNMR012P5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10.3 | 10.36 | TNMR012P1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| M14X2 | P3 | 12 | 12.12 | TNMR014Q5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12 | 12.12 | TNMR014Q1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| M16X2 | P3 | 14 | 14.12 | TNMR016Q5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14 | 14.12 | TNMR016Q1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| M18X2.5 | P4 | 15.5 | 15.63 | TNMS018R5-L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 15.5 | 15.63 | TNMS018R1-L | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ● |
| M20X2.5 | P4 | 17.5 | 17.63 | TNMS020R5-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 17.5 | 17.63 | TNMS020R1-L | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| M22X2.5 | P4 | 19.5 | 19.63 | TNMS022R5-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19.5 | 19.63 | TNMS022R1-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ● |
| M24X3 | P4 | 21 | 21.13 | TNMS024S5-L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 21 | 21.13 | TNMS024S1-L | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ● |
| M27X3 | P4 | 24 | 24.13 | TNMS027S5-L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 24 | 24.13 | TNMS027S1-L | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | TNMS030T5-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T1-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M33X3.5 | P4 | 29.5 | 29.63 | TNMS033T5-L | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 29.5 | 29.63 | TNMS033T1-L | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M36X4 | P5 | 32 | 32.12 | TNMT036U5-L | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 32 | 32.12 | TNMT036U1-L | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M39X4 | P5 | 35 | 35.12 | TNMT039U5-L | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 35 | 35.12 | TNMT039U1-L | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M42X4.5 | P5 | 37.5 | 37.63 | TNMT042V5-L | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 37.5 | 37.63 | TNMT042V1-L | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M45X4.5 | P5 | 40.5 | 40.63 | TNMT045V5-L | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 40.5 | 40.63 | TNMT045V1-L | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M48X5 | P5 | 43 | 43.12 | TNMT048W5-L | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P5 | 43 | 43.12 | TNMT048W1-L | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.35 | P2 | 2.7 | 2.7 | TNMQ3.0D5-L | 5P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.7 | 2.7 | TNMQ3.0D1-L | 1.5P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M4X0.5 | P2 | 3.5 | 3.56 | TNMQ4.0G5-L | 5P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| | P2 | 3.5 | 3.56 | TNMQ4.0G1-L | 1.5P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| M5X0.5 | P2 | 4.5 | 4.56 | TNMQ5.0G5-L | 5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.5 | 4.56 | TNMQ5.0G1-L | 1.5P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M6X0.75 | P2 | 5.3 | 5.33 | TNMQ6.0J5-L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.3 | 5.33 | TNMQ6.0J1-L | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| M6X0.5 | P2 | 5.5 | 5.56 | TNMQ6.0G5-L | 5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.5 | 5.56 | TNMQ6.0G1-L | 1.5P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| M7X0.75 | P2 | 6.3 | 6.33 | TNMQ7.0J5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6.3 | 6.33 | TNMQ7.0J1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| M8X1 | P2 | 7 | 7.09 | TNMQ8.0M5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| M8X0.75 | P2 | 7.3 | 7.33 | TNMQ8.0J5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 7.3 | 7.33 | TNMQ8.0J1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| M8X0.5 | P2 | 7.5 | 7.56 | TNMQ8.0G5-L | 5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| | P2 | 7.5 | 7.56 | TNMQ8.0G1-L | 1.5P | 70 | 10 | - | 36 | 6.2 | 5 | 8 | 4 | 037 | ○ |
| M9X1 | P2 | 8 | 8.09 | TNMQ9.0M5-L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P2 | 8 | 8.09 | TNMQ9.0M1-L | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M9X0.75 | P2 | 8.3 | 8.33 | TNMQ9.0J5-L | 5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| | P2 | 8.3 | 8.33 | TNMQ9.0J1-L | 1.5P | 75 | 13 | - | 38 | 7 | 5.5 | 8 | 4 | 037 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | TNMR010N5-L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.8 | 8.85 | TNMR010N1-L | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ● |
| M10X1 | P3 | 9 | 9.09 | TNMR010M5-L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 9 | 9.09 | TNMR010M1-L | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ● |
| M11X1.25 | P3 | 9.8 | 9.85 | TNMR011N5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 9.8 | 9.85 | TNMR011N1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M11X1 | P3 | 10 | 10.1 | TNMR011M5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10 | 10.1 | TNMR011M1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | TNMR012O5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 10.5 | 10.6 | TNMR012O1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| M12X1.25 | P4 | 10.8 | 10.85 | TNMS012N5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 10.8 | 10.85 | TNMS012N1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| M12X1 | P3 | 11 | 11.09 | TNMR012M5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 11 | 11.09 | TNMR012M1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| M13X1.5 | P3 | 11.5 | 11.6 | TNMR013O5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 11.5 | 11.6 | TNMR013O1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M13X1.25 | P4 | 11.8 | 11.85 | TNMS013N5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 11.8 | 11.85 | TNMS013N1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M13X1 | P3 | 12 | 12.09 | TNMR013M5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12 | 12.09 | TNMR013M1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | TNMR014O5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12.5 | 12.6 | TNMR014O1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |
| M14X1.25 | P4 | 12.8 | 12.85 | TNMS014N5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 12.8 | 12.85 | TNMS014N1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M14X1 | P3 | 13 | 13.09 | TNMR014M5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 13 | 13.09 | TNMR014M1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M15X1.5 | P3 | 13.5 | 13.6 | TNMR01505-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 13.5 | 13.6 | TNMR01501-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M15X1.25 | P4 | 13.8 | 13.85 | TNMS015N5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 13.8 | 13.85 | TNMS015N1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M15X1 | P3 | 14 | 14.09 | TNMR015M5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14 | 14.09 | TNMR015M1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | TNMR01605-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.5 | 14.6 | TNMR01601-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| M16X1.25 | P4 | 14.8 | 14.85 | TNMS016N5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 14.8 | 14.85 | TNMS016N1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M16X1 | P3 | 15 | 15.09 | TNMR016M5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 15 | 15.09 | TNMR016M1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| M17X2 | P3 | 15 | 15.1 | TNMR017Q5-L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P3 | 15 | 15.1 | TNMR017Q1-L | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M17X1.5 | P4 | 15.5 | 15.6 | TNMS01705-L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 15.5 | 15.6 | TNMS01701-L | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M17X1 | P3 | 16 | 16.09 | TNMR017M5-L | 5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P3 | 16 | 16.09 | TNMR017M1-L | 1.5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| M18X2 | P4 | 16 | 16.12 | TNMS018Q5-L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 16 | 16.12 | TNMS018Q1-L | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M18X1.5 | P3 | 16.5 | 16.6 | TNMR01805-L | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P3 | 16.5 | 16.6 | TNMR01801-L | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ● |
| M18X1 | P3 | 17 | 17.09 | TNMR018M5-L | 5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| | P3 | 17 | 17.09 | TNMR018M1-L | 1.5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 037 | ○ |
| M19X2 | P4 | 17 | 17.12 | TNMS019Q5-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 17 | 17.12 | TNMS019Q1-L | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M19X1.5 | P3 | 17.5 | 17.6 | TNMR01905-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P3 | 17.5 | 17.6 | TNMR01901-L | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M19X1 | P3 | 18 | 18.09 | TNMR019M5-L | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P3 | 18 | 18.09 | TNMR019M1-L | 1.5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| M20X2 | P4 | 18 | 18.12 | TNMS020Q5-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 18 | 18.12 | TNMS020Q1-L | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | TNMR02005-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P3 | 18.5 | 18.6 | TNMR02001-L | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |
| M20X1 | P3 | 19 | 19.09 | TNMR020M5-L | 5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| | P3 | 19 | 19.09 | TNMR020M1-L | 1.5P | 105 | 18 | - | 50 | 15 | 12 | 15 | 4 | 037 | ○ |
| M21X2 | P4 | 19 | 19.1 | TNMS021Q5-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19 | 19.1 | TNMS021Q1-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M21X1.5 | P3 | 19.5 | 19.6 | TNMR02105-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P3 | 19.5 | 19.6 | TNMR02101-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M21X1 | P3 | 20 | 20.09 | TNMR021M5-L | 5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P3 | 20 | 20.09 | TNMR021M1-L | 1.5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M22X2 | P4 | 20 | 20.12 | TNMS022Q5-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 20 | 20.12 | TNMS022Q1-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | TNMR02205-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P3 | 20.5 | 20.6 | TNMR02201-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M22X1 | P3 | 21 | 21.09 | TNMR022M5-L | 5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| | P3 | 21 | 21.09 | TNMR022M1-L | 1.5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 037 | ○ |
| M23X1.5 | P3 | 21.5 | 21.6 | TNMR02305-L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 21.5 | 21.6 | TNMR02301-L | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M23X1 | P3 | 22 | 22.09 | TNMR023M5-L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 22 | 22.09 | TNMR023M1-L | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| M24X2 | P4 | 22 | 22.12 | TNMS024Q5-L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22 | 22.12 | TNMS024Q1-L | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | TNMR02405-L | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 22.5 | 22.6 | TNMR02401-L | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M24X1 | P3 | 23 | 23.09 | TNMR024M5-L | 5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 23 | 23.09 | TNMR024M1-L | 1.5P | 120 | 19 | - | 55 | 19 | 15 | 18 | 4 | 037 | ○ |
| M25X3 | P4 | 22 | 22.12 | TNMS025S5-L | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22 | 22.12 | TNMS025S1-L | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| M25X2 | P4 | 23 | 23.12 | TNMS025Q5-L | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 23 | 23.12 | TNMS025Q1-L | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| M25X1.5 | P3 | 23.5 | 23.6 | TNMR02505-L | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 23.5 | 23.6 | TNMR02501-L | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| M25X1 | P3 | 24 | 24.09 | TNMR025M5-L | 5P | 125 | 20 | - | 58 | 19 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 24 | 24.09 | TNMR025M1-L | 1.5P | 125 | 20 | - | 58 | 19 | 15 | 18 | 4 | 037 | ○ |
| M26X2 | P4 | 24 | 24.12 | TNMS026Q5-L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 24 | 24.12 | TNMS026Q1-L | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X1.5 | P3 | 24.5 | 24.6 | TNMR02605-L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 24.5 | 24.6 | TNMR02601-L | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M26X1 | P3 | 25 | 25.09 | TNMR026M5-L | 5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 25 | 25.09 | TNMR026M1-L | 1.5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| M27X2 | P5 | 25 | 25.12 | TNMT027Q5-L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P5 | 25 | 25.12 | TNMT027Q1-L | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | TNMR02705-L | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P3 | 25.5 | 25.6 | TNMR02701-L | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M27X1 | P3 | 26 | 26.09 | TNMR027M5-L | 5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| | P3 | 26 | 26.09 | TNMR027M1-L | 1.5P | 130 | 20 | - | 60 | 20 | 15 | 18 | 4 | 037 | ○ |
| M28X2 | P4 | 26 | 26.12 | TNMS028Q5-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 26 | 26.12 | TNMS028Q1-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X1.5 | P3 | 26.5 | 26.6 | TNMR02805-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P3 | 26.5 | 26.6 | TNMR02801-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M28X1 | P3 | 27 | 27.09 | TNMR028M5-L | 5P | 135 | 20 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| | P3 | 27 | 27.09 | TNMR028M1-L | 1.5P | 135 | 20 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| M30X3 | P5 | 27 | 27.13 | TNMT030S5-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 27 | 27.13 | TNMT030S1-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X2 | P4 | 28 | 28.12 | TNMS030Q5-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 28 | 28.12 | TNMS030Q1-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | TNMR03005-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P3 | 28.5 | 28.6 | TNMR03001-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| M30X1 | P3 | 29 | 29.09 | TNMR030M5-L | 5P | 135 | 21 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |
| | P3 | 29 | 29.09 | TNMR030M1-L | 1.5P | 135 | 21 | - | 62 | 23 | 17 | 20 | 4 | 037 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M32X2 | P4 | 30 | 30.12 | TNMS032Q5-L | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 30 | 30.12 | TNMS032Q1-L | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M32X1.5 | P4 | 30.5 | 30.6 | TNMS032O5-L | 5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 30.5 | 30.6 | TNMS032O1-L | 1.5P | 145 | 46 | - | 67 | 24 | 19 | 22 | 4 | 002 | ○ |
| M33X3 | P5 | 30 | 30.13 | TNMT033S5-L | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P5 | 30 | 30.13 | TNMT033S1-L | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M33X2 | P4 | 31 | 31.12 | TNMS033Q5-L | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 31 | 31.12 | TNMS033Q1-L | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M33X1.5 | P4 | 31.5 | 31.6 | TNMS033O5-L | 5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| | P4 | 31.5 | 31.6 | TNMS033O1-L | 1.5P | 145 | 46 | - | 67 | 25 | 19 | 22 | 4 | 002 | ○ |
| M34X2 | P4 | 32 | 32.12 | TNMS034Q5-L | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P4 | 32 | 32.12 | TNMS034Q1-L | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M34X1.5 | P4 | 35.5 | 32.6 | TNMS034O5-L | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P4 | 35.5 | 32.6 | TNMS034O1-L | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M35X2 | P5 | 33 | 33.12 | TNMT035Q5-L | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 33 | 33.12 | TNMT035Q1-L | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M35X1.5 | P4 | 33.5 | 33.6 | TNMS035O5-L | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P4 | 33.5 | 33.6 | TNMS035O1-L | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M36X3 | P5 | 33 | 33.13 | TNMT036S5-L | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P5 | 33 | 33.13 | TNMT036S1-L | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M36X2 | P4 | 34 | 34.12 | TNMS036Q5-L | 5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| | P4 | 34 | 34.12 | TNMS036Q1-L | 1.5P | 155 | 52 | - | 71 | 28 | 21 | 24 | 4 | 002 | ○ |
| M36X1.5 | P4 | 34.5 | 34.6 | TNMS036O5-L | 5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| | P4 | 34.5 | 34.6 | TNMS036O1-L | 1.5P | 155 | 26 | - | 71 | 28 | 21 | 24 | 4 | 037 | ○ |
| M38X2 | P4 | 36 | 36.12 | TNMS038Q5-L | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P4 | 36 | 36.12 | TNMS038Q1-L | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M38X1.5 | P4 | 36.5 | 36.6 | TNMS038O5-L | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P4 | 36.5 | 36.6 | TNMS038O1-L | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M39X3 | P5 | 36 | 36.13 | TNMT039S5-L | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 36 | 36.13 | TNMT039S1-L | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M39X2 | P5 | 37 | 37.12 | TNMT039Q5-L | 5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| | P5 | 37 | 37.12 | TNMT039Q1-L | 1.5P | 165 | 52 | - | 76 | 30 | 23 | 26 | 4 | 002 | ○ |
| M39X1.5 | P4 | 37.5 | 37.6 | TNMS039O5-L | 5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| | P4 | 37.5 | 37.6 | TNMS039O1-L | 1.5P | 165 | 26 | - | 76 | 30 | 23 | 26 | 4 | 037 | ○ |
| M40X3 | P5 | 37 | 37.13 | TNMT040S5-L | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 37 | 37.13 | TNMT040S1-L | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X2 | P4 | 38 | 38.12 | TNMS040Q5-L | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 38 | 38.12 | TNMS040Q1-L | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M40X1.5 | P4 | 38.5 | 38.6 | TNMS040O5-L | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 38.5 | 38.6 | TNMS040O1-L | 1.5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| M42X3 | P5 | 39 | 39.13 | TNMT042S5-L | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 39 | 39.13 | TNMT042S1-L | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X2 | P4 | 40 | 40.12 | TNMS042Q5-L | 5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 40 | 40.12 | TNMS042Q1-L | 1.5P | 175 | 59 | - | 81 | 32 | 26 | 30 | 4 | 002 | ○ |
| M42X1.5 | P4 | 40.5 | 40.6 | TNMS042O5-L | 5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 40.5 | 40.6 | TNMS042O1-L | 1.5P | 175 | 27 | - | 81 | 32 | 26 | 30 | 4 | 037 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M45X3 | P5 | 42 | 42.13 | TNMT045S5-L | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P5 | 42 | 42.13 | TNMT045S1-L | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X2 | P4 | 43 | 43.12 | TNMS045Q5-L | 5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| | P4 | 43 | 43.12 | TNMS045Q1-L | 1.5P | 180 | 59 | - | 83 | 35 | 26 | 30 | 4 | 002 | ○ |
| M45X1.5 | P4 | 43.5 | 43.6 | TNMS045O5-L | 5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| | P4 | 43.5 | 43.6 | TNMS045O1-L | 1.5P | 180 | 27 | - | 83 | 35 | 26 | 30 | 4 | 037 | ○ |
| M48X3 | P6 | 45 | 45.13 | TNMU048S5-L | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P6 | 45 | 45.13 | TNMU048S1-L | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X2 | P4 | 46 | 46.12 | TNMS048Q5-L | 5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| | P4 | 46 | 46.12 | TNMS048Q1-L | 1.5P | 185 | 65 | - | 85 | 38 | 29 | 32 | 4 | 002 | ○ |
| M48X1.5 | P4 | 46.5 | 46.6 | TNMS048O5-L | 5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| | P4 | 46.5 | 46.6 | TNMS048O1-L | 1.5P | 185 | 28 | - | 85 | 38 | 29 | 32 | 4 | 037 | ○ |
| M50X3 | II | 47 | 47.13 | TH2050S5-L | 5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 47 | 47.13 | TH2050S1-L | 1.5P | 180 | 80 | - | 100 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X2 | II | 48 | 48.12 | TH2050Q5-L | 5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 48 | 48.12 | TH2050Q1-L | 1.5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| M50X1.5 | II | 48.5 | 48.6 | TH2050O5-L | 5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |
| | II | 48.5 | 48.6 | TH2050O1-L | 1.5P | 130 | 45 | - | 85 | 40 | 32 | 35 | 4 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.5-40UNC | P2 | 2.6 | 2.64 | TNMQUN5H5-L | 5P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.6 | 2.64 | TNMQUN5H1-L | 1.5P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 3 | 001 | ○ |
| No.10-24UNC | P2 | 3.89 | 3.9 | TNMQUNAM5-L | 5P | 60 | 13 | 22 | 32 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 3.89 | 3.9 | TNMQUNAM1-L | 1.5P | 60 | 13 | 22 | 32 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| 5/8-11UNC | P4 | 13.6 | 13.75 | TNMSU10U5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 13.6 | 13.75 | TNMSU10U1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 7/8-9UNC | P4 | 19.6 | 19.61 | TNMSU14W5-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19.6 | 19.61 | TNMSU14W1-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| 1 -8UNC | P4 | 22.3 | 22.45 | TNMSU16X5-L | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22.3 | 22.45 | TNMSU16X1-L | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.12-28UNF | P2 | 4.6 | 4.67 | TNMQUNCK5-L | 5P | 62 | 15 | 26 | 32 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 4.6 | 4.67 | TNMQUNCK1-L | 1.5P | 62 | 15 | 26 | 32 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 1/4-28UNF | P2 | 5.5 | 5.53 | TNMQU04K1-L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P2 | 5.5 | 5.53 | TNMQU04K5-L | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | TNMQU05M5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P2 | 6.9 | 6.97 | TNMQU05M1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | TNMRU07N5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 9.9 | 9.96 | TNMRU07N1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 9/16-18UNF | P3 | 12.9 | 13 | TNMRU09O5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 12.9 | 13 | TNMRU09O1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 5/8-18UNF | P3 | 14.5 | 14.6 | TNMRU10O5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.5 | 14.6 | TNMRU10O1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | TNMRU12P5-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1 -12UNF | P4 | 23.3 | 23.46 | TNMSU16S5-L | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 23.3 | 23.46 | TNMSU16S1-L | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8W40 | P2 | 2.55 | 2.56 | TNMQW02H5-L | 5P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.55 | 2.56 | TNMQW02H1-L | 1.5P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 3 | 001 | ○ |
| 3/16W24 | P3 | 3.7 | 3.7 | TNMRW03M5-L | 5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 3.7 | 3.7 | TNMRW03M1-L | 1.5P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| 1/4W20 | P3 | 5.1 | 5.13 | TNMRW04N5-L | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 5.1 | 5.13 | TNMRW04N1-L | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| 5/16W18 | P3 | 6.5 | 6.59 | TNMRW05O5-L | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | P3 | 6.5 | 6.59 | TNMRW05O1-L | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 3/8W16 | P3 | 8 | 8.02 | TNMRW06P5-L | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8 | 8.02 | TNMRW06P1-L | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| 7/16W14 | P4 | 9.3 | 9.39 | TNMSW07Q5-L | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 9.3 | 9.39 | TNMSW07Q1-L | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2W12 | P4 | 10.6 | 10.7 | TNMSW08S5-L | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 10.6 | 10.7 | TNMSW08S1-L | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| 9/16W12 | P4 | 12.25 | 12.29 | TNMSW09S5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 12.25 | 12.29 | TNMSW09S1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 5/8W11 | P4 | 13.5 | 13.68 | TNMSW10U5-L | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 13.5 | 13.68 | TNMSW10U1-L | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 3/4W10 | P4 | 16.5 | 16.63 | TNMSW12V5-L | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 16.5 | 16.63 | TNMSW12V1-L | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| 7/8W9 | P5 | 19.5 | 19.53 | TNMTW14W5-L | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P5 | 19.5 | 19.53 | TNMTW14W1-L | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| 1 W8 | P5 | 22.2 | 22.34 | TNMTW16X5-L | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P5 | 22.2 | 22.34 | TNMTW16X1-L | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| 1 1/8W7 | P5 | 24.75 | 25.04 | TNMTW18Y5-L | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 24.75 | 25.04 | TNMTW18Y1-L | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

# PF LH




## GP General Purpose Series

Straight Fluted Taps for Parallel Pipe Threads, for Left Hand Threads




**FEATURES**

General purpose for blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

For left hand threads.

### Recommended Tapping Speeds Depending On Materials

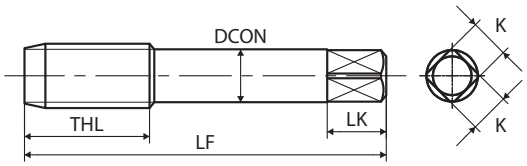
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: Pipe_046**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8-28 | II | 8.75 | 8.78 | TH2F02K--L | 3.5P | 9.728 | 55 | 19 | - | 8 | 6 | 9 | 4 | 046 | ○ |
| 1/4-19 | II | 11.75 | 11.78 | TH2F04---L | 3.5P | 13.157 | 62 | 28 | - | 11 | 9 | 12 | 4 | 046 | ○ |
| 3/8-19 | II | 15.25 | 15.28 | TH2F06---L | 3.5P | 16.662 | 65 | 28 | - | 14 | 11 | 14 | 4 | 046 | ○ |
| 1/2-14 | II | 19 | 19.04 | TH2F08Q--L | 3.5P | 20.955 | 80 | 35 | - | 18 | 14 | 17 | 4 | 046 | ○ |
| 3/4-14 | II | 24.5 | 24.52 | TH2F12Q--L | 3.5P | 26.441 | 85 | 35 | - | 23 | 17 | 20 | 4 | 046 | ○ |
| 1 -11 | II | 30.75 | 30.77 | TH2F16U--L | 3.5P | 33.249 | 95 | 45 | - | 26 | 21 | 24 | 4 | 046 | ○ |
| 1 1/4-11 | II | 39.3 | 39.43 | TH2F20U--L | 3.5P | 41.910 | 105 | 45 | - | 32 | 26 | 30 | 4 | 046 | ○ |
| 1 1/2-11 | II | 45.25 | 45.33 | TH2F24U--L | 3.5P | 47.803 | 110 | 45 | - | 38 | 29 | 32 | 6 | 046 | ○ |
| 2 -11 | II | 57 | 57.1 | TH2F32U--L | 3.5P | 59.614 | 120 | 50 | - | 46 | 35 | 38 | 6 | 046 | ○ |

# SU-HT




## MS Material Specific Series

Straight Fluted Taps for Stainless Steel

HSS-E | OX | 4P THCHT

**FEATURES**

Material specific for blind and through hole application.

Specific design and OX treatment for stainless steel, steel and medium alloy steel application.

1.5P chamfer for blind hole application, 5P chamfer for through hole application.

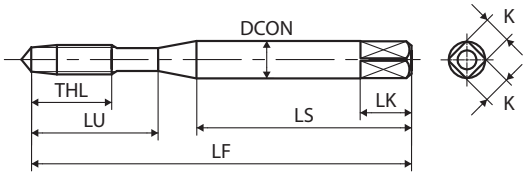
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤5 | ☆ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |
| P7 | ≤5 | ★ |

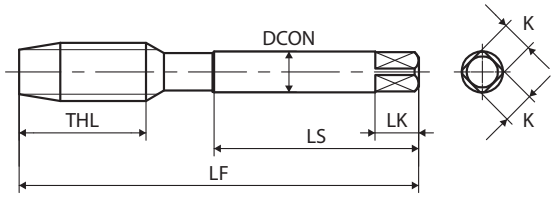
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤5 | ★ |

★ 1st choice ☆ suitable

**TYPE: HT_001**




**TYPE: HT_002**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2X0.4 | P2 | 1.6 | 1.65 | TUMQ2.0E4 | 4P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 1.6 | 1.65 | TUMQ2.0E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.3X0.4 | P2 | 1.9 | 1.95 | TUMQ2.3E4 | 4P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 1.9 | 1.95 | TUMQ2.3E1 | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | P2 | 2.1 | 2.11 | TUMQ2.5F4 | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.1 | 2.11 | TUMQ2.5F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.6X0.45 | P2 | 2.2 | 2.21 | TUMQ2.6F4 | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.2 | 2.21 | TUMQ2.6F1 | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M3X0.5 | P2 | 2.5 | 2.56 | TUMQ3.0G4 | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.5 | 2.56 | TUMQ3.0G1 | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P2 | 2.9 | 2.97 | TUMQ3.5H4 | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.9 | 2.97 | TUMQ3.5H1 | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | TUMQ4.0I4 | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 3.3 | 3.38 | TUMQ4.0I1 | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | TUMQ5.0K4 | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 4.2 | 4.28 | TUMQ5.0K1 | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P2 | 5 | 5.09 | TUMQ6.0M4 | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5 | 5.09 | TUMQ6.0M1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | TUMR8.0N4 | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.8 | 6.85 | TUMR8.0N1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | TUMR010O4 | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8.5 | 8.6 | TUMR010O1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | TUMS012P4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P4 | 10.3 | 10.36 | TUMS012P1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M14X2 | P4 | 12 | 12.12 | TUMS014Q4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 12 | 12.12 | TUMS014Q1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M16X2 | P4 | 14 | 14.12 | TUMS016Q4 | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 14 | 14.12 | TUMS016Q1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | TUMS018R4 | 4P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 15.5 | 15.63 | TUMS018R1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | TUMS020R4 | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 17.5 | 17.63 | TUMS020R1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | TUMS022R4 | 4P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 19.5 | 19.63 | TUMS022R1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M24X3 | P4 | 21 | 21.13 | TUMS024S4 | 4P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 21 | 21.13 | TUMS024S1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M27X3 | P4 | 24 | 24.13 | TUMS027S4 | 4P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 24 | 24.13 | TUMS027S1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | TUMT030T4 | 4P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P5 | 26.5 | 26.63 | TUMT030T1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X0.75 | P2 | 5.3 | 5.33 | TUMQ6.0J4 | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5.3 | 5.33 | TUMQ6.0J1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1 | P3 | 7 | 7.09 | TUMR8.0M4 | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 7 | 7.09 | TUMR8.0M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | TUMR010N4 | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8.8 | 8.85 | TUMR010N1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M10X1 | P3 | 9 | 9.09 | TUMR010M4 | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 9 | 9.09 | TUMR010M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | TUMR012O4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P3 | 10.5 | 10.6 | TUMR012O1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | TUMS012N4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P4 | 10.8 | 10.85 | TUMS012N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1 | P3 | 11 | 11.09 | TUMR012M4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P3 | 11 | 11.09 | TUMR012M1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | TUMR014O4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12.5 | 12.6 | TUMR014O1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M14X1.25 | P3 | 12.8 | 12.85 | TUMR014N4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 12.8 | 12.85 | TUMR014N1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M14X1 | P3 | 13 | 13.09 | TUMR014M4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P3 | 13 | 13.09 | TUMR014M1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | TUMR016O4 | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.5 | 14.6 | TUMR016O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M16X1 | P3 | 15 | 15.09 | TUMR016M4 | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 15 | 15.09 | TUMR016M1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | TUMS018O4 | 4P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 16.5 | 16.6 | TUMS018O1 | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | TUMS020O4 | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 18.5 | 18.6 | TUMS020O1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | TUMS022O4 | 4P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | P4 | 20.5 | 20.6 | TUMS022O1 | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | TUMS024O4 | 4P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 22.5 | 22.6 | TUMS024O1 | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | TUMS027O4 | 4P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | P4 | 25.5 | 25.6 | TUMS027O1 | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | TUMS030O4 | 4P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | P4 | 28.5 | 28.6 | TUMS030O1 | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20UNC | P2 | 5.1 | 5.19 | TUMQU04N4 | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5.1 | 5.19 | TUMQU04N1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | TUMRU05O4 | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.6 | 6.65 | TUMRU05O1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 3/8-16UNC | P3 | 8 | 8.07 | TUMRU06P4 | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8 | 8.07 | TUMRU06P1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | TUMRU07Q4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P3 | 9.4 | 9.45 | TUMRU07Q1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | TUMRU08R4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P3 | 10.9 | 10.91 | TUMRU08R1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | TUMRU10U4 | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 13.6 | 13.75 | TUMRU10U1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |



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IMROBEX Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 3/4-10UNC | P4 | 16.6 | 16.7 | TUMSU12V4 | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 16.6 | 16.7 | TUMSU12V1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-28UNF | P2 | 5.5 | 5.53 | TUMQU04K4 | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P2 | 5.5 | 5.53 | TUMQU04K1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | TUMQU05M4 | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P2 | 6.9 | 6.97 | TUMQU05M1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | TUMQU06M4 | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P2 | 8.5 | 8.57 | TUMQU06M1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | TUMRU07N4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P3 | 9.9 | 9.96 | TUMRU07N1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | TUMRU08N4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P3 | 11.5 | 11.54 | TUMRU08N1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| 5/8-18UNF | P3 | 14.5 | 14.6 | TUMRU10O4 | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 14.5 | 14.6 | TUMRU10O1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | TUMRU12P4 | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P3 | 17.5 | 17.59 | TUMRU12P1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4W20 | P3 | 5.1 | 5.13 | TUMRW04N4 | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 5.1 | 5.13 | TUMRW04N1 | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| 5/16W18 | P3 | 6.5 | 6.59 | TUMRW05O4 | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.5 | 6.59 | TUMRW05O1 | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| 3/8W16 | P3 | 8 | 8.02 | TUMRW06P4 | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| | P3 | 8 | 8.02 | TUMRW06P1 | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | TUMRW07Q4 | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| | P3 | 9.3 | 9.39 | TUMRW07Q1 | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | TUMRW08S4 | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 002 | ○ |
| | P3 | 10.6 | 10.7 | TUMRW08S1 | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | TUMRW10U4 | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P3 | 13.5 | 13.68 | TUMRW10U1 | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| 3/4W10 | P4 | 16.5 | 16.63 | TUMSW12V4 | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 16.5 | 16.63 | TUMSW12V1 | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |

# LA-HT




## MS Material Specific Series

Straight Fluted Taps for Die Cast Materials

HSS-E | NI | 5P THCHT

**FEATURES**

Material specific for blind and through hole application.

Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

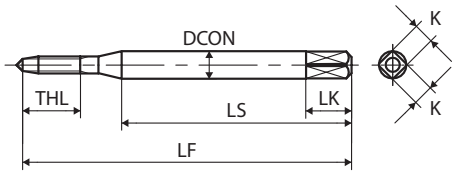
1.5P chamfer for blind hole application, 5P chamfer for through hole application.

**Recommended Tapping Speeds Depending On Materials**

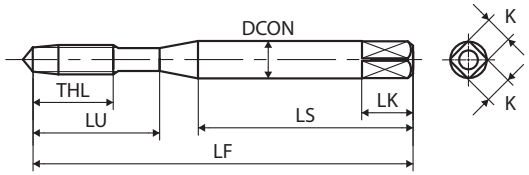
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷10 | ★ |
| N4 | 5÷10 | ★ |

★ 1st choice ☆ suitable

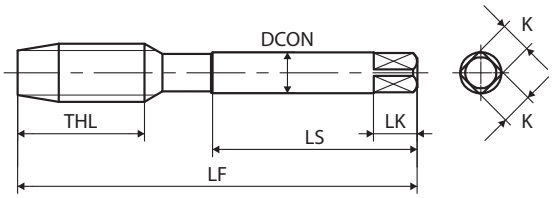
**TYPE: HT_005**




**TYPE: HT_001**




**TYPE: HT_002**






Think threads with YAMAWA

IMROBEX Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1.4X0.3 | P2 | 1.1 | 1.13 | TY1.4CQLEN5 | 5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P2 | 1.1 | 1.13 | TY1.4CQLENA | 1.5P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M1.6X0.35 | P2 | 1.25 | 1.3 | TY1.6DQLEN5 | 5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| | P2 | 1.25 | 1.3 | TY1.6DQLENA | 1.5P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 005 | ○ |
| M2X0.4 | P2 | 1.6 | 1.65 | TY2.0EQLEN5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 1.6 | 1.65 | TY2.0EQLENA | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.3X0.4 | P2 | 1.9 | 1.95 | TY2.3EQLEN5 | 5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 1.9 | 1.95 | TY2.3EQLENA | 1.5P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | P2 | 2.1 | 2.11 | TY2.5FQLEN5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.1 | 2.11 | TY2.5FQLENA | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.6X0.45 | P2 | 2.2 | 2.21 | TY2.6FQLEN5 | 5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P2 | 2.2 | 2.21 | TY2.6FQLENA | 1.5P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M3X0.5 | P2 | 2.5 | 2.56 | TY3.0GQLEN5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P2 | 2.5 | 2.56 | TY3.0GQLENA | 1.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P2 | 2.9 | 2.97 | TY3.5HQLEN5 | 5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P2 | 2.9 | 2.97 | TY3.5HQLENA | 1.5P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | TY4.0IRLEN5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3 | 3.3 | 3.38 | TY4.0IRLENA | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | TY5.0KRLEN5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TY5.0KRLENA | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P3 | 5 | 5.09 | TY6.0MRLEN5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 5 | 5.09 | TY6.0MRLENA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | TY8.0NRLEN5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 6.8 | 6.85 | TY8.0NRLENA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M10X1.5 | P4 | 8.5 | 8.6 | TY010OSLEN5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P4 | 8.5 | 8.6 | TY010OSLENA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | TY012PSLEN5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 10.3 | 10.36 | TY012PSLENA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M14X2 | P4 | 12 | 12.12 | TY014QSLEN5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 12 | 12.12 | TY014QSLENA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M16X2 | P4 | 14 | 14.12 | TY016QSLEN5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 14 | 14.12 | TY016QSLENA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M18X2.5 | P5 | 15.5 | 15.63 | TY018RTLEN5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P5 | 15.5 | 15.63 | TY018RTLENA | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M20X2.5 | P5 | 17.5 | 17.63 | TY020RTLEN5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P5 | 17.5 | 17.63 | TY020RTLENA | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M22X2.5 | P5 | 19.5 | 19.63 | TY022RTLENA | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M24X3 | P5 | 21 | 21.13 | TY024STLENA | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X1 | P3 | 7 | 7.09 | TY8.0MRLEN5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| | P3 | 7 | 7.09 | TY8.0MRLENA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | TY010NRLEN5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 8.8 | 8.85 | TY010NRLENA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| M10X1 | P3 | 9 | 9.09 | TY010MRLEN5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | P3 | 9 | 9.09 | TY010MRLENA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M12X1.5 | P4 | 10.5 | 10.6 | TY0120SLEN5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 10.5 | 10.6 | TY0120SLENA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | TY012NSLEN5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P4 | 10.8 | 10.85 | TY012NSLENA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M12X1 | P3 | 11 | 11.09 | TY012MRLEN5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | P3 | 11 | 11.09 | TY012MRLENA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| M14X1.5 | P4 | 12.5 | 12.6 | TY0140SLEN5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | P4 | 12.5 | 12.6 | TY0140SLENA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| M16X1.5 | P4 | 14.5 | 14.6 | TY0160SLEN5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | P4 | 14.5 | 14.6 | TY0160SLENA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | TY0180SLEN5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | P4 | 16.5 | 16.6 | TY0180SLENA | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | TY0200SLEN5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | P4 | 18.5 | 18.6 | TY0200SLENA | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | TY0220SLENA | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | TY0240SLENA | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# MG-HT




## MS Material Specific Series

Straight Fluted Taps with Short Chamfer for Magnesium Alloy Castings




**FEATURES**

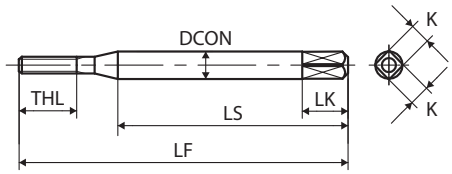
Material specific for blind and through hole application.
Specific design for Magnesium alloys.
1P extra short chamfer length.

**Recommended Tapping Speeds Depending On Materials**

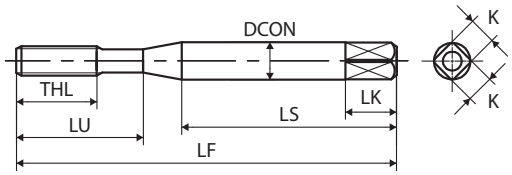
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |

★ 1st choice ☆ suitable

**TYPE: HT_023**




**TYPE: HT_025**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1.4X0.3** | P2 | 1.1 | 1.13 | TMGMQ1.4C1 | 1P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 3 | 023 | ○ |
| **M1.6X0.35** | P2 | 1.25 | 1.3 | TMGMQ1.6D1 | 1P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 023 | ○ |
| **M1.7X0.35** | P2 | 1.35 | 1.4 | TMGMQ1.7D1 | 1P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 3 | 023 | ○ |
| **M2X0.4** | P2 | 1.6 | 1.65 | TMGMQ2.0E1 | 1P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 025 | ○ |
| **M2.5X0.45** | P2 | 2.1 | 2.11 | TMGMQ2.5F1 | 1P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 025 | ○ |
| **M2.6X0.45** | P2 | 2.2 | 2.21 | TMGMQ2.6F1 | 1P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 025 | ○ |
| **M3X0.5** | P2 | 2.5 | 2.56 | TMGMQ3.0G1 | 1P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 025 | ○ |

# PL1

## MS Material Specific Series

Straight Fluted Taps for Thermosetting Plastics




HSS-E | NI | 3P THCHT





**FEATURES**

Material specific for blind and through hole application.

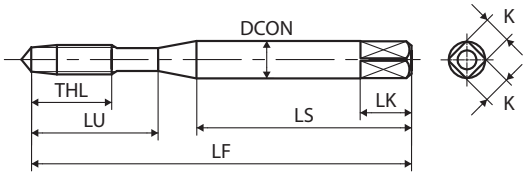
Specific design and NI treatment for Thermosetting Plastics.

**Recommended Tapping Speeds Depending On Materials**

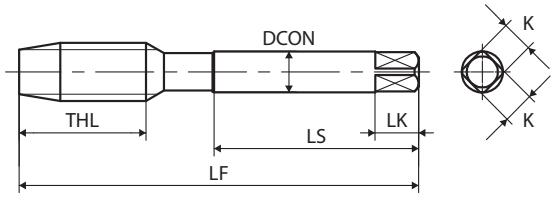
| ISO | Vc (m/min) | |
|---|---|---|
| N5 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: HT_001**




**TYPE: HT_002**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M2X0.4** | P4 | 1.6 | 1.65 | TPLM2.0E3 | 3P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.3X0.4** | P4 | 1.9 | 1.95 | TPLM2.3E3 | 3P | 42 | 7.2 | 12 | 27 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.5X0.45** | P4 | 2.1 | 2.11 | TPLM2.5F3 | 3P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M2.6X0.45** | P4 | 2.2 | 2.21 | TPLM2.6F3 | 3P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 3 | 001 | ○ |
| **M3X0.5** | P5 | 2.5 | 2.56 | TPLM3.0G3 | 3P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4 | 001 | ○ |
| **M3.5X0.6** | P5 | 2.9 | 2.97 | TPLM3.5H3 | 3P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| **M4X0.7** | P5 | 3.3 | 3.38 | TPLM4.0I3 | 3P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4 | 001 | ○ |
| **M5X0.8** | P5 | 4.2 | 4.28 | TPLM5.0K3 | 3P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| **M6X1** | P5 | 5 | 5.09 | TPLM6.0M3 | 3P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| **M8X1.25** | P6 | 6.8 | 6.85 | TPLM8.0N3 | 3P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |

# HT

## GP General Purpose Series

Straight Fluted Taps




HSS-E | 5P THCHT | 1.5P THCHT





**FEATURES**

General purpose for blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

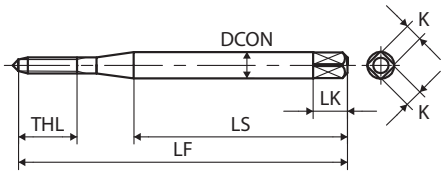
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

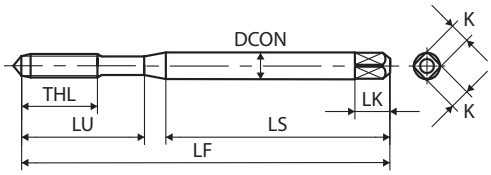
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

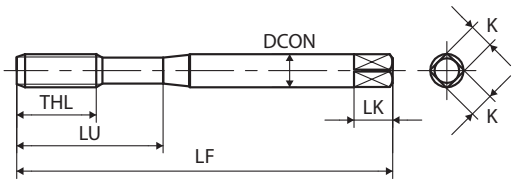
**TYPE: US_004**



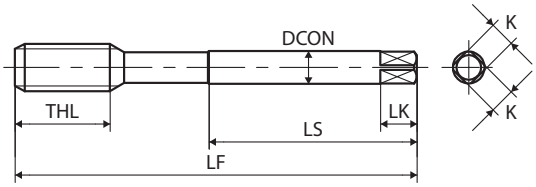

**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.1-64UNC | GH1 | 1.54 | 1.55 | TSUN1D1NEB5 | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH1 | 1.54 | 1.55 | TSUN1D1NEBA | 1.5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.54 | 1.55 | TSUN1D2NEB5 | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.54 | 1.55 | TSUN1D2NEBA | 1.5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.2-56UNC | GH1 | 1.8 | 1.83 | TSUN2E1NEB5 | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| | GH1 | 1.8 | 1.83 | TSUN2E1NEBA | 1.5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| | GH2 | 1.8 | 1.83 | TSUN2E2NEB5 | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| | GH2 | 1.8 | 1.83 | TSUN2E2NEBA | 1.5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| No.3-48UNC | GH1 | 2.09 | 2.1 | TSUN3F1NEB5 | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH1 | 2.09 | 2.1 | TSUN3F1NEBA | 1.5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.09 | 2.1 | TSUN3F2NEB5 | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.09 | 2.1 | TSUN3F2NEBA | 1.5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.4-40UNC | GH2 | 2.3 | 2.33 | TSUN4H2NEB5 | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.3 | 2.33 | TSUN4H2NEBA | 1.5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.3 | 2.33 | TSUN4H3NEB5 | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.3 | 2.33 | TSUN4H3NEBA | 1.5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.5-40UNC | GH2 | 2.6 | 2.64 | TSUN5H2NEB5 | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.6 | 2.64 | TSUN5H2NEBA | 1.5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.6 | 2.64 | TSUN5H3NEB5 | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.6 | 2.64 | TSUN5H3NEBA | 1.5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.6-32UNC | GH2 | 2.8 | 2.83 | TSUN6J2NEB5 | 5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.8 | 2.83 | TSUN6J2NEBA | 1.5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.8 | 2.83 | TSUN6J3NEB5 | 5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.8 | 2.83 | TSUN6J3NEBA | 1.5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.8-32UNC | GH2 | 3.4 | 3.47 | TSUN8J2NEB5 | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| | GH2 | 3.4 | 3.47 | TSUN8J2NEBA | 1.5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| | GH3 | 3.4 | 3.47 | TSUN8J3NEB5 | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| | GH3 | 3.4 | 3.47 | TSUN8J3NEBA | 1.5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| No.10-24UNC | GH2 | 3.89 | 3.9 | TSUNAM2NEB5 | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| | GH2 | 3.89 | 3.9 | TSUNAM2NEBA | 1.5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| | GH3 | 3.89 | 3.9 | TSUNAM3NEB5 | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| | GH3 | 3.89 | 3.9 | TSUNAM3NEBA | 1.5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| No.12-24UNC | GH2 | 4.5 | 4.53 | TSUNCM2NEB5 | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| | GH2 | 4.5 | 4.53 | TSUNCM2NEBA | 1.5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| | GH3 | 4.5 | 4.53 | TSUNCM3NEB5 | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| | GH3 | 4.5 | 4.53 | TSUNCM3NEBA | 1.5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| 1/4-20UNC | GH3 | 5.1 | 5.19 | TSU04N3NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH3 | 5.1 | 5.19 | TSU04N3NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH4 | 5.1 | 5.19 | TSU04N4NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH4 | 5.1 | 5.19 | TSU04N4NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH5 | 5.1 | 5.19 | TSU04N5NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH5 | 5.1 | 5.19 | TSU04N5NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



IMPROBEX
Machine Tools International
Think threads with YAMAWA

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 5/16-18UNC | GH3 | 6.6 | 6.65 | TSU05O3NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH3 | 6.6 | 6.65 | TSU05O3NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH4 | 6.6 | 6.65 | TSU05O4NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH4 | 6.6 | 6.65 | TSU05O4NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH5 | 6.6 | 6.65 | TSU05O5NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH5 | 6.6 | 6.65 | TSU05O5NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| 3/8-16UNC | GH3 | 8 | 8.07 | TSU06P3NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH3 | 8 | 8.07 | TSU06P3NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH5 | 8 | 8.07 | TSU06P5NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH5 | 8 | 8.07 | TSU06P5NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| 7/16-14UNC | GH4 | 9.4 | 9.45 | TSU07Q4NEB5 | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH4 | 9.4 | 9.45 | TSU07Q4NEBA | 1.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | TSU07Q5NEB5 | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH5 | 9.4 | 9.45 | TSU07Q5NEBA | 1.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| 1/2-13UNC | GH3 | 10.9 | 10.91 | TSU08R3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH3 | 10.9 | 10.91 | TSU08R3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH4 | 10.9 | 10.91 | TSU08R4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH4 | 10.9 | 10.91 | TSU08R4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | TSU08R5NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH5 | 10.9 | 10.91 | TSU08R5NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| 9/16-12UNC | GH3 | 12.2 | 12.33 | TSU09S3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH3 | 12.2 | 12.33 | TSU09S3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 12.2 | 12.33 | TSU09S4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 12.2 | 12.33 | TSU09S4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH5 | 12.2 | 12.33 | TSU09S5NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH5 | 12.2 | 12.33 | TSU09S5NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| 5/8-11UNC | GH3 | 13.6 | 13.75 | TSU10U3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH3 | 13.6 | 13.75 | TSU10U3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 13.6 | 13.75 | TSU10U4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 13.6 | 13.75 | TSU10U4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH5 | 13.6 | 13.75 | TSU10U5NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH5 | 13.6 | 13.75 | TSU10U5NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH6 | 13.6 | 13.75 | TSU10U6NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH6 | 13.6 | 13.75 | TSU10U6NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| 3/4-10UNC | GH3 | 16.6 | 16.7 | TSU12V3NEB5 | 5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH3 | 16.6 | 16.7 | TSU12V3NEBA | 1.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH5 | 16.6 | 16.7 | TSU12V5NEB5 | 5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH5 | 16.6 | 16.7 | TSU12V5NEBA | 1.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH6 | 16.6 | 16.7 | TSU12V6NEB5 | 5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH6 | 16.6 | 16.7 | TSU12V6NEBA | 1.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| 7/8-9UNC | GH5 | 19.6 | 19.61 | TSU14W5NEB5 | 5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH5 | 19.6 | 19.61 | TSU14W5NEBA | 1.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH6 | 19.6 | 19.61 | TSU14W6NEB5 | 5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH6 | 19.6 | 19.61 | TSU14W6NEBA | 1.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1 -8UNC | GH4 | 22.3 | 22.45 | TSU16X4NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH4 | 22.3 | 22.45 | TSU16X4NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH5 | 22.3 | 22.45 | TSU16X5NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH5 | 22.3 | 22.45 | TSU16X5NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH6 | 22.3 | 22.45 | TSU16X6NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH6 | 22.3 | 22.45 | TSU16X6NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH7 | 22.3 | 22.45 | TSU16X7NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH7 | 22.3 | 22.45 | TSU16X7NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| 1 1/8-7UNC | GH6 | 25 | 25.17 | TSU18Y6NEB5 | 5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH6 | 25 | 25.17 | TSU18Y6NEBA | 1.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH7 | 25 | 25.17 | TSU18Y7NEB5 | 5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH7 | 25 | 25.17 | TSU18Y7NEBA | 1.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-7UNC | GH6 | 28.2 | 28.35 | TSU20Y6NEB5 | 5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH6 | 28.2 | 28.35 | TSU20Y6NEBA | 1.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH8 | 28.2 | 28.35 | TSU20Y8NEB5 | 5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| | GH8 | 28.2 | 28.35 | TSU20Y8NEBA | 1.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 4 | 007 | ○ |
| 1 3/8-6UNC | GH6 | 30.8 | 30.92 | TSU22Z6NEB5 | 5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH6 | 30.8 | 30.92 | TSU22Z6NEBA | 1.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH8 | 30.8 | 30.92 | TSU22Z8NEB5 | 5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| | GH8 | 30.8 | 30.92 | TSU22Z8NEBA | 1.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 4 | 007 | ○ |
| 1 1/2-6UNC | GH6 | 34 | 34.1 | TSU24Z6NEB5 | 5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH6 | 34 | 34.1 | TSU24Z6NEBA | 1.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH8 | 34 | 34.1 | TSU24Z8NEB5 | 5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |
| | GH8 | 34 | 34.1 | TSU24Z8NEBA | 1.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 4 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.0-80UNF | GH1 | 1.25 | 1.27 | TSUN0B1NEB5 | 5P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH1 | 1.25 | 1.27 | TSUN0B1NEBA | 1.5P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.25 | 1.27 | TSUN0B2NEB5 | 5P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.25 | 1.27 | TSUN0B2NEBA | 1.5P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.1-72UNF | GH1 | 1.55 | 1.58 | TSUN1C1NEB5 | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH1 | 1.55 | 1.58 | TSUN1C1NEBA | 1.5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.55 | 1.58 | TSUN1C2NEB5 | 5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| | GH2 | 1.55 | 1.58 | TSUN1C2NEBA | 1.5P | 1.772 | 0.275 | - | 1.161 | 0.141 | 0.11 | 0.187 | 2 | 004 | ○ |
| No.2-64UNF | GH1 | 1.85 | 1.87 | TSUN2D1NEB5 | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| | GH1 | 1.85 | 1.87 | TSUN2D1NEBA | 1.5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| | GH2 | 1.85 | 1.87 | TSUN2D2NEB5 | 5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| | GH2 | 1.85 | 1.87 | TSUN2D2NEBA | 1.5P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 3 | 004 | ○ |
| No.3-56UNF | GH1 | 2.1 | 2.15 | TSUN3E1NEB5 | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH1 | 2.1 | 2.15 | TSUN3E1NEBA | 1.5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.1 | 2.15 | TSUN3E2NEB5 | 5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.1 | 2.15 | TSUN3E2NEBA | 1.5P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.4-48UNF | GH1 | 2.4 | 2.41 | TSUN4F1NEB5 | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH1 | 2.4 | 2.41 | TSUN4F1NEBA | 1.5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.4 | 2.41 | TSUN4F2NEB5 | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.4 | 2.41 | TSUN4F2NEBA | 1.5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 073 of Technical info for full details.



IMROBEX
Machine Tools International
Think threads with YAMAWA

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| No.5-44UNF | GH1 | 2.7 | 2.69 | TSUN5G1NEB5 | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH1 | 2.7 | 2.69 | TSUN5G1NEBA | 1.5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.7 | 2.69 | TSUN5G2NEB5 | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.7 | 2.69 | TSUN5G2NEBA | 1.5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.7 | 2.69 | TSUN5G3NEB5 | 5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.7 | 2.69 | TSUN5G3NEBA | 1.5P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.6-40UNF | GH2 | 2.9 | 2.97 | TSUN6H2NEB5 | 5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.9 | 2.97 | TSUN6H2NEBA | 1.5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.9 | 2.97 | TSUN6H3NEB5 | 5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH3 | 2.9 | 2.97 | TSUN6H3NEBA | 1.5P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| No.8-36UNF | GH2 | 3.5 | 3.55 | TSUN8I2NEB5 | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| | GH2 | 3.5 | 3.55 | TSUN8I2NEBA | 1.5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| | GH3 | 3.5 | 3.55 | TSUN8I3NEB5 | 5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| | GH3 | 3.5 | 3.55 | TSUN8I3NEBA | 1.5P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 4 | 005 | ○ |
| No.10-32UNF | GH2 | 4.1 | 4.12 | TSUNAJ2NEB5 | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| | GH2 | 4.1 | 4.12 | TSUNAJ2NEBA | 1.5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| | GH3 | 4.1 | 4.12 | TSUNAJ3NEB5 | 5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| | GH3 | 4.1 | 4.12 | TSUNAJ3NEBA | 1.5P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 4 | 005 | ○ |
| No.12-28UNF | GH2 | 4.6 | 4.67 | TSUNCK2NEB5 | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| | GH2 | 4.6 | 4.67 | TSUNCK2NEBA | 1.5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| | GH3 | 4.6 | 4.67 | TSUNCK3NEB5 | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| | GH3 | 4.6 | 4.67 | TSUNCK3NEBA | 1.5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 4 | 005 | ○ |
| 1/4-28UNF | GH2 | 5.5 | 5.53 | TSU04K2NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH2 | 5.5 | 5.53 | TSU04K2NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH3 | 5.5 | 5.53 | TSU04K3NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH3 | 5.5 | 5.53 | TSU04K3NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH4 | 5.5 | 5.53 | TSU04K4NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| | GH4 | 5.5 | 5.53 | TSU04K4NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 4 | 005 | ○ |
| 5/16-24UNF | GH3 | 6.9 | 6.97 | TSU05M3NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH3 | 6.9 | 6.97 | TSU05M3NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH4 | 6.9 | 6.97 | TSU05M4NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| | GH4 | 6.9 | 6.97 | TSU05M4NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 4 | 006 | ○ |
| 3/8-24UNF | GH3 | 8.5 | 8.57 | TSU06M3NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH3 | 8.5 | 8.57 | TSU06M3NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH4 | 8.5 | 8.57 | TSU06M4NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH4 | 8.5 | 8.57 | TSU06M4NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| 7/16-20UNF | GH3 | 9.9 | 9.96 | TSU07N3NEB5 | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH3 | 9.9 | 9.96 | TSU07N3NEBA | 1.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH4 | 9.9 | 9.96 | TSU07N4NEB5 | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH4 | 9.9 | 9.96 | TSU07N4NEBA | 1.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| 1/2-20UNF | GH3 | 11.5 | 11.54 | TSU08N3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH3 | 11.5 | 11.54 | TSU08N3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH4 | 11.5 | 11.54 | TSU08N4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH4 | 11.5 | 11.54 | TSU08N4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | TSU08N5NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH5 | 11.5 | 11.54 | TSU08N5NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |



Think threads with YAMAWA

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| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 9/16-18UNF | GH3 | 12.9 | 13 | TSU0903NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH3 | 12.9 | 13 | TSU0903NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 12.9 | 13 | TSU0904NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 12.9 | 13 | TSU0904NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH5 | 12.9 | 13 | TSU0905NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH5 | 12.9 | 13 | TSU0905NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| 5/8-18UNF | GH3 | 14.5 | 14.6 | TSU1003NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH3 | 14.5 | 14.6 | TSU1003NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 14.5 | 14.6 | TSU1004NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 14.5 | 14.6 | TSU1004NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH5 | 14.5 | 14.6 | TSU1005NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH5 | 14.5 | 14.6 | TSU1005NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| 3/4-16UNF | GH3 | 17.5 | 17.59 | TSU12P3NEB5 | 5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH3 | 17.5 | 17.59 | TSU12P3NEBA | 1.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH4 | 17.5 | 17.59 | TSU12P4NEB5 | 5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH4 | 17.5 | 17.59 | TSU12P4NEBA | 1.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH5 | 17.5 | 17.59 | TSU12P5NEB5 | 5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| | GH5 | 17.5 | 17.59 | TSU12P5NEBA | 1.5P | 4.921 | 1.299 | - | 2.52 | 0.59 | 0.442 | 0.687 | 4 | 007 | ○ |
| 7/8-14UNF | GH4 | 20.5 | 20.57 | TSU14Q4NEB5 | 5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH4 | 20.5 | 20.57 | TSU14Q4NEBA | 1.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH6 | 20.5 | 20.57 | TSU14Q6NEB5 | 5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| | GH6 | 20.5 | 20.57 | TSU14Q6NEBA | 1.5P | 5.512 | 1.299 | - | 2.795 | 0.697 | 0.523 | 0.75 | 4 | 007 | ○ |
| 1 -12UNF | GH4 | 23.3 | 23.46 | TSU16S4NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH4 | 23.3 | 23.46 | TSU16S4NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH5 | 23.3 | 23.46 | TSU16S5NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH5 | 23.3 | 23.46 | TSU16S5NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH6 | 23.3 | 23.46 | TSU16S6NEB5 | 5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| | GH6 | 23.3 | 23.46 | TSU16S6NEBA | 1.5P | 6.299 | 1.457 | - | 3.228 | 0.8 | 0.6 | 0.812 | 4 | 007 | ○ |
| 1 1/8-12UNF | GH5 | 26.5 | 26.63 | TSU18S5NEB5 | 5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH5 | 26.5 | 26.63 | TSU18S5NEBA | 1.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH6 | 26.5 | 26.63 | TSU18S6NEB5 | 5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| | GH6 | 26.5 | 26.63 | TSU18S6NEBA | 1.5P | 7.087 | 1.732 | - | 3.622 | 0.896 | 0.672 | 0.875 | 4 | 007 | ○ |
| 1 1/4-12UNF | GH5 | 29.6 | 29.81 | TSU20S5NEB5 | 5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 6 | 007 | ○ |
| | GH5 | 29.6 | 29.81 | TSU20S5NEBA | 1.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 6 | 007 | ○ |
| | GH6 | 29.6 | 29.81 | TSU20S6NEB5 | 5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 6 | 007 | ○ |
| | GH6 | 29.6 | 29.81 | TSU20S6NEBA | 1.5P | 7.087 | 1.929 | - | 3.622 | 1.021 | 0.766 | 1 | 6 | 007 | ○ |
| 1 3/8-12UNF | GH5 | 32.8 | 32.98 | TSU22S5NEB5 | 5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 6 | 007 | ○ |
| | GH5 | 32.8 | 32.98 | TSU22S5NEBA | 1.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 6 | 007 | ○ |
| | GH6 | 32.8 | 32.98 | TSU22S6NEB5 | 5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 6 | 007 | ○ |
| | GH6 | 32.8 | 32.98 | TSU22S6NEBA | 1.5P | 7.874 | 2.165 | - | 4.016 | 1.108 | 0.831 | 1.062 | 6 | 007 | ○ |
| 1 1/2-12UNF | GH5 | 36 | 36.16 | TSU24S5NEB5 | 5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 6 | 007 | ○ |
| | GH5 | 36 | 36.16 | TSU24S5NEBA | 1.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 6 | 007 | ○ |
| | GH7 | 36 | 36.16 | TSU24S7NEB5 | 5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 6 | 007 | ○ |
| | GH7 | 36 | 36.16 | TSU24S7NEBA | 1.5P | 7.874 | 2.323 | - | 4.016 | 1.233 | 0.925 | 1.125 | 6 | 007 | ○ |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.



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Think threads with YAMAWA

# NPT




## GP General Purpose Series

Straight Fluted Taps for American Taper Pipe Threads

HSS-E





3P THCHT

**FEATURES**

General purpose for blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

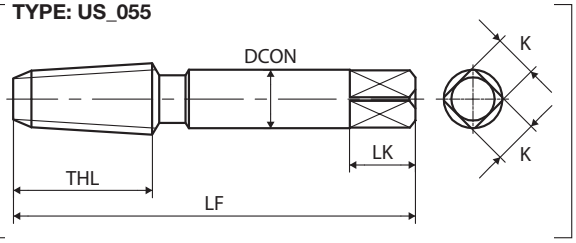
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | ≤5 | ☆ |
| K2 | ≤5 | ☆ |

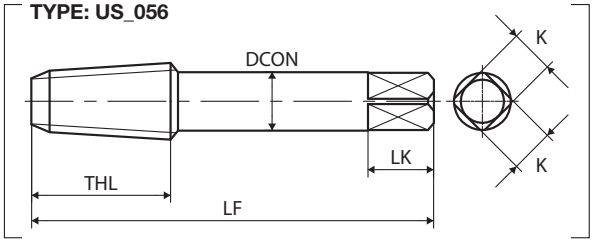
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | ≤5 | ☆ |
| N4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: US_055**




**TYPE: US_056**




| NPT | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/16-27 | ANSI G | 6 | 6.05 | Y83100BR | 3P | 7.770 | 2.125 | 0.687 | - | 0.312 | 0.234 | 0.375 | 4 | 055 | ● |
| 1/8-27 | ANSI G | 8.35 | 8.39 | Y83101BR | 3P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 055 | ● |
| 1/4-18 | ANSI G | 10.8 | 10.85 | Y83103BR | 3P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 055 | ● |
| 3/8-18 | ANSI G | 14.25 | 14.27 | Y83104BR | 3P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 055 | ● |
| 1/2-14 | ANSI G | 17.5 | 17.6 | Y83105BR | 3P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 056 | ● |
| 3/4-14 | ANSI G | 22.9 | 22.91 | Y83106BR | 3P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 4 | 056 | ● |
| 1 -11 1/2 | ANSI G | 28.75 | 28.78 | Y83107BR | 3P | 32.934 | 3.75 | 1.75 | - | 1.125 | 0.843 | 0.812 | 5 | 056 | ● |
| 1 1/4-11 1/2 | ANSI G | 37.4 | 37.5 | Y83108BR | 3P | 41.689 | 4 | 1.75 | - | 1.312 | 0.984 | 0.937 | 5 | 056 | ○ |
| 1 1/2-11 1/2 | ANSI G | 43.5 | 43.57 | Y83109BR | 3P | 47.760 | 4.25 | 1.75 | - | 1.5 | 1.125 | 1 | 6 | 056 | ○ |
| 2 -11 1/2 | ANSI G | 55.5 | 55.58 | Y83110BR | 3P | 59.797 | 4.5 | 1.75 | - | 1.875 | 1.406 | 1.125 | 6 | 056 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# NPTF

## GP General Purpose Series

Straight Fluted Taps for American Dryseal Taper Pipe Threads




HSS-E | OX | 3P THCHT

**FEATURES**

General purpose for blind and through hole application.

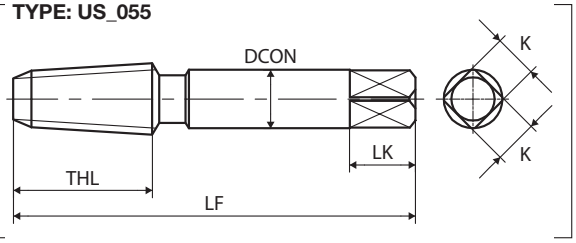
For steel application at low cutting speed.

**Recommended Tapping Speeds Depending On Materials**

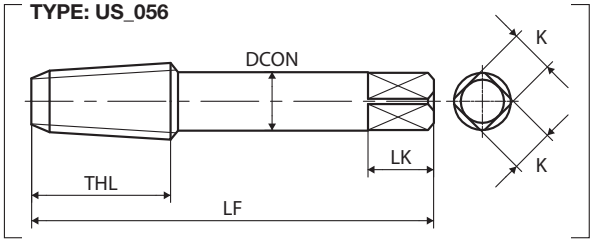
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: US_055**




**TYPE: US_056**




| NPTF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/16-27 | ANSI G | 5.95 | 5.99 | Y83125 | 3P | 7.770 | 2.125 | 0.687 | - | 0.312 | 0.234 | 0.375 | 4 | 055 | ○ |
| 1/8-27 | ANSI G | 8.3 | 8.34 | Y83126 | 3P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 055 | ● |
| 1/4-18 | ANSI G | 10.7 | 10.75 | Y83128 | 3P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 055 | ● |
| 3/8-18 | ANSI G | 14.1 | 14.17 | Y83129 | 3P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 055 | ○ |
| 1/2-14 | ANSI G | 17.4 | 17.44 | Y83130 | 3P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 056 | ○ |
| 3/4-14 | ANSI G | 22.7 | 22.75 | Y83131 | 3P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 5 | 056 | ○ |
| 1 -11 1/2 | ANSI G | 28.5 | 28.6 | Y83132 | 3P | 32.934 | 3.75 | 1.75 | - | 1.125 | 0.843 | 0.812 | 5 | 056 | ○ |
| 1 1/4-11 1/2 | ANSI G | 37.3 | 37.33 | Y83133 | 3P | 41.689 | 4 | 1.75 | - | 1.312 | 0.984 | 0.937 | 5 | 056 | ○ |
| 1 1/2-11 1/2 | ANSI G | 43.3 | 43.4 | Y83134 | 3P | 47.760 | 4.25 | 1.75 | - | 1.5 | 1.125 | 1 | 6 | 056 | ○ |
| 2 -11 1/2 | ANSI G | 55.4 | 55.41 | Y83135 | 3P | 59.797 | 4.5 | 1.75 | - | 1.875 | 1.406 | 1.125 | 6 | 056 | ○ |

# NPS




## GP General Purpose Series

Straight Fluted Taps for American Parallel Pipe Threads

HSS-E | OX | 4P THCHT





**FEATURES**

General purpose for blind and through hole application.

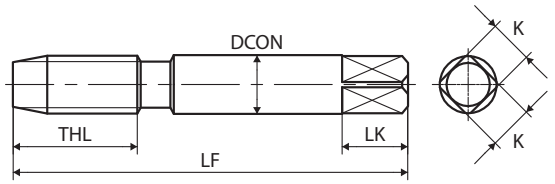
For steel application at low cutting speed.

**Recommended Tapping Speeds Depending On Materials**

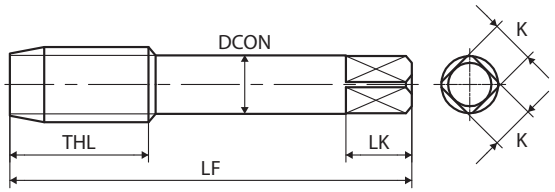
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: US_057**




**TYPE: US_058**




| NPS | TCTR (tolerance) | Bored Hole Ø (mm) NSPM | Bored Hole Ø (mm) NSPC | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/8-27 | ANSI G | 9.21 | 8.86 | Y83301 | 4P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 057 | ○ |
| | ANSI G | 9.21 | 8.86 | Y83302 | 4P | 10.117 | 2.125 | 0.75 | - | 0.312 | 0.234 | 0.375 | 4 | 058 | ○ |
| 1/4-18 | ANSI G | 12.13 | 11.53 | Y83303 | 4P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 057 | ○ |
| 3/8-18 | ANSI G | 15.49 | 14.98 | Y83304 | 4P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 057 | ○ |
| 1/2-14 | ANSI G | 19.2 | 18.52 | Y83305 | 4P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 058 | ○ |
| 3/4-14 | ANSI G | 24.6 | 23.88 | Y83306 | 4P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 5 | 058 | ○ |
| 1 -11 1/2 | ANSI G | 30.7 | 29.93 | Y83307 | 4P | 32.934 | 3.75 | 1.75 | - | 1.125 | 0.843 | 0.812 | 5 | 058 | ○ |



Think threads with YAMAWA

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# NPSF




## GP General Purpose Series

Straight Fluted Taps for American Dryseal Parallel Pipe Threads

HSS-E | OX | 4P THCHT

**FEATURES**

General purpose for blind and through hole application.

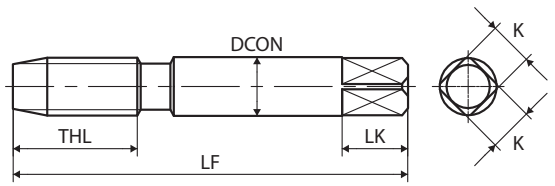
For steel application at low cutting speed.

**Recommended Tapping Speeds Depending On Materials**

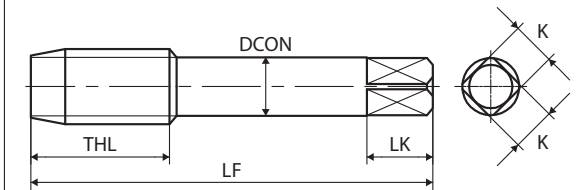
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: US_057**




**TYPE: US_058**




| NPSF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/8-27 | ANSI G | 8.7 | 8.72 | Y83326 | 4P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 057 | ○ |
| | ANSI G | 8.7 | 8.72 | Y83327 | 4P | 10.117 | 2.125 | 0.75 | - | 0.312 | 0.234 | 0.375 | 4 | 058 | ○ |
| 1/4-18 | ANSI G | 11.3 | 11.33 | Y83328 | 4P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 057 | ○ |
| 3/8-18 | ANSI G | 14.75 | 14.77 | Y83329 | 4P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 057 | ○ |
| 1/2-14 | ANSI G | 18.2 | 18.25 | Y83330 | 4P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 058 | ○ |
| 3/4-14 | ANSI G | 23.5 | 23.5 | Y83331 | 4P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 5 | 058 | ○ |
| 1 -11 1/2 | ANSI G | 29.5 | 29.6 | Y83332 | 4P | 32.934 | 3.75 | 1.75 | - | 1.125 | 0.843 | 0.812 | 5 | 058 | ○ |

Intro
SP
SL
PO
ST
ANSI
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# ZELX MOLD

## Material Specific Series

Straight Fluted Taps for Hard Materials (<45HRC)




HSS-Co





5P THCHT

**FEATURES**

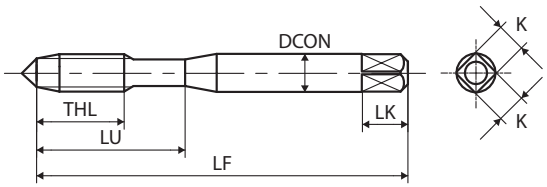
Material specific for blind and through hole application.
For high tensile strength steel <45HRC.
Specific geometry and HSSCo allow stable and long life.

**Recommended Tapping Speeds Depending On Materials**

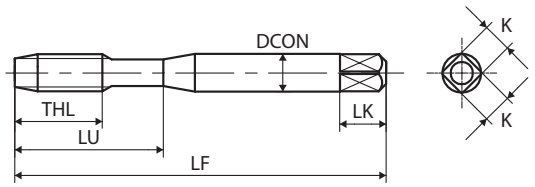
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P5 | ≤5 | ★ | K2 | ≤5 | ☆ |
| P6 | ≤5 | ★ | K3 | ≤5 | ☆ |

★ 1st choice ☆ suitable

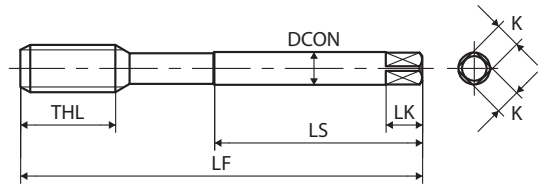
**TYPE: US_030**




**TYPE: US_042**




**TYPE: US_007**






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| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.4-40UNC** | GH2 | 2.3 | 2.33 | Y89599 | 5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.5-40UNC** | GH2 | 2.6 | 2.64 | Y89601 | 5P | 1.937 | 0.374 | 0.625 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.6-32UNC** | GH3 | 2.8 | 2.83 | Y89602 | 5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| **No.8-32UNC** | GH3 | 3.4 | 3.47 | Y89604 | 5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| **No.10-24UNC** | GH3 | 3.89 | 3.9 | Y89606 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| **1/4-20UNC** | GH3 | 5.1 | 5.19 | Y89613 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 042 | ○ |
| **5/16-18UNC** | GH3 | 6.6 | 6.65 | Y89615 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 4 | 042 | ○ |
| **3/8-16UNC** | GH3 | 8 | 8.07 | Y89617 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 4 | 042 | ○ |
| **7/16-14UNC** | GH3 | 9.4 | 9.45 | Y89619 | 5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| **1/2-13UNC** | GH3 | 10.9 | 10.91 | Y89621 | 5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| **5/8-11UNC** | GH3 | 13.6 | 13.75 | Y89625 | 5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| **3/4-10UNC** | GH3 | 16.6 | 16.7 | Y89627 | 5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 4 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.10-32UNF** | GH3 | 4.1 | 4.12 | Y89607 | 5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| **1/4-28UNF** | GH3 | 5.5 | 5.53 | Y89614 | 5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 042 | ○ |
| **5/16-24UNF** | GH3 | 6.9 | 6.97 | Y89616 | 5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 4 | 042 | ○ |
| **3/8-24UNF** | GH3 | 8.5 | 8.57 | Y89618 | 5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 4 | 042 | ○ |
| **7/16-20UNF** | GH3 | 9.9 | 9.96 | Y89620 | 5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| **1/2-20UNF** | GH3 | 11.5 | 11.54 | Y89622 | 5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| **5/8-18UNF** | GH3 | 14.5 | 14.6 | Y89626 | 5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| **3/4-16UNF** | GH3 | 17.5 | 17.59 | Y89628 | 5P | 4.25 | 1.201 | - | - | 0.59 | 0.422 | 0.687 | 4 | 007 | ○ |



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The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Think threads with YAMAWA

# ZELX MOLD NPT

## MS Material Specific Series

Straight Fluted Taps for American Taper Pipe Threads, for Hard Materials (<45HRC)




**FEATURES**

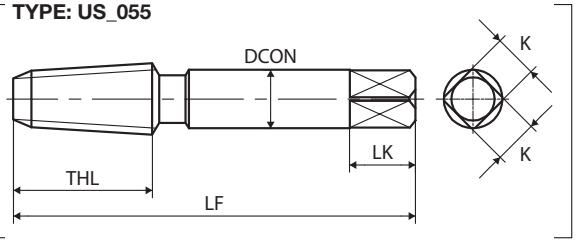
Material specific for blind and through hole application.
For high tensile strength steel <45HRC.
Specific geometry and HSSCo allow stable and long life.

**Recommended Tapping Speeds Depending On Materials**

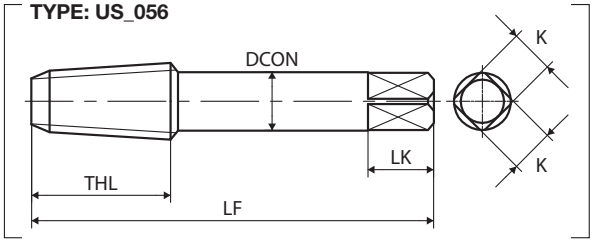
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P5 | ≤5 | ★ | K2 | ≤5 | ☆ |
| P6 | ≤5 | ★ | K3 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: US_055**




**TYPE: US_056**




| NPT | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (inch) | THL (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/8-27 | ANSI G | 8.35 | 8.39 | Y89641 | 3P | 10.117 | 2.125 | 0.75 | - | 0.437 | 0.328 | 0.375 | 4 | 055 | ○ |
| 1/4-18 | ANSI G | 10.8 | 10.85 | Y89643 | 3P | 13.426 | 2.437 | 1.062 | - | 0.562 | 0.421 | 0.437 | 4 | 055 | ○ |
| 3/8-18 | ANSI G | 14.25 | 14.27 | Y89644 | 3P | 16.866 | 2.562 | 1.062 | - | 0.7 | 0.531 | 0.5 | 4 | 055 | ○ |
| 1/2-14 | ANSI G | 17.5 | 17.6 | Y89645 | 3P | 20.980 | 3.125 | 1.375 | - | 0.687 | 0.515 | 0.625 | 4 | 056 | ○ |
| 3/4-14 | ANSI G | 22.9 | 22.91 | Y89646 | 3P | 26.325 | 3.25 | 1.375 | - | 0.906 | 0.679 | 0.687 | 5 | 056 | ○ |



Think threads with YAMAWA

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# MHRZ




## Z-PRO Series

Roll Taps for Carbon Steel of Medium Hardness, Coated




**FEATURES**

Z-PRO Series forming tap with special design for low tapping torque.

HSSCo and suitable coating for long life on Medium Hard steel (<35HRC) application.

2P chamfer for blind hole application, 4P chamfer for through hole application.

### Recommended Tapping Speeds Depending On Materials

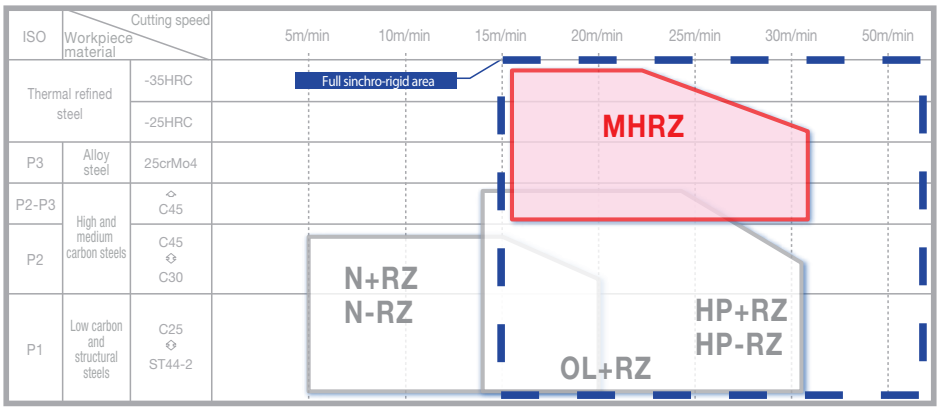
| ISO | Vc (m/min) | |
|---|---|---|
| P2 | 10÷30 | ★ |
| P3 | 10÷30 | ★ |
| P4 | 10÷30 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷30 | ☆ |
| N2 | 10÷30 | ☆ |

★ 1st choice ☆ suitable

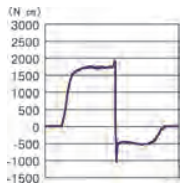
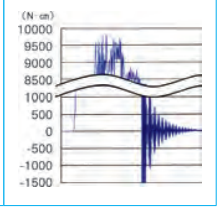
WATCH THE VIDEO

### Product Features

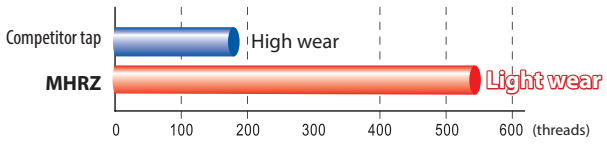



**M12×1.25**

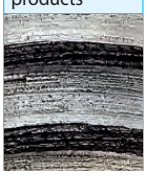
| | |
|---|---|
| Workpiece material | 42CrMo4 - 1.7225(35HRC) |
| Cutting speed | 20 m/min |
| Bored hole | ø11.3 mm |
| Thread length | 18 mm (through hole) |
| Machine | Machining center (synchro) |
| Lubricant | Water soluble oil |
| No. of threads | 800 threads (still running) |

| MHRZ | Competitor |
|---|---|
|  |  |






**MHRZ finishing**

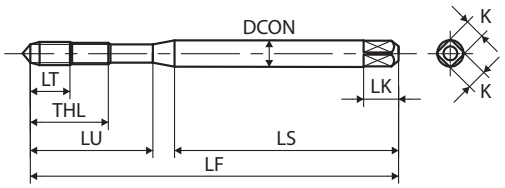
| MHRZ | Competitor products |
|---|---|
|  |  |



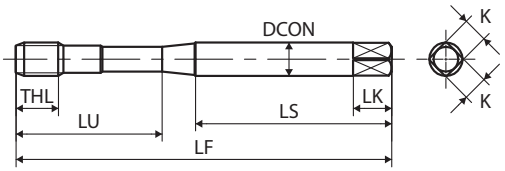
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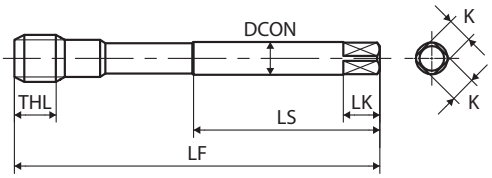
**TYPE: EU_140**




**TYPE: EU_025**




**TYPE: EU_023**




| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M6X1** | IS02X(6HX) | 5.61 | 5.5 | RD6.0MBOCTP | 4P | 80 | 11 | 30 | 45 | 6 | 4.9 | 8 | 5(5) | 140 | ● |
| | IS02X(6HX) | 5.61 | 5.5 | RD6.0MBOCTB | 2P | 80 | 11 | 30 | 45 | 6 | 4.9 | 8 | 5(5) | 025 | ● |
| **M8X1.25** | IS02X(6HX) | 7.52 | 7.38 | RD8.0NBOCTP | 4P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 6(6) | 025 | ● |
| | IS02X(6HX) | 7.52 | 7.38 | RD8.0NBOCTB | 2P | 90 | 12 | 35 | 47 | 8 | 6.2 | 9 | 6(6) | 025 | ● |
| **M10X1.5** | IS02X(6HX) | 9.41 | 9.26 | RD010OBOCTP | 4P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 8(8) | 025 | ● |
| | IS02X(6HX) | 9.41 | 9.26 | RD010OBOCTB | 2P | 100 | 13 | 39 | 52 | 10 | 8 | 11 | 8(8) | 025 | ● |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | IS02X(6HX) | 11.3 | 11.13 | RG012PBOCTP | 4P | 110 | 15 | - | 56 | 9 | 7 | 10 | 8(8) | 023 | ● |
| | IS02X(6HX) | 11.3 | 11.13 | RG012PBOCTB | 2P | 110 | 15 | - | 56 | 9 | 7 | 10 | 8(8) | 023 | ● |
| **M16X2** | IS02X(6HX) | 15.19 | 15.15 | VGYGZ008 | 2P | 110 | 18 | - | 56 | 12 | 12 | 9 | 8(8) | 023 | ● |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | IS02X(6HX) | 9.51 | 9.38 | RM010NBOCTP | 4P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 8(8) | 023 | ● |
| | IS02X(6HX) | 9.51 | 9.38 | RM010NBOCTB | 2P | 100 | 13 | - | 51 | 7 | 5.5 | 8 | 8(8) | 023 | ● |
| **M12X1.5** | IS02X(6HX) | 11.39 | 11.24 | RM012OBOCTP | 4P | 100 | 15 | - | 51 | 9 | 7 | 10 | 8(8) | 023 | ● |
| | IS02X(6HX) | 11.39 | 11.24 | RM012OBOCTB | 2P | 100 | 15 | - | 51 | 9 | 7 | 10 | 8(8) | 023 | ● |
| **M12X1.25** | IS02X(6HX) | 11.51 | 11.38 | RM012NBOCTP | 4P | 100 | 15 | - | 51 | 9 | 7 | 10 | 8(8) | 023 | ● |
| | IS02X(6HX) | 11.51 | 11.38 | RM012NBOCTB | 2P | 100 | 15 | - | 51 | 9 | 7 | 10 | 8(8) | 023 | ● |
| **M14X1.5** | IS02X(6HX) | 13.39 | 13.24 | RM014OBOCTP | 4P | 100 | 14 | - | 51 | 11 | 9 | 12 | 8(8) | 023 | ● |
| | IS02X(6HX) | 13.39 | 13.24 | RM014OBOCTB | 2P | 100 | 14 | - | 51 | 11 | 9 | 12 | 8(8) | 023 | ● |
| **M16X1.5** | IS02X(6HX) | 15.38 | 15.23 | RM016OBOCTP | 4P | 100 | 18 | - | 51 | 12 | 9 | 12 | 8(8) | 023 | ● |
| | IS02X(6HX) | 15.38 | 15.23 | RM016OBOCTB | 2P | 100 | 18 | - | 51 | 12 | 9 | 12 | 8(8) | 023 | ● |
| **M18X1.5** | IS02X(6HX) | 17.38 | 17.23 | RM018OBOCTP | 4P | 110 | 20 | - | 56 | 14 | 11 | 14 | 8(8) | 023 | ● |
| | IS02X(6HX) | 17.38 | 17.23 | RM018OBOCTB | 2P | 110 | 20 | - | 56 | 14 | 11 | 14 | 8(8) | 023 | ● |
| **M20X1.5** | IS02X(6HX) | 19.37 | 19.22 | RM020OBOCTP | 4P | 125 | 20 | - | 64 | 16 | 12 | 15 | 8(8) | 023 | ● |
| | IS02X(6HX) | 19.37 | 19.22 | RM020OBOCTB | 2P | 125 | 20 | - | 64 | 16 | 12 | 15 | 8(8) | 023 | ● |

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PO
ST
ROLL
DIN
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# R-D




## GP General Purpose Series

Thread Forming Taps for Low Hardness Materials

HSS-E





2P THCHT

**FEATURES**

General purpose forming taps for blind and through hole application.

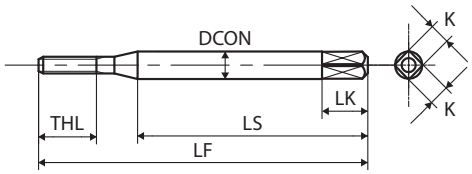
For steel and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

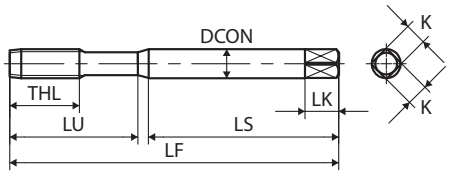
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷15 | ★ | N1 | 10÷15 | ☆ |
| P2 | 5÷15 | ☆ | N2 | 10÷15 | ☆ |

★ 1st choice ☆ suitable

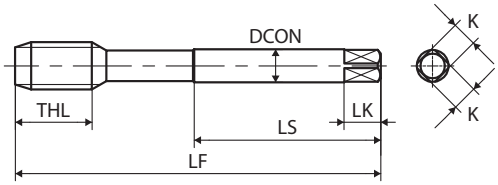
**TYPE: SP_025**




**TYPE: EU_136**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2X(6HX) | 1.86 | 1.8 | RD2.0EBNEBB | 2P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 0(4) | 025 | ● |
| M2.5X0.45 | ISO2X(6HX) | 2.34 | 2.27 | RD2.5FBNEBB | 2P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 0(4) | 136 | ● |
| M3X0.5 | ISO2X(6HX) | 2.83 | 2.76 | RD3.0GBNEBB | 2P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 4(4) | 136 | ● |
| M3.5X0.6 | ISO2X(6HX) | 3.29 | 3.21 | RD3.5HBNEBB | 2P | 56 | 11 | 20 | 32 | 4 | 3 | 6 | 4(4) | 136 | ○ |
| M4X0.7 | ISO2X(6HX) | 3.75 | 3.66 | RD4.0IBNEBB | 2P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 4(4) | 136 | ● |
| M5X0.8 | ISO2X(6HX) | 4.7 | 4.6 | RD5.0KBNEBB | 2P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 4(4) | 136 | ● |
| M6X1 | ISO2X(6HX) | 5.61 | 5.5 | RD6.0MBNEBB | 2P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4(4) | 136 | ● |
| M8X1.25 | ISO2X(6HX) | 7.52 | 7.38 | RD8.0NBNEBB | 2P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3(6) | 136 | ● |
| M10X1.5 | ISO2X(6HX) | 9.41 | 9.26 | RD010OBNEBB | 2P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4(8) | 136 | ● |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 11.3 | 11.13 | RG012PBNEBB | 2P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4(8) | 116 | ● |
| M14X2 | ISO2X(6HX) | 13.19 | 13 | RG014QBNEBB | 2P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4(8) | 116 | ○ |
| M16X2 | ISO2X(6HX) | 15.19 | 15 | RG016QBNEBB | 2P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4(8) | 116 | ○ |

| G(BSP) | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | Basic major Ø (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 9.36 | 9.22 | RVG0026NEBB | 2P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 4(8) | 116 | ● |
| 1/4-19 | - | 12.64 | 12.42 | RVG0047NEBB | 2P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 4(8) | 116 | ● |
| 3/8-19 | - | 16.14 | 15.92 | RVG0067NEBB | 2P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 4(8) | 116 | ● |





Think threads with YAMAWA
IMPROBEX
Machine Tools International

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Technical info

# R-D V




## GP General Purpose Series

Thread Forming Taps for Low Hardness Materials, Coated




**FEATURES**

General purpose forming taps for blind and through hole application.

For steel and non-ferrous materials.

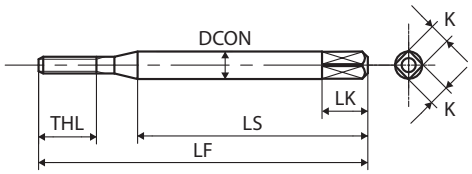
Suitable coating allows higher speed and longer life.

**Recommended Tapping Speeds Depending On Materials**

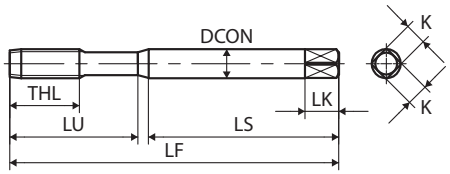
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 10÷20 | ★ | M1 | 8÷12 | ☆ | N1 | 10÷20 | ☆ |
| P2 | 10÷20 | ★ | | | | N2 | 10÷20 | ☆ |
| P7 | 8÷12 | ☆ | | | | N3 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

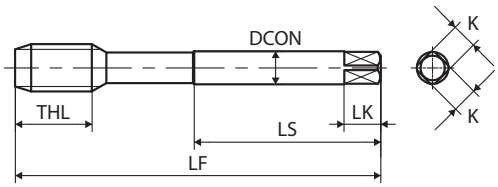
**TYPE: SP_025**




**TYPE: EU_136**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2X(6HX) | 1.86 | 1.8 | 93532.0BTI | 2P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 0(4) | 025 | ● |
| M2.5X0.45 | ISO2X(6HX) | 2.34 | 2.27 | 93532.5BTI | 2P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 0(4) | 136 | ● |
| M3X0.5 | ISO2X(6HX) | 2.83 | 2.76 | 93533.0BTI | 2P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 4(4) | 136 | ● |
| M3.5X0.6 | ISO2X(6HX) | 3.29 | 3.21 | 93533.5BTI | 2P | 56 | 11 | 20 | 32 | 4 | 3 | 6 | 4(4) | 136 | ● |
| M4X0.7 | ISO2X(6HX) | 3.75 | 3.66 | 93534.0BTI | 2P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 4(4) | 136 | ● |
| M5X0.8 | ISO2X(6HX) | 4.7 | 4.6 | 93535.0BTI | 2P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 4(4) | 136 | ● |
| M6X1 | ISO2X(6HX) | 5.61 | 5.5 | 93536.0BTI | 2P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4(4) | 136 | ● |
| M8X1.25 | ISO2X(6HX) | 7.52 | 7.38 | 93538.0BTI | 2P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3(6) | 136 | ● |
| M10X1.5 | ISO2X(6HX) | 9.41 | 9.26 | 9353010BTI | 2P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4(8) | 136 | ● |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| M12X1.75 | ISO2X(6HX) | 11.3 | 11.13 | 9353012BTI | 2P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4(8) | 116 | ● |
| M14X2 | ISO2X(6HX) | 13.19 | 13 | 9353014BTI | 2P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4(8) | 116 | ● |
| M16X2 | ISO2X(6HX) | 15.19 | 15 | 9353016BTI | 2P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4(8) | 116 | ● |

| G(BSP) | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | Basic major Ø (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5156 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 9.36 | 9.22 | 9953R02TI | 2P | 9.728 | 90 | 19 | 46 | 7 | 5.5 | 8 | 4(8) | 116 | ● |
| 1/4-19 | - | 12.64 | 12.42 | 9953R04TI | 2P | 13.157 | 100 | 21 | 51 | 11 | 9 | 12 | 4(8) | 116 | ● |
| 3/8-19 | - | 16.14 | 15.92 | 9953R06TI | 2P | 16.662 | 100 | 21 | 51 | 12 | 9 | 12 | 4(8) | 116 | ● |

# N+RZ/N-RZ




## GP General Purpose Series

Thread Forming Taps for Steel

HSS-E | OX | 2P THCHT





**FEATURES**

General purpose forming taps for blind and through hole application.

Suitable for soft structural steel and medium-low carbon steel application.

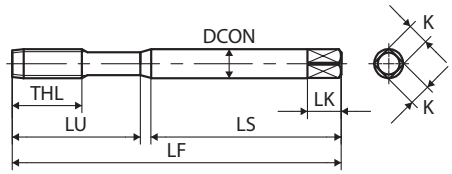
OX treatment reduces welding troubles.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷15 | ★ |
| P2 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: EU_136**




| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| M2.5X0.45 | IS02X(6HX) | 2.34 | 2.27 | RE2.5FBHEXB | 2P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 0(4) | 136 | ○ |
| M3X0.5 | IS02X(6HX) | 2.83 | 2.76 | RE3.0GBHEXB | 2P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 4(4) | 136 | ● |
| M4X0.7 | IS02X(6HX) | 3.75 | 3.66 | RE4.0IBHEXB | 2P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 4(4) | 136 | ● |
| M5X0.8 | IS02X(6HX) | 4.7 | 4.6 | RE5.0KBHEXB | 2P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 4(4) | 136 | ● |
| M6X1 | IS02X(6HX) | 5.61 | 5.5 | RE6.0MBHEXB | 2P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 4(4) | 136 | ● |
| M8X1.25 | IS02X(6HX) | 7.52 | 7.38 | RD8.0NBHEXB | 2P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3(6) | 136 | ● |
| M10X1.5 | IS02X(6HX) | 9.41 | 9.26 | RD010OBHEXB | 2P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4(8) | 136 | ● |



Think threads with YAMAWA

IMROBEX Machine Tools International

Intro
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ROLL
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HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HP+RZ/HP-RZ




## MP Multi Purpose Series

High Performance Thread Forming Taps, Coated

HSS-P | COATING | 2P THCHT





**FEATURES**

Multi purpose forming taps for blind and through hole application on a wide range of materials.

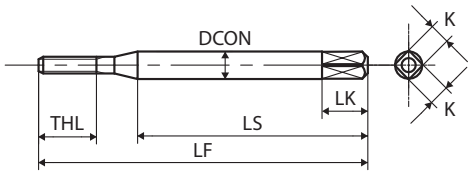
Specific design, HSSP substrate and suitable coating for stable and long life even at medium-high speed.

**Recommended Tapping Speeds Depending On Materials**

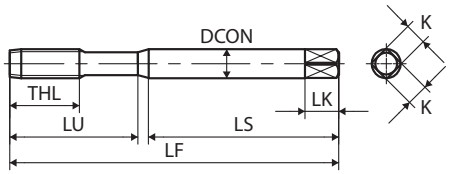
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 15÷30 | ★ | M1 | 10÷25 | ★ | N1 | 10÷45 | ☆ |
| P2 | 15÷30 | ★ | M2 | 10÷25 | ★ | N2 | 10÷45 | ☆ |
| P3 | 15÷25 | ★ | | | | | | |
| P4 | 15÷25 | ★ | | | | | | |
| P7 | 10÷25 | ★ | | | | | | |

★ 1st choice ☆ suitable

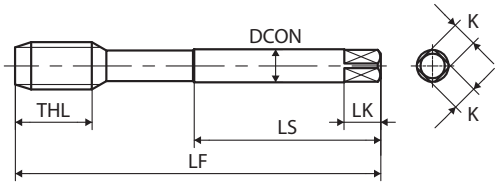
**TYPE: SP_025**




**TYPE: EU_136**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M2X0.4** | ISO2X(6HX) | 1.86 | 1.8 | RE2.0EBFPTB | 2P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 0(4) | 025 | ● |
| | ISO3X(6GX) | 1.87 | 1.82 | RE2.0ENFPTB | 2P | 45 | 8 | - | 32 | 2.8 | 2.1 | 5 | 0(4) | 025 | ● |
| **M2.5X0.45** | ISO2X(6HX) | 2.34 | 2.27 | RE2.5FBFPTB | 2P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 0(4) | 136 | ● |
| | ISO3X(6GX) | 2.37 | 2.31 | RE2.5FNFPTB | 2P | 50 | 8 | 15 | 33 | 2.8 | 2.1 | 5 | 0(4) | 136 | ● |
| **M3X0.5** | ISO2X(6HX) | 2.83 | 2.76 | RE3.0GBFPTB | 2P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2(4) | 136 | ● |
| | ISO3X(6GX) | 2.85 | 2.78 | RE3.0GNFPTB | 2P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 2(4) | 136 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.75 | 3.66 | RE4.0IBFPTB | 2P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 2(4) | 136 | ● |
| | ISO3X(6GX) | 3.77 | 3.68 | RE4.0INFPTB | 2P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 2(4) | 136 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.7 | 4.6 | RE5.0KBFPTB | 2P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 2(4) | 136 | ● |
| | ISO3X(6GX) | 4.72 | 4.62 | RE5.0KNFPTB | 2P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 2(4) | 136 | ● |
| **M6X1** | ISO2X(6HX) | 5.61 | 5.5 | RE6.0MBFPTB | 2P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 2(4) | 136 | ● |
| | ISO3X(6GX) | 5.65 | 5.54 | RE6.0MNFPTB | 2P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 2(4) | 136 | ● |
| **M8X1.25** | ISO2X(6HX) | 7.52 | 7.38 | RD8.0NBFPTB | 2P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3(6) | 136 | ● |
| | ISO3X(6GX) | 7.53 | 7.4 | RD8.0NNFPTB | 2P | 90 | 19 | 35 | 47 | 8 | 6.2 | 9 | 3(6) | 136 | ● |
| **M10X1.5** | ISO2X(6HX) | 9.41 | 9.26 | RD010OBFPTB | 2P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4(8) | 136 | ● |
| | ISO3X(6GX) | 9.44 | 9.29 | RD010ONFPTB | 2P | 100 | 23 | 39 | 52 | 10 | 8 | 11 | 4(8) | 136 | ● |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 11.3 | 11.13 | RG012PBFPTB | 2P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4(8) | 116 | ● |
| | ISO3X(6GX) | 11.33 | 11.16 | RG012PNFPTB | 2P | 110 | 26 | - | 56 | 9 | 7 | 10 | 4(8) | 116 | ● |
| **M14X2** | ISO2X(6HX) | 13.19 | 13 | RG014QBFPTB | 2P | 110 | 26 | - | 56 | 11 | 9 | 12 | 4(8) | 116 | ● |
| **M16X2** | ISO2X(6HX) | 15.19 | 15 | RG016QBFPTB | 2P | 110 | 26 | - | 56 | 12 | 9 | 12 | 4(8) | 116 | ● |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | | | | | | | | | | | | | | | |
| **M10X1.25** | ISO2X(6HX) | 9.51 | 9.38 | RM010NBFPTB | 2P | 100 | 23 | - | 51 | 7 | 5.5 | 8 | 4(8) | 116 | ● |
| **M12X1.5** | ISO2X(6HX) | 11.39 | 11.24 | RM012OBFPTB | 2P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4(8) | 116 | ● |
| **M12X1.25** | ISO2X(6HX) | 11.51 | 11.38 | RM012NBFPTB | 2P | 100 | 21 | - | 51 | 9 | 7 | 10 | 4(8) | 116 | ● |
| **M14X1.5** | ISO2X(6HX) | 13.39 | 13.24 | RM014OBFPTB | 2P | 100 | 21 | - | 51 | 11 | 9 | 12 | 4(8) | 116 | ● |
| **M16X1.5** | ISO2X(6HX) | 15.38 | 15.23 | RM016OBFPTB | 2P | 100 | 21 | - | 51 | 12 | 9 | 12 | 4(8) | 116 | ● |

Intro
SP
SL
PO
ST
ROLL
DIN
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# OL+RZ/OL-RZ




## MP Multi Purpose Series

Thread Forming Taps for Dry Tapping, Coated

HSS-P | COATING | 4P THCHT

**FEATURES**

Dry Series forming taps for blind and through hole application.

Specific design, HSSP substrate and suitable coating for stable and long life even in difficult condition such as dry or MQL tapping.

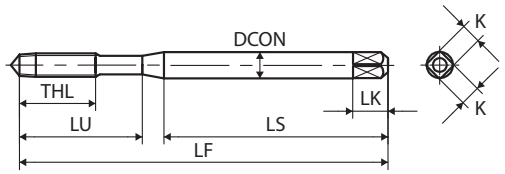
For steel, stainless steel and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 15÷30 | ★ | M1 | 10÷25 | ★ | N1 | 10÷45 | ☆ |
| P2 | 15÷30 | ★ | M2 | 10÷25 | ★ | N2 | 10÷45 | ☆ |
| P3 | 15÷25 | ★ | | | | | | |
| P4 | 15÷25 | ★ | | | | | | |
| P7 | 10÷25 | ★ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: EU_139**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.83 | 2.76 | RE3.0GBHPTP | 4P | 56 | 9 | 18 | 34 | 3.5 | 2.7 | 6 | 0(4) | 139 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.75 | 3.66 | RE4.0IBHPTP | 4P | 63 | 13 | 21 | 38 | 4.5 | 3.4 | 6 | 0(4) | 139 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.7 | 4.6 | RE5.0KBHPTP | 4P | 70 | 14 | 25 | 39 | 6 | 4.9 | 8 | 0(4) | 139 | ● |
| **M6X1** | ISO2X(6HX) | 5.61 | 5.5 | RE6.0MBHPTP | 4P | 80 | 15 | 30 | 45 | 6 | 4.9 | 8 | 0(4) | 139 | ● |

Intro
SP
SL
PO
ST
ROLL
JIS
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# R+V




## GP General Purpose Series

Thread Forming Taps, Coated

HSS-E | COATING | 4P THCHT | 2P THCHT

**FEATURES**

General purpose forming taps for blind and through hole application.

For ferrous and non-ferrous materials.

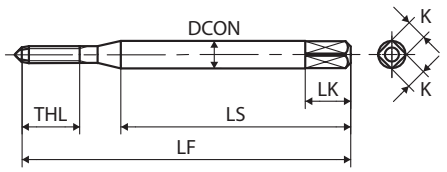
Suitable coating prevents welding and extends life.

**Recommended Tapping Speeds Depending On Materials**

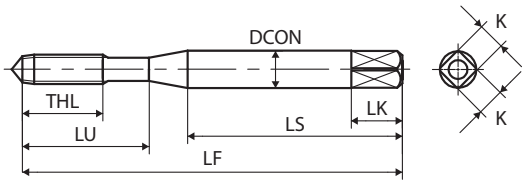
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 10÷20 | ★ | M1 | 5÷12 | ☆ | N1 | 10÷20 | ☆ |
| P2 | 10÷20 | ★ | | | | N2 | 10÷20 | ☆ |
| P7 | 5÷12 | ☆ | | | | N3 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

**TYPE: ROLL_010**




**TYPE: ROLL_012**






Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.25 | G4 | 0.92 | 0.89 | RVP41.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 0.92 | 0.89 | RVP41.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 0.93 | 0.9 | RVP51.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 0.93 | 0.9 | RVP51.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.2X0.25 | G4 | 1.11 | 1.09 | RVP41.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.11 | 1.09 | RVP41.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.13 | 1.1 | RVP51.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.13 | 1.1 | RVP51.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.4X0.3 | G4 | 1.3 | 1.26 | RVP41.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.3 | 1.26 | RVP41.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.31 | 1.28 | RVP51.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.31 | 1.28 | RVP51.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.6X0.35 | G4 | 1.46 | 1.43 | RVP41.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.46 | 1.43 | RVP41.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.48 | 1.44 | RVP51.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.48 | 1.44 | RVP51.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.49 | 1.45 | RVP61.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.7X0.35 | G4 | 1.56 | 1.52 | RVP41.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.56 | 1.52 | RVP41.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.58 | 1.54 | RVP51.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.58 | 1.54 | RVP51.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.59 | 1.55 | RVP61.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.59 | 1.55 | RVP61.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2X0.4 | G4 | 1.83 | 1.79 | RVP42.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.83 | 1.79 | RVP42.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | RVP52.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | RVP52.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.86 | 1.81 | RVP62.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.86 | 1.81 | RVP62.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.3X0.4 | G4 | 2.13 | 2.09 | RVP42.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 2.13 | 2.09 | RVP42.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | RVP52.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | RVP52.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.45 | G5 | 2.32 | 2.27 | RVP52.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.32 | 2.27 | RVP52.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | RVP62.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | RVP62.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M2.6X0.45 | G5 | 2.42 | 2.37 | RVP52.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.42 | 2.37 | RVP52.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | RVP62.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | RVP62.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.5 | G5 | 2.8 | 2.75 | RVP53.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G5 | 2.8 | 2.75 | RVP53.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | RVP63.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | RVP63.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G7(G5+26) | 2.83 | 2.77 | RVP73.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G7(G5+26) | 2.83 | 2.77 | RVP73.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G8(G5+39) | 2.84 | 2.79 | RVP83.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M4X0.7 | G5 | 3.71 | 3.65 | RVP54.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G5 | 3.71 | 3.65 | RVP54.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | RVP64.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | RVP64.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | RVP74.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | RVP74.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 3.75 | 3.67 | RVP84.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 3.75 | 3.67 | RVP84.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| M5X0.8 | G5 | 4.66 | 4.57 | RVP55.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G5 | 4.66 | 4.57 | RVP55.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | RVP65.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | RVP65.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | RVP75.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | RVP75.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 4.7 | 4.61 | RVP85.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 4.7 | 4.61 | RVP85.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| M6X1 | G6 | 5.58 | 5.47 | RVP66.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 5.58 | 5.47 | RVP66.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | RVP76.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | RVP76.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G8(G7+13) | 5.61 | 5.5 | RVP86.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G8(G7+13) | 5.61 | 5.5 | RVP86.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

Intro
SP
SL
PO
ST
ROLL
JIS
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# N+RZ/N-RZ




## GP General Purpose Series

Thread Forming Taps for Steel

HSS-E | OX | 4P THCHT | 2P THCHT

**FEATURES**

General purpose forming taps for blind and through hole application.

Suitable for soft structural steel and medium-low carbon steel application.

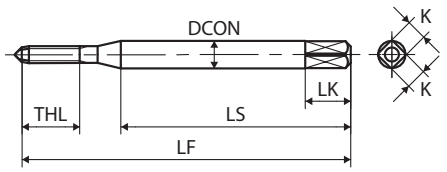
OX treatment reduces welding troubles.

**Recommended Tapping Speeds Depending On Materials**

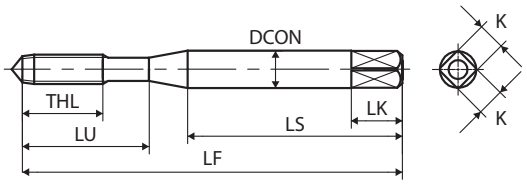
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷15 | ★ |
| P2 | 5÷10 | ★ |

★ 1st choice ☆ suitable

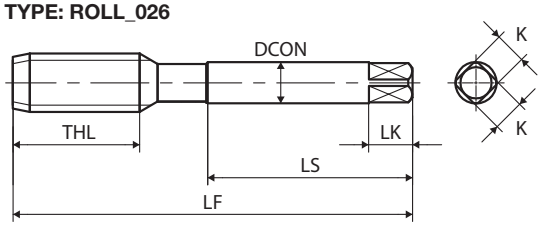
**TYPE: ROLL_010**




**TYPE: ROLL_012**




**TYPE: ROLL_026**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.25 | G4 | 0.92 | 0.89 | NRZP41.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 0.92 | 0.89 | NRZP41.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 0.93 | 0.9 | NRZP51.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 0.93 | 0.9 | NRZP51.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.2X0.25 | G4 | 1.11 | 1.09 | NRZP41.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.13 | 1.1 | NRZP51.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.13 | 1.1 | NRZP51.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.11 | 1.09 | NRZP41.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.4X0.3 | G4 | 1.3 | 1.26 | NRZP41.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.3 | 1.26 | NRZP41.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.31 | 1.28 | NRZP51.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.31 | 1.28 | NRZP51.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.6X0.35 | G4 | 1.46 | 1.43 | NRZP41.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.46 | 1.43 | NRZP41.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.48 | 1.44 | NRZP51.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.48 | 1.44 | NRZP51.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.7X0.35 | G4 | 1.56 | 1.52 | NRZP41.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.56 | 1.52 | NRZP41.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.58 | 1.54 | NRZP51.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.58 | 1.54 | NRZP51.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.59 | 1.55 | NRZP61.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.59 | 1.55 | NRZP61.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.8X0.35 | G4 | 1.66 | 1.62 | NRZP41.8DP | 4P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.66 | 1.62 | NRZP41.8DB | 2P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.68 | 1.64 | NRZP51.8DP | 4P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.68 | 1.64 | NRZP51.8DB | 2P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2X0.4 | G4 | 1.83 | 1.79 | NRZP42.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.83 | 1.79 | NRZP42.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | NRZP52.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | NRZP52.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.86 | 1.81 | NRZP62.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.86 | 1.81 | NRZP62.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.2X0.45 | G5 | 2.02 | 1.98 | NRZP52.2FP | 4P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5 | 2.02 | 1.98 | NRZP52.2FB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.3X0.4 | G4 | 2.13 | 2.09 | NRZP42.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 2.13 | 2.09 | NRZP42.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | NRZP52.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | NRZP52.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 2.16 | 2.11 | NRZP62.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 2.16 | 2.11 | NRZP62.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.45 | G5 | 2.32 | 2.27 | NRZP52.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.32 | 2.27 | NRZP52.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | NRZP62.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | NRZP62.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2.6X0.45 | G5 | 2.42 | 2.37 | NRZP52.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.42 | 2.37 | NRZP52.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | NRZP62.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | NRZP62.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.5 | G5 | 2.8 | 2.75 | NRZP53.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G5 | 2.8 | 2.75 | NRZP53.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | NRZP63.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | NRZP63.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G7(G5+26) | 2.83 | 2.77 | NRZP73.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G7(G5+26) | 2.83 | 2.77 | NRZP73.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G8(G5+39) | 2.84 | 2.79 | NRZP83.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G8(G5+39) | 2.84 | 2.79 | NRZP83.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| M3.5X0.6 | G5 | 3.25 | 3.19 | NRZP53.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G5 | 3.25 | 3.19 | NRZP53.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | NRZP63.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | NRZP63.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G5+26) | 3.28 | 3.21 | NRZP73.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G5+26) | 3.28 | 3.21 | NRZP73.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| M4X0.7 | G5 | 3.71 | 3.65 | NRZP54.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G5 | 3.71 | 3.65 | NRZP54.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | NRZP64.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | NRZP64.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | NRZP74.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | NRZP74.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 3.75 | 3.67 | NRZP84.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 3.75 | 3.67 | NRZP84.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| M5X0.8 | G5 | 4.66 | 4.57 | NRZP55.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G5 | 4.66 | 4.57 | NRZP55.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | NRZP65.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | NRZP65.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | NRZP75.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | NRZP75.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 4.7 | 4.61 | NRZP85.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G8(G6+26) | 4.7 | 4.61 | NRZP85.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| M6X1 | G5 | 5.57 | 5.46 | NRZP56.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G5 | 5.57 | 5.46 | NRZP56.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 5.58 | 5.47 | NRZP66.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 5.58 | 5.47 | NRZP66.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | NRZP76.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | NRZP76.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| M7X1 | G7 | 6.59 | 6.48 | NRZM77.0MP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4(4) | 026 | ○ |
| | G7 | 6.59 | 6.48 | NRZM77.0MB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4(4) | 026 | ○ |
| M8X1.25 | G7 | 7.49 | 7.37 | NRZM78.0NP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G7 | 7.49 | 7.37 | NRZM78.0NB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G8(G7+13) | 7.51 | 7.37 | NRZM88.0NP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G8(G7+13) | 7.51 | 7.37 | NRZM88.0NB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.5 | G7 | 9.38 | 9.22 | NRZM70100P | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G7 | 9.38 | 9.22 | NRZM70100B | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.39 | 9.23 | NRZM80100P | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.39 | 9.23 | NRZM80100B | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| M12X1.75 | G8 | 11.28 | 11.09 | NRZM8012PP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 11.28 | 11.09 | NRZM8012PB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.29 | 11.11 | NRZM9012PP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.29 | 11.11 | NRZM9012PB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| M14X2 | G9 | 13.18 | 12.97 | NRZM9014QP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G9 | 13.18 | 12.97 | NRZM9014QB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G10 | 13.19 | 12.98 | NRZM0014QP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G10 | 13.19 | 12.98 | NRZM0014QB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| M16X2 | G9 | 15.18 | 14.96 | NRZM9016QP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| | G9 | 15.18 | 14.96 | NRZM9016QB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| | G10 | 15.19 | 14.97 | NRZM0016QP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| | G10 | 15.19 | 14.97 | NRZM0016QB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2X0.25 | G4 | 1.91 | 1.89 | NRZM42.0BP | 4P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.91 | 1.89 | NRZM42.0BB | 2P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.93 | 1.9 | NRZM52.0BP | 4P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.93 | 1.9 | NRZM52.0BB | 2P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.35 | G5 | 2.37 | 2.36 | NRZM52.5DP | 4P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.37 | 2.36 | NRZM52.5DB | 2P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M2.6X0.35 | G5 | 2.42 | 2.4 | NRZM52.6DP | 4P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.42 | 2.4 | NRZM52.6DB | 2P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.35 | G5 | 2.86 | 2.79 | NRZM53.0DP | 4P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G5 | 2.86 | 2.79 | NRZM53.0DB | 2P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| M4X0.5 | G5 | 3.8 | 3.75 | NRZM54.0GP | 4P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G5 | 3.8 | 3.75 | NRZM54.0GB | 2P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.81 | 3.76 | NRZM64.0GP | 4P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.81 | 3.76 | NRZM64.0GB | 2P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.82 | 3.77 | NRZM74.0GB | 2P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| M5X0.5 | G6 | 4.81 | 4.76 | NRZM65.0GP | 4P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 4.81 | 4.76 | NRZM65.0GB | 2P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| M6X0.75 | G6 | 5.69 | 5.61 | NRZM66.0JP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 5.69 | 5.61 | NRZM66.0JB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.7 | 5.62 | NRZM76.0JP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.7 | 5.62 | NRZM76.0JB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| M6X0.5 | G6 | 5.81 | 5.76 | NRZM66.0GP | 4P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 5.81 | 5.76 | NRZM66.0GB | 2P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| M7X0.75 | G7 | 6.7 | 6.62 | NRZM77.0JP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4(4) | 026 | ○ |
| | G7 | 6.7 | 6.62 | NRZM77.0JB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4(4) | 026 | ○ |
| M8X1 | G7 | 7.59 | 7.48 | NRZM78.0MP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G7 | 7.59 | 7.48 | NRZM78.0MB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X0.75 | G7 | 7.7 | 7.62 | NRZM78.0JP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G7 | 7.7 | 7.62 | NRZM78.0JB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| M10X1.25 | G7 | 9.49 | 9.35 | NRZM7010NP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G7 | 9.49 | 9.35 | NRZM7010NB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.5 | 9.37 | NRZM8010NP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.5 | 9.37 | NRZM8010NB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| M10X1 | G7 | 9.59 | 9.48 | NRZM7010MP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G7 | 9.59 | 9.48 | NRZM7010MB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| M12X1.5 | G8 | 11.38 | 11.22 | NRZM80120P | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 11.38 | 11.22 | NRZM80120B | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.39 | 11.23 | NRZM90120P | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.39 | 11.23 | NRZM90120B | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| M12X1.25 | G8 | 11.49 | 11.35 | NRZM8012NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 11.49 | 11.35 | NRZM8012NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9 | 11.5 | 11.36 | NRZM9012NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9 | 11.5 | 11.36 | NRZM9012NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| M12X1 | G7 | 11.58 | 11.47 | NRZM7012MP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G7 | 11.58 | 11.47 | NRZM7012MB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| M14X1.5 | G9 | 13.39 | 13.22 | NRZM90140P | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G9 | 13.39 | 13.22 | NRZM90140B | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| M14X1 | G8 | 13.59 | 13.48 | NRZM8014MP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G8 | 13.59 | 13.48 | NRZM8014MB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| M16X1.5 | G9 | 15.38 | 15.22 | NRZM90160P | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| | G9 | 15.38 | 15.22 | NRZM90160B | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| M16X1 | G8 | 15.59 | 15.48 | NRZM8016MP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| | G8 | 15.59 | 15.48 | NRZM8016MB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| M18X1.5 | G10 | 17.4 | 17.24 | NRZM00180P | 4P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4(8) | 026 | ○ |
| M20X1.5 | G9 | 19.37 | 19.21 | NRZM90200P | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4(8) | 026 | ○ |
| | G9 | 19.37 | 19.21 | NRZM90200B | 2P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4(8) | 026 | ○ |
| | G10 | 19.39 | 19.22 | NRZM00200P | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4(8) | 026 | ○ |
| | G10 | 19.39 | 19.22 | NRZM00200B | 2P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4(8) | 026 | ○ |

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.4-40UNC | G5 | 2.61 | 2.54 | NRZM5UN4HB | 2P | 46 | 9 | 14 | 25 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| No.6-32UNC | G6 | 3.21 | 3.12 | NRZM6UN6JB | 2P | 52 | 11 | 17 | 27 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| 5/16-18UNC | G7 | 7.38 | 7.23 | NRZM7U05OP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G7 | 7.38 | 7.23 | NRZM7U05OB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| 7/16-14UNC | G8 | 10.4 | 10.2 | NRZM8U07QP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 10.4 | 10.2 | NRZM8U07QB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| 1/2-13UNC | G8 | 11.92 | 11.7 | NRZM8U08RP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G8 | 11.92 | 11.7 | NRZM8U08RB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |



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IMROBEX Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 3/8-24UNF | G7 | 9.1 | 8.99 | NRZM7U06MP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3(6) | 026 | ○ |
| | G7 | 9.1 | 8.99 | NRZM7U06MB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3(6) | 026 | ○ |
| 7/16-20UNF | G8 | 10.62 | 10.48 | NRZM8U07NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 10.62 | 10.48 | NRZM8U07NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| 1/2-20UNF | G8 | 12.2 | 12.06 | NRZM8U08NP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G8 | 12.2 | 12.06 | NRZM8U08NB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |

# N+RS/N-RS




## GP General Purpose Series

Thread Forming Taps for Non-Ferrous Materials




**FEATURES**

General purpose forming taps for blind and through hole application.

Suitable for non-ferrous materials.

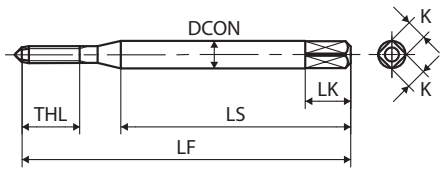
NI treatment improves tool life.

**Recommended Tapping Speeds Depending On Materials**

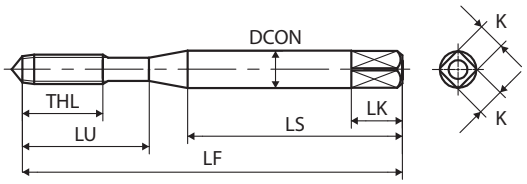
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷15 | ★ |

★ 1st choice ☆ suitable

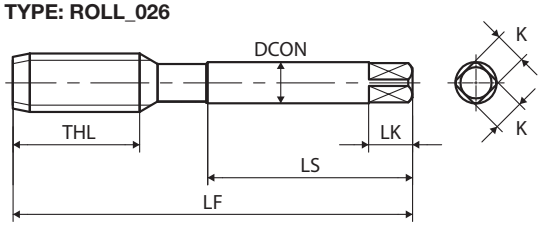
**TYPE: ROLL_010**




**TYPE: ROLL_012**




**TYPE: ROLL_026**




| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.25 | G4 | 0.92 | 0.89 | NRSP41.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 0.92 | 0.89 | NRSP41.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 0.93 | 0.9 | NRSP51.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 0.93 | 0.9 | NRSP51.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.2X0.25 | G4 | 1.11 | 1.09 | NRSP41.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.11 | 1.09 | NRSP41.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.13 | 1.1 | NRSP51.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.13 | 1.1 | NRSP51.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.4X0.3 | G4 | 1.3 | 1.26 | NRSP41.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.3 | 1.26 | NRSP41.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.31 | 1.28 | NRSP51.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.31 | 1.28 | NRSP51.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1.6X0.35 | G4 | 1.46 | 1.43 | NRSP41.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.46 | 1.43 | NRSP41.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.48 | 1.44 | NRSP51.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.48 | 1.44 | NRSP51.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.7X0.35 | G4 | 1.56 | 1.52 | NRSP41.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.56 | 1.52 | NRSP41.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.58 | 1.54 | NRSP51.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.58 | 1.54 | NRSP51.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.59 | 1.55 | NRSP61.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.59 | 1.55 | NRSP61.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.8X0.35 | G4 | 1.66 | 1.62 | NRSP41.8DP | 4P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.66 | 1.62 | NRSP41.8DB | 2P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.68 | 1.64 | NRSP51.8DP | 4P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.68 | 1.64 | NRSP51.8DB | 2P | 42 | 6.3 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2X0.4 | G4 | 1.83 | 1.79 | NRSP42.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.83 | 1.79 | NRSP42.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | NRSP52.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | NRSP52.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.86 | 1.81 | NRSP62.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.86 | 1.81 | NRSP62.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.3X0.4 | G4 | 2.13 | 2.09 | NRSP42.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 2.13 | 2.09 | NRSP42.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | NRSP52.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | NRSP52.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 2.16 | 2.11 | NRSP62.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 2.16 | 2.11 | NRSP62.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.45 | G5 | 2.32 | 2.27 | NRSP52.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.32 | 2.27 | NRSP52.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | NRSP62.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | NRSP62.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M2.6X0.45 | G5 | 2.42 | 2.37 | NRSP52.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.42 | 2.37 | NRSP52.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | NRSP62.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | NRSP62.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.5 | G5 | 2.8 | 2.75 | NRSP53.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G5 | 2.8 | 2.75 | NRSP53.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | NRSP63.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | NRSP63.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G7(G5+26) | 2.83 | 2.77 | NRSP73.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G7(G5+26) | 2.83 | 2.77 | NRSP73.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G8(G5+39) | 2.84 | 2.79 | NRSP83.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G8(G5+39) | 2.84 | 2.79 | NRSP83.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| M3.5X0.6 | G5 | 3.25 | 3.19 | NRSP53.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G5 | 3.25 | 3.19 | NRSP53.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | NRSP63.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | NRSP63.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G5+26) | 3.28 | 3.21 | NRSP73.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M4X0.7 | G5 | 3.71 | 3.65 | NRSP54.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G5 | 3.71 | 3.65 | NRSP54.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | NRSP64.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | NRSP64.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | NRSP74.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | NRSP74.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G8(G6+26) | 3.75 | 3.67 | NRSP84.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G8(G6+26) | 3.75 | 3.67 | NRSP84.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| M5X0.8 | G5 | 4.66 | 4.57 | NRSP55.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G5 | 4.66 | 4.57 | NRSP55.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | NRSP65.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | NRSP65.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | NRSP75.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | NRSP75.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G8(G6+26) | 4.7 | 4.61 | NRSP85.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| M6X1 | G5 | 5.57 | 5.46 | NRSP56.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G5 | 5.57 | 5.46 | NRSP56.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 5.58 | 5.47 | NRSP66.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 5.58 | 5.47 | NRSP66.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | NRSP76.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | NRSP76.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G8(G7+13) | 5.61 | 5.5 | NRSP86.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G8(G7+13) | 5.61 | 5.5 | NRSP86.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| M7X1 | G6 | 6.58 | 6.47 | NRSM67.0MP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| | G6 | 6.58 | 6.47 | NRSM67.0MB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| | G7 | 6.59 | 6.48 | NRSM77.0MP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| | G7 | 6.59 | 6.48 | NRSM77.0MB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| M8X1.25 | G7 | 7.49 | 7.37 | NRSM78.0NP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| | G7 | 7.49 | 7.37 | NRSM78.0NB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| | G8(G7+13) | 7.51 | 7.37 | NRSM88.0NP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| | G8(G7+13) | 7.51 | 7.37 | NRSM88.0NB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| M10X1.5 | G7 | 9.38 | 9.22 | NRSM70100P | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G7 | 9.38 | 9.22 | NRSM70100B | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G8(G7+13) | 9.39 | 9.23 | NRSM80100P | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G8(G7+13) | 9.39 | 9.23 | NRSM80100B | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| M12X1.75 | G8 | 11.28 | 11.09 | NRSM8012PP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G8 | 11.28 | 11.09 | NRSM8012PB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G9(G8+13) | 11.29 | 11.11 | NRSM9012PP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G9(G8+13) | 11.29 | 11.11 | NRSM9012PB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| M14X2 | G9 | 13.18 | 12.97 | NRSM9014QP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G9 | 13.18 | 12.97 | NRSM9014QB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G10 | 13.19 | 12.98 | NRSM0014QP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G10 | 13.19 | 12.98 | NRSM0014QB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| M16X2 | G9 | 15.18 | 14.96 | NRSM9016QP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| | G9 | 15.18 | 14.96 | NRSM9016QB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| | G10 | 15.19 | 14.97 | NRSM0016QP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| | G10 | 15.19 | 14.97 | NRSM0016QB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| M20X2.5 | G11 | 18.95 | 18.72 | NRSM1020RP | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 1(6) | 026 | ○ |
| | G11 | 18.95 | 18.72 | NRSM1020RB | 2P | 105 | 33 | - | 50 | 15 | 12 | 15 | 1(6) | 026 | ○ |



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Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2X0.25 | G4 | 1.91 | 1.89 | NRSM42.0BP | 4P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 1.91 | 1.89 | NRSM42.0BB | 2P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.93 | 1.9 | NRSM52.0BP | 4P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.93 | 1.9 | NRSM52.0BB | 2P | 42 | 4.5 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.35 | G4 | 2.35 | 2.33 | NRSM42.5DP | 4P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G4 | 2.35 | 2.33 | NRSM42.5DB | 2P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.37 | 2.36 | NRSM52.5DP | 4P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.37 | 2.36 | NRSM52.5DB | 2P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M2.6X0.35 | G5 | 2.42 | 2.4 | NRSM52.6DP | 4P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5 | 2.42 | 2.4 | NRSM52.6DB | 2P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.41 | NRSM62.6DP | 4P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.41 | NRSM62.6DB | 2P | 46 | 6.3 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.35 | G5 | 2.86 | 2.79 | NRSM53.0DP | 4P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G5 | 2.86 | 2.79 | NRSM53.0DB | 2P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G6(G5+13) | 2.87 | 2.8 | NRSM63.0DP | 4P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| | G6(G5+13) | 2.87 | 2.8 | NRSM63.0DB | 2P | 46 | 6.5 | 14 | 26 | 4 | 3.2 | 6 | 1(4) | 012 | ○ |
| M3.5X0.35 | G5 | 3.25 | 3.22 | NRSM53.5DP | 4P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G5 | 3.25 | 3.22 | NRSM53.5DB | 2P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.23 | NRSM63.5DP | 4P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.23 | NRSM63.5DB | 2P | 52 | 6.5 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| M4X0.5 | G6 | 3.81 | 3.76 | NRSM64.0GP | 4P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6 | 3.81 | 3.76 | NRSM64.0GB | 2P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 3.82 | 3.77 | NRSM74.0GP | 4P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 3.82 | 3.77 | NRSM74.0GB | 2P | 52 | 9 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| M5X0.5 | G6 | 4.81 | 4.76 | NRSM65.0GP | 4P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 4.81 | 4.76 | NRSM65.0GB | 2P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.82 | 4.77 | NRSM75.0GP | 4P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.82 | 4.77 | NRSM75.0GB | 2P | 60 | 9 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| M6X0.75 | G6 | 5.69 | 5.61 | NRSM66.0JP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 5.69 | 5.61 | NRSM66.0JB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 5.7 | 5.62 | NRSM76.0JP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 5.7 | 5.62 | NRSM76.0JB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| M6X0.5 | G6 | 5.81 | 5.76 | NRSM66.0GP | 4P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 5.81 | 5.76 | NRSM66.0GB | 2P | 62 | 9 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| M7X0.75 | G7 | 6.7 | 6.62 | NRSM77.0JP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| | G7 | 6.7 | 6.62 | NRSM77.0JB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| M8X1 | G7 | 7.59 | 7.48 | NRSM78.0MP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| | G7 | 7.59 | 7.48 | NRSM78.0MB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| M8X0.75 | G7 | 7.7 | 7.62 | NRSM78.0JP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| | G7 | 7.7 | 7.62 | NRSM78.0JB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(6) | 026 | ○ |
| M10X1.25 | G7 | 9.49 | 9.35 | NRSM7010NP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G7 | 9.49 | 9.35 | NRSM7010NB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G8(G7+13) | 9.5 | 9.37 | NRSM8010NP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G8(G7+13) | 9.5 | 9.37 | NRSM8010NB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| M10X1 | G7 | 9.59 | 9.48 | NRSM7010MP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G7 | 9.59 | 9.48 | NRSM7010MB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M12X1.5 | G8 | 11.38 | 11.22 | NRSM80120P | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G8 | 11.38 | 11.22 | NRSM80120B | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G9(G8+13) | 11.39 | 11.23 | NRSM90120P | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G9(G8+13) | 11.39 | 11.23 | NRSM90120B | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| M12X1.25 | G8 | 11.49 | 11.35 | NRSM8012NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G8 | 11.49 | 11.35 | NRSM8012NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G9 | 11.5 | 11.36 | NRSM9012NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G9 | 11.5 | 11.36 | NRSM9012NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| M12X1 | G7 | 11.58 | 11.47 | NRSM7012MP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G7 | 11.58 | 11.47 | NRSM7012MB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| M14X1.5 | G9 | 13.39 | 13.22 | NRSM90140P | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G9 | 13.39 | 13.22 | NRSM90140B | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| M14X1 | G8 | 13.59 | 13.48 | NRSM8014MP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G8 | 13.59 | 13.48 | NRSM8014MB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| M16X1.5 | G9 | 15.38 | 15.22 | NRSM90160P | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| | G9 | 15.38 | 15.22 | NRSM90160B | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| M16X1 | G8 | 15.59 | 15.48 | NRSM8016MP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| | G8 | 15.59 | 15.48 | NRSM8016MB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| M18X1.5 | G9 | 17.38 | 17.22 | NRSM90180P | 4P | 100 | 33 | - | 51 | 14 | 11 | 14 | 1(6) | 026 | ○ |
| | G9 | 17.38 | 17.22 | NRSM90180B | 2P | 100 | 33 | - | 51 | 14 | 11 | 14 | 1(6) | 026 | ○ |
| M20X1.5 | G9 | 19.37 | 19.21 | NRSM90200P | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 1(6) | 026 | ○ |
| | G9 | 19.37 | 19.21 | NRSM90200B | 2P | 105 | 33 | - | 50 | 15 | 12 | 15 | 1(6) | 026 | ○ |
| | G10 | 19.39 | 19.22 | NRSM00200P | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 1(6) | 026 | ○ |
| | G10 | 19.39 | 19.22 | NRSM00200B | 2P | 105 | 33 | - | 50 | 15 | 12 | 15 | 1(6) | 026 | ○ |

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.2-56UNC | G4 | 2.01 | 1.96 | NRSM4UN2EP | 4P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G4 | 2.01 | 1.96 | NRSM4UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.02 | 1.97 | NRSM5UN2EP | 4P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.02 | 1.97 | NRSM5UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G7(G4+39) | 2.04 | 2 | NRSM7UN2EP | 4P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G7(G4+39) | 2.04 | 2 | NRSM7UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 2.03 | 1.98 | NRSM6UN2EP | 4P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 2.03 | 1.98 | NRSM6UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| No.3-48UNC | G4 | 2.31 | 2.25 | NRSM4UN3FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G4 | 2.31 | 2.25 | NRSM4UN3FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5(G4+13) | 2.32 | 2.26 | NRSM5UN3FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G5(G4+13) | 2.32 | 2.26 | NRSM5UN3FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| No.4-40UNC | G5 | 2.61 | 2.54 | NRSM5UN4HP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G5 | 2.61 | 2.54 | NRSM5UN4HB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.62 | 2.55 | NRSM6UN4HP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.62 | 2.55 | NRSM6UN4HB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G7(G5+26) | 2.63 | 2.57 | NRSM7UN4HP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G7(G5+26) | 2.63 | 2.57 | NRSM7UN4HB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| No.5-40UNC | G5 | 2.94 | 2.87 | NRSM5UN5HP | 4P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 1(4) | 012 | ○ |



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Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.6-32UNC | G5 | 3.19 | 3.11 | NRSM5UN6JP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G5 | 3.19 | 3.11 | NRSM5UN6JB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.21 | 3.13 | NRSM6UN6JP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.21 | 3.13 | NRSM6UN6JB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G5+26) | 3.22 | 3.13 | NRSM7UN6JP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G7(G5+26) | 3.22 | 3.13 | NRSM7UN6JB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| No.8-32UNC | G6 | 3.87 | 3.78 | NRSM6UN8JP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 3.87 | 3.78 | NRSM6UN8JB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 3.88 | 3.84 | NRSM7UN8JP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 3.88 | 3.84 | NRSM7UN8JB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G8(G6+26) | 3.89 | 3.81 | NRSM8UN8JP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| No.10-24UNC | G6 | 4.41 | 4.3 | NRSM6UNAMP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 4.41 | 4.3 | NRSM6UNAMB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.42 | 4.31 | NRSM7UNAMP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.42 | 4.31 | NRSM7UNAMB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| 1/4-20UNC | G6 | 5.85 | 5.71 | NRSM6U04NP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 5.85 | 5.71 | NRSM6U04NB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7 | 5.86 | 5.73 | NRSM7U04NP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7 | 5.86 | 5.73 | NRSM7U04NB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G8(G7+13) | 5.88 | 5.74 | NRSM8U04NP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G8(G7+13) | 5.88 | 5.74 | NRSM8U04NB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |

| UNF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.0-80UNF | G5 | 1.42 | 1.39 | NRSM5UN0BP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| | G5 | 1.42 | 1.39 | NRSM5UN0BB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| No.1-72UNF | G5 | 1.74 | 1.7 | NRSM5UN1CP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| | G5 | 1.74 | 1.7 | NRSM5UN1CB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| No.4-48UNF | G5 | 2.65 | 2.59 | NRSM5UN4FP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G5 | 2.65 | 2.59 | NRSM5UN4FB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.66 | 2.61 | NRSM6UN4FP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.66 | 2.61 | NRSM6UN4FB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| No.5-44UNF | G6 | 2.97 | 2.91 | NRSM6UN5GB | 2P | 52 | 11 | 16 | 28 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| No.6-40UNF | G5 | 3.26 | 3.19 | NRSM5UN6HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G5 | 3.26 | 3.19 | NRSM5UN6HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| No.8-36UNF | G5 | 3.89 | 3.81 | NRSM5UN8IP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G5 | 3.89 | 3.81 | NRSM5UN8IB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6(G5+13) | 3.9 | 3.82 | NRSM6UN8IB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| No.10-32UNF | G6 | 4.53 | 4.44 | NRSM6UNAJP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 4.53 | 4.44 | NRSM6UNAJB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.54 | 4.45 | NRSM7UNAJP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7(G6+13) | 4.54 | 4.45 | NRSM7UNAJB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| 1/4-28UNF | G6 | 5.99 | 5.89 | NRSM6U04KP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G6 | 5.99 | 5.89 | NRSM6U04KB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G7 | 6 | 5.91 | NRSM7U04KB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |

Intro
SP
SL
PO
ST
ROLL
JIS
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HP+RZ/HP-RZ




## MP Multi Purpose Series

High Performance Thread Forming Taps, Coated

HSS-P | COATING | 2P THCHT | 4P THCHT

**FEATURES**

Multi purpose forming taps for blind and through hole application on a wide range of materials.

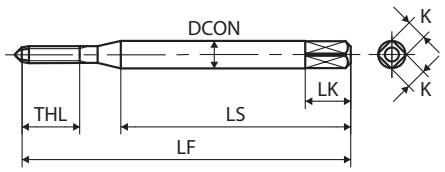
Specific design, HSSP substrate and suitable coating for stable and long life even at medium-high speed.

**Recommended Tapping Speeds Depending On Materials**

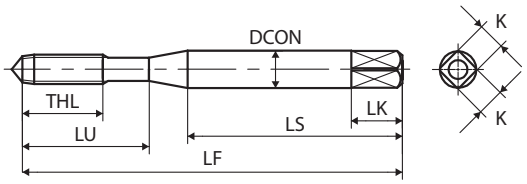
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 15÷30 | ★ | M1 | 10÷25 | ★ | N1 | 10÷45 | ☆ |
| P2 | 15÷30 | ★ | M2 | 10÷25 | ★ | N2 | 10÷45 | ☆ |
| P3 | 15÷25 | ★ | | | | | | |
| P4 | 15÷25 | ★ | | | | | | |
| P7 | 10÷25 | ★ | | | | | | |

★ 1st choice ☆ suitable

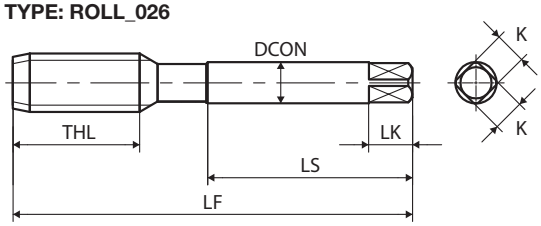
**TYPE: ROLL_010**




**TYPE: ROLL_012**




**TYPE: ROLL_026**






Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.25 | G4 | 0.92 | 0.89 | HRZP41.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ● |
| M1.2X0.25 | G4 | 1.11 | 1.09 | HRZP41.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ● |
| M1.4X0.3 | G4 | 1.3 | 1.26 | HRZP41.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ● |
| M1.6X0.35 | G4 | 1.46 | 1.43 | HRZP41.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ● |
| M1.7X0.35 | G4 | 1.56 | 1.52 | HRZP41.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2X0.4 | G4 | 1.83 | 1.79 | HRZP42.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | HRZP52.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.3X0.4 | G4 | 2.13 | 2.09 | HRZP42.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | HRZP52.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.45 | G5 | 2.32 | 2.27 | HRZP52.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | HRZP62.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M2.6X0.45 | G5 | 2.42 | 2.37 | HRZP52.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | HRZP62.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.5 | G5 | 2.8 | 2.75 | HRZP53.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G5 | 2.8 | 2.75 | HRZP53.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | HRZP63.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | HRZP63.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 4(4) | 012 | ○ |
| M3.5X0.6 | G5 | 3.25 | 3.19 | HRZP53.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G5 | 3.25 | 3.19 | HRZP53.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | HRZP63.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | HRZP63.5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| M4X0.7 | G6 | 3.72 | 3.65 | HRZP64.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G6 | 3.72 | 3.65 | HRZP64.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | HRZP74.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | HRZP74.0IB | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 4(4) | 012 | ○ |
| M5X0.8 | G6 | 4.67 | 4.59 | HRZP65.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 4.67 | 4.59 | HRZP65.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | HRZP75.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | HRZP75.0KB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4(4) | 012 | ○ |
| M6X1 | G6 | 5.58 | 5.47 | HRZP66.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G6 | 5.58 | 5.47 | HRZP66.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | HRZP76.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | HRZP76.0MB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4(4) | 012 | ○ |
| M8X1.25 | G7 | 7.49 | 7.37 | HRZM78.0NP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G7 | 7.49 | 7.37 | HRZM78.0NB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G8(G7+13) | 7.51 | 7.37 | HRZM88.0NP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| | G8(G7+13) | 7.51 | 7.37 | HRZM88.0NB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3(6) | 026 | ○ |
| M10X1.5 | G7 | 9.38 | 9.22 | HRZM70100P | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G7 | 9.38 | 9.22 | HRZM70100B | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.39 | 9.23 | HRZM80100P | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.39 | 9.23 | HRZM80100B | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| M12X1.75 | G8 | 11.28 | 11.09 | HRZM8012PP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 11.28 | 11.09 | HRZM8012PB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.29 | 11.11 | HRZM9012PP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.29 | 11.11 | HRZM9012PB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | G7 | 9.49 | 9.35 | HRZM7010NP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G7 | 9.49 | 9.35 | HRZM7010NB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.5 | 9.37 | HRZM8010NP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| | G8(G7+13) | 9.5 | 9.37 | HRZM8010NB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4(8) | 026 | ○ |
| M12X1.5 | G8 | 11.38 | 11.22 | HRZM80120P | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 11.38 | 11.22 | HRZM80120B | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.39 | 11.23 | HRZM90120P | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9(G8+13) | 11.39 | 11.23 | HRZM90120B | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| M12X1.25 | G8 | 11.49 | 11.35 | HRZM8012NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G8 | 11.49 | 11.35 | HRZM8012NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9 | 11.5 | 11.36 | HRZM9012NP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| | G9 | 11.5 | 11.36 | HRZM9012NB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4(8) | 026 | ○ |
| M14X1.5 | G9 | 13.39 | 13.22 | HRZM90140P | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| | G9 | 13.39 | 13.22 | HRZM90140B | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4(8) | 026 | ○ |
| M16X1.5 | G9 | 15.38 | 15.22 | HRZM90160P | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| | G9 | 15.38 | 15.22 | HRZM90160B | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4(8) | 026 | ○ |
| M18X1.5 | G9 | 17.38 | 17.22 | HRZM90180P | 4P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4(8) | 026 | ○ |
| | G9 | 17.38 | 17.22 | HRZM90180B | 2P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4(8) | 026 | ○ |
| M20X1.5 | G9 | 19.37 | 19.21 | HRZM90200P | 4P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4(8) | 026 | ○ |
| | G9 | 19.37 | 19.21 | HRZM90200B | 2P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4(8) | 026 | ○ |

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.2-56UNC | G4 | 2.01 | 1.96 | HRZM4UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| | G5(G4+13) | 2.02 | 1.97 | HRZM5UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| No.3-48UNC | G4 | 2.31 | 2.25 | HRZM4UN3FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| No.4-40UNC | G5 | 2.61 | 2.54 | HRZM5UN4HB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.62 | 2.55 | HRZM6UN4HB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| No.5-40UNC | G5 | 2.94 | 2.87 | HRZM5UN5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| | G5 | 2.94 | 2.87 | HRZM5UN5HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| No.6-32UNC | G5 | 3.19 | 3.11 | HRZM5UN6JP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| | G5 | 3.19 | 3.11 | HRZM5UN6JB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| | G6(G5+13) | 3.21 | 3.13 | HRZM6UN6JP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| | G6(G5+13) | 3.21 | 3.13 | HRZM6UN6JB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| No.8-32UNC | G6 | 3.87 | 3.78 | HRZM6UN8JP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G6 | 3.87 | 3.78 | HRZM6UN8JB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7(G6+13) | 3.88 | 3.84 | HRZM7UN8JP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7(G6+13) | 3.88 | 3.84 | HRZM7UN8JB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| No.10-24UNC | G6 | 4.41 | 4.3 | HRZM6UNAMP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G6 | 4.41 | 4.3 | HRZM6UNAMB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7(G6+13) | 4.42 | 4.31 | HRZM7UNAMP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7(G6+13) | 4.42 | 4.31 | HRZM7UNAMB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| No.12-24UNC | G6 | 5.07 | 4.96 | HRZM6UNCMP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G6 | 5.07 | 4.96 | HRZM6UNCMB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |
| 1/4-20UNC | G7 | 5.86 | 5.73 | HRZM7U04NP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7 | 5.86 | 5.73 | HRZM7U04NB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |



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Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| UNF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.2-64UNF | G4 | 2.03 | 1.98 | HRZM4UN2DB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(3) | 010 | ○ |
| No.3-56UNF | G4 | 2.34 | 2.29 | HRZM4UN3EB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| No.4-48UNF | G5 | 2.65 | 2.59 | HRZM5UN4FB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| No.5-44UNF | G5 | 2.96 | 2.9 | HRZM5UN5GP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| | G5 | 2.96 | 2.9 | HRZM5UN5GB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| No.6-40UNF | G5 | 3.26 | 3.19 | HRZM5UN6HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| | G5 | 3.26 | 3.19 | HRZM5UN6HB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 012 | ○ |
| No.8-36UNF | G6(G5+13) | 3.9 | 3.82 | HRZM6UN8IP | 4P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G6(G5+13) | 3.9 | 3.82 | HRZM6UN8IB | 2P | 60 | 13 | 21 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| No.10-32UNF | G6 | 4.53 | 4.44 | HRZM6UNAJP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G6 | 4.53 | 4.44 | HRZM6UNAJB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7(G6+13) | 4.54 | 4.45 | HRZM7UNAJP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7(G6+13) | 4.54 | 4.45 | HRZM7UNAJB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 012 | ○ |
| No.12-28UNF | G6 | 5.13 | 5.03 | HRZM6UNCKP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G6 | 5.13 | 5.03 | HRZM6UNCKB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |
| 1/4-28UNF | G7 | 6 | 5.91 | HRZM7U04KP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |
| | G7 | 6 | 5.91 | HRZM7U04KB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 012 | ○ |

# SURZ




## MP Multi Purpose Series

Thread Forming Taps for Stainless Steel, Coated

HSS-P | COATING | 2P THCHT





**FEATURES**

Multi purpose forming taps for blind and through hole application.

Special form on thread root to control the minor diameter of internal threads.

Special lobe shape to reduce tapping torque.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 15÷30 | ★ | M1 | 10÷25 | ★ |
| P2 | 15÷30 | ★ | M2 | 10÷25 | ★ |
| P3 | 15÷25 | ★ | | | |
| P4 | 15÷25 | ★ | | | |
| P7 | 10÷25 | ★ | | | |

★ 1st choice ☆ suitable

### Product Features

- Adopting the special form on thread root, SURZ controls the minor diameter geometry of internal threads.
- Special lobe shape reduces the tapping torque.
- High efficiency can be obtained in thread forming of stainless steel parts.
- The minor diameter geometry of internal threads can be adjusted modifying the bored hole size.

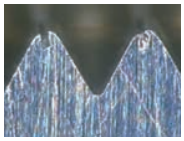
### Process Data

**M2×0.4**

| | |
|---|---|
| Work-material | AISI 304 - 1.4301 |
| Tapping length | 5.2mm (Blind hole) |
| Tapping speed | 5m/min |
| Bored hole | ø1.85 - ø1.82 |
| Machine | Machining center (BT15) |
| Feed | Rigid |
| Tapping direction | Vertical |
| Lubricant | Water soluble oil (×20) |

| M2x0.4 6H internal thread minor diameter and tolerance | |
|---|---|
| Max. | 1.679 |
| Min. | 1.567 |
| Tolerance | 0.112 |

| Bored hole size | φ1.82 | φ1.81 |
|---|---|---|
| Cross section picture of internal threads |  |  |
| Seam shape | Small seams | No seam |
| Minor diameter | φ1.59 | φ1.58 |

| Bored hole size | φ1.84 | φ1.83 |
|---|---|---|
| Cross section picture of internal threads |  |  |
| Seam shape | Regular seams | Small seams |
| Minor diameter | φ1.62 | φ1.60 |

**Recommended bored hole diameter before tapping**

Unit : mm

| Size | Class | Recommended bored hole size |
|---|---|---|
| M1X0.25 | G4 | 0.90 |
| M1.2X0.25 | G4 | 1.10 |
| M1.4X0.3 | G4 | 1.28 |
| M1.6X0.2 | G3 | 1.52 |
| M1.6X0.35 | G4 | 1.46 |
| M1.7X0.35 | G4 | 1.56 |
| M2X0.4 | G4 | 1.82 |
| M2.3X0.4 | G4 | 2.12 |
| M2.5X0.45 | G4 | 2.30 |
| M2.6X0.45 | G5 | 2.40 |
| M3X0.5 | G5 | 2.77 |
| No.2-56UNC | G4 | 1.98 |
| No.4-40UNC | G5 | 2.55 |
| No.6-32UNC | G5 | 3.14 |

Based on our tapping test experiences the recommended bored hole diameters shown in above table have been calculated aiming at 90% thread engagement and trying to avoid tap breakage.

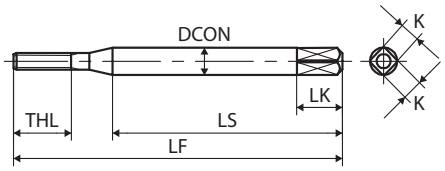
Recommended bore hole diameter may change because material deformation can slightly change depending on material, hardness, dimension of workpiece and tapping condition.



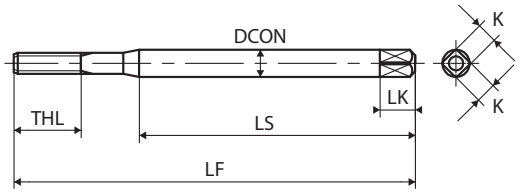
Think threads with YAMAWA

IMROBEX
Machine Tools International

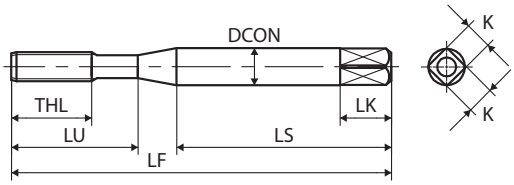
**TYPE: ROLL_019**




**TYPE: ROLL_020**




**TYPE: ROLL_021**




| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1X0.25** | G4 | 0.92 | 0.89 | SURZ41.0BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M1.2X0.25** | G4 | 1.11 | 1.09 | SURZ41.2BB | 2P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M1.4X0.3** | G4 | 1.3 | 1.26 | SURZ41.4CB | 2P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M1.6X0.35** | G4 | 1.46 | 1.43 | SURZ41.6DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M1.7X0.35** | G4 | 1.56 | 1.52 | SURZ41.7DB | 2P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M2X0.4** | G4 | 1.83 | 1.79 | SURZ42.0EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 020 | ○ |
| **M2.3X0.4** | G4 | 2.13 | 2.09 | SURZ42.3EB | 2P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 020 | ○ |
| **M2.5X0.45** | G4 | 2.31 | 2.26 | SURZ42.5FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 021 | ○ |
| **M2.6X0.45** | G5 | 2.42 | 2.37 | SURZ52.6FB | 2P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 021 | ○ |
| **M3X0.5** | G5 | 2.8 | 2.75 | SURZ53.0GB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 2(4) | 021 | ○ |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1.6X0.2** | G3 | 1.53 | 1.5 | SURZ31.6AB | 2P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **No.2-56UNC** | G4 | 2.01 | 1.96 | SURZ4UN2EB | 2P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(3) | 020 | ○ |
| **No.4-40UNC** | G5 | 2.61 | 2.54 | SURZ5UN4HB | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 021 | ○ |
| **No.6-32UNC** | G5 | 3.19 | 3.11 | SURZ5UN6JB | 2P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 2(4) | 021 | ○ |

# SC-TL-RZ




## MP Multi Purpose Series

Torqueless Thread Forming Taps with short chamfer, Coated

HSS-P | COATING | 1P THCHT





**FEATURES**

Multi purpose forming taps for blind and through hole application on a wide range of materials.

Specific "torqueless" design to minimize the tapping torque.

1P extra short chamfer length.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 15÷30 | ★ |
| P2 | 15÷30 | ★ |
| P3 | 15÷25 | ★ |
| P4 | 15÷25 | ★ |
| P7 | 10÷25 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 10÷25 | ★ |
| M2 | 10÷25 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷45 | ☆ |
| N2 | 10÷45 | ☆ |

★ 1st choice ☆ suitable

### Product Features

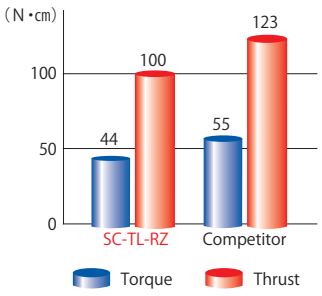
- SC-TL-RZ results in longer tool life while producing high quality internal threads with little burrs.
- Suitable for tapping hard-to-machine materials of lower ductility.
- Longer tool life under water soluble oil.
- Wider tapping application range up to higher speed tapping.

Applicable materials:
- Stainless steel: AISI303, 304, 316
- Alloy steel: 42CrMo4
- Carbon steel: C45-C50
- Aluminum alloy casting and die casting

### Process Data

**M3×0.5**

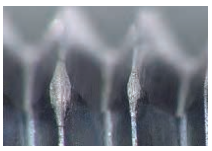
| | |
|---|---|
| Work-material | 40CrMo4 - 1.7225 (32HRC) |
| Tapping depth | 4.5 mm |
| Tapping speed | 20 m/min |
| Bored hole | ø2.8 |
| Machine | Tapping center |
| Lubricant | Water soluble oil (×10) |




SC-TL-RZ
After 7,000 holes



Competitor
After 2,800 holes



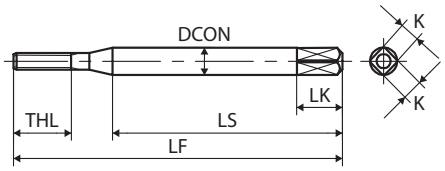
SC-TL-RZ after 7,000 holes shows less wear and damage than competitor.



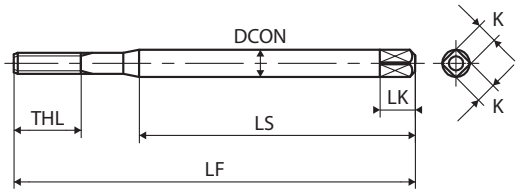
Think threads with YAMAWA

IMROBEX
Machine Tools International

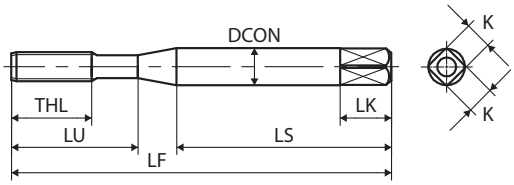
**TYPE: ROLL_019**




**TYPE: ROLL_020**




**TYPE: ROLL_021**




| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1X0.25** | G4 | 0.92 | 0.89 | SRZM41.0B1 | 1P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ● |
| **M1.2X0.25** | G4 | 1.11 | 1.09 | SRZM41.2B1 | 1P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ● |
| **M1.4X0.3** | G4 | 1.3 | 1.26 | SRZM41.4C1 | 1P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ● |
| **M1.6X0.35** | G4 | 1.46 | 1.43 | SRZM41.6D1 | 1P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ● |
| **M1.7X0.35** | G4 | 1.56 | 1.52 | SRZM41.7D1 | 1P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M2X0.4** | G4 | 1.83 | 1.79 | SRZM42.0E1 | 1P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 020 | ● |
| **M2.5X0.45** | G5 | 2.32 | 2.27 | SRZM52.5F1 | 1P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 021 | ● |
| **M2.6X0.45** | G5 | 2.42 | 2.37 | SRZM52.6F1 | 1P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 021 | ● |
| **M3X0.5** | G5 | 2.8 | 2.75 | SRZM53.0G1 | 1P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 2(4) | 021 | ● |
| **M4X0.7** | G6 | 3.72 | 3.65 | SRZM64.0I1 | 1P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 2(4) | 021 | ● |
| **M5X0.8** | G6 | 4.67 | 4.59 | SRZM65.0K1 | 1P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 2(4) | 021 | ● |
| **M6X1** | G6 | 5.58 | 5.47 | SRZM66.0M1 | 1P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 2(4) | 021 | ○ |

| MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M1.4X0.2** | G3 | 1.33 | 1.3 | SRZM31.4A1 | 1P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |
| **M1.6X0.2** | G3 | 1.53 | 1.5 | SRZM31.6A1 | 1P | 36 | 3.6 | - | 24 | 3 | 2.5 | 5 | 0(4) | 019 | ○ |

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **No.2-56UNC** | G4 | 2.01 | 1.96 | SRZM4UN2E1 | 1P | 42 | 8.1 | - | 27 | 3 | 2.5 | 5 | 0(3) | 020 | ○ |
| **No.4-40UNC** | G5 | 2.61 | 2.54 | SRZM5UN4H1 | 1P | 46 | 9 | 14 | 25 | 4 | 3.2 | 6 | 0(4) | 021 | ○ |

# OL+RZ/OL-RZ




## MP Multi Purpose Series

Thread Forming Taps for Dry Tapping, Coated

HSS-P | COATING | 4P THCHT



**FEATURES**

Dry Series forming taps for blind and through hole application.

Specific design, HSSP substrate and suitable coating for stable and long life even in difficult condition such as dry or MQL tapping.

For steel, stainless steel and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

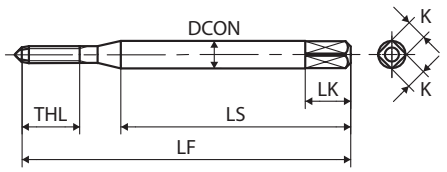
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 15÷30 | ★ |
| P2 | 15÷30 | ★ |
| P3 | 15÷25 | ★ |
| P4 | 15÷25 | ★ |
| P7 | 10÷25 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 10÷25 | ★ |
| M2 | 10÷25 | ★ |

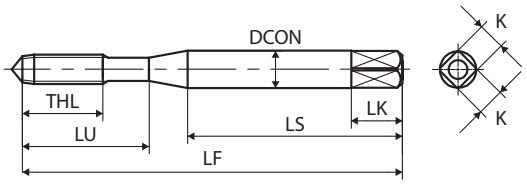
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷45 | ☆ |
| N2 | 10÷45 | ☆ |

★ 1st choice ☆ suitable

**TYPE: ROLL_010**




**TYPE: ROLL_012**




| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1X0.25 | G4 | 0.92 | 0.89 | OLRZP41.0BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.2X0.25 | G4 | 1.11 | 1.09 | OLRZP41.2BP | 4P | 36 | 4.5 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.4X0.3 | G4 | 1.3 | 1.26 | OLRZP41.4CP | 4P | 36 | 5.4 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.6X0.35 | G4 | 1.46 | 1.43 | OLRZP41.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G6(G4+26) | 1.49 | 1.45 | OLRZP61.6DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M1.7X0.35 | G4 | 1.56 | 1.52 | OLRZP41.7DP | 4P | 36 | 6.3 | - | 24 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2X0.4 | G4 | 1.83 | 1.79 | OLRZP42.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 1.84 | 1.8 | OLRZP52.0EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.3X0.4 | G4 | 2.13 | 2.09 | OLRZP42.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| | G5(G4+13) | 2.14 | 2.1 | OLRZP52.3EP | 4P | 42 | 7.2 | - | 27 | 3 | 2.5 | 5 | 0(4) | 010 | ○ |
| M2.5X0.45 | G5 | 2.32 | 2.27 | OLRZP52.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.34 | 2.29 | OLRZP62.5FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M2.6X0.45 | G5 | 2.42 | 2.37 | OLRZP52.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.44 | 2.39 | OLRZP62.6FP | 4P | 46 | 8.1 | 14 | 29 | 3 | 2.5 | 5 | 0(4) | 012 | ○ |
| M3X0.5 | G5 | 2.8 | 2.75 | OLRZP53.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |
| | G6(G5+13) | 2.82 | 2.76 | OLRZP63.0GP | 4P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 0(4) | 012 | ○ |



Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3.5X0.6 | G5 | 3.25 | 3.19 | 0LRZP53.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 0(4) | 012 | ○ |
| | G6(G5+13) | 3.26 | 3.2 | 0LRZP63.5HP | 4P | 52 | 11 | 16 | 29 | 5 | 4 | 7 | 0(4) | 012 | ○ |
| M4X0.7 | G6 | 3.72 | 3.65 | 0LRZP64.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 0(4) | 012 | ○ |
| | G7(G6+13) | 3.74 | 3.66 | 0LRZP74.0IP | 4P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 0(4) | 012 | ○ |
| M5X0.8 | G6 | 4.67 | 4.59 | 0LRZP65.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 0(4) | 012 | ○ |
| | G7(G6+13) | 4.68 | 4.6 | 0LRZP75.0KP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 0(4) | 012 | ○ |
| M6X1 | G6 | 5.58 | 5.47 | 0LRZP66.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 0(4) | 012 | ○ |
| | G7(G6+13) | 5.59 | 5.49 | 0LRZP76.0MP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 0(4) | 012 | ○ |

Intro
SP
SL
PO
ST
ROLL
ANSI
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HP+RZ/HP-RZ




## MP Multi Purpose Series

High Performance Thread Forming Taps, Coated

HSS-P | COATING | 2P THCHT | 4P THCHT



**FEATURES**

Multi purpose forming taps for blind and through hole application on a wide range of materials.

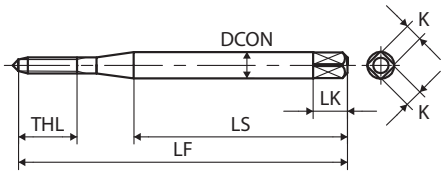
Specific design, HSSP substrate and suitable coating for stable and long life even at medium-high speed.

**Recommended Tapping Speeds Depending On Materials**

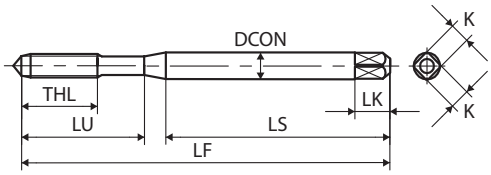
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 15÷30 | ★ | M1 | 10÷25 | ★ | N1 | 10÷45 | ☆ |
| P2 | 15÷30 | ★ | M2 | 10÷25 | ★ | N2 | 10÷45 | ☆ |
| P3 | 15÷25 | ★ | | | | | | |
| P4 | 15÷25 | ★ | | | | | | |
| P7 | 10÷25 | ★ | | | | | | |

★ 1st choice ☆ suitable

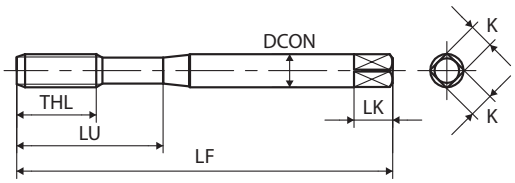
**TYPE: US_004**



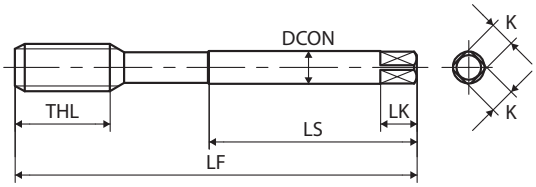

**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.2-56UNC** | H3 | 1.99 | 1.97 | 386801M | 2P | 1.772 | 0.314 | - | 1.161 | 0.141 | 0.11 | 0.187 | 0(4) | 004 | ○ |
| **No.3-48UNC** | H3 | 2.3 | 2.27 | 386802M | 2P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 0(4) | 005 | ○ |
| **No.4-40UNC** | H3 | 2.58 | 2.55 | 386804M | 2P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 0(4) | 005 | ○ |
| | H5 | 2.61 | 2.57 | 386805M | 2P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 0(4) | 005 | ○ |
| **No.5-40UNC** | H5 | 2.94 | 2.9 | 386799M | 2P | 2.205 | 0.433 | 0.768 | 1.358 | 0.141 | 0.11 | 0.187 | 2(4) | 005 | ○ |
| **No.6-32UNC** | H3 | 3.17 | 3.13 | 386810M | 4P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 2(4) | 005 | ○ |
| | H3 | 3.17 | 3.13 | 386808M | 2P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 2(4) | 005 | ○ |
| | H5 | 3.19 | 3.15 | 386811M | 4P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 2(4) | 005 | ○ |
| | H5 | 3.19 | 3.15 | 386809M | 2P | 2.205 | 0.433 | 0.787 | 1.358 | 0.141 | 0.11 | 0.187 | 2(4) | 005 | ● |
| **No.8-32UNC** | H3 | 3.83 | 3.79 | 386814M | 4P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2(4) | 005 | ○ |
| | H3 | 3.83 | 3.79 | 386812M | 2P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2(4) | 005 | ○ |
| | H5 | 3.85 | 3.81 | 386815M | 4P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2(4) | 005 | ○ |
| | H5 | 3.85 | 3.81 | 386813M | 2P | 2.48 | 0.512 | 0.827 | 1.535 | 0.168 | 0.131 | 0.25 | 2(4) | 005 | ● |
| **No.10-24UNC** | H4 | 4.99 | 4.33 | 386818M | 4P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ○ |
| | H4 | 4.99 | 4.33 | 386816M | 2P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ○ |
| | H6 | 4.41 | 4.35 | 386819M | 4P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ○ |
| | H6 | 4.41 | 4.35 | 386817M | 2P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ● |
| **1/4-20UNC** | H4 | 5.83 | 5.76 | 386826M | 4P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ○ |
| | H4 | 5.83 | 5.76 | 386824M | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ○ |
| | H6 | 5.85 | 5.78 | 386827M | 4P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ○ |
| | H6 | 5.85 | 5.78 | 386825M | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ● |
| **5/16-18UNC** | H5 | 7.36 | 7.28 | 386834M | 4P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ○ |
| | H5 | 7.36 | 7.28 | 386832M | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ○ |
| | H7 | 7.38 | 7.31 | 386835M | 4P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ○ |
| | H7 | 7.38 | 7.31 | 386833M | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ● |
| **3/8-16UNC** | H5 | 8.86 | 8.78 | 386842M | 4P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ○ |
| | H5 | 8.86 | 8.78 | 386840M | 2P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ○ |
| | H7 | 8.89 | 8.8 | 386843M | 4P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ○ |
| | H7 | 8.89 | 8.8 | 386841M | 2P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ● |
| **7/16-14UNC** | H5 | 10.35 | 10.26 | 386850M | 4P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| | H5 | 10.35 | 10.26 | 386848M | 2P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| | H7 | 10.38 | 10.28 | 386851M | 4P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| | H7 | 10.38 | 10.28 | 386849M | 2P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| **1/2-13UNC** | H5 | 11.88 | 11.77 | 386858M | 4P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |
| | H5 | 11.88 | 11.77 | 386856M | 2P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |
| | H7 | 11.9 | 11.8 | 386859M | 4P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |
| | H7 | 11.9 | 11.8 | 386857M | 2P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |

| UNF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| **No.0-80UNF** | H2 | 1.39 | 1.37 | 386800M | 2P | 1.772 | 0.236 | - | 1.161 | 0.141 | 0.11 | 0.187 | 0(3) | 004 | ○ |
| **No.3-56UNF** | H3 | 2.32 | 2.3 | 386803M | 2P | 2.205 | 0.354 | 0.669 | 1.28 | 0.141 | 0.11 | 0.187 | 0(4) | 005 | ○ |
| **No.4-48UNF** | H3 | 2.62 | 2.6 | 386806M | 2P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 0(4) | 005 | ○ |
| | H5 | 2.65 | 2.62 | 386807M | 2P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 0(4) | 005 | ○ |
| **No.10-32UNF** | H4 | 4.5 | 4.46 | 386822M | 4P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ○ |
| | H4 | 4.5 | 4.46 | 386820M | 2P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ○ |
| | H6 | 4.53 | 4.48 | 386823M | 4P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ○ |
| | H6 | 4.53 | 4.48 | 386821M | 2P | 2.756 | 0.551 | 0.984 | 1.654 | 0.194 | 0.152 | 0.25 | 2(4) | 005 | ● |

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 073 of Technical info for full details.



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Machine Tools International
Think threads with YAMAWA

| UNF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| 1/4-28UNF | H4 | 5.96 | 5.92 | 386830M | 4P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ○ |
| | H4 | 5.96 | 5.92 | 386828M | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ○ |
| | H6 | 5.99 | 5.94 | 386831M | 4P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ○ |
| | H6 | 5.99 | 5.94 | 386829M | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2(4) | 005 | ● |
| 5/16-24UNF | H5 | 7.5 | 7.45 | 386838M | 4P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ○ |
| | H5 | 7.5 | 7.45 | 386836M | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ○ |
| | H7 | 7.53 | 7.47 | 386839M | 4P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ○ |
| | H7 | 7.53 | 7.47 | 386837M | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3(6) | 006 | ● |
| 3/8-24UNF | H5 | 9.08 | 9.02 | 386846M | 4P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ○ |
| | H5 | 9.08 | 9.02 | 386844M | 2P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ○ |
| | H7 | 9.1 | 9.04 | 386847M | 4P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ○ |
| | H7 | 9.1 | 9.04 | 386845M | 2P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3(6) | 006 | ● |
| 7/16-20UNF | H5 | 10.58 | 10.51 | 386854M | 4P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| | H5 | 10.58 | 10.51 | 386852M | 2P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| | H7 | 10.6 | 10.54 | 386855M | 4P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| | H7 | 10.6 | 10.54 | 386853M | 2P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4(8) | 007 | ○ |
| 1/2-20UNF | H5 | 12.16 | 12.1 | 386862M | 4P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |
| | H5 | 12.16 | 12.1 | 386860M | 2P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |
| | H7 | 12.19 | 12.12 | 386863M | 4P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |
| | H7 | 12.19 | 12.12 | 386861M | 2P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4(8) | 007 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# CARBIDE TAPS



CARBIDE - DIN **384**
CARBIDE - JIS **390**

IMROBEX
Machine Tools International

MS

| | CT FC | N-CT FC | CT-PF | LS-N-CT | N-CT-SP | N-CT-PO | CT LA | N-CT LA |
|---|---|---|---|---|---|---|---|---|
| | HF CARBIDE | HF CARBIDE | HF CARBIDE | HF CARBIDE | HF CARBIDE | HF CARBIDE | HF CARBIDE | HF CARBIDE |
| |  |  |  |  |  |  |  |  |
| | DIN | JIS | JIS | JIS | JIS | JIS | DIN | JIS |
| M | 387 | 393 | | 398 | 401 | 403 | 389 | 405 |
| MF | | 394 | | 399 | 401 | | | 406 |
| UNC/UNF | | 395 | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | |
| UNEF | | | | | | | | |
| G (BSP) | | | 397 | | | | | |
| Rp (BSPP) | | | | | | | | |
| Rc (BSPT) | | | | | | | | |
| NPT | | | | | | | | |
| NPTF | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | |
| BSW | | | | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | | |
| Pg | | | | | | | | |
| Tr | | | | | | | | |
| S miniature | | | | | | | | |
| Special threads | | | | | | | | |

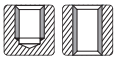
| | Vc (m/min) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| P1 | | | | | | | | |
| P2 | | | | | | | | |
| P3 | | | | | | | | |
| P4 | | | | | | | | |
| P5 | | | | | | | | |
| P6 | | | | | | | | |
| P7 | | | | | | | | |
| P8 | | | | | | | | |
| M1 | | | | | | | | |
| M2 | | | | | | | | |
| M3 | | | | | | | | |
| K1 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | | | | |
| K2 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | | | | |
| K3 | ☆ ≤10 | ☆ ≤10 | ☆ ≤10 | ☆ ≤10 | | | | |
| K4 | ✘ | ✘ | ✘ | ✘ | | | | |
| N1 | | | | | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 |
| N2 | ★ 5÷15 | ★ 5÷15 | ★ 5÷10 | ★ 5÷15 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 |
| N3 | | | | | | | | |
| N4 | ★ 5÷15 | ★ 5÷15 | ★ 5÷10 | ★ 5÷15 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 | ★ 10÷20 |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | |
| S5 | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

| MS | | | HS | | | |
|---|---|---|---|---|---|---|
| MC-AD-CT | ACHSP | UH-CT | HFICT-B | HFICT-P | HFACT-B | HFACT-P |
| HF CARBIDE + COATING | HF CARBIDE + COATING | HF CARBIDE + COATING | HF CARBIDE + COATING | HF CARBIDE + COATING | HF CARBIDE + COATING | HF CARBIDE + COATING |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| | | |  | | | |
| JIS | JIS | DIN | JIS | JIS | JIS | JIS | |
| 409 | 411 | 391 | 412 | 413 | 414 | 415 | M |
| 409 | 411 | | 412 | 413 | 414 | 415 | MF |
| | | | | | | | UNC/UNF |
| | | | | | | | UNS, 8UN, 12UN |
| | | | | | | | UNEF |
| | | | | | | | G (BSP) |
| | | | | | | | Rp (BSPP) |
| | | | | | | | Rc (BSPT) |
| | | | | | | | NPT |
| | | | | | | | NPTF |
| | | | | | | | NPSC, NPSM, NPSF |
| | | | | | | | BSW |
| | | | | | | | EG(STI), M, MF, UNC/UNF |
| | | | | | | | Pg |
| | | | | | | | Tr |
| | | | | | | | S miniature |
| | | | | | | | Special threads |
| Vc (m/min) | | | | | | | |
| | | | | | | | P1 |
| | | | | | | | P2 |
| | | | | | | | P3 |
| | | | | | | | P4 |
| | | | | | | | P5 |
| | | | | | | | P6 |
| | | | | | | | P7 |
| | | | | | | | P8 |
| | | | | | | | M1 |
| | | | | | | | M2 |
| | | | | | | | M3 |
| | | | ★ 25÷50 | ★ 25÷50 | | | K1 |
| | | | ★ 25÷50 | ★ 25÷50 | | | K2 |
| | | | | | | | K3 |
| | | | | | | | K4 |
| ★ 30÷60 | | | | | ★ 30÷100 | ★ 30÷100 | N1 |
| ★ 30÷60 | ★ 30÷50 | | | | ★ 30÷100 | ★ 30÷100 | N2 |
| | | | | | | | N3 |
| ★ 30÷60 | | | | | ★ 30÷100 | ★ 30÷100 | N4 |
| | | | | | | | N5 |
| | | | | | | | S1 (<35 HRC) |
| | | | | | | | S2 (<35 HRC) |
| | | | | | | | S3 (35 ÷ 45 HRC) |
| | | | | | | | S5 |
| | | ★ ≤5 | | | | | H (45 ÷ 55 HRC) |
| | | ★ ≤5 | | | | | H (55 ÷ 63 HRC) |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
DIN
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# CT FC

## MS Material Specific Series

Carbide Taps for Cast Iron




HF CARBIDE





2.5P THCHT

**FEATURES**

Carbide for blind and through hole application.

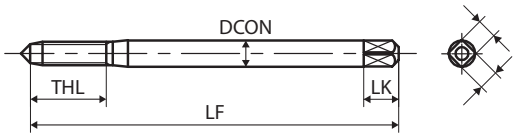
Specific design for Cast Iron and Brass application.

**Recommended Tapping Speeds Depending On Materials**

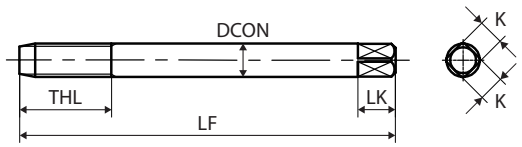
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| K1 | 5÷15 | ★ | N2 | 5÷15 | ★ |
| K2 | 5÷15 | ★ | N4 | 5÷15 | ★ |
| K3 | ≤10 | ☆ | | | |
| K4 | ≤8 | ☆ | | | |

★ 1st choice ☆ suitable

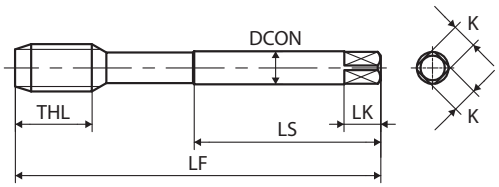
**TYPE: EU_040**




**TYPE: EU_043**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.5 | 2.56 | 36263.0 | 2.5P | 56 | 11 | - | - | 3.5 | 2.7 | 6 | 3 | 040 | ○ |
| **M4X0.7** | ISO2X(6HX) | 3.3 | 3.38 | 36264.0 | 2.5P | 63 | 13 | - | - | 4.5 | 3.4 | 6 | 4 | 040 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.2 | 4.28 | 36265.0 | 2.5P | 70 | 16 | - | - | 6 | 4.9 | 8 | 4 | 040 | ● |
| **M6X1** | ISO2X(6HX) | 5 | 5.09 | 36266.0 | 2.5P | 80 | 19 | - | - | 6 | 4.9 | 8 | 4 | 040 | ○ |
| **M8X1.25** | ISO2X(6HX) | 6.8 | 6.85 | 36268.0 | 2.5P | 90 | 22 | - | - | 8 | 6.2 | 9 | 4 | 043 | ○ |
| **M10X1.5** | ISO2X(6HX) | 8.5 | 8.6 | 3626010 | 2.5P | 100 | 24 | - | - | 10 | 8 | 11 | 4 | 043 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.3 | 10.36 | 3726012 | 2.5P | 110 | 29 | - | - | 9 | 7 | 10 | 4 | 116 | ○ |
| **M14X2** | ISO2X(6HX) | 12 | 12.12 | 3726014 | 2.5P | 110 | 30 | - | - | 11 | 9 | 12 | 4 | 116 | ● |
| **M16X2** | ISO2X(6HX) | 14 | 14.12 | 3726016 | 2.5P | 110 | 32 | - | - | 12 | 9 | 12 | 4 | 116 | ● |

Intro
SP
SL
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ST
ROLL
CARBIDE
DIN
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# CT LA

## MS Material Specific Series

Carbide Taps for Light Alloys







**FEATURES**

Carbide for blind and through hole application.

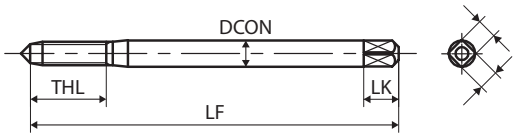
Specific design for Aluminium casting, Aluminium die-casting and other non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

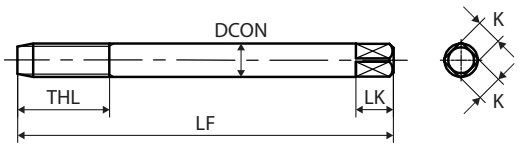
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷20 ★ |
| N2 | 10÷20 ★ |
| N4 | 10÷20 ★ |

★ 1st choice ☆ suitable

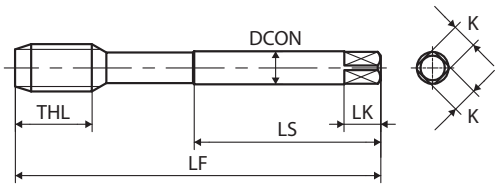
**TYPE: EU_040**




**TYPE: EU_043**




**TYPE: EU_116**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | IS02X(6HX) | 2.5 | 2.56 | TD3.0GBLWB3 | 3P | 56 | 11 | - | - | 3.5 | 2.7 | 6 | 3 | 040 | ● |
| **M4X0.7** | IS02X(6HX) | 3.3 | 3.38 | TD4.0IBLWB3 | 3P | 63 | 13 | - | - | 4.5 | 3.4 | 6 | 3 | 040 | ● |
| **M5X0.8** | IS02X(6HX) | 4.2 | 4.28 | TD5.0KBLWB3 | 3P | 70 | 16 | - | - | 6 | 4.9 | 8 | 3 | 040 | ● |
| **M6X1** | IS02X(6HX) | 5 | 5.09 | TD6.0MBLWB3 | 3P | 80 | 19 | - | - | 6 | 4.9 | 8 | 3 | 040 | ● |
| **M8X1.25** | IS02X(6HX) | 6.8 | 6.85 | TD8.0KBLWB3 | 3P | 90 | 22 | - | - | 8 | 6.2 | 9 | 3 | 043 | ● |
| **M10X1.5** | IS02X(6HX) | 8.5 | 8.6 | TD010OBLWB3 | 3P | 100 | 24 | - | - | 10 | 8 | 11 | 3 | 043 | ● |
| **M12X1.75** | IS02X(6HX) | 10.3 | 10.36 | TG012PBLWB3 | 3P | 110 | 29 | - | - | 9 | 7 | 10 | 3 | 116 | ● |

# UH-CT




## MS Material Specific Series

Carbide Taps for Ultra Hard Materials (<63HRC), Coated




**FEATURES**

Carbide taps for high hardness steel (55 ÷ 63HRC).

Specific design, ultra fine micrograin, suitable coating for long and stable tool life.

5P chamfer length.

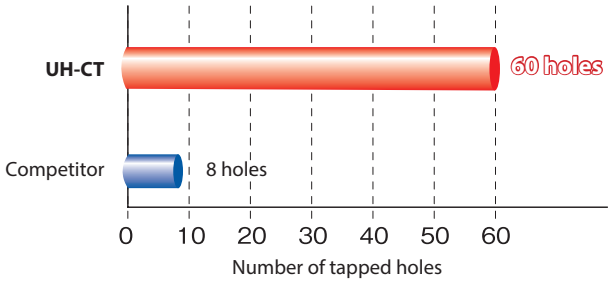
### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| H1 | ≤5 | ★ |
| H2 | ≤5 | ★ |

★ 1st choice ☆ suitable

### Process Data

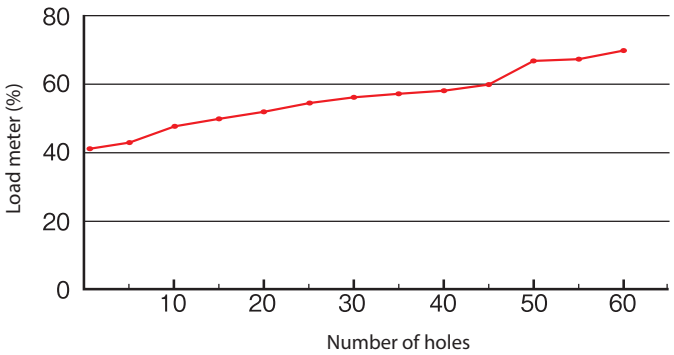
| | |
|---|---|
| Work-material | tool steel, heat-treated (60HRC) |
| Hardness | 50HRC |
| Size | M8x1.25 |
| Tapping length | 16mm, through hole |
| Machine | CNC rigid tapping machine |
| Tapping speed | 1.5m/min (60rpm) |
| Lubricant | non-soluble oil |




The graph above shows comparison data in tapping heat-treated tool steel by conventional carbide tap and UH-CT. Chipping occurred after 8th threads with conventional carbide tap. UH-CT can work efficiently even after 60 threads.

The graph on the right shows the relation between the number of tapped holes and the load meter data of the machine on the tapping test up to 60 holes with UH-CT tap.

Percentage of load meter figure tends to increase after tapping 50 holes. This is due to the damage on the tool's cutting edge. Then, tap breakage will happen if the load meter figure increases more and more. Thus for safety purposes, it is better to limit the number of tapping holes (tool life) when tapping high hardness steel materials.

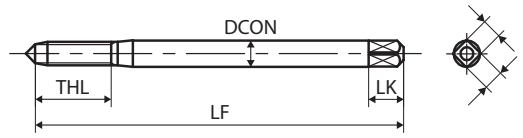




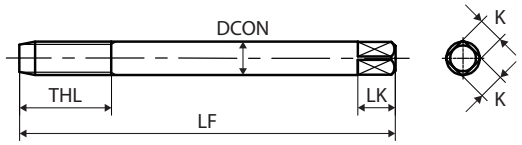

Think threads with YAMAWA

IMROBEX
Machine Tools International

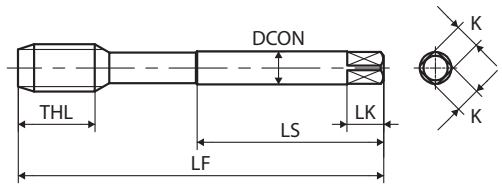
**TYPE: EU_040**




**TYPE: EU_043**




**TYPE: EU_116**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2X(6HX) | 2.56 | 2.6 | TD3.0GBBWA5 | 5P | 56 | 11 | - | - | 3.5 | 2.7 | 6 | 4 | 040 | ● |
| **M4X0.7** | ISO2X(6HX) | 3.4 | 3.42 | TD4.0IBBWA5 | 5P | 63 | 13 | - | - | 4.5 | 3.4 | 6 | 4 | 040 | ● |
| **M5X0.8** | ISO2X(6HX) | 4.3 | 4.33 | TD5.0KBBWA5 | 5P | 70 | 16 | - | - | 6 | 4.9 | 8 | 4 | 040 | ● |
| **M6X1** | ISO2X(6HX) | 5.1 | 5.15 | TD6.0MBBWA5 | 5P | 80 | 19 | - | - | 6 | 4.9 | 8 | 5 | 040 | ● |
| **M8X1.25** | ISO2X(6HX) | 6.9 | 6.91 | TD8.0NBBWA5 | 5P | 90 | 22 | - | - | 8 | 6.2 | 9 | 5 | 043 | ● |
| **M10X1.5** | ISO2X(6HX) | 8.6 | 8.65 | TD010OBBWA5 | 5P | 100 | 24 | - | - | 10 | 8 | 11 | 5 | 043 | ● |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 376 | | | | | | | | | | | | | | | |
| **M12X1.75** | ISO2X(6HX) | 10.4 | 10.42 | TG012PBBWA5 | 5P | 110 | 29 | - | - | 9 | 7 | 10 | 5 | 116 | ● |
| **M14X2** | ISO2X(6HX) | 12.1 | 12.15 | TG014QBBWA5 | 5P | 110 | 30 | - | - | 11 | 9 | 12 | 6 | 116 | ● |
| **M16X2** | ISO2X(6HX) | 14.1 | 14.15 | TG016QBBWA5 | 5P | 110 | 32 | - | - | 12 | 9 | 12 | 6 | 116 | ● |
| **M18X2.5** | ISO2X(6HX) | 15.6 | 15.65 | TG018RBBWA5 | 5P | 125 | 34 | - | - | 14 | 11 | 14 | 6 | 116 | ○ |
| **M20X2.5** | ISO2X(6HX) | 17.6 | 17.65 | TG020RBBWA5 | 5P | 140 | 34 | - | - | 16 | 12 | 15 | 6 | 116 | ● |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
JIS
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# N-CT FC

## MS Material Specific Series

Carbide Taps for Cast Iron




HF CARBIDE





3P THCHT

1.5P THCHT

**FEATURES**

Carbide for blind and through hole application.

Specific design for Cast Iron and Brass application.

1.5P chamfer for blind hole application, 3P chamfer for through hole application.

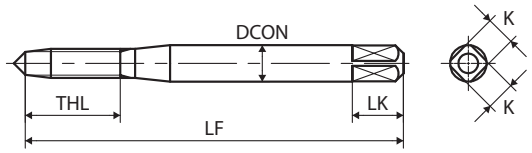
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷15 | ★ |
| K2 | 5÷15 | ★ |
| K3 | ≤10 | ☆ |
| K4 | ≤8 | ☆ |

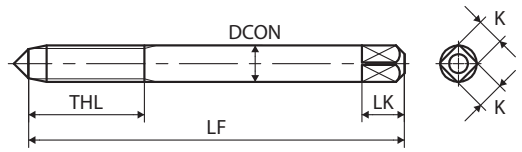
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷15 | ★ |
| N4 | 5÷15 | ★ |

★ 1st choice ☆ suitable

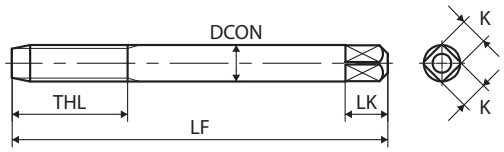
**TYPE: CT_001**



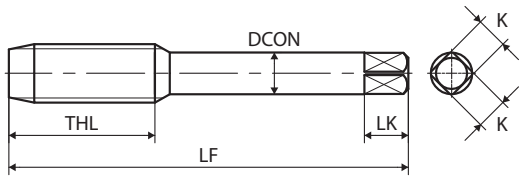

**TYPE: CT_004**




**TYPE: CT_015**




**TYPE: CT_007**






Think threads with YAMAWA

IMROBEX Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1.4X0.3 | P3 | 1.1 | 1.13 | TCNR1.4C3 | 3P | 34 | 7 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.1 | 1.13 | TCNR1.4C1 | 1.5P | 34 | 7 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M1.6X0.35 | P3 | 1.25 | 1.3 | TCNR1.6D3 | 3P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.25 | 1.3 | TCNR1.6D1 | 1.5P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M1.7X0.35 | P3 | 1.35 | 1.4 | TCNR1.7D3 | 3P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.35 | 1.4 | TCNR1.7D1 | 1.5P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2X0.4 | P3 | 1.6 | 1.65 | TCNR2.0E3 | 3P | 40 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.6 | 1.65 | TCNR2.0E1 | 1.5P | 40 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.2X0.45 | P3 | 1.75 | 1.81 | TCNR2.2F3 | 3P | 42 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.75 | 1.81 | TCNR2.2F1 | 1.5P | 42 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.3X0.4 | P3 | 1.9 | 1.95 | TCNR2.3E3 | 3P | 42 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.9 | 1.95 | TCNR2.3E1 | 1.5P | 42 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | P3 | 2.1 | 2.11 | TCNR2.5F3 | 3P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 2.1 | 2.11 | TCNR2.5F1 | 1.5P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.6X0.45 | P3 | 2.2 | 2.21 | TCNR2.6F3 | 3P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 2.2 | 2.21 | TCNR2.6F1 | 1.5P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M3X0.5 | P3 | 2.5 | 2.56 | TCNR3.0G3 | 3P | 46 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.5 | 2.56 | TCNR3.0G1 | 1.5P | 46 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P3 | 2.9 | 2.97 | TCNR3.5H3 | 3P | 48 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.9 | 2.97 | TCNR3.5H1 | 1.5P | 48 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | TCNR4.0I3 | 3P | 52 | 13 | - | - | 5 | 4 | 7 | 4 | 001 | ○ |
| | P3 | 3.3 | 3.38 | TCNR4.0I1 | 1.5P | 52 | 13 | - | - | 5 | 4 | 7 | 4 | 001 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | TCNR5.0K3 | 3P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TCNR5.0K1 | 1.5P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M6X1 | P3 | 5 | 5.09 | TCNR6.0M3 | 3P | 62 | 19 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| | P3 | 5 | 5.09 | TCNR6.0M3F | 3P | 62 | 19 | - | - | 6 | 4.5 | 7 | 4 | 015 | ○ |
| | P3 | 5 | 5.09 | TCNR6.0M1 | 1.5P | 62 | 19 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| | P3 | 5 | 5.09 | TCNR6.0M1F | 1.5P | 62 | 19 | - | - | 6 | 4.5 | 7 | 4 | 015 | ○ |
| M7X1 | P3 | 6 | 6.09 | TCNR7.0M3 | 3P | 65 | 19 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 6 | 6.09 | TCNR7.0M1 | 1.5P | 65 | 19 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | TCNR8.0N3 | 3P | 70 | 22 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 6.8 | 6.85 | TCNR8.0N1 | 1.5P | 70 | 22 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P4 | 6.8 | 6.85 | TCNS8.0N3 | 3P | 70 | 22 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P4 | 6.8 | 6.85 | TCNS8.0N1 | 1.5P | 70 | 22 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | TCNR010O3 | 3P | 75 | 24 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P3 | 8.5 | 8.6 | TCNR010O1 | 1.5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P4 | 8.5 | 8.6 | TCNS010O3 | 3P | 75 | 24 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P4 | 8.5 | 8.6 | TCNS010O1 | 1.5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| M12X1.75 | P3 | 10.3 | 10.36 | TCNR012P3 | 3P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P3 | 10.3 | 10.36 | TCNR012P1 | 1.5P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 10.3 | 10.36 | TCNS012P3 | 3P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 10.3 | 10.36 | TCNS012P1 | 1.5P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| M14X2 | P3 | 12 | 12.12 | TCNR014Q3 | 3P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 12 | 12.12 | TCNR014Q1 | 1.5P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12 | 12.12 | TCNS014Q3 | 3P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12 | 12.12 | TCNS014Q1 | 1.5P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M16X2 | P4 | 14 | 14.12 | TCNS016Q3 | 3P | 95 | 30 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 14 | 14.12 | TCNS016Q1 | 1.5P | 95 | 30 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | TCNS018R3 | 3P | 100 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| | P4 | 15.5 | 15.63 | TCNS018R1 | 1.5P | 100 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | TCNS020R3 | 3P | 105 | 35 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |
| | P4 | 17.5 | 17.63 | TCNS020R1 | 1.5P | 105 | 35 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | TCNS022R3 | 3P | 115 | 35 | - | - | 17 | 13 | 16 | 4 | 007 | ○ |
| | P4 | 19.5 | 19.63 | TCNS022R1 | 1.5P | 115 | 35 | - | - | 17 | 13 | 16 | 4 | 007 | ○ |
| M24X3 | P4 | 21 | 21.13 | TCNS024S3 | 3P | 120 | 35 | - | - | 19 | 15 | 18 | 4 | 007 | ○ |
| | P4 | 21 | 21.13 | TCNS024S1 | 1.5P | 120 | 35 | - | - | 19 | 15 | 18 | 4 | 007 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | TCNT030T3 | 3P | 135 | 45 | - | - | 23 | 17 | 20 | 4 | 007 | ○ |
| | P5 | 26.5 | 26.63 | TCNT030T1 | 1.5P | 135 | 45 | - | - | 23 | 17 | 20 | 4 | 007 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.35 | P3 | 2.7 | 2.7 | TCNR3.0D3 | 3P | 46 | 8 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.7 | 2.7 | TCNR3.0D1 | 1.5P | 46 | 8 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M4X0.5 | P3 | 3.5 | 3.56 | TCNR4.0G3 | 3P | 52 | 11 | - | - | 5 | 4 | 7 | 4 | 001 | ○ |
| | P3 | 3.5 | 3.56 | TCNR4.0G1 | 1.5P | 52 | 11 | - | - | 5 | 4 | 7 | 4 | 001 | ○ |
| M5X0.5 | P3 | 4.5 | 4.56 | TCNR5.0G3 | 3P | 52 | 11 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 4.5 | 4.56 | TCNR5.0G1 | 1.5P | 52 | 11 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| M6X0.75 | P3 | 5.3 | 5.33 | TCNR6.0J3 | 3P | 62 | 13 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| | P3 | 5.3 | 5.33 | TCNR6.0J1 | 1.5P | 62 | 13 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| M6X0.5 | P3 | 5.5 | 5.56 | TCNR6.0G3 | 3P | 55 | 11 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| | P3 | 5.5 | 5.56 | TCNR6.0G1 | 1.5P | 55 | 11 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| M7X0.75 | P3 | 6.3 | 6.33 | TCNR7.0J3 | 3P | 62 | 13 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 6.3 | 6.33 | TCNR7.0J1 | 1.5P | 62 | 13 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| M8X1 | P3 | 7 | 7.09 | TCNR8.0M3 | 3P | 70 | 19 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 7 | 7.09 | TCNR8.0M1 | 1.5P | 70 | 19 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| M8X0.75 | P3 | 7.3 | 7.33 | TCNR8.0J3 | 3P | 62 | 13 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 7.3 | 7.33 | TCNR8.0J1 | 1.5P | 62 | 13 | - | - | 6.2 | 5 | 8 | 4 | 007 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | TCNR010N3 | 3P | 75 | 22 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P3 | 8.8 | 8.85 | TCNR010N1 | 1.5P | 75 | 22 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P4 | 8.8 | 8.85 | TCNS010N3 | 3P | 75 | 22 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P4 | 8.8 | 8.85 | TCNS010N1 | 1.5P | 75 | 22 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| M10X1 | P3 | 9 | 9.09 | TCNR010M3 | 3P | 70 | 19 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P3 | 9 | 9.09 | TCNR010M1 | 1.5P | 70 | 19 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P4 | 9 | 9.09 | TCNS010M3 | 3P | 70 | 19 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P4 | 9 | 9.09 | TCNS010M1 | 1.5P | 70 | 19 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | TCNR012O3 | 3P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P3 | 10.5 | 10.6 | TCNR012O1 | 1.5P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 10.5 | 10.6 | TCNS012O3 | 3P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 10.5 | 10.6 | TCNS012O1 | 1.5P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| M12X1.25 | P3 | 10.8 | 10.85 | TCNR012N3 | 3P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P3 | 10.8 | 10.85 | TCNR012N1 | 1.5P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 10.8 | 10.85 | TCNS012N3 | 3P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 10.8 | 10.85 | TCNS012N1 | 1.5P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |



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IMROBEX Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M12X1 | P3 | 11 | 11.09 | TCNR012M3 | 3P | 70 | 19 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P3 | 11 | 11.09 | TCNR012M1 | 1.5P | 70 | 19 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 11 | 11.09 | TCNS012M3 | 3P | 70 | 19 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| | P4 | 11 | 11.09 | TCNS012M1 | 1.5P | 70 | 19 | - | - | 8.5 | 6.5 | 9 | 4 | 007 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | TCNR01403 | 3P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 12.5 | 12.6 | TCNR01401 | 1.5P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12.5 | 12.6 | TCNS01403 | 3P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12.5 | 12.6 | TCNS01401 | 1.5P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| M14X1.25 | P3 | 12.8 | 12.85 | TCNR014N3 | 3P | 88 | 22 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 12.8 | 12.85 | TCNR014N1 | 1.5P | 88 | 22 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12.8 | 12.85 | TCNS014N3 | 3P | 88 | 22 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12.8 | 12.85 | TCNS014N1 | 1.5P | 88 | 22 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| M14X1 | P3 | 13 | 13.09 | TCNR014M3 | 3P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 13 | 13.09 | TCNR014M1 | 1.5P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 13 | 13.09 | TCNS014M3 | 3P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 13 | 13.09 | TCNS014M1 | 1.5P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | TCNR01603 | 3P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P3 | 14.5 | 14.6 | TCNR01601 | 1.5P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 14.5 | 14.6 | TCNS01603 | 3P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 14.5 | 14.6 | TCNS01601 | 1.5P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| M16X1 | P4 | 15 | 15.09 | TCNS016M3 | 3P | 75 | 19 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 15 | 15.09 | TCNS016M1 | 1.5P | 75 | 19 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | TCNS01803 | 3P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| | P4 | 16.5 | 16.6 | TCNS01801 | 1.5P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | TCNS02003 | 3P | 95 | 24 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |
| | P4 | 18.5 | 18.6 | TCNS02001 | 1.5P | 95 | 24 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | TCNS02203 | 3P | 95 | 24 | - | - | 17 | 13 | 16 | 4 | 007 | ○ |
| | P4 | 20.5 | 20.6 | TCNS02201 | 1.5P | 95 | 24 | - | - | 17 | 13 | 16 | 4 | 007 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | TCNS02403 | 3P | 95 | 24 | - | - | 19 | 15 | 18 | 4 | 007 | ○ |
| | P4 | 22.5 | 22.6 | TCNS02401 | 1.5P | 95 | 24 | - | - | 19 | 15 | 18 | 4 | 007 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.4-40UNC | P3 | 2.3 | 2.33 | TCNRUN4H3 | 3P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 2.3 | 2.33 | TCNRUN4H1 | 1.5P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.5-40UNC | P3 | 2.6 | 2.64 | TCNRUN5H3 | 3P | 46 | 9.5 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.6 | 2.64 | TCNRUN5H1 | 1.5P | 46 | 9.5 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| No.6-32UNC | P3 | 2.8 | 2.83 | TCNRUN6J3 | 3P | 48 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.8 | 2.83 | TCNRUN6J1 | 1.5P | 48 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| No.8-32UNC | P3 | 3.4 | 3.47 | TCNRUN8J3 | 3P | 52 | 11 | - | - | 5 | 4 | 7 | 4 | 001 | ○ |
| | P3 | 3.4 | 3.47 | TCNRUN8J1 | 1.5P | 52 | 11 | - | - | 5 | 4 | 7 | 4 | 001 | ○ |
| No.10-24UNC | P3 | 3.89 | 3.9 | TCNRUNAM3 | 3P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 3.89 | 3.9 | TCNRUNAM1 | 1.5P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| 1/4-20UNC | P3 | 5.1 | 5.19 | TCNRU04N3 | 3P | 62 | 19 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| | P3 | 5.1 | 5.19 | TCNRU04N1 | 1.5P | 62 | 19 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | TCNRU05O3 | 3P | 70 | 22 | - | - | 6.1 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 6.6 | 6.65 | TCNRU0501 | 1.5P | 70 | 22 | - | - | 6.1 | 5 | 8 | 4 | 007 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 3/8-16UNC | P3 | 8 | 8.07 | TCNRU06P3 | 3P | 75 | 24 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P3 | 8 | 8.07 | TCNRU06P1 | 1.5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | TCNRU07Q3 | 3P | 80 | 24 | - | - | 8 | 6 | 9 | 4 | 007 | ○ |
| | P3 | 9.4 | 9.45 | TCNRU07Q1 | 1.5P | 80 | 24 | - | - | 8 | 6 | 9 | 4 | 007 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | TCNRU08R3 | 3P | 85 | 30 | - | - | 9 | 7 | 10 | 4 | 007 | ○ |
| | P3 | 10.9 | 10.91 | TCNRU08R1 | 1.5P | 85 | 30 | - | - | 9 | 7 | 10 | 4 | 007 | ○ |
| 5/8-11UNC | P4 | 13.6 | 13.75 | TCNSU10U3 | 3P | 95 | 30 | - | - | 12 | 9 | 12 | 4 | 007 | ○ |
| | P4 | 13.6 | 13.75 | TCNSU10U1 | 1.5P | 95 | 30 | - | - | 12 | 9 | 12 | 4 | 007 | ○ |
| 3/4-10UNC | P4 | 16.6 | 16.7 | TCNSU12V3 | 3P | 105 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| | P4 | 16.6 | 16.7 | TCNSU12V1 | 1.5P | 105 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| No.4-48UNF | P3 | 2.4 | 2.41 | TCNRUN4F3 | 3P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 2.4 | 2.41 | TCNRUN4F1 | 1.5P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| No.10-32UNF | P3 | 4.1 | 4.12 | TCNRUNAJ3 | 3P | 60 | 11 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | P3 | 4.1 | 4.12 | TCNRUNAJ1 | 1.5P | 60 | 11 | - | - | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| 1/4-28UNF | P3 | 5.5 | 5.53 | TCNRU04K3 | 3P | 62 | 16 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| | P3 | 5.5 | 5.53 | TCNRU04K1 | 1.5P | 62 | 16 | - | - | 6 | 4.5 | 7 | 4 | 004 | ○ |
| 5/16-24UNF | P3 | 6.9 | 6.97 | TCNRU05M3 | 3P | 70 | 16 | - | - | 6.1 | 5 | 8 | 4 | 007 | ○ |
| | P3 | 6.9 | 6.97 | TCNRU05M1 | 1.5P | 70 | 16 | - | - | 6.1 | 5 | 8 | 4 | 007 | ○ |
| 3/8-24UNF | P3 | 8.5 | 8.57 | TCNRU06M3 | 3P | 75 | 16 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| | P3 | 8.5 | 8.57 | TCNRU06M1 | 1.5P | 75 | 16 | - | - | 7 | 5.5 | 8 | 4 | 007 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | TCNRU07N3 | 3P | 80 | 19 | - | - | 8 | 6 | 9 | 4 | 007 | ○ |
| | P3 | 9.9 | 9.96 | TCNRU07N1 | 1.5P | 80 | 19 | - | - | 8 | 6 | 9 | 4 | 007 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | TCNRU08N3 | 3P | 85 | 19 | - | - | 9 | 7 | 10 | 4 | 007 | ○ |
| | P3 | 11.5 | 11.54 | TCNRU08N1 | 1.5P | 85 | 19 | - | - | 9 | 7 | 10 | 4 | 007 | ○ |
| 5/8-18UNF | P4 | 14.5 | 14.6 | TCNSU10O3 | 3P | 95 | 22 | - | - | 12 | 9 | 12 | 4 | 007 | ○ |
| | P4 | 14.5 | 14.6 | TCNSU10O1 | 1.5P | 95 | 22 | - | - | 12 | 9 | 12 | 4 | 007 | ○ |
| 3/4-16UNF | P4 | 17.5 | 17.59 | TCNSU12P3 | 3P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| | P4 | 17.5 | 17.59 | TCNSU12P1 | 1.5P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

# CT-PF



## MS Material Specific Series

Carbide Taps for Parallel Pipe Threads, for Cast Iron and Non-Ferrous Materials




**FEATURES**

Carbide for blind and through hole application.

Specific design for Cast Iron and Brass application.

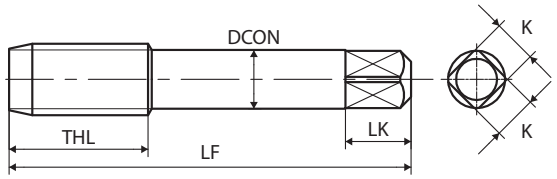
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷15 | ★ |
| K2 | 5÷15 | ★ |
| K3 | ≤10 | ☆ |
| K4 | ≤8 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ★ |
| N4 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: Pipe_045**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8-28 | II | 8.75 | 8.78 | TCPF02K | 3.5P | 9.728 | 55 | 19 | - | 8 | 6 | 9 | 4 | 045 | ○ |
| 1/4-19 | II | 11.75 | 11.78 | TCPF04- | 3.5P | 13.157 | 62 | 28 | - | 11 | 9 | 12 | 4 | 045 | ○ |
| 3/8-19 | II | 15.25 | 15.28 | TCPF06- | 3.5P | 16.662 | 65 | 28 | - | 14 | 11 | 14 | 4 | 045 | ○ |
| 1/2-14 | II | 19 | 19.04 | TCPF08Q | 3.5P | 20.955 | 80 | 35 | - | 18 | 14 | 17 | 4 | 045 | ○ |
| 3/4-14 | II | 24.5 | 24.52 | TCPF12Q | 3.5P | 26.441 | 85 | 35 | - | 23 | 17 | 20 | 4 | 045 | ○ |
| 1 -11 | II | 30.75 | 30.77 | TCPF16U | 3.5P | 33.249 | 95 | 45 | - | 26 | 21 | 24 | 4 | 045 | ○ |

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# LS-N-CT




## MS Material Specific Series

Long Shank Carbide Taps

HF CARBIDE | 3P THCHT | 1.5P THCHT

**FEATURES**

Carbide long shank for extended overhang on blind and through hole application.

Specific design for Cast Iron and Brass application.

1.5P chamfer for blind hole application, 3P chamfer for through hole application.

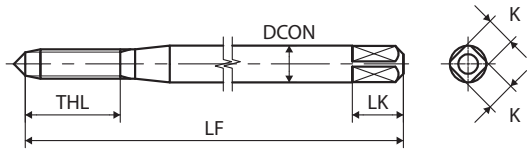
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷15 | ★ |
| K2 | 5÷15 | ★ |
| K3 | ≤10 | ☆ |
| K4 | ≤8 | ☆ |

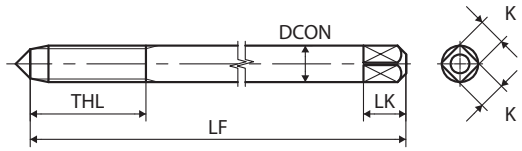
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷15 | ★ |
| N4 | 5÷15 | ★ |

★ 1st choice ☆ suitable

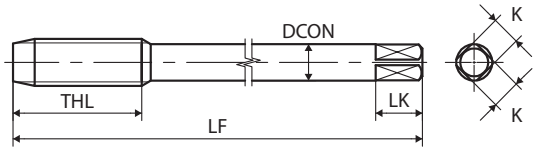
**TYPE: CT_005**




**TYPE: CT_008**




**TYPE: CT_011**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P3 | 2.5 | 2.56 | TY3.0GRAWB3E | 3P | 100 | 11 | - | - | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P3 | 2.5 | 2.56 | TY3.0GRAWBAE | 1.5P | 100 | 11 | - | - | 4 | 3.2 | 6 | 3 | 005 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | TY4.0IRAWB3E | 3P | 100 | 13 | - | - | 5 | 4 | 7 | 4 | 005 | ○ |
| | P3 | 3.3 | 3.38 | TY4.0IRAWBAE | 1.5P | 100 | 13 | - | - | 5 | 4 | 7 | 4 | 005 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | TY5.0KRAWB3E | 3P | 100 | 16 | - | - | 5.5 | 4.5 | 7 | 4 | 005 | ○ |
| | P3 | 4.2 | 4.28 | TY5.0KRAWBAE | 1.5P | 100 | 16 | - | - | 5.5 | 4.5 | 7 | 4 | 005 | ○ |
| M6X1 | P3 | 5 | 5.09 | TY6.0MRAWB3E | 3P | 100 | 19 | - | - | 6 | 4.5 | 7 | 4 | 008 | ○ |
| | P3 | 5 | 5.09 | TY6.0MRAWBAE | 1.5P | 100 | 19 | - | - | 6 | 4.5 | 7 | 4 | 008 | ○ |



Think threads with YAMAWA

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| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X1.25 | P3 | 6.8 | 6.85 | TY8.0NRAWB3E | 3P | 100 | 22 | - | - | 6.2 | 5 | 8 | 4 | 011 | ○ |
| | P3 | 6.8 | 6.85 | TY8.0NRAWB3G | 3P | 150 | 22 | - | - | 6.2 | 5 | 8 | 4 | 011 | ○ |
| | P3 | 6.8 | 6.85 | TY8.0NRAWBAE | 1.5P | 100 | 22 | - | - | 6.2 | 5 | 8 | 4 | 011 | ○ |
| | P3 | 6.8 | 6.85 | TY8.0NRAWBAG | 1.5P | 150 | 22 | - | - | 6.2 | 5 | 8 | 4 | 011 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | TY010ORAWB3E | 3P | 100 | 24 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| | P3 | 8.5 | 8.6 | TY010ORAWB3G | 3P | 150 | 24 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| | P3 | 8.5 | 8.6 | TY010ORAWBAE | 1.5P | 100 | 24 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| | P3 | 8.5 | 8.6 | TY010ORAWBAG | 1.5P | 150 | 24 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | TY012PSAWB3G | 3P | 150 | 30 | - | - | 8.5 | 6.5 | 9 | 4 | 011 | ○ |
| | P4 | 10.3 | 10.36 | TY012PSAWBAG | 1.5P | 150 | 30 | - | - | 8.5 | 6.5 | 9 | 4 | 011 | ○ |
| M14X2 | P4 | 12 | 12.12 | TY014QSAWB3G | 3P | 150 | 30 | - | - | 10.5 | 8 | 11 | 4 | 011 | ○ |
| | P4 | 12 | 12.12 | TY014QSAWBAG | 1.5P | 150 | 30 | - | - | 10.5 | 8 | 11 | 4 | 011 | ○ |
| M16X2 | P4 | 14 | 14.12 | TY016QSAWB3G | 3P | 150 | 30 | - | - | 12.5 | 10 | 13 | 4 | 011 | ○ |
| | P4 | 14 | 14.12 | TY016QSAWBAG | 1.5P | 150 | 30 | - | - | 12.5 | 10 | 13 | 4 | 011 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | TY018RSAWB3G | 3P | 150 | 35 | - | - | 14 | 11 | 14 | 4 | 011 | ○ |
| | P4 | 15.5 | 15.63 | TY018RSAWBAG | 1.5P | 150 | 35 | - | - | 14 | 11 | 14 | 4 | 011 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | TY020RSAWB3G | 3P | 150 | 35 | - | - | 15 | 12 | 15 | 4 | 011 | ○ |
| | P4 | 17.5 | 17.63 | TY020RSAWBAG | 1.5P | 150 | 35 | - | - | 15 | 12 | 15 | 4 | 011 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | TY022RSAWB3G | 3P | 150 | 35 | - | - | 17 | 13 | 16 | 4 | 011 | ○ |
| | P4 | 19.5 | 19.63 | TY022RSAWBAG | 1.5P | 150 | 35 | - | - | 17 | 13 | 16 | 4 | 011 | ○ |
| M24X3 | P4 | 21 | 21.13 | TY024SSAWB3G | 3P | 150 | 35 | - | - | 19 | 15 | 18 | 4 | 011 | ○ |
| | P4 | 21 | 21.13 | TY024SSAWBAG | 1.5P | 150 | 35 | - | - | 19 | 15 | 18 | 4 | 011 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | TY010NRAWB3E | 3P | 100 | 22 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| | P3 | 8.8 | 8.85 | TY010NRAWB3G | 3P | 150 | 22 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| | P3 | 8.8 | 8.85 | TY010NRAWBAE | 1.5P | 100 | 22 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| | P3 | 8.8 | 8.85 | TY010NRAWBAG | 1.5P | 150 | 22 | - | - | 7 | 5.5 | 8 | 4 | 011 | ○ |
| M12X1.5 | P4 | 10.5 | 10.6 | TY012OSAWB3G | 3P | 150 | 24 | - | - | 8.5 | 6.5 | 9 | 4 | 011 | ○ |
| | P4 | 10.5 | 10.6 | TY012OSAWBAG | 1.5P | 150 | 24 | - | - | 8.5 | 6.5 | 9 | 4 | 011 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | TY012NSAWB3G | 3P | 150 | 22 | - | - | 8.5 | 6.5 | 9 | 4 | 011 | ○ |
| | P4 | 10.8 | 10.85 | TY012NSAWBAG | 1.5P | 150 | 22 | - | - | 8.5 | 6.5 | 9 | 4 | 011 | ○ |
| M14X1.5 | P4 | 12.5 | 12.6 | TY014OSAWB3G | 3P | 150 | 24 | - | - | 10.5 | 8 | 11 | 4 | 011 | ○ |
| | P4 | 12.5 | 12.6 | TY014OSAWBAG | 1.5P | 150 | 24 | - | - | 10.5 | 8 | 11 | 4 | 011 | ○ |
| M16X1.5 | P4 | 14.5 | 14.6 | TY016OSAWB3G | 3P | 150 | 24 | - | - | 12.5 | 10 | 13 | 4 | 011 | ○ |
| | P4 | 14.5 | 14.6 | TY016OSAWBAG | 1.5P | 150 | 24 | - | - | 12.5 | 10 | 13 | 4 | 011 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | TY018OSAWB3G | 3P | 150 | 24 | - | - | 14 | 11 | 14 | 4 | 011 | ○ |
| | P4 | 16.5 | 16.6 | TY018OSAWBAG | 1.5P | 150 | 24 | - | - | 14 | 11 | 14 | 4 | 011 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | TY020OSAWB3G | 3P | 150 | 24 | - | - | 15 | 12 | 15 | 4 | 011 | ○ |
| | P4 | 18.5 | 18.6 | TY020OSAWBAG | 1.5P | 150 | 24 | - | - | 15 | 12 | 15 | 4 | 011 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | TY022OSAWB3G | 3P | 150 | 24 | - | - | 17 | 13 | 16 | 4 | 011 | ○ |
| | P4 | 20.5 | 20.6 | TY022OSAWBAG | 1.5P | 150 | 24 | - | - | 17 | 13 | 16 | 4 | 011 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | TY024OSAWB3G | 3P | 150 | 24 | - | - | 19 | 15 | 18 | 4 | 011 | ○ |
| | P4 | 22.5 | 22.6 | TY024OSAWBAG | 1.5P | 150 | 24 | - | - | 19 | 15 | 18 | 4 | 011 | ○ |

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# N-CT-SP




## MS Material Specific Series

Carbide Taps Spiral Fluted for Non-Ferrous Materials

HF CARBIDE



2.5P THCHT

**FEATURES**

Carbide low spiral fluted for blind hole application.

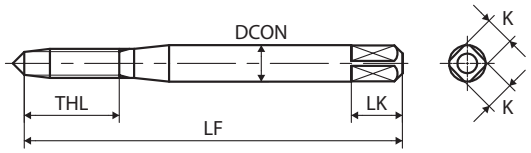
Specific design for Aluminium casting, Aluminium die-casting and other non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

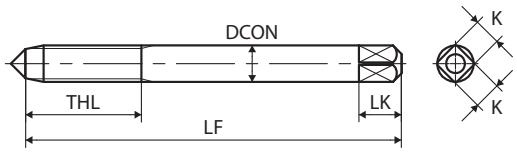
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷20 ★ |
| N2 | 10÷20 ★ |
| N4 | 10÷20 ★ |

★ 1st choice ☆ suitable

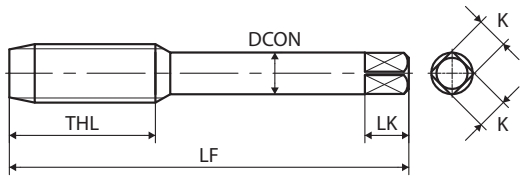
**TYPE: CT_001**




**TYPE: CT_004**




**TYPE: CT_007**






Think threads with YAMAWA

IMROBEX Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P3 | 2.5 | 2.56 | SY3.0GRKWB | 2.5P | 46 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | SY4.0IRKWB | 2.5P | 52 | 13 | - | - | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | SY5.0KRKWB | 2.5P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P3 | 5 | 5.09 | SY6.0MRKWB | 2.5P | 62 | 19 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | SY8.0NRKWB | 2.5P | 70 | 22 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | SY010ORKWB | 2.5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | SY012PSKWB | 2.5P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M14X2 | P4 | 12 | 12.12 | SY014QSKWB | 2.5P | 88 | 30 | - | - | 10.5 | 8 | 11 | 3 | 007 | ○ |
| M16X2 | P4 | 14 | 14.12 | SY016QSKWB | 2.5P | 95 | 30 | - | - | 12.5 | 10 | 13 | 3 | 007 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | SY018RSKWB | 2.5P | 100 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | SY020RSKWB | 2.5P | 105 | 35 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | SY010NRKWB | 2.5P | 75 | 22 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| M12X1.5 | P4 | 10.5 | 10.6 | SY012OSKWB | 2.5P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | SY012NSKWB | 2.5P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M14X1.5 | P4 | 12.5 | 12.6 | SY014OSKWB | 2.5P | 88 | 24 | - | - | 10.5 | 8 | 11 | 3 | 007 | ○ |
| M16X1.5 | P4 | 14.5 | 14.6 | SY016OSKWB | 2.5P | 95 | 24 | - | - | 12.5 | 10 | 13 | 3 | 007 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | SY018OSKWB | 2.5P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | SY020OSKWB | 2.5P | 95 | 24 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |

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Technical info

# N-CT-PO




## MS Material Specific Series

Carbide Taps Spiral Pointed for Non-Ferrous Materials

HF CARBIDE



5P THCHT

**FEATURES**

Carbide for through hole application.

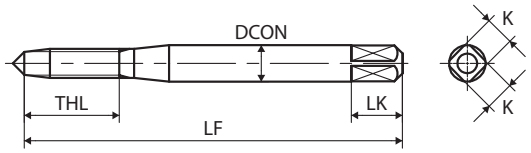
Specific design for Aluminium casting, Aluminium die-casting and other non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

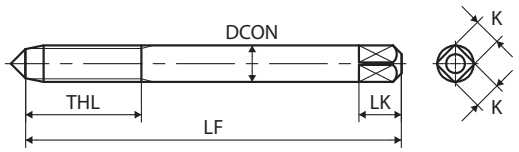
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷20 ★ |
| N2 | 10÷20 ★ |
| N4 | 10÷20 ★ |

★ 1st choice ☆ suitable

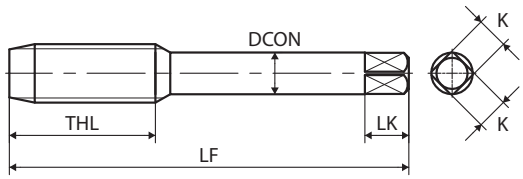
**TYPE: CT_001**




**TYPE: CT_004**




**TYPE: CT_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M3X0.5** | P3 | 2.5 | 2.56 | PCNR3.0G | 5P | 46 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| **M4X0.7** | P3 | 3.3 | 3.38 | PCNR4.0I | 5P | 52 | 13 | - | - | 5 | 4 | 7 | 3 | 001 | ○ |
| **M5X0.8** | P3 | 4.2 | 4.28 | PCNR5.0K | 5P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **M6X1** | P3 | 5 | 5.09 | PCNR6.0M | 5P | 62 | 19 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| **M8X1.25** | P3 | 6.8 | 6.85 | PCNR8.0N | 5P | 70 | 22 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| **M10X1.5** | P4 | 8.5 | 8.6 | PCNS0100 | 5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| **M12X1.75** | P4 | 10.3 | 10.36 | PCNS012P | 5P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
JIS
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# N-CT LA

## MS Material Specific Series

Carbide Taps for Light Alloys







**FEATURES**

Carbide for blind and through hole application.

Specific design for Aluminium casting, Aluminium die-casting and other non-ferrous materials.

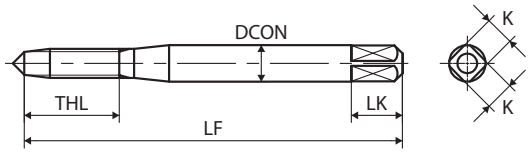
1.5P chamfer for blind hole application, 3P chamfer for through hole application.

**Recommended Tapping Speeds Depending On Materials**

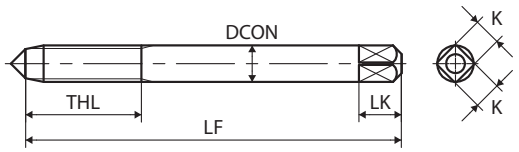
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷20 ★ |
| N2 | 10÷20 ★ |
| N4 | 10÷20 ★ |

★ 1st choice ☆ suitable

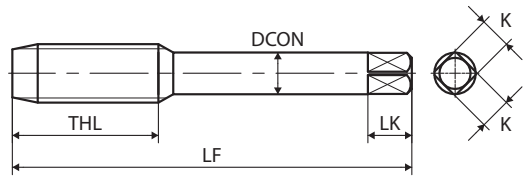
**TYPE: CT_001**




**TYPE: CT_004**




**TYPE: CT_007**






Think threads with YAMAWA

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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M1.4X0.3 | P3 | 1.1 | 1.13 | TCNR1.4C3A | 3P | 34 | 7 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.1 | 1.13 | TCNR1.4C1A | 1.5P | 34 | 7 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M1.6X0.35 | P3 | 1.25 | 1.3 | TCNR1.6D3A | 3P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.25 | 1.3 | TCNR1.6D1A | 1.5P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M1.7X0.35 | P3 | 1.35 | 1.4 | TCNR1.7D3A | 3P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.35 | 1.4 | TCNR1.7D1A | 1.5P | 36 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2X0.4 | P3 | 1.6 | 1.65 | TCNR2.0E3A | 3P | 40 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.6 | 1.65 | TCNR2.0E1A | 1.5P | 40 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.2X0.45 | P3 | 1.75 | 1.81 | TCNR2.2F3A | 3P | 42 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.75 | 1.81 | TCNR2.2F1A | 1.5P | 42 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.3X0.4 | P3 | 1.9 | 1.95 | TCNR2.3E3A | 3P | 42 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 1.9 | 1.95 | TCNR2.3E1A | 1.5P | 42 | 8 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.5X0.45 | P3 | 2.1 | 2.11 | TCNR2.5F3A | 3P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 2.1 | 2.11 | TCNR2.5F1A | 1.5P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M2.6X0.45 | P3 | 2.2 | 2.21 | TCNR2.6F3A | 3P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| | P3 | 2.2 | 2.21 | TCNR2.6F1A | 1.5P | 44 | 9.5 | - | - | 3 | 2.5 | 5 | 3 | 001 | ○ |
| M3X0.5 | P3 | 2.5 | 2.56 | TCNR3.0G3A | 3P | 46 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.5 | 2.56 | TCNR3.0G1A | 1.5P | 46 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M3.5X0.6 | P3 | 2.9 | 2.97 | TCNR3.5H3A | 3P | 48 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| | P3 | 2.9 | 2.97 | TCNR3.5H1A | 1.5P | 48 | 11 | - | - | 4 | 3.2 | 6 | 3 | 001 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | TCNR4.0I3A | 3P | 52 | 13 | - | - | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3 | 3.3 | 3.38 | TCNR4.0I1A | 1.5P | 52 | 13 | - | - | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | TCNR5.0K3A | 3P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 4.2 | 4.28 | TCNR5.0K1A | 1.5P | 60 | 16 | - | - | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X1 | P3 | 5 | 5.09 | TCNR6.0M3A | 3P | 62 | 19 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| | P3 | 5 | 5.09 | TCNR6.0M1A | 1.5P | 62 | 19 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| M7X1 | P3 | 6 | 6.09 | TCNR7.0M3A | 3P | 65 | 19 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P3 | 6 | 6.09 | TCNR7.0M1A | 1.5P | 65 | 19 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | TCNR8.0N3A | 3P | 70 | 22 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P3 | 6.8 | 6.85 | TCNR8.0N1A | 1.5P | 70 | 22 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P4 | 6.8 | 6.85 | TCNS8.0N3A | 3P | 70 | 22 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P4 | 6.8 | 6.85 | TCNS8.0N1A | 1.5P | 70 | 22 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | TCNR0100 3A | 3P | 75 | 24 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P3 | 8.5 | 8.6 | TCNR01001A | 1.5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P4 | 8.5 | 8.6 | TCNS0100 3A | 3P | 75 | 24 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P4 | 8.5 | 8.6 | TCNS01001A | 1.5P | 75 | 24 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| M12X1.75 | P3 | 10.3 | 10.36 | TCNR012P3A | 3P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P3 | 10.3 | 10.36 | TCNR012P1A | 1.5P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P4 | 10.3 | 10.36 | TCNS012P3A | 3P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P4 | 10.3 | 10.36 | TCNS012P1A | 1.5P | 82 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M14X2 | P3 | 12 | 12.12 | TCNR014Q3A | 3P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 12 | 12.12 | TCNR014Q1A | 1.5P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12 | 12.12 | TCNS014Q3A | 3P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12 | 12.12 | TCNS014Q1A | 1.5P | 88 | 30 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| M16X2 | P4 | 14 | 14.12 | TCNS016Q3A | 3P | 95 | 30 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 14 | 14.12 | TCNS016Q1A | 1.5P | 95 | 30 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M18X2.5 | P4 | 15.5 | 15.63 | TCNS018R3A | 3P | 100 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| | P4 | 15.5 | 15.63 | TCNS018R1A | 1.5P | 100 | 35 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | TCNS020R3A | 3P | 105 | 35 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |
| | P4 | 17.5 | 17.63 | TCNS020R1A | 1.5P | 105 | 35 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M4X0.5 | P3 | 3.5 | 3.56 | TCNR4.0G3A | 3P | 52 | 11 | - | - | 5 | 4 | 7 | 3 | 001 | ○ |
| | P3 | 3.5 | 3.56 | TCNR4.0G1A | 1.5P | 52 | 11 | - | - | 5 | 4 | 7 | 3 | 001 | ○ |
| M5X0.5 | P3 | 4.5 | 4.56 | TCNR5.0G3A | 3P | 52 | 11 | - | - | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | P3 | 4.5 | 4.56 | TCNR5.0G1A | 1.5P | 52 | 11 | - | - | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| M6X0.75 | P3 | 5.3 | 5.33 | TCNR6.0J3A | 3P | 62 | 13 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| | P3 | 5.3 | 5.33 | TCNR6.0J1A | 1.5P | 62 | 13 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| M6X0.5 | P3 | 5.5 | 5.56 | TCNR6.0G3A | 3P | 55 | 11 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| | P3 | 5.5 | 5.56 | TCNR6.0G1A | 1.5P | 55 | 11 | - | - | 6 | 4.5 | 7 | 3 | 004 | ○ |
| M7X0.75 | P3 | 6.3 | 6.33 | TCNR7.0J3A | 3P | 62 | 13 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P3 | 6.3 | 6.33 | TCNR7.0J1A | 1.5P | 62 | 13 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M8X1 | P3 | 7 | 7.09 | TCNR8.0M3A | 3P | 70 | 19 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P3 | 7 | 7.09 | TCNR8.0M1A | 1.5P | 70 | 19 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M8X0.75 | P3 | 7.3 | 7.33 | TCNR8.0J3A | 3P | 62 | 13 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| | P3 | 7.3 | 7.33 | TCNR8.0J1A | 1.5P | 62 | 13 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | TCNR010N3A | 3P | 75 | 22 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P3 | 8.8 | 8.85 | TCNR010N1A | 1.5P | 75 | 22 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P4 | 8.8 | 8.85 | TCNS010N3A | 3P | 75 | 22 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P4 | 8.8 | 8.85 | TCNS010N1A | 1.5P | 75 | 22 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| M10X1 | P3 | 9 | 9.09 | TCNR010M3A | 3P | 70 | 19 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P3 | 9 | 9.09 | TCNR010M1A | 1.5P | 70 | 19 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P4 | 9 | 9.09 | TCNS010M3A | 3P | 70 | 19 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| | P4 | 9 | 9.09 | TCNS010M1A | 1.5P | 70 | 19 | - | - | 7 | 5.5 | 8 | 3 | 007 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | TCNR01203A | 3P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P3 | 10.5 | 10.6 | TCNR01201A | 1.5P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P4 | 10.5 | 10.6 | TCNS01203A | 3P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P4 | 10.5 | 10.6 | TCNS01201A | 1.5P | 82 | 24 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M12X1.25 | P3 | 10.8 | 10.85 | TCNR012N3A | 3P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P3 | 10.8 | 10.85 | TCNR012N1A | 1.5P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P4 | 10.8 | 10.85 | TCNS012N3A | 3P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P4 | 10.8 | 10.85 | TCNS012N1A | 1.5P | 80 | 22 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M12X1 | P3 | 11 | 11.09 | TCNR012M3A | 3P | 70 | 19 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| | P3 | 11 | 11.09 | TCNR012M1A | 1.5P | 70 | 19 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | TCNR01403A | 3P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 12.5 | 12.6 | TCNR01401A | 1.5P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12.5 | 12.6 | TCNS01403A | 3P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 12.5 | 12.6 | TCNS01401A | 1.5P | 88 | 24 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| M14X1.25 | P3 | 12.8 | 12.85 | TCNR014N3A | 3P | 88 | 22 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 12.8 | 12.85 | TCNR014N1A | 1.5P | 88 | 22 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |



Think threads with YAMAWA

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Machine Tools International

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M14X1 | P3 | 13 | 13.09 | TCNR014M3A | 3P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P3 | 13 | 13.09 | TCNR014M1A | 1.5P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 13 | 13.09 | TCNS014M3A | 3P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| | P4 | 13 | 13.09 | TCNS014M1A | 1.5P | 70 | 19 | - | - | 10.5 | 8 | 11 | 4 | 007 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | TCNR01603A | 3P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P3 | 14.5 | 14.6 | TCNR01601A | 1.5P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 14.5 | 14.6 | TCNS01603A | 3P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P4 | 14.5 | 14.6 | TCNS01601A | 1.5P | 95 | 24 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| M16X1 | P3 | 15 | 15.09 | TCNR016M3A | 3P | 75 | 19 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| | P3 | 15 | 15.09 | TCNR016M1A | 1.5P | 75 | 19 | - | - | 12.5 | 10 | 13 | 4 | 007 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | TCNS01803A | 3P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| | P4 | 16.5 | 16.6 | TCNS01801A | 1.5P | 95 | 24 | - | - | 14 | 11 | 14 | 4 | 007 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | TCNS02003A | 3P | 95 | 24 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |
| | P4 | 18.5 | 18.6 | TCNS02001A | 1.5P | 95 | 24 | - | - | 15 | 12 | 15 | 4 | 007 | ○ |

# MC-AD-CT




## MS Material Specific Series

Carbide Taps with Axial Coolant Hole, Coated




**FEATURES**

Carbide taps with axial oil hole and 1.5P chamfer for blind hole application.

For mass production on alluminium die-cast parts such as cylinder blockhead, transmission case and manifold water-pump.

Suitable coating for long life even at higher speed.

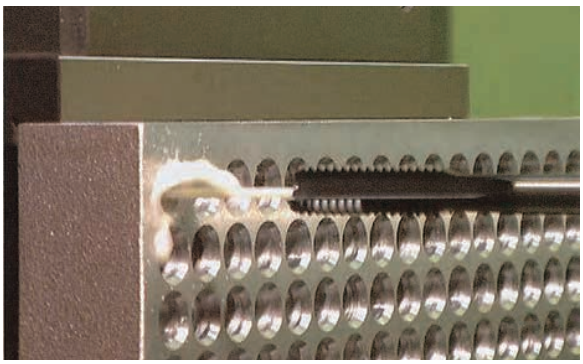
### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 30÷60 | ★ |
| N2 | 30÷60 | ★ |
| N4 | 30÷60 | ★ |

★ 1st choice ☆ suitable

### Process Data

| | |
|---|---|
| Part name | Cylinder block |
| Material | G-AlSi6Cu4 |
| Size | M6x1 |
| Hole shape | Blind |
| Hole depth | 14 mm |
| Thread length | 12 mm |
| Machine | MC |
| Direction | Horizontal |
| Feed | Synchronized feed |
| Tapping speed | 57 m/min |
| Lubricant | Water soluble oil |
| Tool life | 240.000 holes |

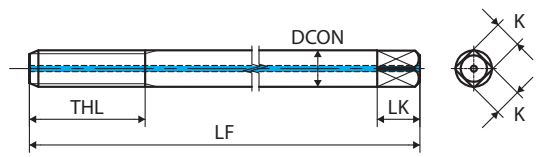




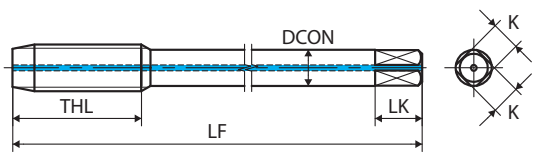
Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: CT_014**




**TYPE: CT_003**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M6X1** | P3 | 5 | 5.09 | MCADR6.0M1 | 1.5P | 100 | 19 | - | - | 6 | 4.5 | 7 | 3 | 014 | O |
| **M8X1.25** | P3 | 6.8 | 6.85 | MCADR8.0N1 | 1.5P | 100 | 22 | - | - | 6.2 | 5 | 8 | 3 | 003 | O |
| **M10X1.5** | P4 | 8.5 | 8.6 | MCADS010O1 | 1.5P | 100 | 24 | - | - | 7 | 5.5 | 8 | 3 | 003 | O |
| **M12X1.75** | P4 | 10.3 | 10.36 | MCADS012P1 | 1.5P | 100 | 30 | - | - | 8.5 | 6.5 | 9 | 3 | 003 | O |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M10X1.25** | P4 | 8.8 | 8.85 | MCADS010N1 | 1.5P | 100 | 22 | - | - | 7 | 5.5 | 8 | 3 | 003 | O |
| **M10X1** | P4 | 9 | 9.09 | MCADS010M1 | 1.5P | 100 | 19 | - | - | 7 | 5.5 | 8 | 3 | 003 | O |
| **M12X1.5** | P4 | 10.5 | 10.6 | MCADS012O1 | 1.5P | 100 | 24 | - | - | 8.5 | 6.5 | 9 | 3 | 003 | O |
| **M12X1.25** | P4 | 10.8 | 10.85 | MCADS012N1 | 1.5P | 100 | 22 | - | - | 8.5 | 6.5 | 9 | 3 | 003 | O |

# ACHSP




## MS Material Specific Series

Carbide Taps Spiral Fluted with Axial Coolant Hole for Cored Holes in Aluminium, Coated

HF CARBIDE | COATING | SYNCHRO | 2.5P THCHT

**FEATURES**

Material Specific Carbide tap Series for Aluminium tapping.

For tapping irregular cored holes thanks to the frontal cutting edge.

Ideal for tapping cored holes in a variety of Aluminium components like: Engine Block, Cylinder Head, Transmission Case, Manifold, Water Pump, etc.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) |
|---|---|
| N2 | 30÷50 ★ |

★ 1st choice ☆ suitable

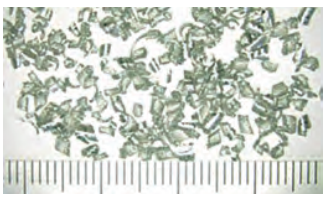
WATCH THE VIDEO

**Process Data**

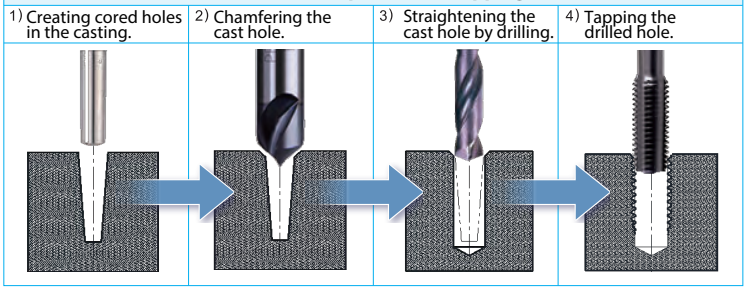
Reinforced shank diameter improves rigidity, deflection resistance, and side pressure caused by misalignment.
Max allowed misalignment: M6, M8 = 0.3mm - M10 = 0.5mm

| | | |
|---|---|---|
| Thread size | | M8x1.25 |
| Work-material | | G-AlSi12 |
| Cutting Speed | | 50 m/min |
| Hole condition | Minimum diameter size | ø5.8 mm |
| | Taper angle | 2° |
| | Tapping depth | 22 mm |
| | Hole type | Blind |
| Internal thread length | | 17 mm |
| Misalignment | | +0.5 mm |
| Feed | | Synchronous |
| Machine | | M/C (horizontal) |
| Lubricant | | Water soluble oil |

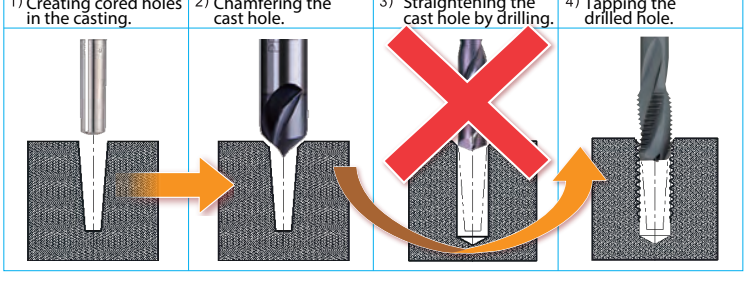




**Conventional process for tapping**




**Tapping process with ACHSP**

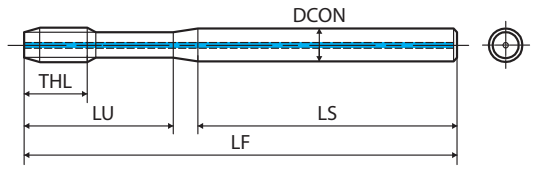





Think threads with YAMAWA

IMROBEX Machine Tools International

**TYPE: CT_025**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M6X1** | P3 | 5 | 5.09 | SY6.0MRLXT | 2.5P | 80 | 12 | 27 | 48 | 6 | - | - | 3 | 025 | ○ |
| **M8X1.25** | P4 | 6.8 | 6.85 | SY8.0NSLXT | 2.5P | 90 | 15 | 30 | 54 | 8 | - | - | 3 | 025 | ○ |
| **M10X1.5** | P4 | 8.5 | 8.6 | SY0100SLXT | 2.5P | 100 | 18 | 36 | 57 | 10 | - | - | 3 | 025 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M10X1.25** | P4 | 8.8 | 8.85 | SY010NSLXT | 2.5P | 100 | 18 | 36 | 57 | 10 | - | - | 3 | 025 | ○ |

# HFICT-B




## HS High Speed Series

Carbide Taps with Axial Coolant Hole for Cast Iron Ultra Fast Tapping, Coated

HF CARBIDE | COATING | SYNCHRO | 2.5P THCHT

**FEATURES**

Carbide Ultra High Speed taps with axial oil hole for blind hole application.

Specific design, ultra fine micrograin, suitable coating for long and stable tool life on Cast Iron application.

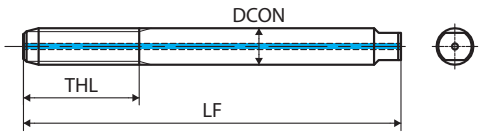
For Synchro-rigid tapping system.

**Recommended Tapping Speeds Depending On Materials**

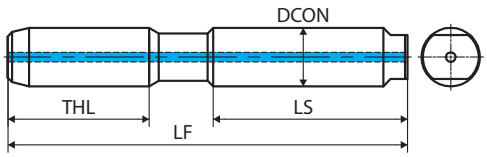
| ISO | Vc (m/min) |
|---|---|
| K1 | 25÷50 ★ |
| K2 | 25÷50 ★ |

★ 1st choice ☆ suitable

**TYPE: CT_017**




**TYPE: CT_024**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | P3 | 5 | 5.09 | HFICTBR6.0M | 2.5P | 62 | 19 | - | - | 6 | - | - | 4 | 017 | ● |
| M8X1.25 | P3 | 6.8 | 6.85 | HFICTBR8.0N | 2.5P | 70 | 22 | - | 36 | 8 | - | - | 4 | 024 | ● |
| M10X1.5 | P3 | 8.5 | 8.6 | HFICTBR010O | 2.5P | 75 | 24 | - | 37 | 10 | - | - | 4 | 024 | ● |
| M12X1.75 | P3 | 10.3 | 10.36 | HFICTBR012P | 2.5P | 82 | 29 | - | 40 | 12 | - | - | 4 | 024 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | HFICTBR010N | 2.5P | 75 | 24 | - | 37 | 10 | - | - | 4 | 024 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | HFICTBR012O | 2.5P | 82 | 29 | - | 40 | 12 | - | - | 4 | 024 | ○ |
| M12X1.25 | P3 | 10.8 | 10.85 | HFICTBR012N | 2.5P | 82 | 29 | - | 40 | 12 | - | - | 4 | 024 | ○ |



Think threads with YAMAWA

IMROBEX Machine Tools International

# HFICT-P




## HS High Speed Series

Carbide Taps with Radial Coolant Holes for Cast Iron Ultra Fast Tapping, Coated




**FEATURES**

Carbide Ultra High Speed taps with radial oil holes for through hole application.

Specific design, ultra fine micrograin, suitable coating for long and stable tool life on Cast Iron application.

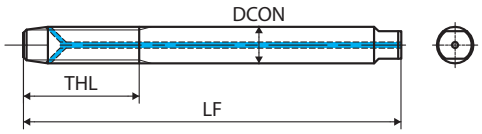
For Synchro-rigid tapping system.

**Recommended Tapping Speeds Depending On Materials**

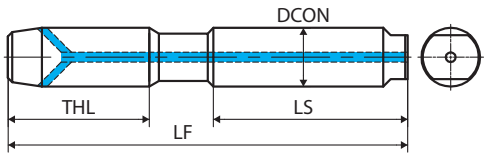
| ISO | Vc (m/min) |
|---|---|
| K1 | 25÷50 ★ |
| K2 | 25÷50 ★ |

★ 1st choice ☆ suitable

**TYPE: CT_021**




**TYPE: CT_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M6X1** | P3 | 5 | 5.09 | HFICTPR6.0M | 4P | 62 | 19 | - | - | 6 | - | - | 4 | 021 | ○ |
| **M8X1.25** | P3 | 6.8 | 6.85 | HFICTPR8.0N | 4P | 70 | 22 | - | 36 | 8 | - | - | 4 | 023 | ○ |
| **M10X1.5** | P3 | 8.5 | 8.6 | HFICTPR010O | 4P | 75 | 24 | - | 37 | 10 | - | - | 4 | 023 | ○ |
| **M12X1.75** | P3 | 10.3 | 10.36 | HFICTPR012P | 4P | 82 | 29 | - | 40 | 12 | - | - | 4 | 023 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M10X1.25** | P3 | 8.8 | 8.85 | HFICTPR010N | 4P | 75 | 24 | - | 37 | 10 | - | - | 4 | 023 | ○ |
| **M12X1.5** | P3 | 10.5 | 10.6 | HFICTPR012O | 4P | 82 | 29 | - | 40 | 12 | - | - | 4 | 023 | ○ |
| **M12X1.25** | P3 | 10.8 | 10.85 | HFICTPR012N | 4P | 82 | 29 | - | 40 | 12 | - | - | 4 | 023 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
JIS
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HFACT-B




## HS High Speed Series

Carbide Taps with Axial Coolant Hole for Non-Ferrous Materials Ultra Fast Tapping, Coated




**FEATURES**

Carbide Ultra High Speed taps with axial oil hole for blind hole application.

Specific design, ultra fine micrograin, suitable coating for long and stable tool life on Aluminium casting and Aluminium die-casting.

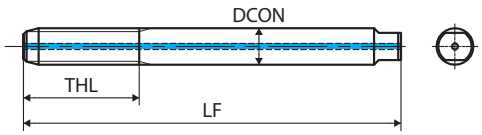
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**Recommended Tapping Speeds Depending On Materials**

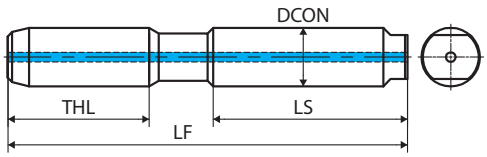
| ISO | Vc (m/min) |
|---|---|
| N1 | 30÷100 ★ |
| N2 | 30÷100 ★ |
| N4 | 30÷100 ★ |

★ 1st choice ☆ suitable

**TYPE: CT_017**




**TYPE: CT_024**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | P3 | 5 | 5.09 | HFACTBR6.0M | 2.5P | 62 | 19 | - | - | 6 | - | - | 3 | 017 | ○ |
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| M12X1.75 | P3 | 10.3 | 10.36 | HFACTBR012P | 2.5P | 82 | 29 | - | 40 | 12 | - | - | 3 | 024 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
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| M12X1.25 | P3 | 10.8 | 10.85 | HFACTBR012N | 2.5P | 82 | 29 | - | 40 | 12 | - | - | 3 | 024 | ○ |



Think threads with YAMAWA

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Machine Tools International

# HFACT-P




## HS High Speed Series

Carbide Taps with Radial Coolant Holes for Non-Ferrous Materials Ultra Fast Tapping, Coated




**FEATURES**

Carbide Ultra High Speed taps with radial oil holes for through hole application.

Specific design, ultra fine micrograin, suitable coating for long and stable tool life on Aluminium casting and Aluminium die-casting.

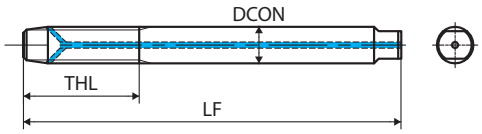
For Synchro-rigid tapping system.

**Recommended Tapping Speeds Depending On Materials**

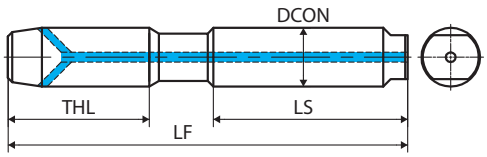
| ISO | Vc (m/min) |
|---|---|
| N1 | 30÷100 ★ |
| N2 | 30÷100 ★ |
| N4 | 30÷100 ★ |

★ 1st choice ☆ suitable

**TYPE: CT_021**




**TYPE: CT_023**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
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| **M10X1.5** | P3 | 8.5 | 8.6 | HFACTPR010O | 4P | 75 | 24 | - | 37 | 10 | - | - | 3 | 023 | ○ |
| **M12X1.75** | P3 | 10.3 | 10.36 | HFACTPR012P | 4P | 82 | 29 | - | 40 | 12 | - | - | 3 | 023 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M10X1.25** | P3 | 8.8 | 8.85 | HFACTPR010N | 4P | 75 | 24 | - | 37 | 10 | - | - | 3 | 023 | ○ |
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| **M12X1.25** | P3 | 10.8 | 10.85 | HFACTPR012N | 4P | 82 | 29 | - | 40 | 12 | - | - | 3 | 023 | ○ |

MEMO

# LONG TAPS



LONG - JIS **420**

IMROBEX
Machine Tools International

# Selection Chart

| | | GP | | | | | | MS | |
|---|---|---|---|---|---|---|---|---|---|
| | VUSP (LS) | LS-SP | LS-SP-PF | LS-SP-K | LS-SP LH | LS-SP V | MC-SP | LS-PM-SP | VUPO (LS) |
| | HSS-P COATING | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E COATING | HSS-E | HSS-P | HSS-P COATING |
| |  |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |  |
| | JIS | JIS | JIS | JIS | JIS | JIS | JIS | JIS | JIS |
| M | 423 | 425 | | 431 | 432 | 433 | 434 | 437 | 441 |
| MF | 423 | 426 | | | 432 | 433 | 435 | 437 | 441 |
| UNC/UNF | | 427 | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | | |
| UNEF | | | | | | | | | |
| G (BSP) | | | 430 | | | | | | |
| Rp (BSPP) | | | | | | | | | |
| Rc (BSPT) | | | | | | | | | |
| NPT | | | | | | | | | |
| NPTF | | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | | |
| BSW | | 428 | | | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | | | |
| Pg | | | | | | | | | |
| Tr | | | | | | | | | |
| S miniature | | | | | | | | | |
| Special threads | | | | | | | | | |
| P1 | ★ 10÷25 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ★ 10÷20 | ☆ 5÷10 | | ★ 10÷30 |
| P2 | ★ 10÷25 | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | ★ 10÷20 | ★ 5÷10 | | ★ 10÷30 |
| P3 | ★ 10÷25 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ★ 10÷20 | ☆ 5÷10 | ☆ 2÷10 | ★ 10÷30 |
| P4 | ★ 10÷20 | ☆ 5÷8 | ☆ 5÷10 | ☆ 5÷8 | ☆ 5÷8 | ★ 10÷15 | ☆ 5÷8 | ★ 2÷7 | ★ 10÷25 |
| P5 | | | | | | | | ★ 2÷7 | |
| P6 | | | | | | | | ★ 2÷5 | |
| P7 | ★ 5÷15 | | | | | ☆ 6÷12 | | | ★ 5÷15 |
| P8 | | | | | | | | | |
| M1 | ★ 5÷15 | | | | | ☆ 6÷12 | | | ★ 5÷15 |
| M2 | ☆ 5÷10 | | | | | | | | ☆ 5÷10 |
| M3 | | | | | | | | | |
| K1 | | | | | | | | | ☆ 10÷20 |
| K2 | ☆ 10÷20 | | | | | | | | ☆ 10÷20 |
| K3 | | | | | | | | | |
| K4 | | | | | | | | | |
| N1 | ★ 10÷30 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 10÷20 | ☆ 5÷10 | | ★ 10÷40 |
| N2 | ★ 10÷30 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 10÷20 | ☆ 5÷10 | | ★ 10÷40 |
| N3 | ☆ 10÷25 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 10÷20 | ☆ 5÷10 | | ☆ 10÷25 |
| N4 | ☆ 10÷20 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ 10÷20 | ☆ 5÷10 | | ☆ 10÷20 |
| N5 | | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | | |
| S5 | | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | | |

★ 1st choice ☆ suitable



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GP

| | LS-HT | LS-PF | LS-PS | LS-PT | LS-NPT | LS-NPTF | LS-HT LH | LS-HT V |
|---|---|---|---|---|---|---|---|---|
| | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E COATING |
| |  |  |  |  |  |  |  |  |
| | JIS | JIS | JIS | JIS | JIS | JIS | JIS | JIS |
| M | 457 | | | | | | 475 | 479 |
| MF | 461 | | | | | | 476 | 479 |
| UNC/UNF | 465 | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | |
| UNEF | | | | | | | | |
| G (BSP) | | 468 | | | | | | |
| Rp (BSPP) | | | 469 | | | | | |
| Rc (BSPT) | | | | 471 | | | | |
| NPT | | | | | 472 | | | |
| NPTF | | | | | | 473 | | |
| NPSC, NPSM, NPSF | | | | | | | | |
| BSW | 467 | | | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | | |
| Pg | | | | | | | | |
| Tr | | | | | | | | |
| S miniature | | | | | | | | |
| Special threads | | | | | | | | |

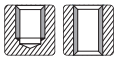
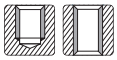
| | Vc (m/min) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| P1 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | |
| P2 | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | ★ ≤5 | ★ ≤5 | ★ ≤5 | ★ 5÷10 | ★ 10÷20 |
| P3 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ★ 10÷20 |
| P4 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 8÷15 |
| P5 | | | | | | | | |
| P6 | | | | | | | | |
| P7 | | | | | | | | |
| P8 | | | | | | | | |
| M1 | | | | | | | | |
| M2 | | | | | | | | |
| M3 | | | | | | | | |
| K1 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 8÷15 |
| K2 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 8÷15 |
| K3 | ☆ 5÷10 | ☆ 5÷10 | | | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 8÷15 |
| K4 | | | | | | | | |
| N1 | | | | | | | | |
| N2 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 10÷20 |
| N3 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 10÷20 |
| N4 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 | ☆ 5÷10 | ☆ 10÷20 |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | |
| S5 | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

| | | GP | | GP | |
|---|---|---|---|---|---|
| VUSP (LS) | VUPO (LS) | MC-HT | MHRZ (LS) | LS-N-RZ | LS-N-RS |
| HSS-P COATING | HSS-P COATING | HSS-E | HSS-Co COATING | HSS-E OX | HSS-E NI |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| JIS | JIS | JIS | JIS | JIS | JIS |
| 423 | 441 | 481 | 485 | 487 | 489 |
| 423 | 441 | 482 | 485 | 487 | 489 |
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| | | | | | |
| Vc (m/min) | | | | | |
| ★ 10÷25 | ★ 10÷30 | ☆ 5÷10 | | ★ 5÷15 | |
| ★ 10÷25 | ★ 10÷30 | ★ 5÷10 | ★ 10÷30 | ★ 5÷10 | |
| ★ 10÷25 | ★ 10÷30 | ☆ 5÷10 | ★ 10÷30 | | |
| ★ 10÷20 | ★ 10÷25 | ☆ 5÷10 | ★ 10÷30 | | |
| | | | | | |
| | | | | | |
| ★ 5÷15 | ★ 5÷15 | | | | |
| | | | | | |
| ★ 5÷15 | ★ 5÷15 | | | | |
| ☆ 5÷10 | ☆ 5÷10 | | | | |
| | | | | | |
| | ☆ 10÷20 | ☆ 5÷10 | | | |
| ☆ 10÷20 | ☆ 10÷20 | ☆ 5÷10 | | | |
| | | ☆ 5÷10 | | | |
| | | | | | |
| ★ 10÷30 | ★ 10÷40 | | ☆ 10÷30 | | ★ 5÷15 |
| ★ 10÷30 | ★ 10÷40 | ☆ 5÷10 | ☆ 10÷30 | | ★ 5÷15 |
| ☆ 10÷25 | ☆ 10÷25 | ☆ 5÷10 | | | ★ 5÷15 |
| ☆ 10÷20 | ☆ 10÷20 | ☆ 5÷10 | | | |
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Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# VUSP (LS)




## Z-PRO Series

Long Shank HSSP Spiral Fluted Taps, Coated

HSS-P | COATING | 2.5P THCHT

**FEATURES**

Long shank for extended overhang on a wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 10÷25 | ★ |
| P2 | 10÷25 | ★ |
| P3 | 10÷25 | ★ |
| P4 | 10÷20 | ★ |
| P7 | 5÷15 | ★ |

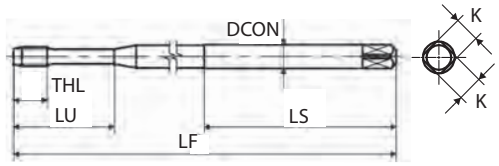
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 5÷15 | ★ |
| M2 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K2 | 10÷20 | ☆ |

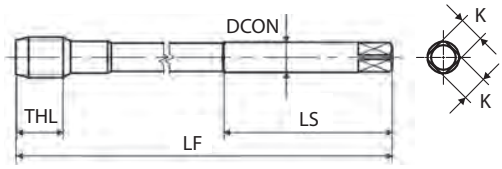
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷30 | ★ |
| N2 | 10÷30 | ★ |
| N3 | 10÷25 | ☆ |
| N4 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

**TYPE: VU_010**




**TYPE: VU_011**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P2 | 2.5 | 2.56 | 2101101035 | 2.5P | 100 | 5 | 18 | 40 | 4 | 3.2 | 6 | 3 | 010 | ● |
| M4X0.7 | P2 | 3.3 | 3.38 | 2101101042 | 2.5P | 100 | 7 | 21 | 40 | 5 | 4 | 7 | 3 | 010 | ● |
| M5X0.8 | P2 | 4.2 | 4.28 | 2101101049 | 2.5P | 100 | 9 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 010 | ● |
| M6X1 | P2 | 5 | 5.09 | 2101101055 | 2.5P | 100 | 11 | 30 | 40 | 6 | 4.5 | 7 | 3 | 010 | ● |
| M8X1.25 | P3 | 6.8 | 6.85 | 2101101064 | 2.5P | 150 | 12 | - | 50 | 6.2 | 5 | 8 | 3 | 011 | ● |
| M10X1.5 | P3 | 8.5 | 8.6 | 2101101078 | 2.5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 011 | ● |
| M12X1.75 | P4 | 10.3 | 10.36 | 2101101088 | 2.5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 011 | ● |
| M14X2 | P4 | 12 | 12.12 | 2101101100 | 2.5P | 150 | 18 | - | 60 | 10.5 | 8 | 11 | 3 | 011 | ○ |
| M16X2 | P4 | 14 | 14.12 | 2101101114 | 2.5P | 150 | 18 | - | 60 | 12.5 | 10 | 13 | 3 | 011 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.35 | P2 | 2.65 | 2.7 | 2101101036 | 2.5P | 100 | 5 | 18 | 40 | 4 | 3.2 | 6 | 3 | 010 | ○ |
| M4X0.5 | P2 | 3.5 | 3.56 | 2101101043 | 2.5P | 100 | 5 | 21 | 40 | 5 | 4 | 7 | 3 | 010 | ○ |
| M5X0.5 | P2 | 4.5 | 4.56 | 2101101051 | 2.5P | 100 | 6 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 010 | ○ |
| M6X0.75 | P2 | 5.25 | 5.33 | 2101101056 | 2.5P | 100 | 8 | 30 | 40 | 6 | 4.5 | 7 | 3 | 010 | ● |
| M6X0.5 | P2 | 5.5 | 5.56 | 2101101057 | 2.5P | 100 | 8 | 30 | 40 | 6 | 4.5 | 7 | 3 | 010 | ○ |
| M8X1 | P3 | 7 | 7.09 | 2101101065 | 2.5P | 150 | 12 | - | 50 | 6.2 | 5 | 8 | 3 | 011 | ● |
| M10X1.25 | P3 | 8.8 | 8.85 | 2101101079 | 2.5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 011 | ● |
| M10X1 | P3 | 9 | 9.09 | 2101101080 | 2.5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 011 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | 2101101089 | 2.5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 011 | ● |
| M12X1.25 | P3 | 10.8 | 10.85 | 2101101090 | 2.5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 011 | ● |
| M14X1.5 | P3 | 12.5 | 12.6 | 2101101102 | 2.5P | 150 | 14 | - | 60 | 10.5 | 8 | 11 | 3 | 011 | ● |
| M16X1.5 | P3 | 14.5 | 14.6 | 2101101116 | 2.5P | 150 | 14 | - | 60 | 12.5 | 10 | 13 | 3 | 011 | ● |

# LS-SP




## GP General Purpose Series

Long Shank Spiral Fluted Taps

HSS-E



2.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind hole application.

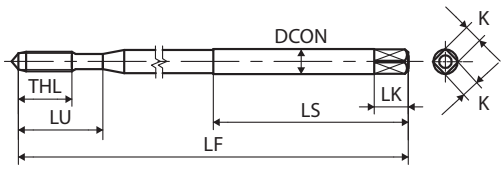
For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

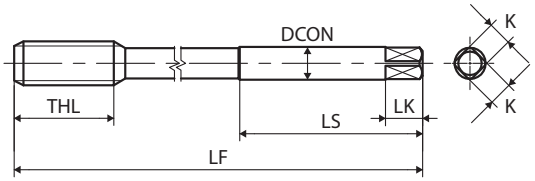
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_005**




**TYPE: SP_008**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized
Old Code
New Code

● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M2X0.4** | P1 | 1.6 | 1.65 | SPFP2.0EL07 | 2.5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M2.3X0.4** | P1 | 1.9 | 1.95 | SPFP2.3EL07 | 2.5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M2.5X0.45** | P1 | 2.1 | 2.11 | SPFP2.5FL07 | 2.5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M2.6X0.45** | P1 | 2.2 | 2.21 | SPFP2.6FL07 | 2.5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 2 | 005 | ○ |
| **M3X0.5** | P1 | 2.5 | 2.56 | SPFP3.0GL07 | 2.5P | 70 | 9 | 18 | 46 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P1 | 2.5 | 2.56 | SPP3.0GL10 | 2.5P | 100 | 9 | 14 | 40 | 4 | 3.2 | 6 | 3 | 005 | ▽ |
| | P1 | 2.5 | 2.56 | SPFP3.0GL10 | 2.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ● |
| | P1 | 2.5 | 2.56 | SPFP3.0GL12 | 2.5P | 120 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P1 | 2.5 | 2.56 | SPFP3.0GL15 | 2.5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P2(P1+15) | 2.5 | 2.56 | SPFQ3.0GL10 | 2.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P2(P1+15) | 2.5 | 2.56 | SPFQ3.0GL15 | 2.5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | SPFR3.0GL10 | 2.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | SPFR3.0GL15 | 2.5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| **M4X0.7** | P2 | 3.3 | 3.38 | SPFQ4.0IL07 | 2.5P | 70 | 11 | 21 | 43 | 5 | 4 | 7 | 3 | 005 | ○ |
| | P2 | 3.3 | 3.38 | SPQ4.0IL10 | 2.5P | 100 | 11 | 17 | 40 | 5 | 4 | 7 | 3 | 005 | ▽ |
| | P2 | 3.3 | 3.38 | SPFQ4.0IL10 | 2.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ● |
| | P2 | 3.3 | 3.38 | SPFQ4.0IL12 | 2.5P | 120 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ○ |
| | P2 | 3.3 | 3.38 | SPQ4.0IL15 | 2.5P | 150 | 11 | 17 | 40 | 5 | 4 | 7 | 3 | 005 | ▽ |
| | P2 | 3.3 | 3.38 | SPFQ4.0IL15 | 2.5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ● |
| | P3(P2+20) | 3.3 | 3.38 | SPFR4.0IL10 | 2.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | SPFR4.0IL15 | 2.5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ○ |
| **M5X0.8** | P2 | 4.2 | 4.28 | SPQ5.0KL10 | 2.5P | 100 | 13 | 22 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ▽ |
| | P2 | 4.2 | 4.28 | SPFQ5.0KL10 | 2.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ● |
| | P2 | 4.2 | 4.28 | SPFQ5.0KL12 | 2.5P | 120 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 4.2 | 4.28 | SPQ5.0KL15 | 2.5P | 150 | 13 | 22 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ▽ |
| | P2 | 4.2 | 4.28 | SPFQ5.0KL15 | 2.5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ● |
| | P3(P2+20) | 4.2 | 4.28 | SPFR5.0KL10 | 2.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | SPFR5.0KL15 | 2.5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ○ |
| **M6X1** | P2 | 5 | 5.09 | SPQ6.0ML10 | 2.5P | 100 | 15 | 26 | 40 | 6 | 4.5 | 7 | 3 | 005 | ▽ |
| | P2 | 5 | 5.09 | SPFQ6.0ML10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ● |
| | P2 | 5 | 5.09 | SPFQ6.0ML12 | 2.5P | 120 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 5 | 5.09 | SPQ6.0ML15 | 2.5P | 150 | 15 | 26 | 40 | 6 | 4.5 | 7 | 3 | 005 | ▽ |
| | P2 | 5 | 5.09 | SPFQ6.0ML15 | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ● |
| | P2 | 5 | 5.09 | SPFQ6.0ML20 | 2.5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P3(P2+20) | 5 | 5.09 | SPFR6.0ML10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P3(P2+20) | 5 | 5.09 | SPFR6.0ML15 | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| **M8X1.25** | P2 | 6.8 | 6.85 | SPQ8.0NL10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ● |
| | P2 | 6.8 | 6.85 | SPQ8.0NL12 | 2.5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 6.8 | 6.85 | SPQ8.0NL15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ● |
| | P2 | 6.8 | 6.85 | SPQ8.0NL20 | 2.5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | SPR8.0NL10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | SPR8.0NL15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.5 | P2 | 8.5 | 8.6 | SPQ0100L10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.5 | 8.6 | SPQ0100L12 | 2.5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.5 | 8.6 | SPQ0100L15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ● |
| | P2 | 8.5 | 8.6 | SPQ0100L20 | 2.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ● |
| | P3(P2+20) | 8.5 | 8.6 | SPR0100L10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | SPR0100L15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | SPQ012PL10 | 2.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.3 | 10.36 | SPQ012PL12 | 2.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.3 | 10.36 | SPQ012PL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ● |
| | P2 | 10.3 | 10.36 | SPQ012PL20 | 2.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ● |
| | P3(P2+20) | 10.3 | 10.36 | SPR012PL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X2 | P2 | 12 | 12.12 | SPQ014QL12 | 2.5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| | P2 | 12 | 12.12 | SPQ014QL15 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ● |
| | P2 | 12 | 12.12 | SPQ014QL20 | 2.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X2 | P2 | 14 | 14.12 | SPQ016QL15 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ● |
| | P2 | 14 | 14.12 | SPQ016QL20 | 2.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ● |
| | P2 | 14 | 14.12 | SPQ016QL25 | 2.5P | 250 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | SPR018RL15 | 2.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| | P3 | 15.5 | 15.63 | SPR018RL20 | 2.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| | P3 | 15.5 | 15.63 | SPR018RL25 | 2.5P | 250 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | SPR020RL15 | 2.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 17.5 | 17.63 | SPR020RL20 | 2.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ● |
| | P3 | 17.5 | 17.63 | SPR020RL25 | 2.5P | 250 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | SPR022RL15 | 2.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 19.5 | 19.63 | SPR022RL20 | 2.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 19.5 | 19.63 | SPR022RL25 | 2.5P | 250 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M24X3 | P3 | 21 | 21.13 | SPR024SL15 | 2.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 21 | 21.13 | SPR024SL20 | 2.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ● |
| | P3 | 21 | 21.13 | SPR024SL25 | 2.5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| M27X3 | P3 | 24 | 24.13 | SPR027SL20 | 2.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 24 | 24.13 | SPR027SL25 | 2.5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | SPS030TL20 | 2.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| | P4 | 26.5 | 26.63 | SPS030TL25 | 2.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| | P4 | 26.5 | 26.63 | SPS030TL30 | 2.5P | 300 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X0.75 | P2 | 5.3 | 5.33 | SPFQ6.0JL10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| M8X1 | P2 | 7 | 7.09 | SPQ8.0ML10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 7 | 7.09 | SPQ8.0ML15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 7 | 7.09 | SPQ8.0ML12 | 2.5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| M8X0.75 | P2 | 7.25 | 7.33 | SPQ8.0JL10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| M10X1.25 | P2 | 8.8 | 8.85 | SPQ010NL10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.8 | 8.85 | SPQ010NL12 | 2.5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.8 | 8.85 | SPQ010NL15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.8 | 8.85 | SPQ010NL20 | 2.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1 | P2 | 9 | 9.09 | SPQ010ML10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 9 | 9.09 | SPQ010ML15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 9 | 9.09 | SPQ010ML12 | 2.5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M10X0.75 | P2 | 9.3 | 9.33 | SPQ010JL15 | 2.5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | SPQ0120L10 | 2.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.5 | 10.6 | SPQ0120L15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.5 | 10.6 | SPQ0120L20 | 2.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.5 | 10.6 | SPQ0120L12 | 2.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | SPQ012NL10 | 2.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.8 | 10.85 | SPQ012NL12 | 2.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.8 | 10.85 | SPQ012NL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.8 | 10.85 | SPQ012NL20 | 2.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M12X1 | P2 | 11 | 11.09 | SPQ012ML12 | 2.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 11 | 11.09 | SPQ012ML15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 11 | 11.09 | SPQ012ML10 | 2.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | SPQ0140L12 | 2.5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| | P2 | 12.5 | 12.6 | SPQ0140L15 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ● |
| | P2 | 12.5 | 12.6 | SPQ0140L20 | 2.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | SPQ0160L15 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| | P2 | 14.5 | 14.6 | SPQ0160L20 | 2.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| M18X2 | P3 | 16 | 16.12 | SPR018QL20 | 2.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | SPQ0180L15 | 2.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| | P2 | 16.5 | 16.6 | SPQ0180L20 | 2.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M20X2 | P3 | 18 | 18.12 | SPR020QL20 | 2.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | SPR0200L15 | 2.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 18.5 | 18.6 | SPR0200L20 | 2.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| M22X2 | P3 | 20 | 20.12 | SPR022QL20 | 2.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | SPR0220L15 | 2.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 20.5 | 20.6 | SPR0220L20 | 2.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M24X2 | P3 | 22 | 22.12 | SPR024QL20 | 2.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | SPR0240L15 | 2.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 22.5 | 22.6 | SPR0240L20 | 2.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| M27X2 | P3 | 25 | 25.12 | SPR027QL20 | 2.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 25 | 25.12 | SPR027QL25 | 2.5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | SPR0270L20 | 2.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 25.5 | 25.6 | SPR0270L25 | 2.5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| M30X3 | P3 | 27 | 27.13 | SPR030SL25 | 2.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| M30X2 | P3 | 28 | 28.12 | SPR030QL20 | 2.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| | P3 | 28 | 28.12 | SPR030QL25 | 2.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | SPR0300L20 | 2.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| | P3 | 28.5 | 28.6 | SPR0300L25 | 2.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |
| | P3 | 28.5 | 28.6 | SPR0300L30 | 2.5P | 300 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20UNC | P2 | 5.1 | 5.19 | SPFQU04NL10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 5.1 | 5.19 | SPFQU04NL15 | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |



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| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 5/16-18UNC | P2 | 6.6 | 6.65 | SPQU050L10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 6.6 | 6.65 | SPQU050L15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| 3/8-16UNC | P2 | 8 | 8.07 | SPQU06PL10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8 | 8.07 | SPQU06PL15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8 | 8.07 | SPQU06PL20 | 2.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | SPRU07QL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | SPRU08RL15 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| | P3 | 10.9 | 10.91 | SPRU08RL20 | 2.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | SPRU10UL15 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| | P3 | 13.6 | 13.75 | SPRU10UL20 | 2.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| 3/4-10UNC | P3 | 16.6 | 16.7 | SPRU12VL15 | 2.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 16.6 | 16.7 | SPRU12VL20 | 2.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| 7/8-9UNC | P3 | 19.6 | 19.61 | SPRU14WL15 | 2.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 19.6 | 19.61 | SPRU14WL20 | 2.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| 1 -8UNC | P3 | 22.3 | 22.45 | SPRU16XL15 | 2.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 22.3 | 22.45 | SPRU16XL20 | 2.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-28UNF | P2 | 5.5 | 5.53 | SPFQU04KL10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 5.5 | 5.53 | SPFQU04KL15 | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | SPQU05ML10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 6.9 | 6.97 | SPQU05ML15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | SPQU06ML10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.5 | 8.57 | SPQU06ML15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8.5 | 8.57 | SPQU06ML20 | 2.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| 7/16-20UNF | P2 | 9.9 | 9.96 | SPQU07NL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| 1/2-20UNF | P2 | 11.5 | 11.54 | SPQU08NL15 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| | P2 | 11.5 | 11.54 | SPQU08NL20 | 2.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| 5/8-18UNF | P2 | 14.5 | 14.6 | SPQU10OL15 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| | P2 | 14.5 | 14.6 | SPQU10OL20 | 2.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | SPRU12PL15 | 2.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 17.5 | 17.59 | SPRU12PL20 | 2.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| 7/8-14UNF | P3 | 20.5 | 20.57 | SPRU14QL20 | 2.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| 1 -12UNF | P3 | 23.3 | 23.46 | SPRU16SL20 | 2.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4W20 | P2 | 5.1 | 5.13 | SPFQW04NL10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 5.1 | 5.13 | SPFQW04NL15 | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| 5/16W18 | P2 | 6.5 | 6.59 | SPQW05OL15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 6.5 | 6.59 | SPQW05OL10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| 3/8W16 | P2 | 8 | 8.02 | SPQW06PL10 | 2.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8 | 8.02 | SPQW06PL15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| | P2 | 8 | 8.02 | SPQW06PL20 | 2.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | SPRW07QL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |



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| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/2W12 | P3 | 10.6 | 10.7 | SPRW08SL15 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| | P3 | 10.6 | 10.7 | SPRW08SL20 | 2.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | SPRW10UL15 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| | P3 | 13.5 | 13.68 | SPRW10UL20 | 2.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| 3/4W10 | P3 | 16.5 | 16.63 | SPRW12VL15 | 2.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 16.5 | 16.63 | SPRW12VL20 | 2.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| 7/8W9 | P3 | 19.5 | 19.53 | SPRW14WL15 | 2.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 19.5 | 19.53 | SPRW14WL20 | 2.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| 1 W8 | P3 | 22.2 | 22.34 | SPRW16XL15 | 2.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 22.2 | 22.34 | SPRW16XL20 | 2.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |

# LS-SP-PF




## GP General Purpose Series

Long Shank Spiral Fluted Taps for Parallel Pipe Threads

HSS-E | 2.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind hole application.

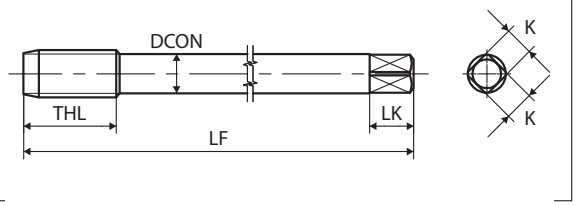
For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: Pipe_039**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8-28 | II | 8.75 | 8.78 | SH2F02KL10 | 2.5P | 9.728 | 100 | 19 | - | 8 | 6 | 9 | 3 | 039 | ○ |
| | II | 8.75 | 8.78 | SH2F02KL12 | 2.5P | 9.728 | 120 | 19 | - | 8 | 6 | 9 | 3 | 039 | ○ |
| | II | 8.75 | 8.78 | SH2F02KL15 | 2.5P | 9.728 | 150 | 19 | - | 8 | 6 | 9 | 3 | 039 | ○ |
| 1/4-19 | II | 11.75 | 11.78 | SH2F04-L10 | 2.5P | 13.157 | 100 | 28 | - | 11 | 9 | 12 | 3 | 039 | ○ |
| | II | 11.75 | 11.78 | SH2F04-L12 | 2.5P | 13.157 | 120 | 28 | - | 11 | 9 | 12 | 3 | 039 | ○ |
| | II | 11.75 | 11.78 | SH2F04-L15 | 2.5P | 13.157 | 150 | 28 | - | 11 | 9 | 12 | 3 | 039 | ○ |
| 3/8-19 | II | 15.25 | 15.28 | SH2F06-L12 | 2.5P | 16.662 | 120 | 28 | - | 14 | 11 | 14 | 3 | 039 | ○ |
| | II | 15.25 | 15.28 | SH2F06-L15 | 2.5P | 16.662 | 150 | 28 | - | 14 | 11 | 14 | 3 | 039 | ○ |
| 1/2-14 | II | 19 | 19.04 | SH2F08QL15 | 2.5P | 20.955 | 150 | 35 | - | 18 | 14 | 17 | 4 | 039 | ○ |
| 3/4-14 | II | 24.5 | 24.52 | SH2F12QL15 | 2.5P | 26.441 | 150 | 35 | - | 23 | 17 | 20 | 4 | 039 | ○ |
| 1 -11 | II | 30.75 | 30.77 | SH2F16UL15 | 2.5P | 33.249 | 150 | 45 | - | 26 | 21 | 24 | 4 | 039 | ○ |
| | II | 30.75 | 30.77 | SH2F16UL20 | 2.5P | 33.249 | 200 | 45 | - | 26 | 21 | 24 | 4 | 039 | ○ |



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# LS-SP-K




## GP General Purpose Series

Long Shank Spiral Fluted Taps with Long Neck

HSS-E | 2.5P THCHT

**FEATURES**

For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

For tapping steel at medium-low cutting speed, also suitable for non-ferrous materials.

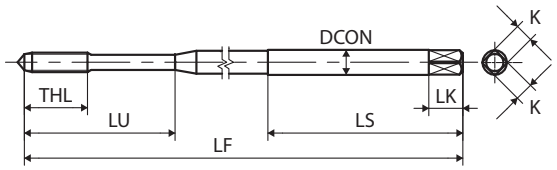
Reduced neck for deep holes.

### Recommended Tapping Speeds Depending On Materials

| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_014**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P1 | 2.5 | 2.56 | SY3.0GPFEBE | 2.5P | 100 | 9 | 28 | 40 | 4 | 3.2 | 6 | 2 | 014 | ○ |
| | P1 | 2.5 | 2.56 | SY3.0GPFEBF | 2.5P | 120 | 9 | 28 | 40 | 4 | 3.2 | 6 | 2 | 014 | ○ |
| | P1 | 2.5 | 2.56 | SY3.0GPFEBG | 2.5P | 150 | 9 | 28 | 40 | 4 | 3.2 | 6 | 2 | 014 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | SY4.0IQFEBE | 2.5P | 100 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 014 | ○ |
| | P2 | 3.3 | 3.38 | SY4.0IQFEBF | 2.5P | 120 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 014 | ○ |
| | P2 | 3.3 | 3.38 | SY4.0IQFEBG | 2.5P | 150 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 014 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | SY5.0KQFEBE | 2.5P | 100 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 014 | ○ |
| | P2 | 4.2 | 4.28 | SY5.0KQFEBF | 2.5P | 120 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 014 | ○ |
| | P2 | 4.2 | 4.28 | SY5.0KQFEBG | 2.5P | 150 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 014 | ○ |
| M6X1 | P2 | 5 | 5.09 | SY6.0MQFEBE | 2.5P | 100 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| | P2 | 5 | 5.09 | SY6.0MQFEBF | 2.5P | 120 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| | P2 | 5 | 5.09 | SY6.0MQFEBG | 2.5P | 150 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 014 | ○ |

# LS-SP LH




## GP General Purpose Series

Long Shank Spiral Fluted Taps for Left Hand Threads

HSS-E | LH LEFT HAND | 2.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind hole application.

For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

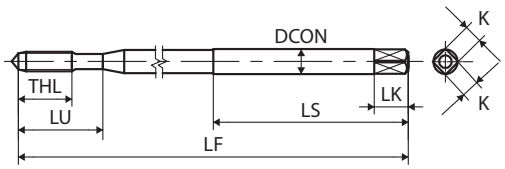
For left hand threads.

**Recommended Tapping Speeds Depending On Materials**

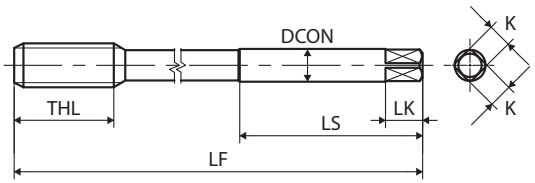
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_005**




**TYPE: SP_008**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P1 | 2.5 | 2.56 | SPFP3.0GL10L | 2.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | SPFQ4.0IL10L | 2.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | SPFQ5.0KL10L | 2.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ○ |
| M6X1 | P2 | 5 | 5.09 | SPFQ6.0ML10L | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 5 | 5.09 | SPFQ6.0ML15L | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | SPQ8.0NL15-L | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | SPQ0100L15-L | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | SPQ012PL15-L | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X2 | P2 | 12 | 12.12 | SPQ014QL15-L | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X2 | P2 | 14 | 14.12 | SPQ016QL15-L | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | SPQ010NL15-L | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | SPQ0120L15-L | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | SPQ012NL15-L | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | SPQ0140L15-L | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | SPQ0160L15-L | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |



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# LS-SP V




## GP General Purpose Series

Long Shank Spiral Fluted Taps, coated

HSS-E | COATING | 2.5P THCHT

**FEATURES**

Long shank for extended overhang on blind hole application.

For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

Adopting suitable coating to improve performances.

### Recommended Tapping Speeds Depending On Materials

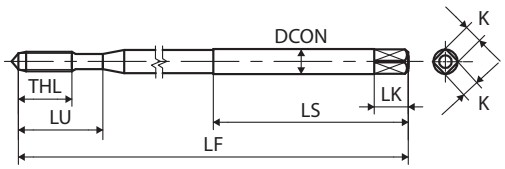
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 10÷20 | ★ |
| P2 | 10÷20 | ★ |
| P3 | 10÷20 | ★ |
| P4 | 10÷15 | ★ |
| P7 | 6÷12 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 6÷12 | ☆ |

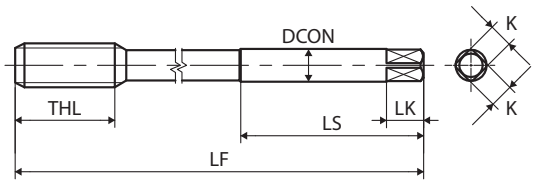
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷20 | ☆ |
| N2 | 10÷20 | ☆ |
| N3 | 10÷20 | ☆ |
| N4 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_005**




**TYPE: SP_008**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P1 | 2.5 | 2.56 | VSPFP3.0GL10 | 2.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | VSPFQ4.0IL10 | 2.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | VSPFQ5.0KL10 | 2.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ○ |
| M6X1 | P2 | 5 | 5.09 | VSPFQ6.0ML10 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P2 | 5 | 5.09 | VSPFQ6.0ML15 | 2.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | VSPQ8.0NL10 | 2.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P2 | 6.8 | 6.85 | VSPQ8.0NL15 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | VSPQ010OL15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | VSPQ012PL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | VSPQ010NL15 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | VSPQ012OL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | VSPQ012NL15 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |

# MC-SP




## GP General Purpose Series

Long Shank Spiral Fluted Taps with Axial Coolant Hole

HSS-E | 2.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind hole application.

For steel application at medium-low cutting speed, also suitable for non-ferrous materials.

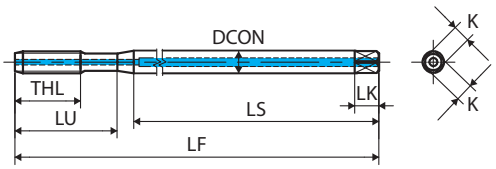
With axial coolant hole.

**Recommended Tapping Speeds Depending On Materials**

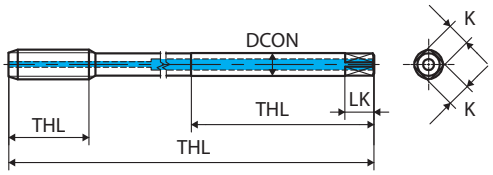
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_006**




**TYPE: SP_009**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | P2 | 5 | 5.09 | MSHQ6.0ML10 | 2.5P | 100 | 19 | 28 | 40 | 6 | 4.5 | 7 | 3 | 006 | ○ |
| | P2 | 5 | 5.09 | MSHQ6.0ML15 | 2.5P | 150 | 19 | 28 | 40 | 6 | 4.5 | 7 | 3 | 006 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | MSHQ8.0NL10 | 2.5P | 100 | 22 | - | 50 | 6.2 | 5 | 8 | 3 | 009 | ○ |
| | P2 | 6.8 | 6.85 | MSHQ8.0NL15 | 2.5P | 150 | 22 | - | 50 | 6.2 | 5 | 8 | 3 | 009 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | MSHQ010OL10 | 2.5P | 100 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 009 | ○ |
| | P2 | 8.5 | 8.6 | MSHQ010OL15 | 2.5P | 150 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 009 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | MSHQ012PL10 | 2.5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| | P2 | 10.3 | 10.36 | MSHQ012PL15 | 2.5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| | P2 | 10.3 | 10.36 | MSHQ012PL20 | 2.5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| M14X2 | P2 | 12 | 12.12 | MSHQ014QL15 | 2.5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 009 | ○ |
| | P2 | 12 | 12.12 | MSHQ014QL20 | 2.5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 009 | ○ |
| M16X2 | P2 | 14 | 14.12 | MSHQ016QL15 | 2.5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 009 | ○ |
| | P2 | 14 | 14.12 | MSHQ016QL20 | 2.5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 009 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | MSHR018RL15 | 2.5P | 150 | 37 | - | 70 | 14 | 11 | 14 | 4 | 009 | ○ |
| | P3 | 15.5 | 15.63 | MSHR018RL20 | 2.5P | 200 | 37 | - | 70 | 14 | 11 | 14 | 4 | 009 | ○ |



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| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M20X2.5 | P3 | 17.5 | 17.63 | MSHR020RL15 | 2.5P | 150 | 37 | - | 70 | 15 | 12 | 15 | 4 | 009 | ○ |
| | P3 | 17.5 | 17.63 | MSHR020RL20 | 2.5P | 200 | 37 | - | 70 | 15 | 12 | 15 | 4 | 009 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | MSHR022RL15 | 2.5P | 150 | 38 | - | 70 | 17 | 13 | 16 | 4 | 009 | ○ |
| | P3 | 19.5 | 19.63 | MSHR022RL20 | 2.5P | 200 | 38 | - | 70 | 17 | 13 | 16 | 4 | 009 | ○ |
| M24X3 | P3 | 21 | 21.13 | MSHR024SL15 | 2.5P | 150 | 45 | - | 80 | 19 | 15 | 18 | 4 | 009 | ○ |
| | P3 | 21 | 21.13 | MSHR024SL20 | 2.5P | 200 | 45 | - | 80 | 19 | 15 | 18 | 4 | 009 | ○ |
| M27X3 | P3 | 24 | 24.13 | MSHR027SL20 | 2.5P | 200 | 45 | - | 80 | 20 | 15 | 18 | 4 | 009 | ○ |
| | P3 | 24 | 24.13 | MSHR027SL25 | 2.5P | 250 | 45 | - | 80 | 20 | 15 | 18 | 4 | 009 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | MSHS030TL20 | 2.5P | 200 | 48 | - | 80 | 23 | 17 | 20 | 4 | 009 | ○ |
| | P4 | 26.5 | 26.63 | MSHS030TL25 | 2.5P | 250 | 48 | - | 80 | 23 | 17 | 20 | 4 | 009 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | MSHQ010NL10 | 2.5P | 100 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 009 | ○ |
| | P2 | 8.8 | 8.85 | MSHQ010NL15 | 2.5P | 150 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 009 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | MSHQ0120L10 | 2.5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| | P2 | 10.5 | 10.6 | MSHQ0120L15 | 2.5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| | P2 | 10.5 | 10.6 | MSHQ0120L20 | 2.5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | MSHQ012NL10 | 2.5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| | P2 | 10.8 | 10.85 | MSHQ012NL15 | 2.5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| | P2 | 10.8 | 10.85 | MSHQ012NL20 | 2.5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 009 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | MSHQ0140L15 | 2.5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 009 | ○ |
| | P2 | 12.5 | 12.6 | MSHQ0140L20 | 2.5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 009 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | MSHQ0160L15 | 2.5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 009 | ○ |
| | P2 | 14.5 | 14.6 | MSHQ0160L20 | 2.5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 009 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | MSHQ0180L15 | 2.5P | 150 | 37 | - | 70 | 14 | 11 | 14 | 4 | 009 | ○ |
| | P2 | 16.5 | 16.6 | MSHQ0180L20 | 2.5P | 200 | 37 | - | 70 | 14 | 11 | 14 | 4 | 009 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | MSHR0200L15 | 2.5P | 150 | 37 | - | 70 | 15 | 12 | 15 | 4 | 009 | ○ |
| | P3 | 18.5 | 18.6 | MSHR0200L20 | 2.5P | 200 | 37 | - | 70 | 15 | 12 | 15 | 4 | 009 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | MSHR0220L15 | 2.5P | 150 | 38 | - | 70 | 17 | 13 | 16 | 4 | 009 | ○ |
| | P3 | 20.5 | 20.6 | MSHR0220L20 | 2.5P | 200 | 38 | - | 70 | 17 | 13 | 16 | 4 | 009 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | MSHR0240L15 | 2.5P | 150 | 45 | - | 80 | 19 | 15 | 18 | 4 | 009 | ○ |
| | P3 | 22.5 | 22.6 | MSHR0240L20 | 2.5P | 200 | 45 | - | 80 | 19 | 15 | 18 | 4 | 009 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | MSHR0270L20 | 2.5P | 200 | 45 | - | 80 | 20 | 15 | 18 | 4 | 009 | ○ |
| | P3 | 25.5 | 25.6 | MSHR0270L25 | 2.5P | 250 | 45 | - | 80 | 20 | 15 | 18 | 4 | 009 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | MSHR0300L20 | 2.5P | 200 | 45 | - | 80 | 23 | 17 | 20 | 4 | 009 | ○ |
| | P3 | 28.5 | 28.6 | MSHR0300L25 | 2.5P | 250 | 45 | - | 80 | 23 | 17 | 20 | 4 | 009 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-PM-SP




## MS Material Specific Series

Long Shank Spiral Fluted Taps for Hard Materials (<45HRC)

HSS-P



2.75P THCHT

**FEATURES**

Long shank material specific for extended overhang on blind hole application.

Specific design and high class HSSP for stable and long life on alloy steel and tool steel (30 ÷ 45HRC) application.

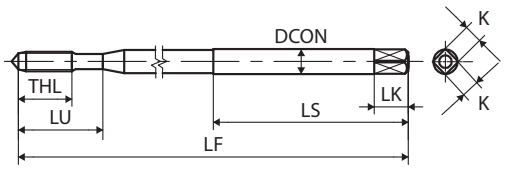
Reliable and high performance tapping for the mould&die industry.

**Recommended Tapping Speeds Depending On Materials**

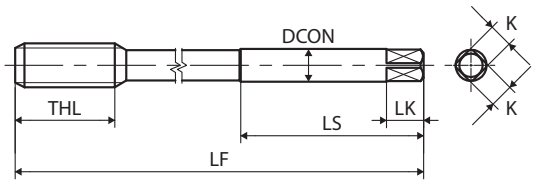
| ISO | Vc (m/min) | |
|---|---|---|
| P3 | 2÷10 | ☆ |
| P4 | 2÷7 | ★ |
| P5 | 2÷7 | ★ |
| P6 | 2÷5 | ★ |

★ 1st choice ☆ suitable

**TYPE: SP_005**




**TYPE: SP_008**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Old Code

New Code

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P3 | 2.5 | 2.56 | S43.0GRDPBE | 2.75P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 005 | ● |
| M4X0.7 | P3 | 3.3 | 3.38 | S44.0IRDPBE | 2.75P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 005 | ● |
| M5X0.8 | P3 | 4.2 | 4.28 | S45.0KRDPBE | 2.75P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ● |
| M6X1 | P3 | 5 | 5.09 | S46.0MRDPBE | 2.75P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ○ |
| | P3 | 5 | 5.09 | S46.0MRDPBG | 2.75P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 005 | ● |
| | P3 | 5 | 5.09 | SY6.0MRDPBG | 2.75P | 150 | 15 | 26 | 40 | 6 | 4.5 | 7 | 3 | 005 | ▽ |
| M8X1.25 | P3 | 6.8 | 6.85 | SY8.0NRDPBE | 2.75P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| | P3 | 6.8 | 6.85 | SY8.0NRDPBG | 2.75P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ● |
| M10X1.5 | P3 | 8.5 | 8.6 | SY010ORDPBG | 2.75P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ● |
| M12X1.75 | P3 | 10.3 | 10.36 | SY012PRDPBG | 2.75P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ● |
| M14X2 | P4 | 12 | 12.12 | SY014QSDPBG | 2.75P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X2 | P4 | 14 | 14.12 | SY016QSDPBG | 2.75P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | SY018RSDPBG | 2.75P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | SY020RSDPBG | 2.75P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | SY022RSDPBK | 2.75P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M24X3 | P4 | 21 | 21.13 | SY024SSDPBK | 2.75P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| M27X3 | P4 | 24 | 24.13 | SY027SSDPBK | 2.75P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| M30X3.5 | P4 | 26.5 | 26.63 | SY030TSDPBK | 2.75P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | SY010NRDPBG | 2.75P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | SY012ORDPBG | 2.75P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | SY012NSDPBG | 2.75P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | SY014ORDPBG | 2.75P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | SY016ORDPBG | 2.75P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | SY018OSDPBG | 2.75P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | SY020OSDPBG | 2.75P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | SY022OSDPBK | 2.75P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | SY024OSDPBK | 2.75P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | SY027OSDPBK | 2.75P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 008 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | SY030OSDPBK | 2.75P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 008 | ○ |

# LS-SU-S-SP




## MS Material Specific Series

Long Shank Spiral Fluted Taps for Stainless Steel

HSS-E | OX | 2.5P THCHT

**FEATURES**

Long shank for extended overhang on blind hole application.

Material specific for stainless steel and steel application.

With OX treatment to reduce welding troubles.

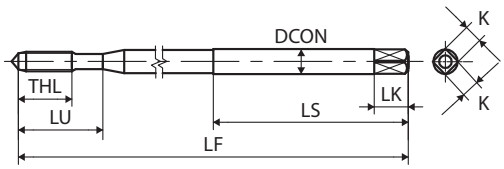
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

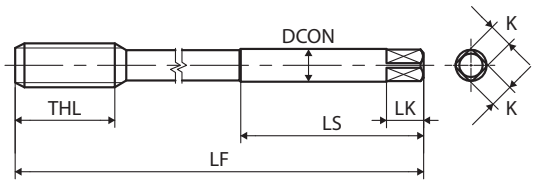
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: SP_005**




**TYPE: SP_008**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P1 | 2.5 | 2.56 | SY3.0GPGEXES | 2.5P | 100 | 9 | 28 | 40 | 4 | 3.2 | 6 | 2 | 005 | ● |
| M4X0.7 | P2 | 3.3 | 3.38 | SY4.0IQGEXES | 2.5P | 100 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 005 | ● |
| | P2 | 3.3 | 3.38 | SY4.0IQGEXGS | 2.5P | 150 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 005 | ● |
| M5X0.8 | P2 | 4.2 | 4.28 | SY5.0KQGEXES | 2.5P | 100 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ● |
| | P2 | 4.2 | 4.28 | SY5.0KQGEXGS | 2.5P | 150 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 005 | ● |
| M6X1 | P2 | 5 | 5.09 | SY6.0MQGEXES | 2.5P | 100 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 005 | ● |
| | P2 | 5 | 5.09 | SY6.0MQGEXGS | 2.5P | 150 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 005 | ● |
| M8X1.25 | P2 | 6.8 | 6.85 | SY8.0NQGEXGS | 2.5P | 150 | 12 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ● |
| | P2 | 6.8 | 6.85 | SY8.0NQGEXKS | 2.5P | 200 | 12 | - | 50 | 6.2 | 5 | 8 | 3 | 008 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | SY010QQGEXGS | 2.5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ● |
| | P2 | 8.5 | 8.6 | SY010QQGEXKS | 2.5P | 200 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | SY012PQGEXGS | 2.5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ● |
| | P2 | 10.3 | 10.36 | SY012PQGEXKS | 2.5P | 200 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X2 | P2 | 12 | 12.12 | SY014QQGEXGS | 2.5P | 150 | 18 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X2 | P2 | 14 | 14.12 | SY016QQGEXGS | 2.5P | 150 | 18 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ● |
| | P2 | 14 | 14.12 | SY016QQGEXKS | 2.5P | 200 | 18 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ● |
| M18X2.5 | P3 | 15.5 | 15.63 | SY018RRGEXGS | 2.5P | 150 | 20 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| | P3 | 15.5 | 15.63 | SY018RRGEXKS | 2.5P | 200 | 20 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | SY020RRGEXGS | 2.5P | 150 | 20 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 17.5 | 17.63 | SY020RRGEXKS | 2.5P | 200 | 20 | - | 70 | 15 | 12 | 15 | 4 | 008 | ● |
| M22X2.5 | P3 | 19.5 | 19.63 | SY022RRGEXGS | 2.5P | 150 | 20 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 19.5 | 19.63 | SY022RRGEXKS | 2.5P | 200 | 20 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M24X3 | P3 | 21 | 21.13 | SY024SRGEXGS | 2.5P | 150 | 25 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 21 | 21.13 | SY024SRGEXKS | 2.5P | 200 | 25 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | SY010NQGEXGS | 2.5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 008 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | SY012OQGEXGS | 2.5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.5 | 10.6 | SY012OQGEXKS | 2.5P | 200 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | SY012NQGEXGS | 2.5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| | P2 | 10.8 | 10.85 | SY012NQGEXKS | 2.5P | 200 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 008 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | SY014OQGEXGS | 2.5P | 150 | 14 | - | 60 | 10.5 | 8 | 11 | 3 | 008 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | SY016OQGEXGS | 2.5P | 150 | 14 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| | P2 | 14.5 | 14.6 | SY016OQGEXKS | 2.5P | 200 | 14 | - | 60 | 12.5 | 10 | 13 | 3 | 008 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | SY018OQGEXGS | 2.5P | 150 | 14 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| | P2 | 16.5 | 16.6 | SY018OQGEXKS | 2.5P | 200 | 14 | - | 70 | 14 | 11 | 14 | 4 | 008 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | SY020ORGEXGS | 2.5P | 150 | 14 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| | P3 | 18.5 | 18.6 | SY020ORGEXKS | 2.5P | 200 | 14 | - | 70 | 15 | 12 | 15 | 4 | 008 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | SY022ORGEXGS | 2.5P | 150 | 14 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| | P3 | 20.5 | 20.6 | SY022ORGEXKS | 2.5P | 200 | 14 | - | 70 | 17 | 13 | 16 | 4 | 008 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | SY024ORGEXGS | 2.5P | 150 | 18 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |
| | P3 | 22.5 | 22.6 | SY024ORGEXKS | 2.5P | 200 | 18 | - | 80 | 19 | 15 | 18 | 4 | 008 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# VUPO (LS)




## Z-PRO Series

Long Shank HSSP Spiral Pointed Taps, Coated

HSS-P | COATING | 5P THCHT

**FEATURES**

Long shank for extended overhang on a wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

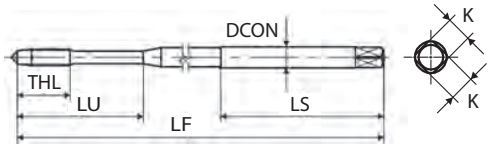
New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

**Recommended Tapping Speeds Depending On Materials**

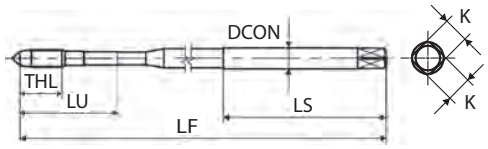
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 10÷30 | ★ | M1 | 5÷15 | ★ | K1 | 10÷20 | ☆ | N1 | 10÷40 | ★ |
| P2 | 10÷30 | ★ | M2 | 5÷10 | ☆ | K2 | 10÷20 | ☆ | N2 | 10÷40 | ★ |
| P3 | 10÷30 | ★ | | | | | | | N3 | 10÷25 | ☆ |
| P4 | 10÷25 | ★ | | | | | | | N4 | 10÷20 | ☆ |
| P7 | 5÷15 | ★ | | | | | | | | | |

★ 1st choice ☆ suitable

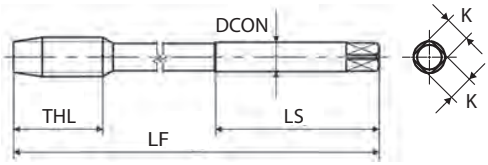
**TYPE: VU_012**




**TYPE: VU_013**




**TYPE: VU_014**






Think threads with YAMAWA

IMROBEX
Machine Tools International

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M3X0.5** | P2 | 2.5 | 2.56 | 2102101035 | 2.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 012 | ● |
| **M4X0.7** | P3 | 3.3 | 3.38 | 2102101042 | 2.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 012 | ● |
| **M5X0.8** | P3 | 4.2 | 4.28 | 2102101049 | 2.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 012 | ● |
| **M6X1** | P3 | 5 | 5.09 | 2102101055 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 012 | ● |
| **M8X1.25** | P3 | 6.8 | 6.85 | 2102101064 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 014 | ● |
| **M10X1.5** | P3 | 8.5 | 8.6 | 2102101078 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 014 | ● |
| **M12X1.75** | P4 | 10.3 | 10.36 | 2102101088 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 014 | ● |
| **M14X2** | P4 | 12 | 12.12 | 2102101100 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 014 | ○ |
| **M16X2** | P4 | 14 | 14.12 | 2102101114 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 014 | ● |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M3X0.35** | P2 | 2.65 | 2.7 | 2102101036 | 2.5P | 100 | 6.5 | 18 | 40 | 4 | 3.2 | 6 | 3 | 013 | ○ |
| **M4X0.5** | P2 | 3.5 | 3.56 | 2102101043 | 2.5P | 100 | 9 | 21 | 40 | 5 | 4 | 7 | 3 | 013 | ○ |
| **M5X0.5** | P2 | 4.5 | 4.56 | 2102101051 | 2.5P | 100 | 9 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 013 | ○ |
| **M6X0.75** | P2 | 5.25 | 5.33 | 2102101056 | 2.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 013 | ● |
| **M6X0.5** | P2 | 5.5 | 5.56 | 2102101057 | 2.5P | 100 | 9 | 30 | 40 | 6 | 4.5 | 7 | 3 | 013 | ○ |
| **M8X1** | P3 | 7 | 7.09 | 2102101065 | 2.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 014 | ● |
| **M10X1.25** | P3 | 8.8 | 8.85 | 2102101079 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 014 | ● |
| **M10X1** | P3 | 9 | 9.09 | 2102101080 | 2.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 014 | ○ |
| **M12X1.5** | P3 | 10.5 | 10.6 | 2102101089 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 014 | ● |
| **M12X1.25** | P4 | 10.8 | 10.85 | 2102101090 | 2.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 014 | ● |
| **M14X1.5** | P3 | 12.5 | 12.6 | 2102101102 | 2.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 014 | ● |
| **M16X1.5** | P3 | 14.5 | 14.6 | 2102101116 | 2.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 014 | ● |

# LS-PO




## GP General Purpose Series

Long Shank Spiral Pointed Taps

HSS-E



5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on through hole application.

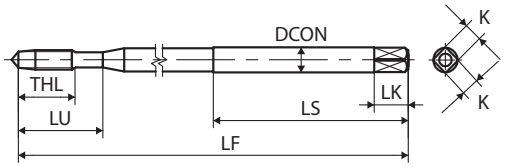
For tapping steel, also suitable for non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

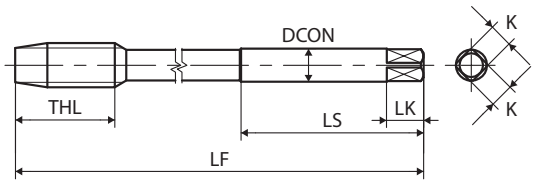
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: PO_011**




**TYPE: PO_013**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M2X0.4** | P2 | 1.6 | 1.65 | POFQ2.0EL07 | 5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| **M2.3X0.4** | P2 | 1.9 | 1.95 | POFQ2.3EL07 | 5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| **M2.5X0.45** | P2 | 2.1 | 2.11 | POFQ2.5FL07 | 5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| **M2.6X0.45** | P2 | 2.2 | 2.21 | POFQ2.6FL07 | 5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| **M3X0.5** | P2 | 2.5 | 2.56 | POFQ3.0GL07 | 5P | 70 | 9 | 18 | 46 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P2 | 2.5 | 2.56 | POFQ3.0GL10 | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ● |
| | P2 | 2.5 | 2.56 | POFQ3.0GL12 | 5P | 120 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P2 | 2.5 | 2.56 | POFQ3.0GL15 | 5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P3(P2+15) | 2.5 | 2.56 | POFR3.0GL10 | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P4(P2+30) | 2.5 | 2.56 | POFS3.0GL10 | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P3(P2+15) | 2.5 | 2.56 | POFR3.0GL15 | 5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| **M4X0.7** | P2 | 3.3 | 3.38 | POFQ4.0IL07 | 5P | 70 | 11 | 21 | 43 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | POFQ4.0IL10 | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ● |
| | P2 | 3.3 | 3.38 | POFQ4.0IL12 | 5P | 120 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | POFQ4.0IL15 | 5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ● |
| | P3(P2+20) | 3.3 | 3.38 | POFR4.0IL10 | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P4(P2+40) | 3.3 | 3.38 | POFS4.0IL10 | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | POFR4.0IL15 | 5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| **M5X0.8** | P2 | 4.2 | 4.28 | POQ5.0KL10 | 5P | 100 | 13 | 22 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ▽ |
| | P2 | 4.2 | 4.28 | POFQ5.0KL10 | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ● |
| | P2 | 4.2 | 4.28 | POFQ5.0KL12 | 5P | 120 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | POFQ5.0KL15 | 5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ● |
| | P3(P2+20) | 4.2 | 4.28 | POFR5.0KL10 | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | POFR5.0KL15 | 5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P4(P2+40) | 4.2 | 4.28 | POFS5.0KL15 | 5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| **M6X1** | P2 | 5 | 5.09 | POFQ6.0ML10 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ● |
| | P2 | 5 | 5.09 | POFQ6.0ML12 | 5P | 120 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | POFQ6.0ML15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ● |
| | P2 | 5 | 5.09 | POFQ6.0ML20 | 5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 5 | 5.09 | POFR6.0ML10 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 5 | 5.09 | POFR6.0ML15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P4(P2+40) | 5 | 5.09 | POFS6.0ML15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| **M8X1.25** | P3 | 6.8 | 6.85 | POR8.0NL10 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ● |
| | P3 | 6.8 | 6.85 | POR8.0NL12 | 5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 6.8 | 6.85 | POR8.0NL15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ● |
| | P3 | 6.8 | 6.85 | POR8.0NL20 | 5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P4(P3+20) | 6.8 | 6.85 | POS8.0NL15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| **M10X1.5** | P3 | 8.5 | 8.6 | POR0100L10 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8.5 | 8.6 | POR0100L12 | 5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8.5 | 8.6 | POR0100L15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ● |
| | P3 | 8.5 | 8.6 | POR0100L20 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P3+20) | 8.5 | 8.6 | POS0100L15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **M12X1.75** | P4 | 10.3 | 10.36 | POS012PL10 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4 | 10.3 | 10.36 | POS012PL12 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4 | 10.3 | 10.36 | POS012PL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| | P4 | 10.3 | 10.36 | POS012PL20 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P5(P4+20) | 10.3 | 10.36 | POT012PL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M14X2 | P4 | 12 | 12.12 | POS014QL12 | 5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4 | 12 | 12.12 | POS014QL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4 | 12 | 12.12 | POS014QL20 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P5(P4+20) | 12 | 12.12 | POT014QL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X2 | P4 | 14 | 14.12 | POS016QL15 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ● |
| | P4 | 14 | 14.12 | POS016QL20 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ● |
| | P4 | 14 | 14.12 | POS016QL25 | 5P | 250 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P5(P4+20) | 14 | 14.12 | POT016QL15 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | POS018RL15 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| | P4 | 15.5 | 15.63 | POS018RL20 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| | P5(P4+20) | 15.5 | 15.63 | POT018RL15 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | POS020RL15 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P4 | 17.5 | 17.63 | POS020RL20 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ● |
| | P4 | 17.5 | 17.63 | POS020RL25 | 5P | 250 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P5(P4+20) | 17.5 | 17.63 | POT020RL15 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | POS022RL15 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| | P4 | 19.5 | 19.63 | POS022RL20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| | P4 | 19.5 | 19.63 | POS022RL25 | 5P | 250 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M24X3 | P4 | 21 | 21.13 | POS024SL15 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| | P4 | 21 | 21.13 | POS024SL20 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| | P4 | 21 | 21.13 | POS024SL25 | 5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| M27X3 | P4 | 24 | 24.13 | POS027SL20 | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P4 | 24 | 24.13 | POS027SL25 | 5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | POT030TL20 | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P5 | 26.5 | 26.63 | POT030TL25 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P5 | 26.5 | 26.63 | POT030TL30 | 5P | 300 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X1 | P3 | 7 | 7.09 | POR8.0ML10 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 7 | 7.09 | POR8.0ML15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 7 | 7.09 | POR8.0ML12 | 5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M10X1.25 | P3 | 8.8 | 8.85 | POR010NL10 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8.8 | 8.85 | POR010NL15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8.8 | 8.85 | POR010NL20 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8.8 | 8.85 | POR010NL12 | 5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P4(P3+20) | 8.8 | 8.85 | POS010NL15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M10X1 | P3 | 9 | 9.09 | POR010ML10 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 9 | 9.09 | POR010ML15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 9 | 9.09 | POR010ML12 | 5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | POR012OL10 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3 | 10.5 | 10.6 | POR012OL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3 | 10.5 | 10.6 | POR012OL20 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3 | 10.5 | 10.6 | POR012OL12 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4(P3+20) | 10.5 | 10.6 | POS012OL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M12X1.25 | P4 | 10.8 | 10.85 | POS012NL10 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4 | 10.8 | 10.85 | POS012NL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4 | 10.8 | 10.85 | POS012NL20 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4 | 10.8 | 10.85 | POS012NL12 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P5(P4+20) | 10.8 | 10.85 | POT012NL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1 | P3 | 11 | 11.09 | POR012ML10 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P3 | 11 | 11.09 | POR012ML15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | POR014OL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3 | 12.5 | 12.6 | POR014OL20 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3 | 12.5 | 12.6 | POR014OL12 | 5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P4(P3+20) | 12.5 | 12.6 | POS014OL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | POR016OL15 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3 | 14.5 | 14.6 | POR016OL20 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2 | P4 | 16 | 16.12 | POS018QL20 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | POS018OL15 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| | P4 | 16.5 | 16.6 | POS018OL20 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M20X2 | P4 | 18 | 18.12 | POS020QL20 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | POS020OL15 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P4 | 18.5 | 18.6 | POS020OL20 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M22X2 | P4 | 20 | 20.12 | POS022QL20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | POS022OL15 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| | P4 | 20.5 | 20.6 | POS022OL20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M24X2 | P4 | 22 | 22.12 | POS024QL20 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | POS024OL15 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| | P4 | 22.5 | 22.6 | POS024OL20 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| M27X2 | P4 | 25 | 25.12 | POS027QL25 | 5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | POS027OL20 | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P4 | 25.5 | 25.6 | POS027OL25 | 5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3 | P4 | 27 | 27.13 | POS030SL25 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X2 | P4 | 28 | 28.12 | POS030QL25 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | POS030OL20 | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 28.5 | 28.6 | POS030OL25 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20UNC | P2 | 5.1 | 5.19 | POFQU04NL10 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.1 | 5.19 | POFQU04NL15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| 5/16-18UNC | P3 | 6.6 | 6.65 | PORU05OL10 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 6.6 | 6.65 | PORU05OL15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-16UNC | P3 | 8 | 8.07 | PORU06PL10 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8 | 8.07 | PORU06PL15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-14UNC | P3 | 9.4 | 9.45 | PORU07QL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | PORU08RL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3 | 10.9 | 10.91 | PORU08RL20 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | PORU10UL15 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3 | 13.6 | 13.75 | PORU10UL20 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 3/4-10UNC | P4 | 16.6 | 16.7 | POSU12VL15 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P4 | 16.6 | 16.7 | POSU12VL20 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| 7/8-9UNC | P4 | 19.6 | 19.61 | POSU14WL20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| 1 -8UNC | P4 | 22.3 | 22.45 | POSU16XL20 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| | P4 | 22.3 | 22.45 | POSU16XL15 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-28UNF | P2 | 5.5 | 5.53 | POFQU04KL10 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.5 | 5.53 | POFQU04KL15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | POQU05ML10 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P2 | 6.9 | 6.97 | POQU05ML15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | POQU06ML10 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P2 | 8.5 | 8.57 | POQU06ML15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16-20UNF | P3 | 9.9 | 9.96 | PORU07NL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2-20UNF | P3 | 11.5 | 11.54 | PORU08NL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3 | 11.5 | 11.54 | PORU08NL20 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 5/8-18UNF | P3 | 14.5 | 14.6 | PORU10OL15 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3 | 14.5 | 14.6 | PORU10OL20 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | PORU12PL15 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P3 | 17.5 | 17.59 | PORU12PL20 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| 7/8-14UNF | P3 | 20.5 | 20.57 | PORU14QL20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| 1 -12UNF | P4 | 23.3 | 23.46 | POSU16SL20 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4W20 | P3 | 5.1 | 5.13 | POFRW04NL10 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3 | 5.1 | 5.13 | POFRW04NL15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| 5/16W18 | P3 | 6.5 | 6.59 | PORW05OL10 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 6.5 | 6.59 | PORW05OL15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| 3/8W16 | P3 | 8 | 8.02 | PORW06PL10 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8 | 8.02 | PORW06PL15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | PORW07QL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | PORW08SL15 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| | P3 | 10.6 | 10.7 | PORW08SL20 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | PORW10UL15 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3 | 13.5 | 13.68 | PORW10UL20 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| 3/4W10 | P4 | 16.5 | 16.63 | POSW12VL15 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P4 | 16.5 | 16.63 | POSW12VL20 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| 7/8W9 | P4 | 19.5 | 19.53 | POSW14WL15 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| | P4 | 19.5 | 19.53 | POSW14WL20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| 1 W8 | P4 | 22.2 | 22.34 | POSW16XL15 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| | P4 | 22.2 | 22.34 | POSW16XL20 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |



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● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

# LS-PO-K




## GP General Purpose Series

Long Shank Spiral Pointed Taps with Long Neck

HSS-E



4.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on through hole application.

For tapping steel, also suitable for non-ferrous materials.

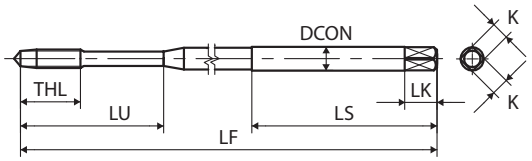
Reduced neck for deep holes.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: PO_099**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P2 | 2.5 | 2.56 | PY3.0GQFEBE | 4.5P | 100 | 9 | 28 | 40 | 4 | 3.2 | 6 | 3 | 099 | ○ |
| | P2 | 2.5 | 2.56 | PY3.0GQFEBF | 4.5P | 120 | 9 | 28 | 40 | 4 | 3.2 | 6 | 3 | 099 | ○ |
| | P2 | 2.5 | 2.56 | PY3.0GQFEBG | 4.5P | 150 | 9 | 28 | 40 | 4 | 3.2 | 6 | 3 | 099 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | PY4.0IQFEBE | 4.5P | 100 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 099 | ○ |
| | P2 | 3.3 | 3.38 | PY4.0IQFEBF | 4.5P | 120 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 099 | ○ |
| | P2 | 3.3 | 3.38 | PY4.0IQFEBG | 4.5P | 150 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 099 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | PY5.0KQFEBE | 4.5P | 100 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 099 | ○ |
| | P2 | 4.2 | 4.28 | PY5.0KQFEBF | 4.5P | 120 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 099 | ○ |
| | P2 | 4.2 | 4.28 | PY5.0KQFEBG | 4.5P | 150 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 099 | ○ |
| M6X1 | P2 | 5 | 5.09 | PY6.0MQFEBE | 4.5P | 100 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 099 | ○ |
| | P2 | 5 | 5.09 | PY6.0MQFEBF | 4.5P | 120 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 099 | ○ |
| | P2 | 5 | 5.09 | PY6.0MQFEBG | 4.5P | 150 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 099 | ○ |



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# LS-PO V

## GP General Purpose Series

Long Shank Spiral Pointed Taps, Coated




HSS-E | COATING | 5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on through hole application.

For tapping steel, also suitable for stainless steel and non-ferrous materials.

Adopting suitable coating to improve performances.

### Recommended Tapping Speeds Depending On Materials

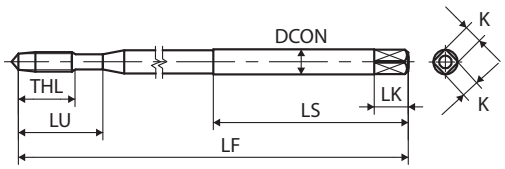
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 10÷20 | ★ |
| P2 | 10÷20 | ★ |
| P3 | 10÷20 | ★ |
| P4 | 10÷15 | ★ |
| P7 | 6÷12 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 6÷12 | ☆ |
| M2 | | |

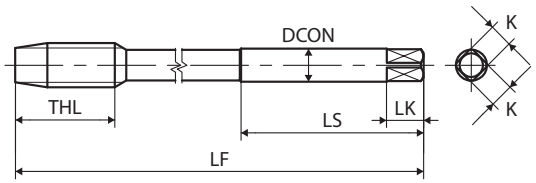
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷20 | ☆ |
| N2 | 10÷20 | ☆ |
| N3 | 10÷20 | ☆ |
| N4 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

**TYPE: PO_011**




**TYPE: PO_013**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P2 | 2.5 | 2.56 | VPOFQ3.0GL10 | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | VPOFQ4.0IL10 | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | VPOFQ5.0KL10 | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| M6X1 | P2 | 5 | 5.09 | VPOFQ6.0ML10 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | VPOFQ6.0ML15 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | VPOR8.0NL10 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 6.8 | 6.85 | VPOR8.0NL15 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | VPOR0100L15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | VPOS012PL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | VPOR010NL15 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | VPOR0120L15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | VPOS012NL15 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |

# MC-PO




## GP General Purpose Series

Long Shank Spiral Pointed Taps with Radial Coolant Holes

HSS-E | 5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on through hole application.

For steel application, also suitable for non-ferrous materials.

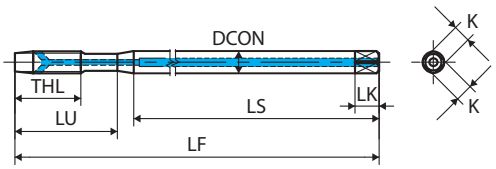
With radial coolant holes.

**Recommended Tapping Speeds Depending On Materials**

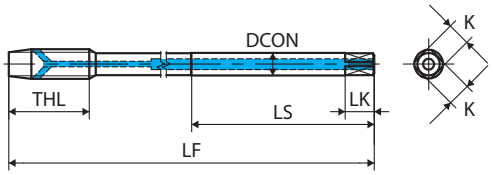
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | N2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P4 | 5÷8 | ☆ | N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: PO_029**




**TYPE: PO_030**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | P2 | 5 | 5.09 | MPHQ6.0ML10 | 5P | 100 | 19 | 28 | 40 | 6 | 4.5 | 7 | 3 | 029 | ○ |
| | P2 | 5 | 5.09 | MPHQ6.0ML15 | 5P | 150 | 19 | 28 | 40 | 6 | 4.5 | 7 | 3 | 029 | ○ |
| M8X1.25 | P3 | 6.8 | 6.85 | MPHR8.0NL10 | 5P | 100 | 22 | - | 50 | 6.2 | 5 | 8 | 3 | 030 | ○ |
| | P3 | 6.8 | 6.85 | MPHR8.0NL15 | 5P | 150 | 22 | - | 50 | 6.2 | 5 | 8 | 3 | 030 | ○ |
| M10X1.5 | P3 | 8.5 | 8.6 | MPHR0100L10 | 5P | 100 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 030 | ○ |
| | P3 | 8.5 | 8.6 | MPHR0100L15 | 5P | 150 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 030 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | MPHS012PL10 | 5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| | P4 | 10.3 | 10.36 | MPHS012PL15 | 5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| | P4 | 10.3 | 10.36 | MPHS012PL20 | 5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| M14X2 | P4 | 12 | 12.12 | MPHS014QL15 | 5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 030 | ○ |
| | P4 | 12 | 12.12 | MPHS014QL20 | 5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 030 | ○ |
| M16X2 | P4 | 14 | 14.12 | MPHS016QL15 | 5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 030 | ○ |
| | P4 | 14 | 14.12 | MPHS016QL20 | 5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 030 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | MPHS018RL15 | 5P | 150 | 37 | - | 70 | 14 | 11 | 14 | 3 | 030 | ○ |
| | P4 | 15.5 | 15.63 | MPHS018RL20 | 5P | 200 | 37 | - | 70 | 14 | 11 | 14 | 3 | 030 | ○ |



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| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M20X2.5 | P4 | 17.5 | 17.63 | MPHS020RL15 | 5P | 150 | 37 | - | 70 | 15 | 12 | 15 | 3 | 030 | ○ |
| | P4 | 17.5 | 17.63 | MPHS020RL20 | 5P | 200 | 37 | - | 70 | 15 | 12 | 15 | 3 | 030 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | MPHS022RL15 | 5P | 150 | 38 | - | 70 | 17 | 13 | 16 | 3 | 030 | ○ |
| | P4 | 19.5 | 19.63 | MPHS022RL20 | 5P | 200 | 38 | - | 70 | 17 | 13 | 16 | 3 | 030 | ○ |
| M24X3 | P4 | 21 | 21.13 | MPHS024SL15 | 5P | 150 | 45 | - | 80 | 19 | 15 | 18 | 3 | 030 | ○ |
| | P4 | 21 | 21.13 | MPHS024SL20 | 5P | 200 | 45 | - | 80 | 19 | 15 | 18 | 3 | 030 | ○ |
| M27X3 | P4 | 24 | 24.13 | MPHS027SL20 | 5P | 200 | 45 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| | P4 | 24 | 24.13 | MPHS027SL25 | 5P | 250 | 45 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | MPHT030TL20 | 5P | 200 | 48 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |
| | P5 | 26.5 | 26.63 | MPHT030TL25 | 5P | 250 | 48 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | MPHR010NL15 | 5P | 150 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 030 | ○ |
| | P3 | 8.8 | 8.85 | MPHR010NL10 | 5P | 100 | 24 | - | 50 | 7 | 5.5 | 8 | 3 | 030 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | MPHR0120L10 | 5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| | P3 | 10.5 | 10.6 | MPHR0120L15 | 5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| | P3 | 10.5 | 10.6 | MPHR0120L20 | 5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | MPHS012NL10 | 5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| | P4 | 10.8 | 10.85 | MPHS012NL15 | 5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| | P4 | 10.8 | 10.85 | MPHS012NL20 | 5P | 200 | 24 | - | 50 | 8.5 | 6.5 | 9 | 3 | 030 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | MPHR0140L15 | 5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 030 | ○ |
| | P3 | 12.5 | 12.6 | MPHR0140L20 | 5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 3 | 030 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | MPHR0160L15 | 5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 030 | ○ |
| | P3 | 14.5 | 14.6 | MPHR0160L20 | 5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 3 | 030 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | MPHS0180L15 | 5P | 150 | 37 | - | 70 | 14 | 11 | 14 | 3 | 030 | ○ |
| | P4 | 16.5 | 16.6 | MPHS0180L20 | 5P | 200 | 29 | - | 70 | 14 | 11 | 14 | 3 | 030 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | MPHS0200L15 | 5P | 150 | 37 | - | 70 | 15 | 12 | 15 | 3 | 030 | ○ |
| | P4 | 18.5 | 18.6 | MPHS0200L20 | 5P | 200 | 29 | - | 70 | 15 | 12 | 15 | 3 | 030 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | MPHS0220L15 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 3 | 030 | ○ |
| | P4 | 20.5 | 20.6 | MPHS0220L20 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 030 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | MPHS0240L15 | 5P | 150 | 35 | - | 80 | 19 | 15 | 18 | 3 | 030 | ○ |
| | P4 | 22.5 | 22.6 | MPHS0240L20 | 5P | 200 | 35 | - | 80 | 19 | 15 | 18 | 3 | 030 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | MPHS0270L20 | 5P | 200 | 37 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| | P4 | 25.5 | 25.6 | MPHS0270L25 | 5P | 250 | 37 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | MPHS0300L20 | 5P | 200 | 37 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |
| | P4 | 28.5 | 28.6 | MPHS0300L25 | 5P | 250 | 37 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |

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ROLL
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LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-PM-PO




## MS Material Specific Series

Long Shank Spiral Pointed Taps for Hard Materials (<45HRC)

HSS-P



5.5P THCHT

**FEATURES**

Long shank material specific for extended overhang on through hole application.

Specific design and high class HSSP for stable and long life on alloy steel and tool steel (30 ÷ 45HRC) application.

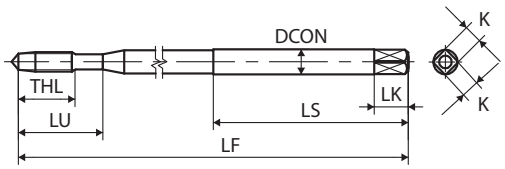
Reliable and high performance tapping for the mould&die industry.

**Recommended Tapping Speeds Depending On Materials**

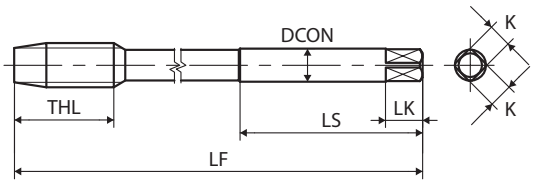
| ISO | Vc (m/min) | |
|---|---|---|
| P3 | 2÷10 | ★ |
| P4 | 2÷7 | ★ |
| P5 | 2÷7 | ★ |
| P6 | 2÷5 | ★ |

★ 1st choice ☆ suitable

**TYPE: PO_011**




**TYPE: PO_013**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P3 | 2.5 | 2.56 | P43.0GRDPBE | 5.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| M4X0.7 | P3 | 3.3 | 3.38 | P44.0IRDPBE | 5.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| M5X0.8 | P3 | 4.2 | 4.28 | P45.0KRDPBE | 5.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| M6X1 | P3 | 5 | 5.09 | P46.0MRDPBE | 5.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3 | 5 | 5.09 | P46.0MRDPBG | 5.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| M8X1.25 | P4 | 6.8 | 6.85 | PY8.0NSDPBE | 5.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P4 | 6.8 | 6.85 | PY8.0NSDPBG | 5.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| M10X1.5 | P4 | 8.5 | 8.6 | PY010OSDPBG | 5.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.75 | P4 | 10.3 | 10.36 | PY012PSDPBG | 5.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X2 | P5 | 12 | 12.12 | PY014QTDPBG | 5.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X2 | P5 | 14 | 14.12 | PY016QTDPBG | 5.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2.5 | P5 | 15.5 | 15.63 | PY018RTDPBG | 5.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M20X2.5 | P5 | 17.5 | 17.63 | PY020RTDPBG | 5.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M22X2.5 | P5 | 19.5 | 19.63 | PY022RTDPBK | 5.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M24X3 | P5 | 21 | 21.13 | PY024STDPBK | 5.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| M27X3 | P5 | 24 | 24.13 | PY027STDPBK | 5.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3.5 | P5 | 26.5 | 26.63 | PY030TTDPBK | 5.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P4 | 8.8 | 8.85 | PY010NSDPBG | 5.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.5 | P4 | 10.5 | 10.6 | PY012OSDPBG | 5.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | PY012NSDPBG | 5.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X1.5 | P4 | 12.5 | 12.6 | PY014OSDPBG | 5.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X1.5 | P4 | 14.5 | 14.6 | PY016OSDPBG | 5.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | PY018OSDPBG | 5.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | PY020OSDPBG | 5.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | PY022OSDPBK | 5.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | PY024OSDPBK | 5.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |
| M27X1.5 | P4 | 25.5 | 25.6 | PY027OSDPBK | 5.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X1.5 | P4 | 28.5 | 28.6 | PY030OSDPBK | 5.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |

Intro
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ROLL
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LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-SU-S-PO




## MS Material Specific Series

Long Shank Spiral Pointed Taps for Stainless Steel

HSS-E | OX | 4.5P THCHT | 5P THCHT

**FEATURES**

Long shank for extended overhang on through hole application.

Material specific for stainless steel and steel application.

With OX treatment to reduce welding troubles.

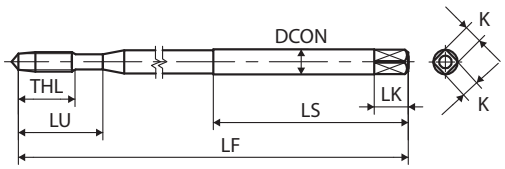
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |
| P3 | ≤10 | ★ |
| P4 | ≤10 | ☆ |
| P7 | ≤10 | ★ |

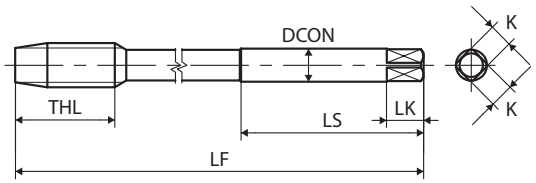
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | ≤10 | ★ |
| M2 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: PO_011**




**TYPE: PO_013**






Think threads with YAMAWA

IMROBEX Machine Tools International

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P2 | 2.5 | 2.56 | PY3.0GQGEXES | 4.5P | 100 | 9 | 28 | 40 | 4 | 3.2 | 6 | 3 | 011 | ● |
| M4X0.7 | P2 | 3.3 | 3.38 | PY4.0IQGEXES | 4.5P | 100 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 011 | ● |
| | P2 | 3.3 | 3.38 | PY4.0IQGEXGS | 4.5P | 150 | 11 | 31 | 40 | 5 | 4 | 7 | 3 | 011 | ● |
| M5X0.8 | P2 | 4.2 | 4.28 | PY5.0KQGEXES | 4.5P | 100 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ● |
| | P2 | 4.2 | 4.28 | PY5.0KQGEXGS | 4.5P | 150 | 13 | 38 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ● |
| M6X1 | P2 | 5 | 5.09 | PY6.0MQGEXES | 4.5P | 100 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 011 | ● |
| | P2 | 5 | 5.09 | PY6.0MQGEXGS | 4.5P | 150 | 15 | 45 | 40 | 6 | 4.5 | 7 | 3 | 011 | ● |
| M8X1.25 | P3 | 6.8 | 6.85 | PY8.0NRGEXES | 5P | 100 | 12 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| | P3 | 6.8 | 6.85 | PY8.0NRGEXGS | 5P | 150 | 12 | - | 50 | 6.2 | 5 | 8 | 3 | 013 | ● |
| M10X1.5 | P3 | 8.5 | 8.6 | PY010ORGEXES | 5P | 100 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| | P3 | 8.5 | 8.6 | PY010ORGEXGS | 5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ● |
| M12X1.75 | P4 | 10.3 | 10.36 | PY012PSGEXES | 5P | 100 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| | P4 | 10.3 | 10.36 | PY012PSGEXGS | 5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| M14X2 | P4 | 12 | 12.12 | PY014QSGEXGS | 5P | 150 | 18 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X2 | P4 | 14 | 14.12 | PY016QSGEXGS | 5P | 150 | 18 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P4 | 14 | 14.12 | PY016QSGEXKS | 5P | 200 | 18 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X2.5 | P4 | 15.5 | 15.63 | PY018RSGEXKS | 5P | 200 | 20 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M20X2.5 | P4 | 17.5 | 17.63 | PY020RSGEXGS | 5P | 150 | 20 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P4 | 17.5 | 17.63 | PY020RSGEXKS | 5P | 200 | 20 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M22X2.5 | P4 | 19.5 | 19.63 | PY022RSGEXKS | 5P | 200 | 20 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M24X3 | P4 | 21 | 21.13 | PY024SSGEXKS | 5P | 200 | 25 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P3 | 8.8 | 8.85 | PY010NRGEXGS | 5P | 150 | 13 | - | 50 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| M12X1.5 | P3 | 10.5 | 10.6 | PY012ORGEXGS | 5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M12X1.25 | P4 | 10.8 | 10.85 | PY012NSGEXGS | 5P | 150 | 15 | - | 50 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| M14X1.5 | P3 | 12.5 | 12.6 | PY014ORGEXGS | 5P | 150 | 14 | - | 60 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| M16X1.5 | P3 | 14.5 | 14.6 | PY016ORGEXGS | 5P | 150 | 14 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| | P3 | 14.5 | 14.6 | PY016ORGEXKS | 5P | 200 | 14 | - | 60 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| M18X1.5 | P4 | 16.5 | 16.6 | PY018OSGEXKS | 5P | 200 | 14 | - | 70 | 14 | 11 | 14 | 3 | 013 | ○ |
| M20X1.5 | P4 | 18.5 | 18.6 | PY020OSGEXGS | 5P | 150 | 14 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| | P4 | 18.5 | 18.6 | PY020OSGEXKS | 5P | 200 | 14 | - | 70 | 15 | 12 | 15 | 3 | 013 | ○ |
| M22X1.5 | P4 | 20.5 | 20.6 | PY022OSGEXKS | 5P | 200 | 14 | - | 70 | 17 | 13 | 16 | 3 | 013 | ○ |
| M24X1.5 | P4 | 22.5 | 22.6 | PY024OSGEXKS | 5P | 200 | 18 | - | 80 | 19 | 15 | 18 | 3 | 013 | ○ |

Intro
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ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-HT




## GP General Purpose Series

Long Shank Straight Fluted Taps

HSS-E





5P THCHT

1.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

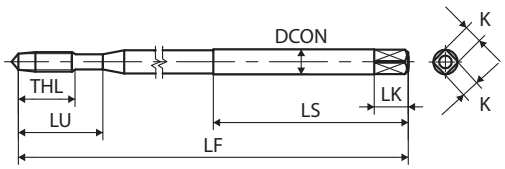
For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

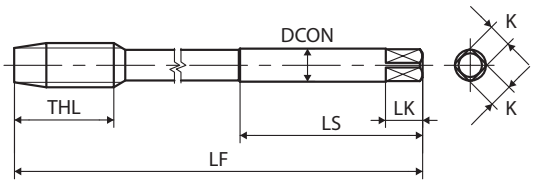
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | K1 | 5÷10 | ☆ | N2 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | K2 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | K3 | 5÷10 | ☆ | N4 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: HT_011**




**TYPE: HT_013**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2X0.4 | P1 | 1.6 | 1.65 | TNFP2.0E507 | 5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| | P1 | 1.6 | 1.65 | TNFP2.0E107 | 1.5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| M2.3X0.4 | P1 | 1.9 | 1.95 | TNFP2.3E507 | 5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| | P1 | 1.9 | 1.95 | TNFP2.3E107 | 1.5P | 70 | 7.2 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| M2.5X0.45 | P1 | 2.1 | 2.11 | TNFP2.5F507 | 5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| | P1 | 2.1 | 2.11 | TNFP2.5F107 | 1.5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| M2.6X0.45 | P1 | 2.2 | 2.21 | TNFP2.6F507 | 5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| | P1 | 2.2 | 2.21 | TNFP2.6F107 | 1.5P | 70 | 8.1 | 15 | 52 | 3 | 2.5 | 5 | 3 | 011 | ○ |
| M3X0.5 | P1 | 2.5 | 2.56 | TNFP3.0G507 | 5P | 70 | 9 | 18 | 46 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G510 | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G512 | 5P | 120 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G515 | 5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G107 | 1.5P | 70 | 9 | 18 | 46 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G110 | 1.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G112 | 1.5P | 120 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G115 | 1.5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | TNFR3.0G510 | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | TNFR3.0G515 | 5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | TNFR3.0G110 | 1.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P3(P1+30) | 2.5 | 2.56 | TNFR3.0G115 | 1.5P | 150 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | TNFQ4.0I507 | 5P | 70 | 11 | 21 | 43 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I510 | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I512 | 5P | 120 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I515 | 5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I107 | 1.5P | 70 | 11 | 21 | 47 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I110 | 1.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I112 | 1.5P | 120 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I115 | 1.5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | TNFR4.0I510 | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | TNFR4.0I515 | 5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | TNFR4.0I110 | 1.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 3.3 | 3.38 | TNFR4.0I115 | 1.5P | 150 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | TNFQ5.0K510 | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K512 | 5P | 120 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K515 | 5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K110 | 1.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K112 | 1.5P | 120 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K115 | 1.5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | TNFR5.0K510 | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | TNFR5.0K515 | 5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | TNFR5.0K110 | 1.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 4.2 | 4.28 | TNFR5.0K115 | 1.5P | 150 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | P2 | 5 | 5.09 | TNFQ6.0M510 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M512 | 5P | 120 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M515 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M520 | 5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M110 | 1.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M112 | 1.5P | 120 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M115 | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M120 | 1.5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 5 | 5.09 | TNFR6.0M510 | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 5 | 5.09 | TNFR6.0M515 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 5 | 5.09 | TNFR6.0M110 | 1.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P3(P2+20) | 5 | 5.09 | TNFR6.0M115 | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | TNMQ8.0N510 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N512 | 5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N515 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N520 | 5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N110 | 1.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N112 | 1.5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N115 | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N120 | 1.5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | TNMR8.0N510 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | TNMR8.0N515 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | TNMR8.0N520 | 5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | TNMR8.0N110 | 1.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | TNMR8.0N115 | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 6.8 | 6.85 | TNMR8.0N120 | 1.5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | TNMQ0100510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100512 | 5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100520 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100525 | 5P | 250 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100112 | 1.5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100120 | 1.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ0100125 | 1.5P | 250 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | TNMR0100510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | TNMR0100515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | TNMR0100110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | TNMR0100115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.5 | 8.6 | TNMS0100510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.5 | 8.6 | TNMS0100515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.5 | 8.6 | TNMS0100110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.5 | 8.6 | TNMS0100115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | TNMR0100520 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.5 | 8.6 | TNMR0100120 | 1.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |



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Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M12X1.75 | P2 | 10.3 | 10.36 | TNMQ012P510 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P512 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P525 | 5P | 250 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P110 | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P112 | 1.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P125 | 1.5P | 250 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.3 | 10.36 | TNMR012P515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.3 | 10.36 | TNMR012P115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.3 | 10.36 | TNMS012P515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.3 | 10.36 | TNMS012P520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.3 | 10.36 | TNMS012P115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.3 | 10.36 | TNMS012P120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.3 | 10.36 | TNMR012P520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.3 | 10.36 | TNMR012P120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M14X2 | P2 | 12 | 12.12 | TNMQ014Q512 | 5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q520 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q525 | 5P | 250 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q112 | 1.5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q120 | 1.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q125 | 1.5P | 250 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3(P2+20) | 12 | 12.12 | TNMR014Q515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3(P2+20) | 12 | 12.12 | TNMR014Q115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3(P2+20) | 12 | 12.12 | TNMR014Q520 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3(P2+20) | 12 | 12.12 | TNMR014Q120 | 1.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| M16X2 | P2 | 14 | 14.12 | TNMQ016Q515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q520 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q525 | 5P | 250 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q120 | 1.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q125 | 1.5P | 250 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3(P2+20) | 14 | 14.12 | TNMR016Q515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3(P2+20) | 14 | 14.12 | TNMR016Q115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3(P2+20) | 14 | 14.12 | TNMR016Q520 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3(P2+20) | 14 | 14.12 | TNMR016Q120 | 1.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M18X2.5 | P3 | 15.5 | 15.63 | TNMR018R515 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 15.5 | 15.63 | TNMR018R520 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 15.5 | 15.63 | TNMR018R525 | 5P | 250 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 15.5 | 15.63 | TNMR018R115 | 1.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 15.5 | 15.63 | TNMR018R120 | 1.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 15.5 | 15.63 | TNMR018R125 | 1.5P | 250 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P3+20) | 15.5 | 15.63 | TNMS018R515 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P3+20) | 15.5 | 15.63 | TNMS018R115 | 1.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P3+20) | 15.5 | 15.63 | TNMS018R520 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P4(P3+20) | 15.5 | 15.63 | TNMS018R120 | 1.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | TNMR020R515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R525 | 5P | 250 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R125 | 1.5P | 250 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 17.5 | 17.63 | TNMS020R515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 17.5 | 17.63 | TNMS020R115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 17.5 | 17.63 | TNMS020R520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 17.5 | 17.63 | TNMS020R120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | TNMR022R515 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R520 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R525 | 5P | 250 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R115 | 1.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R125 | 1.5P | 250 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 19.5 | 19.63 | TNMS022R515 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 19.5 | 19.63 | TNMS022R115 | 1.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 19.5 | 19.63 | TNMS022R520 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P4(P3+20) | 19.5 | 19.63 | TNMS022R120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X3 | P3 | 21 | 21.13 | TNMR024S515 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S520 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S525 | 5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S115 | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S120 | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S125 | 1.5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 21 | 21.13 | TNMS024S515 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 21 | 21.13 | TNMS024S115 | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 21 | 21.13 | TNMS024S520 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P4(P3+20) | 21 | 21.13 | TNMS024S120 | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X3 | P3 | 24 | 24.13 | TNMR027S520 | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 24 | 24.13 | TNMR027S525 | 5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 24 | 24.13 | TNMR027S120 | 1.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 24 | 24.13 | TNMR027S125 | 1.5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M30X3.5 | P4 | 26.5 | 26.63 | TNMS030T520 | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T525 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T530 | 5P | 300 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T120 | 1.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T125 | 1.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T130 | 1.5P | 300 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M33X3.5 | P4 | 29.5 | 29.63 | L25033T5-S | 5P | 250 | 51 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| | P4 | 29.5 | 29.63 | L25033T1-S | 1.5P | 250 | 51 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| M36X4 | P4 | 32 | 32.12 | L25036U5-S | 5P | 250 | 57 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| | P4 | 32 | 32.12 | L30036U5-S | 5P | 300 | 57 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| | P4 | 32 | 32.12 | L25036U1-S | 1.5P | 250 | 57 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| | P4 | 32 | 32.12 | L30036U1-S | 1.5P | 300 | 57 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| M39X4 | P4 | 35 | 35.12 | L30039U5-S | 5P | 300 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P4 | 35 | 35.12 | L30039U1-S | 1.5P | 300 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| M42X4.5 | P4 | 37.5 | 37.63 | L25042V5-S | 5P | 250 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P4 | 37.5 | 37.63 | L30042V5-S | 5P | 300 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P4 | 37.5 | 37.63 | L25042V1-S | 1.5P | 250 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P4 | 37.5 | 37.63 | L30042V1-S | 1.5P | 300 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| M45X4.5 | P4 | 40.5 | 40.63 | L30045V5-S | 5P | 300 | 67 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| | P4 | 40.5 | 40.63 | L30045V1-S | 1.5P | 300 | 67 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| M48X5 | P4 | 43 | 43.12 | L30048W5-S | 5P | 300 | 67 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |
| | P4 | 43 | 43.12 | L30048W1-S | 1.5P | 300 | 67 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M8X1 | P2 | 7 | 7.09 | TNMQ8.0M510 | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M512 | 5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M515 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M110 | 1.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M112 | 1.5P | 120 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 7 | 7.09 | TNMQ8.0M115 | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| M10X1.25 | P2 | 8.8 | 8.85 | TNMQ010N510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N512 | 5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N520 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N112 | 1.5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N120 | 1.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.8 | 8.85 | TNMR010N510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.8 | 8.85 | TNMR010N110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.8 | 8.85 | TNMS010N510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.8 | 8.85 | TNMS010N515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.8 | 8.85 | TNMS010N110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P4(P2+40) | 8.8 | 8.85 | TNMS010N115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.8 | 8.85 | TNMR010N515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P3(P2+20) | 8.8 | 8.85 | TNMR010N115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1 | P2 | 9 | 9.09 | TNMQ010M510 | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 9 | 9.09 | TNMQ010M512 | 5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 9 | 9.09 | TNMQ010M515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 9 | 9.09 | TNMQ010M110 | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 9 | 9.09 | TNMQ010M112 | 1.5P | 120 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 9 | 9.09 | TNMQ010M115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | TNMQ0120510 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120512 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120110 | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120112 | 1.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.5 | 10.6 | TNMS0120515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.5 | 10.6 | TNMS0120520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.5 | 10.6 | TNMS0120115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.5 | 10.6 | TNMS0120120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.5 | 10.6 | TNMR0120515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.5 | 10.6 | TNMR0120115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | TNMQ012N510 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N512 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N110 | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N112 | 1.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.8 | 10.85 | TNMS012N515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.8 | 10.85 | TNMS012N520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.8 | 10.85 | TNMS012N115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P4(P2+40) | 10.8 | 10.85 | TNMS012N120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.8 | 10.85 | TNMR012N515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3(P2+20) | 10.8 | 10.85 | TNMR012N115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M12X1 | P2 | 11 | 11.09 | TNMQ012M510 | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 11 | 11.09 | TNMQ012M515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 11 | 11.09 | TNMQ012M110 | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 11 | 11.09 | TNMQ012M115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 11 | 11.09 | TNMQ012M512 | 5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 11 | 11.09 | TNMQ012M112 | 1.5P | 120 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M14X1.5 | P2 | 12.5 | 12.6 | TNMQ0140512 | 5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12.5 | 12.6 | TNMQ0140515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12.5 | 12.6 | TNMQ0140520 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12.5 | 12.6 | TNMQ0140112 | 1.5P | 120 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12.5 | 12.6 | TNMQ0140115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12.5 | 12.6 | TNMQ0140120 | 1.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3(P2+20) | 12.5 | 12.6 | TNMR0140515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3(P2+20) | 12.5 | 12.6 | TNMR0140115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| M14X1 | P2 | 13 | 13.09 | TNMQ014M515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 13 | 13.09 | TNMQ014M115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | TNMQ0160515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQ0160520 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQ0160115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQ0160120 | 1.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQ0160512 | 5P | 120 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQ0160112 | 1.5P | 120 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3(P2+20) | 14.5 | 14.6 | TNMR0160515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3(P2+20) | 14.5 | 14.6 | TNMR0160115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| M16X1 | P2 | 15 | 15.09 | TNMQ016M515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 15 | 15.09 | TNMQ016M115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| M18X2 | P3 | 16 | 16.12 | TNMR018Q520 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 16 | 16.12 | TNMR018Q120 | 1.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | TNMQ0180515 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P2 | 16.5 | 16.6 | TNMQ0180520 | 5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P2 | 16.5 | 16.6 | TNMQ0180115 | 1.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P2 | 16.5 | 16.6 | TNMQ0180120 | 1.5P | 200 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3(P2+20) | 16.5 | 16.6 | TNMR0180515 | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3(P2+20) | 16.5 | 16.6 | TNMR0180115 | 1.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X2 | P3 | 18 | 18.12 | TNMR020Q520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18 | 18.12 | TNMR020Q120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | TNMR0200515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18.5 | 18.6 | TNMR0200520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18.5 | 18.6 | TNMR0200115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18.5 | 18.6 | TNMR0200120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 18.5 | 18.6 | TNMS0200515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P4(P3+20) | 18.5 | 18.6 | TNMS0200115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X2 | P3 | 20 | 20.12 | TNMR022Q520 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 20 | 20.12 | TNMR022Q120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | TNMR0220515 | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 20.5 | 20.6 | TNMR0220520 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 20.5 | 20.6 | TNMR0220115 | 1.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 20.5 | 20.6 | TNMR0220120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X2 | P3 | 22 | 22.12 | TNMR024Q520 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22 | 22.12 | TNMR024Q120 | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M24X1.5 | P3 | 22.5 | 22.6 | TNMR0240515 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.5 | 22.6 | TNMR0240520 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.5 | 22.6 | TNMR0240115 | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.5 | 22.6 | TNMR0240120 | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X2 | P3 | 25 | 25.12 | TNMR027Q525 | 5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25 | 25.12 | TNMR027Q125 | 1.5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25 | 25.12 | TNMR027Q520 | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25 | 25.12 | TNMR027Q120 | 1.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | TNMR0270520 | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25.5 | 25.6 | TNMR0270525 | 5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25.5 | 25.6 | TNMR0270120 | 1.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25.5 | 25.6 | TNMR0270125 | 1.5P | 250 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3 | P3 | 27 | 27.13 | TNMR030S525 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 27 | 27.13 | TNMR030S125 | 1.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 27 | 27.13 | TNMR030S520 | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 27 | 27.13 | TNMR030S120 | 1.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X2 | P3 | 28 | 28.12 | TNMR030Q520 | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28 | 28.12 | TNMR030Q525 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28 | 28.12 | TNMR030Q120 | 1.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28 | 28.12 | TNMR030Q125 | 1.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | TNMR0300520 | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28.5 | 28.6 | TNMR0300525 | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28.5 | 28.6 | TNMR0300120 | 1.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28.5 | 28.6 | TNMR0300125 | 1.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M33X3 | P3 | 30 | 30.13 | L25033S5-R | 5P | 250 | 51 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| | P3 | 30 | 30.13 | L25033S1-R | 1.5P | 250 | 51 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| M33X2 | P3 | 31 | 31.12 | L25033Q5-R | 5P | 250 | 45 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| | P3 | 31 | 31.12 | L25033Q1-R | 1.5P | 250 | 45 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| M33X1.5 | P3 | 31.5 | 31.6 | L2503305-R | 5P | 250 | 45 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| | P3 | 31.5 | 31.6 | L2503301-R | 1.5P | 250 | 45 | - | 80 | 25 | 19 | 22 | 4 | 013 | ○ |
| M36X3 | P3 | 33 | 33.13 | L25036S5-R | 5P | 250 | 57 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| | P3 | 33 | 33.13 | L25036S1-R | 1.5P | 250 | 57 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| M36X2 | P3 | 34 | 34.12 | L25036Q5-R | 5P | 250 | 45 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| | P3 | 34 | 34.12 | L25036Q1-R | 1.5P | 250 | 45 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| M36X1.5 | P3 | 34.5 | 34.6 | L2503605-R | 5P | 250 | 45 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| | P3 | 34.5 | 34.6 | L2503601-R | 1.5P | 250 | 45 | - | 100 | 28 | 21 | 24 | 4 | 013 | ○ |
| M39X3 | P3 | 36 | 36.13 | L25039S5-R | 5P | 250 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 36 | 36.13 | L25039S1-R | 1.5P | 250 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| M39X2 | P3 | 37 | 37.12 | L25039Q5-R | 5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 37 | 37.12 | L25039Q1-R | 1.5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| M39X1.5 | P3 | 37.5 | 37.6 | L2503905-R | 5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 37.5 | 37.6 | L2503901-R | 1.5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| M40X3 | P3 | 37 | 37.13 | L25040S5-R | 5P | 250 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 37 | 37.13 | L30040S5-R | 5P | 300 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 37 | 37.13 | L25040S1-R | 1.5P | 250 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 37 | 37.13 | L30040S1-R | 1.5P | 300 | 60 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |



Think threads with YAMAWA

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| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M40X2 | P3 | 38 | 38.12 | L25040Q5-R | 5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 38 | 38.12 | L30040Q5-R | 5P | 300 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 38 | 38.12 | L25040Q1-R | 1.5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 38 | 38.12 | L30040Q1-R | 1.5P | 300 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| M40X1.5 | P3 | 38.5 | 38.6 | L2504005-R | 5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 38.5 | 38.6 | L3004005-R | 5P | 300 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 38.5 | 38.6 | L2504001-R | 1.5P | 250 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| | P3 | 38.5 | 38.6 | L3004001-R | 1.5P | 300 | 45 | - | 100 | 30 | 23 | 26 | 4 | 013 | ○ |
| M42X3 | P3 | 39 | 39.13 | L25042S5-R | 5P | 250 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 39 | 39.13 | L30042S5-R | 5P | 300 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 39 | 39.13 | L25042S1-R | 1.5P | 250 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 39 | 39.13 | L30042S1-R | 1.5P | 300 | 60 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| M42X2 | P3 | 40 | 40.12 | L25042Q5-R | 5P | 250 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 40 | 40.12 | L30042Q5-R | 5P | 300 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 40 | 40.12 | L25042Q1-R | 1.5P | 250 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 40 | 40.12 | L30042Q1-R | 1.5P | 300 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| M42X1.5 | P3 | 40.5 | 40.6 | L3004205-R | 5P | 300 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 40.5 | 40.6 | L2504201-R | 1.5P | 250 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 40.5 | 40.6 | L3004201-R | 1.5P | 300 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 40.5 | 40.6 | L2504205-R | 5P | 250 | 45 | - | 100 | 32 | 26 | 30 | 4 | 013 | ○ |
| M45X3 | P3 | 42 | 42.13 | L30045S5-R | 5P | 300 | 67 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 42 | 42.13 | L30045S1-R | 1.5P | 300 | 67 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| M45X2 | P3 | 43 | 43.12 | L30045Q5-R | 5P | 300 | 45 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 43 | 43.12 | L30045Q1-R | 1.5P | 300 | 45 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| M45X1.5 | P3 | 43.5 | 43.6 | L3004505-R | 5P | 300 | 45 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| | P3 | 43.5 | 43.6 | L3004501-R | 1.5P | 300 | 45 | - | 100 | 35 | 26 | 30 | 4 | 013 | ○ |
| M48X3 | P3 | 45 | 45.13 | L30048S5-R | 5P | 300 | 67 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |
| | P3 | 45 | 45.13 | L30048S1-R | 1.5P | 300 | 67 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |
| M48X2 | P3 | 46 | 46.12 | L30048Q5-R | 5P | 300 | 45 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |
| | P3 | 46 | 46.12 | L30048Q1-R | 1.5P | 300 | 45 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |
| M48X1.5 | P3 | 46.5 | 46.6 | L3004805-R | 5P | 300 | 45 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |
| | P3 | 46.5 | 46.6 | L3004801-R | 1.5P | 300 | 45 | - | 100 | 38 | 29 | 32 | 4 | 013 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20UNC | P2 | 5.1 | 5.19 | TNFQU04N515 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.1 | 5.19 | TNFQU04N520 | 5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.1 | 5.19 | TNFQU04N115 | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.1 | 5.19 | TNFQU04N120 | 1.5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| 5/16-18UNC | P2 | 6.6 | 6.65 | TNMQU050515 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.6 | 6.65 | TNMQU050520 | 5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.6 | 6.65 | TNMQU050115 | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.6 | 6.65 | TNMQU050120 | 1.5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| 3/8-16UNC | P2 | 8 | 8.07 | TNMQU06P515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8 | 8.07 | TNMQU06P520 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8 | 8.07 | TNMQU06P115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8 | 8.07 | TNMQU06P120 | 1.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |

| UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 7/16-14UNC | P3 | 9.4 | 9.45 | TNMRU07Q515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3 | 9.4 | 9.45 | TNMRU07Q115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3 | 9.4 | 9.45 | TNMRU07Q520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| 1/2-13UNC | P3 | 10.9 | 10.91 | TNMRU08R515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3 | 10.9 | 10.91 | TNMRU08R520 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3 | 10.9 | 10.91 | TNMRU08R115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3 | 10.9 | 10.91 | TNMRU08R120 | 1.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| 5/8-11UNC | P3 | 13.6 | 13.75 | TNMRU10U515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3 | 13.6 | 13.75 | TNMRU10U520 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3 | 13.6 | 13.75 | TNMRU10U115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3 | 13.6 | 13.75 | TNMRU10U120 | 1.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| 3/4-10UNC | P3 | 16.6 | 16.7 | TNMRU12V515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 16.6 | 16.7 | TNMRU12V520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 16.6 | 16.7 | TNMRU12V115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 16.6 | 16.7 | TNMRU12V120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8-9UNC | P3 | 19.6 | 19.61 | TNMRU14W520 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.6 | 19.61 | TNMRU14W120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -8UNC | P3 | 22.3 | 22.45 | TNMRU16X515 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.3 | 22.45 | TNMRU16X520 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.3 | 22.45 | TNMRU16X115 | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.3 | 22.45 | TNMRU16X120 | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.3 | 22.45 | TNMRU16X525 | 5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.3 | 22.45 | TNMRU16X125 | 1.5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-28UNF | P2 | 5.5 | 5.53 | TNFQU04K515 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.5 | 5.53 | TNFQU04K520 | 5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.5 | 5.53 | TNFQU04K115 | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.5 | 5.53 | TNFQU04K120 | 1.5P | 200 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| 5/16-24UNF | P2 | 6.9 | 6.97 | TNMQU05M515 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.9 | 6.97 | TNMQU05M520 | 5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.9 | 6.97 | TNMQU05M115 | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.9 | 6.97 | TNMQU05M120 | 1.5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| 3/8-24UNF | P2 | 8.5 | 8.57 | TNMQU06M515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.57 | TNMQU06M520 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.57 | TNMQU06M115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.57 | TNMQU06M120 | 1.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| 7/16-20UNF | P2 | 9.9 | 9.96 | TNMQU07N515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 9.9 | 9.96 | TNMQU07N520 | 5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 9.9 | 9.96 | TNMQU07N115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 9.9 | 9.96 | TNMQU07N120 | 1.5P | 200 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| 1/2-20UNF | P2 | 11.5 | 11.54 | TNMQU08N515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 11.5 | 11.54 | TNMQU08N520 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 11.5 | 11.54 | TNMQU08N115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 11.5 | 11.54 | TNMQU08N120 | 1.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 9/16-18UNF | P2 | 12.9 | 13 | TNMQU090515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 12.9 | 13 | TNMQU090115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| 5/8-18UNF | P2 | 14.5 | 14.6 | TNMQU100515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQU100115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| 3/4-16UNF | P3 | 17.5 | 17.59 | TNMRU12P515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.59 | TNMRU12P115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.59 | TNMRU12P520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.59 | TNMRU12P120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8-14UNF | P3 | 20.5 | 20.57 | TNMRU14Q115 | 1.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 20.5 | 20.57 | TNMRU14Q120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 -12UNF | P3 | 23.3 | 23.46 | TNMRU16S515 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 23.3 | 23.46 | TNMRU16S115 | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4W20 | P2 | 5.1 | 5.13 | TNFQW04N515 | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5.1 | 5.13 | TNFQW04N115 | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| 5/16W18 | P2 | 6.5 | 6.59 | TNMQW05O515 | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.5 | 6.59 | TNMQW05O520 | 5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.5 | 6.59 | TNMQW05O115 | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.5 | 6.59 | TNMQW05O120 | 1.5P | 200 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| 3/8W16 | P2 | 8 | 8.02 | TNMQW06P515 | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8 | 8.02 | TNMQW06P520 | 5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8 | 8.02 | TNMQW06P115 | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8 | 8.02 | TNMQW06P120 | 1.5P | 200 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| 7/16W14 | P3 | 9.3 | 9.39 | TNMRW07Q515 | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P3 | 9.3 | 9.39 | TNMRW07Q115 | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| 1/2W12 | P3 | 10.6 | 10.7 | TNMRW08S515 | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3 | 10.6 | 10.7 | TNMRW08S520 | 5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3 | 10.6 | 10.7 | TNMRW08S115 | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P3 | 10.6 | 10.7 | TNMRW08S120 | 1.5P | 200 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| 5/8W11 | P3 | 13.5 | 13.68 | TNMRW10U515 | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3 | 13.5 | 13.68 | TNMRW10U520 | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3 | 13.5 | 13.68 | TNMRW10U115 | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P3 | 13.5 | 13.68 | TNMRW10U120 | 1.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| 3/4W10 | P3 | 16.5 | 16.63 | TNMRW12V515 | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 16.5 | 16.63 | TNMRW12V520 | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 16.5 | 16.63 | TNMRW12V115 | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 16.5 | 16.63 | TNMRW12V120 | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| 7/8W9 | P3 | 19.5 | 19.53 | TNMRW14W520 | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.53 | TNMRW14W120 | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| 1 W8 | P3 | 22.2 | 22.34 | TNMRW16X515 | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.2 | 22.34 | TNMRW16X520 | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.2 | 22.34 | TNMRW16X525 | 5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.2 | 22.34 | TNMRW16X115 | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.2 | 22.34 | TNMRW16X120 | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 22.2 | 22.34 | TNMRW16X125 | 1.5P | 250 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |

# LS-PF




## GP General Purpose Series

Long Shank Straight Fluted Taps for Parallel Pipe Threads

HSS-E





3.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

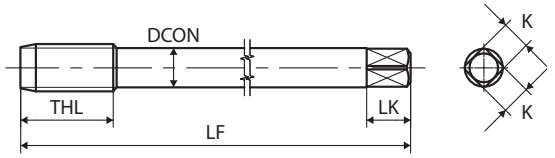
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

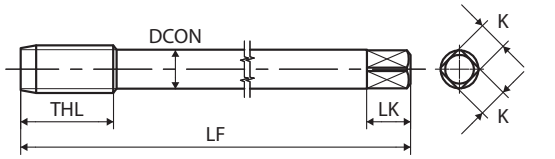
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: Pipe_039**




**TYPE: Pipe_055**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8-28 | II | 8.75 | 8.78 | L10F02K | 3.5P | 9.728 | 100 | 19 | - | 8 | 6 | 9 | 4 | 039 | ○ |
| | II | 8.75 | 8.78 | L15F02K | 3.5P | 9.728 | 150 | 19 | - | 8 | 6 | 9 | 4 | 039 | ● |
| | II | 8.75 | 8.78 | L20F02K | 3.5P | 9.728 | 200 | 19 | - | 8 | 6 | 9 | 4 | 039 | ○ |
| 1/4-19 | II | 11.75 | 11.78 | L10F04- | 3.5P | 13.157 | 100 | 28 | - | 11 | 9 | 12 | 4 | 039 | ○ |
| | II | 11.75 | 11.78 | L15F04- | 3.5P | 13.157 | 150 | 28 | - | 11 | 9 | 12 | 4 | 039 | ● |
| | II | 11.75 | 11.78 | L20F04- | 3.5P | 13.157 | 200 | 28 | - | 11 | 9 | 12 | 4 | 039 | ○ |
| 3/8-19 | II | 15.25 | 15.28 | L10F06- | 3.5P | 16.662 | 100 | 28 | - | 14 | 11 | 14 | 4 | 039 | ○ |
| | II | 15.25 | 15.28 | L15F06- | 3.5P | 16.662 | 150 | 28 | - | 14 | 11 | 14 | 4 | 039 | ○ |
| | II | 15.25 | 15.28 | L20F06- | 3.5P | 16.662 | 200 | 28 | - | 14 | 11 | 14 | 4 | 039 | ○ |
| 1/2-14 | II | 19 | 19.04 | L15F08Q | 3.5P | 20.955 | 150 | 35 | - | 18 | 14 | 17 | 4 | 039 | ○ |
| | II | 19 | 19.04 | L20F08Q | 3.5P | 20.955 | 200 | 35 | - | 18 | 14 | 17 | 4 | 039 | ○ |
| 3/4-14 | II | 24.5 | 24.52 | L15F12Q | 3.5P | 26.441 | 150 | 35 | - | 23 | 17 | 20 | 4 | 039 | ○ |
| | II | 24.5 | 24.52 | L20F12Q | 3.5P | 26.441 | 200 | 35 | - | 23 | 17 | 20 | 4 | 039 | ○ |
| 1 -11 | II | 30.75 | 30.77 | L15F16U | 3.5P | 33.249 | 150 | 45 | - | 26 | 21 | 24 | 4 | 039 | ○ |
| | II | 30.75 | 30.77 | L20F16U | 3.5P | 33.249 | 200 | 45 | - | 26 | 21 | 24 | 4 | 039 | ○ |
| 1 1/4-11 | II | 39.3 | 39.43 | L20F20U | 3.5P | 41.910 | 200 | 45 | - | 32 | 26 | 30 | 4 | 055 | ○ |
| 1 1/2-11 | II | 45.25 | 45.33 | L20F24U | 3.5P | 47.803 | 200 | 45 | - | 38 | 29 | 32 | 6 | 055 | ○ |
| 2 -11 | II | 57 | 57.1 | L20F32U | 3.5P | 59.614 | 200 | 50 | - | 46 | 35 | 38 | 6 | 055 | ○ |



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# LS-PS




## GP General Purpose Series

Long Shank Straight Fluted Taps for Parallel Pipe Threads

HSS-E





3.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

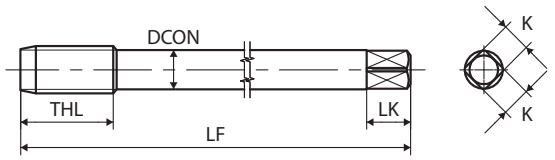
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: Pipe_039**




| Rp(BSPP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8-28 | II | 8.5 | 8.55 | L10P02K | 3.5P | 9.728 | 100 | 19 | - | 8 | 6 | 9 | 4 | 039 | ○ |
| | II | 8.5 | 8.55 | L15P02K | 3.5P | 9.728 | 150 | 19 | - | 8 | 6 | 9 | 4 | 039 | ○ |
| | II | 8.5 | 8.55 | L20P02K | 3.5P | 9.728 | 200 | 19 | - | 8 | 6 | 9 | 4 | 039 | ○ |
| 1/4-19 | II | 11.4 | 11.5 | L10P04- | 3.5P | 13.157 | 100 | 28 | - | 11 | 9 | 12 | 4 | 039 | ○ |
| | II | 11.4 | 11.5 | L15P04- | 3.5P | 13.157 | 150 | 28 | - | 11 | 9 | 12 | 4 | 039 | ○ |
| | II | 11.4 | 11.5 | L20P04- | 3.5P | 13.157 | 200 | 28 | - | 11 | 9 | 12 | 4 | 039 | ○ |
| 3/8-19 | II | 14.8 | 14.9 | L10P06- | 3.5P | 16.662 | 100 | 28 | - | 14 | 11 | 14 | 4 | 039 | ○ |
| | II | 14.8 | 14.9 | L15P06- | 3.5P | 16.662 | 150 | 28 | - | 14 | 11 | 14 | 4 | 039 | ○ |
| | II | 14.8 | 14.9 | L20P06- | 3.5P | 16.662 | 200 | 28 | - | 14 | 11 | 14 | 4 | 039 | ○ |
| 1/2-14 | II | 18.5 | 18.55 | L15P08Q | 3.5P | 20.955 | 150 | 35 | - | 18 | 14 | 17 | 4 | 039 | ○ |
| | II | 18.5 | 18.55 | L20P08Q | 3.5P | 20.955 | 200 | 35 | - | 18 | 14 | 17 | 4 | 039 | ○ |
| 3/4-14 | II | 24 | 24.1 | L15P12Q | 3.5P | 26.441 | 150 | 35 | - | 23 | 17 | 20 | 4 | 039 | ○ |
| | II | 24 | 24.1 | L20P12Q | 3.5P | 26.441 | 200 | 35 | - | 23 | 17 | 20 | 4 | 039 | ○ |
| 1 -11 | II | 30.2 | 30.25 | L15P16U | 3.5P | 33.249 | 150 | 45 | - | 26 | 21 | 24 | 5 | 039 | ○ |
| | II | 30.2 | 30.25 | L20P16U | 3.5P | 33.249 | 200 | 45 | - | 26 | 21 | 24 | 5 | 039 | ○ |
| 1 1/4-11 | II | 38.75 | 38.8 | L20P20U | 3.5P | 41.910 | 200 | 45 | - | 32 | 26 | 30 | 5 | 039 | ○ |
| 1 1/2-11 | II | 44.6 | 44.7 | L20P24U | 3.5P | 47.803 | 200 | 45 | - | 38 | 29 | 32 | 6 | 039 | ○ |

# LS-PT




## GP General Purpose Series

Long Shank Straight Fluted Taps for Taper Pipe Threads

HSS-E





2.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

### Recommended Tapping Speeds Depending On Materials

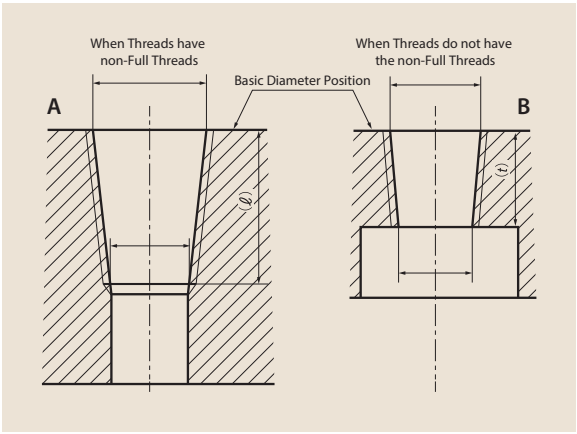
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ☆ |
| P2 | ≤5 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | ≤5 | ☆ |
| K2 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N2 | ≤5 | ☆ |
| N3 | ≤5 | ☆ |
| N4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

### Bored Hole Ø (mm) A - B

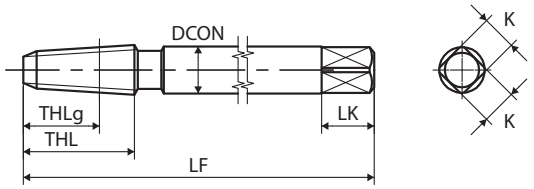




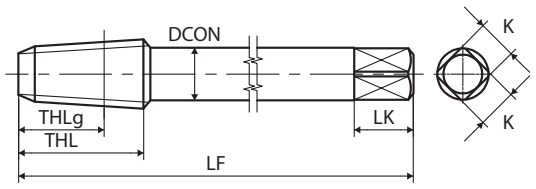

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Machine Tools International

**TYPE: Pipe_014**




**TYPE: Pipe_003**




| Rc(BSPT) | TCTR (tolerance) | Bored Hole Ø (mm) A | Bored Hole Ø (mm) B | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | THLg (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| 1/16-28 | II | 6.1 | 6.2 | L10T01K-8 | 2.5P | 7.723 | 100 | 19 | 13 | - | 8 | 6 | 9 | 4 | 014 | ○ |
| 1/8-28 | II | 8.1 | 8.2 | L10T02K | 2.5P | 9.728 | 100 | 19 | 13 | - | 8 | 6 | 9 | 4 | 003 | ● |
| | II | 8.1 | 8.2 | L15T02K | 2.5P | 9.728 | 150 | 19 | 13 | - | 8 | 6 | 9 | 4 | 003 | ○ |
| | II | 8.1 | 8.2 | L20T02K | 2.5P | 9.728 | 200 | 19 | 13 | - | 8 | 6 | 9 | 4 | 003 | ○ |
| 1/4-19 | II | 10.7 | 10.9 | L10T04- | 2.5P | 13.157 | 100 | 28 | 21 | - | 11 | 9 | 12 | 4 | 003 | ● |
| | II | 10.7 | 10.9 | L15T04- | 2.5P | 13.157 | 150 | 28 | 21 | - | 11 | 9 | 12 | 4 | 003 | ○ |
| | II | 10.7 | 10.9 | L20T04- | 2.5P | 13.157 | 200 | 28 | 21 | - | 11 | 9 | 12 | 4 | 003 | ○ |
| 3/8-19 | II | 14.2 | 14.4 | L10T06- | 2.5P | 16.662 | 100 | 28 | 21 | - | 14 | 11 | 14 | 4 | 003 | ● |
| | II | 14.2 | 14.4 | L12T06- | 2.5P | 16.662 | 120 | 28 | 21 | - | 14 | 11 | 14 | 4 | 003 | ○ |
| | II | 14.2 | 14.4 | L15T06- | 2.5P | 16.662 | 150 | 28 | 21 | - | 14 | 11 | 14 | 4 | 003 | ○ |
| | II | 14.2 | 14.4 | L20T06- | 2.5P | 16.662 | 200 | 28 | 21 | - | 14 | 11 | 14 | 4 | 003 | ○ |
| 1/2-14 | II | 17.6 | 17.9 | L15T08Q | 2.5P | 20.955 | 150 | 35 | 25 | - | 18 | 14 | 17 | 4 | 003 | ○ |
| | II | 17.6 | 17.9 | L20T08Q | 2.5P | 20.955 | 200 | 35 | 25 | - | 18 | 14 | 17 | 4 | 003 | ○ |
| 3/4-14 | II | 23 | 23.3 | L15T12Q | 2.5P | 26.441 | 150 | 35 | 25 | - | 23 | 17 | 20 | 4 | 003 | ○ |
| | II | 23 | 23.3 | L20T12Q | 2.5P | 26.441 | 200 | 35 | 25 | - | 23 | 17 | 20 | 4 | 003 | ○ |
| 1 -11 | II | 29 | 29.3 | L15T16U | 2.5P | 33.249 | 150 | 45 | 32 | - | 26 | 21 | 24 | 5 | 003 | ○ |
| | II | 29 | 29.3 | L20T16U | 2.5P | 33.249 | 200 | 45 | 32 | - | 26 | 21 | 24 | 5 | 003 | ○ |
| 1 1/4-11 | II | 37.6 | 37.9 | L20T20U | 2.5P | 41.910 | 200 | 45 | 32 | - | 32 | 26 | 30 | 5 | 003 | ○ |
| 1 1/2-11 | II | 43.5 | 43.8 | L20T24U | 2.5P | 47.803 | 200 | 45 | 32 | - | 38 | 29 | 32 | 6 | 003 | ○ |
| 2 -11 | II | 55 | 55.4 | L20T32U | 2.5P | 59.614 | 200 | 50 | 35 | - | 46 | 35 | 38 | 6 | 003 | ○ |

# LS-NPT




## GP General Purpose Series

Long Shank Straight Fluted Taps for American Taper Pipe Threads

HSS-E





3P THCHT

**FEATURES**

Long shank general purpose for blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

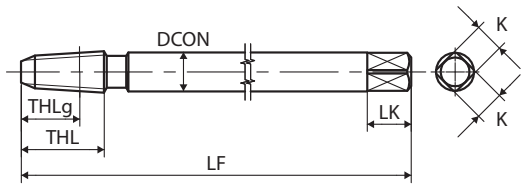
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ☆ |
| P2 | ≤5 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | ≤5 | ☆ |
| K2 | ≤5 | ☆ |
| K3 | ≤5 | ☆ |

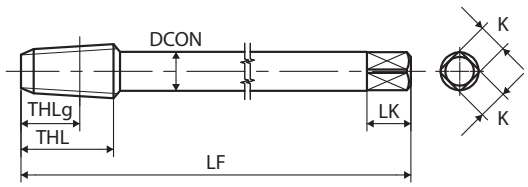
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | ≤5 | ☆ |
| N3 | ≤5 | ☆ |
| N4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: Pipe_065**




**TYPE: Pipe_058**




| NPT | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/16-27 | ANSI G | 6 | 6.05 | TNPT01LL10 | 3P | 7.770 | 100 | 17 | - | 8 | 6 | 9 | 4 | 065 | ○ |
| | ANSI G | 6 | 6.05 | TNPT01LL15 | 3P | 7.770 | 150 | 17 | - | 8 | 6 | 9 | 4 | 065 | ○ |
| 1/8-27 | ANSI G | 8.35 | 8.39 | TNPT02LL10 | 3P | 10.117 | 100 | 19 | - | 8 | 6 | 9 | 4 | 058 | ○ |
| | ANSI G | 8.35 | 8.39 | TNPT02LL15 | 3P | 10.117 | 150 | 19 | - | 8 | 6 | 9 | 4 | 058 | ○ |
| 1/4-18 | ANSI G | 10.8 | 10.85 | TNPT04OL10 | 3P | 13.426 | 100 | 28 | - | 11 | 9 | 12 | 4 | 058 | ○ |
| | ANSI G | 10.8 | 10.85 | TNPT04OL15 | 3P | 13.426 | 150 | 28 | - | 11 | 9 | 12 | 4 | 058 | ○ |
| 3/8-18 | ANSI G | 14.25 | 14.27 | TNPT06OL10 | 3P | 16.866 | 100 | 28 | - | 14 | 11 | 14 | 4 | 058 | ○ |
| | ANSI G | 14.25 | 14.27 | TNPT06OL15 | 3P | 16.866 | 150 | 28 | - | 14 | 11 | 14 | 4 | 058 | ○ |
| 1/2-14 | ANSI G | 17.5 | 17.6 | TNPT08QL15 | 3P | 20.980 | 150 | 35 | - | 18 | 14 | 17 | 4 | 058 | ○ |
| 3/4-14 | ANSI G | 22.9 | 22.91 | TNPT12QL15 | 3P | 26.325 | 150 | 35 | - | 23 | 17 | 20 | 4 | 058 | ○ |
| 1 -11 1/2 | ANSI G | 28.75 | 28.78 | TNPT16TL15 | 3P | 32.934 | 150 | 45 | - | 26 | 21 | 24 | 5 | 058 | ○ |



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IMROBEX Machine Tools International

# LS-NPTF




## GP General Purpose Series

Long Shank Straight Fluted Taps for American Dryseal Taper Pipe Threads

HSS-E





3P THCHT

**FEATURES**

Long shank material specific for blind and through through hole application.

Specific design for stainless steel, also suitable for steel and alloy steel.

OX treatment reduces welding troubles.

**Recommended Tapping Speeds Depending On Materials**

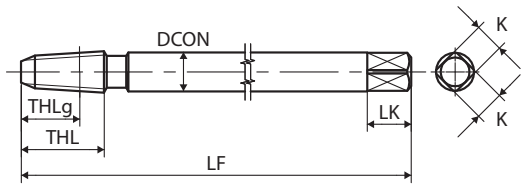
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ☆ |
| P2 | ≤5 | ★ |
| P3 | ≤5 | ☆ |
| P4 | ≤5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | ≤5 | ☆ |
| K2 | ≤5 | ☆ |
| K3 | ≤5 | ☆ |

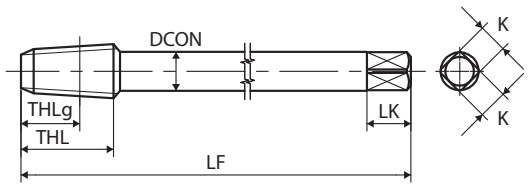
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | ≤5 | ☆ |
| N3 | ≤5 | ☆ |
| N4 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: Pipe_065**




**TYPE: Pipe_058**




| NPTF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/16-27 | ANSI G | 5.95 | 5.99 | TNTF01LL10 | 3P | 7.770 | 100 | 17 | - | 8 | 6 | 9 | 4 | 065 | ○ |
| | ANSI G | 5.95 | 5.99 | TNTF01LL15 | 3P | 7.770 | 150 | 17 | - | 8 | 6 | 9 | 4 | 065 | ○ |
| 1/8-27 | ANSI G | 8.3 | 8.34 | TNTF02LL10 | 3P | 10.117 | 100 | 19 | - | 8 | 6 | 9 | 4 | 058 | ○ |
| | ANSI G | 8.3 | 8.34 | TNTF02LL15 | 3P | 10.117 | 150 | 19 | - | 8 | 6 | 9 | 4 | 058 | ○ |
| 1/4-18 | ANSI G | 10.7 | 10.75 | TNTF04OL15 | 3P | 13.426 | 150 | 28 | - | 11 | 9 | 12 | 4 | 058 | ○ |
| | ANSI G | 10.7 | 10.75 | TNTF04OL10 | 3P | 13.426 | 100 | 28 | - | 11 | 9 | 12 | 4 | 058 | ○ |
| 3/8-18 | ANSI G | 14.1 | 14.17 | TNTF06OL10 | 3P | 16.866 | 100 | 28 | - | 14 | 11 | 14 | 4 | 058 | ○ |
| | ANSI G | 14.1 | 14.17 | TNTF06OL15 | 3P | 16.866 | 150 | 28 | - | 14 | 11 | 14 | 4 | 058 | ○ |
| 1/2-14 | ANSI G | 17.4 | 17.44 | TNTF08QL15 | 3P | 20.980 | 150 | 35 | - | 18 | 14 | 17 | 4 | 058 | ○ |
| 3/4-14 | ANSI G | 22.7 | 22.75 | TNTF12QL15 | 3P | 26.325 | 150 | 35 | - | 23 | 17 | 20 | 4 | 058 | ○ |
| 1 -11 1/2 | ANSI G | 28.5 | 28.6 | TNTF16TL15 | 3P | 32.934 | 150 | 45 | - | 26 | 21 | 24 | 5 | 058 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-HT LH




## GP General Purpose Series

Long Shank Straight Fluted Taps for Left Hand Threads




**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

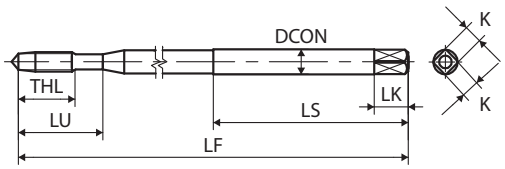
For left hand threads.

**Recommended Tapping Speeds Depending On Materials**

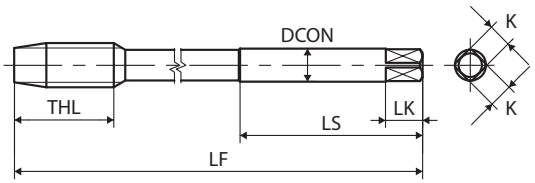
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | K1 | 5÷10 | ☆ | N2 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ | K2 | 5÷10 | ☆ | N3 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ | K3 | 5÷10 | ☆ | N4 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: HT_011**




**TYPE: HT_013**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P1 | 2.5 | 2.56 | TNFP3.0G510L | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G110L | 1.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | TNFQ4.0I510L | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I110L | 1.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | TNFQ5.0K510L | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K110L | 1.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| M6X1 | P2 | 5 | 5.09 | TNFQ6.0M510L | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M515L | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M110L | 1.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M115L | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | TNMQ8.0N510L | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N515L | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N110L | 1.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N115L | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | TNMQ010O510L | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ010O515L | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ010O110L | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ010O115L | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | TNMQ012P515L | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P115L | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P510L | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P110L | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M14X2 | P2 | 12 | 12.12 | TNMQ014Q515L | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12 | 12.12 | TNMQ014Q115L | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| M16X2 | P2 | 14 | 14.12 | TNMQ016Q515L | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q520L | 5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q115L | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14 | 14.12 | TNMQ016Q120L | 1.5P | 200 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | TNMR018R515L | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P3 | 15.5 | 15.63 | TNMR018R115L | 1.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | TNMR020R515L | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R520L | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R115L | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 17.5 | 17.63 | TNMR020R120L | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | TNMR022R515L | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R520L | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R115L | 1.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 19.5 | 19.63 | TNMR022R120L | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X3 | P3 | 21 | 21.13 | TNMR024S515L | 5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S520L | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S115L | 1.5P | 150 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 21 | 21.13 | TNMR024S120L | 1.5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X3 | P3 | 24 | 24.13 | TNMR027S520L | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 24 | 24.13 | TNMR027S120L | 1.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M30X3.5 | P4 | 26.5 | 26.63 | TNMS030T520L | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T120L | 1.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T525L | 5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P4 | 26.5 | 26.63 | TNMS030T125L | 1.5P | 250 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | TNMQ010N515L | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N115L | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | TNMQ0120515L | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ0120115L | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | TNMQ012N515L | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N115L | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | TNMQ0140515L | 5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| | P2 | 12.5 | 12.6 | TNMQ0140115L | 1.5P | 150 | 26 | - | 60 | 10.5 | 8 | 11 | 4 | 013 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | TNMQ0160515L | 5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| | P2 | 14.5 | 14.6 | TNMQ0160115L | 1.5P | 150 | 26 | - | 60 | 12.5 | 10 | 13 | 4 | 013 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | TNMQ0180515L | 5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| | P2 | 16.5 | 16.6 | TNMQ0180115L | 1.5P | 150 | 33 | - | 70 | 14 | 11 | 14 | 4 | 013 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | TNMR0200515L | 5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18.5 | 18.6 | TNMR0200520L | 5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18.5 | 18.6 | TNMR0200115L | 1.5P | 150 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| | P3 | 18.5 | 18.6 | TNMR0200120L | 1.5P | 200 | 33 | - | 70 | 15 | 12 | 15 | 4 | 013 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | TNMR0220520L | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| | P3 | 20.5 | 20.6 | TNMR0220120L | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 013 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | TNMR0240520L | 5P | 200 | 39 | - | 80 | 19 | 15 | 18 | 4 | 013 | ○ |
| M27X1.5 | P3 | 25.5 | 25.6 | TNMR0270520L | 5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| | P3 | 25.5 | 25.6 | TNMR0270120L | 1.5P | 200 | 39 | - | 80 | 20 | 15 | 18 | 4 | 013 | ○ |
| M30X3 | P3 | 27 | 27.13 | TNMR030S520L | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X2 | P3 | 28 | 28.12 | TNMR030Q520L | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | TNMR0300520L | 5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |
| | P3 | 28.5 | 28.6 | TNMR0300120L | 1.5P | 200 | 46 | - | 80 | 23 | 17 | 20 | 4 | 013 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-HT V




## GP General Purpose Series

Long Shank Straight Fluted Taps, Coated

HSS-E | COATING | 5P THCHT | 1.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

For steel application, also suitable for cast iron and non-ferrous materials.

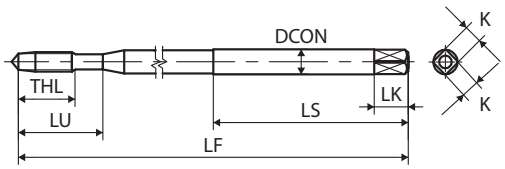
Adopting suitable coating to improve performances.

**Recommended Tapping Speeds Depending On Materials**

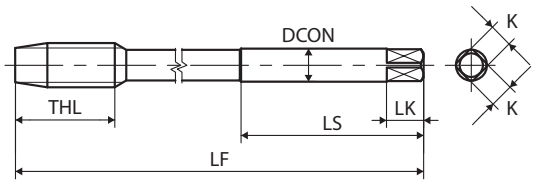
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P2 | 10÷20 | ★ | K1 | 8÷15 | ☆ | N2 | 10÷20 | ☆ |
| P3 | 10÷20 | ★ | K2 | 8÷15 | ☆ | N3 | 10÷20 | ☆ |
| P4 | 8÷15 | ☆ | K3 | 8÷15 | ☆ | N4 | 10÷20 | ☆ |

★ 1st choice ☆ suitable

**TYPE: HT_011**




**TYPE: HT_013**






Think threads with YAMAWA

IMROBEX Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | P1 | 2.5 | 2.56 | TNFP3.0G510V | 5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| | P1 | 2.5 | 2.56 | TNFP3.0G110V | 1.5P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 3 | 011 | ○ |
| M4X0.7 | P2 | 3.3 | 3.38 | TNFQ4.0I510V | 5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| | P2 | 3.3 | 3.38 | TNFQ4.0I110V | 1.5P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 3 | 011 | ○ |
| M5X0.8 | P2 | 4.2 | 4.28 | TNFQ5.0K510V | 5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 4.2 | 4.28 | TNFQ5.0K110V | 1.5P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 3 | 011 | ○ |
| M6X1 | P2 | 5 | 5.09 | TNFQ6.0M510V | 5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M515V | 5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M110V | 1.5P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| | P2 | 5 | 5.09 | TNFQ6.0M115V | 1.5P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 3 | 011 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | TNMQ8.0N510V | 5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N515V | 5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N110V | 1.5P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| | P2 | 6.8 | 6.85 | TNMQ8.0N115V | 1.5P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 4 | 013 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | TNMQ010O510V | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ010O515V | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ010O110V | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.5 | 8.6 | TNMQ010O115V | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | TNMQ012P510V | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P515V | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P110V | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.3 | 10.36 | TNMQ012P115V | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | TNMQ010N510V | 5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N515V | 5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N110V | 1.5P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| | P2 | 8.8 | 8.85 | TNMQ010N115V | 1.5P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4 | 013 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | TNMQ012O510V | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ012O515V | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ012O110V | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.5 | 10.6 | TNMQ012O115V | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | TNMQ012N510V | 5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N515V | 5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N110V | 1.5P | 100 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |
| | P2 | 10.8 | 10.85 | TNMQ012N115V | 1.5P | 150 | 26 | - | 50 | 8.5 | 6.5 | 9 | 4 | 013 | ○ |

# MC-HT

## GP General Purpose Series

Long Shank Straight Fluted Taps with Axial (Blind) and Radial (Through) Coolant Holes




HSS-E | 5P THCHT | 1.5P THCHT

**FEATURES**

Long shank general purpose for extended overhang on blind and through hole application.

For steel application, also suitable for cast iron and non-ferrous materials.

1.5P chamfer with axial oil hole for blind hole application, 5P chamfer with radial coolant holes for through hole application.

**RECOMMENDED TAPPING SPEEDS DEPENDING ON MATERIALS**

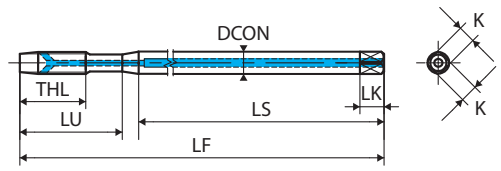
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

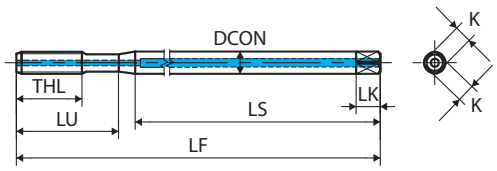
| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

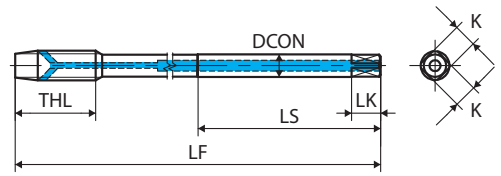
**TYPE: HT_029**



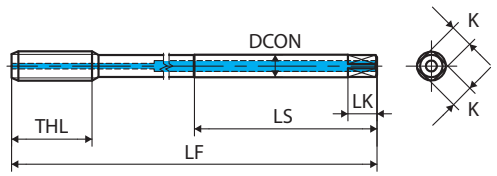

**TYPE: HT_027**




**TYPE: HT_030**




**TYPE: HT_028**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | P2 | 5 | 5.09 | ML106.0M5-Q | 5P | 100 | 19 | 28 | 40 | 6 | 4.5 | 7 | 4 | 029 | ○ |
| | P2 | 5 | 5.09 | ML156.0M5-Q | 5P | 150 | 19 | 28 | 40 | 6 | 4.5 | 7 | 4 | 029 | ○ |
| | P2 | 5 | 5.09 | ML106.0M1-Q | 1.5P | 100 | 19 | 28 | 40 | 6 | 4.5 | 7 | 4 | 027 | ○ |
| | P2 | 5 | 5.09 | ML156.0M1-Q | 1.5P | 150 | 19 | 28 | 40 | 6 | 4.5 | 7 | 4 | 027 | ○ |
| M8X1.25 | P2 | 6.8 | 6.85 | ML108.0N5-Q | 5P | 100 | 22 | - | 50 | 6.2 | 5 | 8 | 4 | 030 | ○ |
| | P2 | 6.8 | 6.85 | ML158.0N5-Q | 5P | 150 | 22 | - | 50 | 6.2 | 5 | 8 | 4 | 030 | ○ |
| | P2 | 6.8 | 6.85 | ML108.0N1-Q | 1.5P | 100 | 22 | - | 50 | 6.2 | 5 | 8 | 4 | 028 | ○ |
| | P2 | 6.8 | 6.85 | ML158.0N1-Q | 1.5P | 150 | 22 | - | 50 | 6.2 | 5 | 8 | 4 | 028 | ○ |
| M10X1.5 | P2 | 8.5 | 8.6 | ML1001005-Q | 5P | 100 | 24 | - | 50 | 7 | 5.5 | 8 | 4 | 030 | ○ |
| | P2 | 8.5 | 8.6 | ML1501005-Q | 5P | 150 | 24 | - | 50 | 7 | 5.5 | 8 | 4 | 030 | ○ |
| | P2 | 8.5 | 8.6 | ML1001001-Q | 1.5P | 100 | 24 | - | 50 | 7 | 5.5 | 8 | 4 | 028 | ○ |
| | P2 | 8.5 | 8.6 | ML1501001-Q | 1.5P | 150 | 24 | - | 50 | 7 | 5.5 | 8 | 4 | 028 | ○ |
| M12X1.75 | P2 | 10.3 | 10.36 | ML10012P5-Q | 5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.3 | 10.36 | ML15012P5-Q | 5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.3 | 10.36 | ML20012P5-Q | 5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.3 | 10.36 | ML10012P1-Q | 1.5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| | P2 | 10.3 | 10.36 | ML15012P1-Q | 1.5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| | P2 | 10.3 | 10.36 | ML20012P1-Q | 1.5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| M14X2 | P2 | 12 | 12.12 | ML15014Q5-Q | 5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 030 | ○ |
| | P2 | 12 | 12.12 | ML20014Q5-Q | 5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 030 | ○ |
| | P2 | 12 | 12.12 | ML15014Q1-Q | 1.5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 028 | ○ |
| | P2 | 12 | 12.12 | ML20014Q1-Q | 1.5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 028 | ○ |
| M16X2 | P2 | 14 | 14.12 | ML15016Q5-Q | 5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 030 | ○ |
| | P2 | 14 | 14.12 | ML20016Q5-Q | 5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 030 | ○ |
| | P2 | 14 | 14.12 | ML15016Q1-Q | 1.5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 028 | ○ |
| | P2 | 14 | 14.12 | ML20016Q1-Q | 1.5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 028 | ○ |
| M18X2.5 | P3 | 15.5 | 15.63 | ML15018R5-R | 5P | 150 | 37 | - | 70 | 14 | 11 | 14 | 4 | 030 | ○ |
| | P3 | 15.5 | 15.63 | ML20018R5-R | 5P | 200 | 37 | - | 70 | 14 | 11 | 14 | 4 | 030 | ○ |
| | P3 | 15.5 | 15.63 | ML15018R1-R | 1.5P | 150 | 37 | - | 70 | 14 | 11 | 14 | 4 | 028 | ○ |
| | P3 | 15.5 | 15.63 | ML20018R1-R | 1.5P | 200 | 37 | - | 70 | 14 | 11 | 14 | 4 | 028 | ○ |
| M20X2.5 | P3 | 17.5 | 17.63 | ML15020R5-R | 5P | 150 | 37 | - | 70 | 15 | 12 | 15 | 4 | 030 | ○ |
| | P3 | 17.5 | 17.63 | ML20020R5-R | 5P | 200 | 37 | - | 70 | 15 | 12 | 15 | 4 | 030 | ○ |
| | P3 | 17.5 | 17.63 | ML15020R1-R | 1.5P | 150 | 37 | - | 70 | 15 | 12 | 15 | 4 | 028 | ○ |
| | P3 | 17.5 | 17.63 | ML20020R1-R | 1.5P | 200 | 37 | - | 70 | 15 | 12 | 15 | 4 | 028 | ○ |
| M22X2.5 | P3 | 19.5 | 19.63 | ML15022R5-R | 5P | 150 | 38 | - | 70 | 17 | 13 | 16 | 4 | 030 | ○ |
| | P3 | 19.5 | 19.63 | ML20022R5-R | 5P | 200 | 38 | - | 70 | 17 | 13 | 16 | 4 | 030 | ○ |
| | P3 | 19.5 | 19.63 | ML15022R1-R | 1.5P | 150 | 38 | - | 70 | 17 | 13 | 16 | 4 | 028 | ○ |
| | P3 | 19.5 | 19.63 | ML20022R1-R | 1.5P | 200 | 38 | - | 70 | 17 | 13 | 16 | 4 | 028 | ○ |
| M24X3 | P3 | 21 | 21.13 | ML15024S5-R | 5P | 150 | 45 | - | 80 | 19 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 21 | 21.13 | ML20024S5-R | 5P | 200 | 45 | - | 80 | 19 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 21 | 21.13 | ML15024S1-R | 1.5P | 150 | 45 | - | 80 | 19 | 15 | 18 | 4 | 028 | ○ |
| | P3 | 21 | 21.13 | ML20024S1-R | 1.5P | 200 | 45 | - | 80 | 19 | 15 | 18 | 4 | 028 | ○ |
| M27X3 | P3 | 24 | 24.13 | ML20027S5-R | 5P | 200 | 45 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 24 | 24.13 | ML20027S1-R | 1.5P | 200 | 45 | - | 80 | 20 | 15 | 18 | 4 | 028 | ○ |
| | P3 | 24 | 24.13 | ML25027S5-R | 5P | 250 | 45 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 24 | 24.13 | ML25027S1-R | 1.5P | 250 | 45 | - | 80 | 20 | 15 | 18 | 4 | 028 | ○ |

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M30X3.5 | P4 | 26.5 | 26.63 | ML20030T5-S | 5P | 200 | 48 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |
| | P4 | 26.5 | 26.63 | ML20030T1-S | 1.5P | 200 | 48 | - | 80 | 23 | 17 | 20 | 4 | 028 | ○ |
| | P4 | 26.5 | 26.63 | ML25030T5-S | 5P | 250 | 48 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |
| | P4 | 26.5 | 26.63 | ML25030T1-S | 1.5P | 250 | 48 | - | 80 | 23 | 17 | 20 | 4 | 028 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | P2 | 8.8 | 8.85 | ML10010N5-Q | 5P | 100 | 20 | - | 50 | 7 | 5.5 | 8 | 4 | 030 | ○ |
| | P2 | 8.8 | 8.85 | ML15010N5-Q | 5P | 150 | 20 | - | 50 | 7 | 5.5 | 8 | 4 | 030 | ○ |
| | P2 | 8.8 | 8.85 | ML10010N1-Q | 1.5P | 100 | 20 | - | 50 | 7 | 5.5 | 8 | 4 | 028 | ○ |
| | P2 | 8.8 | 8.85 | ML15010N1-Q | 1.5P | 150 | 20 | - | 50 | 7 | 5.5 | 8 | 4 | 028 | ○ |
| M12X1.5 | P2 | 10.5 | 10.6 | ML1001205-Q | 5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.5 | 10.6 | ML1501205-Q | 5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.5 | 10.6 | ML2001205-Q | 5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.5 | 10.6 | ML1001201-Q | 1.5P | 100 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| | P2 | 10.5 | 10.6 | ML1501201-Q | 1.5P | 150 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| | P2 | 10.5 | 10.6 | ML2001201-Q | 1.5P | 200 | 29 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| M12X1.25 | P2 | 10.8 | 10.85 | ML10012N5-Q | 5P | 100 | 24 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.8 | 10.85 | ML15012N5-Q | 5P | 150 | 24 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.8 | 10.85 | ML20012N5-Q | 5P | 200 | 24 | - | 50 | 8.5 | 6.5 | 9 | 4 | 030 | ○ |
| | P2 | 10.8 | 10.85 | ML10012N1-Q | 1.5P | 100 | 24 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| | P2 | 10.8 | 10.85 | ML15012N1-Q | 1.5P | 150 | 24 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| | P2 | 10.8 | 10.85 | ML20012N1-Q | 1.5P | 200 | 24 | - | 50 | 8.5 | 6.5 | 9 | 4 | 028 | ○ |
| M14X1.5 | P2 | 12.5 | 12.6 | ML1501405-Q | 5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 030 | ○ |
| | P2 | 12.5 | 12.6 | ML2001405-Q | 5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 030 | ○ |
| | P2 | 12.5 | 12.6 | ML1501401-Q | 1.5P | 150 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 028 | ○ |
| | P2 | 12.5 | 12.6 | ML2001401-Q | 1.5P | 200 | 30 | - | 60 | 10.5 | 8 | 11 | 4 | 028 | ○ |
| M16X1.5 | P2 | 14.5 | 14.6 | ML1501605-Q | 5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 030 | ○ |
| | P2 | 14.5 | 14.6 | ML2001605-Q | 5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 030 | ○ |
| | P2 | 14.5 | 14.6 | ML1501601-Q | 1.5P | 150 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 028 | ○ |
| | P2 | 14.5 | 14.6 | ML2001601-Q | 1.5P | 200 | 32 | - | 60 | 12.5 | 10 | 13 | 4 | 028 | ○ |
| M18X1.5 | P2 | 16.5 | 16.6 | ML1501805-Q | 5P | 150 | 29 | - | 70 | 14 | 11 | 14 | 4 | 030 | ○ |
| | P2 | 16.5 | 16.6 | ML2001805-Q | 5P | 200 | 29 | - | 70 | 14 | 11 | 14 | 4 | 030 | ○ |
| | P2 | 16.5 | 16.6 | ML1501801-Q | 1.5P | 150 | 29 | - | 70 | 14 | 11 | 14 | 4 | 028 | ○ |
| | P2 | 16.5 | 16.6 | ML2001801-Q | 1.5P | 200 | 29 | - | 70 | 14 | 11 | 14 | 4 | 028 | ○ |
| M20X1.5 | P3 | 18.5 | 18.6 | ML1502005-R | 5P | 150 | 29 | - | 70 | 15 | 12 | 15 | 4 | 030 | ○ |
| | P3 | 18.5 | 18.6 | ML2002005-R | 5P | 200 | 29 | - | 70 | 15 | 12 | 15 | 4 | 030 | ○ |
| | P3 | 18.5 | 18.6 | ML1502001-R | 1.5P | 150 | 29 | - | 70 | 15 | 12 | 15 | 4 | 028 | ○ |
| | P3 | 18.5 | 18.6 | ML2002001-R | 1.5P | 200 | 29 | - | 70 | 15 | 12 | 15 | 4 | 028 | ○ |
| M22X1.5 | P3 | 20.5 | 20.6 | ML1502205-R | 5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 030 | ○ |
| | P3 | 20.5 | 20.6 | ML2002205-R | 5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 030 | ○ |
| | P3 | 20.5 | 20.6 | ML1502201-R | 1.5P | 150 | 33 | - | 70 | 17 | 13 | 16 | 4 | 028 | ○ |
| | P3 | 20.5 | 20.6 | ML2002201-R | 1.5P | 200 | 33 | - | 70 | 17 | 13 | 16 | 4 | 028 | ○ |
| M24X1.5 | P3 | 22.5 | 22.6 | ML1502405-R | 5P | 150 | 35 | - | 80 | 19 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 22.5 | 22.6 | ML2002405-R | 5P | 200 | 35 | - | 80 | 19 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 22.5 | 22.6 | ML1502401-R | 1.5P | 150 | 35 | - | 80 | 19 | 15 | 18 | 4 | 028 | ○ |
| | P3 | 22.5 | 22.6 | ML2002401-R | 1.5P | 200 | 35 | - | 80 | 19 | 15 | 18 | 4 | 028 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M27X1.5 | P3 | 25.5 | 25.6 | ML2002705-R | 5P | 200 | 37 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 25.5 | 25.6 | ML2002701-R | 1.5P | 200 | 37 | - | 80 | 20 | 15 | 18 | 4 | 028 | ○ |
| | P3 | 25.5 | 25.6 | ML2502705-R | 5P | 250 | 37 | - | 80 | 20 | 15 | 18 | 4 | 030 | ○ |
| | P3 | 25.5 | 25.6 | ML2502701-R | 1.5P | 250 | 37 | - | 80 | 20 | 15 | 18 | 4 | 028 | ○ |
| M30X1.5 | P3 | 28.5 | 28.6 | ML2003005-R | 5P | 200 | 37 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |
| | P3 | 28.5 | 28.6 | ML2003001-R | 1.5P | 200 | 37 | - | 80 | 23 | 17 | 20 | 4 | 028 | ○ |
| | P3 | 28.5 | 28.6 | ML2503005-R | 5P | 250 | 37 | - | 80 | 23 | 17 | 20 | 4 | 030 | ○ |
| | P3 | 28.5 | 28.6 | ML2503001-R | 1.5P | 250 | 37 | - | 80 | 23 | 17 | 20 | 4 | 028 | ○ |

# MHRZ (LS)




## Z-PRO Series

Long Shank Roll Taps for Carbon Steel of Medium Hardness, Coated

HSS-Co | COATING | 2P THCHT | 4P THCHT

**FEATURES**

Long shank Z-PRO Series forming tap with special design for low tapping torque.

HSSCo and suitable coating for long life on Medium Hard steel (<35HRC) application.

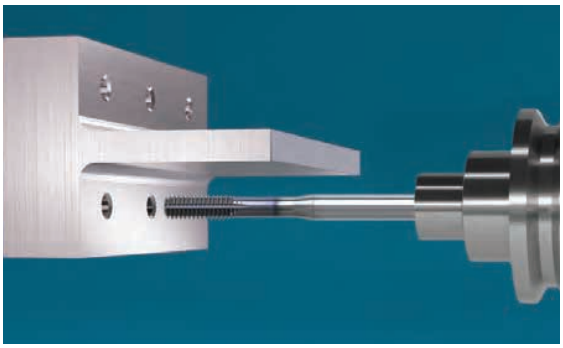
4P chamfer for through holes application

### Recommended Tapping Speeds Depending On Materials

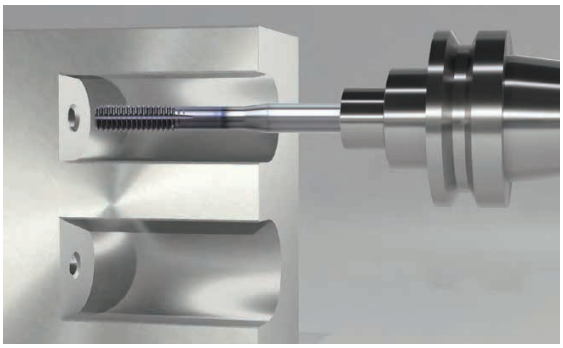
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P2 | 10÷30 | ★ | N1 | 10÷30 | ☆ |
| P3 | 10÷30 | ★ | N2 | 10÷30 | ☆ |
| P4 | 10÷30 | ★ | | | |

★ 1st choice ☆ suitable

**Secures appropriate tool projection length to prevent interference with workpieces**



Preventing interference.

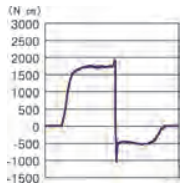
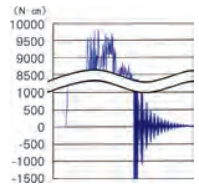


Tapping to a deep position.

### Process Data

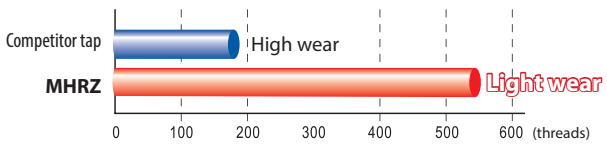
**M12×1.25**

| | |
|---|---|
| Workpiece material | 42CrMo4 - 1.7225(35HRC) |
| Cutting speed | 20 m/min |
| Bored hole | ø11.3 mm |
| Thread length | 18 mm (through hole) |
| Machine | Machining center (synchro) |
| Lubricant | Water soluble oil |
| No. of threads | 800 threads (still running) |

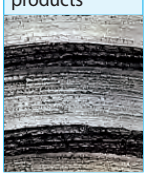
| MHRZ | Competitor |
|---|---|
|  |  |








**MHRZ finishing**

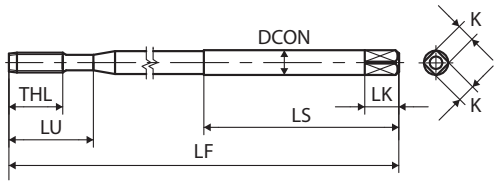
| MHRZ | Competitor products |
|---|---|
|  |  |



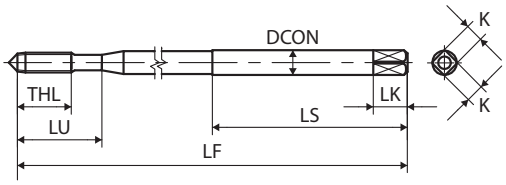
Think threads with YAMAWA

IMROBEX
Machine Tools International

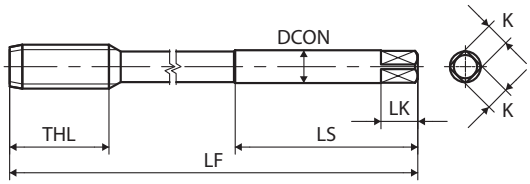
**TYPE: ROLL_014**




**TYPE: ROLL_013**




**TYPE: ROLL_028**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF () | THL () | LU () | LS () | DCON () | K () | LK () | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X1 | G8 | 5.55 | 5.09 | 2111101055 | 2P | 100 | 11 | 30 | 45 | 6 | 4.5 | 7 | 5(5) | 014 | ● |
| | G8 | 5.55 | 5.09 | 2311101055 | 2P | 150 | 11 | 30 | 45 | 6 | 4.5 | 7 | 5(5) | 014 | ● |
| | G8 | 5.55 | 5.09 | 2110101055 | 4P | 100 | 11 | 30 | 45 | 6 | 4.5 | 7 | 5(5) | 013 | ○ |
| | G8 | 5.55 | 5.09 | 2310101055 | 4P | 150 | 11 | 30 | 45 | 6 | 4.5 | 7 | 5(5) | 013 | ○ |
| M8X1.25 | G8 | 7.44 | 6.85 | 2111101064 | 2P | 150 | 12 | - | 46 | 6.2 | 5 | 8 | 6(6) | 028 | ● |
| | G8 | 7.44 | 6.85 | 2110101064 | 4P | 150 | 12 | - | 46 | 6.2 | 5 | 8 | 6(6) | 028 | ○ |
| M10X1.5 | G8 | 9.31 | 8.6 | 2111101078 | 2P | 150 | 13 | - | 51 | 7 | 5.5 | 8 | 8(8) | 028 | ● |
| | G8 | 9.31 | 8.6 | 2110101078 | 4P | 150 | 13 | - | 51 | 7 | 5.5 | 8 | 8(8) | 028 | ○ |
| M12X1.75 | G8 | 11.19 | 10.36 | 2111101088 | 2P | 150 | 15 | - | 56 | 8.5 | 6.5 | 9 | 8(8) | 028 | ● |
| | G8 | 11.19 | 10.36 | 2110101088 | 4P | 150 | 15 | - | 56 | 8.5 | 6.5 | 9 | 8(8) | 028 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF () | THL () | LU () | LS () | DCON () | K () | LK () | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | G8 | 9.43 | 8.85 | 2111101079 | 2P | 150 | 13 | - | 51 | 7 | 5.5 | 8 | 8(8) | 028 | ● |
| | G8 | 9.43 | 8.85 | 2110101079 | 4P | 150 | 13 | - | 51 | 7 | 5.5 | 8 | 8(8) | 028 | ○ |
| M12X1.5 | G8 | 11.3 | 10.6 | 2111101089 | 2P | 150 | 15 | - | 56 | 8.5 | 6.5 | 9 | 8(8) | 028 | ● |
| | G8 | 11.3 | 10.6 | 2110101089 | 4P | 150 | 15 | - | 56 | 8.5 | 6.5 | 9 | 8(8) | 028 | ○ |
| M12X1.25 | G8 | 11.42 | 10.85 | 2111101090 | 2P | 150 | 15 | - | 56 | 8.5 | 6.5 | 9 | 8(8) | 028 | ● |
| | G8 | 11.42 | 10.85 | 2110101090 | 4P | 150 | 15 | - | 56 | 8.5 | 6.5 | 9 | 8(8) | 028 | ○ |
| M14X1.5 | G9 | 13.31 | 12.6 | 2111101102 | 2P | 150 | 18 | - | 56 | 10.5 | 8 | 11 | 8(8) | 028 | ● |
| | G9 | 13.31 | 12.6 | 2110101102 | 4P | 150 | 18 | - | 56 | 10.5 | 8 | 11 | 8(8) | 028 | ○ |
| M16X1.5 | G9 | 15.3 | 14.6 | 2111101116 | 2P | 150 | 18 | - | 56 | 12.5 | 10 | 13 | 8(8) | 028 | ● |
| | G9 | 15.3 | 14.6 | 2110101116 | 4P | 150 | 18 | - | 56 | 12.5 | 10 | 13 | 8(8) | 028 | ○ |

# LS-N-RZ




## GP General Purpose Series

Long Shank Thread Forming Taps for Steel

HSS-E | OX | 4P THCHT | 2P THCHT

**FEATURES**

Long shank roll for extended overhang on blind and through hole application.

Suitable for soft structural steel and medium-low carbon steel application.

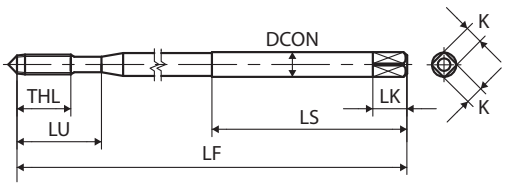
OX treatment reduces welding troubles.

**Recommended Tapping Speeds Depending On Materials**

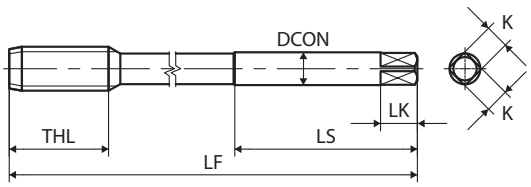
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷15 | ★ |
| P2 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ROLL_013**




**TYPE: ROLL_028**






Think threads with YAMAWA

IMROBEX
Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | G5 | 2.78 | 2.56 | NRZF53.0GP10 | 4P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 4(4) | 013 | ○ |
| | G5 | 2.78 | 2.56 | NRZF53.0GB10 | 2P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 4(4) | 013 | ○ |
| | G6(G5+13) | 2.79 | 2.56 | NRZF63.0GP10 | 4P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 4(4) | 013 | ○ |
| | G6(G5+13) | 2.79 | 2.56 | NRZF63.0GB10 | 2P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 4(4) | 013 | ○ |
| M4X0.7 | G6 | 3.69 | 3.38 | NRZF64.0IP10 | 4P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 4(4) | 013 | ○ |
| | G6 | 3.69 | 3.38 | NRZF64.0IB10 | 2P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 4(4) | 013 | ○ |
| | G7(G6+13) | 3.7 | 3.38 | NRZF74.0IP10 | 4P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 4(4) | 013 | ○ |
| | G7(G6+13) | 3.7 | 3.38 | NRZF74.0IB10 | 2P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 4(4) | 013 | ○ |
| M5X0.8 | G6 | 4.63 | 4.28 | NRZF65.0KP10 | 4P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G6 | 4.63 | 4.28 | NRZF65.0KB10 | 2P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G7(G6+13) | 4.64 | 4.28 | NRZF75.0KP10 | 4P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G7(G6+13) | 4.64 | 4.28 | NRZF75.0KB10 | 2P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 4(4) | 013 | ○ |
| M6X1 | G7 | 5.54 | 5.09 | NRZF76.0MP10 | 4P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G7 | 5.54 | 5.09 | NRZF76.0MP15 | 4P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G7 | 5.54 | 5.09 | NRZF76.0MB10 | 2P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G7 | 5.54 | 5.09 | NRZF76.0MB15 | 2P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRZF86.0MP10 | 4P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRZF86.0MB10 | 2P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRZF86.0MP15 | 4P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRZF86.0MB15 | 2P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 4(4) | 013 | ○ |
| M8X1.25 | G7 | 7.46 | 6.85 | NRZM78.0NP10 | 4P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3(6) | 028 | ○ |
| | G7 | 7.46 | 6.85 | NRZM78.0NP15 | 4P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3(6) | 028 | ○ |
| | G7 | 7.46 | 6.85 | NRZM78.0NB10 | 2P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 3(6) | 028 | ○ |
| | G7 | 7.46 | 6.85 | NRZM78.0NB15 | 2P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 3(6) | 028 | ○ |
| M10X1.5 | G7 | 9.3 | 8.6 | NRZM7010OP10 | 4P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4(8) | 028 | ○ |
| | G7 | 9.3 | 8.6 | NRZM7010OP15 | 4P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4(8) | 028 | ○ |
| | G7 | 9.3 | 8.6 | NRZM7010OB10 | 2P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 4(8) | 028 | ○ |
| | G7 | 9.3 | 8.6 | NRZM7010OB15 | 2P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4(8) | 028 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | G7 | 9.42 | 8.85 | NRZM7010NP15 | 4P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4(8) | 028 | ○ |
| | G7 | 9.42 | 8.85 | NRZM7010NB15 | 2P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 4(8) | 028 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
JIS
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# LS-N-RS




## GP General Purpose Series

Long Shank Thread Forming Taps for Non-Ferrous Materials

HSS-E | NI | 4P THCHT | 2P THCHT

**FEATURES**

Long shank roll for extended overhang on blind and through hole application.

Specific design for non-ferrous materials.

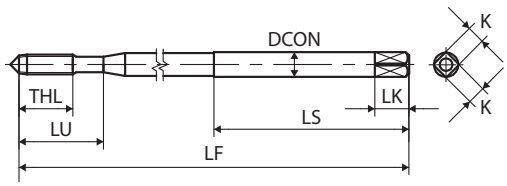
NI treatment improves tool life.

**Recommended Tapping Speeds Depending On Materials**

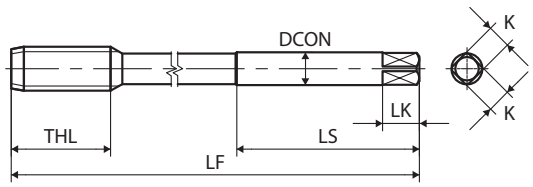
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷15 | ★ |

★ 1st choice ☆ suitable

**TYPE: ROLL_013**




**TYPE: ROLL_028**






Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | G5 | 2.78 | 2.56 | NRSF53.0GP10 | 4P | 100 | 9 | 14 | 40 | 4 | 3.2 | 6 | 1(4) | 013 | ○ |
| | G5 | 2.78 | 2.56 | NRSF53.0GB10 | 2P | 100 | 9 | 14 | 40 | 4 | 3.2 | 6 | 1(4) | 013 | ○ |
| | G6(G5+13) | 2.79 | 2.56 | NRSF63.0GP10 | 4P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 1(4) | 013 | ○ |
| | G6(G5+13) | 2.79 | 2.56 | NRSF63.0GB10 | 2P | 100 | 9 | 18 | 40 | 4 | 3.2 | 6 | 1(4) | 013 | ○ |
| M4X0.7 | G6 | 3.69 | 3.38 | NRSF64.0IP10 | 4P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 1(4) | 013 | ○ |
| | G6 | 3.69 | 3.38 | NRSF64.0IB10 | 2P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 1(4) | 013 | ○ |
| | G7(G6+13) | 3.7 | 3.38 | NRSF74.0IP10 | 4P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 1(4) | 013 | ○ |
| | G7(G6+13) | 3.7 | 3.38 | NRSF74.0IB10 | 2P | 100 | 11 | 21 | 40 | 5 | 4 | 7 | 1(4) | 013 | ○ |
| M5X0.8 | G6 | 4.63 | 4.28 | NRSF65.0KP10 | 4P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G6 | 4.63 | 4.28 | NRSF65.0KB10 | 2P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G7(G6+13) | 4.64 | 4.28 | NRSF75.0KP10 | 4P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G7(G6+13) | 4.64 | 4.28 | NRSF75.0KB10 | 2P | 100 | 13 | 25 | 40 | 5.5 | 4.5 | 7 | 1(4) | 013 | ○ |
| M6X1 | G7 | 5.54 | 5.09 | NRSF76.0MP10 | 4P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G7 | 5.54 | 5.09 | NRSF76.0MP15 | 4P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G7 | 5.54 | 5.09 | NRSF76.0MB10 | 2P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G7 | 5.54 | 5.09 | NRSF76.0MB15 | 2P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRSF86.0MP10 | 4P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRSF86.0MP15 | 4P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRSF86.0MB10 | 2P | 100 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| | G8(G7+13) | 5.55 | 5.09 | NRSF86.0MB15 | 2P | 150 | 15 | 30 | 40 | 6 | 4.5 | 7 | 1(4) | 013 | ○ |
| M8X1.25 | G7 | 7.46 | 6.85 | NRSM78.0NP10 | 4P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 1(6) | 028 | ○ |
| | G7 | 7.46 | 6.85 | NRSM78.0NP15 | 4P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 1(6) | 028 | ○ |
| | G7 | 7.46 | 6.85 | NRSM78.0NB10 | 2P | 100 | 19 | - | 50 | 6.2 | 5 | 8 | 1(6) | 028 | ○ |
| | G7 | 7.46 | 6.85 | NRSM78.0NB15 | 2P | 150 | 19 | - | 50 | 6.2 | 5 | 8 | 1(6) | 028 | ○ |
| M10X1.5 | G7 | 9.3 | 8.6 | NRSM7010OP10 | 4P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 1(6) | 028 | ○ |
| | G7 | 9.3 | 8.6 | NRSM7010OP15 | 4P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 1(6) | 028 | ○ |
| | G7 | 9.3 | 8.6 | NRSM7010OB10 | 2P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 1(6) | 028 | ○ |
| | G7 | 9.3 | 8.6 | NRSM7010OB15 | 2P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 1(6) | 028 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M10X1.25 | G7 | 9.42 | 8.85 | NRSM7010NB10 | 2P | 100 | 23 | - | 50 | 7 | 5.5 | 8 | 1(6) | 028 | ○ |
| | G7 | 9.42 | 8.85 | NRSM7010NB15 | 2P | 150 | 23 | - | 50 | 7 | 5.5 | 8 | 1(6) | 028 | ○ |

MEMO

# HAND TAPS



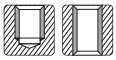
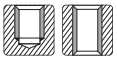
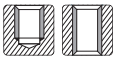
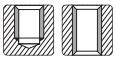
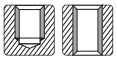
HT - DIN **492**
HT - JIS **498**

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# Selection Chart



| | HT | | | | | | |
|---|---|---|---|---|---|---|---|
| | 6110 | HT DIN352 | 6412 | HT DIN5157 | ISP | IPO | IHT |
| | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E OX | HSS-E OX | HSS-E OX |
| |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |
| | DIN | DIN | DIN | DIN | JIS | JIS | JIS |
| M | 495 | 497 | | | 500 | 501 | 502 |
| MF | | | | | | | |
| UNC/UNF | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | |
| UNEF | | | | | | | |
| G (BSP) | | | 498 | 499 | | | |
| Rp (BSPP) | | | | | | | |
| Rc (BSPT) | | | | | | | |
| NPT | | | | | | | |
| NPTF | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | |
| BSW | | | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | |
| Pg | | | | | | | |
| Tr | | | | | | | |
| S miniature | | | | | | | |
| Special threads | | | | | | | |

| | Vc (m/min) | | | | | | |
|---|---|---|---|---|---|---|---|
| P1 | ★ | ★ <5 | ★ | ★ <5 | ★ ≤5 | ★ ≤5 | ★ ≤5 |
| P2 | ★ | ★ <5 | ★ | ★ <5 | ☆ ≤5 | ☆ ≤5 | ☆ ≤5 |
| P3 | ★ | ★ <5 | ★ | ★ <5 | | | |
| P4 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| P5 | | | | | | | |
| P6 | | | | | | | |
| P7 | | | | | | | |
| P8 | | | | | | | |
| M1 | | | | | | | |
| M2 | | | | | | | |
| M3 | | | | | | | |
| K1 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| K2 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| K3 | | ☆ <5 | | ☆ <5 | | | |
| K4 | | | | | | | |
| N1 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| N2 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| N3 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| N4 | ☆ | ☆ <5 | ☆ | ☆ <5 | | | |
| N5 | | | | | | | |
| S1 (<25 HRC) | | | | | | | |
| S2 (<35 HRC) | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | |
| S5 | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS DIN
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# 6110

## HT Hand taps

Serial taps for manual use




HSS-E





V-F-M SET

**FEATURES**

Hand set V+M+F profile.

V and M taps produce partial thread crests profile, F tap produces full thread crests profile.

**RECOMMENDED TAPPING SPEEDS DEPENDING ON MATERIALS**

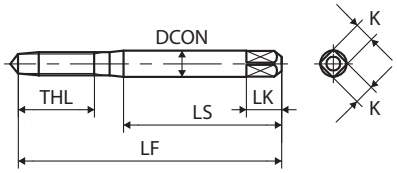
| ISO | Vc (m/min) |
|---|---|
| P1 | ★ |
| P2 | ★ |
| P3 | ★ |
| P4 | ☆ |

| ISO | Vc (m/min) |
|---|---|
| K1 | ☆ |
| K2 | ☆ |

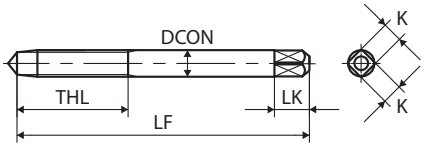
| ISO | Vc (m/min) |
|---|---|
| N1 | ☆ |
| N2 | ☆ |
| N3 | ☆ |
| N4 | ☆ |

★ 1st choice ☆ suitable

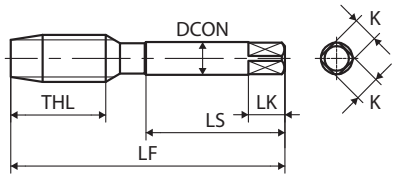
**TYPE: EU_118**




**TYPE: EU_119**




**TYPE: EU_120**






Think threads with YAMAWA

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● stock standard, **O** check stock EU, ○ check stock JP, ▽ stock exhaustion

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 352 | | | | | | | | | | | | | | | |
| **M2X0.4** | ISO2(6H) | 1.6 | 1.65 | 61102.0S | V+M+F | 36 | 8 | - | 21 | 2.8 | 2.1 | 5 | 3 | 118 | ● |
| **M2.5X0.45** | ISO2(6H) | 2.1 | 2.11 | 61102.5S | V+M+F | 40 | 9 | - | 27 | 2.8 | 2.1 | 5 | 3 | 118 | ● |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | 61103.0S | V+M+F | 40 | 11 | - | 24 | 3.5 | 2.7 | 6 | 3 | 118 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | 61104.0S | V+M+F | 45 | 13 | - | 27 | 4.5 | 3.4 | 6 | 3 | 118 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | 61105.0S | V+M+F | 50 | 16 | - | 24 | 6 | 4.9 | 8 | 3 | 118 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | 61106.0S | V+M+F | 50 | 19 | - | - | 6 | 4.9 | 8 | 3 | 119 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | 61108.0S | V+M+F | 56 | 19 | - | 29 | 6 | 4.9 | 8 | 4 | 120 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | 6110010S | V+M+F | 70 | 23 | - | 36 | 7 | 5.5 | 8 | 4 | 120 | ● |
| **M12X1.75** | ISO2(6H) | 10.3 | 10.36 | 6110012S | V+M+F | 75 | 26 | - | 38 | 9 | 7 | 10 | 4 | 120 | ● |
| **M14X2** | ISO2(6H) | 12 | 12.12 | 6110014S | V+M+F | 80 | 26 | - | 41 | 11 | 9 | 12 | 4 | 120 | ● |
| **M16X2** | ISO2(6H) | 14 | 14.12 | 6110016S | V+M+F | 80 | 26 | - | 41 | 12 | 9 | 12 | 4 | 120 | ● |
| **M18X2.5** | ISO2(6H) | 15.5 | 15.63 | 6110018S | V+M+F | 95 | 33 | - | 48 | 14 | 11 | 14 | 4 | 120 | ● |
| **M20X2.5** | ISO2(6H) | 17.5 | 17.63 | 6110020S | V+M+F | 95 | 33 | - | 48 | 16 | 12 | 15 | 4 | 120 | ● |
| **M24X3** | ISO2(6H) | 21 | 21.13 | 6110024S | V+M+F | 110 | 39 | - | 56 | 18 | 14.5 | 17 | 4 | 120 | ● |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS DIN
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HT DIN352




## HT Hand taps

Straight Fluted Taps for manual and drilling machine use




**FEATURES**

Straight fluted taps with V, M, F profile for hand set assembling.

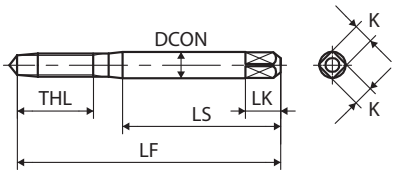
V and M taps produce partial thread crests profile, F tap produces full thread crests profile.

**Recommended Tapping Speeds Depending On Materials**

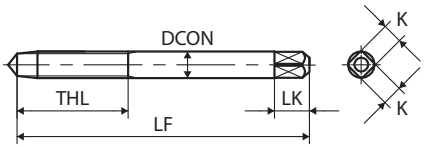
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P1 | <5 | ★ | K1 | <5 | ☆ | N1 | <5 | ☆ |
| P2 | <5 | ★ | K2 | <5 | ☆ | N2 | <5 | ☆ |
| P3 | <5 | ★ | K3 | <5 | ☆ | N3 | <5 | ☆ |
| P4 | <5 | ☆ | | | | N4 | <5 | ☆ |

★ 1st choice ☆ suitable

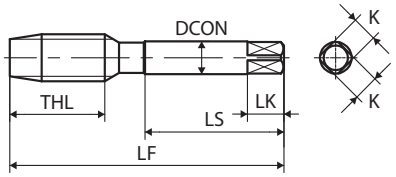
**TYPE: EU_118**




**TYPE: EU_119**




**TYPE: EU_120**






Think threads with YAMAWA

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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 352 | | | | | | | | | | | | | | | |
| M2X0.4 | ISO2(6H) | 1.6 | 1.65 | TQ2.0EANEB2 | F | 36 | 8 | - | 21 | 2.8 | 2.1 | 5 | 3 | 118 | ○ |
| | ISO2(6H) | 1.6 | 1.65 | TQ2.0EANEBU | M | 36 | 8 | - | 21 | 2.8 | 2.1 | 5 | 3 | 118 | ○ |
| | ISO2(6H) | 1.6 | 1.65 | TQ2.0EANEB5 | V | 36 | 8 | - | 21 | 2.8 | 2.1 | 5 | 3 | 118 | ○ |
| M2.5X0.45 | ISO2(6H) | 2.1 | 2.11 | TQ2.5FANEB2 | F | 40 | 9 | - | 27 | 2.8 | 2.1 | 5 | 3 | 118 | ○ |
| | ISO2(6H) | 2.1 | 2.11 | TQ2.5FANEBU | M | 40 | 9 | - | 27 | 2.8 | 2.1 | 5 | 3 | 118 | ○ |
| | ISO2(6H) | 2.1 | 2.11 | TQ2.5FANEB5 | V | 40 | 9 | - | 27 | 2.8 | 2.1 | 5 | 3 | 118 | ○ |
| M3X0.5 | ISO2(6H) | 2.5 | 2.56 | TQ3.0GANEB2 | F | 40 | 11 | - | 24 | 3.5 | 2.7 | 6 | 3 | 118 | ● |
| | ISO2(6H) | 2.5 | 2.56 | TQ3.0GANEBU | M | 40 | 11 | - | 24 | 3.5 | 2.7 | 6 | 3 | 118 | ○ |
| | ISO2(6H) | 2.5 | 2.56 | TQ3.0GANEB5 | V | 40 | 11 | - | 24 | 3.5 | 2.7 | 6 | 3 | 118 | ○ |
| M4X0.7 | ISO2(6H) | 3.3 | 3.38 | TQ4.0IANEB2 | F | 45 | 13 | - | 27 | 4.5 | 3.4 | 6 | 3 | 118 | ● |
| | ISO2(6H) | 3.3 | 3.38 | TQ4.0IANEBU | M | 45 | 13 | - | 27 | 4.5 | 3.4 | 6 | 3 | 118 | ○ |
| | ISO2(6H) | 3.3 | 3.38 | TQ4.0IANEB5 | V | 45 | 13 | - | 27 | 4.5 | 3.4 | 6 | 3 | 118 | ○ |
| M5X0.8 | ISO2(6H) | 4.2 | 4.28 | TQ5.0KANEB2 | F | 50 | 16 | - | 24 | 6 | 4.9 | 8 | 3 | 118 | ● |
| | ISO2(6H) | 4.2 | 4.28 | TQ5.0KANEBU | M | 50 | 16 | - | 24 | 6 | 4.9 | 8 | 3 | 118 | ○ |
| | ISO2(6H) | 4.2 | 4.28 | TQ5.0KANEB5 | V | 50 | 16 | - | 24 | 6 | 4.9 | 8 | 3 | 118 | ○ |
| M6X1 | ISO2(6H) | 5 | 5.09 | TQ6.0MANEB2 | F | 50 | 19 | - | - | 6 | 4.9 | 8 | 3 | 119 | ● |
| | ISO2(6H) | 5 | 5.09 | TQ6.0MANEBU | M | 50 | 19 | - | - | 6 | 4.9 | 8 | 3 | 119 | ○ |
| | ISO2(6H) | 5 | 5.09 | TQ6.0MANEB5 | V | 50 | 19 | - | - | 6 | 4.9 | 8 | 3 | 119 | ○ |
| M8X1.25 | ISO2(6H) | 6.8 | 6.85 | TQ8.0NANEB2 | F | 56 | 19 | - | 29 | 6 | 4.9 | 8 | 4 | 120 | ● |
| | ISO2(6H) | 6.8 | 6.85 | TQ8.0NANEBU | M | 56 | 19 | - | 29 | 6 | 4.9 | 8 | 4 | 120 | ○ |
| | ISO2(6H) | 6.8 | 6.85 | TQ8.0NANEB5 | V | 56 | 19 | - | 29 | 6 | 4.9 | 8 | 4 | 120 | ○ |
| M10X1.5 | ISO2(6H) | 8.5 | 8.6 | TQ010OANEB2 | F | 70 | 23 | - | 36 | 7 | 5.5 | 8 | 4 | 120 | ● |
| | ISO2(6H) | 8.5 | 8.6 | TQ010OANEBU | M | 70 | 23 | - | 36 | 7 | 5.5 | 8 | 4 | 120 | ○ |
| | ISO2(6H) | 8.5 | 8.6 | TQ010OANEB5 | V | 70 | 23 | - | 36 | 7 | 5.5 | 8 | 4 | 120 | ○ |
| M12X1.75 | ISO2(6H) | 10.3 | 10.36 | TQ012PANEB2 | F | 75 | 26 | - | 38 | 9 | 7 | 10 | 4 | 120 | ● |
| | ISO2(6H) | 10.3 | 10.36 | TQ012PANEBU | M | 75 | 26 | - | 38 | 9 | 7 | 10 | 4 | 120 | ○ |
| | ISO2(6H) | 10.3 | 10.36 | TQ012PANEB5 | V | 75 | 26 | - | 38 | 9 | 7 | 10 | 4 | 120 | ○ |
| M14X2 | ISO2(6H) | 12 | 12.12 | TQ014QANEB2 | F | 80 | 26 | - | 41 | 11 | 9 | 12 | 4 | 120 | ○ |
| | ISO2(6H) | 12 | 12.12 | TQ014QANEBU | M | 80 | 26 | - | 41 | 11 | 9 | 12 | 4 | 120 | ○ |
| | ISO2(6H) | 12 | 12.12 | TQ014QANEB5 | V | 80 | 26 | - | 41 | 11 | 9 | 12 | 4 | 120 | ○ |
| M16X2 | ISO2(6H) | 14 | 14.12 | TQ016QANEB2 | F | 80 | 26 | - | 41 | 12 | 9 | 12 | 4 | 120 | ○ |
| | ISO2(6H) | 14 | 14.12 | TQ016QANEBU | M | 80 | 26 | - | 41 | 12 | 9 | 12 | 4 | 120 | ○ |
| | ISO2(6H) | 14 | 14.12 | TQ016QANEB5 | V | 80 | 26 | - | 41 | 12 | 9 | 12 | 4 | 120 | ○ |
| M18X2.5 | ISO2(6H) | 15.5 | 15.63 | TQ018RANEB2 | F | 95 | 33 | - | 48 | 14 | 11 | 14 | 4 | 120 | ○ |
| | ISO2(6H) | 15.5 | 15.63 | TQ018RANEBU | M | 95 | 33 | - | 48 | 14 | 11 | 14 | 4 | 120 | ○ |
| | ISO2(6H) | 15.5 | 15.63 | TQ018RANEB5 | V | 95 | 33 | - | 48 | 14 | 11 | 14 | 4 | 120 | ○ |
| M20X2.5 | ISO2(6H) | 17.5 | 17.63 | TQ020RANEB2 | F | 95 | 33 | - | 48 | 16 | 12 | 15 | 4 | 120 | ○ |
| | ISO2(6H) | 17.5 | 17.63 | TQ020RANEBU | M | 95 | 33 | - | 48 | 16 | 12 | 15 | 4 | 120 | ○ |
| | ISO2(6H) | 17.5 | 17.63 | TQ020RANEB5 | V | 95 | 33 | - | 48 | 16 | 12 | 15 | 4 | 120 | ○ |
| M24X3 | ISO2(6H) | 21 | 21.13 | TQ024SANEB2 | F | 110 | 39 | - | 56 | 18 | 14.5 | 17 | 4 | 120 | ○ |
| | ISO2(6H) | 21 | 21.13 | TQ024SANEBU | M | 110 | 39 | - | 56 | 18 | 14.5 | 17 | 4 | 120 | ○ |
| | ISO2(6H) | 21 | 21.13 | TQ024SANEB5 | V | 110 | 39 | - | 56 | 18 | 14.5 | 17 | 4 | 120 | ○ |

# 6412

## HT Hand taps

Serial taps for manual use




HSS-E





V-F SET

**FEATURES**

Hand set V+F profile.

V tap produces partial thread crests profile, F tap produces full thread crests profile.

**RECOMMENDED TAPPING SPEEDS DEPENDING ON MATERIALS**

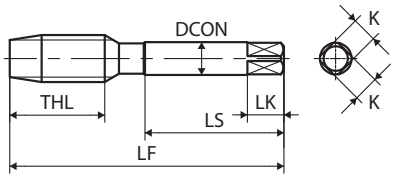
| ISO | Vc (m/min) |
|---|---|
| P1 | ★ |
| P2 | ★ |
| P3 | ★ |
| P4 | ☆ |

| ISO | Vc (m/min) |
|---|---|
| K1 | ☆ |
| K2 | ☆ |

| ISO | Vc (m/min) |
|---|---|
| N1 | ☆ |
| N2 | ☆ |
| N3 | ☆ |
| N4 | ☆ |

★ 1st choice ☆ suitable

**TYPE: EU_120**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5157 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | 6412G02S | V+F | 9.728 | 63 | 19 | 32 | 7 | 5.5 | 8 | 4 | 120 | ● |
| 1/4-19 | - | 11.75 | 11.78 | 6412G04S | V+F | 13.157 | 70 | 21 | 36 | 11 | 9 | 12 | 4 | 120 | ● |
| 3/8-19 | - | 15.25 | 15.28 | 6412G06S | V+F | 16.662 | 70 | 21 | 36 | 12 | 9 | 12 | 4 | 120 | ● |
| 1/2-14 | - | 19 | 19.04 | 6412G08S | V+F | 20.955 | 80 | 21 | 41 | 16 | 12 | 15 | 4 | 120 | ● |
| 3/4-14 | - | 24.5 | 24.52 | 6412G12S | V+F | 26.441 | 90 | 21 | 46 | 20 | 16 | 19 | 4 | 120 | ● |
| 1 -11 | - | 30.75 | 30.77 | 6412G16S | V+F | 33.249 | 100 | 24 | 51 | 25 | 20 | 23 | 4 | 120 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# HT DIN5157




## HT Hand taps

Straight Fluted Taps for manual and drilling machine use




**FEATURES**

Straight fluted taps with V, F profile for hand set assembling.

V tap produces partial thread crests profile, F tap produces full thread crests profile.

### Recommended Tapping Speeds Depending On Materials

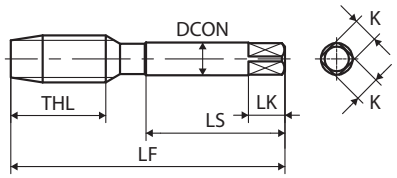
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | <5 | ★ |
| P2 | <5 | ★ |
| P3 | <5 | ★ |
| P4 | <5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | <5 | ☆ |
| K2 | <5 | ☆ |
| K3 | <5 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | <5 | ☆ |
| N2 | <5 | ☆ |
| N3 | <5 | ☆ |
| N4 | <5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: EU_120**




| G(BSP) | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | Basic major Ø (mm) | LF (mm) | THL (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 5157 | | | | | | | | | | | | | | | |
| 1/8-28 | - | 8.75 | 8.78 | T9G0020NEB2 | F | 9.728 | 63 | 19 | 32 | 7 | 5.5 | 8 | 4 | 120 | ○ |
| | - | 8.75 | 8.78 | T9G0020NEB5 | V | 9.728 | 63 | 19 | 32 | 7 | 5.5 | 8 | 4 | 120 | ○ |
| 1/4-19 | - | 11.75 | 11.78 | T9G0040NEB2 | F | 13.157 | 70 | 21 | 36 | 11 | 9 | 12 | 4 | 120 | ○ |
| | - | 11.75 | 11.78 | T9G0040NEB5 | V | 13.157 | 70 | 21 | 36 | 11 | 9 | 12 | 4 | 120 | ○ |
| 3/8-19 | - | 15.25 | 15.28 | T9G0060NEB2 | F | 16.662 | 70 | 21 | 36 | 12 | 9 | 12 | 4 | 120 | ○ |
| | - | 15.25 | 15.28 | T9G0060NEB5 | V | 16.662 | 70 | 21 | 36 | 12 | 9 | 12 | 4 | 120 | ○ |
| 1/2-14 | - | 19 | 19.04 | T9G0080NEB2 | F | 20.955 | 80 | 21 | 41 | 16 | 12 | 15 | 4 | 120 | ○ |
| | - | 19 | 19.04 | T9G0080NEB5 | V | 20.955 | 80 | 21 | 41 | 16 | 12 | 15 | 4 | 120 | ○ |
| 3/4-14 | - | 24.5 | 24.52 | T9G0120NEB2 | F | 26.441 | 90 | 21 | 46 | 20 | 16 | 19 | 4 | 120 | ○ |
| | - | 24.5 | 24.52 | T9G0120NEB5 | V | 26.441 | 90 | 21 | 46 | 20 | 16 | 19 | 4 | 120 | ○ |
| 1 -11 | - | 30.75 | 30.77 | T9G0160NEB2 | F | 33.249 | 100 | 24 | 51 | 25 | 20 | 23 | 4 | 120 | ○ |
| | - | 30.75 | 30.77 | T9G0160NEB5 | V | 33.249 | 100 | 24 | 51 | 25 | 20 | 23 | 4 | 120 | ○ |

# ISP




## HT Hand taps

Spiral Fluted Taps for manual and drilling machine use

HSS-E | OX | 2.5P THCHT

**FEATURES**

Designed for safe and stable tapping in case of manual and drilling machine application.

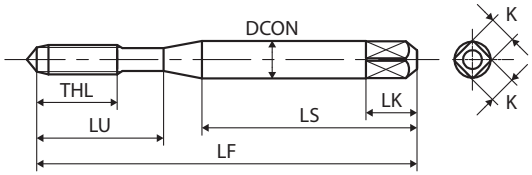
For blind hole application on low carbon steel.

**Recommended Tapping Speeds Depending On Materials**

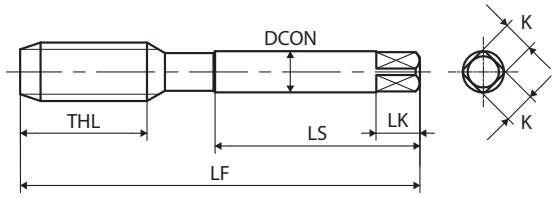
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: SP_001**




**TYPE: SP_013**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | - | 2.5 | 2.56 | SI73.0G | 2.5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| M4X0.7 | - | 3.3 | 3.38 | SI74.0I | 2.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| M5X0.8 | - | 4.2 | 4.28 | SI75.0K | 2.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| M6X1 | - | 5 | 5.09 | SI76.0M | 2.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| M8X1.25 | - | 6.8 | 6.85 | SI78.0N | 2.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ● |
| M10X1.5 | - | 8.5 | 8.6 | SI70100 | 2.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ● |



Think threads with YAMAWA

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# IPO

## HT Hand taps

Spiral Pointed Taps for manual drilling machine use




HSS-E | OX | 5P THCHT

**FEATURES**

Designed for safe and stable tapping in case of manual and drilling machine application.

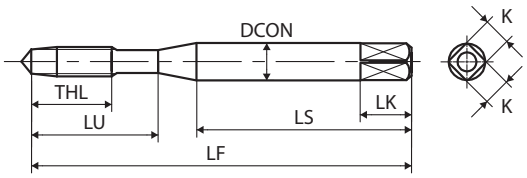
For through hole application on low carbon steel.

**Recommended Tapping Speeds Depending On Materials**

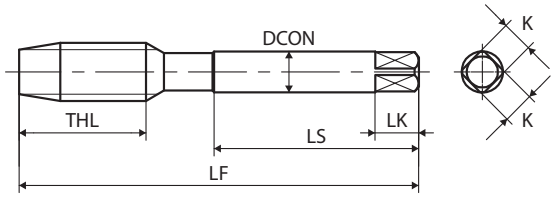
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: PO_001**




**TYPE: PO_002**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **M3X0.5** | - | 2.5 | 2.56 | PI73.0G | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| **M4X0.7** | - | 3.3 | 3.38 | PI74.0I | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| **M5X0.8** | - | 4.2 | 4.28 | PI75.0K | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| **M6X1** | - | 5 | 5.09 | PI76.0M | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| **M8X1.25** | - | 6.8 | 6.85 | PI78.0N | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ● |
| **M10X1.5** | - | 8.5 | 8.6 | PI7010O | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ● |

# IHT




## HT Hand taps

Straight Fluted Taps for manual and drilling machine use

HSS-E | OX | 5P THCHT | 2P THCHT

**FEATURES**

Designed for safe and stable tapping in case of manual and drilling machine application.

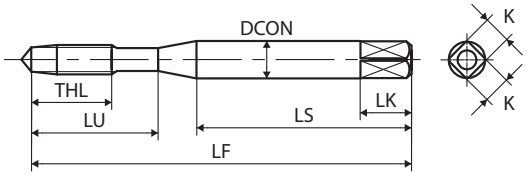
For blind (2P) and through (5P) hole application on low carbon steel.

**Recommended Tapping Speeds Depending On Materials**

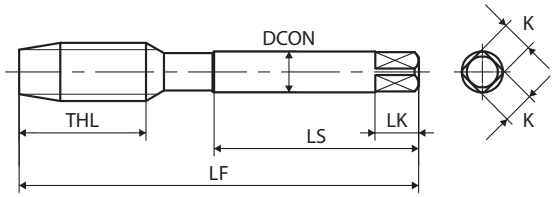
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ☆ |

★ 1st choice ☆ suitable

**TYPE: HT_001**




**TYPE: HT_002**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M3X0.5 | - | 2.5 | 2.56 | HI73.0G5 | 5P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| | - | 2.5 | 2.56 | HI73.0G2 | 2P | 46 | 9 | 14 | 26 | 4 | 3.2 | 6 | 3 | 001 | ● |
| M4X0.7 | - | 3.3 | 3.38 | HI74.0I5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| | - | 3.3 | 3.38 | HI74.0I2 | 2P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| M5X0.8 | - | 4.2 | 4.28 | HI75.0K5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| | - | 4.2 | 4.28 | HI75.0K2 | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| M6X1 | - | 5 | 5.09 | HI76.0M5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| | - | 5 | 5.09 | HI76.0M2 | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| M8X1.25 | - | 6.8 | 6.85 | HI78.0N5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ● |
| | - | 6.8 | 6.85 | HI78.0N2 | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ● |
| M10X1.5 | - | 8.5 | 8.6 | HI701005 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ● |
| | - | 8.5 | 8.6 | HI701002 | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ● |

● stock standard, ○ non-standard stock, ▽ stock exhaustion



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Machine Tools International

# EG STI TAPS

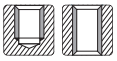
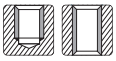
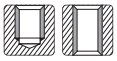


EG (STI) - JIS **504**
EG (STI) - ANSI **514**

IMROBEX
Machine Tools International

# Selection Chart



| | GP | | | | MS | | | |
|---|---|---|---|---|---|---|---|---|
| | SP STI | PO STI | HT STI | N-RS STI | AL-SP STI | AL-PO STI | AL-HT STI | ZELX NI SP STI |
| | HSS-E / NI | HSS-E | HSS-E | HSS-E / NI | HSS-E / NI | HSS-E | HSS-E | HSS-P / NX |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | ANSI | ANSI | ANSI | JIS | JIS | JIS | JIS | ANSI |
| M | | | | | | | | |
| MF | | | | | | | | |
| UNC/UNF | | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | |
| UNEF | | | | | | | | |
| G (BSP) | | | | | | | | |
| Rp (BSPP) | | | | | | | | |
| Rc (BSPT) | | | | | | | | |
| NPT | | | | | | | | |
| NPTF | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | |
| BSW | | | | | | | | |
| EG(STI), M, MF, UNC/UNF | 517 | 521 | 525 | 515 | 507 | 509 | 511 | 518 |
| Pg | | | | | | | | |
| Tr | | | | | | | | |
| S miniature | | | | | | | | |
| Special threads | | | | | | | | |
| | Vc (m/min) | | | | | | | |
| P1 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | | | | ☆ 5÷15 |
| P2 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | | | | ☆ 5÷15 |
| P3 | ☆ 5÷10 | ☆ 5÷10 | ☆ 5÷10 | | | | | ★ 5÷15 |
| P4 | | | | | | | | ★ 5÷15 |
| P5 | | | | | | | | ☆ 5÷10 |
| P6 | | | | | | | | |
| P7 | | | | | | | | ★ 5÷15 |
| P8 | | | | | | | | ★ 4÷8 |
| M1 | | | | | | | | ★ 5÷15 |
| M2 | | | | | | | | ★ 5÷15 |
| M3 | | | | | | | | ★ 4÷8 |
| K1 | | | | | | | | |
| K2 | | | | | | | | |
| K3 | | | | | | | | |
| K4 | | | | | | | | |
| N1 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 10÷25 | ★ 5÷15 | ★ 5÷15 | |
| N2 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 5÷15 | ★ 10÷25 | ★ 5÷15 | ★ 5÷15 | |
| N3 | ★ 5÷15 | ★ 5÷15 | ★ 5÷10 | ★ 5÷15 | ★ 10÷25 | ★ 5÷15 | ☆ 5÷10 | |
| N4 | ★ 5÷15 | ★ 5÷15 | ★ 5÷10 | | ★ 10÷25 | ★ 5÷15 | ★ 5÷10 | |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | ★ 5÷10 |
| S2 (<35 HRC) | | | | | | | | ★ 5÷10 |
| S3 (35 ÷ 45 HRC) | | | | | | | | |
| S5 | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

★ 1st choice ☆ suitable



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MS

**ZELX NI PO STI**

HSS-P | NX






| ANSI | |
|---|---|
| | M |
| | MF |
| | UNC/UNF |
| | UNS, 8, 12, 20, 32UN |
| | UNEF |
| | G (BSP) |
| | Rp (BSPP) |
| | Rc (BSPT) |
| | NPT |
| | NPTF |
| | NPSC, NPSM, NPSF |
| | BSW |
| 523 | EG(STI), M, MF, UNC/UNF |
| | Pg |
| | Tr |
| | S miniature |
| | Special threads |

| Vc (m/min) | |
|---|---|
| | P1 |
| | P2 |
| ★ 5÷15 | P3 |
| ★ 5÷15 | P4 |
| ☆ 5÷10 | P5 |
| | P6 |
| ★ 5÷15 | P7 |
| ★ 4÷8 | P8 |
| ★ 5÷15 | M1 |
| ★ 5÷15 | M2 |
| ★ 4÷8 | M3 |
| | K1 |
| | K2 |
| | K3 |
| | K4 |
| | N1 |
| | N2 |
| | N3 |
| | N4 |
| | N5 |
| ★ 5÷10 | S1 (<25 HRC) |
| ★ 5÷10 | S2 (<35 HRC) |
| ☆ 3÷6 | S3 (35 ÷ 45 HRC) |
| | S5 |
| | H (45 ÷ 55 HRC) |
| | H (55 ÷ 63 HRC) |




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Machine Tools International
Think threads with YAMAWA

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
JIS
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# AL-SP STI




## MS Material Specific Series

Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys

HSS-E | NI | 2.5P THCHT

**FEATURES**

Material specific for blind hole application.

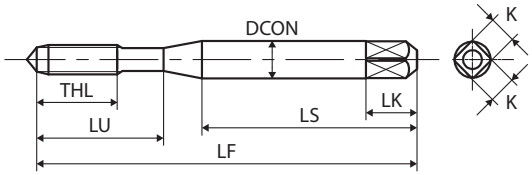
Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

**Recommended Tapping Speeds Depending On Materials**

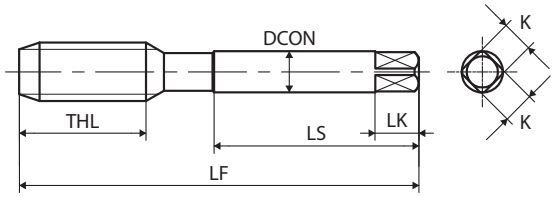
| ISO | Vc (m/min) |
|---|---|
| N1 | 10÷25 ★ |
| N2 | 10÷25 ★ |
| N3 | 10÷25 ★ |
| N4 | 10÷25 ★ |

★ 1st choice ☆ suitable

**TYPE: SP_001**




**TYPE: SP_013**






Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| EG(STI) M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **STI M3X0.5** | 1b | 3.15 | 3.18 | SW3.0G1LEN | 2.5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| | 1b+30 | 3.15 | 3.18 | SW3.0G3LEN | 2.5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **STI M4X0.7** | 1b | 4.2 | 4.27 | SW4.0I1LEN | 2.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| | 1b+30 | 4.2 | 4.27 | SW4.0I3LEN | 2.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **STI M5X0.8** | 1b | 5.2 | 5.29 | SW5.0K1LEN | 2.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ● |
| | 1b+30 | 5.2 | 5.29 | SW5.0K3LEN | 2.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| **STI M6X1** | 1b | 6.3 | 6.38 | SW6.0M1LEN | 2.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ● |
| | 1b+30 | 6.3 | 6.38 | SW6.0M3LEN | 2.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 013 | ○ |
| **STI M8X1.25** | 1b | 8.4 | 8.47 | SW8.0N1LEN | 2.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ● |
| | 1b+30 | 8.4 | 8.47 | SW8.0N3LEN | 2.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 013 | ○ |
| **STI M10X1.5** | 1b | 10.5 | 10.56 | SW010O1LEN | 2.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ● |
| | 1b+30 | 10.5 | 10.56 | SW010O3LEN | 2.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| **STI M12X1.75** | 1b | 12.6 | 12.66 | SW012P1LEN | 2.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ● |
| **STI M14X2** | 1b | 14.7 | 14.75 | SW014Q1LEN | 2.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 3 | 013 | ○ |
| **STI M16X2** | 1b | 16.7 | 16.75 | SW016Q1LEN | 2.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ● |
| **STI M18X2.5** | 1b | 18.9 | 18.93 | SW018R1LEN | 2.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |
| **STI M20X2.5** | 1b | 20.9 | 20.93 | SW020R1LEN | 2.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 013 | ○ |
| **STI M22X2.5** | 1b | 22.9 | 22.93 | SW022R1LEN | 2.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 013 | ○ |
| **STI M24X3** | 1b | 25.1 | 25.11 | SW024S1LEN | 2.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 013 | ○ |

| EG(STI) MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **STI M10X1.25** | 1b | 10.4 | 10.47 | SW010N1LEN | 2.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 013 | ○ |
| **STI M12X1.25** | 1b | 12.4 | 12.47 | SW012N1LEN | 2.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| **STI M12X1.5** | 1b | 12.5 | 12.56 | SW012O1LEN | 2.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 3 | 013 | ○ |
| **STI M14X1.5** | 1b | 14.5 | 14.56 | SW014O1LEN | 2.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 013 | ○ |
| **STI M16X1.5** | 1b | 16.5 | 16.56 | SW016O1LEN | 2.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 013 | ○ |
| **STI M18X1.5** | 1b | 18.5 | 18.56 | SW018O1LEN | 2.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 013 | ○ |
| **STI M20X1.5** | 1b | 20.5 | 20.56 | SW020O1LEN | 2.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 013 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
JIS
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# AL-PO STI




## MS Material Specific Series

Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys

HSS-E



5P THCHT

**FEATURES**

Material specific for through hole application.

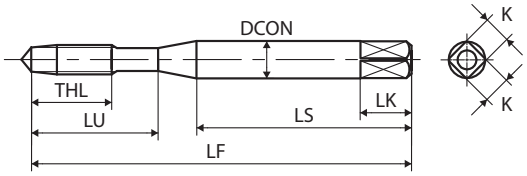
Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

**Recommended Tapping Speeds Depending On Materials**

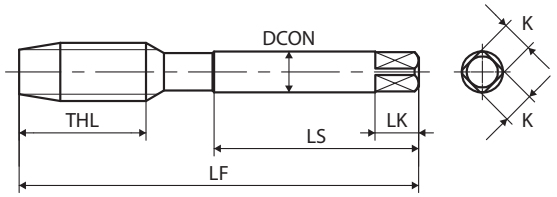
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷15 | ★ |
| N4 | 5÷15 | ★ |

★ 1st choice ☆ suitable

**TYPE: PO_001**




**TYPE: PO_002**






Think threads with YAMAWA

IMROBEX Machine Tools International

| EG(STI) M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **STI M3X0.5** | 1b | 3.15 | 3.18 | PW3.0G1LEB | 5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| **STI M4X0.7** | 1b | 4.2 | 4.27 | PW4.0I1LEB | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| **STI M5X0.8** | 1b | 5.2 | 5.29 | PW5.0K1LEB | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 001 | ○ |
| **STI M6X1** | 1b | 6.3 | 6.38 | PW6.0M1LEB | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 002 | ○ |
| **STI M8X1.25** | 1b | 8.4 | 8.47 | PW8.0N1LEB | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 002 | ○ |
| **STI M10X1.5** | 1b | 10.5 | 10.56 | PW010O1LEB | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 3 | 002 | ○ |
| **STI M12X1.75** | 1b | 12.6 | 12.66 | PW012P1LEB | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 3 | 002 | ○ |

Intro
SP
SL
PO
ST
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CENTER DRILLS
Technical info

# AL-HT STI




## MS Material Specific Series

Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts on Aluminium Alloys

HSS-E | 5P THCHT | 1.5P THCHT

**FEATURES**

Material specific for blind and through hole application.

Specific design and NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

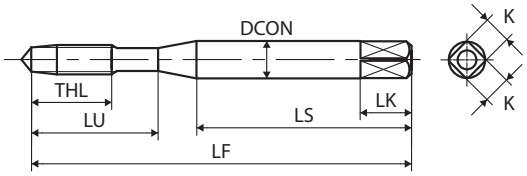
1.5P chamfer for blind hole application, 5P chamfer for through hole application.

**Recommended Tapping Speeds Depending On Materials**

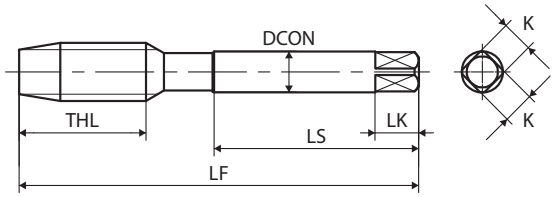
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: HT_001**




**TYPE: HT_002**






Think threads with YAMAWA

IMROBEX Machine Tools International

Oversized

● stock standard, ◘ check stock EU, ○ check stock JP, ▽ stock exhaustion

| EG(STI) M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI M2.6X0.45 | 1b | 2.7 | 2.76 | TW2.6F1LEB5 | 5P | 52 | 6.8 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | 1b | 2.7 | 2.76 | TW2.6F1LEBA | 1.5P | 52 | 6.8 | 16 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| STI M3X0.5 | 1b | 3.15 | 3.18 | TW3.0G1LEB5 | 5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | 1b | 3.15 | 3.18 | TW3.0G1LEBA | 1.5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ◘ |
| | 1b+30 | 3.15 | 3.18 | TW3.0G3LEB5 | 5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | 1b+30 | 3.15 | 3.18 | TW3.0G3LEBA | 1.5P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| STI M4X0.7 | 1b | 4.2 | 4.27 | TW4.0I1LEB5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b | 4.2 | 4.27 | TW4.0I1LEBA | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ◘ |
| | 1b+30 | 4.2 | 4.27 | TW4.0I3LEB5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b+30 | 4.2 | 4.27 | TW4.0I3LEBA | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 4 | 001 | ○ |
| STI M5X0.8 | 1b | 5.2 | 5.29 | TW5.0K1LEB5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b | 5.2 | 5.29 | TW5.0K1LEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ◘ |
| | 1b+30 | 5.2 | 5.29 | TW5.0K3LEB5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b+30 | 5.2 | 5.29 | TW5.0K3LEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| STI M6X1 | 1b | 6.3 | 6.38 | TW6.0M1LEB5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | 1b | 6.3 | 6.38 | TW6.0M1LEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ◘ |
| | 1b+30 | 6.3 | 6.38 | TW6.0M3LEB5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | 1b+30 | 6.3 | 6.38 | TW6.0M3LEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| STI M8X1.25 | 1b | 8.4 | 8.47 | TW8.0N1LEB5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | 1b | 8.4 | 8.47 | TW8.0N1LEBA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ◘ |
| | 1b+30 | 8.4 | 8.47 | TW8.0N3LEB5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | 1b+30 | 8.4 | 8.47 | TW8.0N3LEBA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| STI M10X1.5 | 1b | 10.5 | 10.56 | TW010O1LEB5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | 1b | 10.5 | 10.56 | TW010O1LEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ◘ |
| | 1b+30 | 10.5 | 10.56 | TW010O3LEB5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | 1b+30 | 10.5 | 10.56 | TW010O3LEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| STI M12X1.75 | 1b | 12.6 | 12.66 | TW012P1LEB5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | 1b | 12.6 | 12.66 | TW012P1LEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ◘ |
| STI M14X2 | 1b | 14.7 | 14.75 | TW014Q1LEB5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | 1b | 14.7 | 14.75 | TW014Q1LEBA | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ◘ |
| STI M16X2 | 1b | 16.7 | 16.75 | TW016Q1LEB5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | 1b | 16.7 | 16.75 | TW016Q1LEBA | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ◘ |
| STI M18X2.5 | 1b | 18.9 | 18.93 | TW018R1LEB5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | 1b | 18.9 | 18.93 | TW018R1LEBA | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| STI M20X2.5 | 1b | 20.9 | 20.93 | TW020R1LEB5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | 1b | 20.9 | 20.93 | TW020R1LEBA | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ◘ |
| STI M22X2.5 | 1b | 22.9 | 22.93 | TW022R1LEB5 | 5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| | 1b | 22.9 | 22.93 | TW022R1LEBA | 1.5P | 125 | 39 | - | 58 | 19 | 15 | 18 | 4 | 002 | ○ |
| STI M24X3 | 1b | 25.1 | 25.11 | TW024S1LEB5 | 5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |
| | 1b | 25.1 | 25.11 | TW024S1LEBA | 1.5P | 135 | 46 | - | 62 | 23 | 17 | 20 | 4 | 002 | ○ |

| EG(STI) MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI M10X1 | 1b | 10.3 | 10.38 | TW010M1LEB5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | 1b | 10.3 | 10.38 | TW010M1LEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| STI M10X1.25 | 1b | 10.4 | 10.47 | TW010N1LEB5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | 1b | 10.4 | 10.47 | TW010N1LEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |

| EG(STI) MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI M12X1.25 | 1b | 12.4 | 12.47 | TW012N1LEB5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | 1b | 12.4 | 12.47 | TW012N1LEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| STI M12X1.5 | 1b | 12.5 | 12.56 | TW012O1LEB5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | 1b | 12.5 | 12.56 | TW012O1LEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| STI M14X1.25 | 1b | 14.4 | 14.47 | TW014N1LEB5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | 1b | 14.4 | 14.47 | TW014N1LEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| STI M14X1.5 | 1b | 14.5 | 14.56 | TW014O1LEB5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | 1b | 14.5 | 14.56 | TW014O1LEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| STI M16X1.5 | 1b | 16.5 | 16.56 | TW016O1LEB5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | 1b | 16.5 | 16.56 | TW016O1LEBA | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| STI M18X1.5 | 1b | 18.5 | 18.56 | TW018O1LEB5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | 1b | 18.5 | 18.56 | TW018O1LEBA | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| STI M20X1.5 | 1b | 20.5 | 20.56 | TW020O1LEB5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | 1b | 20.5 | 20.56 | TW020O1LEBA | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| STI M22X1.5 | 1b | 22.5 | 22.56 | TW022O1LEB5 | 5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| | 1b | 22.5 | 22.56 | TW022O1LEBA | 1.5P | 120 | 39 | - | 55 | 19 | 15 | 18 | 4 | 002 | ○ |
| STI M24X1.5 | 1b | 24.5 | 24.56 | TW024O1LEB5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| | 1b | 24.5 | 24.56 | TW024O1LEBA | 1.5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |
| STI M24X2 | 1b | 24.7 | 24.75 | TW024Q1LEB5 | 5P | 130 | 39 | - | 60 | 20 | 15 | 18 | 4 | 002 | ○ |

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI No.4-40UNC | 1b | 3 | 3.13 | TWUN4H1LEB5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | 1b | 3 | 3.13 | TWUN4H1LEBA | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ● |
| STI No.5-40UNC | 1b | 3.3 | 3.44 | TWUN5H1LEB5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | 1b | 3.3 | 3.44 | TWUN5H1LEBA | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| STI No.6-32UNC | 1b | 3.7 | 3.83 | TWUN6J1LEB5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | 1b | 3.7 | 3.83 | TWUN6J1LEBA | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ● |
| STI No.8-32UNC | 1b | 4.4 | 4.48 | TWUN8J1LEB5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b | 4.4 | 4.48 | TWUN8J1LEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| STI No.10-24UNC | 1b | 5.1 | 5.23 | TWUNAM1LEB5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b | 5.1 | 5.23 | TWUNAM1LEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| STI No.12-24UNC | 1b | 5.7 | 5.89 | TWUNCM1LEB5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | 1b | 5.7 | 5.89 | TWUNCM1LEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| STI 1/4-20UNC | 1b | 6.7 | 6.81 | TWU04N1LEB5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | 1b | 6.7 | 6.81 | TWU04N1LEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| STI 5/16-18UNC | 1b | 8.4 | 8.43 | TWU05O1LEB5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | 1b | 8.4 | 8.43 | TWU05O1LEBA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ● |
| STI 3/8-16UNC | 1b | 10 | 10.06 | TWU06P1LEB5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | 1b | 10 | 10.06 | TWU06P1LEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| STI 7/16-14UNC | 1b | 11.6 | 11.71 | TWU07Q1LEB5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | 1b | 11.6 | 11.71 | TWU07Q1LEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| STI 1/2-13UNC | 1b | 13.2 | 13.33 | TWU08R1LEB5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | 1b | 13.2 | 13.33 | TWU08R1LEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| STI 5/8-11UNC | 1b | 16.7 | 16.6 | TWU10U1LEB5 | 5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ○ |
| | 1b | 16.7 | 16.6 | TWU10U1LEBA | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 002 | ● |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI 3/4-10UNC | 1b | 19.8 | 19.82 | TWU12V1LEB5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | 1b | 19.8 | 19.82 | TWU12V1LEBA | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI No.4-48UNF | 1b | 3 | 3.08 | TWUN4F1LEB5 | 5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| | 1b | 3 | 3.08 | TWUN4F1LEBA | 1.5P | 52 | 11 | 17 | 29 | 5 | 4 | 7 | 3 | 001 | ○ |
| STI No.6-40UNF | 1b | 3.7 | 3.77 | TWUN6H1LEB5 | 5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| | 1b | 3.7 | 3.77 | TWUN6H1LEBA | 1.5P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 3 | 001 | ○ |
| STI No.8-36UNF | 1b | 4.4 | 4.45 | TWUN8I1LEB5 | 5P | 62 | 9.5 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b | 4.4 | 4.45 | TWUN8I1LEBA | 1.5P | 62 | 9.5 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| STI No.10-32UNF | 1b | 5.1 | 5.14 | TWUNAJ1LEB5 | 5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ○ |
| | 1b | 5.1 | 5.14 | TWUNAJ1LEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 4 | 001 | ● |
| STI 1/4-28UNF | 1b | 6.6 | 6.68 | TWU04K1LEB5 | 5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ○ |
| | 1b | 6.6 | 6.68 | TWU04K1LEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 4 | 002 | ● |
| STI 5/16-24UNF | 1b | 8.3 | 8.31 | TWU05M1LEB5 | 5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ○ |
| | 1b | 8.3 | 8.31 | TWU05M1LEBA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 002 | ● |
| STI 3/8-24UNF | 1b | 9.8 | 9.89 | TWU06M1LEB5 | 5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ○ |
| | 1b | 9.8 | 9.89 | TWU06M1LEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 002 | ● |
| STI 7/16-20UNF | 1b | 11.5 | 11.53 | TWU07N1LEB5 | 5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| | 1b | 11.5 | 11.53 | TWU07N1LEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 002 | ○ |
| STI 1/2-20UNF | 1b | 13.1 | 13.12 | TWU08N1LEB5 | 5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ○ |
| | 1b | 13.1 | 13.12 | TWU08N1LEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 002 | ● |
| STI 5/8-18UNF | 1b | 16.3 | 16.33 | TWU10O1LEB5 | 5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ○ |
| | 1b | 16.3 | 16.33 | TWU10O1LEBA | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 002 | ● |
| STI 3/4-16UNF | 1b | 19.5 | 19.55 | TWU12P1LEB5 | 5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ○ |
| | 1b | 19.5 | 19.55 | TWU12P1LEBA | 1.5P | 115 | 33 | - | 55 | 17 | 13 | 16 | 4 | 002 | ● |

Intro
SP
SL
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ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
JIS
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# N-RS STI




## GP General Purpose Series

Thread Forming Taps for Helical Coil Wire Screw Thread Inserts

HSS-E | NI | 4P THCHT | 2P THCHT

**FEATURES**

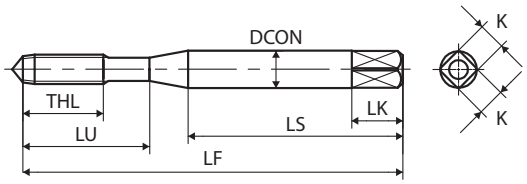
Forming tap for blind and through hole application.
Specific design for non-ferrous materials.
NI treatment improves tool life.

**Recommended Tapping Speeds Depending On Materials**

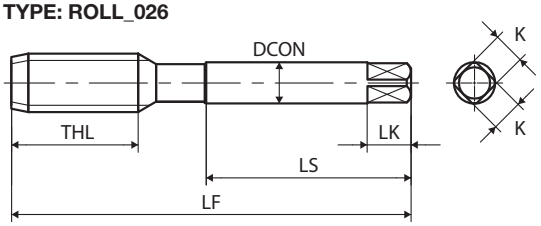
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷15 | ★ |

★ 1st choice ☆ suitable

**TYPE: ROLL_012**




**TYPE: ROLL_026**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| EG(STI) M | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI M3X0.5 | G3 | 3.45 | 3.42 | RW3.0G3LENP | 4P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| | G3 | 3.45 | 3.42 | RW3.0G3LENB | 2P | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 1(4) | 012 | ○ |
| STI M4X0.7 | G4 | 4.61 | 4.58 | RW4.0I4LENP | 4P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G4 | 4.61 | 4.58 | RW4.0I4LENB | 2P | 60 | 13 | 22 | 33 | 5.5 | 4.5 | 7 | 1(4) | 012 | ○ |
| STI M5X0.8 | G4 | 5.7 | 5.66 | RW5.0K4LENP | 4P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| | G4 | 5.7 | 5.66 | RW5.0K4LENB | 2P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 1(4) | 012 | ○ |
| STI M6X1 | G4 | 6.9 | 6.85 | RW6.0M4LENP | 4P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| | G4 | 6.9 | 6.85 | RW6.0M4LENB | 2P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 1(4) | 026 | ○ |
| STI M8X1.25 | G4 | 9.11 | 9.06 | RW8.0N4LENB | 2P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| | G4 | 9.11 | 9.06 | RW8.0N4LENP | 4P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 1(6) | 026 | ○ |
| STI M10X1.5 | G5 | 11.3 | 11.25 | RW010O5LENB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G5 | 11.3 | 11.25 | RW010O5LENP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| STI M12X1.75 | G6 | 13.57 | 13.5 | RW012P6LENB | 2P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |
| | G6 | 13.57 | 13.5 | RW012P6LENP | 4P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 1(6) | 026 | ○ |

| EG(STI) MF | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| STI M10X1.25 | G5 | 11.1 | 11.05 | RW010N5LENP | 4P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| | G5 | 11.1 | 11.05 | RW010N5LENB | 2P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 1(6) | 026 | ○ |
| STI M12X1.25 | G6 | 13.1 | 13.05 | RW012N6LENP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G6 | 13.1 | 13.05 | RW012N6LENB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| STI M12X1.5 | G6 | 13.3 | 13.25 | RW012O6LENP | 4P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |
| | G6 | 13.3 | 13.25 | RW012O6LENB | 2P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 1(6) | 026 | ○ |

Intro
SP
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HAND TAPS
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SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# SP STI




## GP General Purpose Series

Spiral Fluted Taps for Helical Coil Wire Screw Thread Inserts

HSS-E | NI | 2P THCHT

**FEATURES**

General purpose for blind hole application.

NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

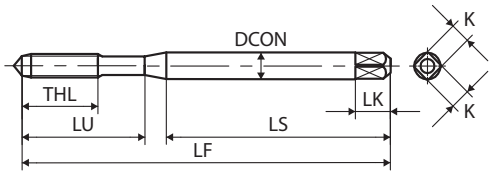
Also suitable for carbon steel application.

**Recommended Tapping Speeds Depending On Materials**

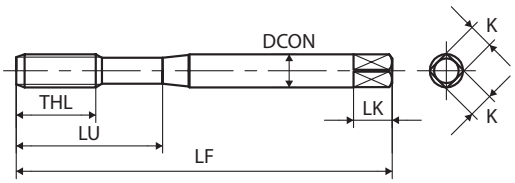
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷15 | ★ |
| P2 | 5÷10 | ☆ | N2 | 5÷15 | ★ |
| P3 | 5÷10 | ☆ | N3 | 5÷15 | ★ |
| | | | N4 | 5÷15 | ★ |

★ 1st choice ☆ suitable

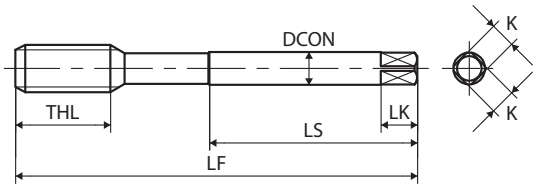
**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX Machine Tools International

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.2-56UNC | GH1 | 2.35 | 2.4 | SUUN2E1NEB | 2P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.35 | 2.4 | SUUN2E2NEB | 2P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| STI No.4-40UNC | GH1 | 3.1 | 3.13 | SUUN4H1NEB | 2P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| | GH2 | 3.1 | 3.13 | SUUN4H2NEB | 2P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| STI No.6-32UNC | GH1 | 3.8 | 3.83 | SUUN6J1NEB | 2P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH2 | 3.8 | 3.83 | SUUN6J2NEB | 2P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 3 | 005 | ○ |
| STI No.8-32UNC | GH1 | 4.4 | 4.48 | SUUN8J1NEB | 2P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| | GH2 | 4.4 | 4.48 | SUUN8J2NEB | 2P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| STI No.10-24UNC | GH2 | 5.2 | 5.23 | SUUNAM2NEB | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.2 | 5.23 | SUUNAM3NEB | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| STI 1/4-20UNC | GH2 | 6.8 | 6.81 | SUU04N2NEB | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.8 | 6.81 | SUU04N3NEB | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| STI 5/16-18UNC | GH2 | 8.4 | 8.43 | SUU05O2NEB | 2P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH3 | 8.4 | 8.43 | SUU05O3NEB | 2P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| STI 3/8-16UNC | GH2 | 10 | 10.06 | SUU06P2NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH3 | 10 | 10.06 | SUU06P3NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| STI 7/16-14UNC | GH2 | 11.7 | 11.71 | SUU07Q2NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH3 | 11.7 | 11.71 | SUU07Q3NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| STI 1/2-13UNC | GH2 | 13.2 | 13.33 | SUU08R2NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH3 | 13.2 | 13.33 | SUU08R3NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.10-32UNF | GH2 | 5.1 | 5.14 | SUUNAJ2NEB | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.1 | 5.14 | SUUNAJ3NEB | 2P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| STI 1/4-28UNF | GH2 | 6.6 | 6.68 | SUU04K2NEB | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.6 | 6.68 | SUU04K3NEB | 2P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| STI 5/16-24UNF | GH2 | 8.3 | 8.31 | SUU05M2NEB | 2P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| | GH3 | 8.3 | 8.31 | SUU05M3NEB | 2P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 3 | 006 | ○ |
| STI 3/8-24UNF | GH2 | 9.8 | 9.89 | SUU06M2NEB | 2P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH3 | 9.8 | 9.89 | SUU06M3NEB | 2P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| STI 7/16-20UNF | GH2 | 11.5 | 11.53 | SUU07N2NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH3 | 11.5 | 11.53 | SUU07N3NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| STI 1/2-20UNF | GH2 | 13.1 | 13.12 | SUU08N2NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH3 | 13.1 | 13.12 | SUU08N3NEB | 2P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |



IMROBEX
Machine Tools International

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Think threads with YAMAWA

# ZELX NI SP STI




## MS Material Specific Series

Spiral Fluted Taps for Nickel Base Alloys, for Helical Coil Wire Screw Thread Inserts

HSS-P | NX | SYNCHRO | 3P THCHT | 1.5P THCHT

**FEATURES**

Material specific for blind hole application.

Specific design and NX treatment allow high performance on Nickel base alloys.

Also suitable for stainless steel and high alloy steel.

**Recommended Tapping Speeds Depending On Materials**

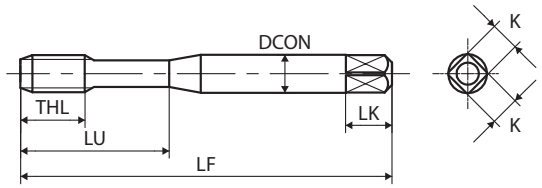
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷15 | ☆ |
| P2 | 5÷15 | ☆ |
| P3 | 5÷15 | ★ |
| P4 | 5÷15 | ★ |
| P5 | 5÷10 | ☆ |
| P7 | 5÷15 | ★ |
| P8 | 4÷8 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 5÷15 | ★ |
| M2 | 5÷15 | ★ |
| M3 | 4÷8 | ★ |

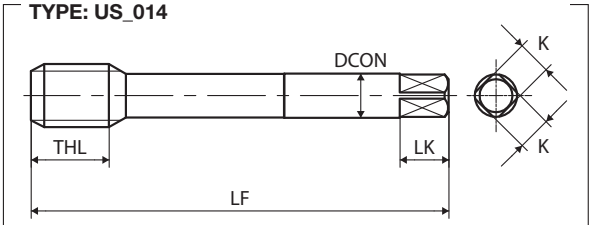
| ISO | Vc (m/min) | |
|---|---|---|
| S1 | 5÷10 | ★ |
| S2 | 5÷10 | ★ |

★ 1st choice ☆ suitable

**TYPE: US_002**




**TYPE: US_014**




| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.2-56UNC | GH2 | 2.35 | 2.4 | Y87400 | 3P | 1.875 | 0.236 | 0.562 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| STI No.4-40UNC | GH1 | 3.1 | 3.13 | Y87403 | 3P | 2 | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH2 | 3.1 | 3.13 | Y87404 | 3P | 2 | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH2 | 3.1 | 3.13 | Y87004 | 1.5P | 2 | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 3.1 | 3.13 | Y87420 | 3P | 2 | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| | GH3 | 3.1 | 3.13 | Y87419 | 1.5P | 2 | 0.276 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 002 | ○ |
| STI No.6-32UNC | GH2 | 3.8 | 3.83 | Y87408 | 3P | 2.375 | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH2 | 3.8 | 3.83 | Y87008 | 1.5P | 2.375 | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.8 | 3.83 | Y87424 | 3P | 2.375 | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH3 | 3.8 | 3.83 | Y87425 | 1.5P | 2.375 | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| | GH5 | 3.8 | 3.83 | Y87042 | 1.5P | 2.375 | 0.354 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 002 | ○ |
| STI No.8-32UNC | GH1 | 4.4 | 4.48 | Y81409 | 3P | 2.375 | 0.354 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 002 | ○ |
| | GH2 | 4.4 | 4.48 | Y87410 | 3P | 2.375 | 0.354 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 002 | ○ |
| | GH3 | 4.4 | 4.48 | Y87426 | 3P | 2.375 | 0.354 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 002 | ○ |
| | GH2 | 4.4 | 4.48 | Y87026 | 1.5P | 2.375 | 0.354 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 002 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.10-24UNC | GH2 | 5.2 | 5.23 | Y87412 | 3P | 2.5 | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.2 | 5.23 | Y87428 | 3P | 2.5 | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.2 | 5.23 | Y87028 | 1.5P | 2.5 | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH2 | 5.2 | 5.23 | Y87012 | 1.5P | 2.5 | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.2 | 5.23 | Y87445 | 1.5P | 2.5 | 0.433 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| STI 1/4-20UNC | GH2 | 6.8 | 6.81 | Y87448 | 3P | 2.718 | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.8 | 6.81 | Y87458 | 3P | 2.718 | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.8 | 6.81 | Y87058 | 1.5P | 2.718 | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.8 | 6.81 | Y87090 | 1.5P | 2.718 | 0.472 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| STI 5/16-18UNC | GH3 | 8.4 | 8.43 | Y87460 | 3P | 2.937 | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH4 | 8.4 | 8.43 | Y87470 | 3P | 2.937 | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH2 | 8.4 | 8.43 | Y87060 | 1.5P | 2.937 | 0.551 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| STI 3/8-16UNC | GH3 | 10 | 10.06 | Y87462 | 3P | 3.375 | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH4 | 10 | 10.06 | Y87472 | 3P | 3.375 | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 10 | 10.06 | Y87062 | 1.5P | 3.375 | 0.630 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| STI 7/16-14UNC | GH3 | 11.7 | 11.71 | Y87464 | 3P | 3.593 | 0.709 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| STI 1/2-13UNC | GH3 | 13.2 | 13.33 | Y87466 | 3P | 3.812 | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH3 | 13.2 | 13.33 | Y87066 | 1.5P | 3.812 | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |
| | GH5 | 13.2 | 13.33 | Y87088 | 1.5P | 3.812 | 0.748 | - | - | 0.48 | 0.36 | 0.562 | 3 | 014 | ○ |

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.6-40UNF | GH2 | 3.7 | 3.77 | Y87409 | 3P | 2.125 | 0.276 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 002 | ○ |
| STI No.10-32UNF | GH2 | 5.1 | 5.14 | Y87413 | 3P | 2.5 | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.1 | 5.14 | Y87429 | 3P | 2.5 | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH3 | 5.1 | 5.14 | Y87029 | 1.5P | 2.5 | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| | GH5 | 5.1 | 5.14 | Y87057 | 1.5P | 2.5 | 0.354 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 002 | ○ |
| STI 1/4-28UNF | GH2 | 6.6 | 6.68 | Y87449 | 3P | 2.718 | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH3 | 6.6 | 6.68 | Y87459 | 3P | 2.718 | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH2 | 6.6 | 6.68 | Y87059 | 1.5P | 2.718 | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| | GH5 | 6.6 | 6.68 | Y87091 | 1.5P | 2.718 | 0.394 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 002 | ○ |
| STI 5/16-24UNF | GH2 | 8.3 | 8.31 | Y87451 | 3P | 2.937 | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8.3 | 8.31 | Y87461 | 3P | 2.937 | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| | GH3 | 8.3 | 8.31 | Y87061 | 1.5P | 2.937 | 0.394 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 002 | ○ |
| STI 3/8-24UNF | GH2 | 9.8 | 9.89 | Y87453 | 3P | 3.156 | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH2 | 9.8 | 9.89 | Y87063 | 1.5P | 3.156 | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH3 | 9.8 | 9.89 | Y87463 | 3P | 3.156 | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| | GH5 | 9.8 | 9.89 | Y87085 | 1.5P | 3.156 | 0.472 | - | - | 0.323 | 0.242 | 0.406 | 3 | 014 | ○ |
| STI 7/16-20UNF | GH3 | 11.5 | 11.53 | Y87465 | 3P | 3.375 | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH4 | 11.5 | 11.53 | Y87475 | 3P | 3.375 | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| | GH3 | 11.5 | 11.53 | Y87065 | 1.5P | 3.375 | 0.472 | - | - | 0.367 | 0.275 | 0.437 | 3 | 014 | ○ |
| STI 1/2-20UNF | GH3 | 13.1 | 13.12 | Y87467 | 3P | 3.593 | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |
| | GH3 | 13.1 | 13.12 | Y87067 | 1.5P | 3.593 | 0.512 | - | - | 0.429 | 0.322 | 0.5 | 3 | 014 | ○ |



IMROBEX
Machine Tools International

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Think threads with YAMAWA

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
ANSI
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# PO STI




## GP General Purpose Series

Spiral Pointed Taps for Helical Coil Wire Screw Thread Inserts

HSS-E



5P THCHT

**FEATURES**

General purpose for through hole application.

NI treatment allow stable and long life on Aluminium, Aluminium casting and die-casting.

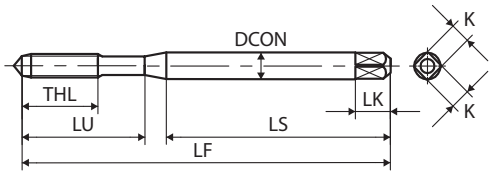
Also suitable for carbon steel application.

**Recommended Tapping Speeds Depending On Materials**

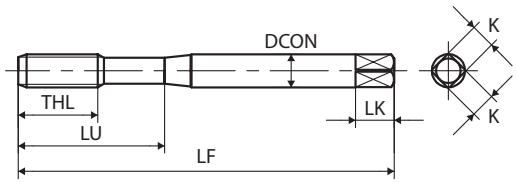
| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 5÷10 | ☆ | N1 | 5÷15 | ★ |
| P2 | 5÷10 | ☆ | N2 | 5÷15 | ★ |
| P3 | 5÷10 | ☆ | N3 | 5÷15 | ★ |
| | | | N4 | 5÷15 | ★ |

★ 1st choice ☆ suitable

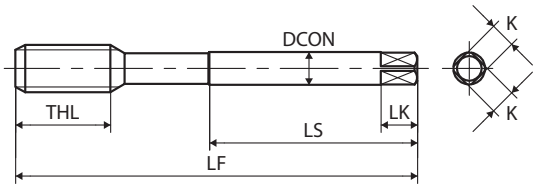
**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.2-56UNC | GH1 | 2.35 | 2.4 | PUUN2E1NEB | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| | GH2 | 2.35 | 2.4 | PUUN2E2NEB | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 2 | 005 | ○ |
| STI No.4-40UNC | GH1 | 3.1 | 3.13 | PUUN4H1NEB | 5P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| | GH2 | 3.1 | 3.13 | PUUN4H2NEB | 5P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 2 | 005 | ○ |
| STI No.6-32UNC | GH1 | 3.8 | 3.83 | PUUN6J1NEB | 5P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 2 | 005 | ○ |
| | GH2 | 3.8 | 3.83 | PUUN6J2NEB | 5P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 2 | 005 | ○ |
| STI No.8-32UNC | GH1 | 4.4 | 4.48 | PUUN8J1NEB | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 2 | 005 | ○ |
| | GH2 | 4.4 | 4.48 | PUUN8J2NEB | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 2 | 005 | ○ |
| STI No.10-24UNC | GH2 | 5.2 | 5.23 | PUUNAM2NEB | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2 | 005 | ○ |
| | GH3 | 5.2 | 5.23 | PUUNAM3NEB | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2 | 005 | ○ |
| STI 1/4-20UNC | GH2 | 6.8 | 6.81 | PUU04N2NEB | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 2 | 006 | ○ |
| | GH3 | 6.8 | 6.81 | PUU04N3NEB | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 2 | 006 | ○ |
| STI 5/16-18UNC | GH2 | 8.4 | 8.43 | PUU05O2NEB | 5P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 2 | 006 | ○ |
| | GH3 | 8.4 | 8.43 | PUU05O3NEB | 5P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 2 | 006 | ○ |
| STI 3/8-16UNC | GH3 | 10 | 10.06 | PUU06P3NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH4 | 10 | 10.06 | PUU06P4NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| STI 7/16-14UNC | GH3 | 11.7 | 11.71 | PUU07Q3NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH4 | 11.7 | 11.71 | PUU07Q4NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| STI 1/2-13UNC | GH3 | 13.2 | 13.33 | PUU08R3NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 13.2 | 13.33 | PUU08R4NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.10-32UNF | GH2 | 5.1 | 5.14 | PUUNAJ2NEB | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2 | 005 | ○ |
| | GH3 | 5.1 | 5.14 | PUUNAJ3NEB | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 2 | 005 | ○ |
| STI 1/4-28UNF | GH2 | 6.6 | 6.68 | PUU04K2NEB | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 2 | 006 | ○ |
| | GH3 | 6.6 | 6.68 | PUU04K3NEB | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 2 | 006 | ○ |
| STI 5/16-24UNF | GH2 | 8.3 | 8.31 | PUU05M2NEB | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 2 | 006 | ○ |
| | GH3 | 8.3 | 8.31 | PUU05M3NEB | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 2 | 006 | ○ |
| STI 3/8-24UNF | GH2 | 9.8 | 9.89 | PUU06M2NEB | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH3 | 9.8 | 9.89 | PUU06M3NEB | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| STI 7/16-20UNF | GH3 | 11.5 | 11.53 | PUU07N3NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| | GH4 | 11.5 | 11.53 | PUU07N4NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| STI 1/2-20UNF | GH3 | 13.1 | 13.12 | PUU08N3NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |
| | GH4 | 13.1 | 13.12 | PUU08N4NEB | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |



IMROBEX
Machine Tools International

The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Think threads with YAMAWA

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
ANSI
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# ZELX NI PO STI




## MS Material Specific Series

Spiral Pointed Taps for Nickel Base Alloys for Helical Coil Wire Screw Thread Inserts

HSS-P | NX | SYNCHRO | 4.5P THCHT

**FEATURES**

Material specific for through hole application.

Specific design and NI+OX treatment allow high performance on Nickel base alloys.

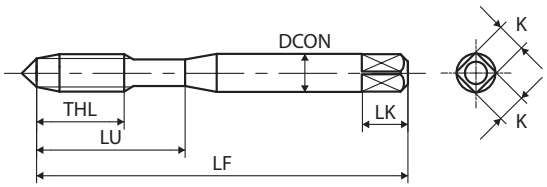
Also suitable for stainless steel and high alloy steel.

**Recommended Tapping Speeds Depending On Materials**

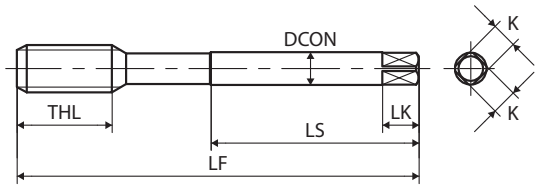
| ISO | Vc (m/min) | | ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|---|---|---|
| P3 | 5÷15 | ★ | M1 | 5÷15 | ★ | S1 | 5÷10 | ★ |
| P4 | 5÷15 | ★ | M2 | 5÷15 | ★ | S2 | 5÷10 | ★ |
| P5 | 5÷10 | ☆ | M3 | 4÷8 | ★ | S3 | 3÷6 | ☆ |
| P7 | 5÷15 | ★ | | | | | | |
| P8 | 4÷8 | ★ | | | | | | |

★ 1st choice ☆ suitable

**TYPE: US_030**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.2-56UNC | GH2 | 2.35 | 2.4 | Y87200 | 4.5P | 1.875 | 0.335 | 0.562 | - | 0.141 | 0.11 | 0.187 | 2 | 030 | ○ |
| STI No.4-40UNC | GH1 | 3.1 | 3.13 | Y87203 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| | GH2 | 3.1 | 3.13 | Y87204 | 4.5P | 2 | 0.413 | 0.687 | - | 0.141 | 0.11 | 0.187 | 3 | 030 | ○ |
| STI No.6-32UNC | GH2 | 3.8 | 3.83 | Y87208 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| | GH3 | 3.8 | 3.83 | Y87224 | 4.5P | 2.375 | 0.531 | 0.875 | - | 0.194 | 0.152 | 0.25 | 3 | 030 | ○ |
| STI No.8-32UNC | GH2 | 4.4 | 4.48 | Y87210 | 4.5P | 2.375 | 0.571 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 030 | ○ |
| | GH3 | 4.4 | 4.48 | Y87226 | 4.5P | 2.375 | 0.571 | 0.937 | - | 0.22 | 0.165 | 0.281 | 3 | 030 | ○ |
| STI No.10-24UNC | GH2 | 5.2 | 5.23 | Y87212 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH3 | 5.2 | 5.23 | Y87228 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| STI 1/4-20UNC | GH2 | 6.8 | 6.81 | Y87248 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH3 | 6.8 | 6.81 | Y87258 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| STI 5/16-18UNC | GH3 | 8.4 | 8.43 | Y87260 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH4 | 8.4 | 8.43 | Y87272 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| STI 3/8-16UNC | GH3 | 10 | 10.06 | Y87262 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH4 | 10 | 10.06 | Y87270 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| STI 7/16-14UNC | GH3 | 11.7 | 11.71 | Y87264 | 4.5P | 3.593 | 0.984 | - | - | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |
| STI 1/2-13UNC | GH3 | 13.2 | 13.33 | Y87266 | 4.5P | 3.812 | 1.083 | - | - | 0.48 | 0.36 | 0.562 | 3 | 007 | ○ |

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.6-40UNF | GH2 | 3.7 | 3.77 | Y87209 | 4.5P | 2.125 | 0.453 | 0.75 | - | 0.168 | 0.131 | 0.25 | 3 | 030 | ○ |
| STI No.10-32UNF | GH2 | 5.1 | 5.14 | Y87213 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| | GH3 | 5.1 | 5.14 | Y87229 | 4.5P | 2.5 | 0.591 | 1 | - | 0.255 | 0.191 | 0.312 | 3 | 030 | ○ |
| STI 1/4-28UNF | GH2 | 6.6 | 6.68 | Y87249 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| | GH3 | 6.6 | 6.68 | Y87259 | 4.5P | 2.718 | 0.669 | 1.125 | - | 0.318 | 0.238 | 0.375 | 3 | 030 | ○ |
| STI 5/16-24UNF | GH2 | 8.3 | 8.31 | Y87251 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| | GH3 | 8.3 | 8.31 | Y87261 | 4.5P | 2.937 | 0.748 | 1.25 | - | 0.381 | 0.286 | 0.437 | 3 | 030 | ○ |
| STI 3/8-24UNF | GH2 | 9.8 | 9.89 | Y87253 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| | GH3 | 9.8 | 9.89 | Y87263 | 4.5P | 3.156 | 0.866 | - | - | 0.323 | 0.242 | 0.406 | 3 | 007 | ○ |
| STI 7/16-20UNF | GH3 | 11.5 | 11.53 | Y87265 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| | GH4 | 11.5 | 11.53 | Y87275 | 4.5P | 3.375 | 0.984 | - | - | 0.367 | 0.275 | 0.437 | 3 | 007 | ○ |
| STI 1/2-20UNF | GH3 | 13.1 | 13.12 | Y87267 | 4.5P | 3.593 | 0.984 | - | - | 0.429 | 0.322 | 0.5 | 3 | 007 | ○ |



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The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.
Check page 673 of Technical info for full details.

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
ANSI
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HT STI




## GP General Purpose Series

Straight Fluted Taps for Helical Coil Wire Screw Thread Inserts

HSS-E





5P THCHT

1.5P THCHT

**FEATURES**

General purpose for blind and through hole application.

For non-ferrous materials.

1.5P chamfer for blind hole application, 5P chamfer for through hole application.

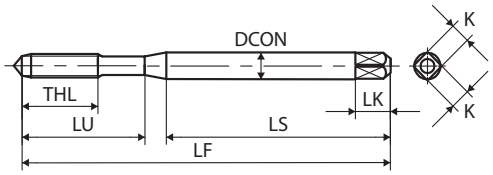
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ☆ |
| P3 | 5÷10 | ☆ |

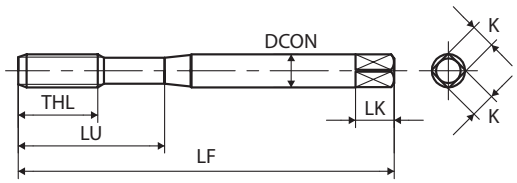
| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 5÷15 | ★ |
| N2 | 5÷15 | ★ |
| N3 | 5÷10 | ★ |
| N4 | 5÷10 | ★ |

★ 1st choice ☆ suitable

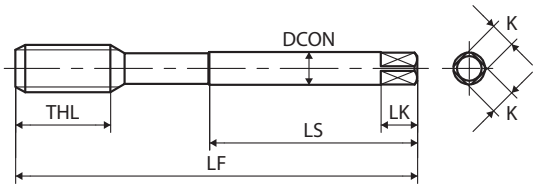
**TYPE: US_005**




**TYPE: US_006**




**TYPE: US_007**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| EG(STI) UNC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.2-56UNC | GH1 | 2.35 | 2.4 | TUUN2E1NEB5 | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH1 | 2.35 | 2.4 | TUUN2E1NEBA | 1.5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.35 | 2.4 | TUUN2E2NEB5 | 5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| | GH2 | 2.35 | 2.4 | TUUN2E2NEBA | 1.5P | 2.205 | 0.354 | 0.709 | 1.28 | 0.141 | 0.11 | 0.187 | 3 | 005 | ○ |
| STI No.4-40UNC | GH1 | 3.1 | 3.13 | TUUN4H1NEB5 | 5P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH1 | 3.1 | 3.13 | TUUN4H1NEBA | 1.5P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH2 | 3.1 | 3.13 | TUUN4H2NEB5 | 5P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH2 | 3.1 | 3.13 | TUUN4H2NEBA | 1.5P | 2.48 | 0.512 | 0.827 | 1.496 | 0.168 | 0.131 | 0.25 | 3 | 005 | ○ |
| STI No.6-32UNC | GH1 | 3.8 | 3.83 | TUUN6J1NEB5 | 5P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH1 | 3.8 | 3.83 | TUUN6J1NEBA | 1.5P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH2 | 3.8 | 3.83 | TUUN6J2NEB5 | 5P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 3 | 005 | ○ |
| | GH2 | 3.8 | 3.83 | TUUN6J2NEBA | 1.5P | 2.756 | 0.551 | 0.945 | 1.654 | 0.194 | 0.131 | 0.25 | 3 | 005 | ○ |
| STI No.8-32UNC | GH1 | 4.4 | 4.48 | TUUN8J1NEB5 | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| | GH1 | 4.4 | 4.48 | TUUN8J1NEBA | 1.5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| | GH2 | 4.4 | 4.48 | TUUN8J2NEB5 | 5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| | GH2 | 4.4 | 4.48 | TUUN8J2NEBA | 1.5P | 3.15 | 0.591 | 0.984 | 1.929 | 0.22 | 0.165 | 0.281 | 3 | 005 | ○ |
| STI No.10-24UNC | GH2 | 5.2 | 5.23 | TUUNAM2NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH2 | 5.2 | 5.23 | TUUNAM2NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.2 | 5.23 | TUUNAM3NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.2 | 5.23 | TUUNAM3NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| STI 1/4-20UNC | GH2 | 6.8 | 6.81 | TUU04N2NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH2 | 6.8 | 6.81 | TUU04N2NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.8 | 6.81 | TUU04N3NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.8 | 6.81 | TUU04N3NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| STI 5/16-18UNC | GH2 | 8.4 | 8.43 | TUU05O2NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH2 | 8.4 | 8.43 | TUU05O2NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH3 | 8.4 | 8.43 | TUU05O3NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH3 | 8.4 | 8.43 | TUU05O3NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.067 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| STI 3/8-16UNC | GH3 | 10 | 10.06 | TUU06P3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH3 | 10 | 10.06 | TUU06P3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH4 | 10 | 10.06 | TUU06P4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| | GH4 | 10 | 10.06 | TUU06P4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.367 | 0.275 | 0.437 | 4 | 007 | ○ |
| STI 7/16-14UNC | GH3 | 11.7 | 11.71 | TUU07Q3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH3 | 11.7 | 11.71 | TUU07Q3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 11.7 | 11.71 | TUU07Q4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 11.7 | 11.71 | TUU07Q4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| STI 1/2-13UNC | GH3 | 13.2 | 13.33 | TUU08R3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH3 | 13.2 | 13.33 | TUU08R3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 13.2 | 13.33 | TUU08R4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 13.2 | 13.33 | TUU08R4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI No.10-32UNF | GH2 | 5.1 | 5.14 | TUUNAJ2NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH2 | 5.1 | 5.14 | TUUNAJ2NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.1 | 5.14 | TUUNAJ3NEB5 | 5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |
| | GH3 | 5.1 | 5.14 | TUUNAJ3NEBA | 1.5P | 3.15 | 0.591 | 1.181 | 1.713 | 0.255 | 0.191 | 0.312 | 3 | 005 | ○ |

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Check page 673 of Technical info for full details.

| EG(STI) UNF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (inch) | THL (inch) | LU (inch) | LS (inch) | DCON (inch) | K (inch) | LK (inch) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANSI | | | | | | | | | | | | | | | |
| STI 1/4-28UNF | GH2 | 6.6 | 6.68 | TUU04K2NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH2 | 6.6 | 6.68 | TUU04K2NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.6 | 6.68 | TUU04K3NEB5 | 5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| | GH3 | 6.6 | 6.68 | TUU04K3NEBA | 1.5P | 3.543 | 0.748 | 1.378 | 1.831 | 0.318 | 0.238 | 0.375 | 3 | 006 | ○ |
| STI 5/16-24UNF | GH2 | 8.3 | 8.31 | TUU05M2NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH2 | 8.3 | 8.31 | TUU05M2NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH3 | 8.3 | 8.31 | TUU05M3NEB5 | 5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| | GH3 | 8.3 | 8.31 | TUU05M3NEBA | 1.5P | 3.937 | 0.906 | 1.535 | 2.028 | 0.381 | 0.286 | 0.437 | 4 | 006 | ○ |
| STI 3/8-24UNF | GH2 | 9.8 | 9.89 | TUU06M2NEB5 | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH2 | 9.8 | 9.89 | TUU06M2NEBA | 1.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH3 | 9.8 | 9.89 | TUU06M3NEB5 | 5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| | GH3 | 9.8 | 9.89 | TUU06M3NEBA | 1.5P | 3.937 | 0.906 | - | 2.008 | 0.323 | 0.242 | 0.406 | 4 | 007 | ○ |
| STI 7/16-20UNF | GH3 | 11.5 | 11.53 | TUU07N3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH3 | 11.5 | 11.53 | TUU07N3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 11.5 | 11.53 | TUU07N4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| | GH4 | 11.5 | 11.53 | TUU07N4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.429 | 0.322 | 0.5 | 4 | 007 | ○ |
| STI 1/2-20UNF | GH3 | 13.1 | 13.12 | TUU08N3NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH3 | 13.1 | 13.12 | TUU08N3NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 13.1 | 13.12 | TUU08N4NEB5 | 5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |
| | GH4 | 13.1 | 13.12 | TUU08N4NEBA | 1.5P | 4.331 | 1.024 | - | 2.205 | 0.48 | 0.36 | 0.562 | 4 | 007 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

# SPECIAL THREADS, GAUGES

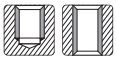
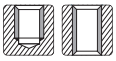
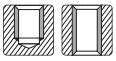
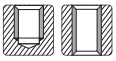


SPECIAL THREADS, GAUGES - DIN **530**
SPECIAL THREADS, GAUGES - JIS **532**
SPECIAL THREADS, GAUGES - YMW **550**

IMROBEX
Machine Tools International

# Selection Chart



| | GP | | | | | MP | GP | |
|---|---|---|---|---|---|---|---|---|
| | HT Pg | 6000 | NT | MS+TR | MS+RS | HPsRZ | SL Tr | SL LH Tr |
| | HSS-E | HSS | HSS-E | HSS-E | HSS-E | HSS-E COATING | HSS-E | HSS-E |
| |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |
| | DIN | DIN | JIS | JIS | JIS | JIS | JIS | JIS |
| M | | 533 | 535 | | | | | |
| MF | | | 535 | | | | | |
| UNC/UNF | | | | | | | | |
| UNS, 8, 12, 20, 32UN | | | | | | | | |
| UNEF | | | | | | | | |
| G (BSP) | | | | | | | | |
| Rp (BSPP) | | | | | | | | |
| Rc (BSPT) | | | | | | | | |
| NPT | | | | | | | | |
| NPTF | | | | | | | | |
| NPSC, NPSM, NPSF | | | | | | | | |
| BSW | | | 536 | | | | | |
| EG(STI), M, MF, UNC/UNF | | | | | | | | |
| Pg | 532 | | | | | | | |
| Tr | | | | | | | 540 | 541 |
| S miniature | | | | 537 | 538 | 539 | | |
| Special threads | | | | | | | | |
| | Vc (m/min) | | | | | | | |
| P1 | ☆ 5÷10 | ★ 5÷10 | ★ 5÷10 | | | ★ 15÷30 | ★ ≤5 | ★ ≤5 |
| P2 | ★ 5÷10 | ★ 5÷10 | ★ 5÷10 | | | ★ 15÷30 | ★ ≤5 | ★ ≤5 |
| P3 | ☆ 5÷10 | | | | | ★ 15÷25 | | |
| P4 | ☆ 5÷10 | | | | | ★ 15÷25 | | |
| P5 | | | | | | | | |
| P6 | | | | | | | | |
| P7 | | ★ 3÷7 | ★ 3÷7 | | | ★ 10÷25 | | |
| P8 | | | | | | | | |
| M1 | | ★ 3÷7 | ★ 3÷7 | | | ★ 10÷25 | | |
| M2 | | | | | | ★ 10÷25 | | |
| M3 | | | | | | | | |
| K1 | ☆ 5÷10 | | | | | | | |
| K2 | ☆ 5÷10 | | | | | | | |
| K3 | ☆ 5÷10 | | | | | | | |
| K4 | | | | | | | | |
| N1 | | | | ★ ≤5 | ★ ≤10 | ☆ 10÷45 | | |
| N2 | ☆ 5÷10 | | | ★ ≤5 | ★ ≤10 | ☆ 10÷45 | | |
| N3 | ☆ 5÷10 | | | ☆ ≤5 | ★ ≤10 | | | |
| N4 | ☆ 5÷10 | | | ★ ≤5 | | | | |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | |
| S5 | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

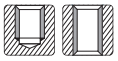
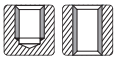
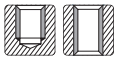
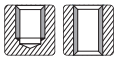
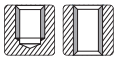
★ 1st choice ☆ suitable



Think threads with YAMAWA

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**GP**

| SP TRI | HT TRI | RLS-HT | HT TV | HT CTV | HT BC | HT CTC | HT CTG | |
|---|---|---|---|---|---|---|---|---|
| HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | HSS-E | |
|  |  |  |  |  |  |  |  | |
|  |  |  |  |  |  | | | |
| JIS | JIS | JIS | JIS | JIS | JIS | JIS | JIS | |
| | | | | | | | | M |
| | | | | | | | | MF |
| | | | | | | | | UNC/UNF |
| | | | | | | | | UNS, 8, 12, 20, 32UN |
| | | | | | | | | UNEF |
| | | | | | | | | G (BSP) |
| | | | | | | | | Rp (BSPP) |
| | | | | | | | | Rc (BSPT) |
| | | | | | | | | NPT |
| | | | | | | | | NPTF |
| | | | | | | | | NPSC, NPSM, NPSF |
| | | | | | | | | BSW |
| | | | | | | | | EG(STI), M, MF, UNC/UNF |
| | | | | | | | | Pg |
| | | | | | | | | Tr |
| | | | | | | | | S miniature |
| 542 | 543 | 544 | 545 | 547 | 549 | 550 | 551 | Special threads |
| Vc (m/min) | | | | | | | | |
| | | | | | ★ ≤10 | ★ ≤10 | ★ ≤10 | P1 |
| | | | | | ★ ≤10 | ★ ≤10 | ★ ≤10 | P2 |
| | | | | | | | | P3 |
| | | | | | | | | P4 |
| | | | | | | | | P5 |
| | | | | | | | | P6 |
| | | | | | | | | P7 |
| | | | | | | | | P8 |
| | | | | | | | | M1 |
| | | | | | | | | M2 |
| | | | | | | | | M3 |
| | | | | | | | | K1 |
| | | | | | | | | K2 |
| | | | | | | | | K3 |
| | | | | | | | | K4 |
| ★ ≤10 | ★ ≤10 | | | | | | | N1 |
| ★ ≤10 | ★ ≤10 | | | | | | | N2 |
| ★ ≤10 | ★ ≤10 | | | | | | | N3 |
| ★ ≤10 | ★ ≤10 | ★ ≤1 | ★ ≤10 | ★ ≤10 | | | | N4 |
| | | | | | | | | N5 |
| | | | | | | | | S1 (<25 HRC) |
| | | | | | | | | S2 (<35 HRC) |
| | | | | | | | | S3 (35 ÷ 45 HRC) |
| | | | | | | | | S5 |
| | | | | | | | | H (45 ÷ 55 HRC) |
| | | | | | | | | H (55 ÷ 63 HRC) |

# Selection Chart



| | Inspection Tools | | | |
|---|---|---|---|---|
| | SIT | SITD | CPC-S | CPR-S |
| | HSS | HSS | HSS | HSS |
| |  |  |  |  |
| | | | | |
| | YMW | YMW | YMW | YMW |
| M | 553 | 559 | 565 | 577 |
| MF | 553 | 559 | 565 | 577 |
| UNC/UNF | 556 | 560 | 570 | 577 |
| UNS, 8, 12, 20, 32UN | | | | |
| UNEF | | | | |
| G (BSP) | | | | |
| Rp (BSPP) | | | | |
| Rc (BSPT) | | | | |
| NPT | | | | |
| NPTF | | | | |
| NPSC, NPSM, NPSF | | | | |
| BSW | | | | |
| EG(STI), M, MF, UNC/UNF | | | | |
| Pg | | | | |
| Tr | | | | |
| S miniature | | | | |
| Special threads | | | | |
| | Vc (m/min) | | | |
| P1 | | | | |
| P2 | | | | |
| P3 | | | | |
| P4 | | | | |
| P5 | | | | |
| P6 | | | | |
| P7 | | | | |
| P8 | | | | |
| M1 | | | | |
| M2 | | | | |
| M3 | | | | |
| K1 | | | | |
| K2 | | | | |
| K3 | | | | |
| K4 | | | | |
| N1 | | | | |
| N2 | | | | |
| N3 | | | | |
| N4 | | | | |
| N5 | | | | |
| S1 (<25 HRC) | | | | |
| S2 (<35 HRC) | | | | |
| S3 (35 ÷ 45 HRC) | | | | |
| S5 | | | | |
| H (45 ÷ 55 HRC) | | | | |
| H (55 ÷ 63 HRC) | | | | |

★ 1st choice ☆ suitable



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# HT Pg

## GP General Purpose Series

Straight Fluted Taps for Pg Threads




HSS-E





3.5P THCHT

**FEATURES**

General purpose for blind and through hole application.

For steel application at low cutting speed, also suitable for cast iron and non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

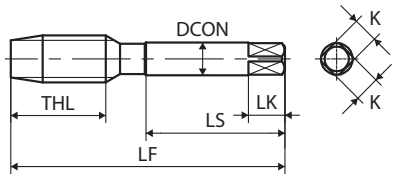
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ☆ |
| P2 | 5÷10 | ★ |
| P3 | 5÷10 | ☆ |
| P4 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| K1 | 5÷10 | ☆ |
| K2 | 5÷10 | ☆ |
| K3 | 5÷10 | ☆ |

| ISO | Vc (m/min) | |
|---|---|---|
| N2 | 5÷10 | ☆ |
| N3 | 5÷10 | ☆ |
| N4 | 5÷10 | ☆ |

★ 1st choice ☆ suitable

**TYPE: EU_120**




| Pg | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 40432 | | | | | | | | | | | | | | | |
| **Pg 7-20** | - | 11.4 | 11.45 | TYPG070NEBU | 3.5P | 70 | 21 | - | 36 | 9 | 7 | 10 | 4 | 120 | ● |
| **Pg 9-18** | - | 14 | 14.1 | TYPG090NEBU | 3.5P | 70 | 21 | - | 36 | 12 | 9 | 12 | 4 | 120 | ● |
| **Pg 11-18** | - | 17.3 | 17.35 | TYPG110NEBU | 3.5P | 80 | 21 | - | 41 | 14 | 11 | 14 | 4 | 120 | ● |
| **Pg 13.5-18** | - | 19.1 | 19.15 | TYPG130NEBU | 3.5P | 80 | 21 | - | 41 | 16 | 12 | 15 | 4 | 120 | ● |
| **Pg 16-18** | - | 21.25 | 21.3 | TYPG160NEBU | 3.5P | 80 | 21 | - | 41 | 18 | 14.5 | 17 | 4 | 120 | ● |
| **Pg 21-16** | - | 27 | 27.1 | TYPG210NEBU | 3.5P | 90 | 21 | - | 46 | 22 | 18 | 21 | 4 | 120 | ● |
| **Pg 29-16** | - | 35.6 | 35.7 | TYPG290NEBU | 3.5P | 100 | 24 | - | 51 | 28 | 22 | 25 | 4 | 120 | ○ |
| **Pg 36-16** | - | 45.6 | 45.7 | TYPG360NEBU | 3.5P | 140 | 39 | - | 71 | 36 | 29 | 32 | 4 | 120 | ○ |



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Machine Tools International

# 6000

## GP General Purpose Series

Nut Taps




HSS | LONG THCHT

**FEATURES**

Straight fluted tap for nut tapping machines.

Chamfer length 22P ÷ 32P

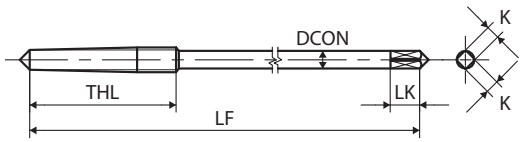
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ★ |
| P2 | 5÷10 | ★ |
| P7 | 3÷7 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 3÷7 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_004**




| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 357 | | | | | | | | | | | | | | | |
| **M3X0.5** | ISO2(6H) | 2.5 | 2.56 | 60003.0 | 32P | 70 | 22 | - | - | 2.2 | - | - | 3 | 004 | ● |
| **M4X0.7** | ISO2(6H) | 3.3 | 3.38 | 60004.0 | 26P | 90 | 25 | - | - | 2.8 | 2.1 | - | 3 | 004 | ● |
| **M5X0.8** | ISO2(6H) | 4.2 | 4.28 | 60005.0 | 25P | 100 | 28 | - | - | 3.5 | 2.7 | - | 3 | 004 | ● |
| **M6X1** | ISO2(6H) | 5 | 5.09 | 60006.0 | 22P | 110 | 32 | - | - | 4.5 | 3.4 | - | 3 | 004 | ● |
| **M8X1.25** | ISO2(6H) | 6.8 | 6.85 | 60008.0 | 23P | 125 | 40 | - | - | 6 | 4.9 | - | 3 | 004 | ● |
| **M10X1.5** | ISO2(6H) | 8.5 | 8.6 | 6000010 | 22P | 140 | 45 | - | - | 7 | 5.5 | - | 3 | 004 | ● |

# NT

## GP General Purpose Series

Nut Taps




HSS-E



LONG THCHT

**FEATURES**

Straight fluted tap for nut tapping machines.

Chamfer length 24P ÷ 30P

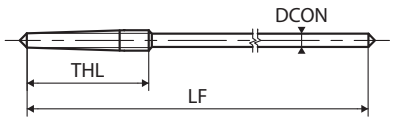
**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 5÷10 | ★ |
| P2 | 5÷10 | ★ |
| P7 | 3÷7 | ★ |

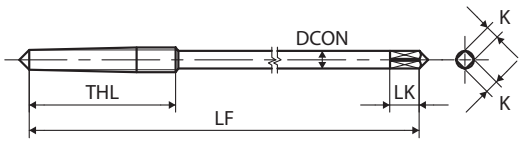
| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 3÷7 | ★ |

★ 1st choice ☆ suitable

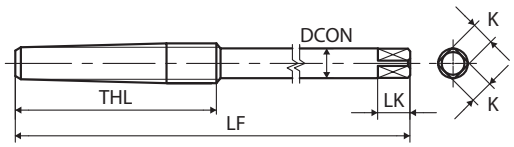
**TYPE: ST_001**




**TYPE: ST_004**




**TYPE: ST_007**






Think threads with YAMAWA

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Machine Tools International

| M | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M2X0.4 | II b | 1.6 | 1.65 | NH22.0E | 25P | 75 | 14 | - | - | 1.4 | - | - | 3 | 001 | ○ |
| M2.3X0.4 | II b | 1.9 | 1.95 | NH22.3E | 25P | 80 | 14 | - | - | 1.7 | - | - | 3 | 001 | ○ |
| M2.5X0.45 | II b | 2.1 | 2.11 | NH22.5F | 24P | 85 | 15 | - | - | 2 | - | - | 3 | 001 | ○ |
| M2.6X0.45 | II b | 2.2 | 2.21 | NH22.6F | 24P | 85 | 15 | - | - | 2 | - | - | 3 | 001 | ○ |
| 3M0.6 | II b | 2.45 | 2.47 | NH23.0H | 25P | 90 | 20 | - | - | 2.1 | - | - | 3 | 001 | ○ |
| M3X0.5 | II b | 2.5 | 2.56 | NH23.0G | 30P | 90 | 20 | - | - | 2.1 | - | - | 3 | 001 | ○ |
| M3.5X0.6 | II b | 2.9 | 2.97 | NH23.5H | 25P | 95 | 20 | - | - | 2.6 | - | - | 3 | 001 | ○ |
| 4M0.75 | II b | 3.3 | 3.33 | NH24.0J | 25P | 100 | 25 | - | - | 2.8 | - | - | 3 | 001 | ○ |
| M4X0.7 | II b | 3.3 | 3.38 | NH24.0I | 27P | 100 | 25 | - | - | 2.8 | - | - | 3 | 001 | ○ |
| M4.5X0.75 | II b | 3.8 | 3.83 | NH24.5J | 25P | 105 | 25 | - | - | 3.3 | 2.5 | 5 | 3 | 004 | ○ |
| 5M0.9 | II b | 4.15 | 4.19 | NH25.0L | 24P | 110 | 30 | - | - | 3.6 | 2.8 | 6 | 3 | 004 | ○ |
| M5X0.8 | II b | 4.2 | 4.28 | NH25.0K | 24P | 110 | 30 | - | - | 3.6 | 2.8 | 6 | 3 | 004 | ○ |
| M5.5X0.9 | II b | 4.65 | 4.69 | NH25.5L | 24P | 115 | 30 | - | - | 4.1 | 3.2 | 6 | 3 | 004 | ○ |
| M6X1 | II b | 5 | 5.09 | NH26.0M | 26P | 120 | 35 | - | - | 4.5 | 3.5 | 6 | 3 | 004 | ○ |
| M7X1 | II b | 6 | 6.09 | NH27.0M | 26P | 130 | 35 | - | - | 5.5 | 4.5 | 7 | 3 | 007 | ○ |
| M8X1.25 | II b | 6.8 | 6.85 | NH28.0N | 24P | 140 | 40 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M9X1.25 | II b | 7.8 | 7.85 | NH29.0N | 27P | 150 | 45 | - | - | 7.2 | 5.5 | 8 | 3 | 007 | ○ |
| M10X1.5 | II b | 8.5 | 8.6 | NH2010O | 25P | 160 | 50 | - | - | 7.8 | 6 | 9 | 3 | 007 | ○ |
| M12X1.75 | II b | 10.3 | 10.36 | NH2012P | 26P | 170 | 60 | - | - | 9 | 7 | 10 | 3 | 007 | ○ |
| M14X2 | II b | 12 | 12.12 | NH2014Q | 25P | 190 | 65 | - | - | 11 | 9 | 12 | 3 | 007 | ○ |
| M16X2 | II b | 14 | 14.12 | NH2016Q | 26P | 200 | 70 | - | - | 13 | 10 | 13 | 3 | 007 | ○ |
| M18X2.5 | II b | 15.5 | 15.63 | NH2018R | 24P | 220 | 80 | - | - | 14 | 11 | 14 | 3 | 007 | ○ |
| M20X2.5 | II b | 17.5 | 17.63 | NH2020R | 26P | 230 | 85 | - | - | 16 | 12 | 15 | 3 | 007 | ○ |
| M22X2.5 | II b | 19.5 | 19.63 | NH2022R | 27P | 250 | 90 | - | - | 18 | 14 | 17 | 3 | 007 | ○ |
| M24X3 | II b | 21 | 21.13 | NH2024S | 25P | 260 | 100 | - | - | 19 | 15 | 18 | 3 | 007 | ○ |
| M27X3 | II b | 24 | 24.13 | NH2027S | 27P | 280 | 110 | - | - | 22 | 17 | 20 | 4 | 007 | ○ |
| M30X3.5 | II b | 26.5 | 26.63 | NH2030T | 26P | 300 | 120 | - | - | 24 | 19 | 22 | 4 | 007 | ○ |
| M33X3.5 | II b | 29.5 | 29.63 | NH2033T | 26P | 310 | 120 | - | - | 25 | 19 | 22 | 4 | 007 | ○ |
| M36X4 | II b | 32 | 32.12 | NH2036U | 26P | 330 | 140 | - | - | 28 | 21 | 24 | 4 | 007 | ○ |
| M39X4 | II b | 35 | 35.12 | NH2039U | 26P | 340 | 140 | - | - | 30 | 23 | 26 | 4 | 007 | ○ |
| M42X4.5 | II b | 37.5 | 37.63 | NH2042V | 25P | 360 | 150 | - | - | 32 | 26 | 30 | 4 | 007 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M6X0.75 | II | 5.3 | 5.33 | NH26.0J | 24P | 115 | 30 | - | - | 4.5 | 3.5 | 6 | 3 | 004 | ○ |
| M8X1 | II | 7 | 7.09 | NH28.0M | 25P | 130 | 40 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M8X0.75 | II | 7.3 | 7.33 | NH28.0J | 24P | 120 | 30 | - | - | 6.2 | 5 | 8 | 3 | 007 | ○ |
| M9X1 | II | 8 | 8.09 | NH29.0M | 25P | 140 | 40 | - | - | 7.2 | 5.5 | 8 | 3 | 007 | ○ |
| M10X1.25 | II | 8.8 | 8.85 | NH2010N | 24P | 150 | 45 | - | - | 7.8 | 6 | 9 | 3 | 007 | ○ |
| M10X1 | II | 9 | 9.09 | NH2010M | 25P | 140 | 40 | - | - | 7.8 | 6 | 9 | 3 | 007 | ○ |
| M12X1.5 | II | 10.5 | 10.6 | NH2012O | 25P | 160 | 55 | - | - | 9 | 7 | 10 | 3 | 007 | ○ |
| M12X1.25 | II | 10.8 | 10.85 | NH2012N | 24P | 160 | 45 | - | - | 9 | 7 | 10 | 3 | 007 | ○ |
| M12X1 | II | 11 | 11.09 | NH2012M | 25P | 150 | 40 | - | - | 9 | 7 | 10 | 3 | 007 | ○ |
| M14X1.5 | II | 12.5 | 12.6 | NH2014O | 25P | 170 | 55 | - | - | 11 | 9 | 12 | 3 | 007 | ○ |
| M14X1.25 | II | 12.8 | 12.85 | NH2014N | 24P | 170 | 50 | - | - | 11 | 9 | 12 | 3 | 007 | ○ |
| M14X1 | II | 13 | 13.09 | NH2014M | 25P | 160 | 40 | - | - | 11 | 9 | 12 | 3 | 007 | ○ |
| M16X1.5 | II | 14.5 | 14.6 | NH2016O | 25P | 180 | 55 | - | - | 13 | 10 | 13 | 3 | 007 | ○ |

| MF | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| M16X1 | II | 15 | 15.09 | NH2016M | 25P | 170 | 40 | - | - | 13 | 10 | 13 | 3 | 007 | ○ |
| M18X2 | II | 16 | 16.12 | NH2018Q | 25P | 210 | 75 | - | - | 14 | 11 | 14 | 3 | 007 | ○ |
| M18X1.5 | II | 16.5 | 16.6 | NH2018O | 25P | 190 | 55 | - | - | 14 | 11 | 14 | 3 | 007 | ○ |
| M18X1 | II | 17 | 17.09 | NH2018M | 25P | 180 | 45 | - | - | 14 | 11 | 14 | 3 | 007 | ○ |
| M20X2 | II | 18 | 18.12 | NH2020Q | 25P | 220 | 75 | - | - | 16 | 12 | 15 | 3 | 007 | ○ |
| M20X1.5 | II | 18.5 | 18.6 | NH2020O | 25P | 200 | 60 | - | - | 16 | 12 | 15 | 3 | 007 | ○ |
| M20X1 | II | 19 | 19.09 | NH2020M | 25P | 190 | 45 | - | - | 16 | 12 | 15 | 3 | 007 | ○ |
| M22X1.5 | II | 20.5 | 20.6 | NH2022O | 25P | 210 | 60 | - | - | 18 | 14 | 17 | 3 | 007 | ○ |
| M24X2 | II | 22 | 22.12 | NH2024Q | 25P | 240 | 75 | - | - | 19 | 15 | 18 | 3 | 007 | ○ |
| M24X1.5 | II | 22.5 | 22.6 | NH2024O | 25P | 220 | 60 | - | - | 19 | 15 | 18 | 3 | 007 | ○ |
| M25X2 | II | 23 | 23.12 | NH2025Q | 25P | 240 | 75 | - | - | 20 | 15 | 18 | 3 | 007 | ○ |
| M25X1.5 | II | 23.5 | 23.6 | NH2025O | 25P | 220 | 60 | - | - | 20 | 15 | 18 | 3 | 007 | ○ |
| M26X1.5 | II | 24.5 | 24.6 | NH2026O | 25P | 230 | 60 | - | - | 20 | 15 | 18 | 3 | 007 | ○ |
| M27X2 | II | 25 | 25.12 | NH2027Q | 25P | 250 | 75 | - | - | 22 | 17 | 20 | 4 | 007 | ○ |
| M27X1.5 | II | 25.5 | 25.6 | NH2027O | 25P | 230 | 60 | - | - | 22 | 17 | 20 | 4 | 007 | ○ |
| M28X1.5 | II | 26.5 | 26.6 | NH2028O | 25P | 240 | 60 | - | - | 22 | 17 | 20 | 4 | 007 | ○ |
| M30X2 | II | 28 | 28.12 | NH2030Q | 25P | 260 | 75 | - | - | 24 | 19 | 22 | 4 | 007 | ○ |
| M30X1.5 | II | 28.5 | 28.6 | NH2030O | 25P | 240 | 60 | - | - | 24 | 19 | 22 | 4 | 007 | ○ |

| BSW | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/8W40 | II b | 2.55 | 2.56 | NH2W02H | 28P | 95 | 25 | - | - | 2.2 | - | - | 3 | 001 | ○ |
| 3/16W24 | II b | 3.7 | 3.7 | NH2W03M | 25P | 110 | 35 | - | - | 3.2 | 2.5 | 5 | 3 | 004 | ○ |
| 1/4W20 | II b | 5.1 | 5.13 | NH2W04N | 24P | 125 | 42 | - | - | 4.5 | 3.5 | 6 | 3 | 004 | ○ |
| 5/16W18 | II b | 6.5 | 6.59 | NH2W05O | 27P | 140 | 50 | - | - | 5.9 | 4.5 | 7 | 3 | 007 | ○ |
| 3/8W16 | II b | 8 | 8.02 | NH2W06P | 26P | 155 | 55 | - | - | 7.3 | 5.5 | 8 | 3 | 007 | ○ |
| 7/16W14 | II b | 9.3 | 9.39 | NH2W07Q | 25P | 165 | 60 | - | - | 8.5 | 6.5 | 9 | 3 | 007 | ○ |
| 1/2W12 | II b | 10.6 | 10.7 | NH2W08S | 23P | 180 | 65 | - | - | 9.5 | 7 | 10 | 3 | 007 | ○ |
| 9/16W12 | II b | 12.25 | 12.29 | NH2W09S | 25P | 190 | 70 | - | - | 11 | 9 | 12 | 3 | 007 | ○ |
| 5/8W11 | II b | 13.5 | 13.68 | NH2W10U | 24P | 200 | 75 | - | - | 12.5 | 10 | 13 | 3 | 007 | ○ |
| 3/4W10 | II b | 16.5 | 16.63 | NH2W12V | 25P | 230 | 85 | - | - | 15 | 12 | 15 | 3 | 007 | ○ |
| 7/8W9 | II b | 19.5 | 19.53 | NH2W14W | 25P | 250 | 95 | - | - | 18 | 14 | 17 | 3 | 007 | ○ |
| 1 W8 | II b | 22.2 | 22.34 | NH2W16X | 25P | 270 | 105 | - | - | 20.5 | 17 | 20 | 3 | 007 | ○ |
| 1 1/8W7 | II b | 24.75 | 25.04 | NH2W18Y | 25P | 290 | 120 | - | - | 23 | 17 | 20 | 4 | 007 | ○ |
| 1 1/4W7 | II b | 28 | 28.21 | NH2W20Y | 26P | 300 | 125 | - | - | 26 | 21 | 24 | 4 | 007 | ○ |
| 1 3/8W6 | II b | 30.5 | 30.72 | NH2W22Z | 24P | 320 | 135 | - | - | 28 | 21 | 24 | 4 | 007 | ○ |
| 1 1/2W6 | II b | 33.75 | 33.9 | NH2W24Z | 25P | 330 | 140 | - | - | 31 | 23 | 26 | 4 | 007 | ○ |



Think threads with YAMAWA

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Machine Tools International

# MS+TR

## GP General Purpose Series

Straight Fluted Taps for Miniature Threads




HSS-E





3P THCHT

**FEATURES**

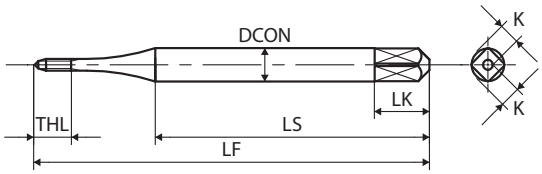
Cutting tap for miniature threads

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | ≤5 | ★ |
| N2 | ≤5 | ★ |
| N3 | ≤5 | ☆ |
| N4 | ≤5 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_005**




| S Miniature | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **S0.4X0.1** | - | 0.31 | 0.32 | GMHRP0.4-3 | 3P | 36 | 1.5 | - | 26 | 3 | 2.5 | 6 | 3 | 005 | ○ |
| **S0.5X0.125** | - | 0.4 | 0.41 | GMHRP0.5-3 | 3P | 36 | 2 | - | 26 | 3 | 2.5 | 6 | 3 | 005 | ○ |
| **S0.6X0.15** | - | 0.48 | 0.49 | GMHRP0.6-3 | 3P | 36 | 2.5 | - | 25 | 3 | 2.5 | 6 | 3 | 005 | ○ |
| **S0.7X0.175** | - | 0.56 | 0.57 | GMHRP0.7-3 | 3P | 36 | 2.5 | - | 25 | 3 | 2.5 | 6 | 3 | 005 | ○ |
| **S0.8X0.2** | - | 0.64 | 0.65 | GMHRP0.8-3 | 3P | 36 | 3 | - | 25 | 3 | 2.5 | 6 | 3 | 005 | ○ |
| **S0.9X0.225** | - | 0.72 | 0.73 | GMHRP0.9-3 | 3P | 36 | 3 | - | 25 | 3 | 2.5 | 6 | 3 | 005 | ○ |



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# MS+RS

## GP General Purpose Series

Roll Taps for Miniature Threads




HSS-E





2P THCHT

**FEATURES**

Forming tap for miniature thread sizes.

Specific design and high precision blanks to improve rigidity, bending strength and run-out tolerance.

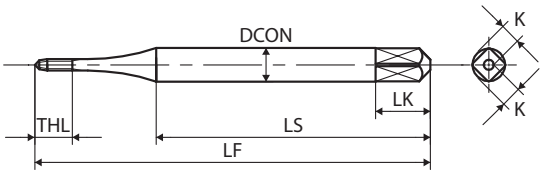
For non-ferrous materials.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | ≤10 | ★ |
| N2 | ≤10 | ★ |
| N3 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_010**




| S Miniature | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| S0.6X0.15 | GS2 | 0.55 | 0.54 | MSP20.6-B | 2P | 36 | 2.5 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |
| S0.7X0.175 | GS3 | 0.64 | 0.62 | MSP30.7-B | 2P | 36 | 2.5 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |
| S0.8X0.2 | GS3 | 0.73 | 0.71 | MSP30.8-B | 2P | 36 | 3 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |
| S0.9X0.225 | GS4 | 0.82 | 0.8 | MSP40.9-B | 2P | 36 | 3 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |



Think threads with YAMAWA

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Machine Tools International

# HPsRZ




## MP Multi Purpose Series

High Performance Roll Taps for Miniature Threads, Coated

HSS-E | COATING | 2P THCHT





**FEATURES**

Forming tap for miniature thread sizes.

Specific design and high precision blanks to improve rigidity, bending strength and run-out tolerance.

For steel, stainless steel and stainless steel application.

### Recommended Tapping Speeds Depending On Materials

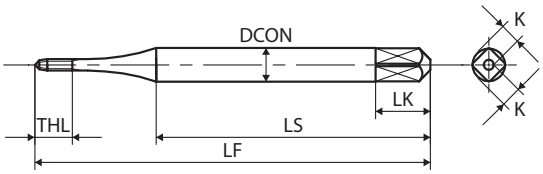
| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 15÷30 | ★ |
| P2 | 15÷30 | ★ |
| P3 | 15÷25 | ★ |
| P4 | 15÷25 | ★ |
| P7 | 10÷25 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| M1 | 10÷25 | ★ |
| M2 | 10÷25 | ★ |

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | 10÷45 | ☆ |
| N2 | 10÷45 | ☆ |

★ 1st choice ☆ suitable

**TYPE: ST_010**




| S Miniature | TCTR (tolerance) | Bored Hole Ø (mm) Max | Bored Hole Ø (mm) Min | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF (Lobes) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **S0.6X0.15** | GS2 | 0.55 | 0.54 | HPS20.6-B | 2P | 36 | 2.5 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |
| **S0.7X0.175** | GS3 | 0.64 | 0.62 | HPS30.7-B | 2P | 36 | 2.5 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |
| **S0.8X0.2** | GS3 | 0.73 | 0.71 | HPS30.8-B | 2P | 36 | 3 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |
| **S0.9X0.225** | GS4 | 0.82 | 0.8 | HPS40.9-B | 2P | 36 | 3 | - | 25 | 3 | 2.5 | 6 | 0(4) | 010 | ○ |

# SL Tr




## GP General Purpose Series

Left Spiral Fluted Taps for Trapezoidal Threads

HSS-E



LONG THCHT

**FEATURES**

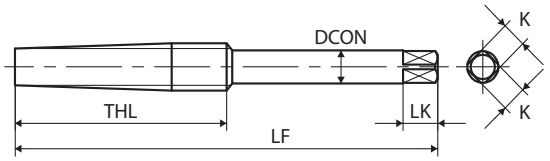
Spiral fluted tap for through hole trapezoidal threads.
The thread angle is 30°.
Thread symbol is Tr.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ★ |

★ 1st choice ☆ suitable

**TYPE: SL_001**




| Tr | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | |
| TR10X2 | 8.1 | 8.18 | LYT10Q0HEB | 26P | 160 | 70 | 7.8 | 6 | 9 | 3 | 001 | ○ |
| TR12X3 | 9.2 | 9.24 | LYT12S0HEB | 23P | 190 | 95 | 9 | 7 | 10 | 3 | 001 | ○ |
| TR12X2 | 10.1 | 10.18 | LYT12Q0HEB | 30P | 170 | 80 | 9 | 7 | 10 | 3 | 001 | ○ |
| TR14X3 | 11.2 | 11.24 | LYT14S0HEB | 23P | 190 | 95 | 11 | 9 | 12 | 3 | 001 | ○ |
| TR16X4 | 12.25 | 12.28 | LYT16U0HEB | 22.5P | 220 | 120 | 12 | 9 | 12 | 3 | 001 | ○ |
| TR16X3 | 13.2 | 13.24 | LYT16S0HEB | 25P | 200 | 100 | 13 | 10 | 13 | 3 | 001 | ○ |
| TR18X4 | 14.25 | 14.28 | LYT18U0HEB | 22.5P | 220 | 120 | 14 | 11 | 14 | 4 | 001 | ○ |
| TR20X4 | 16.25 | 16.28 | LYT20U0HEB | 24.5P | 230 | 130 | 16 | 12 | 15 | 4 | 001 | ○ |
| TR22X5 | 17.3 | 17.34 | LYT22W0HEB | 22P | 250 | 150 | 18 | 14 | 17 | 4 | 001 | ○ |
| TR24X5 | 19.3 | 19.34 | LYT24W0HEB | 24P | 260 | 160 | 19 | 15 | 18 | 4 | 001 | ○ |
| TR25X5 | 20.3 | 20.34 | LYT25W0HEB | 25P | 270 | 170 | 20 | 15 | 18 | 4 | 001 | ○ |
| TR26X5 | 21.3 | 21.34 | LYT26W0HEB | 27P | 280 | 180 | 21 | 17 | 20 | 4 | 001 | ○ |
| TR28X5 | 23.3 | 23.34 | LYT28W0HEB | 28P | 290 | 190 | 22 | 17 | 20 | 4 | 001 | ○ |
| TR30X6 | 24.3 | 24.38 | LYT30Y0HEB | 25P | 300 | 200 | 24 | 19 | 22 | 4 | 001 | ○ |



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# SL LH Tr




## GP General Purpose Series

Spiral Fluted Taps for Trapezoidal Left Hand Threads

HSS-E | LH LEFT HAND | LONG THCHT

**FEATURES**

Spiral fluted tap for through hole left hand trapezoidal threads.

The thread angle is 30°.

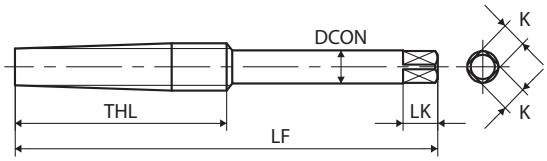
Thread symbol is Tr.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤5 | ★ |
| P2 | ≤5 | ★ |

★ 1st choice ☆ suitable

**TYPE: SL_001**




| Tr | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | |
| **TR10X2** | 8.1 | 8.18 | ZYT10Q0HEB | 26P | 160 | 70 | 7.8 | 6 | 9 | 3 | 001 | ○ |
| **TR12X3** | 9.2 | 9.24 | ZYT12S0HEB | 23P | 190 | 95 | 9 | 7 | 10 | 3 | 001 | ○ |
| **TR12X2** | 10.1 | 10.18 | ZYT12Q0HEB | 30P | 170 | 80 | 9 | 7 | 10 | 3 | 001 | ○ |
| **TR14X3** | 11.2 | 11.24 | ZYT14S0HEB | 23P | 190 | 95 | 11 | 9 | 12 | 3 | 001 | ○ |
| **TR16X4** | 12.25 | 12.28 | ZYT16U0HEB | 22.5P | 220 | 120 | 12 | 9 | 12 | 3 | 001 | ○ |
| **TR16X3** | 13.2 | 13.24 | ZYT16S0HEB | 25P | 200 | 100 | 13 | 10 | 13 | 3 | 001 | ○ |
| **TR18X4** | 14.25 | 14.28 | ZYT18U0HEB | 22.5P | 220 | 120 | 14 | 11 | 14 | 4 | 001 | ○ |
| **TR20X4** | 16.25 | 16.28 | ZYT20U0HEB | 24.5P | 230 | 130 | 16 | 12 | 15 | 4 | 001 | ○ |
| **TR22X5** | 17.3 | 17.34 | ZYT22W0HEB | 22P | 250 | 150 | 18 | 14 | 17 | 4 | 001 | ○ |
| **TR24X5** | 19.3 | 19.34 | ZYT24W0HEB | 24P | 260 | 160 | 19 | 15 | 18 | 4 | 001 | ○ |
| **TR25X5** | 20.3 | 20.34 | ZYT25W0HEB | 25P | 270 | 170 | 20 | 15 | 18 | 4 | 001 | ○ |
| **TR26X5** | 21.3 | 21.34 | ZYT26W0HEB | 27P | 280 | 180 | 21 | 17 | 20 | 4 | 001 | ○ |
| **TR28X5** | 23.3 | 23.34 | ZYT28W0HEB | 28P | 290 | 190 | 22 | 17 | 20 | 4 | 001 | ○ |
| **TR30X6** | 24.3 | 24.38 | ZYT30Y0HEB | 25P | 300 | 200 | 24 | 19 | 22 | 4 | 001 | ○ |



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# SP TRI




## GP General Purpose Series

Spiral Fluted Taps for Tripod Threads

HSS-E



2.5P THCHT

**FEATURES**

For camera tripod threads.

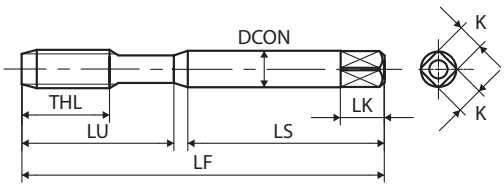
Thread is oversized.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | ≤10 | ★ |
| N2 | ≤10 | ★ |
| N3 | ≤10 | ★ |
| N4 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_008**




| TRI | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20 | - | 5.15 | 5.19 | SYU04N0KEB | 2.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 008 | ○ |



Think threads with YAMAWA

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Machine Tools International

# HT TRI

## GP General Purpose Series

Straight Fluted Taps for Tripod Threads




HSS-E





3P THCHT

1.5P THCHT

**FEATURES**

For camera tripod threads.

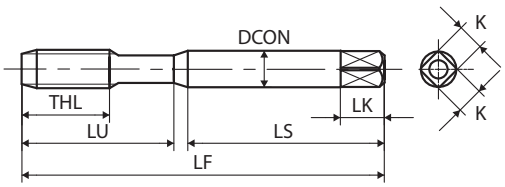
Thread is oversized.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| N1 | ≤10 | ★ |
| N2 | ≤10 | ★ |
| N3 | ≤10 | ★ |
| N4 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_008**




| TRI | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 1/4-20 | - | 5.15 | 5.19 | TYU04N0KEB3 | 3P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 008 | ○ |
| | - | 5.15 | 5.19 | TYU04N0KEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 008 | ○ |

# RLS-HT




## GP General Purpose Series

Straight Fluted Taps for Camera Release Threads

HSS-E





**FEATURES**

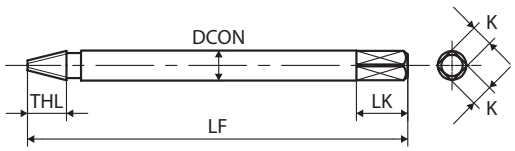
For special threads for installing camera release.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| N4 | ≤1 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_011**




| RLS | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| 3.4X0.5X28° | - | | | TY3.4G0LEB | - | 52 | 5.25 | - | - | 4 | 3.2 | 6 | 3 | 011 | ○ |



Think threads with YAMAWA

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# HT TV

## GP General Purpose Series

Straight fluted Taps for Automobile Tire Valve Threads




HSS-E





1.5P THCHT

**FEATURES**

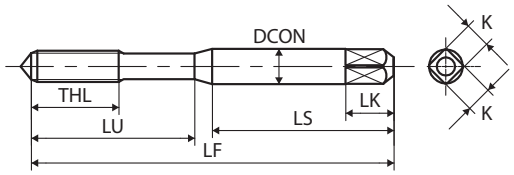
For automobile tire valves.

**Recommended Tapping Speeds Depending On Materials**

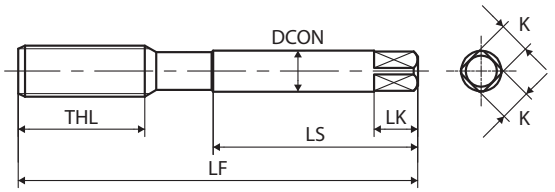
| ISO | Vc (m/min) | |
|---|---|---|
| N4 | ≤10 | ★ |

★ 1st choice ☆ suitable

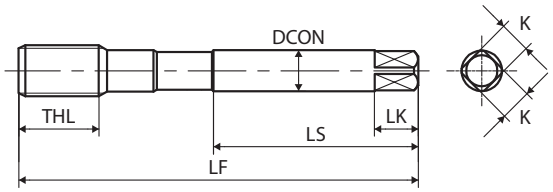
**TYPE: ST_014**




**TYPE: ST_003**




**TYPE: ST_035**




| V | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **5V1** | P3 | 4.7 | 4.75 | TY05V1RLEBA | 1.5P | 62 | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| **8V2** | P2 | 6.9 | 6.97 | TY08V2QLEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 003 | ○ |
| **8V1** | P4 | 7.15 | 7.19 | TY08V1SLEBA | 1.5P | 70 | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 003 | ○ |
| **9V1** | P2 | 8.8 | 8.81 | TY09V1QLEBA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 003 | ○ |
| **10V1** | P2 | 8.8 | 8.86 | TY10V1QLEBA | 1.5P | 75 | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 003 | ○ |
| **10V2** | P3 | 9.5 | 9.5 | TY10V2RLEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 003 | ○ |
| **11V1** | P3 | 9.9 | 9.96 | TY11V1RLEBA | 1.5P | 82 | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 003 | ○ |
| **12V1** | P3 | 11.3 | 11.33 | TY12V1RLEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 003 | ○ |
| **13V1** | P3 | 11.5 | 11.54 | TY13V1RLEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 003 | ○ |
| **13V2** | P2 | 11.9 | 11.99 | TY13V2QLEBA | 1.5P | 88 | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 003 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
JIS
THREAD MILLS
DIES
CENTER DRILLS
Technical info

| V | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | |
| **15V1** | P2 | 13.9 | 13.9 | TY15V1QLEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 003 | ○ |
| **16V1** | P3 | 15 | 15.03 | TY16V1RLEBA | 1.5P | 95 | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 003 | ○ |
| **17V1** | P2 | 15.9 | 15.9 | TY17V1QLEBA | 1.5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 035 | ○ |
| **17V3** | P3 | 16 | 16.01 | TY17V3RLEBA | 1.5P | 100 | 33 | - | 51 | 14 | 11 | 14 | 4 | 003 | ○ |
| **17V2** | P3 | 16.5 | 16.5 | TY17V2RLEBA | 1.5P | 100 | 18 | - | 51 | 14 | 11 | 14 | 4 | 035 | ○ |
| **19V1** | P3 | 17.5 | 17.59 | TY19V1RLEBA | 1.5P | 105 | 33 | - | 50 | 15 | 12 | 15 | 4 | 003 | ○ |
| **20V1** | P2 | 19.4 | 19.4 | TY20V1QLEBA | 1.5P | 115 | 19 | - | 55 | 17 | 13 | 16 | 4 | 035 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

# HT CTV

## GP General Purpose Series

Straight fluted Taps for Bicycle Tire Valve Threads




HSS-E





1.5P THCHT

**FEATURES**

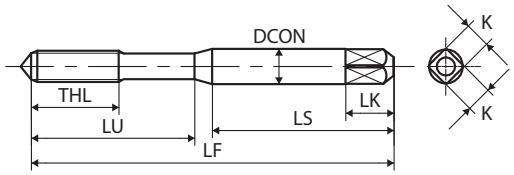
For bicycle tire valves.

**Recommended Tapping Speeds Depending On Materials**

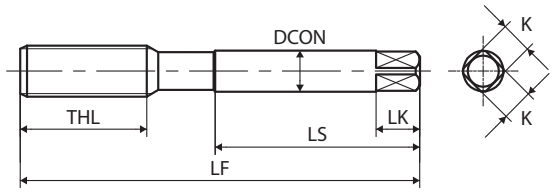
| ISO | Vc (m/min) | |
|---|---|---|
| N4 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_014**




**TYPE: ST_003**




| CTV | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| **CTV5-24** | P4 | 4.1 | 4.15 | TYCV5MSLEBA | 1.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| **5V2** | P2 | 4.5 | 4.55 | TY05V2QLEBA | 1.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| **CTV5-36** | P3 | 4.7 | 4.71 | TYCV5IRLEBA | 1.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| **6V1** | P2 | 5.5 | 5.52 | TY06V1QLEBA | 1.5P | 62 | - | 15 | 26 | 33 | 6 | 4.5 | 7 | 3 | 014 | ○ |
| **CTV8-32** | P3 | 7.1 | 7.15 | TYCV8JRLEBA | 1.5P | 70 | - | 18 | - | 36 | 6.2 | 5 | 8 | 3 | 003 | ○ |
| **CTV8-30** | P3 | 7.25 | 7.3 | TYCV83RLEBA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 3 | 003 | ○ |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
JIS
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# HT BC

## GP General Purpose Series

Straight Fluted Taps for Bicycle Threads







**FEATURES**

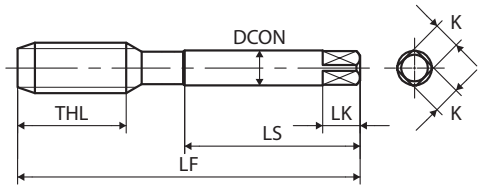
General purpose for bicycle threads

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_012**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| BC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| BC 5/16-26 | P3 | 7.1 | 7.13 | TYBC01RHEB5 | 5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 012 | ○ |
| | P3 | 7.1 | 7.13 | TYBC01RHEBA | 1.5P | 70 | - | 19 | - | 36 | 6.2 | 5 | 8 | 3 | 012 | ○ |
| BC 3/8-26 | P3 | 8.7 | 8.73 | TYBC02RHEB5 | 5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 012 | ○ |
| | P3 | 8.7 | 8.73 | TYBC02RHEBA | 1.5P | 75 | - | 23 | - | 38 | 7 | 5.5 | 8 | 4 | 012 | ○ |
| BC 7/16-26 | P3 | 10.3 | 10.31 | TYBC03RHEB5 | 5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 012 | ○ |
| | P3 | 10.3 | 10.31 | TYBC03RHEBA | 1.5P | 82 | - | 26 | - | 42 | 8.5 | 6.5 | 9 | 4 | 012 | ○ |
| BC 1/2-20 | P3 | 11.6 | 11.63 | TYBC04RHEB5 | 5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 012 | ○ |
| | P3 | 11.6 | 11.63 | TYBC04RHEBA | 1.5P | 88 | - | 26 | - | 45 | 10.5 | 8 | 11 | 4 | 012 | ○ |
| BC 9/16-20 | P3 | 13.2 | 13.23 | TYBC05RHEB5 | 5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 012 | ○ |
| | P3 | 13.2 | 13.23 | TYBC05RHEBA | 1.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 012 | ○ |
| BC 5/8-20 | P3 | 14.75 | 14.81 | TYBC06RHEB5 | 5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 012 | ○ |
| | P3 | 14.75 | 14.81 | TYBC06RHEBA | 1.5P | 95 | - | 26 | - | 48 | 12.5 | 10 | 13 | 4 | 012 | ○ |
| BC 11/16-24 | P3 | 16.5 | 16.57 | TYBC07RHEB5 | 5P | 100 | - | 18 | - | 51 | 14 | 11 | 14 | 4 | 012 | ○ |
| | P3 | 16.5 | 16.57 | TYBC07RHEBA | 1.5P | 100 | - | 18 | - | 51 | 14 | 11 | 14 | 4 | 012 | ○ |
| BC 3/4-30 | P3 | 18.3 | 18.37 | TYBC08RHEB5 | 5P | 105 | - | 18 | - | 50 | 15 | 12 | 15 | 4 | 012 | ○ |
| | P3 | 18.3 | 18.37 | TYBC08RHEBA | 1.5P | 105 | - | 18 | - | 50 | 15 | 12 | 15 | 4 | 012 | ○ |
| BC 31/32-30 | P3 | 23.9 | 23.94 | TYBC09RHEB5 | 5P | 125 | - | 20 | - | 58 | 19 | 15 | 18 | 4 | 012 | ○ |
| | P3 | 23.9 | 23.94 | TYBC09RHEBA | 1.5P | 125 | - | 20 | - | 58 | 19 | 15 | 18 | 4 | 012 | ○ |
| BC 1-24 | P3 | 24.5 | 24.53 | TYBC10RHEB5 | 5P | 125 | - | 20 | - | 58 | 19 | 15 | 18 | 4 | 012 | ○ |
| | P3 | 24.5 | 24.53 | TYBC10RHEBA | 1.5P | 125 | - | 20 | - | 58 | 19 | 15 | 18 | 4 | 012 | ○ |
| BC 1.29-24 | P3 | 31.9 | 31.92 | TYBC11RHEB5 | 5P | 145 | - | 21 | - | 67 | 25 | 19 | 22 | 4 | 012 | ○ |
| | P3 | 31.9 | 31.92 | TYBC11RHEBA | 1.5P | 145 | - | 21 | - | 67 | 25 | 19 | 22 | 4 | 012 | ○ |
| BC 1.37-24 | P3 | 33.9 | 33.95 | TYBC12RHEB5 | 5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 012 | ○ |
| | P3 | 33.9 | 33.95 | TYBC12RHEBA | 1.5P | 155 | - | 26 | - | 71 | 28 | 21 | 24 | 4 | 012 | ○ |
| BC 1 7/16-24 | P3 | 35.6 | 35.66 | TYBC13RHEB5 | 5P | 165 | - | 26 | - | 76 | 30 | 23 | 26 | 4 | 012 | ○ |
| | P3 | 35.6 | 35.66 | TYBC13RHEBA | 1.5P | 165 | - | 26 | - | 76 | 30 | 23 | 26 | 4 | 012 | ○ |
| BC 1.45-24 | P3 | 35.9 | 35.98 | TYBC14RHEB5 | 5P | 165 | - | 26 | - | 76 | 30 | 23 | 26 | 4 | 012 | ○ |
| | P3 | 35.9 | 35.98 | TYBC14RHEBA | 1.5P | 165 | - | 26 | - | 76 | 30 | 23 | 26 | 4 | 012 | ○ |
| BC 1 9/16-24 | P3 | 38.8 | 38.84 | TYBC15RHEB5 | 5P | 175 | - | 27 | - | 81 | 32 | 26 | 30 | 4 | 012 | ○ |
| | P3 | 38.8 | 38.84 | TYBC15RHEBA | 1.5P | 175 | - | 27 | - | 81 | 32 | 26 | 30 | 4 | 012 | ○ |

# HT CTC




## GP General Purpose Series

Straight Fluted Taps for Metal Thin-Walled Conduit Threads




**FEATURES**

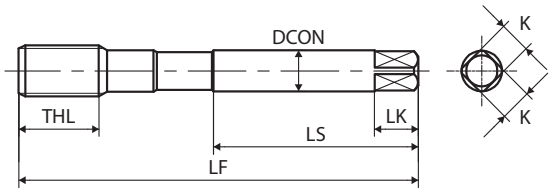
For steel conduit threads.
Thread angle is 80°.
Thread symbol is CTC.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_035**




| CTC | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| CTC19-16 | - | 18 | 18.11 | TYCC190HEB5 | 5P | 105 | - | 23 | - | 50 | 15 | 12 | 15 | 4 | 035 | ○ |
| CTC25-16 | - | 24.3 | 24.41 | TYCC250HEB5 | 5P | 125 | - | 24 | - | 58 | 19 | 15 | 18 | 4 | 035 | ○ |
| CTC31-16 | - | 30.75 | 30.81 | TYCC310HEB5 | 5P | 145 | - | 26 | - | 67 | 24 | 19 | 22 | 4 | 035 | ○ |
| CTC39-16 | - | 37 | 37.11 | TYCC390HEB5 | 5P | 165 | - | 27 | - | 76 | 30 | 23 | 26 | 4 | 035 | ○ |



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# HT CTG




## GP General Purpose Series

Straight Fluted Taps for Metal Thick-Walled Conduit Threads

HSS-E





5P THCHT

**FEATURES**

For thick steel conduit threads.

Thread angle is 55°.

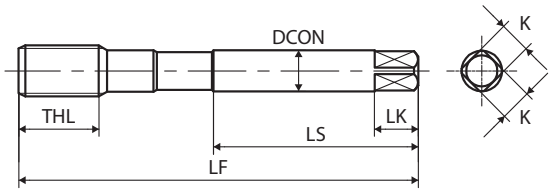
Thread symbol is CTG.

**Recommended Tapping Speeds Depending On Materials**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | ≤10 | ★ |
| P2 | ≤10 | ★ |

★ 1st choice ☆ suitable

**TYPE: ST_035**




| CTG | TCTR (tolerance) | Ø (mm) | Hole Ø (mm) | Code | THCHT (chamfer) | LF (mm) | LT (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | NOF | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | | | | | | | | |
| **CTG16-14** | - | 19.3 | 19.4 | TYCG160HEB5 | 5P | 115 | - | 25 | - | 55 | 17 | 13 | 16 | 4 | 035 | ○ |
| **CTG22-14** | - | 24.8 | 24.88 | TYCG220HEB5 | 5P | 130 | - | 26 | - | 60 | 20 | 15 | 18 | 4 | 035 | ○ |
| **CTG28-11** | - | 31.2 | 31.21 | TYCG280HEB5 | 5P | 155 | - | 31 | - | 71 | 28 | 21 | 24 | 4 | 035 | ○ |
| **CTG36-11** | - | 39.8 | 39.87 | TYCG360HEB5 | 5P | 180 | - | 33 | - | 83 | 35 | 26 | 30 | 4 | 035 | ○ |
| **CTG42-11** | - | 45.7 | 45.77 | TYCG420HEB5 | 5P | 185 | - | 34 | - | 85 | 38 | 29 | 32 | 4 | 035 | ○ |

# SIT

## Inspection Tools

Simple Thread Inspection Tools




HSS

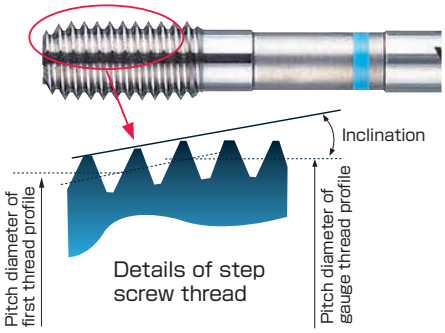
**FEATURES**
HSS material increases considerably the gauge life.

**Product Features**

- SIT can minimize the inspection process time and improve the inspection efficiency by adopting step screw thread.
- Premium HSS material extends the tool life dramatically.
- Tool for through hole or blind hole is available individually.
- Color case and color mark on the tool simplify tool storage control.

-What is the step screw thread?
-YAMAWA new thread gauge (for through hole) features a step screw thread on its end allowing the gauge to enter easily the internal screw and work efficiently particularly when checking fine pitches screw threads.

*Note : Step screw thread is not applied to the gauge for blind hole (NP gauge)*




**Accuracy of SIT**

Simple pitch diameter tolerance, pitch tolerance and thread half angle tolerance, are 3 important factors on measuring internal screw threads. For SIT and thread plug gauge these values are the same.

**Comparison between GB-6H/and GP-6H/thread plug gauge**

| Size | OD | | | | PD | | | | Pitch tolerance | Tolerance for thread half angle |
|---|---|---|---|---|---|---|---|---|---|---|
| | Basic size | Max | Min | Tol. | Basic size | Max | Min | Tol. | (±) | (±minute) |
| GB-6H M6×1 | 6.000 | 6.023 | 6.001 | 0.022 | 5.350 | 5.3675 | 5.3565 | 0.011 | 0.005 | 15 |
| GP-6H M6×1 | 6.000 | 6.023 | 6.001 | 0.022 | 5.350 | 5.3675 | 5.3565 | 0.011 | 0.005 | 15 |

**Comparison between NB-6H/and NP-6H/thread plug gauge**

| Size | OD | | | | PD | | | | Pitch tolerance | Tolerance for thread half angle |
|---|---|---|---|---|---|---|---|---|---|---|
| | Basic size | Max | Min | Tol. | Basic size | Max | Min | Tol. | (±) | (±minute) |
| NB-6H M6×1 | 5.7055 | 5.7165 | 5.6945 | 0.022 | 5.500 | 5.511 | 5.500 | 0.011 | 0.005 | 16 |
| NP-6H M6×1 | 5.7055 | 5.7165 | 5.6945 | 0.022 | 5.500 | 5.511 | 5.500 | 0.011 | 0.005 | 16 |

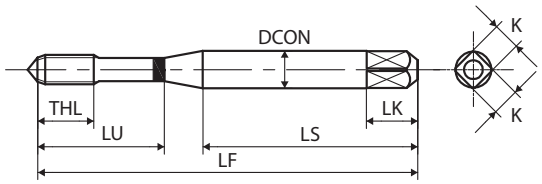
The pitch diameter is simple pitch diameter. Pitch tolerance includes error of thread lead.

Main specification of SIT is same with that of thread gauge. But SIT has partly Yamawa's own design in the length of thread and bottom part relief. Due to these features, Yamawa has adopted the name "Simple Inspection Tool or SIT" instead of using the name "thread gauge".

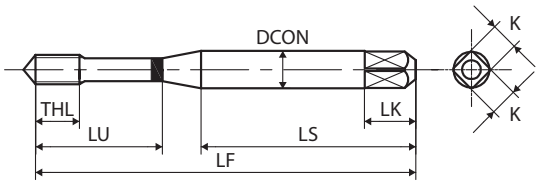


Think threads with YAMAWA
IMROBEX Machine Tools International

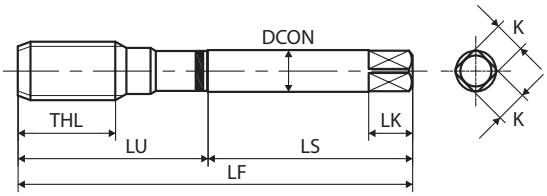
**TYPE: SIT_01**



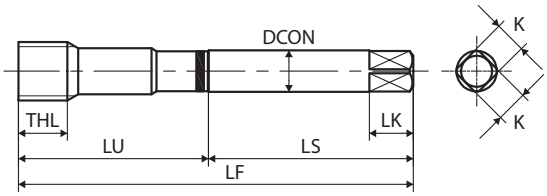

**TYPE: SIT_02**



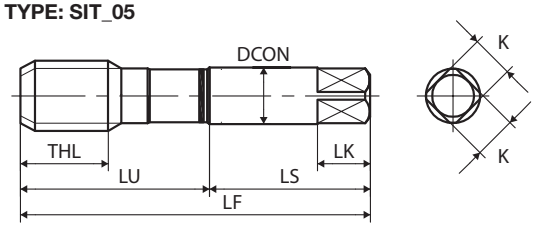

**TYPE: SIT_03**



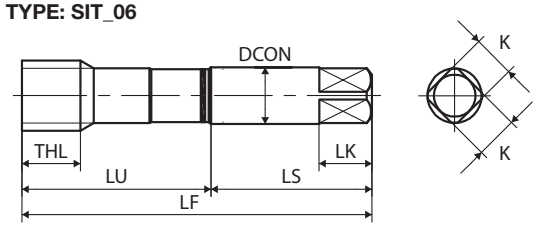

**TYPE: SIT_04**




**TYPE: SIT_05**




**TYPE: SIT_06**




| M-MF | TCTR (tolerance) | Code | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| **M2X0.4** | 6H | ITM62.0EG | 42 | 5.5 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.0EN | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 02 | ○ |
| **M2X0.25** | 5H | ITM52.0BG | 42 | 4 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| | 5H | ITM52.0BN | 42 | 3.5 | 12 | 27 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.2X0.45** | 6H | ITM62.2FG | 42 | 5.5 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.2FN | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.2X0.25** | 5H | ITM52.2BG | 42 | 4 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| | 5H | ITM52.2BN | 42 | 3.5 | 12 | 27 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.3X0.4** | 6H | ITM62.3EG | 42 | 5.5 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.3EN | 42 | 4.5 | 12 | 27 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.3X0.25** | 5H | ITM52.3BG | 42 | 4 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| | 5H | ITM52.3BN | 42 | 3.5 | 12 | 27 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.5X0.45** | 6H | ITM62.5FG | 46 | 5.5 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.5FN | 46 | 4.5 | 14 | 29 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.5X0.35** | 6H | ITM62.5DG | 46 | 4.5 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.5DN | 46 | 3.5 | 14 | 29 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.6X0.45** | 6H | ITM62.6FG | 46 | 5.5 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.6FN | 46 | 4.5 | 14 | 29 | 3 | 2.5 | 5 | 02 | ○ |
| **M2.6X0.35** | 6H | ITM62.6DG | 46 | 4.5 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| | 6H | ITM62.6DN | 46 | 3.5 | 14 | 29 | 3 | 2.5 | 5 | 02 | ○ |
| **M3X0.5** | 6H | ITM63.0GG | 46 | 5.5 | 14 | 26 | 4 | 3.2 | 6 | 01 | ○ |
| | 6H | ITM63.0GN | 46 | 4.5 | 14 | 26 | 4 | 3.2 | 6 | 02 | ○ |

| M-MF | TCTR (tolerance) | Code | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M3X0.35 | 6H | ITM63.0DG | 46 | 4.5 | 14 | 26 | 4 | 3.2 | 6 | 01 | ○ |
| | 6H | ITM63.0DN | 46 | 3.5 | 14 | 26 | 4 | 3.2 | 6 | 02 | ○ |
| M3.5X0.6 | 6H | ITM63.5HG | 52 | 7.5 | 16 | 29 | 5 | 4 | 7 | 01 | ○ |
| | 6H | ITM63.5HN | 52 | 6 | 16 | 29 | 5 | 4 | 7 | 02 | ○ |
| M3.5X0.35 | 6H | ITM63.5DG | 52 | 4.5 | 16 | 29 | 5 | 4 | 7 | 01 | ○ |
| | 6H | ITM63.5DN | 52 | 3.5 | 16 | 29 | 5 | 4 | 7 | 02 | ○ |
| M4X0.7 | 6H | ITM64.0IG | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 01 | ○ |
| | 6H | ITM64.0IN | 52 | 6 | 17 | 29 | 5 | 4 | 7 | 02 | ○ |
| M4X0.5 | 6H | ITM64.0GG | 52 | 7.5 | 17 | 29 | 5 | 4 | 7 | 01 | ○ |
| | 6H | ITM64.0GN | 52 | 6 | 17 | 29 | 5 | 4 | 7 | 02 | ○ |
| M4.5X0.75 | 6H | ITM64.5JG | 60 | 7.5 | 21 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM64.5JN | 60 | 6 | 21 | 33 | 5.5 | 4.5 | 7 | 02 | ○ |
| M4.5X0.5 | 6H | ITM64.5GG | 60 | 7.5 | 21 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM64.5GN | 60 | 6 | 21 | 33 | 5.5 | 4.5 | 7 | 02 | ○ |
| M5X0.8 | 6H | ITM65.0KG | 60 | 10 | 22 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM65.0KN | 60 | 6 | 22 | 33 | 5.5 | 4.5 | 7 | 02 | ○ |
| M5X0.5 | 6H | ITM65.0GG | 60 | 7 | 22 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM65.0GN | 60 | 6 | 22 | 33 | 5.5 | 4.5 | 7 | 02 | ○ |
| M5.5X0.5 | 6H | ITM65.5GG | 62 | 7 | 26 | 33 | 6 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM65.5GN | 62 | 6 | 26 | 33 | 6 | 4.5 | 7 | 02 | ○ |
| M6X1 | 6H | ITM66.0MG | 62 | 10 | 26 | 33 | 6 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM66.0MN | 62 | 6 | 26 | 33 | 6 | 4.5 | 7 | 02 | ○ |
| M6X0.75 | 6H | ITM66.0JG | 62 | 7.5 | 26 | 33 | 6 | 4.5 | 7 | 01 | ○ |
| | 6H | ITM66.0JN | 62 | 6 | 26 | 33 | 6 | 4.5 | 7 | 02 | ○ |
| M7X1 | 6H | ITM67.0MG | 70 | 12 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 6H | ITM67.0MN | 70 | 6 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| M7X0.75 | 6H | ITM67.0JG | 70 | 9 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 6H | ITM67.0JN | 70 | 6 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| M8X1.25 | 6H | ITM68.0NG | 70 | 15 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 6H | ITM68.0NN | 70 | 10 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| M8X1 | 6H | ITM68.0MG | 70 | 12 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 6H | ITM68.0MN | 70 | 6 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| M8X0.75 | 6H | ITM68.0JG | 70 | 9 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 6H | ITM68.0JN | 70 | 6 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| M9X1.25 | 6H | ITM69.0NG | 75 | 15 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM69.0NN | 75 | 10 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| M9X1 | 6H | ITM69.0MG | 75 | 12 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM69.0MN | 75 | 6 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| M9X0.75 | 6H | ITM69.0JG | 75 | 9 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM69.0JN | 75 | 6 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| M10X1.5 | 6H | ITM6010OG | 75 | 15 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM6010ON | 75 | 10 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| M10X1.25 | 6H | ITM6010NG | 75 | 15 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM6010NN | 75 | 10 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| M10X1 | 6H | ITM6010MG | 75 | 12 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM6010MN | 75 | 6 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |



Think threads with YAMAWA
IMROBEX Machine Tools International

● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| M-MF | TCTR (tolerance) | Code | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M10X0.75 | 6H | ITM6010JG | 75 | 9 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 6H | ITM6010JN | 75 | 6 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| M11X1.5 | 6H | ITM6011OG | 82 | 19 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6011ON | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M11X1 | 6H | ITM6011MG | 82 | 12 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6011MN | 82 | 6 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M11X0.75 | 6H | ITM6011JG | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6011JN | 82 | 6 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M12X1.75 | 6H | ITM6012PG | 82 | 20 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6012PN | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M12X1.5 | 6H | ITM6012OG | 82 | 20 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6012ON | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M12X1.25 | 6H | ITM6012NG | 82 | 15 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6012NN | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M12X1 | 6H | ITM6012MG | 82 | 12 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 6H | ITM6012MN | 82 | 6 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| M14X2 | 6H | ITM6014QG | 88 | 20 | 43 | 45 | 10.5 | 8 | 11 | 03 | ○ |
| | 6H | ITM6014QN | 88 | 12 | 43 | 45 | 10.5 | 8 | 11 | 04 | ○ |
| M14X1.5 | 6H | ITM6014OG | 88 | 20 | 43 | 45 | 10.5 | 8 | 11 | 03 | ○ |
| | 6H | ITM6014ON | 88 | 12 | 43 | 45 | 10.5 | 8 | 11 | 04 | ○ |
| M14X1.25 | 6H | ITM6014NG | 88 | 15 | 43 | 45 | 10.5 | 8 | 11 | 03 | ○ |
| | 6H | ITM6014NN | 88 | 12 | 43 | 45 | 10.5 | 8 | 11 | 04 | ○ |
| M14X1 | 6H | ITM6014MG | 88 | 12 | 43 | 45 | 10.5 | 8 | 11 | 03 | ○ |
| | 6H | ITM6014MN | 88 | 6 | 43 | 45 | 10.5 | 8 | 11 | 04 | ○ |
| M15X1.5 | 6H | ITM6015OG | 95 | 19 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 6H | ITM6015ON | 95 | 10 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| M15X1 | 6H | ITM6015MG | 95 | 12 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 6H | ITM6015MN | 95 | 10 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| M16X2 | 6H | ITM6016QG | 95 | 20 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 6H | ITM6016QN | 95 | 12 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| M16X1.5 | 6H | ITM6016OG | 95 | 20 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 6H | ITM6016ON | 95 | 12 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| M16X1 | 6H | ITM6016MG | 95 | 12 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 6H | ITM6016MN | 95 | 8 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| M17X1.5 | 6H | ITM6017OG | 100 | 19 | 49 | 51 | 14 | 11 | 14 | 03 | ○ |
| | 6H | ITM6017ON | 100 | 10 | 49 | 51 | 14 | 11 | 14 | 04 | ○ |
| M17X1 | 6H | ITM6017MG | 100 | 12 | 49 | 51 | 14 | 11 | 14 | 03 | ○ |
| | 6H | ITM6017MN | 100 | 10 | 49 | 51 | 14 | 11 | 14 | 04 | ○ |
| M18X2.5 | 6H | ITM6018RG | 100 | 25 | 49 | 51 | 14 | 11 | 14 | 03 | ○ |
| | 6H | ITM6018RN | 100 | 16 | 49 | 51 | 14 | 11 | 14 | 04 | ○ |
| M18X2 | 6H | ITM6018QG | 100 | 20 | 49 | 51 | 14 | 11 | 14 | 03 | ○ |
| | 6H | ITM6018QN | 100 | 12 | 49 | 51 | 14 | 11 | 14 | 04 | ○ |
| M18X1.5 | 6H | ITM6018OG | 100 | 20 | 49 | 51 | 14 | 11 | 14 | 03 | ○ |
| | 6H | ITM6018ON | 100 | 12 | 49 | 51 | 14 | 11 | 14 | 04 | ○ |
| M18X1 | 6H | ITM6018MG | 100 | 12 | 49 | 51 | 14 | 11 | 14 | 03 | ○ |
| | 6H | ITM6018MN | 100 | 8 | 49 | 51 | 14 | 11 | 14 | 04 | ○ |

| M-MF | TCTR (tolerance) | Code | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M20X2.5 | 6H | ITM6020RG | 105 | 25 | 55 | 50 | 15 | 12 | 15 | 05 | ○ |
| | 6H | ITM6020RN | 105 | 16 | 55 | 50 | 15 | 12 | 15 | 06 | ○ |
| M20X2 | 6H | ITM6020QG | 105 | 20 | 55 | 50 | 15 | 12 | 15 | 05 | ○ |
| | 6H | ITM6020QN | 105 | 12 | 55 | 50 | 15 | 12 | 15 | 06 | ○ |
| M20X1.5 | 6H | ITM6020OG | 105 | 20 | 55 | 50 | 15 | 12 | 15 | 05 | ○ |
| | 6H | ITM6020ON | 105 | 12 | 55 | 50 | 15 | 12 | 15 | 06 | ○ |
| M20X1 | 6H | ITM6020MG | 105 | 14 | 55 | 50 | 15 | 12 | 15 | 05 | ○ |
| | 6H | ITM6020MN | 105 | 8 | 55 | 50 | 15 | 12 | 15 | 06 | ○ |
| M22X2.5 | 6H | ITM6022RG | 115 | 33 | 60 | 55 | 17 | 13 | 16 | 05 | ○ |
| | 6H | ITM6022RN | 115 | 16 | 60 | 55 | 17 | 13 | 16 | 06 | ○ |
| M22X2 | 6H | ITM6022QG | 115 | 20 | 60 | 55 | 17 | 13 | 16 | 05 | ○ |
| | 6H | ITM6022QN | 115 | 14 | 60 | 55 | 17 | 13 | 16 | 06 | ○ |
| M22X1.5 | 6H | ITM6022OG | 115 | 20 | 60 | 55 | 17 | 13 | 16 | 05 | ○ |
| | 6H | ITM6022ON | 115 | 14 | 60 | 55 | 17 | 13 | 16 | 06 | ○ |
| M22X1 | 6H | ITM6022MG | 115 | 14 | 60 | 55 | 17 | 13 | 16 | 05 | ○ |
| | 6H | ITM6022MN | 115 | 8 | 60 | 55 | 17 | 13 | 16 | 06 | ○ |
| M24X3 | 6H | ITM6024SG | 120 | 30 | 65 | 55 | 19 | 15 | 18 | 05 | ○ |
| | 6H | ITM6024SN | 120 | 20 | 65 | 55 | 19 | 15 | 18 | 06 | ○ |
| M24X2 | 6H | ITM6024QG | 120 | 20 | 65 | 55 | 19 | 15 | 18 | 05 | ○ |
| | 6H | ITM6024QN | 120 | 14 | 65 | 55 | 19 | 15 | 18 | 06 | ○ |
| M24X1.5 | 6H | ITM6024OG | 120 | 20 | 65 | 55 | 19 | 15 | 18 | 05 | ○ |
| | 6H | ITM6024ON | 120 | 14 | 65 | 55 | 19 | 15 | 18 | 06 | ○ |
| M24X1 | 6H | ITM6024MG | 120 | 14 | 65 | 55 | 19 | 15 | 18 | 05 | ○ |
| | 6H | ITM6024MN | 120 | 8 | 65 | 55 | 19 | 15 | 18 | 06 | ○ |

| UNC-UNF | TCTR (tolerance) | Code | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.2-56UNC | 2B | ITM2UN2EG | 42 | 4.5 | 12 | 26 | 3 | 2.5 | 5 | 01 | ○ |
| | 2B | ITM2UN2EN | 42 | 3.5 | 12 | 26 | 3 | 2.5 | 5 | 02 | ○ |
| No.2-64UNF | 2B | ITM2UN2DG | 42 | 4.5 | 12 | 26 | 3 | 2.5 | 5 | 01 | ○ |
| | 2B | ITM2UN2DN | 42 | 3.5 | 12 | 26 | 3 | 2.5 | 5 | 02 | ○ |
| No.3-48UNC | 2B | ITM2UN3FG | 46 | 6.5 | 14 | 28 | 3 | 2.5 | 5 | 01 | ○ |
| | 2B | ITM2UN3FN | 46 | 3.5 | 14 | 28 | 3 | 2.5 | 5 | 02 | ○ |
| No.3-56UNF | 2B | ITM2UN3EG | 46 | 6.5 | 14 | 28 | 3 | 2.5 | 5 | 01 | ○ |
| | 2B | ITM2UN3EN | 46 | 3.5 | 14 | 28 | 3 | 2.5 | 5 | 02 | ○ |
| No.4-40UNC | 2B | ITM2UN4HG | 46 | 6.5 | 14 | 25 | 4 | 3.2 | 6 | 01 | ○ |
| | 2B | ITM2UN4HN | 46 | 3.5 | 14 | 25 | 4 | 3.2 | 6 | 02 | ○ |
| No.4-48UNF | 2B | ITM2UN4FG | 46 | 6.5 | 14 | 25 | 4 | 3.2 | 6 | 01 | ○ |
| | 2B | ITM2UN4FN | 46 | 3.5 | 14 | 25 | 4 | 3.2 | 6 | 02 | ○ |
| No.5-40UNC | 2B | ITM2UN5HG | 52 | 6.5 | 16 | 28 | 5 | 4 | 7 | 01 | ○ |
| | 2B | ITM2UN5HN | 52 | 3.5 | 16 | 28 | 5 | 4 | 7 | 02 | ○ |
| No.5-44UNF | 2B | ITM2UN5GG | 52 | 6.5 | 16 | 28 | 5 | 4 | 7 | 01 | ○ |
| | 2B | ITM2UN5GN | 52 | 3.5 | 16 | 28 | 5 | 4 | 7 | 02 | ○ |
| No.6-32UNC | 2B | ITM2UN6JG | 52 | 7 | 17 | 27 | 5 | 4 | 7 | 01 | ○ |
| | 2B | ITM2UN6JN | 52 | 3.5 | 17 | 27 | 5 | 4 | 7 | 02 | ○ |
| No.6-40UNF | 2B | ITM2UN6HG | 52 | 7 | 17 | 27 | 5 | 4 | 7 | 01 | ○ |
| | 2B | ITM2UN6HN | 52 | 3.5 | 17 | 27 | 5 | 4 | 7 | 02 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC-UNF | TCTR (tolerance) | Code | LF (mm) | THL (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.8-32UNC | 2B | ITM2UN8JG | 60 | 9 | 22 | 31 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2UN8JN | 60 | 5 | 22 | 31 | 5.5 | 4.5 | 7 | 02 | ○ |
| No.8-36UNF | 2B | ITM2UN8IG | 60 | 9 | 22 | 31 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2UN8IN | 60 | 5 | 22 | 31 | 5.5 | 4.5 | 7 | 02 | ○ |
| No.10-24UNC | 2B | ITM2UNAMG | 60 | 9.5 | 22 | 32 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2UNAMN | 60 | 5 | 22 | 32 | 5.5 | 4.5 | 7 | 02 | ○ |
| No.10-32UNF | 2B | ITM2UNAJG | 60 | 9.5 | 22 | 32 | 5.5 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2UNAJN | 60 | 5 | 22 | 32 | 5.5 | 4.5 | 7 | 02 | ○ |
| No.12-24UNC | 2B | ITM2UNCMG | 62 | 9.5 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2UNCMN | 62 | 5 | 26 | 32 | 6 | 4.5 | 7 | 02 | ○ |
| No.12-28UNF | 2B | ITM2UNCKG | 62 | 9.5 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2UNCKN | 62 | 5 | 26 | 32 | 6 | 4.5 | 7 | 02 | ○ |
| 1/4-20UNC | 2B | ITM2U04NG | 62 | 15 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2U04NN | 62 | 10 | 26 | 32 | 6 | 4.5 | 7 | 02 | ○ |
| 1/4-28UNF | 2B | ITM2U04KG | 62 | 12 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| | 2B | ITM2U04KN | 62 | 7 | 26 | 32 | 6 | 4.5 | 7 | 02 | ○ |
| 5/16-18UNC | 2B | ITM2U05OG | 70 | 15 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 2B | ITM2U05ON | 70 | 10 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| 5/16-24UNF | 2B | ITM2U05MG | 70 | 15 | 34 | 36 | 6.2 | 5 | 8 | 03 | ○ |
| | 2B | ITM2U05MN | 70 | 7 | 34 | 36 | 6.2 | 5 | 8 | 04 | ○ |
| 3/8-16UNC | 2B | ITM2U06PG | 75 | 17 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 2B | ITM2U06PN | 75 | 10 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| 3/8-24UNF | 2B | ITM2U06MG | 75 | 17 | 37 | 38 | 7 | 5.5 | 8 | 03 | ○ |
| | 2B | ITM2U06MN | 75 | 10 | 37 | 38 | 7 | 5.5 | 8 | 04 | ○ |
| 7/16-14UNC | 2B | ITM2U07QG | 82 | 17 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 2B | ITM2U07QN | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| 7/16-20UNF | 2B | ITM2U07NG | 82 | 17 | 40 | 42 | 8.5 | 6.5 | 9 | 03 | ○ |
| | 2B | ITM2U07NN | 82 | 10 | 40 | 42 | 8.5 | 6.5 | 9 | 04 | ○ |
| 1/2-13UNC | 2B | ITM2U08RG | 88 | 17 | 43 | 45 | 10.5 | 8 | 11 | 03 | ○ |
| | 2B | ITM2U08RN | 88 | 13 | 43 | 45 | 10.5 | 8 | 11 | 04 | ○ |
| 1/2-20UNF | 2B | ITM2U08NG | 88 | 17 | 43 | 45 | 10.5 | 8 | 11 | 03 | ○ |
| | 2B | ITM2U08NN | 88 | 10 | 43 | 45 | 10.5 | 8 | 11 | 04 | ○ |
| 9/16-12UNC | 2B | ITM2U09SG | 95 | 26 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 2B | ITM2U09SN | 95 | 17 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| 9/16-18UNF | 2B | ITM2U09OG | 95 | 20 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 2B | ITM2U09ON | 95 | 13 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| 5/8-11UNC | 2B | ITM2U10UG | 95 | 26 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 2B | ITM2U10UN | 95 | 17 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |
| 5/8-18UNF | 2B | ITM2U10OG | 95 | 20 | 47 | 48 | 12.5 | 10 | 13 | 03 | ○ |
| | 2B | ITM2U10ON | 95 | 13 | 47 | 48 | 12.5 | 10 | 13 | 04 | ○ |

# SITD

## Inspection Tools

Simple Thread Inspection Tools, Tandem Type

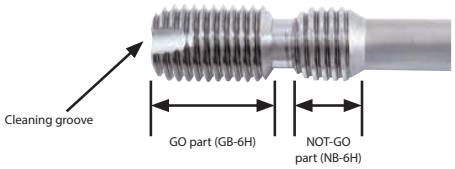



HSS

**FEATURES**
HSS material increases considerably the gauge life.

### Product Features

- Under normal inspection procedure, the finished thread is checked by a 2-step process, by using GP GO gauge first and then NP/WP NO-GO gauge. Yamawa Thread Inspection Tool makes the thread inspection a 1-step process.
- SITD, attached to a measuring machine, enables the mechanical measuring.
- Even in difficult-to-insert thread inspection such as checking smaller sizes and/or finer pitch threads, smooth inspection becomes possible due to the step screw thread features of SITD.




- What is the SITD?
Both GO part and NOT-GO part are embedded in one tool.

- Cleaning groove
Cleaning groove of the thread portion helps to remove the small particles left inside the internal threads and hence allows a smooth and accurate inspection procedure.

### Accuracy of SITD

Simple pitch diameter tolerance, pitch tolerance and thread half angle tolerance, are 3 important factors on measuring internal screw threads. For SITD and thread plug gauge these values are the same.

**Comparison between GB-6H/and GP-6H/thread plug gauge**

| Size | OD | | | | PD | | | | Pitch tolerance | Tolerance for thread half angle |
|---|---|---|---|---|---|---|---|---|---|---|
| | Basic size | Max | Min | Tol. | Basic size | Max | Min | Tol. | (±) | (±minute) |
| GB-6H M6×1 | 6.000 | 6.023 | 6.001 | 0.022 | 5.350 | 5.3675 | 5.3565 | 0.011 | 0.005 | 15 |
| GP-6H M6×1 | 6.000 | 6.023 | 6.001 | 0.022 | 5.350 | 5.3675 | 5.3565 | 0.011 | 0.005 | 15 |

**Comparison between NB-6H/and NP-6H/thread plug gauge**

| Size | OD | | | | PD | | | | Pitch tolerance | Tolerance for thread half angle |
|---|---|---|---|---|---|---|---|---|---|---|
| | Basic size | Max | Min | Tol. | Basic size | Max | Min | Tol. | (±) | (±minute) |
| NB-6H M6×1 | 5.7055 | 5.7165 | 5.6945 | 0.022 | 5.500 | 5.511 | 5.500 | 0.011 | 0.005 | 16 |
| NP-6H M6×1 | 5.7055 | 5.7165 | 5.6945 | 0.022 | 5.500 | 5.511 | 5.500 | 0.011 | 0.005 | 16 |

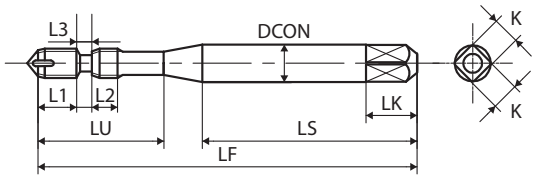
The pitch diameter is simple pitch diameter. Pitch tolerance includes error of thread lead.

Main specification of SITD is same with that of thread gauge. But SITD has partly Yamawa's own design in the length of thread and bottom part relief. Due to these features, Yamawa has adopted the name "Simple Inspection Tool or SITD" instead of using the name "thread gauge".

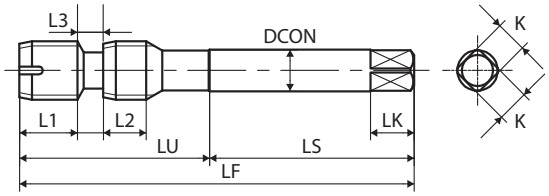


Think threads with YAMAWA
IMROBEX Machine Tools International

**TYPE: SITD_01**




**TYPE: SITD_02**




| M-MF | TCTR (tolerance) | Code | LF (mm) | L1 (mm) | L2 (mm) | L3 (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | | | |
| **M2X0.4** | 6H | ITDM62.0E | 42 | 4 | 2 | 1.2 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| **M2X0.25** | 5H | ITDM52.0B | 42 | 4.9 | 1.3 | 1 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.2X0.45** | 6H | ITDM62.2F | 42 | 4.4 | 2.3 | 1.4 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.2X0.25** | 5H | ITDM52.2B | 42 | 5.8 | 1.3 | 1 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.3X0.4** | 6H | ITDM62.3E | 42 | 4 | 2 | 1.2 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.3X0.25** | 5H | ITDM52.3B | 42 | 4.9 | 1.3 | 1 | 12 | 27 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.5X0.45** | 6H | ITDM62.5F | 46 | 4.4 | 2.3 | 1.4 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.5X0.35** | 6H | ITDM62.5D | 46 | 5.2 | 1.8 | 1.1 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.6X0.45** | 6H | ITDM62.6F | 46 | 4.4 | 2.3 | 1.4 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| **M2.6X0.35** | 6H | ITDM62.6D | 46 | 5.2 | 1.8 | 1.1 | 14 | 29 | 3 | 2.5 | 5 | 01 | ○ |
| **M3X0.5** | 6H | ITDM63.0G | 46 | 5 | 2.5 | 1.5 | 14 | 26 | 4 | 3.2 | 6 | 01 | ○ |
| **M3X0.35** | 6H | ITDM63.0D | 46 | 6.1 | 1.8 | 1.1 | 14 | 26 | 4 | 3.2 | 6 | 01 | ○ |
| **M3.5X0.6** | 6H | ITDM63.5H | 52 | 6.2 | 3 | 1.8 | 16 | 29 | 5 | 4 | 7 | 01 | ○ |
| **M3.5X0.35** | 6H | ITDM63.5D | 52 | 8.1 | 1.8 | 1.1 | 16 | 29 | 5 | 4 | 7 | 01 | ○ |
| **M4X0.7** | 6H | ITDM64.0I | 52 | 5.4 | 3.5 | 2.1 | 17 | 29 | 5 | 4 | 7 | 01 | ○ |
| **M4X0.5** | 6H | ITDM64.0G | 52 | 7 | 2.5 | 1.5 | 17 | 29 | 5 | 4 | 7 | 01 | ○ |
| **M4.5X0.75** | 6H | ITDM64.5J | 60 | 6.9 | 3.8 | 2.3 | 21 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| **M4.5X0.5** | 6H | ITDM64.5G | 60 | 9 | 2.5 | 1.5 | 21 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| **M5X0.8** | 6H | ITDM65.0K | 60 | 6.6 | 4 | 2.4 | 22 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| **M5X0.5** | 6H | ITDM65.0G | 60 | 9 | 2.5 | 1.5 | 22 | 33 | 5.5 | 4.5 | 7 | 01 | ○ |
| **M5.5X0.5** | 6H | ITDM65.5G | 62 | 11 | 2.5 | 1.5 | 26 | 33 | 6 | 4.5 | 7 | 01 | ○ |
| **M6X1** | 6H | ITDM66.0M | 62 | 7 | 5 | 3 | 26 | 33 | 6 | 4.5 | 7 | 01 | ○ |
| **M6X0.75** | 6H | ITDM66.0J | 62 | 8.9 | 3.8 | 2.3 | 26 | 33 | 6 | 4.5 | 7 | 01 | ○ |
| **M7X1** | 6H | ITDM67.0M | 70 | 11.9 | 5 | 3 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| **M7X0.75** | 6H | ITDM67.0J | 70 | 13.8 | 3.8 | 2.3 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| **M8X1.25** | 6H | ITDM68.0N | 70 | 8.9 | 6.3 | 3.8 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| **M8X1** | 6H | ITDM68.0M | 70 | 11 | 5 | 3 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| **M8X0.75** | 6H | ITDM68.0J | 70 | 12.9 | 3.8 | 2.3 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| **M9X1.25** | 6H | ITDM69.0N | 75 | 13.8 | 6.3 | 3.8 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M9X1** | 6H | ITDM69.0M | 75 | 15.9 | 5 | 3 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M9X0.75** | 6H | ITDM69.0J | 75 | 17.8 | 3.8 | 2.3 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M10X1.5** | 6H | ITDM60100 | 75 | 11 | 7.5 | 4.5 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M10X1.25** | 6H | ITDM6010N | 75 | 12.9 | 6.3 | 3.8 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M10X1** | 6H | ITDM6010M | 75 | 15 | 5 | 3 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M10X0.75** | 6H | ITDM6010J | 75 | 16.9 | 3.8 | 2.3 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| **M11X1.5** | 6H | ITDM60110 | 82 | 14.9 | 7.5 | 4.5 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| **M11X1** | 6H | ITDM6011M | 82 | 18.9 | 5 | 3 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |

| M-MF | TCTR (tolerance) | Code | LF (mm) | L1 (mm) | L2 (mm) | L3 (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | | | |
| M11X0.75 | 6H | ITDM6011J | 82 | 20.8 | 3.8 | 2.3 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| M12X1.75 | 6H | ITDM6012P | 82 | 11.9 | 8.8 | 5.3 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| M12X1.5 | 6H | ITDM6012O | 82 | 14 | 7.5 | 4.5 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| M12X1.25 | 6H | ITDM6012N | 82 | 15.9 | 6.3 | 3.8 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| M12X1 | 6H | ITDM6012M | 82 | 18 | 5 | 3 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| M14X2 | 6H | ITDM6014Q | 88 | 10 | 10 | 6 | 43 | 45 | 10.5 | 8 | 11 | 02 | ○ |
| M14X1.5 | 6H | ITDM6014O | 88 | 14 | 7.5 | 4.5 | 43 | 45 | 10.5 | 8 | 11 | 02 | ○ |
| M14X1.25 | 6H | ITDM6014N | 88 | 15.9 | 6.3 | 3.8 | 43 | 45 | 10.5 | 8 | 11 | 02 | ○ |
| M14X1 | 6H | ITDM6014M | 88 | 18 | 5 | 3 | 43 | 45 | 10.5 | 8 | 11 | 02 | ○ |
| M15X1.5 | 6H | ITDM6015O | 95 | 14.9 | 7.5 | 4.5 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| M15X1 | 6H | ITDM6015M | 95 | 18.9 | 5 | 3 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| M16X2 | 6H | ITDM6016Q | 95 | 10 | 10 | 6 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| M16X1.5 | 6H | ITDM6016O | 95 | 14 | 7.5 | 4.5 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| M16X1 | 6H | ITDM6016M | 95 | 18 | 5 | 3 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| M17X1.5 | 6H | ITDM6017O | 100 | 21.9 | 7.5 | 4.5 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |
| M17X1 | 6H | ITDM6017M | 100 | 25.9 | 5 | 3 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |
| M18X2.5 | 6H | ITDM6018R | 100 | 13 | 12.5 | 7.5 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |
| M18X2 | 6H | ITDM6018Q | 100 | 17 | 10 | 6 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |
| M18X1.5 | 6H | ITDM6018O | 100 | 21 | 7.5 | 4.5 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |
| M18X1 | 6H | ITDM6018M | 100 | 25 | 5 | 3 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |

| UNC-UNF | TCTR (tolerance) | Code | LF (mm) | L1 (mm) | L2 (mm) | L3 (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | | | |
| No.2-56UNC | 2B | ITDM2UN2E | 42 | 4.4 | 2.3 | 1.4 | 12 | 26 | 3 | 2.5 | 5 | 01 | ○ |
| No.2-64UNF | 2B | ITDM2UN2D | 42 | 4.9 | 2 | 1.2 | 12 | 26 | 3 | 2.5 | 5 | 01 | ○ |
| No.3-48UNC | 2B | ITDM2UN3F | 46 | 3.9 | 2.6 | 1.6 | 14 | 28 | 3 | 2.5 | 5 | 01 | ○ |
| No.3-56UNF | 2B | ITDM2UN3E | 46 | 4.4 | 2.3 | 1.4 | 14 | 28 | 3 | 2.5 | 5 | 01 | ○ |
| No.4-40UNC | 2B | ITDM2UN4H | 46 | 3.9 | 3.2 | 1.9 | 14 | 25 | 4 | 3.2 | 6 | 01 | ○ |
| No.4-48UNF | 2B | ITDM2UN4F | 46 | 4.8 | 2.6 | 1.6 | 14 | 25 | 4 | 3.2 | 6 | 01 | ○ |
| No.5-40UNC | 2B | ITDM2UN5H | 52 | 5.9 | 3.2 | 1.9 | 16 | 28 | 5 | 4 | 7 | 01 | ○ |
| No.5-44UNF | 2B | ITDM2UN5G | 52 | 6.4 | 2.9 | 1.7 | 16 | 28 | 5 | 4 | 7 | 01 | ○ |
| No.6-32UNC | 2B | ITDM2UN6J | 52 | 4.6 | 4 | 2.4 | 17 | 27 | 5 | 4 | 7 | 01 | ○ |
| No.6-40UNF | 2B | ITDM2UN6H | 52 | 5.9 | 3.2 | 1.9 | 17 | 27 | 5 | 4 | 7 | 01 | ○ |
| No.8-32UNC | 2B | ITDM2UN8J | 60 | 6.6 | 4 | 2.4 | 22 | 31 | 5.5 | 4.5 | 7 | 01 | ○ |
| No.8-36UNF | 2B | ITDM2UN8I | 60 | 7.4 | 3.5 | 2.1 | 22 | 31 | 5.5 | 4.5 | 7 | 01 | ○ |
| No.10-24UNC | 2B | ITDM2UNAM | 62 | 7.5 | 5.3 | 3.2 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| No.10-32UNF | 2B | ITDM2UNAJ | 62 | 9.6 | 4 | 2.4 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| No.12-24UNC | 2B | ITDM2UNCM | 62 | 6.5 | 5.3 | 3.2 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| No.12-28UNF | 2B | ITDM2UNCK | 62 | 7.8 | 4.5 | 2.7 | 26 | 32 | 6 | 4.5 | 7 | 01 | ○ |
| 1/4-20UNC | 2B | ITDM2U04N | 70 | 10.2 | 6.4 | 3.8 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| 1/4-28UNF | 2B | ITDM2U04K | 70 | 13.2 | 4.5 | 2.7 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| 5/16-18UNC | 2B | ITDM2U05O | 70 | 7.7 | 7.1 | 4.2 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| 5/16-24UNF | 2B | ITDM2U05M | 70 | 10.5 | 5.3 | 3.2 | 34 | 36 | 6.2 | 5 | 8 | 02 | ○ |
| 3/8-16UNC | 2B | ITDM2U06P | 75 | 10.7 | 7.9 | 4.8 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| 3/8-24UNF | 2B | ITDM2U06M | 75 | 14.9 | 5.3 | 3.2 | 37 | 38 | 7 | 5.5 | 8 | 02 | ○ |
| 7/16-14UNC | 2B | ITDM2U07Q | 82 | 12.3 | 9.1 | 5.4 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |
| 7/16-20UNF | 2B | ITDM2U07N | 82 | 16.6 | 6.4 | 3.8 | 40 | 42 | 8.5 | 6.5 | 9 | 02 | ○ |



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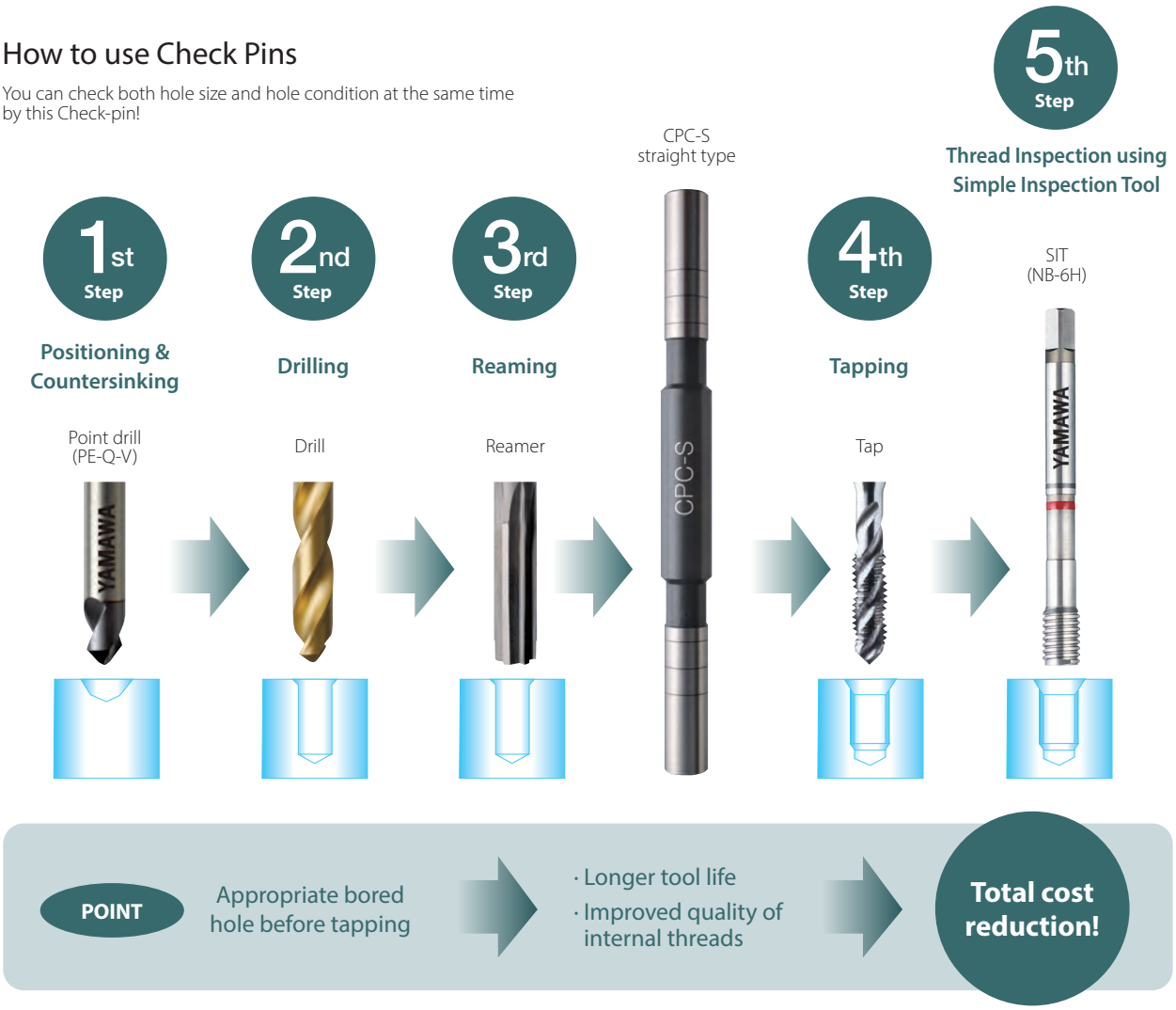
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Machine Tools International

| UNC-UNF | TCTR (tolerance) | Code | LF (mm) | L1 (mm) | L2 (mm) | L3 (mm) | LU (mm) | LS (mm) | DCON (mm) | K (mm) | LK (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | | | |
| 1/2-13UNC | 2B | ITDM2U08R | 88 | 11.4 | 9.8 | 5.9 | 43 | 45 | 10.5 | 8 | 11 | 02 | ○ |
| 1/2-20UNF | 2B | ITDM2U08N | 88 | 16.9 | 6.4 | 3.8 | 43 | 45 | 10.5 | 8 | 11 | 02 | ○ |
| 9/16-12UNC | 2B | ITDM2U09S | 95 | 10.5 | 10.6 | 6.4 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| 9/16-18UNF | 2B | ITDM2U090 | 95 | 16.2 | 7.1 | 4.2 | 47 | 48 | 12.5 | 10 | 13 | 02 | ○ |
| 5/8-11UNC | 2B | ITDM2U10U | 100 | 16.4 | 11.5 | 6.9 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |
| 5/8-18UNF | 2B | ITDM2U100 | 100 | 23.5 | 7.1 | 4.2 | 49 | 51 | 14 | 11 | 14 | 02 | ○ |

# CHECK PINS

## How to use Check Pins

You can check both hole size and hole condition at the same time by this Check-pin!




**POINT** Appropriate bored hole before tapping → · Longer tool life · Improved quality of internal threads → **Total cost reduction!**

## It is important to check the hole condition before tapping

Hole condition can be inappropriate before tapping.

Accurate hole size and shape, enable longer tool life and avoid tapping troubles. Let's check the hole before tapping.






Think threads with YAMAWA
IMROBEX Machine Tools International

# CHECK PINS

WATCH THE VIDEO

## Please check the hole size before tapping

Let's check the hole size before tapping 6H class internal threads of M6×1 by using Check-pin for cutting taps.

### · How to use CPC-S (Straight type)

**STEP 1**

Check the minor dia. for M6×1 6H internal thread

**STEP 2**

Size of the Check-pin for M6×1

| Size | L | ℓ | DS | d1 (Percentage of thread engagement) | d2 (Percentage of thread engagement) |
|---|---|---|---|---|---|
| M6 ×1 | 73 | 16.5 | 6 | 4.917 (100%) | 5.026 (90%) |
| | | | | 4.972 (95%) | 5.080 (85%) |
| | | | | 5.026 (90%) | 5.134 (80%) |
| | | | | 5.080 (85%) | 5.188 (75%) |
| | | | | 5.134 (80%) | 5.242 (70%) |

Select the two Check-Pins closest to the max and min size of minor dia of 6H internal thread, referring to the table on the left.

**① 4.917(100%) and ② 5.134(80%)**

Depending on the feature of work-piece materials, it is beneficial to tapping to make the hole size before tapping as large as possible and within the tolerance.

**STEP 3**

Insert the Check-pins ① and ②, selected in step 2.

**① 4.917 (100%)**



Check-pin smoothly goes into the bottom of the hole.

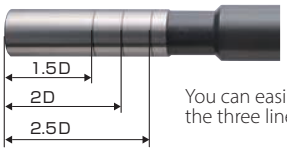
**② 5.134 (80%)**



Check-pin doesn't go into the hole.

GOOD

The hole is finished within minor dia of 6H class internal threads.




You can easily check hole depth by the three lines marked on the pin.

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
YMW
THREAD MILLS
DIES
CENTER DRILLS
Technical info

# CPC-S

## Inspection Tools

Check Pins (Straight Type) for Bored Hole for Cutting Taps




HSS

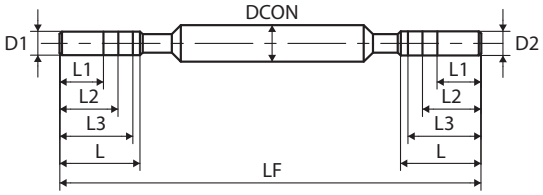
**FEATURES**

HSS material increases considerably the Check Pins life.

A set of 5 Check Pins allows accurate checking of bored hole diameter and length.

For cutting tap.

**TYPE: CPC_01**






Think threads with YAMAWA

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Machine Tools International

| M-MF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M2X0.4 | CPCS2.0EA | 41.5 | 5.5 | 1.567 (100%) | 1.610 (90%) | 3 | 3 | 4 | 5 | 01 | ○ |
| | CPCS2.0EB | 41.5 | 5.5 | 1.589 (95%) | 1.632 (85%) | 3 | 3 | 4 | 5 | 01 | ○ |
| | CPCS2.0EC | 41.5 | 5.5 | 1.610 (90%) | 1.654 (80%) | 3 | 3 | 4 | 5 | 01 | ○ |
| | CPCS2.0ED | 41.5 | 5.5 | 1.632 (85%) | 1.675 (75%) | 3 | 3 | 4 | 5 | 01 | ○ |
| | CPCS2.0EE | 41.5 | 5.5 | 1.654 (80%) | 1.697 (70%) | 3 | 3 | 4 | 5 | 01 | ○ |
| | CPCS2.0EF | 41.5 | 5.5 | 1.675 (75%) | 1.719 (65%) | 3 | 3 | 4 | 5 | 01 | ○ |
| | CPCS2.0EM | set of 5pcs. CPCS2.0EB (95%) ~ CPCS2.0EF (65%) | | | | | | | | 01 | ○ |
| | CPCS2.0ES | set of 5pcs. CPCS2.0EA (100%) ~ CPCS2.0EE (70%) | | | | | | | | 01 | ○ |
| M2.5X0.45 | CPCS2.5FA | 45 | 7.5 | 2.013 (100%) | 2.062 (90%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5FB | 45 | 7.5 | 2.037 (95%) | 2.086 (85%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5FC | 45 | 7.5 | 2.062 (90%) | 2.110 (80%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5FD | 45 | 7.5 | 2.086 (85%) | 2.135 (75%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5FE | 45 | 7.5 | 2.110 (80%) | 2.159 (70%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5FF | 45 | 7.5 | 2.135 (75%) | 2.183 (65%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5FM | set of 5pcs. CPCS2.5FB (95%) ~ CPCS2.5FF (65%) | | | | | | | | 01 | ○ |
| | CPCS2.5FS | set of 5pcs. CPCS2.5FA (100%) ~ CPCS2.5FE (70%) | | | | | | | | 01 | ○ |
| M2.5X0.35 | CPCS2.5DA | 45 | 7.5 | 2.121 (100%) | 2.159 (90%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5DB | 45 | 7.5 | 2.140 (95%) | 2.178 (85%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5DC | 45 | 7.5 | 2.159 (90%) | 2.197 (80%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5DD | 45 | 7.5 | 2.178 (85%) | 2.216 (75%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5DE | 45 | 7.5 | 2.197 (80%) | 2.235 (70%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5DF | 45 | 7.5 | 2.216 (75%) | 2.254 (65%) | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| | CPCS2.5DM | set of 5pcs. CPCS2.5DB (95%) ~ CPCS2.5DF (65%) | | | | | | | | 01 | ○ |
| | CPCS2.5DS | set of 5pcs. CPCS2.5DA (100%) ~ CPCS2.5DE (70%) | | | | | | | | 01 | ○ |
| M3X0.5 | CPCS3.0GA | 49 | 9 | 2.459 (100%) | 2.513 (90%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0GB | 49 | 9 | 2.486 (95%) | 2.540 (85%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0GC | 49 | 9 | 2.513 (90%) | 2.567 (80%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0GD | 49 | 9 | 2.540 (85%) | 2.594 (75%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0GE | 49 | 9 | 2.567 (80%) | 2.621 (70%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0GF | 49 | 9 | 2.594 (75%) | 2.648 (65%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0GM | set of 5pcs. CPCS3.0GB (95%) ~ CPCS3.0GF (65%) | | | | | | | | 01 | ○ |
| | CPCS3.0GS | set of 5pcs. CPCS3.0GA (100%) ~ CPCS3.0GE (70%) | | | | | | | | 01 | ○ |
| M3X0.35 | CPCS3.0DA | 49 | 9 | 2.621 (100%) | 2.659 (90%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0DB | 49 | 9 | 2.640 (95%) | 2.678 (85%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0DC | 49 | 9 | 2.659 (90%) | 2.697 (80%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0DD | 49 | 9 | 2.678 (85%) | 2.716 (75%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0DE | 49 | 9 | 2.697 (80%) | 2.735 (70%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0DF | 49 | 9 | 2.716 (75%) | 2.754 (65%) | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| | CPCS3.0DM | set of 5pcs. CPCS3.0DB (95%) ~ CPCS3.0DF (65%) | | | | | | | | 01 | ○ |
| | CPCS3.0DS | set of 5pcs. CPCS3.0DA (100%) ~ CPCS3.0DE (70%) | | | | | | | | 01 | ○ |
| M3.5X0.6 | CPCS3.5HA | 57 | 11 | 2.850 (100%) | 2.915 (90%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5HB | 57 | 11 | 2.883 (95%) | 2.948 (85%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5HC | 57 | 11 | 2.915 (90%) | 2.980 (80%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5HD | 57 | 11 | 2.948 (85%) | 3.013 (75%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5HE | 57 | 11 | 2.980 (80%) | 3.045 (70%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5HF | 57 | 11 | 3.013 (75%) | 3.078 (65%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5HM | set of 5pcs. CPCS3.5HB (95%) ~ CPCS3.5HF (65%) | | | | | | | | 01 | ○ |
| | CPCS3.5HS | set of 5pcs. CPCS3.5HA (100%) ~ CPCS3.5HE (70%) | | | | | | | | 01 | ○ |

| M-MF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M3.5X0.35 | CPCS3.5DA | 57 | 11 | 3.121 (100%) | 3.159 (90%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5DB | 57 | 11 | 3.140 (95%) | 3.178 (85%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5DC | 57 | 11 | 3.159 (90%) | 3.197 (80%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5DD | 57 | 11 | 3.178 (85%) | 3.216 (75%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5DE | 57 | 11 | 3.197 (80%) | 3.235 (70%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5DF | 57 | 11 | 3.216 (75%) | 3.254 (65%) | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| | CPCS3.5DM | set of 5pcs. CPCS3.5DB (95%) ~ CPCS3.5DF (65%) | | | | | | | | 01 | ○ |
| | CPCS3.5DS | set of 5pcs. CPCS3.5DA (100%) ~ CPCS3.5DE (70%) | | | | | | | | 01 | ○ |
| M4X0.7 | CPCS4.0IA | 57 | 11 | 3.242 (100%) | 3.318 (90%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0IB | 57 | 11 | 3.280 (95%) | 3.356 (85%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0IC | 57 | 11 | 3.318 (90%) | 3.394 (80%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0ID | 57 | 11 | 3.356 (85%) | 3.432 (75%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0IE | 57 | 11 | 3.394 (80%) | 3.470 (70%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0IF | 57 | 11 | 3.432 (75%) | 3.507 (65%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0IM | set of 5pcs. CPCS4.0IB (95%) ~ CPCS4.0IF (65%) | | | | | | | | 01 | ○ |
| | CPCS4.0IS | set of 5pcs. CPCS4.0IA (100%) ~ CPCS4.0IE (70%) | | | | | | | | 01 | ○ |
| M4X0.5 | CPCS4.0GA | 57 | 11 | 3.459 (100%) | 3.513 (90%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0GB | 57 | 11 | 3.486 (95%) | 3.540 (85%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0GC | 57 | 11 | 3.513 (90%) | 3.567 (80%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0GD | 57 | 11 | 3.540 (85%) | 3.594 (75%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0GE | 57 | 11 | 3.567 (80%) | 3.621 (70%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0GF | 57 | 11 | 3.594 (75%) | 3.648 (65%) | 5 | 6 | 8 | 10 | 01 | ○ |
| | CPCS4.0GM | set of 5pcs. CPCS4.0GB (95%) ~ CPCS4.0GF (65%) | | | | | | | | 01 | ○ |
| | CPCS4.0GS | set of 5pcs. CPCS4.0GA (100%) ~ CPCS4.0GE (70%) | | | | | | | | 01 | ○ |
| M4.5X0.75 | CPCS4.5JA | 65 | 14 | 3.688 (100%) | 3.769 (90%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5JB | 65 | 14 | 3.729 (95%) | 3.810 (85%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5JC | 65 | 14 | 3.769 (90%) | 3.850 (80%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5JD | 65 | 14 | 3.810 (85%) | 3.891 (75%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5JE | 65 | 14 | 3.850 (80%) | 3.932 (70%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5JF | 65 | 14 | 3.891 (75%) | 3.972 (65%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5JM | set of 5pcs. CPCS4.5JB (95%) ~ CPCS4.5JF (65%) | | | | | | | | 01 | ○ |
| | CPCS4.5JS | set of 5pcs. CPCS4.5JA (100%) ~ CPCS4.5JE (70%) | | | | | | | | 01 | ○ |
| M4.5X0.5 | CPCS4.5GA | 65 | 14 | 3.959 (100%) | 4.013 (90%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5GB | 65 | 14 | 3.986 (95%) | 4.040 (85%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5GC | 65 | 14 | 4.013 (90%) | 4.067 (80%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5GD | 65 | 14 | 4.040 (85%) | 4.094 (75%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5GE | 65 | 14 | 4.067 (80%) | 4.121 (70%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5GF | 65 | 14 | 4.094 (75%) | 4.148 (65%) | 5.5 | 6.75 | 9 | 11.25 | 01 | ○ |
| | CPCS4.5GM | set of 5pcs. CPCS4.5GB (95%) ~ CPCS4.5GF (65%) | | | | | | | | 01 | ○ |
| | CPCS4.5GS | set of 5pcs. CPCS4.5GA (100%) ~ CPCS4.5GE (70%) | | | | | | | | 01 | ○ |
| M5X0.8 | CPCS5.0KA | 65 | 14 | 4.134 (100%) | 4.221 (90%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0KB | 65 | 14 | 4.177 (95%) | 4.264 (85%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0KC | 65 | 14 | 4.221 (90%) | 4.307 (80%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0KD | 65 | 14 | 4.264 (85%) | 4.350 (75%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0KE | 65 | 14 | 4.307 (80%) | 4.394 (70%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0KF | 65 | 14 | 4.350 (75%) | 4.437 (65%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0KM | set of 5pcs. CPCS5.0KB (95%) ~ CPCS5.0KF (65%) | | | | | | | | 01 | ○ |
| | CPCS5.0KS | set of 5pcs. CPCS5.0KA (100%) ~ CPCS5.0KE (70%) | | | | | | | | 01 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| M-MF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M5X0.5 | CPCS5.0GA | 65 | 14 | 4.459 (100%) | 4.513 (90%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0GB | 65 | 14 | 4.486 (95%) | 4.540 (85%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0GC | 65 | 14 | 4.513 (90%) | 4.567 (80%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0GD | 65 | 14 | 4.540 (85%) | 4.594 (75%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0GE | 65 | 14 | 4.567 (80%) | 4.621 (70%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0GF | 65 | 14 | 4.594 (75%) | 4.648 (65%) | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| | CPCS5.0GM | set of 5pcs. CPCS5.0GB (95%) ~ CPCS5.0GF (65%) | | | | | | | | 01 | ○ |
| | CPCS5.0GS | set of 5pcs. CPCS5.0GA (100%) ~ CPCS5.0GE (70%) | | | | | | | | 01 | ○ |
| M6X1 | CPCS6.0MA | 73 | 16.5 | 4.917 (100%) | 5.026 (90%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0MB | 73 | 16.5 | 4.972 (95%) | 5.080 (85%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0MC | 73 | 16.5 | 5.026 (90%) | 5.134 (80%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0MD | 73 | 16.5 | 5.080 (85%) | 5.188 (75%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0ME | 73 | 16.5 | 5.134 (80%) | 5.242 (70%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0MF | 73 | 16.5 | 5.188 (75%) | 5.296 (65%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0MM | set of 5pcs. CPCS6.0MB (95%) ~ CPCS6.0MF (65%) | | | | | | | | 01 | ○ |
| | CPCS6.0MS | set of 5pcs. CPCS6.0MA (100%) ~ CPCS6.0ME (70%) | | | | | | | | 01 | ○ |
| M6X0.75 | CPCS6.0JA | 73 | 16.5 | 5.188 (100%) | 5.269 (90%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0JB | 73 | 16.5 | 5.229 (95%) | 5.310 (85%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0JC | 73 | 16.5 | 5.269 (90%) | 5.350 (80%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0JD | 73 | 16.5 | 5.310 (85%) | 5.391 (75%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0JE | 73 | 16.5 | 5.350 (80%) | 5.432 (70%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0JF | 73 | 16.5 | 5.391 (75%) | 5.472 (65%) | 6 | 9 | 12 | 15 | 01 | ○ |
| | CPCS6.0JM | set of 5pcs. CPCS6.0JB (95%) ~ CPCS6.0JF (65%) | | | | | | | | 01 | ○ |
| | CPCS6.0JS | set of 5pcs. CPCS6.0JA (100%) ~ CPCS6.0JE (70%) | | | | | | | | 01 | ○ |
| M7X1 | CPCS7.0MA | 99 | 22 | 5.917 (100%) | 6.026 (90%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0MB | 99 | 22 | 5.972 (95%) | 6.080 (85%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0MC | 99 | 22 | 6.026 (90%) | 6.134 (80%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0MD | 99 | 22 | 6.080 (85%) | 6.188 (75%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0ME | 99 | 22 | 6.134 (80%) | 6.242 (70%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0MF | 99 | 22 | 6.188 (75%) | 6.296 (65%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0MM | set of 5pcs. CPCS7.0MB (95%) ~ CPCS7.0MF (65%) | | | | | | | | 01 | ○ |
| | CPCS7.0MS | set of 5pcs. CPCS7.0MA (100%) ~ CPCS7.0ME (70%) | | | | | | | | 01 | ○ |
| M7X0.75 | CPCS7.0JA | 99 | 22 | 6.188 (100%) | 6.269 (90%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0JB | 99 | 22 | 6.229 (95%) | 6.310 (85%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0JC | 99 | 22 | 6.269 (90%) | 6.350 (80%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0JD | 99 | 22 | 6.310 (85%) | 6.391 (75%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0JE | 99 | 22 | 6.350 (80%) | 6.432 (70%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0JF | 99 | 22 | 6.391 (75%) | 6.472 (65%) | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| | CPCS7.0JM | set of 5pcs. CPCS7.0JB (95%) ~ CPCS7.0JF (65%) | | | | | | | | 01 | ○ |
| | CPCS7.0JS | set of 5pcs. CPCS7.0JA (100%) ~ CPCS7.0JE (70%) | | | | | | | | 01 | ○ |
| M8X1.25 | CPCS8.0NA | 99 | 22 | 6.647 (100%) | 6.782 (90%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0NB | 99 | 22 | 6.714 (95%) | 6.850 (85%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0NC | 99 | 22 | 6.782 (90%) | 6.917 (80%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0ND | 99 | 22 | 6.850 (85%) | 6.985 (75%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0NE | 99 | 22 | 6.917 (80%) | 7.053 (70%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0NF | 99 | 22 | 6.985 (75%) | 7.120 (65%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0NM | set of 5pcs. CPCS8.0NB (95%) ~ CPCS8.0NF (65%) | | | | | | | | 01 | ○ |
| | CPCS8.0NS | set of 5pcs. CPCS8.0NA (100%) ~ CPCS8.0NE (70%) | | | | | | | | 01 | ○ |

| M-MF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M8X1 | CPCS8.0MA | 99 | 22 | 6.917 (100%) | 7.026 (90%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0MB | 99 | 22 | 6.972 (95%) | 7.080 (85%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0MC | 99 | 22 | 7.026 (90%) | 7.134 (80%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0MD | 99 | 22 | 7.080 (85%) | 7.188 (75%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0ME | 99 | 22 | 7.134 (80%) | 7.242 (70%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0MF | 99 | 22 | 7.188 (75%) | 7.296 (65%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0MM | set of 5pcs. CPCS8.0MB (95%) ~ CPCS8.0MF (65%) | | | | | | | | 01 | ○ |
| | CPCS8.0MS | set of 5pcs. CPCS8.0MA (100%) ~ CPCS8.0ME (70%) | | | | | | | | 01 | ○ |
| M8X0.75 | CPCS8.0JA | 99 | 22 | 7.188 (100%) | 7.269 (90%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0JB | 99 | 22 | 7.229 (95%) | 7.310 (85%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0JC | 99 | 22 | 7.269 (90%) | 7.350 (80%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0JD | 99 | 22 | 7.310 (85%) | 7.391 (75%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0JE | 99 | 22 | 7.350 (80%) | 7.432 (70%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0JF | 99 | 22 | 7.391 (75%) | 7.472 (65%) | 8 | 12 | 16 | 20 | 01 | ○ |
| | CPCS8.0JM | set of 5pcs. CPCS8.0JB (95%) ~ CPCS8.0JF (65%) | | | | | | | | 01 | ○ |
| | CPCS8.0JS | set of 5pcs. CPCS8.0JA (100%) ~ CPCS8.0JE (70%) | | | | | | | | 01 | ○ |
| M9X1.25 | CPCS9.0NA | 110 | 27.5 | 7.647 (100%) | 7.782 (90%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0NB | 110 | 27.5 | 7.714 (95%) | 7.850 (85%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0NC | 110 | 27.5 | 7.782 (90%) | 7.917 (80%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0ND | 110 | 27.5 | 7.850 (85%) | 7.985 (75%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0NE | 110 | 27.5 | 7.917 (80%) | 8.053 (70%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0NF | 110 | 27.5 | 7.985 (75%) | 8.120 (65%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0NM | set of 5pcs. CPCS9.0NB (95%) ~ CPCS9.0NF (65%) | | | | | | | | 01 | ○ |
| | CPCS9.0NS | set of 5pcs. CPCS9.0NA (100%) ~ CPCS9.0NE (70%) | | | | | | | | 01 | ○ |
| M9X1 | CPCS9.0MA | 110 | 27.5 | 7.917 (100%) | 8.026 (90%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0MB | 110 | 27.5 | 7.972 (95%) | 8.080 (85%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0MC | 110 | 27.5 | 8.026 (90%) | 8.134 (80%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0MD | 110 | 27.5 | 8.080 (85%) | 8.188 (75%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0ME | 110 | 27.5 | 8.134 (80%) | 8.242 (70%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0MF | 110 | 27.5 | 8.188 (75%) | 8.296 (65%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0MM | set of 5pcs. CPCS9.0MB (95%) ~ CPCS9.0MF (65%) | | | | | | | | 01 | ○ |
| | CPCS9.0MS | set of 5pcs. CPCS9.0MA (100%) ~ CPCS9.0ME (70%) | | | | | | | | 01 | ○ |
| M9X0.75 | CPCS9.0JA | 110 | 27.5 | 8.188 (100%) | 8.269 (90%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0JB | 110 | 27.5 | 8.229 (95%) | 8.310 (85%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0JC | 110 | 27.5 | 8.269 (90%) | 8.350 (80%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0JD | 110 | 27.5 | 8.310 (85%) | 8.391 (75%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0JE | 110 | 27.5 | 8.350 (80%) | 8.432 (70%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0JF | 110 | 27.5 | 8.391 (75%) | 8.472 (65%) | 10 | 13.5 | 18 | 22.5 | 01 | ○ |
| | CPCS9.0JM | set of 5pcs. CPCS9.0JB (95%) ~ CPCS9.0JF (65%) | | | | | | | | 01 | ○ |
| | CPCS9.0JS | set of 5pcs. CPCS9.0JA (100%) ~ CPCS9.0JE (70%) | | | | | | | | 01 | ○ |
| M10X1.5 | CPCS0100A | 110 | 27.5 | 8.376 (100%) | 8.538 (90%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS0100B | 110 | 27.5 | 8.457 (95%) | 8.620 (85%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS0100C | 110 | 27.5 | 8.538 (90%) | 8.701 (80%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS0100D | 110 | 27.5 | 8.620 (85%) | 8.782 (75%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS0100E | 110 | 27.5 | 8.701 (80%) | 8.863 (70%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS0100F | 110 | 27.5 | 8.782 (75%) | 8.944 (65%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS0100M | set of 5pcs. CPCS0100B (95%) ~ CPCS0100F (65%) | | | | | | | | 01 | ○ |
| | CPCS0100S | set of 5pcs. CPCS0100A (100%) ~ CPCS0100E (70%) | | | | | | | | 01 | ○ |



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| M-MF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M10X1.25 | CPCS010NA | 110 | 27.5 | 8.647 (100%) | 8.782 (90%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010NB | 110 | 27.5 | 8.714 (95%) | 8.850 (85%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010NC | 110 | 27.5 | 8.782 (90%) | 8.917 (80%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010ND | 110 | 27.5 | 8.850 (85%) | 8.985 (75%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010NE | 110 | 27.5 | 8.917 (80%) | 9.053 (70%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010NF | 110 | 27.5 | 8.985 (75%) | 9.120 (65%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010NM | set of 5pcs. CPCS010NB (95%) ~ CPCS010NF (65%) | | | | | | | | 01 | ○ |
| | CPCS010NS | set of 5pcs. CPCS010NA (100%) ~ CPCS010NE (70%) | | | | | | | | 01 | ○ |
| M10X1 | CPCS010MA | 110 | 27.5 | 8.917 (100%) | 9.026 (90%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010MB | 110 | 27.5 | 8.972 (95%) | 9.080 (85%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010MC | 110 | 27.5 | 9.026 (90%) | 9.134 (80%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010MD | 110 | 27.5 | 9.080 (85%) | 9.188 (75%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010ME | 110 | 27.5 | 9.134 (80%) | 9.242 (70%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010MF | 110 | 27.5 | 9.188 (75%) | 9.296 (65%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010MM | set of 5pcs. CPCS010MB (95%) ~ CPCS010MF (65%) | | | | | | | | 01 | ○ |
| | CPCS010MS | set of 5pcs. CPCS010MA (100%) ~ CPCS010ME (70%) | | | | | | | | 01 | ○ |
| M10X0.75 | CPCS010JA | 110 | 27.5 | 9.188 (100%) | 9.269 (90%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010JB | 110 | 27.5 | 9.229 (95%) | 9.310 (85%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010JC | 110 | 27.5 | 9.269 (90%) | 9.350 (80%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010JD | 110 | 27.5 | 9.310 (85%) | 9.391 (75%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010JE | 110 | 27.5 | 9.350 (80%) | 9.432 (70%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010JF | 110 | 27.5 | 9.391 (75%) | 9.472 (65%) | 10 | 15 | 20 | 25 | 01 | ○ |
| | CPCS010JM | set of 5pcs. CPCS010JB (95%) ~ CPCS010JF (65%) | | | | | | | | 01 | ○ |
| | CPCS010JS | set of 5pcs. CPCS010JA (100%) ~ CPCS010JE (70%) | | | | | | | | 01 | ○ |
| M11X1.5 | CPCS0110A | 121 | 33 | 9.376 (100%) | 9.538 (90%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS0110B | 121 | 33 | 9.457 (95%) | 9.620 (85%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS0110C | 121 | 33 | 9.538 (90%) | 9.701 (80%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS0110D | 121 | 33 | 9.620 (85%) | 9.782 (75%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS0110E | 121 | 33 | 9.701 (80%) | 9.863 (70%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS0110F | 121 | 33 | 9.782 (75%) | 9.944 (65%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS0110M | set of 5pcs. CPCS0110B (95%) ~ CPCS0110F (65%) | | | | | | | | 01 | ○ |
| | CPCS0110S | set of 5pcs. CPCS0110A (100%) ~ CPCS0110E (70%) | | | | | | | | 01 | ○ |
| M11X1 | CPCS011MA | 121 | 33 | 9.917 (100%) | 10.026 (90%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011MB | 121 | 33 | 9.972 (95%) | 10.080 (85%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011MC | 121 | 33 | 10.026 (90%) | 10.134 (80%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011MD | 121 | 33 | 10.080 (85%) | 10.188 (75%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011ME | 121 | 33 | 10.134 (80%) | 10.242 (70%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011MF | 121 | 33 | 10.188 (75%) | 10.296 (65%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011MM | set of 5pcs. CPCS011MB (95%) ~ CPCS011MF (65%) | | | | | | | | 01 | ○ |
| | CPCS011MS | set of 5pcs. CPCS011MA (100%) ~ CPCS011ME (70%) | | | | | | | | 01 | ○ |
| M11X0.75 | CPCS011JA | 121 | 33 | 10.188 (100%) | 10.269 (90%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011JB | 121 | 33 | 10.229 (95%) | 10.310 (85%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011JC | 121 | 33 | 10.269 (90%) | 10.350 (80%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011JD | 121 | 33 | 10.310 (85%) | 10.391 (75%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011JE | 121 | 33 | 10.350 (80%) | 10.432 (70%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011JF | 121 | 33 | 10.391 (75%) | 10.472 (65%) | 12 | 16.5 | 22 | 27.5 | 01 | ○ |
| | CPCS011JM | set of 5pcs. CPCS011JB (95%) ~ CPCS011JF (65%) | | | | | | | | 01 | ○ |
| | CPCS011JS | set of 5pcs. CPCS011JA (100%) ~ CPCS011JE (70%) | | | | | | | | 01 | ○ |

| M-MF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M12X1.75 | CPCS012PA | 121 | 33 | 10.105 (100%) | 10.295 (90%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012PB | 121 | 33 | 10.200 (95%) | 10.390 (85%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012PC | 121 | 33 | 10.295 (90%) | 10.484 (80%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012PD | 121 | 33 | 10.390 (85%) | 10.579 (75%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012PE | 121 | 33 | 10.484 (80%) | 10.674 (70%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012PF | 121 | 33 | 10.579 (75%) | 10.769 (65%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012PM | set of 5pcs. CPCS012PB (95%) ~ CPCS012PF (65%) | | | | | | | | 01 | ○ |
| | CPCS012PS | set of 5pcs. CPCS012PA (100%) ~ CPCS012PE (70%) | | | | | | | | 01 | ○ |
| M12X1.5 | CPCS0120A | 121 | 33 | 10.376 (100%) | 10.538 (90%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS0120B | 121 | 33 | 10.457 (95%) | 10.620 (85%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS0120C | 121 | 33 | 10.538 (90%) | 10.701 (80%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS0120D | 121 | 33 | 10.620 (85%) | 10.782 (75%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS0120E | 121 | 33 | 10.701 (80%) | 10.863 (70%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS0120F | 121 | 33 | 10.782 (75%) | 10.944 (65%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS0120M | set of 5pcs. CPCS0120B (95%) ~ CPCS0120F (65%) | | | | | | | | 01 | ○ |
| | CPCS0120S | set of 5pcs. CPCS0120A (100%) ~ CPCS0120E (70%) | | | | | | | | 01 | ○ |
| M12X1.25 | CPCS012NA | 121 | 33 | 10.647 (100%) | 10.782 (90%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012NB | 121 | 33 | 10.714 (95%) | 10.850 (85%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012NC | 121 | 33 | 10.782 (90%) | 10.917 (80%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012ND | 121 | 33 | 10.850 (85%) | 10.985 (75%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012NE | 121 | 33 | 10.917 (80%) | 11.053 (70%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012NF | 121 | 33 | 10.985 (75%) | 11.120 (65%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012NM | set of 5pcs. CPCS012NB (95%) ~ CPCS012NF (65%) | | | | | | | | 01 | ○ |
| | CPCS012NS | set of 5pcs. CPCS012NA (100%) ~ CPCS012NE (70%) | | | | | | | | 01 | ○ |
| M12X1 | CPCS012MA | 121 | 33 | 10.917 (100%) | 11.026 (90%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012MB | 121 | 33 | 10.972 (95%) | 11.080 (85%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012MC | 121 | 33 | 11.026 (90%) | 11.134 (80%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012MD | 121 | 33 | 11.080 (85%) | 11.188 (75%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012ME | 121 | 33 | 11.134 (80%) | 11.242 (70%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012MF | 121 | 33 | 11.188 (75%) | 11.296 (65%) | 12 | 18 | 24 | 30 | 01 | ○ |
| | CPCS012MM | set of 5pcs. CPCS012MB (95%) ~ CPCS012MF (65%) | | | | | | | | 01 | ○ |
| | CPCS012MS | set of 5pcs. CPCS012MA (100%) ~ CPCS012ME (70%) | | | | | | | | 01 | ○ |

| UNC-UNF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.2-56UNC | CPCSUN2EA | 41.5 | 5.5 | 1.695 (100%) | 1.742 (90%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2EB | 41.5 | 5.5 | 1.718 (95%) | 1.767 (85%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2EC | 41.5 | 5.5 | 1.742 (90%) | 1.791 (80%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2ED | 41.5 | 5.5 | 1.767 (85%) | 1.816 (75%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2EE | 41.5 | 5.5 | 1.791 (80%) | 1.840 (70%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2EF | 41.5 | 5.5 | 1.816 (75%) | 1.865 (65%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2EM | set of 5pcs. CPCSUN2EB (95%) ~ CPCSUN2EF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN2ES | set of 5pcs. CPCSUN2EA (100%) ~ CPCSUN2EE (70%) | | | | | | | | 01 | ○ |



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| UNC-UNF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.2-64UNF | CPCSUN2DA | 41.5 | 5.5 | 1.756 (100%) | 1.797 (90%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2DB | 41.5 | 5.5 | 1.776 (95%) | 1.819 (85%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2DC | 41.5 | 5.5 | 1.797 (90%) | 1.840 (80%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2DD | 41.5 | 5.5 | 1.819 (85%) | 1.862 (75%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2DE | 41.5 | 5.5 | 1.840 (80%) | 1.883 (70%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2DF | 41.5 | 5.5 | 1.862 (75%) | 1.905 (65%) | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| | CPCSUN2DM | set of 5pcs. CPCSUN2DB (95%) ~ CPCSUN2DF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN2DS | set of 5pcs. CPCSUN2DA (100%) ~ CPCSUN2DE (70%) | | | | | | | | 01 | ○ |
| No.3-48UNC | CPCSUN3FA | 45 | 7.5 | 1.941 (100%) | 1.999 (90%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3FB | 45 | 7.5 | 1.971 (95%) | 2.028 (85%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3FC | 45 | 7.5 | 1.999 (90%) | 2.057 (80%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3FD | 45 | 7.5 | 2.028 (85%) | 2.085 (75%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3FE | 45 | 7.5 | 2.057 (80%) | 2.114 (70%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3FF | 45 | 7.5 | 2.085 (75%) | 2.143 (65%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3FM | set of 5pcs. CPCSUN3FB (95%) ~ CPCSUN3FF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN3FS | set of 5pcs. CPCSUN3FA (100%) ~ CPCSUN3FE (70%) | | | | | | | | 01 | ○ |
| No.3-56UNF | CPCSUN3EA | 45 | 7.5 | 2.025 (100%) | 2.073 (90%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3EB | 45 | 7.5 | 2.049 (95%) | 2.098 (85%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3EC | 45 | 7.5 | 2.073 (90%) | 2.122 (80%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3ED | 45 | 7.5 | 2.098 (85%) | 2.147 (75%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3EE | 45 | 7.5 | 2.122 (80%) | 2.171 (70%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3EF | 45 | 7.5 | 2.147 (75%) | 2.196 (65%) | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| | CPCSUN3EM | set of 5pcs. CPCSUN3EB (95%) ~ CPCSUN3EF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN3ES | set of 5pcs. CPCSUN3EA (100%) ~ CPCSUN3EE (70%) | | | | | | | | 01 | ○ |
| No.4-40UNC | CPCSUN4HA | 45 | 7.5 | 2.157 (100%) | 2.226 (90%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4HB | 45 | 7.5 | 2.192 (95%) | 2.261 (85%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4HC | 45 | 7.5 | 2.226 (90%) | 2.295 (80%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4HD | 45 | 7.5 | 2.261 (85%) | 2.329 (75%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4HE | 45 | 7.5 | 2.295 (80%) | 2.364 (70%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4HF | 45 | 7.5 | 2.329 (75%) | 2.398 (65%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4HM | set of 5pcs. CPCSUN4HB (95%) ~ CPCSUN4HF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN4HS | set of 5pcs. CPCSUN4HA (100%) ~ CPCSUN4HE (70%) | | | | | | | | 01 | ○ |
| No.4-48UNF | CPCSUN4FA | 45 | 7.5 | 2.271 (100%) | 2.329 (90%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4FB | 45 | 7.5 | 2.301 (95%) | 2.358 (85%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4FC | 45 | 7.5 | 2.329 (90%) | 2.387 (80%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4FD | 45 | 7.5 | 2.358 (85%) | 2.415 (75%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4FE | 45 | 7.5 | 2.387 (80%) | 2.444 (70%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4FF | 45 | 7.5 | 2.415 (75%) | 2.473 (65%) | 3 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| | CPCSUN4FM | set of 5pcs. CPCSUN4FB (95%) ~ CPCSUN4FF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN4FS | set of 5pcs. CPCSUN4FA (100%) ~ CPCSUN4FE (70%) | | | | | | | | 01 | ○ |
| No.5-40UNC | CPCSUN5HA | 49 | 9 | 2.487 (100%) | 2.556 (90%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5HB | 49 | 9 | 2.522 (95%) | 2.591 (85%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5HC | 49 | 9 | 2.556 (90%) | 2.625 (80%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5HD | 49 | 9 | 2.591 (85%) | 2.659 (75%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5HE | 49 | 9 | 2.625 (80%) | 2.694 (70%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5HF | 49 | 9 | 2.659 (75%) | 2.728 (65%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5HM | set of 5pcs. CPCSUN5HB (95%) ~ CPCSUN5HF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN5HS | set of 5pcs. CPCSUN5HA (100%) ~ CPCSUN5HE (70%) | | | | | | | | 01 | ○ |

| UNC-UNF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.5-44UNF | CPCSUN5GA | 49 | 9 | 2.551 (100%) | 2.613 (90%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5GB | 49 | 9 | 2.581 (95%) | 2.644 (85%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5GC | 49 | 9 | 2.613 (90%) | 2.675 (80%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5GD | 49 | 9 | 2.644 (85%) | 2.706 (75%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5GE | 49 | 9 | 2.675 (80%) | 2.738 (70%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5GF | 49 | 9 | 2.706 (75%) | 2.769 (65%) | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| | CPCSUN5GM | set of 5pcs. CPCSUN5GB (95%) ~ CPCSUN5GF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN5GS | set of 5pcs. CPCSUN5GA (100%) ~ CPCSUN5GE (70%) | | | | | | | | 01 | ○ |
| No.6-32UNC | CPCSUN6JA | 49 | 9 | 2.642 (100%) | 2.732 (90%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6JB | 49 | 9 | 2.689 (95%) | 2.775 (85%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6JC | 49 | 9 | 2.732 (90%) | 2.818 (80%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6JD | 49 | 9 | 2.775 (85%) | 2.861 (75%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6JE | 49 | 9 | 2.818 (80%) | 2.903 (70%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6JF | 49 | 9 | 2.861 (75%) | 2.946 (65%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6JM | set of 5pcs. CPCSUN6JB (95%) ~ CPCSUN6JF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN6JS | set of 5pcs. CPCSUN6JA (100%) ~ CPCSUN6JE (70%) | | | | | | | | 01 | ○ |
| No.6-40UNF | CPCSUN6HA | 49 | 9 | 2.820 (100%) | 2.886 (90%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6HB | 49 | 9 | 2.852 (95%) | 2.921 (85%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6HC | 49 | 9 | 2.886 (90%) | 2.955 (80%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6HD | 49 | 9 | 2.921 (85%) | 2.989 (75%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6HE | 49 | 9 | 2.955 (80%) | 3.024 (70%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6HF | 49 | 9 | 2.989 (75%) | 3.058 (65%) | 4 | 5.3 | 7 | 8.8 | 01 | ○ |
| | CPCSUN6HM | set of 5pcs. CPCSUN6HB (95%) ~ CPCSUN6HF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN6HS | set of 5pcs. CPCSUN6HA (100%) ~ CPCSUN6HE (70%) | | | | | | | | 01 | ○ |
| No.8-32UNC | CPCSUN8JA | 57 | 11 | 3.302 (100%) | 3.394 (90%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8JB | 57 | 11 | 3.351 (95%) | 3.437 (85%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8JC | 57 | 11 | 3.394 (90%) | 3.480 (80%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8JD | 57 | 11 | 3.437 (85%) | 3.523 (75%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8JE | 57 | 11 | 3.480 (80%) | 3.565 (70%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8JF | 57 | 11 | 3.523 (75%) | 3.608 (65%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8JM | set of 5pcs. CPCSUN8JB (95%) ~ CPCSUN8JF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN8JS | set of 5pcs. CPCSUN8JA (100%) ~ CPCSUN8JE (70%) | | | | | | | | 01 | ○ |
| No.8-36UNF | CPCSUN8IA | 57 | 11 | 3.404 (100%) | 3.480 (90%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8IB | 57 | 11 | 3.441 (95%) | 3.518 (85%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8IC | 57 | 11 | 3.480 (90%) | 3.556 (80%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8ID | 57 | 11 | 3.518 (85%) | 3.594 (75%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8IE | 57 | 11 | 3.556 (80%) | 3.632 (70%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8IF | 57 | 11 | 3.594 (75%) | 3.671 (65%) | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| | CPCSUN8IM | set of 5pcs. CPCSUN8FB (95%) ~ CPCSUN8FF (65%) | | | | | | | | 01 | ○ |
| | CPCSUN8IS | set of 5pcs. CPCSUN8FA (100%) ~ CPCSUN8FE (70%) | | | | | | | | 01 | ○ |
| No.10-24UNC | CPCSUNAMA | 65 | 14 | 3.683 (100%) | 3.795 (90%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAMB | 65 | 14 | 3.738 (95%) | 3.852 (85%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAMC | 65 | 14 | 3.795 (90%) | 3.909 (80%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAMD | 65 | 14 | 3.852 (85%) | 3.967 (75%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAME | 65 | 14 | 3.909 (80%) | 4.024 (70%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAMF | 65 | 14 | 3.967 (75%) | 4.081 (65%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAMM | set of 5pcs. CPCSUNAMB (95%) ~ CPCSUNAMF (65%) | | | | | | | | 01 | ○ |
| | CPCSUNAMS | set of 5pcs. CPCSUNAMA (100%) ~ CPCSUNAME (70%) | | | | | | | | 01 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC-UNF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.10-32UNF | CPCSUNAJA | 65 | 14 | 3.963 (100%) | 4.053 (90%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAJB | 65 | 14 | 4.010 (95%) | 4.096 (85%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAJC | 65 | 14 | 4.053 (90%) | 4.139 (80%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAJD | 65 | 14 | 4.096 (85%) | 4.182 (75%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAJE | 65 | 14 | 4.139 (80%) | 4.224 (70%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAJF | 65 | 14 | 4.182 (75%) | 4.267 (65%) | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| | CPCSUNAJM | set of 5pcs. CPCSUNAJB (95%) ~ CPCSUNAJF (65%) | | | | | | | | 01 | ○ |
| | CPCSUNAJS | set of 5pcs. CPCSUNAJA (100%) ~ CPCSUNAJE (70%) | | | | | | | | 01 | ○ |
| No.12-24UNC | CPCSUNCMA | 65 | 14 | 4.344 (100%) | 4.455 (90%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCMB | 65 | 14 | 4.398 (95%) | 4.512 (85%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCMC | 65 | 14 | 4.455 (90%) | 4.569 (80%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCMD | 65 | 14 | 4.512 (85%) | 4.627 (75%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCME | 65 | 14 | 4.569 (80%) | 4.684 (70%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCMF | 65 | 14 | 4.627 (75%) | 4.741 (65%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCMM | set of 5pcs. CPCSUNCMB (95%) ~ CPCSUNCMF (65%) | | | | | | | | 01 | ○ |
| | CPCSUNCMS | set of 5pcs. CPCSUNCMA (100%) ~ CPCSUNCME (70%) | | | | | | | | 01 | ○ |
| No.12-28UNF | CPCSUNCKA | 65 | 14 | 4.496 (100%) | 4.602 (90%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCKB | 65 | 14 | 4.553 (95%) | 4.651 (85%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCKC | 65 | 14 | 4.602 (90%) | 4.700 (80%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCKD | 65 | 14 | 4.651 (85%) | 4.749 (75%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCKE | 65 | 14 | 4.700 (80%) | 4.799 (70%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCKF | 65 | 14 | 4.749 (75%) | 4.848 (65%) | 5.5 | 8.2 | 11 | 13.7 | 01 | ○ |
| | CPCSUNCKM | set of 5pcs. CPCSUNCKB (95%) ~ CPCSUNCKF (65%) | | | | | | | | 01 | ○ |
| | CPCSUNCKS | set of 5pcs. CPCSUNCKA (100%) ~ CPCSUNCKE (70%) | | | | | | | | 01 | ○ |
| 1/4-20UNC | CPCSU04NA | 73 | 16.5 | 4.979 (100%) | 5.113 (90%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04NB | 73 | 16.5 | 5.044 (95%) | 5.181 (85%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04NC | 73 | 16.5 | 5.113 (90%) | 5.250 (80%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04ND | 73 | 16.5 | 5.181 (85%) | 5.319 (75%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04NE | 73 | 16.5 | 5.250 (80%) | 5.388 (70%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04NF | 73 | 16.5 | 5.319 (75%) | 5.456 (65%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04NM | set of 5pcs. CPCSU04NB (95%) ~ CPCSU04NF (65%) | | | | | | | | 01 | ○ |
| | CPCSU04NS | set of 5pcs. CPCSU04NA (100%) ~ CPCSU04NE (70%) | | | | | | | | 01 | ○ |
| 1/4-28UNF | CPCSU04KA | 73 | 16.5 | 5.360 (100%) | 5.466 (90%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04KB | 73 | 16.5 | 5.417 (95%) | 5.515 (85%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04KC | 73 | 16.5 | 5.466 (90%) | 5.564 (80%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04KD | 73 | 16.5 | 5.515 (85%) | 5.613 (75%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04KE | 73 | 16.5 | 5.564 (80%) | 5.663 (70%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04KF | 73 | 16.5 | 5.613 (75%) | 5.712 (65%) | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| | CPCSU04KM | set of 5pcs. CPCSU04KB (95%) ~ CPCSU04KF (65%) | | | | | | | | 01 | ○ |
| | CPCSU04KS | set of 5pcs. CPCSU04KA (100%) ~ CPCSU04KE (70%) | | | | | | | | 01 | ○ |
| 5/16-18UNC | CPCSU050A | 99 | 22 | 6.401 (100%) | 6.563 (90%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU050B | 99 | 22 | 6.487 (95%) | 6.639 (85%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU050C | 99 | 22 | 6.563 (90%) | 6.716 (80%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU050D | 99 | 22 | 6.639 (85%) | 6.792 (75%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU050E | 99 | 22 | 6.716 (80%) | 6.869 (70%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU050F | 99 | 22 | 6.792 (75%) | 6.945 (65%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU050M | set of 5pcs. CPCSU050B (95%) ~ CPCSU050F (65%) | | | | | | | | 01 | ○ |
| | CPCSU050S | set of 5pcs. CPCSU050A (100%) ~ CPCSU050E (70%) | | | | | | | | 01 | ○ |

| UNC-UNF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| 5/16-24UNF | CPCSU05MA | 99 | 22 | 6.782 (100%) | 6.907 (90%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU05MB | 99 | 22 | 6.850 (95%) | 6.964 (85%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU05MC | 99 | 22 | 6.907 (90%) | 7.021 (80%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU05MD | 99 | 22 | 6.964 (85%) | 7.079 (75%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU05ME | 99 | 22 | 7.021 (80%) | 7.136 (70%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU05MF | 99 | 22 | 7.079 (75%) | 7.193 (65%) | 8 | 11.9 | 15.9 | 19.8 | 01 | ○ |
| | CPCSU05MM | set of 5pcs. CPCSU05MB (95%) ~ CPCSU05MF (65%) | | | | | | | | 01 | ○ |
| | CPCSU05MS | set of 5pcs. CPCSU05MA (100%) ~ CPCSU05ME (70%) | | | | | | | | 01 | ○ |
| 3/8-16UNC | CPCSU06PA | 110 | 27.5 | 7.798 (100%) | 7.978 (90%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06PB | 110 | 27.5 | 7.892 (95%) | 8.064 (85%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06PC | 110 | 27.5 | 7.978 (90%) | 8.150 (80%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06PD | 110 | 27.5 | 8.064 (85%) | 8.236 (75%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06PE | 110 | 27.5 | 8.150 (80%) | 8.322 (70%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06PF | 110 | 27.5 | 8.236 (75%) | 8.408 (65%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06PM | set of 5pcs. CPCSU06PB (95%) ~ CPCSU06PF (65%) | | | | | | | | 01 | ○ |
| | CPCSU06PS | set of 5pcs. CPCSU06PA (100%) ~ CPCSU06PE (70%) | | | | | | | | 01 | ○ |
| 3/8-24UNF | CPCSU06MA | 110 | 27.5 | 8.382 (100%) | 8.494 (90%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06MB | 110 | 27.5 | 8.437 (95%) | 8.551 (85%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06MC | 110 | 27.5 | 8.494 (90%) | 8.608 (80%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06MD | 110 | 27.5 | 8.551 (85%) | 8.666 (75%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06ME | 110 | 27.5 | 8.608 (80%) | 8.723 (70%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06MF | 110 | 27.5 | 8.666 (75%) | 8.780 (65%) | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| | CPCSU06MM | set of 5pcs. CPCSU06MB (95%) ~ CPCSU06MF (65%) | | | | | | | | 01 | ○ |
| | CPCSU06MS | set of 5pcs. CPCSU06MA (100%) ~ CPCSU06ME (70%) | | | | | | | | 01 | ○ |
| 7/16-14UNC | CPCSU07QA | 121 | 33 | 9.144 (100%) | 9.345 (90%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07QB | 121 | 33 | 9.247 (95%) | 9.443 (85%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07QC | 121 | 33 | 9.345 (90%) | 9.542 (80%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07QD | 121 | 33 | 9.443 (85%) | 9.640 (75%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07QE | 121 | 33 | 9.542 (80%) | 9.738 (70%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07QF | 121 | 33 | 9.640 (75%) | 9.836 (65%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07QM | set of 5pcs. CPCSU07QB (95%) ~ CPCSU07QF (65%) | | | | | | | | 01 | ○ |
| | CPCSU07QS | set of 5pcs. CPCSU07QA (100%) ~ CPCSU07QE (70%) | | | | | | | | 01 | ○ |
| 7/16-20UNF | CPCSU07NA | 121 | 33 | 9.729 (100%) | 9.876 (90%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07NB | 121 | 33 | 9.807 (95%) | 9.944 (85%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07NC | 121 | 33 | 9.876 (90%) | 10.013 (80%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07ND | 121 | 33 | 9.944 (85%) | 10.082 (75%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07NE | 121 | 33 | 10.013 (80%) | 10.151 (70%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07NF | 121 | 33 | 10.082 (75%) | 10.219 (65%) | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| | CPCSU07NM | set of 5pcs. CPCSU07NB (95%) ~ CPCSU07NF (65%) | | | | | | | | 01 | ○ |
| | CPCSU07NS | set of 5pcs. CPCSU07NA (100%) ~ CPCSU07NE (70%) | | | | | | | | 01 | ○ |
| 1/2-13UNC | CPCSU08RA | 121 | 33 | 10.592 (100%) | 10.796 (90%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08RB | 121 | 33 | 10.691 (95%) | 10.902 (85%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08RC | 121 | 33 | 10.796 (90%) | 11.008 (80%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08RD | 121 | 33 | 10.902 (85%) | 11.114 (75%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08RE | 121 | 33 | 11.008 (80%) | 11.219 (70%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08RF | 121 | 33 | 11.114 (75%) | 11.325 (65%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08RM | set of 5pcs. CPCSU08RB (95%) ~ CPCSU08RF (65%) | | | | | | | | 01 | ○ |
| | CPCSU08RS | set of 5pcs. CPCSU08RA (100%) ~ CPCSU08RE (70%) | | | | | | | | 01 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNC-UNF | Code | LF (mm) | L (mm) | D1 (Thread engagement ratio) | D2 (Thread engagement ratio) | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| 1/2-20UNF | CPCSU08NA | 121 | 33 | 11.329 (100%) | 11.463 (90%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08NB | 121 | 33 | 11.394 (95%) | 11.531 (85%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08NC | 121 | 33 | 11.463 (90%) | 11.600 (80%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08ND | 121 | 33 | 11.531 (85%) | 11.669 (75%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08NE | 121 | 33 | 11.600 (80%) | 11.738 (70%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08NF | 121 | 33 | 11.669 (75%) | 11.806 (65%) | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| | CPCSU08NM | set of 5pcs. CPCSU08NB (95%) ~ CPCSU08NF (65%) | | | | | | | | 01 | ○ |
| | CPCSU08NS | set of 5pcs. CPCSU08NA (100%) ~ CPCSU08NE (70%) | | | | | | | | 01 | ○ |

# CPR-S

## Inspection Tools

Check Pins (Straight Type) for Bored Hole for Forming Taps




HSS

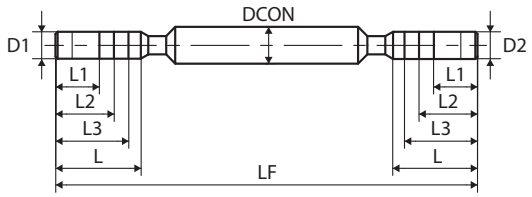
**FEATURES**

HSS material increases considerably the Check Pins life.

CPR-S allows accurate checking of bored hole diameter and length.

For forming tap.

**TYPE: CPR_01**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M-MF | Code | LF (mm) | L (mm) | D1 | D2 | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| M2X0.4 | CPRS2.0E | 41.5 | 5.5 | 1.79 | 1.84 | 3 | 3 | 4 | 5 | 01 | ○ |
| M2X0.25 | CPRS2.0B | 41.5 | 5.5 | 1.89 | 1.92 | 3 | 3 | 4 | 5 | 01 | ○ |
| M2.5X0.45 | CPRS2.5F | 45 | 7.5 | 2.27 | 2.34 | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| M2.5X0.35 | CPRS2.5D | 45 | 7.5 | 2.34 | 2.38 | 3 | 3.75 | 5 | 6.25 | 01 | ○ |
| M2.6X0.45 | CPRS2.6F | 45 | 7.5 | 2.37 | 2.44 | 3 | 3.9 | 5.2 | 6.5 | 01 | ○ |
| M3X0.5 | CPRS3.0G | 49 | 9 | 2.75 | 2.82 | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| M3X0.35 | CPRS3.0D | 49 | 9 | 2.84 | 2.88 | 4 | 4.5 | 6 | 7.5 | 01 | ○ |
| M3.5X0.6 | CPRS3.5H | 57 | 11 | 3.19 | 3.27 | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| M3.5X0.35 | CPRS3.5D | 57 | 11 | 3.34 | 3.38 | 5 | 5.25 | 7 | 8.75 | 01 | ○ |
| M4X0.7 | CPRS4.0I | 57 | 11 | 3.65 | 3.72 | 5 | 6 | 8 | 10 | 01 | ○ |
| M4X0.5 | CPRS4.0G | 57 | 11 | 3.76 | 3.83 | 5 | 6 | 8 | 10 | 01 | ○ |
| M5X0.8 | CPRS5.0K | 65 | 14 | 4.59 | 4.67 | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| M5X0.5 | CPRS5.0G | 65 | 14 | 4.76 | 4.83 | 5.5 | 7.5 | 10 | 12.5 | 01 | ○ |
| M6X1 | CPRS6.0M | 73 | 16.5 | 5.49 | 5.59 | 6 | 9 | 12 | 15 | 01 | ○ |
| M6X0.75 | CPRS6.0J | 73 | 16.5 | 5.61 | 5.69 | 6 | 9 | 12 | 15 | 01 | ○ |
| M7X1 | CPRS7.0M | 99 | 22 | 6.49 | 6.59 | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| M7X0.75 | CPRS7.0J | 99 | 22 | 6.62 | 6.70 | 8 | 10.5 | 14 | 17.5 | 01 | ○ |
| M8X1.25 | CPRS8.0N | 99 | 22 | 7.36 | 7.49 | 8 | 12 | 16 | 20 | 01 | ○ |
| M8X1 | CPRS8.0M | 99 | 22 | 7.49 | 7.59 | 8 | 12 | 16 | 20 | 01 | ○ |
| M8X0.75 | CPRS8.0J | 99 | 22 | 7.62 | 7.70 | 8 | 12 | 16 | 20 | 01 | ○ |
| M10X1.5 | CPRS010O | 110 | 27.5 | 9.22 | 9.34 | 10 | 15 | 20 | 25 | 01 | ○ |
| M10X1.25 | CPRS010N | 110 | 27.5 | 9.35 | 9.49 | 10 | 15 | 20 | 25 | 01 | ○ |
| M10X1 | CPRS010M | 110 | 27.5 | 9.49 | 9.59 | 10 | 15 | 20 | 25 | 01 | ○ |
| M12X1.75 | CPRS012P | 121 | 33 | 11.09 | 11.23 | 12 | 18 | 24 | 30 | 01 | ○ |
| M12X1.5 | CPRS012O | 121 | 33 | 11.22 | 11.34 | 12 | 18 | 24 | 30 | 01 | ○ |
| M12X1.25 | CPRS012N | 121 | 33 | 11.36 | 11.50 | 12 | 18 | 24 | 30 | 01 | ○ |
| M12X1 | CPRS012M | 121 | 33 | 11.49 | 11.59 | 12 | 18 | 24 | 30 | 01 | ○ |

| UNC-UNF | Code | LF (mm) | L (mm) | D1 | D2 | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| No.2-56UNC | CPRSUN2E | 41.5 | 5.5 | 1.96 | 2.04 | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| No.2-64UNF | CPRSUN2D | 41.5 | 5.5 | 1.98 | 2.06 | 3 | 3.3 | 4.4 | 5.5 | 01 | ○ |
| No.3-48UNC | CPRSUN3F | 45 | 7.5 | 2.25 | 2.35 | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| No.3-56UNF | CPRSUN3E | 45 | 7.5 | 2.29 | 2.37 | 3 | 3.8 | 5 | 6.3 | 01 | ○ |
| No.4-40UNC | CPRSUN4H | 49 | 9 | 2.54 | 2.64 | 4 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| No.4-48UNF | CPRSUN4F | 49 | 9 | 2.59 | 2.68 | 4 | 4.3 | 5.7 | 7.1 | 01 | ○ |
| No.5-40UNC | CPRSUN5H | 49 | 9 | 2.87 | 2.97 | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| No.5-44UNF | CPRSUN5G | 49 | 9 | 2.90 | 2.99 | 4 | 4.8 | 6.4 | 7.9 | 01 | ○ |
| No.6-32UNC | CPRSUN6J | 57 | 11 | 3.11 | 3.22 | 5 | 5.3 | 7 | 8.8 | 01 | ○ |
| No.6-40UNF | CPRSUN6H | 57 | 11 | 3.19 | 3.29 | 5 | 5.3 | 7 | 8.8 | 01 | ○ |
| No.8-32UNC | CPRSUN8J | 57 | 11 | 3.78 | 3.89 | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| No.8-36UNF | CPRSUN8I | 57 | 11 | 3.81 | 3.91 | 5 | 6.3 | 8.3 | 10.4 | 01 | ○ |
| No.10-24UNC | CPRSUNAM | 65 | 14 | 4.30 | 4.44 | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| No.10-32UNF | CPRSUNAJ | 65 | 14 | 4.44 | 4.53 | 5.5 | 7.2 | 9.7 | 12.1 | 01 | ○ |
| No.12-24UNC | CPRSUNCM | 73 | 16.5 | 4.96 | 5.07 | 6 | 8.2 | 11 | 13.7 | 01 | ○ |
| No.12-28UNF | CPRSUNCK | 73 | 16.5 | 5.03 | 5.13 | 6 | 8.2 | 11 | 13.7 | 01 | ○ |
| 1/4-20UNC | CPRSU04N | 73 | 16.5 | 5.73 | 5.86 | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |



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Think threads with YAMAWA

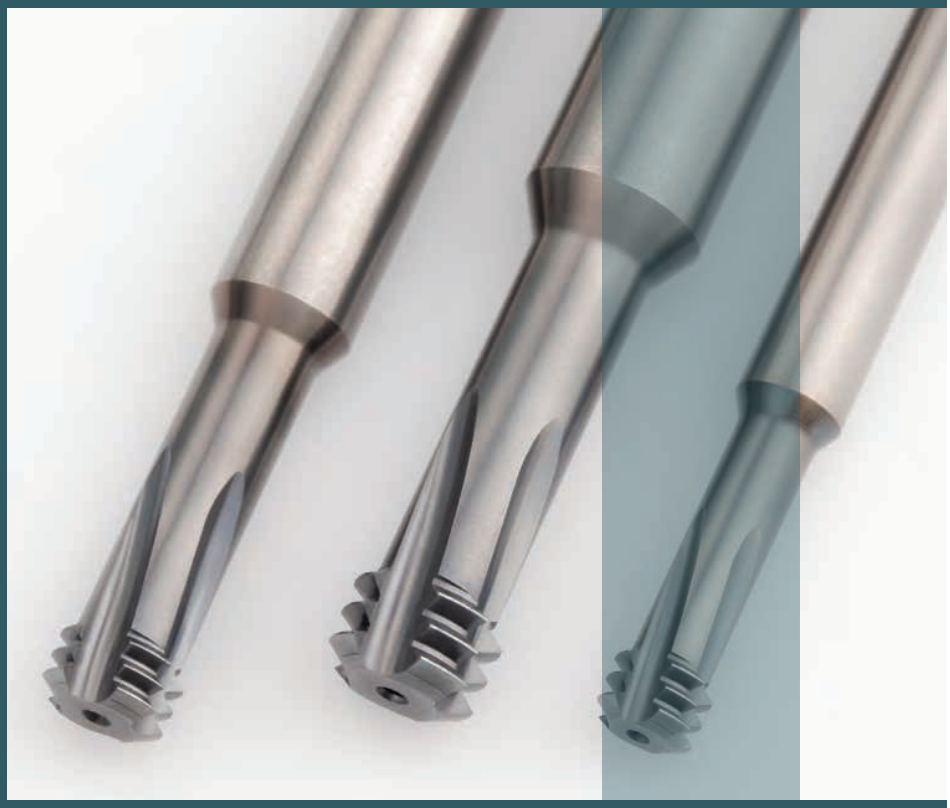
| UNC-UNF | Code | LF (mm) | L (mm) | D1 | D2 | DCON (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | | | | | | | | | | | |
| 1/4-28UNF | CPRSU04K | 73 | 16.5 | 5.91 | 6.00 | 6 | 9.5 | 12.7 | 15.9 | 01 | ○ |
| 5/16-18UNC | CPRSU05O | 99 | 22 | 7.23 | 7.38 | 8 | 12 | 16 | 20 | 01 | ○ |
| 5/16-24UNF | CPRSU05M | 99 | 22 | 7.42 | 7.53 | 8 | 12 | 16 | 20 | 01 | ○ |
| 3/8-16UNC | CPRSU06P | 110 | 27.5 | 8.72 | 8.89 | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| 3/8-24UNF | CPRSU06M | 110 | 27.5 | 8.99 | 9.10 | 10 | 14.3 | 19.1 | 23.8 | 01 | ○ |
| 7/16-14UNC | CPRSU07Q | 121 | 33 | 10.20 | 10.40 | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| 7/16-20UNF | CPRSU07N | 121 | 33 | 10.48 | 10.62 | 12 | 16.7 | 22.2 | 27.8 | 01 | ○ |
| 1/2-13UNC | CPRSU08R | 121 | 33 | 11.70 | 11.92 | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |
| 1/2-20UNF | CPRSU08N | 121 | 33 | 12.06 | 12.20 | 12 | 19.1 | 25.4 | 31.8 | 01 | ○ |



Think threads with YAMAWA

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# THREAD MILLS



THREAD MILLS - YMW **580**

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Machine Tools International

| | Thread Mills | |
|---|---|---|
| | PRML | PRML TI |
| | HF CARBIDE / COATING | HF CARBIDE / COATING |
| |  |  |
| | YMW | YMW |
| M | 583 | 585 |
| MF | 583 | 585 |
| UNC/UNF | 583 | 585 |
| UNS, 8, 12, 20, 32UN | | |
| UNEF | | |
| G (BSP) | | |
| Rp (BSPP) | | |
| Rc (BSPT) | | |
| NPT | | |
| NPTF | | |
| NPSC, NPSM, NPSF | | |
| BSW | | |
| EG(STI), M, MF, UNC/UNF | | |
| Pg | | |
| Tr | | |
| S miniature | | |
| Special threads | | |
| | Vc (m/min) | |
| P1 | ★ | |
| P2 | ★ | |
| P3 | ★ | |
| P4 | ★ | |
| P5 | ★ | |
| P6 | ★ | |
| P7 | | ★ |
| P8 | | |
| M1 | | ★ |
| M2 | | ★ |
| M3 | | ★ |
| K1 | ★ | |
| K2 | ★ | |
| K3 | | |
| K4 | | |
| N1 | | |
| N2 | | |
| N3 | | |
| N4 | | |
| N5 | | |
| S1 (<25 HRC) | | |
| S2 (<35 HRC) | | |
| S3 (35 ÷ 45 HRC) | | |
| S5 | | ★ |
| H (45 ÷ 55 HRC) | | |
| H (55 ÷ 63 HRC) | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

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Machine Tools International

# PRML




## Premium Thread Mills

HF CARBIDE | COATING

**FEATURES**

Ultra-fine micrograin carbide

Specific design and special coating for extraordinary thread surface finishing.

Low cutting resistance and reduced side forces, allow to produce internal threads with high accuracy and straightness.

WATCH THE VIDEO

**RECOMMENDED APPLICATIONS**

| ISO | |
|---|---|
| P1 | ★ |
| P2 | ★ |
| P3 | ★ |
| P4 | ★ |
| P5 | ★ |
| P6 | ★ |

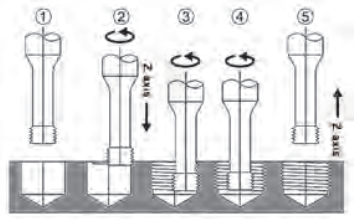
| ISO | |
|---|---|
| K1 | ★ |
| K2 | ★ |

★ 1st choice ☆ suitable

**Product Features**

| Work-materials | Vc (m/min) | Feed per tooth fz(mm/t) |
|---|---|---|
| Thermal Refined Steel 35 to 45HRC | 40÷100 | 0.02÷0.05 |
| Thermal Refined Steel 25 to 35HRC | 40÷100 | 0.03÷0.06 |
| Grey Cast Iron | 40÷100 | 0.02÷0.05 |
| Nodular Cast Iron | 40÷100 | 0.02÷0.05 |
| Alloy Steel | 40÷100 | 0.04÷0.06 |
| High Carbon Steel | 40÷100 | 0.04÷0.06 |
| Medium Carbon Steel | 60÷100 | 0.03÷0.05 |
| Low Carbon Steel | 60÷100 | 0.03÷0.05 |

The PRML is a left hand cutting tool.
The tool rotates counter clockwise.
The PRML feeds in the Z axis from the top as shown below.

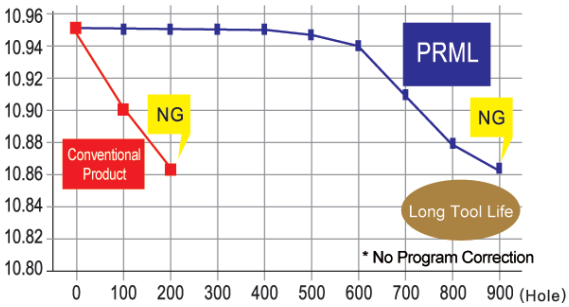



**Process Data**

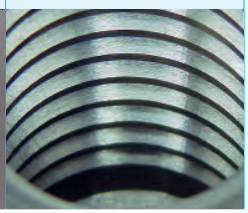
**PRML 9.0P1.75 M12x1.75**

| | |
|---|---|
| Work-material | 42CrMo4 - 1.7225 (30HRC) |
| Cutting Speed | 100 m/min |
| Feed per tooth fz | 0.06 mm/t |
| Cutting Depth | 24 mm |
| Hole diameter | ø10.3 |
| Number of insection | 1 |
| Machine | Machining Center (BT30) |
| Lubricant | Water soluble oil (x20) |

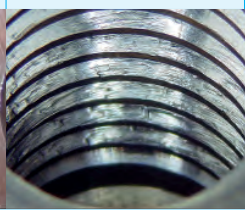
**Degradation of Pitch Diameter**




**Internal coolant**

| No chips | Excellent finishing |
|---|---|
|  |  |

**External coolant**

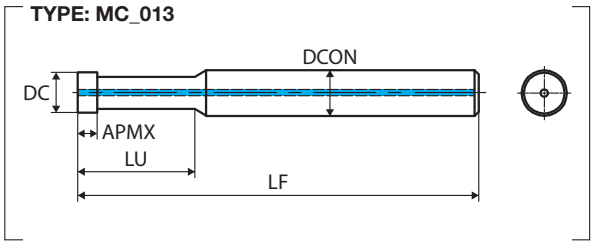
| Residual chips | Bad finishing |
|---|---|
|  |  |



Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: MC_013**




| DC x TP | Minimum thread size | Maximum threading depth (mm) | Code | DC (mm) | TP (mm) | LF (mm) | APMX (mm) | LU (mm) | DCON (mm) | ZEFP | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | M-MF | | | | | | | | | | | |
| **3.5X0.8** | M5X0.8 | 10 | MH3.5KNEXLM | 3.5 | 0.8 | 60 | 2.4 | 12 | 6 | 3 | 013 | ○ |
| **4X1** | M6X1 | 12 | MH4.0MNEXLM | 4 | 1 | 60 | 3 | 14 | 6 | 3 | 013 | ○ |
| **4X0.75** | M6X0.75 | 12 | MH4.0JNEXLM | 4 | 0.75 | 60 | 2.3 | 14 | 6 | 3 | 013 | ○ |
| **6X1.25** | M8X1.25 | 16 | MH6.0NNEXLM | 6 | 1.25 | 70 | 3.8 | 18 | 6 | 4 | 013 | ○ |
| **6X1** | M8X1 | 16 | MH6.0MNEXLM | 6 | 1 | 70 | 3 | 18 | 6 | 4 | 013 | ○ |
| **7.5X1.5** | M10X1.5 | 20 | MH7.5ONEXLM | 7.5 | 1.5 | 80 | 4.5 | 22 | 8 | 4 | 013 | ○ |
| **7.5X1.25** | M10X1.25 | 20 | MH7.5NNEXLM | 7.5 | 1.25 | 80 | 3.8 | 22 | 8 | 4 | 013 | ○ |
| **7.5X1** | M10X1 | 20 | MH7.5MNEXLM | 7.5 | 1 | 80 | 3 | 22 | 8 | 4 | 013 | ○ |
| **9X1.75** | M12X1.75 | 24 | MH9.0PNEXLM | 9 | 1.75 | 90 | 5.3 | 26 | 10 | 4 | 013 | ○ |
| **9X1.5** | M12X1.5 | 24 | MH9.0ONEXLM | 9 | 1.5 | 90 | 4.5 | 26 | 10 | 4 | 013 | ○ |
| **9X1.25** | M12X1.25 | 24 | MH9.0NNEXLM | 9 | 1.25 | 90 | 3.8 | 26 | 10 | 4 | 013 | ○ |

| DC x TPI | Minimum thread size | Maximum threading depth (mm) | Code | DC (mm) | TPI (threads per inch) | LF (mm) | APMX (mm) | LU (mm) | DCON (mm) | ZEFP | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | UNC-UNF | | | | | | | | | | | |
| **3.5X24** | No.10-24 | 9.7 | MH3.5MNEXLU | 3.5 | 24 | 60 | 3.2 | 11.7 | 6 | 3 | 013 | ○ |
| **3.5X32** | No.10-32 | 9.7 | MH3.5JNEXLU | 3.5 | 32 | 60 | 2.4 | 11.7 | 6 | 3 | 013 | ○ |
| **4.5X20** | 1/4-20 | 12.7 | MH4.5NNEXLU | 4.5 | 20 | 60 | 3.8 | 14.7 | 6 | 4 | 013 | ○ |
| **4.5X28** | 1/4-28 | 12.7 | MH4.5KNEXLU | 4.5 | 28 | 60 | 2.7 | 14.7 | 6 | 4 | 013 | ○ |
| **5.8X18** | 5/16-18 | 15.9 | MH5.8ONEXLU | 5.8 | 18 | 70 | 4.2 | 17.9 | 6 | 4 | 013 | ○ |
| **5.8X24** | 5/16-24 | 19.1 | MH5.8MNEXLU | 5.8 | 24 | 70 | 3.2 | 21.1 | 6 | 4 | 013 | ○ |
| **6X16** | 3/8-16 | 19.1 | MH6.0PNEXLU | 6 | 16 | 70 | 4.8 | 21.1 | 6 | 4 | 013 | ○ |
| **8X14** | 7/16-14 | 22.2 | MH8.0QNEXLU | 8 | 14 | 80 | 5.4 | 24.2 | 8 | 4 | 013 | ○ |
| **8X20** | 7/16-20 | 25.4 | MH8.0NNEXLU | 8 | 20 | 90 | 3.8 | 27.4 | 8 | 4 | 013 | ○ |
| **9X13** | 1/2-13 | 25.4 | MH9.0RNEXLU | 9 | 13 | 90 | 5.9 | 27.4 | 10 | 4 | 013 | ○ |

# PRML TI




## Premium Thread Mills

HF CARBIDE

COATING

**FEATURES**

Ultra-fine micrograin carbide

Specific design and special coating for Titanium base alloys and stainless steel .

Low cutting resistance and reduced side forces, allow to produce internal threads with high accuracy and straightness.

**RECOMMENDED APPLICATIONS**

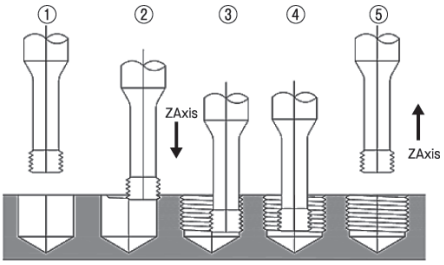
| ISO | ISO | ISO |
|---|---|---|
| P7 ★ | M1 ★ | S5 ★ |
| | M2 ★ | |
| | M3 ★ | |

★ 1st choice ☆ suitable

**Product Features**

| Work-materials | Vc (m/min) | Feed per flute fz (mm/t) |
|---|---|---|
| Titanium alloys | 40÷60 | 0.02÷0.06 |
| Austenitic stainless steel | 60÷80 | 0.06÷0.08 |
| Martensitic stainless steel | 40÷60 | 0.02÷0.06 |

The PRML TI is a left hand cutter, please use a counterclockwise spindle rotation. Process the thread from top to bottom like 2 to 3. For programming, please visit our website.



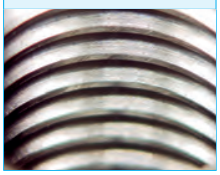

Speed:
RPM = 1000 X Vc / 3.14 / PRML TI diameter (Dc)
F (mm/min) = fz X Number of flutes X RPM X (internal nominal diameter - PRML TI diameter (Dc)) / Thread nominal diameter.

**Process Data**

**Process conditions: 6.0 P1.0 (Code: MH6.0MNIWLM)**

| | |
|---|---|
| Work-material | TiAl6V4 |
| Cutting Speed | 50 m/min |
| Feed per flute fz | 0.04 mm/t |
| Threating length | 10 mm |
| Hole diameter | ø7.0 |
| Number of passes | 1 |
| Machine | Machining Center (BT30) |
| Lubricant | Water soluble oil (x20) |

**Thread surface**



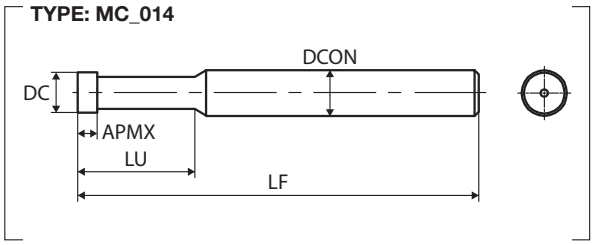
Excellent thread surface even after several holes threaded



Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: MC_014**

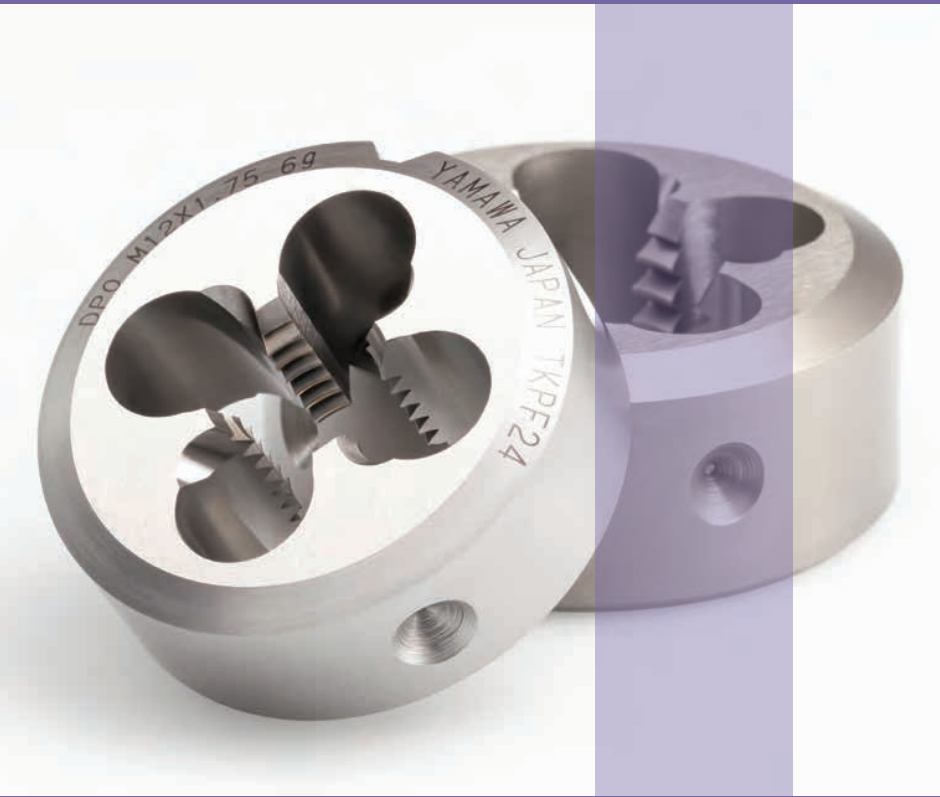



| DC x TP | Minimum thread size | Maximum threading depth (mm) | Code | DC (mm) | TP (mm) | LF (mm) | APMX (mm) | LU (mm) | DCON (mm) | ZEFP | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | M-MF | | | | | | | | | | | |
| **6X1.25** | M8X1.25 | 16 | MH6.0NNIWLM | 6 | 1.25 | 70 | 3.8 | 18 | 6 | 4 | 014 | ○ |
| **6X1** | M8X1 | 16 | MH6.0MNIWLM | 6 | 1 | 70 | 3 | 18 | 6 | 4 | 014 | ○ |
| **7.5X1.5** | M10X1.5 | 20 | MH7.5ONIWLM | 7.5 | 1.5 | 80 | 4.5 | 22 | 8 | 4 | 014 | ○ |
| **7.5X1.25** | M10X1.25 | 20 | MH7.5NNIWLM | 7.5 | 1.25 | 80 | 3.8 | 22 | 8 | 4 | 014 | ○ |
| **7.5X1** | M10X1 | 20 | MH7.5MNIWLM | 7.5 | 1 | 80 | 3 | 22 | 8 | 4 | 014 | ○ |
| **9X1.75** | M12X1.75 | 24 | MH9.0PNIWLM | 9 | 1.75 | 90 | 5.3 | 26 | 10 | 4 | 014 | ○ |
| **9X1.5** | M12X1.5 | 24 | MH9.0ONIWLM | 9 | 1.5 | 90 | 4.5 | 26 | 10 | 4 | 014 | ○ |
| **9X1.25** | M12X1.25 | 24 | MH9.0NNIWLM | 9 | 1.25 | 90 | 3.8 | 26 | 10 | 4 | 014 | ○ |

| DC x TPI | Minimum thread size | Maximum threading depth (mm) | Code | DC (mm) | TPI (threads per inch) | LF (mm) | APMX (mm) | LU (mm) | DCON (mm) | ZEFP | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YMW | UNC-UNF | | | | | | | | | | | |
| **5.8X18** | 5/16-18 | 15.9 | MH5.8ONIWLU | 5.8 | 18 | 70 | 4.2 | 17.9 | 6 | 4 | 014 | ○ |
| **5.8X24** | 5/16-24 | 19.1 | MH5.8MNIWLU | 5.8 | 24 | 70 | 3.2 | 21.1 | 6 | 4 | 014 | ○ |
| **6X16** | 3/8-16 | 19.1 | MH6.0PNIWLU | 6 | 16 | 70 | 4.8 | 21.1 | 6 | 4 | 014 | ○ |
| **8X14** | 7/16-14 | 22.2 | MH8.0QNIWLU | 8 | 14 | 80 | 5.4 | 24.2 | 8 | 4 | 014 | ○ |
| **8X20** | 7/16-20 | 25.4 | MH8.0NNIWLU | 8 | 20 | 90 | 3.8 | 27.4 | 8 | 4 | 014 | ○ |
| **9X13** | 1/2-13 | 25.4 | MH9.0RNIWLU | 9 | 13 | 90 | 5.9 | 27.4 | 10 | 4 | 014 | ○ |

MEMO

# DIES




DIES - DIN **588**
DIES - JIS **592**

IMROBEX
Machine Tools International

# Selection Chart



| | Dies | |
|---|---|---|
| | DPO | HS-D |
| | HSS | HSS / OX |
| |  |  |
| | DIN | JIS |
| M | 590 | 595 |
| MF | 591 | 596 |
| UNC/UNF | 592 | |
| UNS, 8, 12, 20, 32UN | | |
| UNEF | | |
| G (BSP) | 593 | |
| Rp (BSPP) | | |
| Rc (BSPT) | | |
| NPT | 593 | |
| NPTF | | |
| NPSC, NPSM, NPSF | | |
| BSW | | |
| EG(STI), M, MF, UNC/UNF | | |
| Pg | | |
| Tr | | |
| S miniature | | |
| Special threads | | |
| | Vc (m/min) | |
| P1 | ★ 2÷5 | ★ 3÷5 |
| P2 | ★ ≤3 | ★ ≤3 |
| P3 | | |
| P4 | | |
| P5 | | |
| P6 | | |
| P7 | | ★ ≤2 |
| P8 | | |
| M1 | | ★ ≤2 |
| M2 | | ★ ≤2 |
| M3 | | |
| K1 | | |
| K2 | | |
| K3 | | |
| K4 | | |
| N1 | | |
| N2 | | |
| N3 | | |
| N4 | ★ ≤5 | |
| N5 | | |
| S1 (<25 HRC) | | |
| S2 (<35 HRC) | | |
| S3 (35 ÷ 45 HRC) | | |
| S5 | | |
| H (45 ÷ 55 HRC) | | |
| H (55 ÷ 63 HRC) | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

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Machine Tools International

# DPO

## HSS Spiral Pointed Dies




HSS

1.5P THCHT

**FEATURES**

Spiral pointed (PO) design allows very smooth chip ejection.

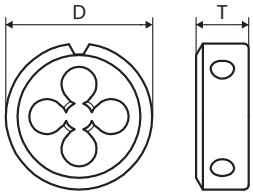
**RECOMMENDED TAPPING SPEEDS DEPENDING ON MATERIALS**

| ISO | Vc (m/min) | |
|---|---|---|
| P1 | 2÷5 | ★ |
| P2 | ≤3 | ★ |

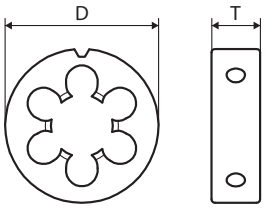
| ISO | Vc (m/min) | |
|---|---|---|
| N4 | ≤5 | ★ |

★ 1st choice ☆ suitable

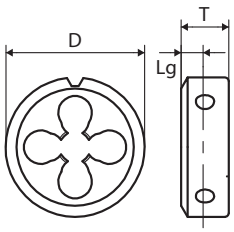
**TYPE: Di_001**



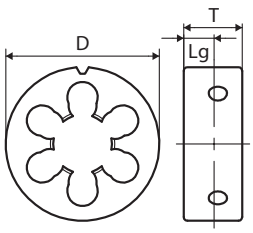

**TYPE: Di_004**




**TYPE: Di_017**




**TYPE: Di_019**




| M | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 223 | | | | | | | | | |
| M1X0.25 | 6g | 0.95 | PDD1.0BLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M1.1X0.25 | 6g | 1.05 | PDD1.1BLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M1.2X0.25 | 6g | 1.15 | PDD1.2BLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M1.4X0.3 | 6g | 1.34 | PDD1.4CLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M1.6X0.35 | 6g | 1.52 | PDD1.6DLNEBC | 1.5P | 16 | 5 | 3 | 001 | ● |
| M1.7X0.35 | 6g | 1.62 | PDD1.7DLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M1.8X0.35 | 6g | 1.72 | PDD1.8DLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M2X0.4 | 6g | 1.91 | PDD2.0ELNEBC | 1.5P | 16 | 5 | 3 | 001 | ● |
| M2.2X0.45 | 6g | 2.11 | PDD2.2FLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M2.3X0.4 | 6g | 2.21 | PDD2.3ELNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 223 | | | | | | | | | |
| M2.5X0.45 | 6g | 2.41 | PDD2.5FLNEBC | 1.5P | 16 | 5 | 3 | 001 | ● |
| M2.6X0.45 | 6g | 2.51 | PDD2.6FLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M3X0.5 | 6g | 2.90 | PDE3.0GLNEBC | 1.5P | 20 | 5 | 3 | 001 | ● |
| M3.5X0.6 | 6g | 3.39 | PDE3.5HLNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| M4X0.7 | 6g | 3.87 | PDE4.0ILNEBC | 1.5P | 20 | 5 | 3 | 001 | ● |
| M5X0.8 | 6g | 4.86 | PDE5.0KLNEBC | 1.5P | 20 | 7 | 4 | 001 | ● |
| M6X1 | 6g | 5.84 | PDE6.0MLNEBC | 1.5P | 20 | 7 | 4 | 001 | ● |
| M7X1 | 6g | 6.84 | PDG7.0MLNEBC | 1.5P | 25 | 9 | 4 | 001 | ● |
| M8X1.25 | 6g | 7.81 | PDG8.0NLNEBC | 1.5P | 25 | 9 | 4 | 001 | ● |
| M9X1.25 | 6g | 8.81 | PDG9.0NLNEBC | 1.5P | 25 | 9 | 5 | 001 | ○ |
| M10X1.5 | 6g | 9.79 | PDH010OLNEBC | 1.5P | 30 | 11 | 4 | 001 | ● |
| M11X1.5 | 6g | 10.79 | PDH011OLNEBC | 1.5P | 30 | 11 | 5 | 001 | ○ |
| M12X1.75 | 6g | 11.80 | PDJ012PLNEBC | 1.5P | 38 | 14 | 4 | 001 | ● |
| M14X2 | 6g | 13.80 | PDJ014QLNEBC | 1.5P | 38 | 14 | 5 | 001 | ● |
| M16X2 | 6g | 15.80 | PDL016QLNEBC | 1.5P | 45 | 18 | 5 | 001 | ● |
| M18X2.5 | 6g | 17.70 | PDL018RLNEBC | 1.5P | 45 | 18 | 5 | 001 | ● |
| M20X2.5 | 6g | 19.70 | PDL020RLNEBC | 1.5P | 45 | 18 | 5 | 001 | ● |
| M22X2.5 | 6g | 21.70 | PDP022RLNEBC | 1.5P | 55 | 16 | 5 | 001 | ● |
| M24X3 | 6g | 23.70 | PDP024SLNEBC | 1.5P | 55 | 16 | 5 | 001 | ● |
| M27X3 | 6g | 26.70 | PDS027SLNEBC | 1.5P | 65 | 25 | 6 | 004 | ● |
| M30X3.5 | 6g | 29.60 | PDS030TLNEBC | 1.5P | 65 | 18 | 6 | 004 | ● |
| M33X3.5 | 6g | 32.60 | PDS033TLNEBC | 1.5P | 65 | 25 | 8 | 004 | ○ |
| M36X4 | 6g | 35.60 | PDS036ULNEBC | 1.5P | 65 | 25 | 8 | 004 | ○ |

| MF | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 223 | | | | | | | | | |
| M2X0.25 | 6g | 1.93 | PDD2.0BLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M2.5X0.35 | 6g | 2.42 | PDD2.5DLNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| M3X0.35 | 6g | 2.92 | PDE3.0DLNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| M4X0.5 | 6g | 3.90 | PDE4.0GLNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| M5X0.5 | 6g | 4.90 | PDE5.0GLNEBC | 1.5P | 20 | 5 | 4 | 001 | ○ |
| M6X0.75 | 6g | 5.87 | PDE6.0JLNEBC | 1.5P | 20 | 7 | 4 | 001 | ○ |
| M6X0.5 | 6g | 5.89 | PDE6.0GLNEBC | 1.5P | 20 | 5 | 4 | 001 | ○ |
| M7X0.75 | 6g | 6.87 | PDG7.0JLNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| M8X1 | 6g | 7.84 | PDG8.0MLNEBC | 1.5P | 25 | 9 | 4 | 001 | ● |
| M8X0.75 | 6g | 7.87 | PDG8.0JLNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| M8X0.5 | 6g | 7.89 | PDG8.0GLNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| M9X1 | 6g | 8.84 | PDG9.0MLNEBC | 1.5P | 25 | 9 | 5 | 001 | ○ |
| M10X1.25 | 6g | 9.81 | PDH010NLNEBC | 1.5P | 30 | 11 | 4 | 001 | ● |
| M10X1 | 6g | 9.84 | PDH010MLNEBC | 1.5P | 30 | 11 | 4 | 001 | ● |
| M10X0.75 | 6g | 9.87 | PDH010JLNEBC | 1.5P | 30 | 11 | 4 | 001 | ○ |
| M10X0.5 | 6g | 9.89 | PDH010GLNEBC | 1.5P | 30 | 11 | 4 | 001 | ○ |
| M12X1.5 | 6g | 11.80 | PDJ012OLNEBC | 1.5P | 38 | 10 | 4 | 001 | ● |
| M12X1.25 | 6g | 11.80 | PDJ012NLNEBC | 1.5P | 38 | 10 | 4 | 001 | ● |
| M12X1 | 6g | 11.84 | PDJ012MLNEBC | 1.5P | 38 | 10 | 4 | 001 | ● |
| M12X0.75 | 6g | 11.86 | PDJ012JLNEBC | 1.5P | 38 | 10 | 4 | 001 | ○ |
| M12X0.5 | 6g | 11.88 | PDJ012GLNEBC | 1.5P | 38 | 10 | 4 | 001 | ○ |

| MF | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 223 | | | | | | | | | |
| M14X1.5 | 6g | 13.80 | PDJ0140LNEBC | 1.5P | 38 | 10 | 5 | 001 | ● |
| M14X1.25 | 6g | 13.82 | PDJ014NLNEBC | 1.5P | 38 | 10 | 5 | 001 | ○ |
| M14X1 | 6g | 13.84 | PDJ014MLNEBC | 1.5P | 38 | 10 | 5 | 001 | ○ |
| M15X1.5 | 6g | 14.80 | PDJ0150LNEBC | 1.5P | 38 | 10 | 5 | 001 | ○ |
| M16X1.5 | 6g | 15.80 | PDL0160LNEBC | 1.5P | 45 | 14 | 5 | 001 | ● |
| M16X1 | 6g | 15.84 | PDL016MLNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| M18X2 | 6g | 17.80 | PDL018QLNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| M18X1.5 | 6g | 17.80 | PDL0180LNEBC | 1.5P | 45 | 14 | 5 | 001 | ● |
| M18X1 | 6g | 17.84 | PDL018MLNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| M20X2 | 6g | 19.80 | PDL020QLNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| M20X1.5 | 6g | 19.80 | PDL0200LNEBC | 1.5P | 45 | 14 | 5 | 001 | ● |
| M20X1 | 6g | 19.84 | PDL020MLNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| M22X2 | 6g | 21.80 | PDP022QLNEBC | 1.5P | 55 | 16 | 5 | 001 | ○ |
| M22X1.5 | 6g | 21.80 | PDP0220LNEBC | 1.5P | 55 | 16 | 5 | 001 | ● |
| M22X1 | 6g | 21.84 | PDP022MLNEBC | 1.5P | 55 | 16 | 5 | 001 | ○ |
| M24X2 | 6g | 23.80 | PDP024QLNEBC | 1.5P | 55 | 16 | 5 | 001 | ● |
| M24X1.5 | 6g | 23.80 | PDP0240LNEBC | 1.5P | 55 | 16 | 5 | 001 | ● |
| M24X1 | 6g | 23.84 | PDP024MLNEBC | 1.5P | 55 | 16 | 5 | 001 | ○ |
| M26X1.5 | 6g | 25.80 | PDP0260LNEBC | 1.5P | 55 | 16 | 6 | 001 | ○ |
| M27X2 | 6g | 26.80 | PDS027QLNEBC | 1.5P | 65 | 18 | 6 | 004 | ○ |
| M27X1.5 | 6g | 26.80 | PDS0270LNEBC | 1.5P | 65 | 18 | 6 | 004 | ○ |
| M27X1 | 6g | 26.84 | PDS027MLNEBC | 1.5P | 65 | 18 | 6 | 004 | ○ |
| M28X2 | 6g | 27.80 | PDS028QLNEBC | 1.5P | 65 | 18 | 6 | 004 | ○ |
| M28X1.5 | 6g | 27.80 | PDS0280LNEBC | 1.5P | 65 | 18 | 6 | 004 | ○ |
| M30X1.5 | 6g | 29.80 | PDS0300LNEBC | 1.5P | 65 | 18 | 6 | 004 | ○ |

| UNC | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 2568 | | | | | | | | | |
| No.1-64UNC | 2A | 1.77 | PDDUN1DGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.2-56UNC | 2A | 2.09 | PDDUN2EGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.3-48UNC | 2A | 2.41 | PDDUN3FGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.4-40UNC | 2A | 2.73 | PDEUN4HGNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| No.5-40UNC | 2A | 3.06 | PDEUN5HGNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| No.6-32UNC | 2A | 3.37 | PDEUN6JGNEBC | 1.5P | 20 | 7 | 3 | 001 | ○ |
| No.8-32UNC | 2A | 4.03 | PDEUN8JGNEBC | 1.5P | 20 | 7 | 3 | 001 | ○ |
| No.10-24UNC | 2A | 4.66 | PDEUNAMGNEBC | 1.5P | 20 | 7 | 4 | 001 | ○ |
| No.12-24UNC | 2A | 5.32 | PDEUNCMGNEBC | 1.5P | 20 | 7 | 4 | 001 | ○ |
| 1/4-20UNC | 2A | 6.17 | PDGU04NGNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| 5/16-18UNC | 2A | 7.74 | PDGU050GNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| 3/8-16UNC | 2A | 9.31 | PDHU06PGNEBC | 1.5P | 30 | 11 | 4 | 001 | ○ |
| 7/16-14UNC | 2A | 10.88 | PDHU07QGNEBC | 1.5P | 30 | 11 | 5 | 001 | ○ |
| 1/2-13UNC | 2A | 12.40 | PDJU08RGNEBC | 1.5P | 38 | 14 | 4 | 001 | ○ |
| 9/16-12UNC | 2A | 14.00 | PDJU09SGNEBC | 1.5P | 38 | 14 | 5 | 001 | ○ |
| 5/8-11UNC | 2A | 15.60 | PDLU10UGNEBC | 1.5P | 45 | 18 | 5 | 001 | ○ |
| 3/4-10UNC | 2A | 18.80 | PDLU12VGNEBC | 1.5P | 45 | 18 | 5 | 001 | ○ |
| 7/8-9UNC | 2A | 21.90 | PDPU14WGNEBC | 1.5P | 55 | 22 | 5 | 001 | ○ |
| 1 -8UNC | 2A | 25.10 | PDPU16XGNEBC | 1.5P | 55 | 22 | 5 | 001 | ○ |



Think threads with YAMAWA

IMROBEX
Machine Tools International

| UNF | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 2568 | | | | | | | | | |
| No.0-80UNF | 2A | 1.45 | PDDUN0BGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.1-72UNF | 2A | 1.77 | PDDUN1CGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.2-64UNF | 2A | 2.10 | PDDUN2DGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.3-56UNF | 2A | 2.42 | PDDUN3EGNEBC | 1.5P | 16 | 5 | 3 | 001 | ○ |
| No.4-48UNF | 2A | 2.74 | PDEUN4FGNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| No.5-44UNF | 2A | 3.07 | PDEUN5GGNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| No.6-40UNF | 2A | 3.39 | PDEUN6HGNEBC | 1.5P | 20 | 5 | 3 | 001 | ○ |
| No.8-36UNF | 2A | 4.04 | PDEUN8IGNEBC | 1.5P | 20 | 7 | 3 | 001 | ○ |
| No.10-32UNF | 2A | 4.69 | PDEUNAJGNEBC | 1.5P | 20 | 7 | 4 | 001 | ○ |
| No.12-28UNF | 2A | 5.34 | PDEUNCKGNEBC | 1.5P | 20 | 7 | 4 | 001 | ○ |
| 1/4-28UNF | 2A | 6.20 | PDGU04KGNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| 5/16-24UNF | 2A | 7.77 | PDGU05MGNEBC | 1.5P | 25 | 9 | 4 | 001 | ○ |
| 3/8-24UNF | 2A | 9.36 | PDHU06MGNEBC | 1.5P | 30 | 11 | 4 | 001 | ○ |
| 7/16-20UNF | 2A | 10.93 | PDHU07NGNEBC | 1.5P | 30 | 11 | 5 | 001 | ○ |
| 1/2-20UNF | 2A | 12.50 | PDJU08NGNEBC | 1.5P | 38 | 10 | 4 | 001 | ○ |
| 9/16-18UNF | 2A | 14.10 | PDJU09OGNEBC | 1.5P | 38 | 10 | 5 | 001 | ○ |
| 5/8-18UNF | 2A | 15.70 | PDLU10OGNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| 3/4-16UNF | 2A | 18.80 | PDLU12PGNEBC | 1.5P | 45 | 14 | 5 | 001 | ○ |
| 7/8-14UNF | 2A | 22.00 | PDPU14QGNEBC | 1.5P | 55 | 16 | 5 | 001 | ○ |
| 1 -12UNF | 2A | 25.10 | PDPU16SGNEBC | 1.5P | 55 | 16 | 5 | 001 | ○ |

| G(BSP) | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 5158 | | | | | | | | | |
| 1/8-28 | - | 9.57 | PVHG0020NEBC | 2P | 30 | 11 | 4 | 001 | ● |
| 1/4-19 | - | 13.00 | PVJG0040NEBC | 2P | 38 | 10 | 5 | 001 | ● |
| 3/8-19 | - | 16.50 | PVLG0060NEBC | 2P | 45 | 14 | 5 | 001 | ● |
| 1/2-14 | - | 20.70 | PVLG0080NEBC | 2P | 45 | 16 | 5 | 001 | ● |
| 5/8-14 | - | 22.70 | PVPG0100NEBC | 2P | 55 | 16 | 5 | 001 | ○ |
| 3/4-14 | - | 26.20 | PVPG0120NEBC | 2P | 55 | 16 | 6 | 001 | ● |
| 7/8-14 | - | 30.00 | PVSG0140NEBC | 2P | 65 | 18 | 6 | 004 | ○ |
| 1 -11 | - | 33.00 | PVSG0160NEBC | 2P | 65 | 18 | 8 | 004 | ● |
| 1 1/4-11 | - | 41.60 | PVUG0200NEBC | 2P | 75 | 20 | 8 | 004 | ○ |
| 1 1/2-11 | - | 47.50 | PVXG0240NEBC | 2P | 90 | 22 | 8 | 004 | ○ |

| NPT | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 223 | | | | | | | | | |
| 1/8-27 | - | | PDJNT020NEBC | 2P | 38 | 10 | 4 | 017 | ○ |
| 1/4-18 | - | | PDJNT040NEBC | 2P | 38 | 15 | 5 | 017 | ○ |
| 3/8-18 | - | | PDLNT060NEBC | 2P | 45 | 15 | 5 | 017 | ○ |
| 1/2-14 | - | | PDLNT080NEBC | 2P | 45 | 19 | 6 | 017 | ○ |
| 3/4-14 | - | | PDSNT120NEBC | 2P | 65 | 20 | 6 | 019 | ○ |
| 1 -11 1/2 | - | | PDSNT160NEBC | 2P | 65 | 25 | 8 | 019 | ○ |

# HS-D

HSS Round Dies for Automatic Lathe for Stainless Steel

HSS | OX | 2P THCHT



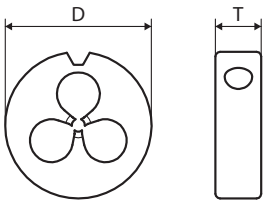

**FEATURES**
HSS material for stable and long life.
OX treatment reduces welding trouble.

**RECOMMENDED TAPPING SPEEDS DEPENDING ON MATERIALS**

| ISO | Vc (m/min) | | ISO | Vc (m/min) | |
|---|---|---|---|---|---|
| P1 | 3÷5 | ★ | M1 | ≤2 | ★ |
| P2 | ≤3 | ★ | M2 | ≤2 | ★ |
| P7 | ≤2 | ★ | | | |

★ 1st choice ☆ suitable

**TYPE: Di_002**






Think threads with YAMAWA

IMROBEX
Machine Tools International

| M | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | |
| M1X0.25 | P1 | 0.95 | HBP1.0B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 0.95 | HDP1.0B | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 0.95 | HBQ1.0B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 0.95 | HDQ1.0B | 2P | 16 | 5 | 3 | 002 | ○ |
| M1.1X0.25 | P1 | 1.05 | HBP1.1B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.05 | HDP1.1B | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 1.05 | HBQ1.1B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.05 | HDQ1.1B | 2P | 16 | 5 | 3 | 002 | ○ |
| M1.2X0.25 | P1 | 1.15 | HBP1.2B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.15 | HDP1.2B | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 1.15 | HBQ1.2B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.15 | HDQ1.2B | 2P | 16 | 5 | 3 | 002 | ○ |
| M1.4X0.3 | P1 | 1.34 | HBP1.4C | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.34 | HDP1.4C | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 1.34 | HBQ1.4C | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.34 | HDQ1.4C | 2P | 16 | 5 | 3 | 002 | ○ |
| M1.6X0.35 | P1 | 1.52 | HBP1.6D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.52 | HDP1.6D | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 1.52 | HBQ1.6D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.52 | HDQ1.6D | 2P | 16 | 5 | 3 | 002 | ○ |
| M1.7X0.35 | P1 | 1.63 | HBP1.7D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.63 | HDP1.7D | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 1.63 | HBQ1.7D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.63 | HDQ1.7D | 2P | 16 | 5 | 3 | 002 | ○ |
| M1.8X0.35 | P1 | 1.72 | HBP1.8D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.72 | HDP1.8D | 2P | 16 | 5 | 3 | 002 | ○ |
| | P2 | 1.72 | HBQ1.8D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.72 | HDQ1.8D | 2P | 16 | 5 | 3 | 002 | ○ |
| M2X0.4 | P1 | 1.91 | HBP2.0E | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.91 | HDP2.0E | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 1.91 | HEP2.0E | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 1.91 | HBQ2.0E | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.91 | HDQ2.0E | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 1.91 | HEQ2.0E | 2P | 20 | 7 | 4 | 002 | ○ |
| M2.2X0.45 | P1 | 2.11 | HBP2.2F | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 2.11 | HDP2.2F | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.11 | HBQ2.2F | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 2.11 | HDQ2.2F | 2P | 16 | 5 | 4 | 002 | ○ |
| M2.3X0.4 | P1 | 2.21 | HBP2.3E | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 2.21 | HDP2.3E | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.21 | HBQ2.3E | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 2.21 | HDQ2.3E | 2P | 16 | 5 | 4 | 002 | ○ |

| M | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | |
| M2.5X0.45 | P1 | 2.41 | HBP2.5F | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 2.41 | HDP2.5F | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 2.41 | HEP2.5F | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 2.41 | HBQ2.5F | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 2.41 | HDQ2.5F | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.41 | HEQ2.5F | 2P | 20 | 7 | 4 | 002 | ○ |
| M2.6X0.45 | P1 | 2.51 | HBP2.6F | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 2.51 | HDP2.6F | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 2.51 | HEP2.6F | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 2.51 | HBQ2.6F | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 2.51 | HDQ2.6F | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.51 | HEQ2.6F | 2P | 20 | 7 | 4 | 002 | ○ |
| M3X0.5 | P1 | 2.90 | HDP3.0G | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 2.90 | HEP3.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 2.90 | HDQ3.0G | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.90 | HEQ3.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| M3.5X0.6 | P1 | 3.39 | HDP3.5H | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 3.39 | HEP3.5H | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 3.39 | HDQ3.5H | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 3.39 | HEQ3.5H | 2P | 20 | 7 | 4 | 002 | ○ |
| M4X0.7 | P1 | 3.87 | HDP4.0I | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 3.87 | HEP4.0I | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 3.87 | HDQ4.0I | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 3.87 | HEQ4.0I | 2P | 20 | 7 | 4 | 002 | ○ |
| M5X0.8 | P1 | 4.86 | HEP5.0K | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 4.86 | HEQ5.0K | 2P | 20 | 7 | 4 | 002 | ○ |
| M6X1 | P1 | 5.86 | HEP6.0M | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 5.86 | HEQ6.0M | 2P | 20 | 7 | 4 | 002 | ○ |
| M8X1.25 | P1 | 7.83 | HEP8.0N | 2P | 20 | 7 | 5 | 002 | ○ |
| | P1 | 7.83 | HGP8.0N | 2P | 25 | 9 | 4 | 002 | ○ |
| | P2 | 7.83 | HEQ8.0N | 2P | 20 | 7 | 5 | 002 | ○ |
| | P2 | 7.83 | HGQ8.0N | 2P | 25 | 9 | 4 | 002 | ○ |
| M10X1.5 | P1 | 9.82 | HGP010O | 2P | 25 | 9 | 5 | 002 | ○ |
| | P2 | 9.82 | HGQ010O | 2P | 25 | 9 | 5 | 002 | ○ |

| MF | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | |
| M2X0.25 | P1 | 1.94 | HBP2.0B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 1.94 | HDP2.0B | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 1.94 | HBQ2.0B | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 1.94 | HDQ2.0B | 2P | 16 | 5 | 4 | 002 | ○ |
| M2.5X0.35 | P1 | 2.42 | HBP2.5D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 2.42 | HDP2.5D | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.42 | HBQ2.5D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 2.42 | HDQ2.5D | 2P | 16 | 5 | 4 | 002 | ○ |



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● stock standard, ● check stock EU, ○ check stock JP, ▽ stock exhaustion

| MF | TCTR (tolerance) | Bar Ø (mm) | Code | THCHT (chamfer) | D (mm) | T (mm) | Clearance holes | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| JIS | | | | | | | | | |
| M2.6X0.35 | P1 | 2.51 | HBP2.6D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P1 | 2.51 | HDP2.6D | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.51 | HBQ2.6D | 2P | 10 | 3 | 3 | 002 | ○ |
| | P2 | 2.51 | HDQ2.6D | 2P | 16 | 5 | 4 | 002 | ○ |
| M3X0.35 | P1 | 2.91 | HDP3.0D | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 2.91 | HEP3.0D | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 2.91 | HDQ3.0D | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 2.91 | HEQ3.0D | 2P | 20 | 7 | 4 | 002 | ○ |
| M4X0.5 | P1 | 3.89 | HDP4.0G | 2P | 16 | 5 | 4 | 002 | ○ |
| | P1 | 3.89 | HEP4.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 3.89 | HDQ4.0G | 2P | 16 | 5 | 4 | 002 | ○ |
| | P2 | 3.89 | HEQ4.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| M5X0.5 | P1 | 4.89 | HEP5.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 4.89 | HEQ5.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| M6X0.75 | P1 | 5.88 | HEP6.0J | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 5.88 | HEQ6.0J | 2P | 20 | 7 | 4 | 002 | ○ |
| M6X0.5 | P1 | 5.90 | HEP6.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 5.90 | HEQ6.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| M7X0.75 | P1 | 6.88 | HEP7.0J | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 6.88 | HEQ7.0J | 2P | 20 | 7 | 4 | 002 | ○ |
| M7X0.5 | P1 | 6.90 | HEP7.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| | P2 | 6.90 | HEQ7.0G | 2P | 20 | 7 | 4 | 002 | ○ |
| M8X1 | P1 | 7.87 | HEP8.0M | 2P | 20 | 7 | 5 | 002 | ○ |
| | P1 | 7.87 | HGP8.0M | 2P | 25 | 9 | 4 | 002 | ○ |
| | P2 | 7.87 | HEQ8.0M | 2P | 20 | 7 | 5 | 002 | ○ |
| | P2 | 7.87 | HGQ8.0M | 2P | 25 | 9 | 4 | 002 | ○ |
| M8X0.75 | P1 | 7.87 | HEP8.0J | 2P | 20 | 7 | 5 | 002 | ○ |
| | P1 | 7.87 | HGP8.0J | 2P | 25 | 9 | 4 | 002 | ○ |
| | P2 | 7.87 | HEQ8.0J | 2P | 20 | 7 | 5 | 002 | ○ |
| | P2 | 7.87 | HGQ8.0J | 2P | 25 | 9 | 4 | 002 | ○ |
| M8X0.5 | P1 | 7.89 | HEP8.0G | 2P | 20 | 7 | 5 | 002 | ○ |
| | P2 | 7.89 | HEQ8.0G | 2P | 20 | 7 | 5 | 002 | ○ |
| M9X1 | P1 | 8.87 | HEP9.0M | 2P | 20 | 7 | 5 | 002 | ○ |
| | P2 | 8.87 | HEQ9.0M | 2P | 20 | 7 | 5 | 002 | ○ |
| M9X0.75 | P1 | 8.87 | HEP9.0J | 2P | 20 | 7 | 5 | 002 | ○ |
| | P2 | 8.87 | HEQ9.0J | 2P | 20 | 7 | 5 | 002 | ○ |
| M10X1.25 | P1 | 9.85 | HGP010N | 2P | 25 | 9 | 5 | 002 | ○ |
| | P2 | 9.85 | HGQ010N | 2P | 25 | 9 | 5 | 002 | ○ |
| M10X1 | P1 | 9.86 | HGP010M | 2P | 25 | 9 | 5 | 002 | ○ |
| | P2 | 9.86 | HGQ010M | 2P | 25 | 9 | 5 | 002 | ○ |

MEMO

# CENTER DRILLS



CD - DIN **600**
CD - YMW **602**

IMROBEX
Machine Tools International

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
Technical info

| | Center Drills | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | CD-A | CD-SL | CD-R | AUCES | AUCDS | MHCDS | NC-SD V | AUPEQ |
| | HSS | HSS | HSS | HSS COATING | HSS COATING | HSS-Co COATING | HSS-Co COATING | HSS COATING |
| |  |  |  |  |  |  |  |  |
| | DIN 602 | YMW 605 | DIN 603 | YMW 607 | YMW 609 | YMW 611 | YMW 613 | YMW 615 |
| | Vc (m/min) | | | | | | | |
| P1 | ★ | ★ | ★ | ★ | ★ | | ★ | ★ |
| P2 | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| P3 | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| P4 | | | | | ★ | ★ | ★ | ★ |
| P5 | | | | | | ★ | | |
| P6 | | | | | | | | |
| P7 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| P8 | | | | | | | | |
| M1 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| M2 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| M3 | | | | | | | | |
| K1 | ☆ | ☆ | ☆ | ☆ | ★ | | ★ | ★ |
| K2 | ☆ | ☆ | ☆ | ☆ | ★ | | ★ | ★ |
| K3 | | | | | | | | |
| K4 | | | | | | | | |
| N1 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| N2 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| N3 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| N4 | ☆ | ☆ | ☆ | ★ | ☆ | | ★ | ★ |
| N5 | | | | | | | | |
| S1 (<25 HRC) | | | | | | | | |
| S2 (<35 HRC) | | | | | | | | |
| S3 (35 ÷ 45 HRC) | | | | | | | | |
| S5 | | | | | | | | |
| H (45 ÷ 55 HRC) | | | | | | | | |
| H (55 ÷ 63 HRC) | | | | | | | | |

★ 1st choice ☆ suitable



Think threads with YAMAWA

IMROBEX
Machine Tools International

| Center Drills | |
|---|---|
| AUPES | |
| HSS | COATING |




| YMW |
|---|
| 617 |

| Vc (m/min) | |
|---|---|
| ★ | P1 |
| ★ | P2 |
| ★ | P3 |
| ★ | P4 |
| | P5 |
| | P6 |
| ★ | P7 |
| | P8 |
| ★ | M1 |
| ★ | M2 |
| | M3 |
| ★ | K1 |
| ★ | K2 |
| | K3 |
| | K4 |
| ★ | N1 |
| ★ | N2 |
| ★ | N3 |
| ★ | N4 |
| | N5 |
| | S1 (<35 HRC) |
| | S2 (<35 HRC) |
| | S3 (35 ÷ 45 HRC) |
| | S5 |
| | H (45 ÷ 55 HRC) |
| | H (55 ÷ 63 HRC) |

# CD-A



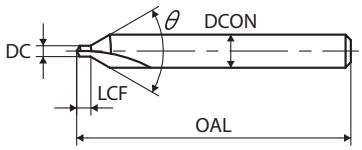

Low helix center drills A type 60°

HSS

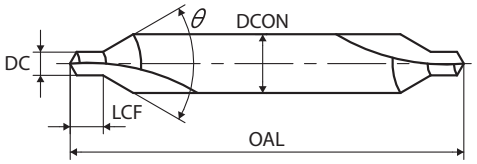
**FEATURES**
Low helix type A.
For middle hardness materials.

| | P1 | P2 | P3 | M1 M2 P7 |
|---|---|---|---|---|
| Work-materials | Low carbon steel | Carbon and low alloy steel | Medium alloy steel | Stainless steel |
| Vc (m/min) | 15÷30 | 15÷30 | 10÷25 | 5÷12 |
| DC | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 1.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 3 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 4 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 5 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 6.3 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 8 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 |
| 10 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 |

**TYPE: CD_001**




**TYPE: CD_002**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| DIN 333 | | | | | | | |
| 0.5 x 60° x 3.15 | 00210.5 | 0.5 | 3.15 | 25 | 0.8 | 001 | ● |
| 0.8 x 60° x 3.15 | 00210.8 | 0.8 | 3.15 | 25 | 1.1 | 001 | ○ |
| 1 x 60° x 3.15 | 00211.0 | 1 | 3.15 | 31.5 | 1.3 | 002 | ● |
| 1.25 x 60° x 3.15 | 00211.2 | 1.25 | 3.15 | 31.5 | 1.6 | 002 | ○ |
| 1.6 x 60° x 4 | 00211.6 | 1.6 | 4 | 35.5 | 2 | 002 | ● |
| 2 x 60° x 5 | 00212.0 | 2 | 5 | 40 | 2.5 | 002 | ● |
| 2.5 x 60° x 6.3 | 00212.5 | 2.5 | 6.3 | 45 | 3.1 | 002 | ● |
| 3.15 x 60° x 8 | 00213.1 | 3.15 | 8 | 50 | 3.9 | 002 | ● |
| 4 x 60° x 10 | 00214.0 | 4 | 10 | 56 | 5 | 002 | ● |
| 5 x 60° x 12.5 | 00215.0 | 5 | 12.5 | 63 | 6.3 | 002 | ● |
| 6.3 x 60° x 16 | 00216.3 | 6.3 | 16 | 71 | 8 | 002 | ● |
| 8 x 60° x 20 | 00218.0 | 8 | 20 | 80 | 10.1 | 002 | ● |
| 10 x 60° x 25 | 0021010 | 10 | 25 | 100 | 12.8 | 002 | ● |



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# CD-R



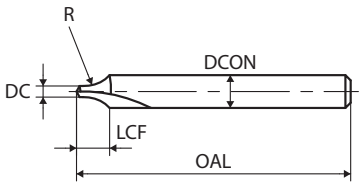

Low helix center drills R type

HSS

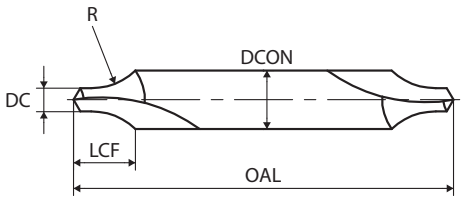
**FEATURES**
Low helix type R.
For middle hardness materials.

| | P1 | P2 | P3 | M1 M2 P7 |
|---|---|---|---|---|
| Work-materials | Low carbon steel | Carbon and low alloy steel | Medium alloy steel | Stainless steel |
| Vc (m/min) | 15÷30 | 15÷30 | 10÷25 | 5÷12 |
| DC | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 1.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 3 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 4 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 5 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 6.3 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 8 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 |
| 10 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 |

**TYPE: CD_003**




**TYPE: CD_004**




| DC x R x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Rmax (mm) | Rmin (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|---|---|
| DIN 333 | | | | | | | | | |
| **0.5 x R x 3.15** | 00230.5 | 0.5 | 3.15 | 25 | 2.12 | 1.6 | 1.25 | 003 | ○ |
| **0.8 x R x 3.15** | 00230.8 | 0.8 | 3.15 | 25 | 2.65 | 2.5 | 2 | 003 | ○ |
| **1 x R x 3.15** | 00231.0 | 1 | 3.15 | 31.5 | 3 | 3.15 | 2.5 | 004 | ○ |
| **1.25 x R x 3.15** | 00231.2 | 1.25 | 3.15 | 31.5 | 3.35 | 4 | 3.15 | 004 | ○ |
| **1.6 x R x 4** | 00231.6 | 1.6 | 4 | 35.5 | 4.25 | 5 | 4 | 004 | ○ |
| **2 x R x 5** | 00232.0 | 2 | 5 | 40 | 5.3 | 6.3 | 5 | 004 | ● |
| **2.5 x R x 6.3** | 00232.5 | 2.5 | 6.3 | 45 | 6.7 | 8 | 6.3 | 004 | ● |
| **3.15 x R x 8** | 00233.1 | 3.15 | 8 | 50 | 8.5 | 10 | 8 | 004 | ● |
| **4 x R x 10** | 00234.0 | 4 | 10 | 56 | 10.6 | 12.5 | 10 | 004 | ● |
| **5 x R x 12.5** | 00235.0 | 5 | 12.5 | 63 | 13.2 | 16 | 12.5 | 004 | ● |
| **6.3 x R x 16** | 00236.3 | 6.3 | 16 | 71 | 17 | 20 | 16 | 004 | ● |
| **8 x R x 20** | 00238.0 | 8 | 20 | 80 | 21.2 | 25 | 20 | 004 | ○ |
| **10 x R x 25** | 0023010 | 10 | 25 | 100 | 26.5 | 31.5 | 25 | 004 | ● |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
YMW
Technical info

# CD-SL




Long Shank Low Helix Center Drills-Type A 60°

HSS

**FEATURES**
Long shank and low helix type A.
For middle hardness materials.

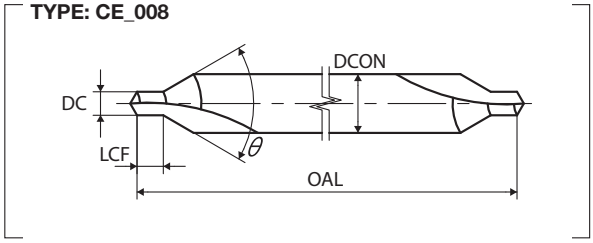
| | P1 | P2 | P3 | M1 M2 P7 |
|---|---|---|---|---|
| Work-materials | Low carbon steel | Carbon and low alloy steel | Medium alloy steel | Stainless steel |
| Vc (m/min) | 15÷30 | 15÷30 | 10÷25 | 5÷12 |
| DC | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 1.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 3 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 4 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 5 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 6.3 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 8 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 |
| 10 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 | 0.10÷0.20 |



Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: CE_008**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| 1 x 60° x 4 | CDL1.0 | 1 | 4 | 100 | 1 | 008 | ○ |
| | CDM1.0 | 1 | 4 | 150 | 1 | 008 | ○ |
| 1.5 x 60° x 5 | CDL1.5 | 1.5 | 5 | 100 | 1.5 | 008 | ○ |
| | CDM1.5 | 1.5 | 5 | 150 | 1.5 | 008 | ○ |
| 2 x 60° x 6 | CDL2.0 | 2 | 6 | 100 | 2 | 008 | ● |
| | CDM2.0 | 2 | 6 | 150 | 2 | 008 | ○ |
| 2.5 x 60° x 8 | CDL2.5 | 2.5 | 8 | 100 | 2.5 | 008 | ● |
| | CDM2.5 | 2.5 | 8 | 150 | 2.5 | 008 | ○ |
| 3 x 60° x 8 | CDL3.0 | 3 | 8 | 100 | 3 | 008 | ● |
| | CDM3.0 | 3 | 8 | 150 | 3 | 008 | ○ |
| | CDN3.0 | 3 | 8 | 200 | 3 | 008 | ○ |
| 4 x 60° x 10 | CDL4.0 | 4 | 10 | 100 | 4.5 | 008 | ● |
| | CDM4.0 | 4 | 10 | 150 | 4.5 | 008 | ○ |
| | CDN4.0 | 4 | 10 | 200 | 4.5 | 008 | ○ |
| 5 x 60° x 12 | CDL5.0 | 5 | 12 | 100 | 5.5 | 008 | ● |
| | CDM5.0 | 5 | 12 | 150 | 5.5 | 008 | ○ |
| | CDN5.0 | 5 | 12 | 200 | 5.5 | 008 | ○ |

# AUCES



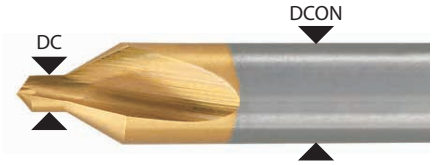

High helical fluted A type 60° Single-Ended Center Drills, Coated

HSS COATING

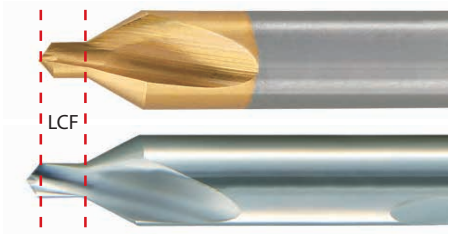
**FEATURES**
Easy positioning and high precision machining.
High helix for low hardness workpiece materials.

| | P1 | P2 | P3 | M1 M2 P7 | K1 | K2 | N1 | N2 N4 | N3 |
|---|---|---|---|---|---|---|---|---|---|
| Work-materials | Low carbon steel | Carbon and low alloy steel | Medium alloy steel | Stainless steel | Grey cast iron | Nodular cast iron | Aluminium | Aluminium die cast | Copper |
| Vc (m/min) | 15÷40 | 20÷40 | 20÷40 | 10÷20 | 20÷40 | 20÷40 | 20÷40 | 20÷40 | 20÷40 |
| DC | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 1.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 3 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 4 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 5 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 6 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |

**Product Features**

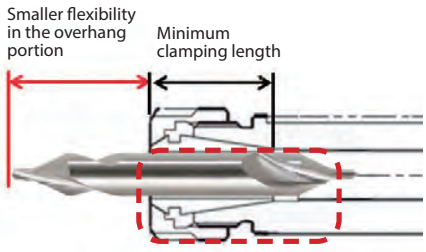



Higher DC and DCON accuracy for great improvement in drilling precision and surface roughness

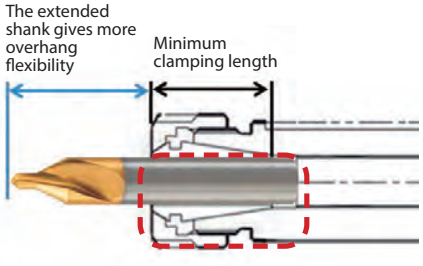



Shorter LCF for higher speed and feed

**DOUBLE-ENDED TYPE**




**SINGLE-ENDED TYPE**






Think threads with YAMAWA

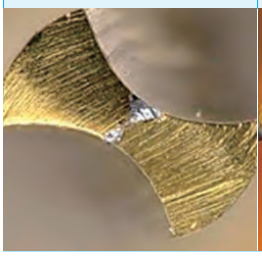
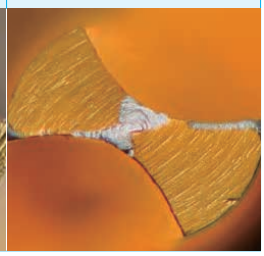
IMROBEX
Machine Tools International

## Process Data

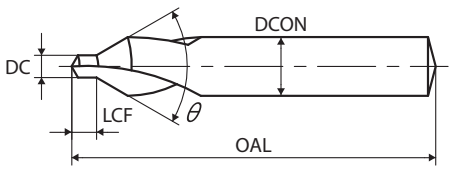
| PRODUCT | AUCES, single-ended Coated Center Drills | Market alternative, double-ended Coated Center Drills |
|---|---|---|
| Size | Ø3x60°x8 | |
| Workpiece material | Ck50 (96-98HRB) | |
| Drilling speed | 30m/min | 10m/min |
| Feed | 0.12mm/rev | 0.05mm/rev |
| Drilling length | 6mm | 6.5mm |
| Lubricant | Water soluble oil (x20) | |
| Machine | Maching center vertical type | |

| Conditions | AUCES | Market alternative |
|---|---|---|
| Ck50<br>Cutting Speed: 10m/min<br>Feed:0.5mm/rev |  | |
| Ck50<br>Cutting Speed: 30m/min<br>Feed:0.12mm/rev | | |

| Size | Ø1x60°x4 |
|---|---|
| Workpiece material | Ck50 |
| Drilling Length | 30m/min |
| Feed | 0.04mm/rev |
| Lubricant | Water soluble oil (x20) |
| Machine | Machining center vertical type |

| AUCES | Market alternative |
|---|---|
|  |  |

**TYPE: AUCES_01**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| **1 x 60° x 4** | YH61.00ZNEVD | 1 | 4 | 35 | 1.1 | 01 | ● |
| **1.5 x 60° x 5** | YH61.50ZNEVE | 1.5 | 5 | 40 | 1.6 | 01 | ● |
| **2 x 60° x 6** | YH62.00ZNEVF | 2 | 6 | 45 | 2.1 | 01 | ● |
| **2.5 x 60° x 8** | YH62.50ZNEVI | 2.5 | 8 | 50 | 2.7 | 01 | ● |
| **3 x 60° x 8** | YH63.00ZNEVI | 3 | 8 | 50 | 3.2 | 01 | ● |
| **4 x 60° x 10** | YH64.00ZNEVJ | 4 | 10 | 55 | 4.3 | 01 | ● |
| **5 x 60° x 12** | YH65.00ZNEVM | 5 | 12 | 65 | 5.3 | 01 | ● |
| **6 x 60° x 16** | YH66.00ZNEVP | 6 | 16 | 70 | 6.4 | 01 | ● |

# AUCDS



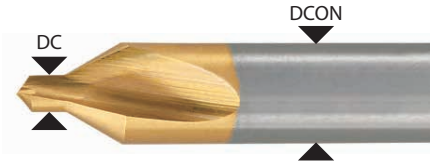

Low helical fluted A type 60° Single-Ended Center Drills, Coated

HSS COATING

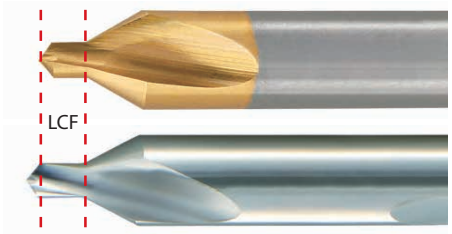
**FEATURES**
Easy positioning and high precision machining.
Low helix for medium hardness workpiece materials.

| | P2 | P3 | P4 | K1 | K2 |
|---|---|---|---|---|---|
| Work-materials | Carbon and low alloy steel | Medium alloy steel | High alloy | Grey cast iron | Nodular cast iron |
| Vc (m/min) | 20÷40 | 20÷40 | 30÷40 | 10÷40 | 10÷40 |
| DC | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 1.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 2.5 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 | 0.02÷0.07 |
| 3 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 4 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 | 0.04÷0.12 |
| 5 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |
| 6 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 | 0.06÷0.17 |

**Product Features**

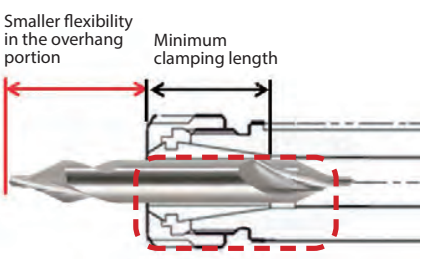



Higher DC and DCON accuracy for great improvement in drilling precision and surface roughness

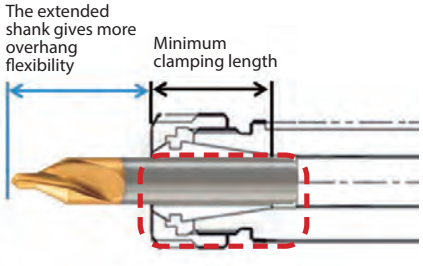



Shorter LCF for higher speed and feed

**DOUBLE-ENDED TYPE**




**SINGLE-ENDED TYPE**

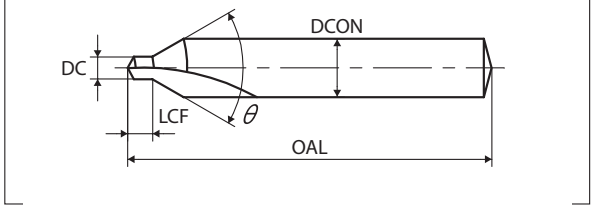





Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: AUCDS_01**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| **1 x 60° x 4** | YL61.00ZNEVD | 1 | 4 | 35 | 1.1 | 01 | ● |
| **1.5 x 60° x 5** | YL61.50ZNEVE | 1.5 | 5 | 40 | 1.6 | 01 | ● |
| **2 x 60° x 6** | YL62.00ZNEVF | 2 | 6 | 45 | 2.1 | 01 | ● |
| **2.5 x 60° x 8** | YL62.50ZNEVI | 2.5 | 8 | 50 | 2.7 | 01 | ● |
| **3 x 60° x 8** | YL63.00ZNEVI | 3 | 8 | 50 | 3.2 | 01 | ● |
| **4 x 60° x 10** | YL64.00ZNEVJ | 4 | 10 | 55 | 4.3 | 01 | ● |
| **5 x 60° x 12** | YL65.00ZNEVM | 5 | 12 | 65 | 5.3 | 01 | ● |
| **6 x 60° x 16** | YL66.00ZNEVP | 6 | 16 | 70 | 6.4 | 01 | ● |

# MHCDS




Center Drills for Medium Hardness Carbon Steel for High Speed machining, HSSCo Coated

HSS-Co COATING

**FEATURES**

Single-ended center drills for high accuracy in center hole drilling.

Easy positioning and high precision machining.

HSSCo and special coating for long and stable life even on medium hard materials.

| | P2 | P3 P4 |
|---|---|---|
| Work-materials | Carbon and low alloy steel | Medium alloy steel |
| Vc (m/min) | 30÷45 | 30÷45 |
| DC | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.10 | 0.10 |
| 1.5 | 0.10 | 0.10 |
| 2 | 0.15 | 0.15 |
| 2.5 | 0.15 | 0.15 |
| 3 | 0.15 | 0.15 |
| 4 | 0.20 | 0.20 |
| 5 | 0.20 | 0.20 |
| 6 | 0.20 | 0.20 |

WATCH THE VIDEO

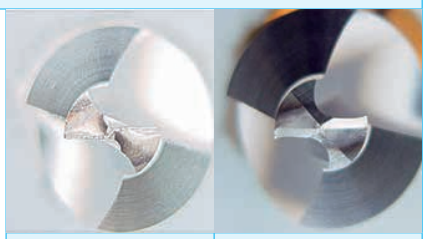
## Cutting Data

**Great extension of tool life with MHCDS**

The pictures on the right show the different damage of MHCDS and a market alternative cutting edge after 480 holes machined at the same cutting condition. As shown, the MHCDS has smaller wear and edge damage allowing the MHCDS to run much further than a standard center drill.

**Cutting Condition**

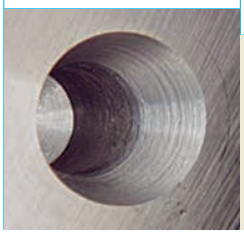
Size: 3x60°x8
Material: Ck60 - 1.1221
Machine: NC lathe
Cutting speed: 30m/min
Feed: 0.15mm/rev
Lubricant : water soluble oil



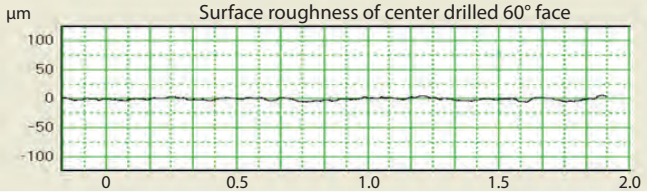
Market alternative | MHCDS

**Great improvement in surface roughness and circularity with MHCDS**

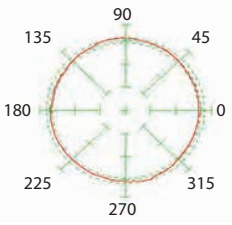
Enlarged picture



Under the cutting condition stated above, the surface finish of center-drilled hole has been greatly improved. Circularity of center drilled hole as well as run-out tolerance of turning axis has been improved.




Circularity of center drilled 60° face

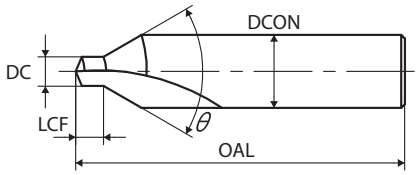





Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: CE_016**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| **1 x 60° x 4** | VMHCD1.0S | 1 | 4 | 30 | 1 | 016 | ● |
| **1.5 x 60° x 5** | VMHCD1.5S | 1.5 | 5 | 30 | 1.5 | 016 | ● |
| **2 x 60° x 6** | VMHCD2.0S | 2 | 6 | 30 | 1.9 | 016 | ● |
| **2.5 x 60° x 8** | VMHCD2.5S | 2.5 | 8 | 40 | 2.4 | 016 | ● |
| **3 x 60° x 8** | VMHCD3.0S | 3 | 8 | 40 | 2.8 | 016 | ● |
| **4 x 60° x 10** | VMHCD4.0S | 4 | 10 | 45 | 3.8 | 016 | ● |
| **5 x 60° x 12** | VMHCD5.0S | 5 | 12 | 55 | 4.6 | 016 | ● |
| **6 x 60° x16** | VMHCD6.0S | 6 | 16 | 65 | 5.5 | 016 | ● |

Intro
SP
SL
PO
ST
ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS
YMW
Technical info

# NC-SD V

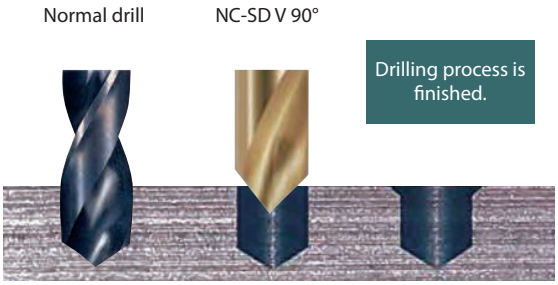


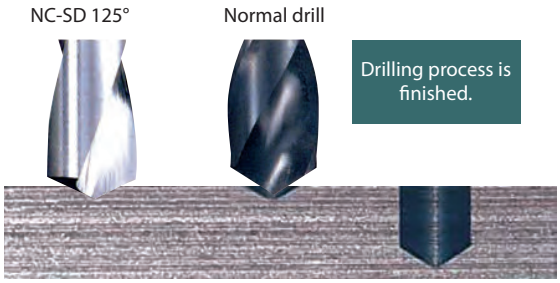

NC Starting Drills for Chamfering (90°) and Center Positioning (125°), Coated

HSS-Co COATING

**FEATURES**
90° type for hole chamfering.
125° for center positioning, improves drill performance.
HSSCo and special coating for stable and long life.

| | P1 | P2 | P3 | M1 M2 P7 | K1 | K2 | N1 | N2 N3 N4 |
|---|---|---|---|---|---|---|---|---|
| Work-materials | Low carbon steel | Carbon and low alloy steel | Medium alloy steel | Stainless steel | Grey cast iron | Nodular cast iron | Aluminium | Aluminium die cast |
| Vc (m/min) | 25÷40 | 25÷32 | 15÷25 | 7÷12 | 20÷35 | 20÷35 | 60÷90 | 60÷90 |
| DC | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) | fn (mm/rev) |
| 1 | 0.03÷0.06 | 0.03÷0.06 | 0.03÷0.06 | 0.03÷0.06 | 0.03÷0.06 | 0.03÷0.06 | 0.03÷0.06 | 0.03÷0.06 |
| 1.5 | 0.05÷0.10 | 0.05÷0.10 | 0.05÷0.10 | 0.05÷0.10 | 0.05÷0.10 | 0.05÷0.10 | 0.05÷0.10 | 0.05÷0.10 |
| 2 | 0.08÷0.15 | 0.08÷0.15 | 0.08÷0.15 | 0.08÷0.15 | 0.08÷0.15 | 0.08÷0.15 | 0.08÷0.15 | 0.08÷0.15 |
| 2.5 | 0.10÷0.18 | 0.10÷0.18 | 0.10÷0.18 | 0.10÷0.18 | 0.10÷0.18 | 0.10÷0.18 | 0.10÷0.18 | 0.10÷0.18 |
| 3 | 0.15÷0.20 | 0.15÷0.20 | 0.15÷0.20 | 0.15÷0.20 | 0.15÷0.20 | 0.15÷0.20 | 0.15÷0.20 | 0.15÷0.20 |
| 4 | 0.15÷0.25 | 0.15÷0.25 | 0.15÷0.25 | 0.15÷0.25 | 0.15÷0.25 | 0.15÷0.25 | 0.15÷0.25 | 0.15÷0.25 |
| 5 | 0.15÷0.30 | 0.15÷0.30 | 0.15÷0.30 | 0.15÷0.30 | 0.15÷0.30 | 0.15÷0.30 | 0.15÷0.30 | 0.15÷0.30 |
| 6 | 0.20÷0.30 | 0.20÷0.30 | 0.20÷0.30 | 0.20÷0.30 | 0.20÷0.30 | 0.20÷0.30 | 0.20÷0.30 | 0.20÷0.30 |




**Difference between starting drills and center drills**

For positioning, center drills can also be used. However in the case of center drill, since cutting edge of normal drill first hits the material, this can cause chipping on cutting edge and slant drilling.

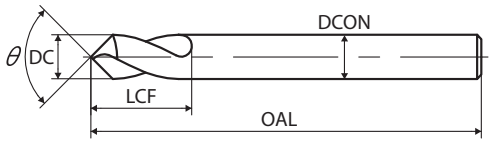




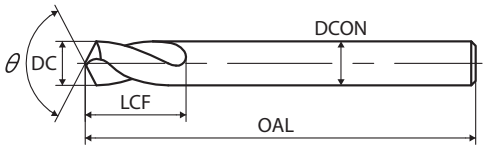
Think threads with YAMAWA

IMROBEX
Machine Tools International

**TYPE: CE_054**




**TYPE: CE_053**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| **3 x 90°** | CS-D3.0QTI | 3 | 3 | 46 | 10 | 054 | ● |
| **4 x 90°** | CS-D4.0QTI | 4 | 4 | 55 | 12 | 054 | ● |
| **5 x 90°** | CS-D5.0QTI | 5 | 5 | 62 | 13 | 054 | ● |
| **6 x 90°** | CS-D6.0QTI | 6 | 6 | 66 | 15 | 054 | ● |
| **8 x 90°** | CS-D8.0QTI | 8 | 8 | 79 | 20 | 054 | ● |
| **10 x 90°** | CS-D010QTI | 10 | 10 | 89 | 23 | 054 | ● |
| **12 x 90°** | CS-D012QTI | 12 | 12 | 102 | 26 | 054 | ● |
| **16 x 90°** | CS-D016QTI | 16 | 16 | 115 | 32 | 054 | ● |
| **20 x 90°** | CS-D020QTI | 20 | 20 | 131 | 40 | 054 | ● |
| **25 x 90°** | CS-D025QTI | 25 | 25 | 151 | 50 | 054 | ○ |

| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| **3 x 125°** | CS-D3.0TI | 3 | 3 | 46 | 10 | 053 | ○ |
| **4 x 125°** | CS-D4.0TI | 4 | 4 | 55 | 12 | 053 | ○ |
| **5 x 125°** | CS-D5.0TI | 5 | 5 | 62 | 13 | 053 | ○ |
| **6 x 125°** | CS-D6.0TI | 6 | 6 | 66 | 15 | 053 | ● |
| **8 x 125°** | CS-D8.0TI | 8 | 8 | 79 | 20 | 053 | ● |
| **10 x 125°** | CS-D010TI | 10 | 10 | 89 | 23 | 053 | ● |
| **12 x 125°** | CS-D012TI | 12 | 12 | 102 | 26 | 053 | ● |
| **16 x 125°** | CS-D016TI | 16 | 16 | 115 | 32 | 053 | ● |

# AUPEQ




## Single-Ended Point Drills PE-90°, Coated

HSS COATING

**FEATURES**

For positioning, chamfering hole, chamfering outer edge and V slotting.

HSS and special coating for high speed machining and excellent surface finishing.

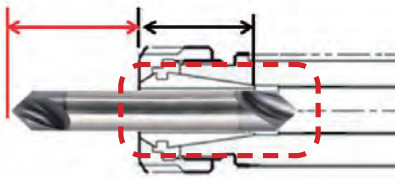
| | P1 | | P2 | | P3 | | P4 | | M1 M2 P7 | | N1 N2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Workpiece Material | Soft Steels St.44-2 - 1.0044 | | Carbon steels Ck50 - 1.1206 | | Alloy steels 42CrMo4 - 1.7225 | | Thermal refined steels | | Stainless steels AISI304 - 1.4301 - X5XrNi18-9 | | Aluminium alloy castings G-AlSi8Cu3 - A380 | |
| Vc (m/min) | 38÷48 | | 28÷38 | | 26÷33 | | 13÷17 | | 13÷20 | | 84÷120 | |
| Diameter (mm) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) |
| 3 | 4550 | 0.04÷0.08 | 3500 | 0.04÷0.08 | 3150 | 0.04÷0.08 | 1800 | 0.03÷0.06 | 1750 | 0.04÷0.08 | 10800 | 0.10÷0.22 |
| 4 | 3400 | 0.05÷0.10 | 2650 | 0.05÷0.10 | 2350 | 0.05÷0.10 | 1200 | 0.04÷0.08 | 1300 | 0.05÷0.10 | 8100 | 0.12÷0.26 |
| 6 | 2300 | 0.06÷0.12 | 1750 | 0.06÷0.12 | 1550 | 0.06÷0.12 | 800 | 0.05÷0.10 | 900 | 0.06÷0.12 | 5400 | 0.15÷0.30 |
| 8 | 1700 | 0.08÷0.15 | 1300 | 0.08÷0.15 | 1150 | 0.08÷0.15 | 600 | 0.06÷0.12 | 650 | 0.08÷0.15 | 4050 | 0.18÷0.35 |
| 10 | 1350 | 0.10÷0.18 | 1050 | 0.10÷0.18 | 950 | 0.10÷0.18 | 500 | 0.08÷0.15 | 500 | 0.10÷0.18 | 3250 | 0.21÷0.40 |
| 12 | 1150 | 0.12÷0.22 | 900 | 0.12÷0.22 | 800 | 0.12÷0.22 | 400 | 0.10÷0.18 | 450 | 0.12÷0.22 | 2700 | 0.25÷0.45 |
| 16 | 850 | 0.16÷0.26 | 650 | 0.16÷0.26 | 600 | 0.16÷0.26 | 300 | 0.12÷0.22 | 350 | 0.16÷0.26 | 2050 | 0.32÷0.50 |
| 20 | 700 | 0.20÷0.35 | 500 | 0.20÷0.35 | 450 | 0.20÷0.35 | 250 | 0.16÷0.26 | 250 | 0.20÷0.35 | 1800 | 0.40÷0.60 |

### Difference in clamping and overhang portion

DOUBLE-ENDED TYPE

Smaller flexibility in the overhang portion

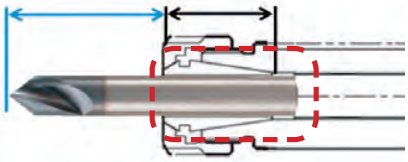
Minimum clamping portion



SINGLE-ENDED TYPE

The extended shank gives more overhang flexibility

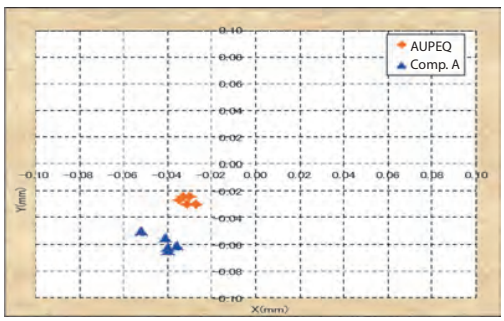
Minimum clamping portion

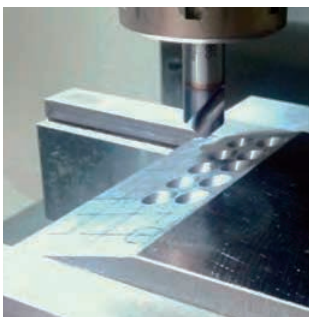


### Process data

| | |
|---|---|
| Size | Ø12x90° |
| Workpiece material | 42CrMo4 - 1.7225 |
| Part for process | 15° slant surface |
| Drilling speed | 25m/min |
| Feed | 0.15mm/rev |
| Lubricant | Water soluble oil (x20) |
| Machine | Machining center |

Positioning accuracy on 15° slant surface



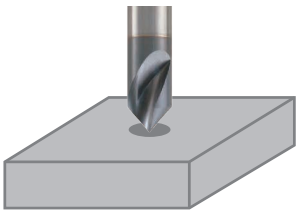


Think threads with YAMAWA

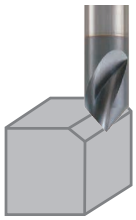
IMROBEX
Machine Tools International

## Application

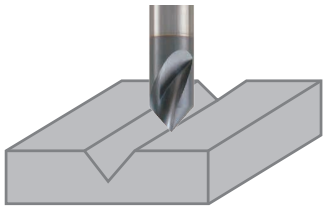
• HOLE CENTERING OR CHAMFERING



• CORNER CHAMFERING



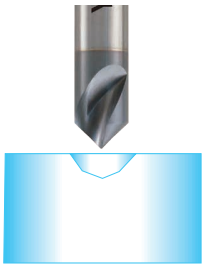
• V SLOTTING



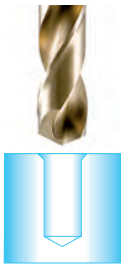
## Production process

**Point drilling**

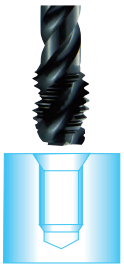
Hole centering and chamfering performed at the same time



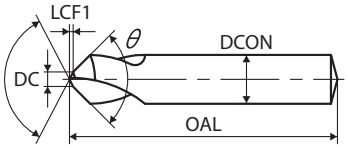
**Drilling**



**Tapping**



**TYPE: AUPEQ_01**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| **3.0 x 0.5 x 90°** | PZ93.00ZNETZ | 0.5 | 3 | 35 | 0.13 | 01 | ● |
| **4.0 x 1.0 x 90°** | PZ94.00ZNETZ | 1 | 4 | 35 | 0.26 | 01 | ● |
| **6.0 x 2.0 x 90°** | PZ96.00ZNETZ | 2 | 6 | 45 | 0.52 | 01 | ● |
| **8.0 x 2.5 x 90°** | PZ98.00ZNETZ | 2.5 | 8 | 50 | 0.65 | 01 | ● |
| **10.0 x 3.0 x 90°** | PZ910.0ZNETZ | 3 | 10 | 55 | 0.78 | 01 | ● |
| **12.0 x 3.5 x 90°** | PZ912.0ZNETZ | 3.5 | 12 | 65 | 0.91 | 01 | ● |
| **16.0 x 4.0 x 90°** | PZ916.0ZNETZ | 4 | 16 | 70 | 1.04 | 01 | ● |
| **20.0 x 5.0 x 90°** | PZ920.0ZNETZ | 5 | 20 | 80 | 1.30 | 01 | ● |

# AUPES




## Single-ended Point Drills PE-60°, Coated

HSS COATING

**FEATURES**

For positioning, chamfering hole, chamfering outer edge and V slotting.

HSS and special coating for high speed machining and excellent surface finishing.

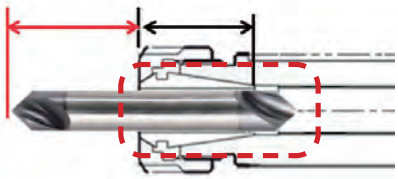
| | P1 | | P2 | | P3 | | P4 | | M1 M2 P7 | | N1 N2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Workpiece Material | Soft Steels St.44-2 - 1.0044 | | Carbon steels Ck50 - 1.1206 | | Alloy steels 42CrMo4 - 1.7225 | | Thermal refined steels | | Stainless steels AISI304 - 1.4301 - X5XrNi18-9 | | Aluminium alloy castings G-AlSi8Cu3 - A380 | |
| Vc (m/min) | 38÷48 | | 28÷38 | | 26÷33 | | 13÷17 | | 13÷20 | | 84÷120 | |
| Diameter (mm) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) | RPM | Feed (mm/rev) |
| 3 | 4550 | 0.04÷0.08 | 3500 | 0.04÷0.08 | 3150 | 0.04÷0.08 | 1800 | 0.03÷0.06 | 1750 | 0.04÷0.08 | 10800 | 0.10÷0.22 |
| 4 | 3400 | 0.05÷0.10 | 2650 | 0.05÷0.10 | 2350 | 0.05÷0.10 | 1200 | 0.04÷0.08 | 1300 | 0.05÷0.10 | 8100 | 0.12÷0.26 |
| 6 | 2300 | 0.06÷0.12 | 1750 | 0.06÷0.12 | 1550 | 0.06÷0.12 | 800 | 0.05÷0.10 | 900 | 0.06÷0.12 | 5400 | 0.15÷0.30 |
| 8 | 1700 | 0.08÷0.15 | 1300 | 0.08÷0.15 | 1150 | 0.08÷0.15 | 600 | 0.06÷0.12 | 650 | 0.08÷0.15 | 4050 | 0.18÷0.35 |
| 10 | 1350 | 0.10÷0.18 | 1050 | 0.10÷0.18 | 950 | 0.10÷0.18 | 500 | 0.08÷0.15 | 500 | 0.10÷0.18 | 3250 | 0.21÷0.40 |
| 12 | 1150 | 0.12÷0.22 | 900 | 0.12÷0.22 | 800 | 0.12÷0.22 | 400 | 0.10÷0.18 | 450 | 0.12÷0.22 | 2700 | 0.25÷0.45 |
| 16 | 850 | 0.16÷0.26 | 650 | 0.16÷0.26 | 600 | 0.16÷0.26 | 300 | 0.12÷0.22 | 350 | 0.16÷0.26 | 2050 | 0.32÷0.50 |
| 20 | 700 | 0.20÷0.35 | 500 | 0.20÷0.35 | 450 | 0.20÷0.35 | 250 | 0.16÷0.26 | 250 | 0.20÷0.35 | 1800 | 0.40÷0.60 |

### Difference in clamping and overhang portion

DOUBLE-ENDED TYPE

Smaller flexibility in the overhang portion

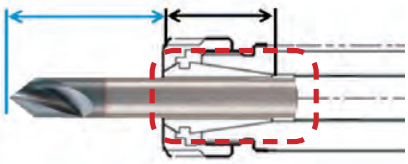
Minimum clamping portion



SINGLE-ENDED TYPE

The extended shank gives more overhang flexibility

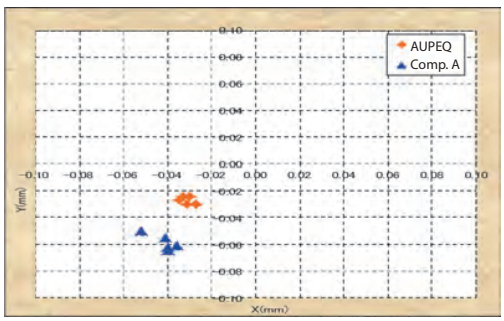
Minimum clamping portion

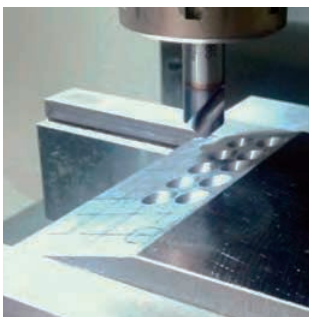


### Process data

| | |
|---|---|
| Size | Ø12x90° |
| Workpiece material | 42CrMo4 - 1.7225 |
| Part for process | 15° slant surface |
| Drilling speed | 25m/min |
| Feed | 0.15mm/rev |
| Lubricant | Water soluble oil (x20) |
| Machine | Machining center |

Positioning accuracy on 15° slant surface



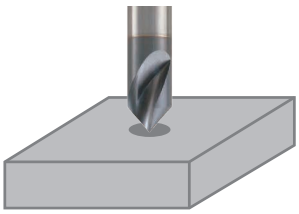


Think threads with YAMAWA

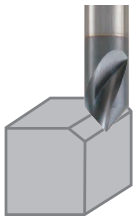
IMROBEX
Machine Tools International

## Application

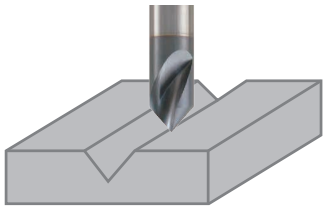
• HOLE CENTERING OR CHAMFERING



• CORNER CHAMFERING



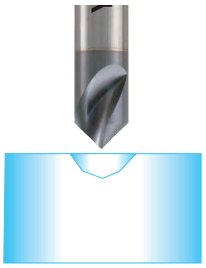
• V SLOTTING



## Production process

**Point drilling**

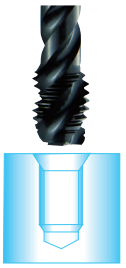
Hole centering and chamfering performed at the same time



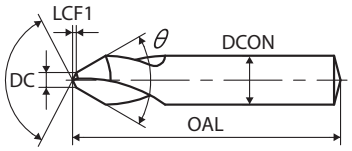
**Drilling**



**Tapping**



**TYPE: AUPES_01**




| DC x θ x DCON | Code | DC (mm) | DCON (mm) | OAL (mm) | LCF (mm) | Type | Stock |
|---|---|---|---|---|---|---|---|
| YMW | | | | | | | |
| 3.0 x 0.5 x 60° | PZ63.00ZNETZ | 0.5 | 3 | 35 | 0.13 | 01 | ● |
| 4.0 x 1.0 x 60° | PZ64.00ZNETZ | 1 | 4 | 35 | 0.26 | 01 | ● |
| 6.0 x 2.0 x 60° | PZ66.00ZNETZ | 2 | 6 | 45 | 0.52 | 01 | ● |
| 8.0 x 2.5 x 60° | PZ68.00ZNETZ | 2.5 | 8 | 50 | 0.65 | 01 | ● |
| 10.0 x 3.0 x 60° | PZ610.0ZNETZ | 3 | 10 | 55 | 0.78 | 01 | ● |
| 12.0 x 3.5 x 60° | PZ612.0ZNETZ | 3.5 | 12 | 65 | 0.91 | 01 | ● |
| 16.0 x 4.0 x 60° | PZ616.0ZNETZ | 4 | 16 | 70 | 1.04 | 01 | ● |
| 20.0 x 5.0 x 60° | PZ620.0ZNETZ | 5 | 20 | 80 | 1.30 | 01 | ● |

MEMO

TECHNICAL INFO

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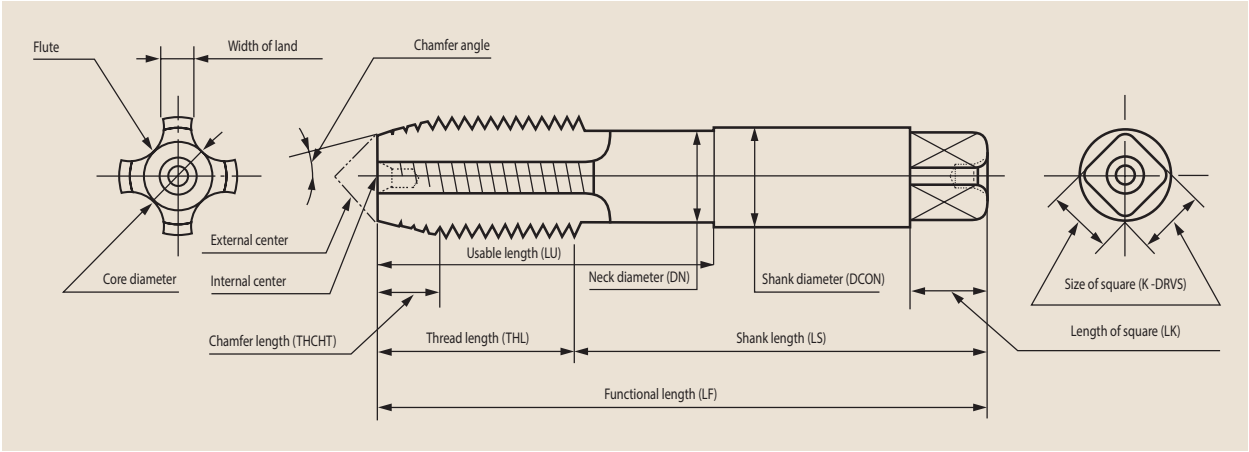
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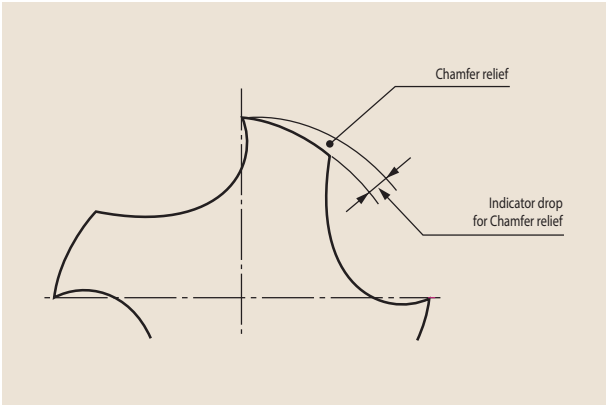
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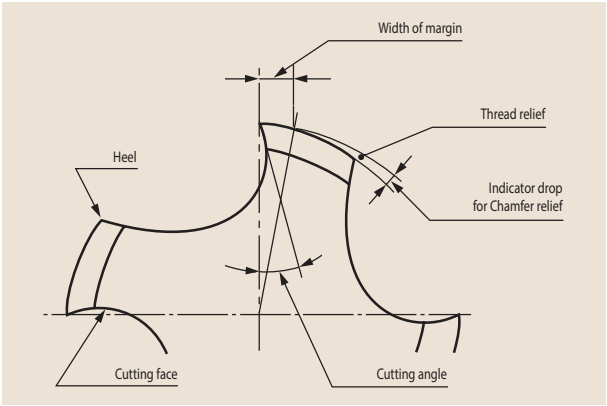
# 1. Terminology of Taps




## Chamfer relief



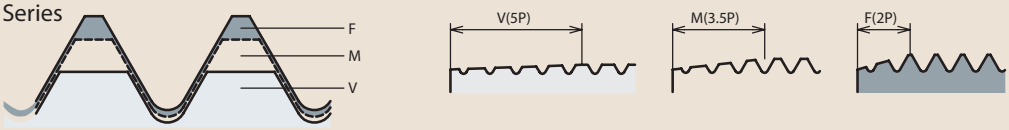

## Threads relief and cutting angle




Edge angle, including chamfer relief, thread relief, cutting angle and others, as well as heat treatment, have important functions affecting workpiece shape, tool life, surface finish of internal screw thread, and so on.

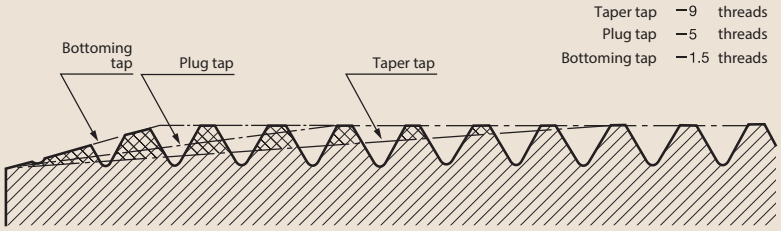
## Chamfer of straight fluted taps

DIN Hand Set Series




Serial taps come in sets of three (DIN352, DIN351) or two (DIN2181, DIN5157) to complete screw threads by cutting work materials in incremental steps. The first tap (V) and the second tap (M) cut screw threads under size.
Then, the third tap (F) completes the screw threads.

Straight fluted taps




In general, tap chamfer is the most important part of taps to create internal thread. The function of full thread part of taps is to make a guidance.

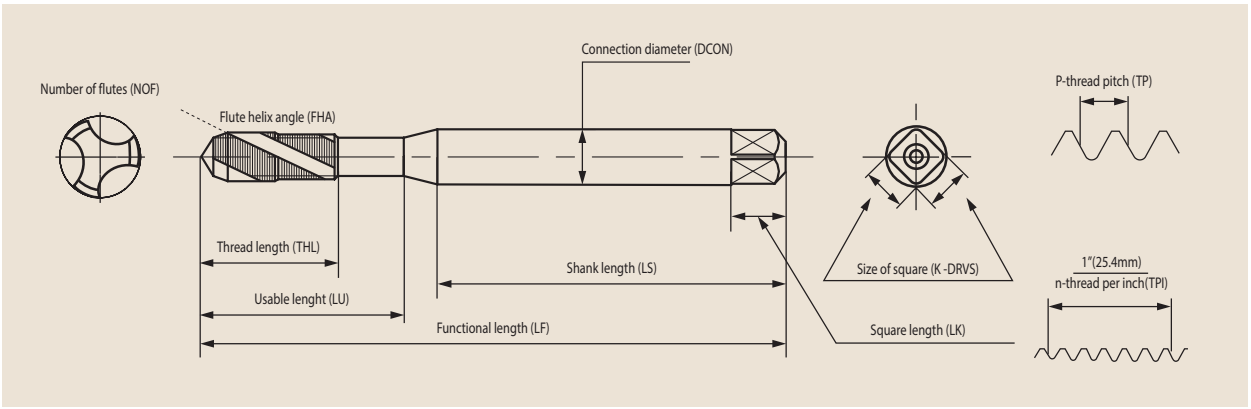


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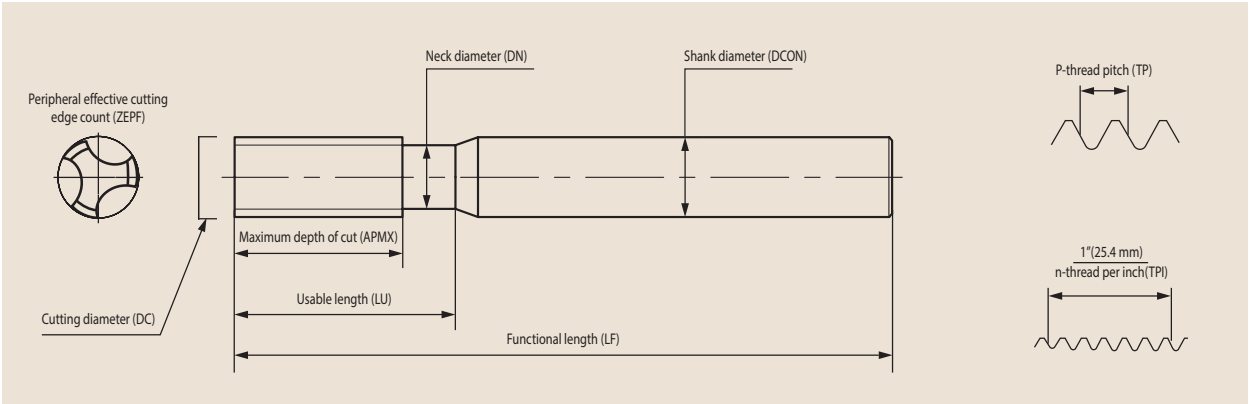
# 2. ISO 13399

| | |
|---|---|
| APMX | Maximum depth of cut |
| BSG | Basic standard group |
| DC | Cutting diameter |
| DCON | Connection diameter |
| DN | Neck diameter |
| FHA | Flute helix angle |
| LF | Functional length |
| LK | Square length |
| LS | Shank length |
| LT | Chamfer+full thread length |
| LU | Usable length |
| K (DRVS) | Drive (square) size |
| NOF | Number of flutes |
| TCDCON | Connection diameter tolerance |
| TCTR | Thread tolerance class |
| TDZ | Thread size |
| THCHT | Type of chamfer |
| THL | Thread length |
| TP | Thread pitch |
| TPI | Thread per inch |
| ZEFP | Peripheral effective cutting edge count |

## ISO 13399 denomination for taps



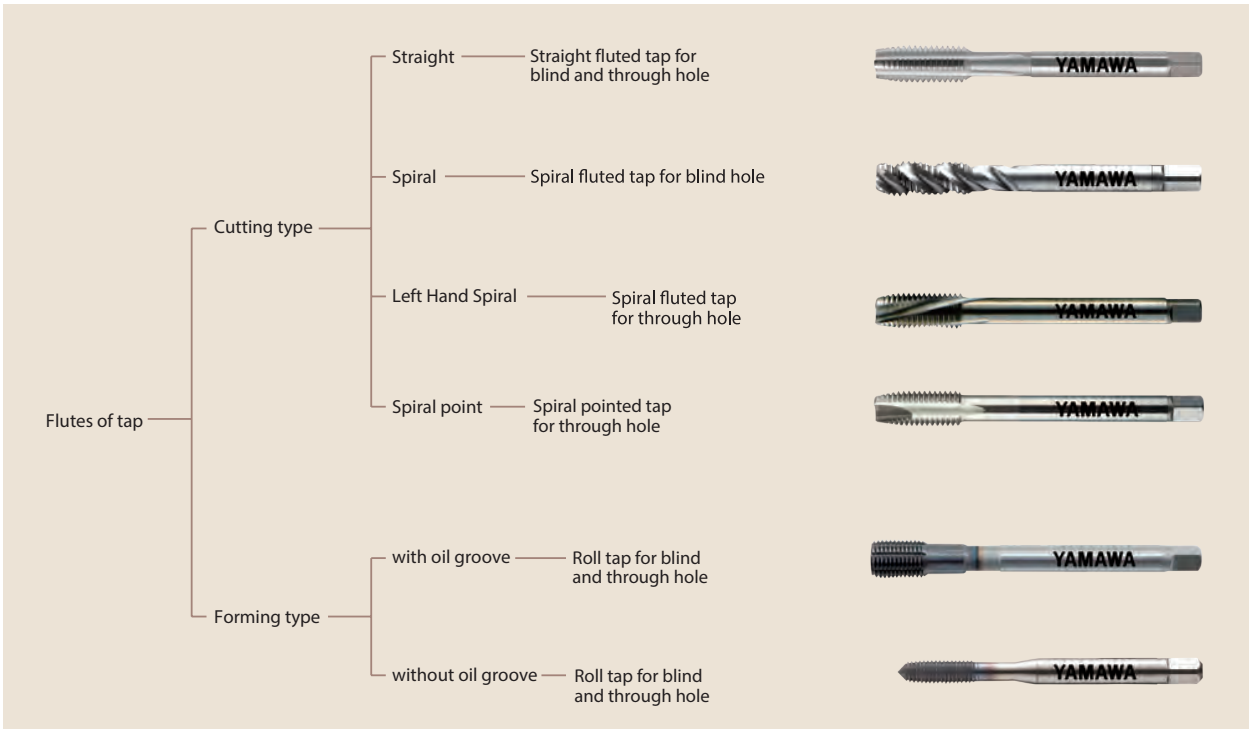

## ISO 13399 denomination for thread mills



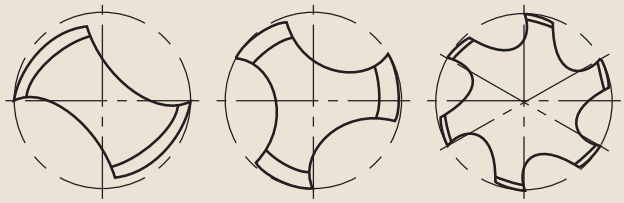
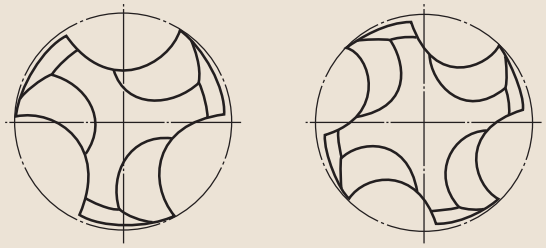
# 3. Flutes

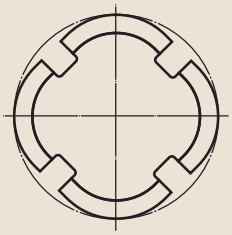
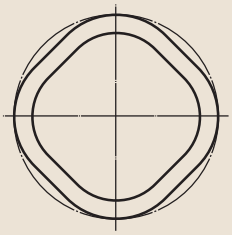
## Major functions of flutes are

1) Chips' pocket, 2) lubricant supply route, 3) rake angle formation, 4) to determine cutting amount in relation to the number of chamfer threads. All are very important. Taps' flutes are classified into following groups by tapping methods, fluting method, tapping direction, and hand of screw thread.




## Type of Flute

| Flute \ Type of tap | Cutting type |
|---|---|
| Straight Flute<br>Spiral Flute |  |
| Spiral Point Flute |  |

| Flute \ Type of tap | Forming type |
|---|---|
| With oil groove |  |
| Without oil groove |  |

In general, the number of flutes for cutting taps usually increases as the diameter becomes larger. However, it is also influenced by tap's strength and rigidity, the accomodation of chip, the amount of cutting, and lubricant supply system.

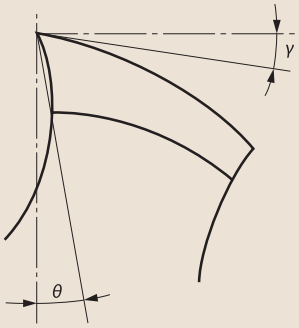
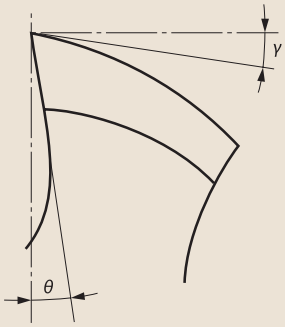
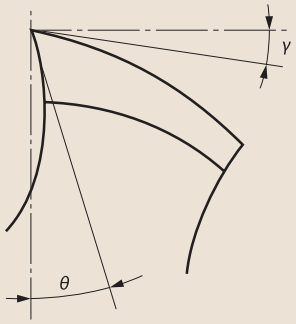


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# 4. Cutting angle and thread relief

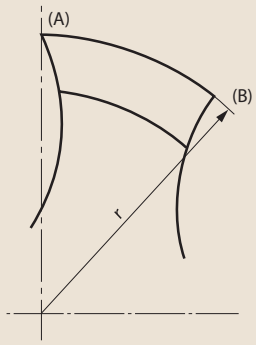
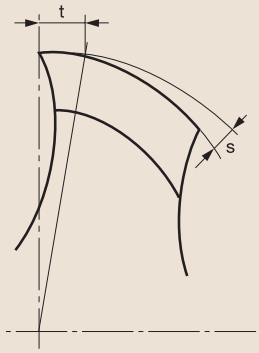
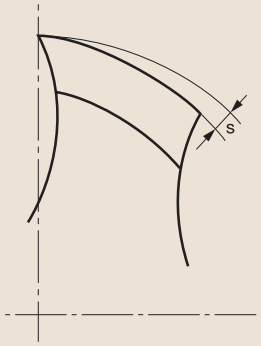
## Cutting angle and Chamfer relief angle

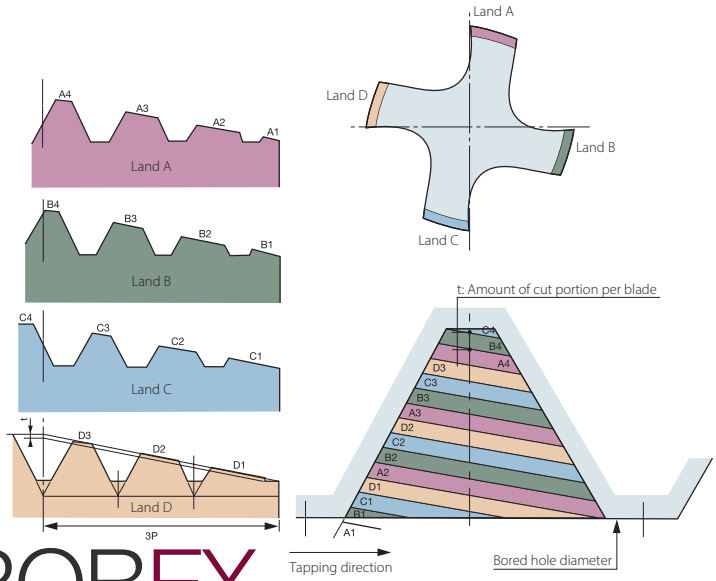
θ: Cutting angle γ: Chamfer relief angle

| Chordal Hook Angle | Rake Angle | Tangential Hook Angle |
|---|---|---|
|  |  |  |
| Cutting angle of hook face. The angle between the center line passing the cutting edge and the straight line linking the cutting edge with the thread root. | Cutting angle of rake face. The angle between the center line passing the cutting edge and the straight line linking the cutting edge with thread root. | Cutting angle of hook face. The angle between the center line passing the cutting edge and the straight line tangent to the rake face on the cutting edge. |

## Thread relief

S: Indicator drop for thread relief

| Concentric-unrelieved | Con-eccentric thread relief | Eccentric thread relief |
|---|---|---|
|  |  |  |
| No relief exists at land. Start (A) and heel (B) of thread land have same concentricity. | Radial relief in the thread form starts at the back of a concentric margin. | Radial relief in the thread form starts at the cutting edge and continues to the heel. |




## The amount of cut portion

Please refer to the pictures shown. For the taps with 4 flutes and 3 threads chamfer, the cutting operation progresses in order from the edge of A1, B1, C1, D1… A2, B2…A4. Tap end is usually smaller than the size of bored hole, and A1 may not make any cutting operation.




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# 5. Tapping Torque

## Tapping Torque of Cutting Taps

The torque starts increasing as the threads of thechamfer enter the workpiece material. It reaches the highest level when all the threads of the chamfer cut into workpiece material, and is in plateau until the chamfer cuts through the workpiece. After that, the torque decreases until the end of tapping.

## Tapping Torque Equation for Cutting Taps

$$Tc = \frac{\tan\theta}{24000} \cdot x\ kc \times K(D\text{-}Do)^2 \times (D+2Do)$$

Tc : Tapping Torque (Nm)
kc : Specific cutting resistance (N/mm$^2$)
K : Correction coefficient depending on tap geometry and chips
D : Nominal Diameter of Tap (mm)
Do : Bored hole diameter (mm)
θ : Thread half angle (°)

kc and K : Refer to Table 1 and Table 2

Table 1 Specific cutting resistance of each material

| Materials to be cut | | Specific cutting resistance kc N/mm$^2$ |
|---|---|---|
| Material symbols | Hardeness | N/mm$^2$ |
| 5t44-2 | 133HB | 3700 |
| Ck 15 | 141HB | 3600 |
| Ck 35 | 162HB | 3700 |
| Ck 45 | 188HB | 3900 |
| Ck 60 | 188HB | 4000 |
| 42 CrMo 4 | 193HB | 3600 |
| | 30HRC | 4900 |
| | 40HRC | 5500 |
| X 6 CrNi 18 10 | 209HB | 4200 |
| C 105 W2 | 175HB | 5300 |
| CnZn40 | - | 2300 |
| G-AlSi8Cu3 | - | 1300 |
| GG-25 | 193HB | 2900 |

Table 2 Correction coefficient depending on each tap geometry

| Materials to be cut | Coefficient K | | | | | |
|---|---|---|---|---|---|---|
| | Steel | | Cast iron + Alluminium alloys | | Brass | |
| Kinds of tap | coarse | fine | coarse | fine | coarse | fine |
| Straight fluted tap 5P | 1.35 | 1.15 | 1.25 | 1.08 | 1.60 | 1.12 |
| Straight fluted tap 1.5P | 1.43 | 1.50 | 1.30 | 1.25 | 1.68 | - |
| Spiral fluted tap | 1.15 | 1.25 | 1.05 | 1.10 | 0.85 | - |
| Spiral pointed tap | 0.95 | 1.00 | 0.80 | 1.00 | 0.75 | 1.00 |

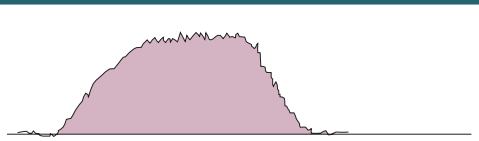
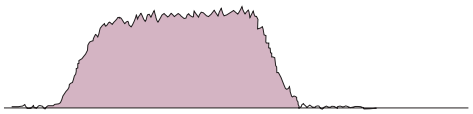
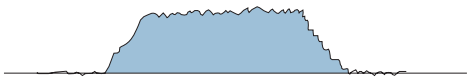


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## Cutting Torque Line

Cutting torque line for different kinds of taps (straight fluted tap, spiral fluted tap, spiral pointed tap) is shown below.

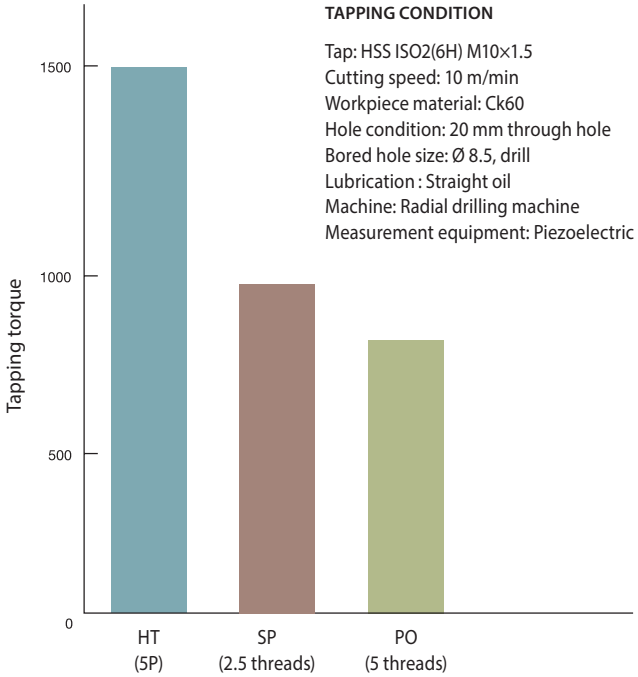
| | | | | | |
|---|---|---|---|---|---|
| Tap | : | HSS ISO2(6H) M8×1.25 | Bored hole size | : | 6.8 mm |
| Cutting speed | : | 6 m/min | Cutting oil | : | Oil |
| Workpiece material | : | Ck60 | Machine | : | Drilling machine |
| Tapping type | : | 10 mm Through hole | Measurement equipment | : | Piezoelectric torque tester |

| Type of tap | | Torque line | Description |
|---|---|---|---|
| Straight fluted tap | 5P |  | Plateau is observed since whole chamfer threads enter the workpiece material. |
| | 1.5P (1.5 threads) |  | Plateau is also observed since whole short chamfer threads enter the workpiece material. Tapping process time is shorter than that of the 5P tap. |
| Spiral fluted tap (2.5 threads) | |  | Spiral fluted tap pulls out the chips, good choice for blind hole tapping. The cutting torque of spiral fluted taps is lower than that of the hand taps. |
| Spiral pointed tap (5 threads) | |  | Spiral pointed tap pushes out the chips forward. It is good choice for through hole use. Cutting torque is the smallest among the different tap shapes. |

The cutting torque changes depending on the kind of taps, cutting chamfer, number of fl utes, workpiece materials and their hardness, lubrication types, and chips.

## Comparison of Cutting Torque by Different Type of Taps

Cutting torque of straight fluted tap (HT), and spiral fluted tap (SP), and spiral pointed tap (PO) differs, shown in the chart below.




**TAPPING CONDITION**

Tap: HSS ISO2(6H) M10×1.5
Cutting speed: 10 m/min
Workpiece material: Ck60
Hole condition: 20 mm through hole
Bored hole size: Ø 8.5, drill
Lubrication : Straight oil
Machine: Radial drilling machine
Measurement equipment: Piezoelectric torque tester

If the cutting torque of straight fluted tap is assumed as 100, the cutting torque of other taps is as follows :

Straight fluted Tap : 100
Spiral fluted Tap : 70-75
Spiral Pointed Tap : 60-65

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## Calculation for Tapping Torque of Roll Taps

It is hard to calculate the tapping torque for roll taps because they contain more complicated factor than the cutting taps.

According to our experience, the tapping torque of roll taps is twice or three times larger than that of the cutting taps in general.

Major factors increasing or decreasing the tapping torque of roll taps are :

(1) Mechanical characteristic of workpiece (Tensile strength, hardness, spring back feature, work hardening index). As the tensile strength gets larger, the threading torque becomes larger.
(2) Size and length of bored hole: bored hole size is usually defined to obtain 75% thread height of basic thread profile (thread engagement). Roll taps may be shuttered due to the excessive tapping torque when the bored hole size is made smaller to obtain higher thread height. Tapping torque gets larger as the efficient length of internal screw becomes longer because there is an increase in friction coefficient caused by spring back of workpiece material.
(3) Tapping process (tapping speed, lubricant, and rigidity of main spindle).
(4) Surface treatment of taps (oxidizing, nitriding, TiN, and TiCN coatings).

## Tapping Torque Equation for Forming Taps

The following equation provides an estimation of the tapping torque for standard forming taps, based on the tensile strength of the workpiece material.
Condition : Effective length of internal screw is 1.5D. Thread height is 75%.

### Tapping Torque Equation for Forming Taps

$$T = Kf \times Dc \times P^2/1000$$

T : Tapping Torque (Nm)
Dc : Nominal Diameter of Tap (mm)
P : Pitch (mm)
Kf : Deforming resistance ($N/mm^2$)

| Workpiece Materials | Deforming resistance $N/mm^2$ |
|---|---|
| General Structure Steels, Low Carbon Steels | 750-850 |
| Medium Carbon Steels, Alloy Steels | 1150-1350 |
| Stainless Steels | 1100-1300 |
| Wrought Aluminum | 250-350 |
| Aluminum Die Castings | 380-530 |
| Coppers, Wrought Copper Alloys | 750-1050 |



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# 6. Recommended Tapping Speed



## Tapping Speed

The following machining conditions affect tapping speed: kind of taps, workpieces, number of chamfered threads, materials, hole conditionand lubricant. It is necessary to select the suitable tapping speed by paying attention to these conditions. When work material has excellent workability, when there is a little depth of tapping, or when tapping lubricant can be sufficient, select rather higher tapping speed. When workability of work material is unknown, to be safe, try nearly the lowest tapping speed at first, and then increase the speed gradually. Following speed is basically for the cutting condition under the use of cutting oil. In case of water soluble cutting oil, please reduce the speed by 30%.

| Workpiece Materials | | Tapping Speed - Vc(m/min) | | | | |
|---|---|---|---|---|---|---|
| | | Spiral Fluted | Spiral Pointed | Roll Taps | Straight Fluted | Cemented Carbide |
| Low Carbon Steels | St44, C10~C25 | 8~15 | 10~20 | 8~15 | 6~10 | - |
| Medium Carbon Steels | C25~C45 | 6~12 | 8~14 | 7~12 | 5~9 | - |
| High Carbon Steels | C45~C58 | 5~10 | 8~12 | 5~10 | 5~8 | - |
| Alloy Steels | CrMo~NiCrMo | 5~10 | 7~10 | 5~10 | 5~8 | - |
| Thermal refined steels | 20~45HRC | 3~5 | 4~7 | - | 3~6 | - |
| Stainless Steels | AISI | 3~8 | 4~9 | 6~15 | 3~7 | - |
| Tool Steels | 1.2311, 1.2344 | 5~8 | 6~10 | - | 5~9 | - |
| Cast Steels | SC | 6~10 | 8~13 | - | 6~10 | - |
| Cast Irons | GG | - | - | - | 12~17 | 15~25 |
| Ductile Cast Irons | GGG | 5~10 | 5~10 | - | 5~8 | 12~20 |
| Coppers | Cu | 8~12 | 8~13 | 25~35 | 7~11 | 15~33 |
| Brass · Brass Casting | Bs · BsC | 11~22 | 13~25 | 25~35 | 10~20 | 23~33 |
| Phosphor Bronze · Phosphor Bronze Casting | PB · PBC | 8~15 | 10~18 | 25~35 | 8~15 | 18~33 |
| Wrought Aluminum | Al | 15~25 | 20~25 | 25~35 | 15~20 | 23~40 |
| Aluminum Alloy Castings | AlSi | 11~22 | 12~24 | 15~25 | 10~20 | 15~25 |
| Magnesium Alloy Castings | MC | 7~15 | 10~20 | - | 7~15 | 12~20 |
| Zinc Alloy Diecastings | ZDC | 7~15 | 10~20 | 15~25 | 7~15 | 12~20 |
| Thermosetting Plastic | Bakelite (phenol-PF) | 11~17 | 12~18 | - | 10~15 | 15~25 |
| Thermoplastic resin | PVC, Nylon | 11~17 | 12~18 | - | 10~15 | 15~25 |
| Titanium Alloys | Ti-6Al-AV etc | 6~9 | 6~8 | - | - | - |
| Nickel Base Alloys | Hastelloy, Inconel, Waspaloy | 3~6 | 3~6 | - | - | - |

## Formula

### Tapping Speed (Vc)

$$Vc = \frac{\pi \cdot Dc \cdot n}{1000} \ (m/min)$$

n : Revolutions per minute ($min^{-1}$)
π : 3.14
Dc : Nominal diameter of tap (mm)

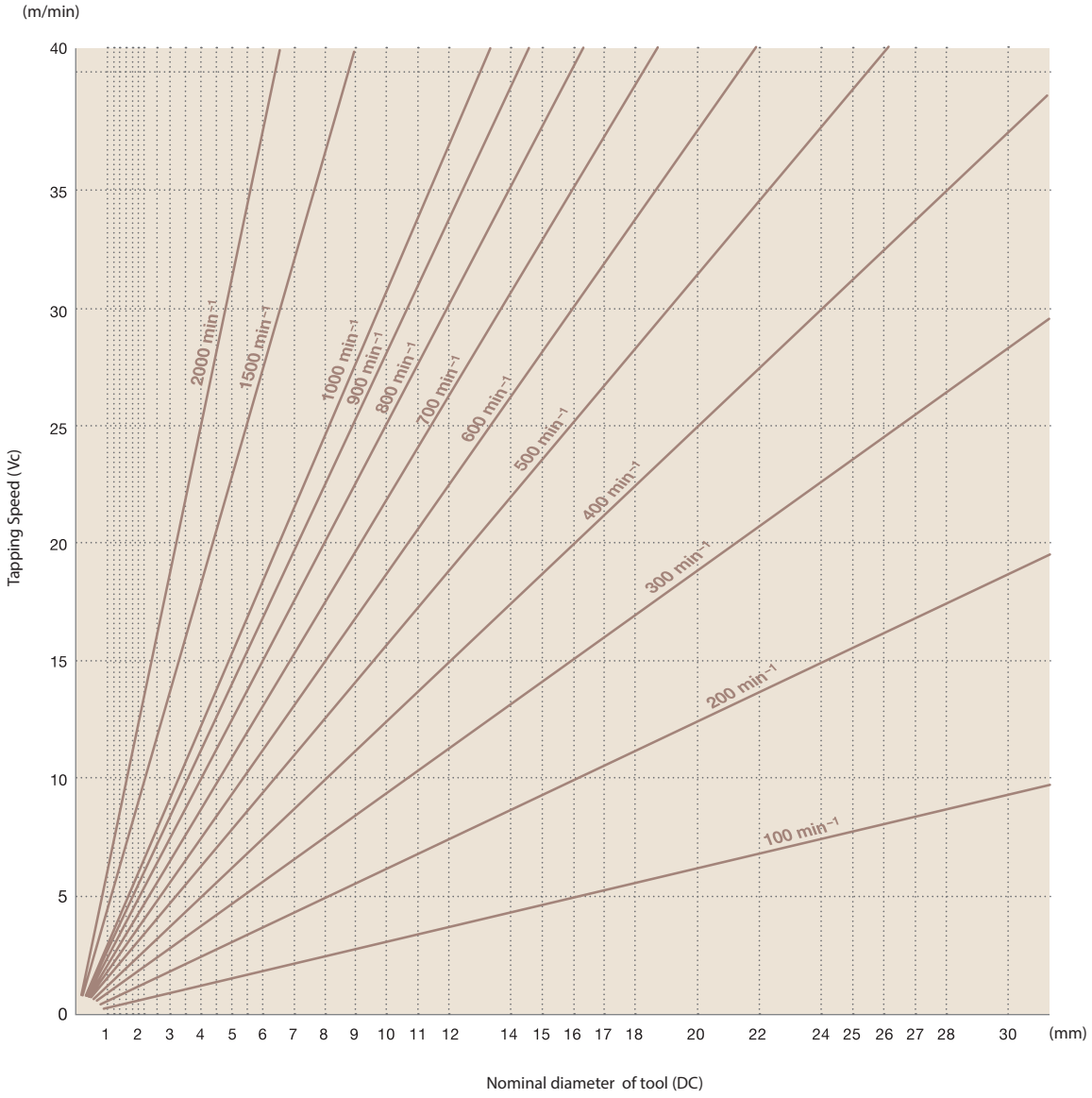
### Revolution per minute (n)

$$n = \frac{1000 \cdot Vc}{\pi \cdot Dc} \ (min^{-1})$$

Vc : Tapping Speed (m/min)
Dc : Nominal diameter of tap (mm)
π : 3.14

# 7. Tapping speed and Revolutions

## Conversion table



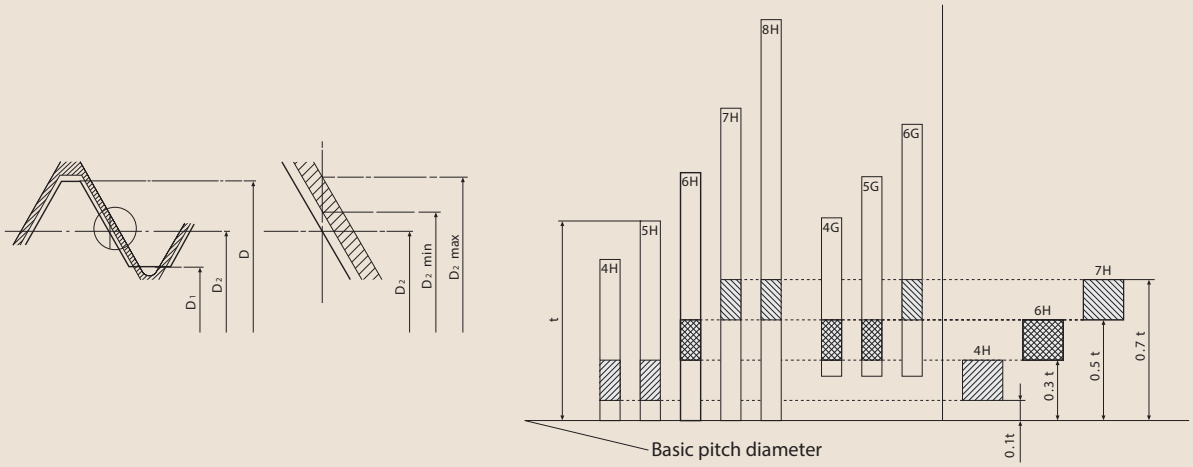



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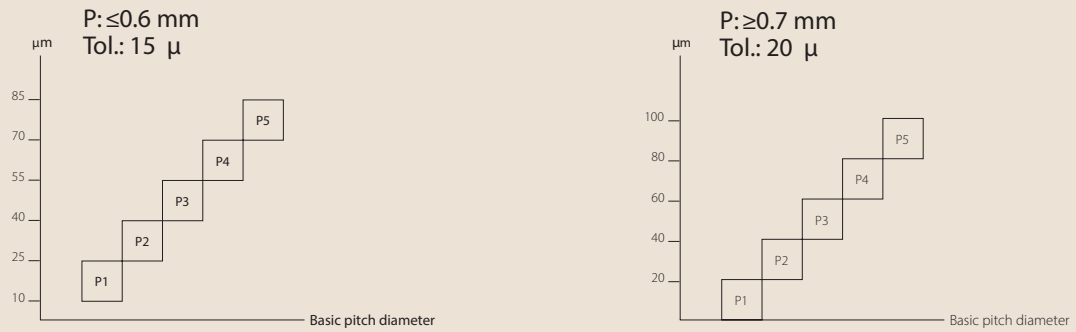
# 8. Internal Thread Tolerance and Classes of Taps

| DIN EN 22857 | | DIN 802 | Internal thread tolerance range | | | | |
|---|---|---|---|---|---|---|---|
| Denomination | Characteristic | | | | | | |
| Class 1 | ISO 1 | 4H | 4H | 5H | - | - | - |
| Class 2 | ISO 2 | 6H | 4G | 5G | 6H | - | - |
| Class 3 | ISO 3 | 6G | - | - | 6G | 7H | 8H |
| - | - | 7G | - | - | - | 7G | 8G |

## ISO




## YAMAWA P CLASS

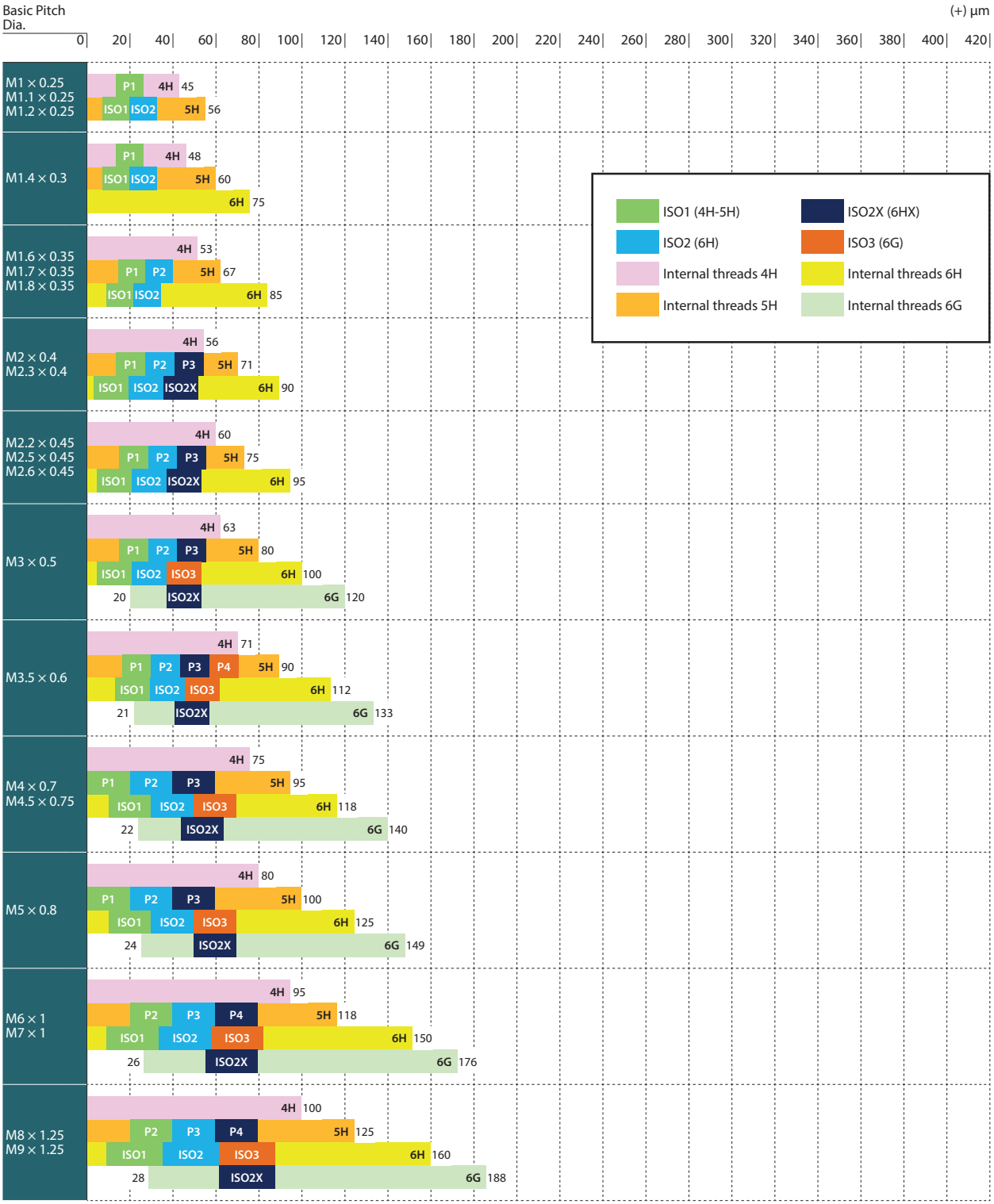



**ISO2X (6HX)**
**ISO3X (6GX)**

| | |
|---|---|
| p = 0.2 mm ~ 0.7 mm | x = +15 µ |
| p = 0.75 mm ~ 1 mm | x = +20 µ |
| p = 1.25 mm ~ 2.5 mm | x = +25 µ |
| p = 2.5 mm ~ | x = +30 µ |

# 9. Comparison of pitch diameter tolerance

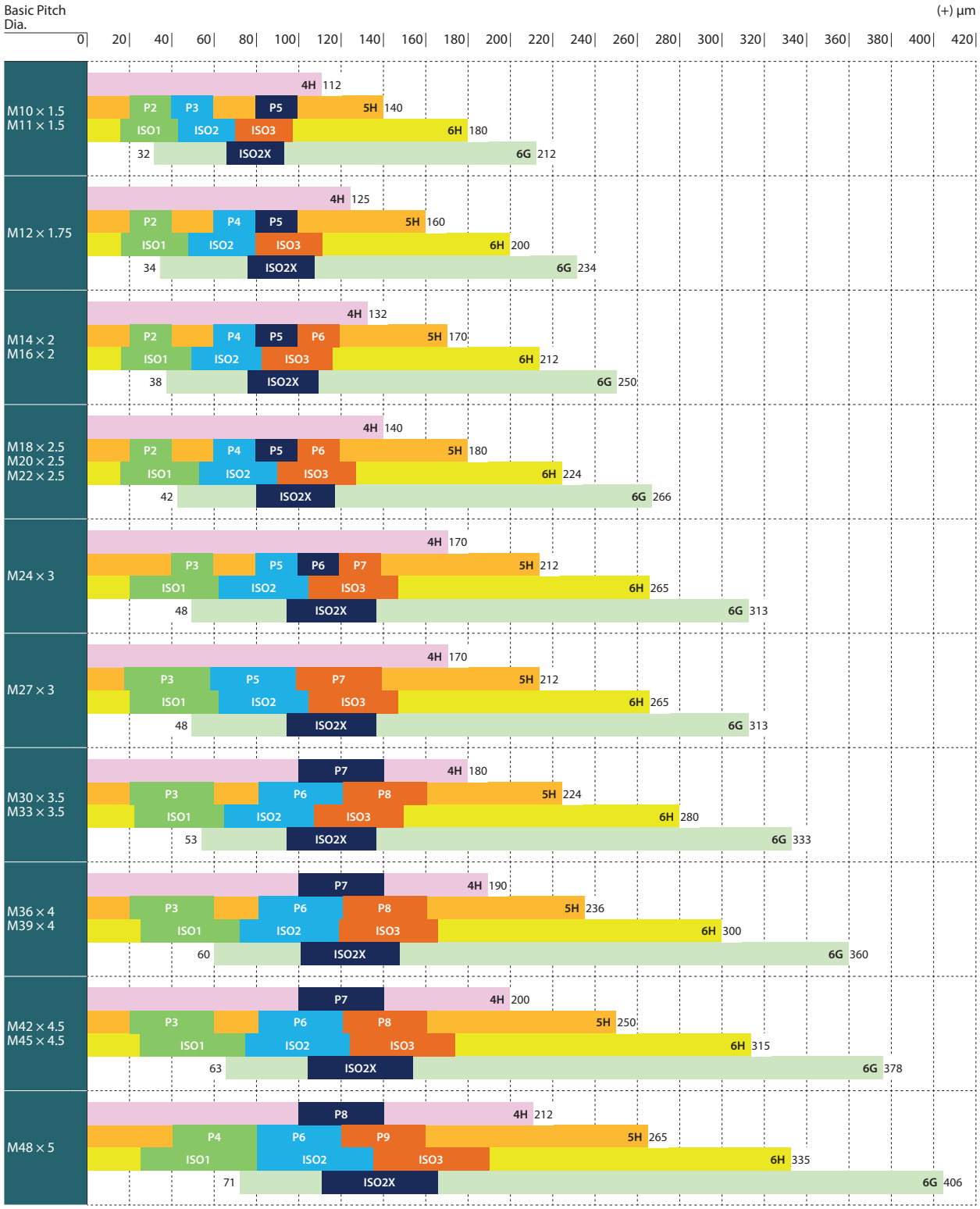
## For Cutting Tap Metric Coarse Thread (M)



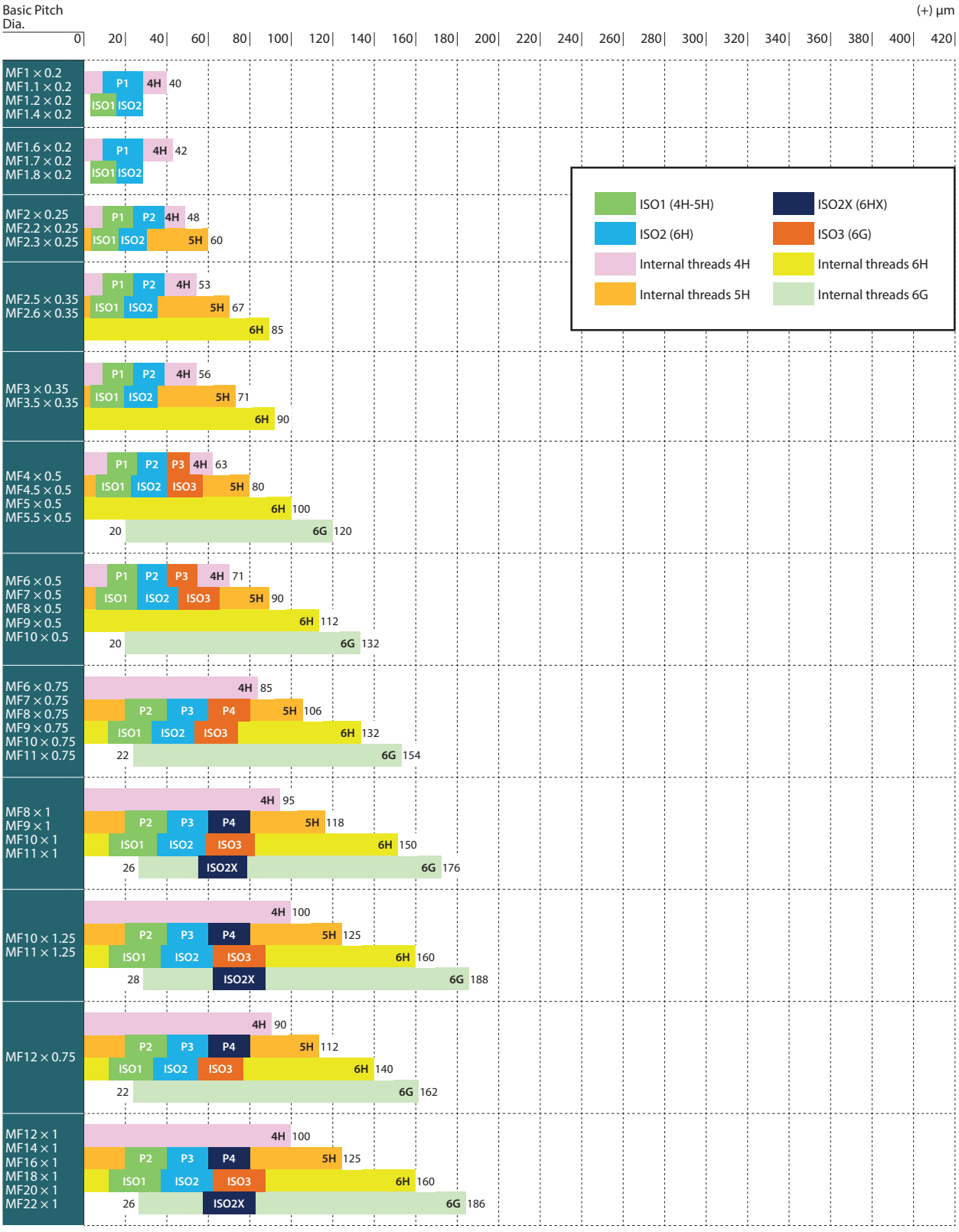



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## For Cutting Tap Metric Coarse Thread (M)



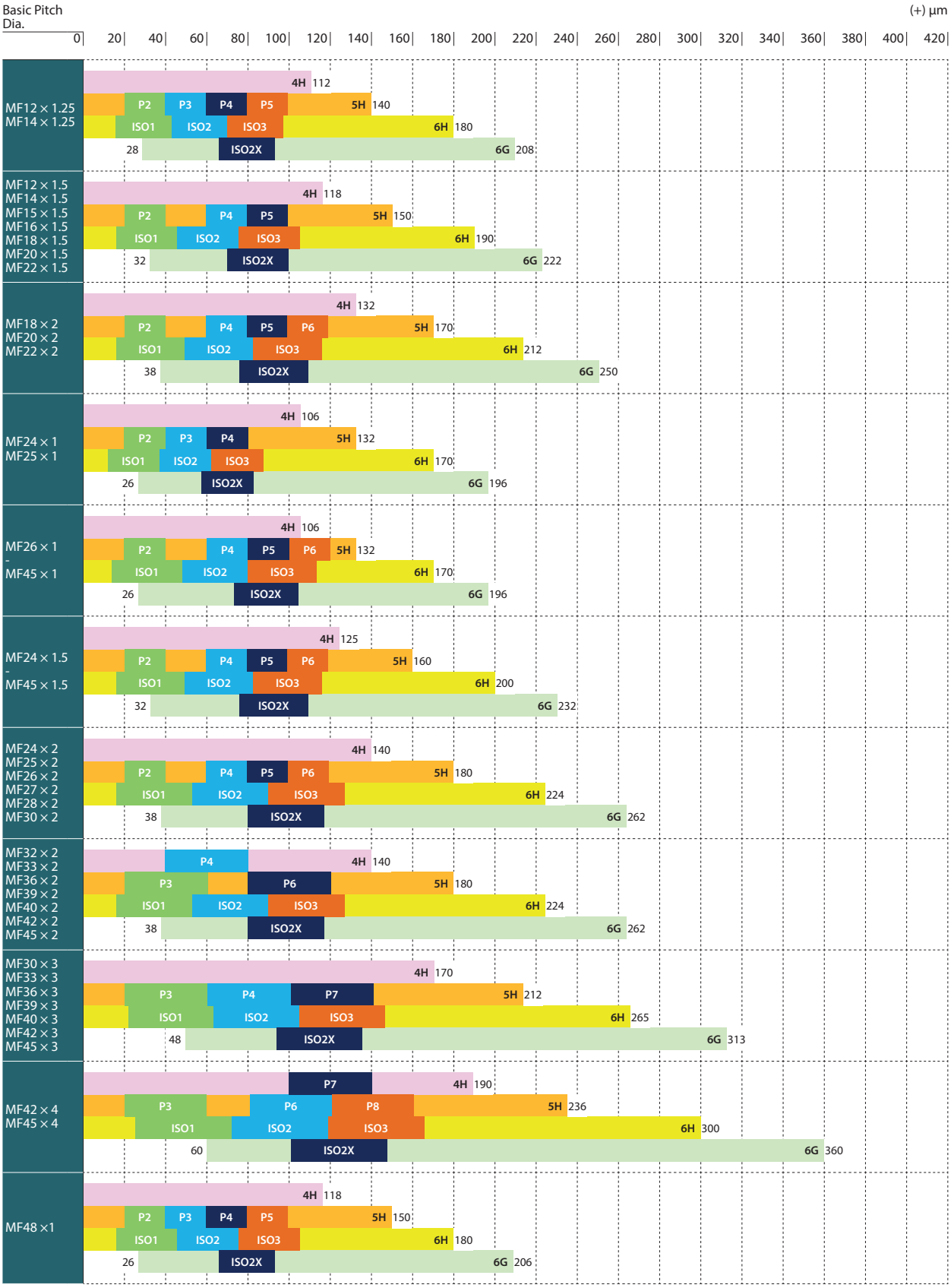
## For Cutting Tap Metric Fine Thread (MF)






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## For Cutting Tap Metric Fine Thread (MF)

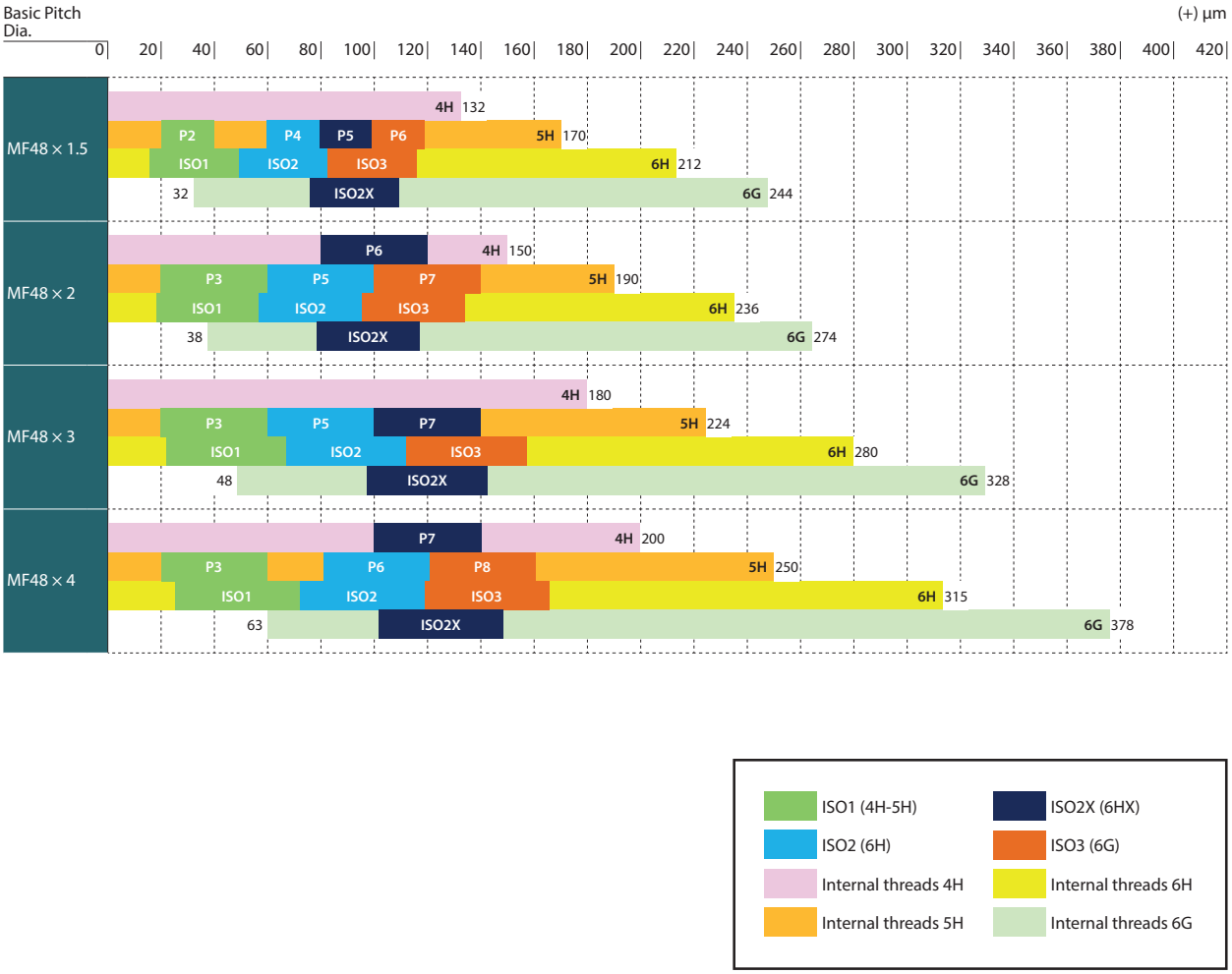





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## 9. Comparison of pitch diameter tolerance

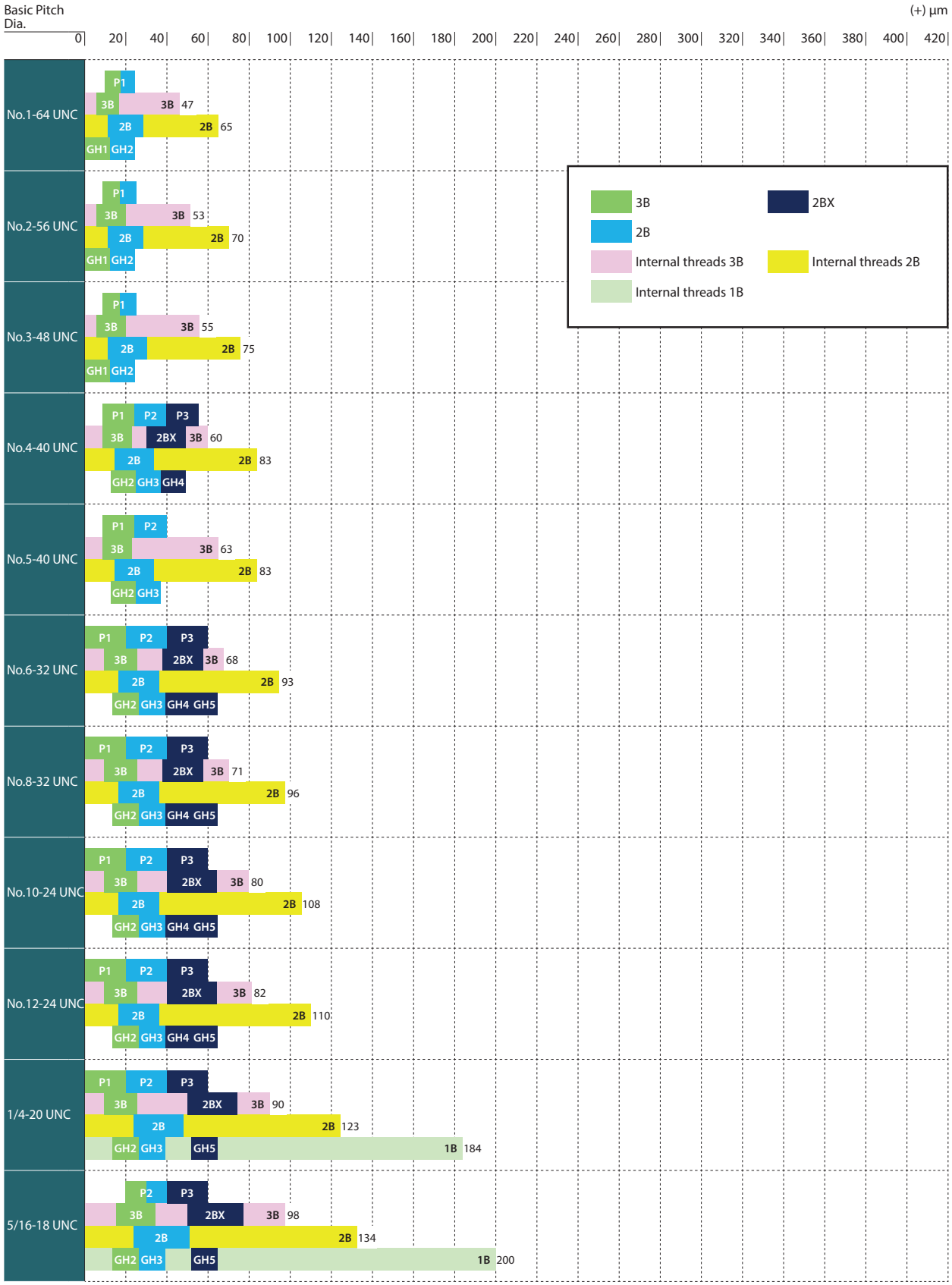
### For Cutting Tap Metric Fine Thread (MF)





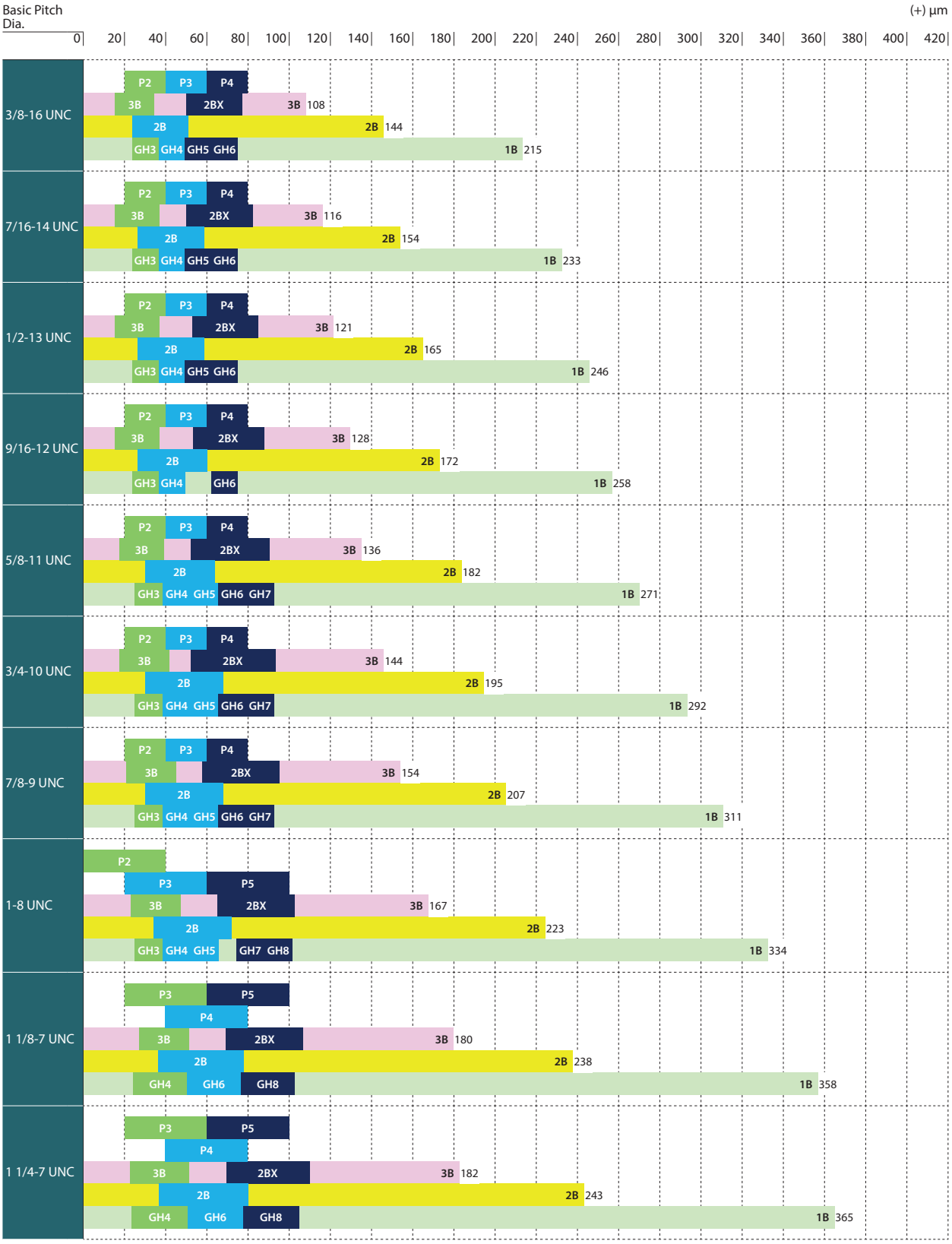

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## For Cutting Tap Unified Coarse Thread (UNC)



## 9. Comparison of pitch diameter tolerance

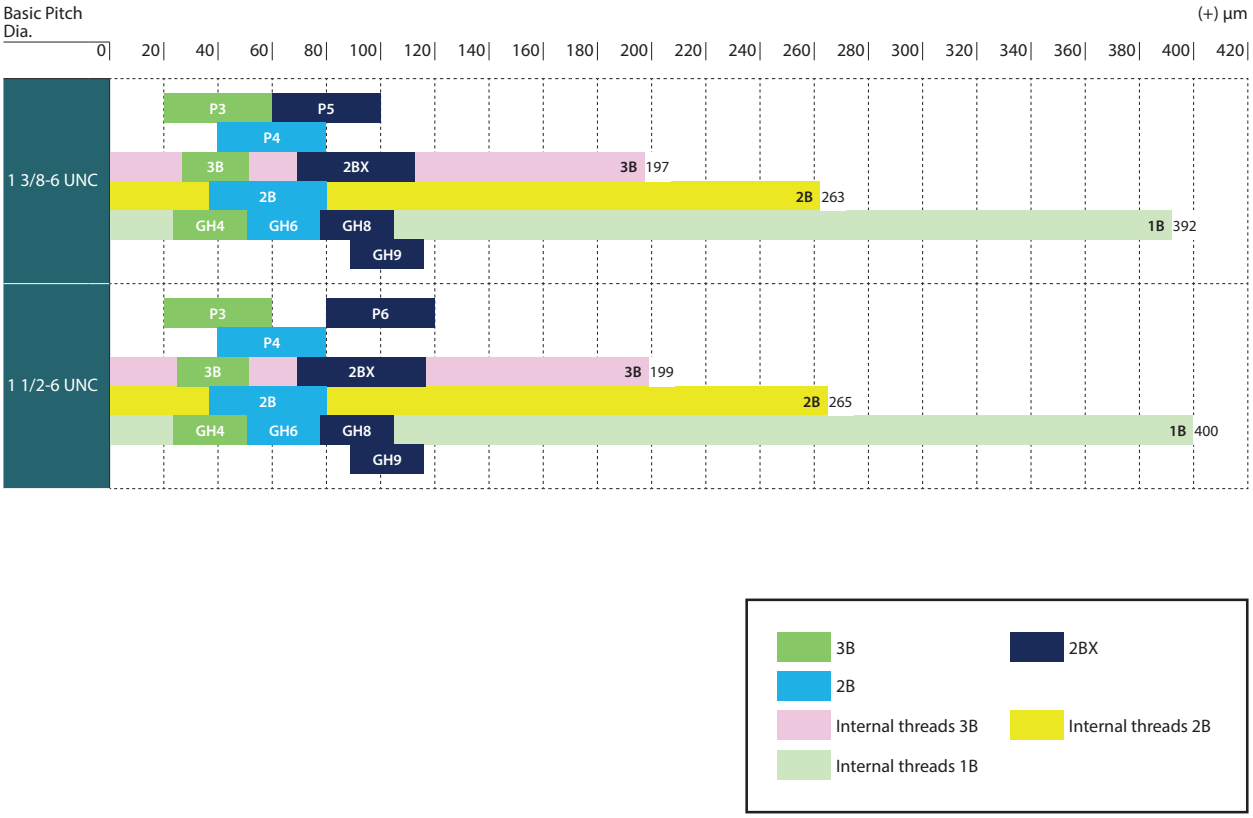
### For Cutting Tap Unified Coarse Thread (UNC)



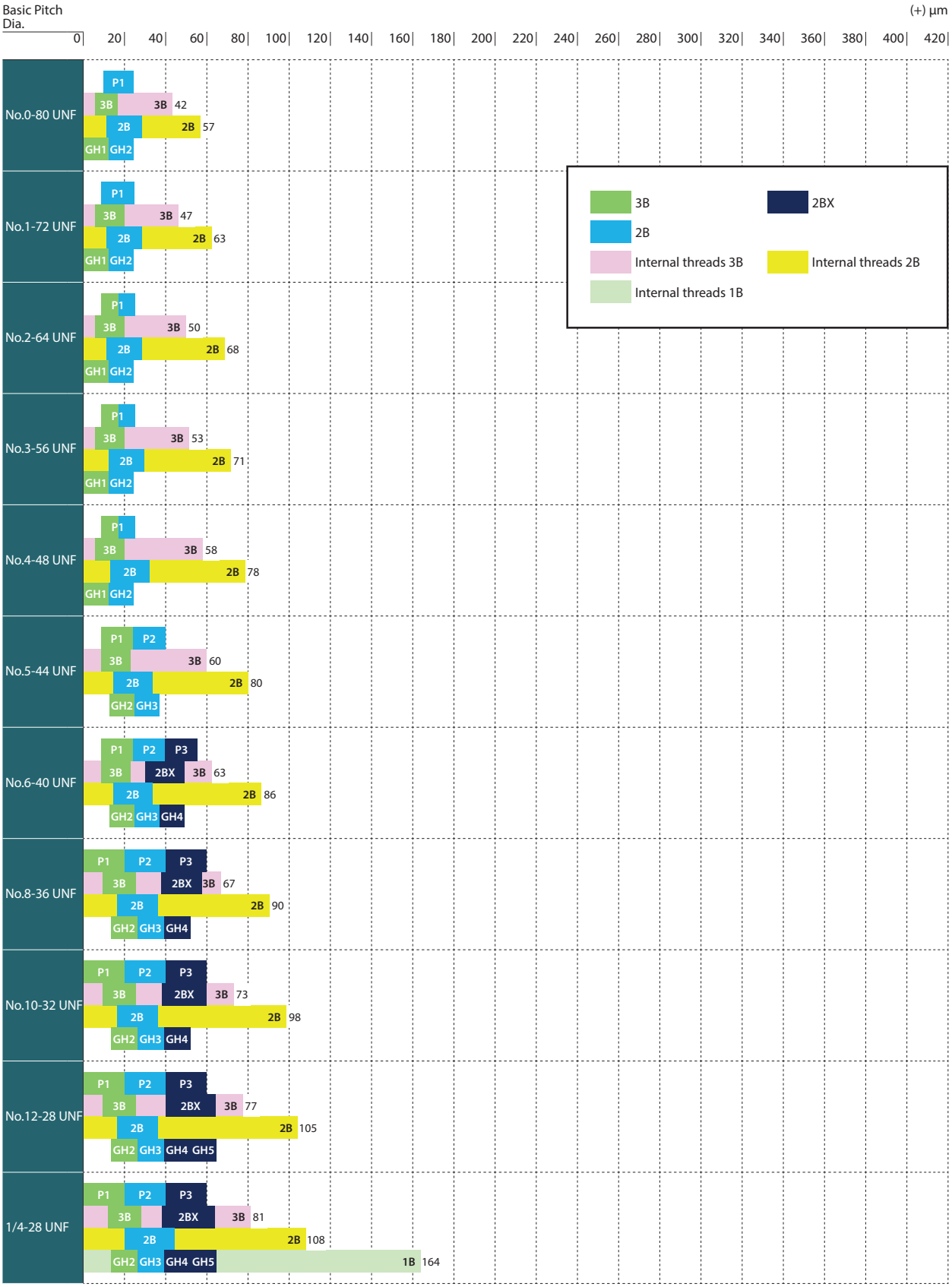



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## For Cutting Tap Unified Coarse Thread (UNC)



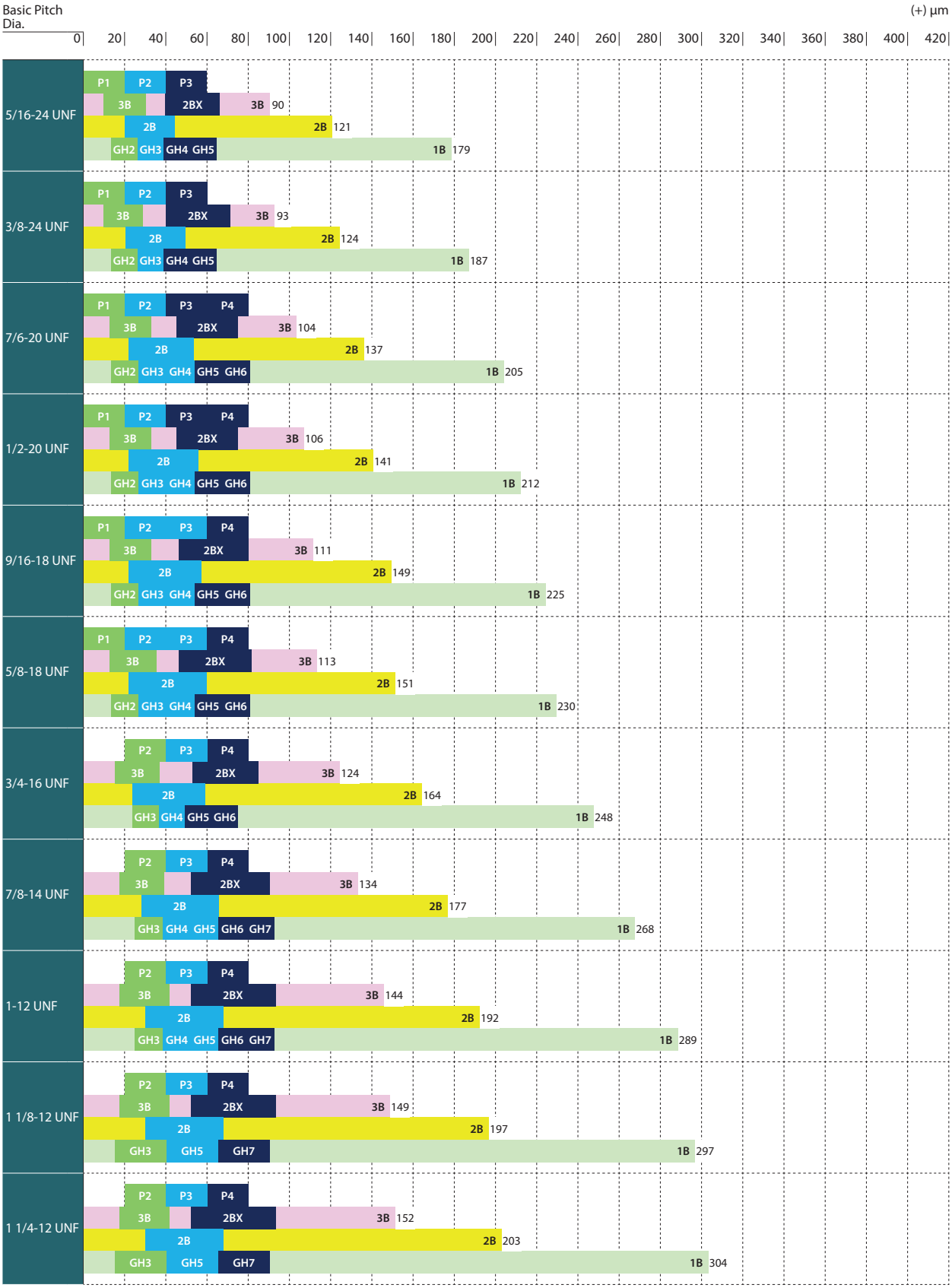
## For Cutting Tap Unified Fine Thread (UNF)





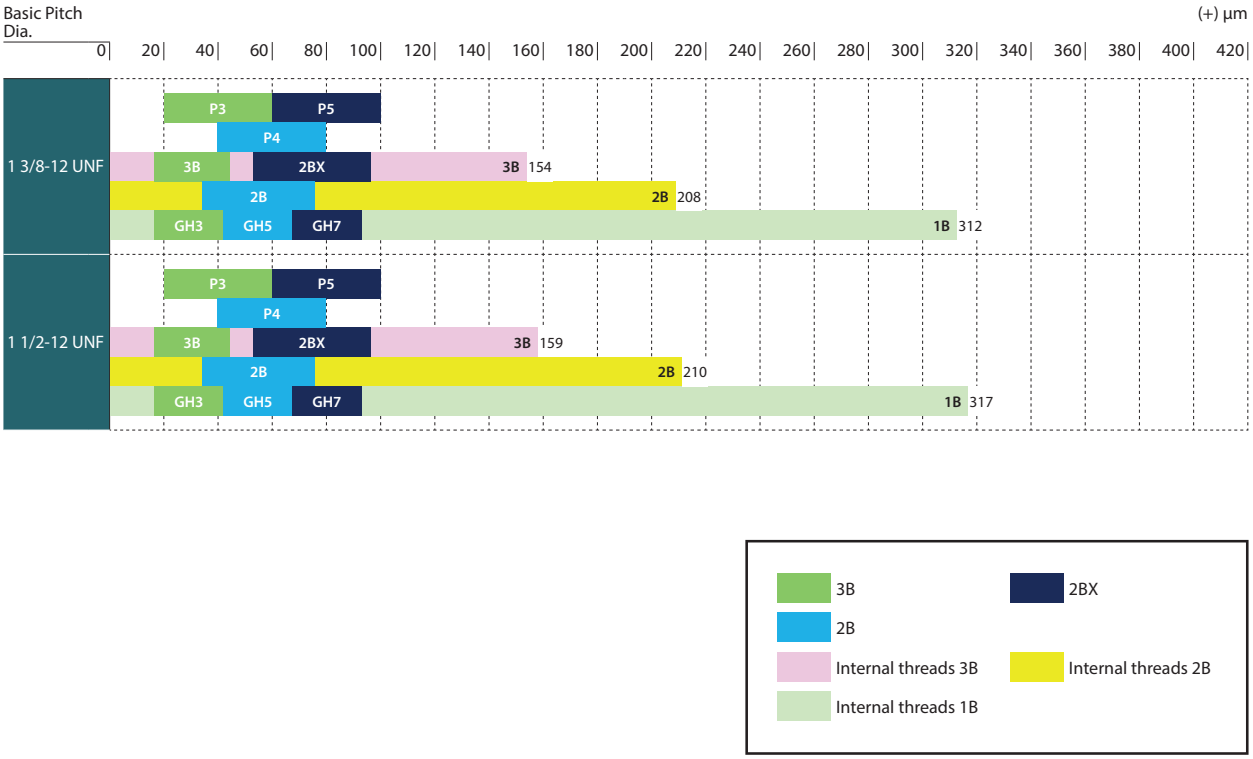

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## For Cutting Tap Unified Fine Thread (UNF)



## 9. Comparison of pitch diameter tolerance

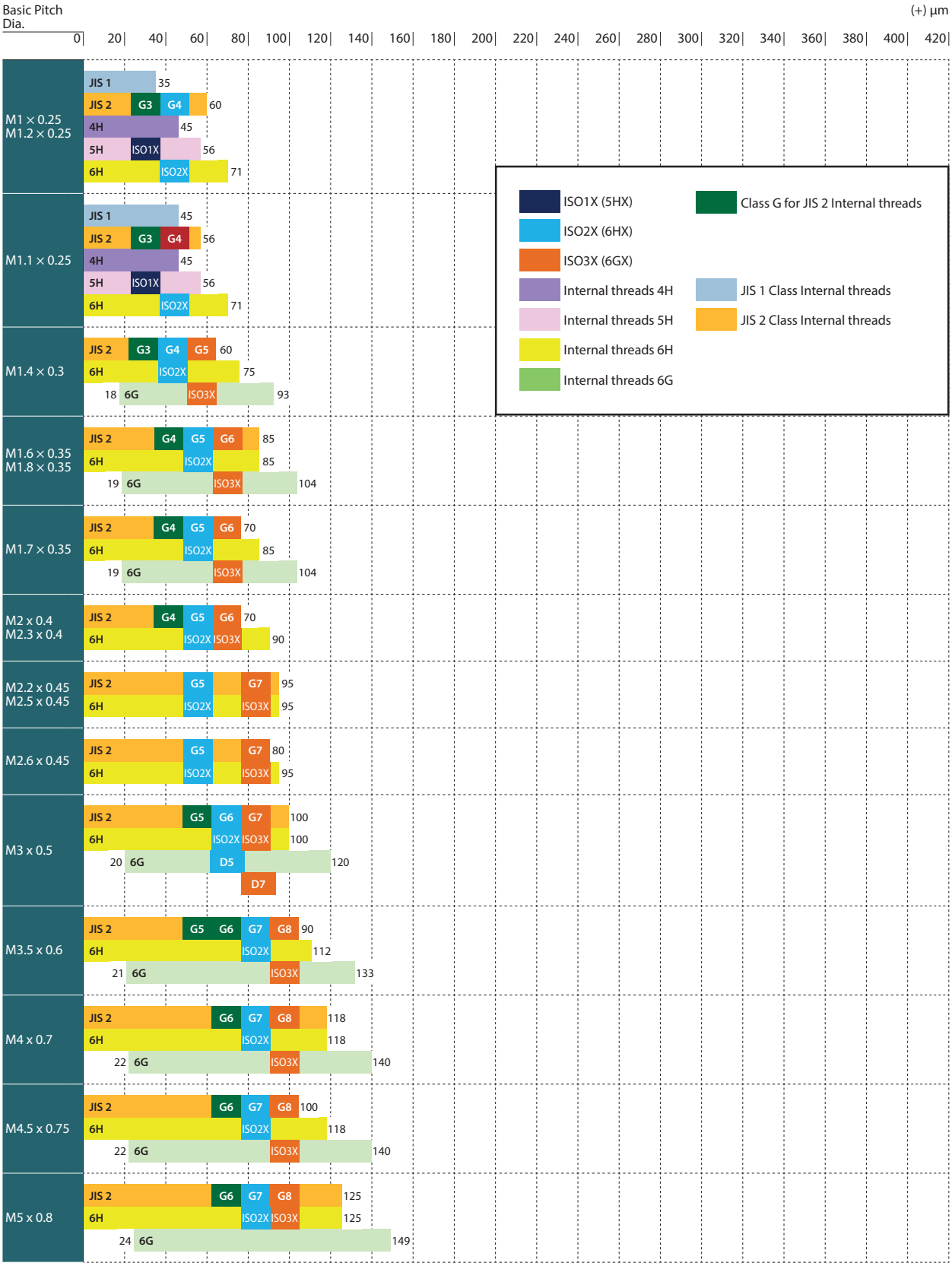
### For Cutting Tap Unified Fine Thread (UNF)






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## For Forming Tap Metric Coarse Thread (M)

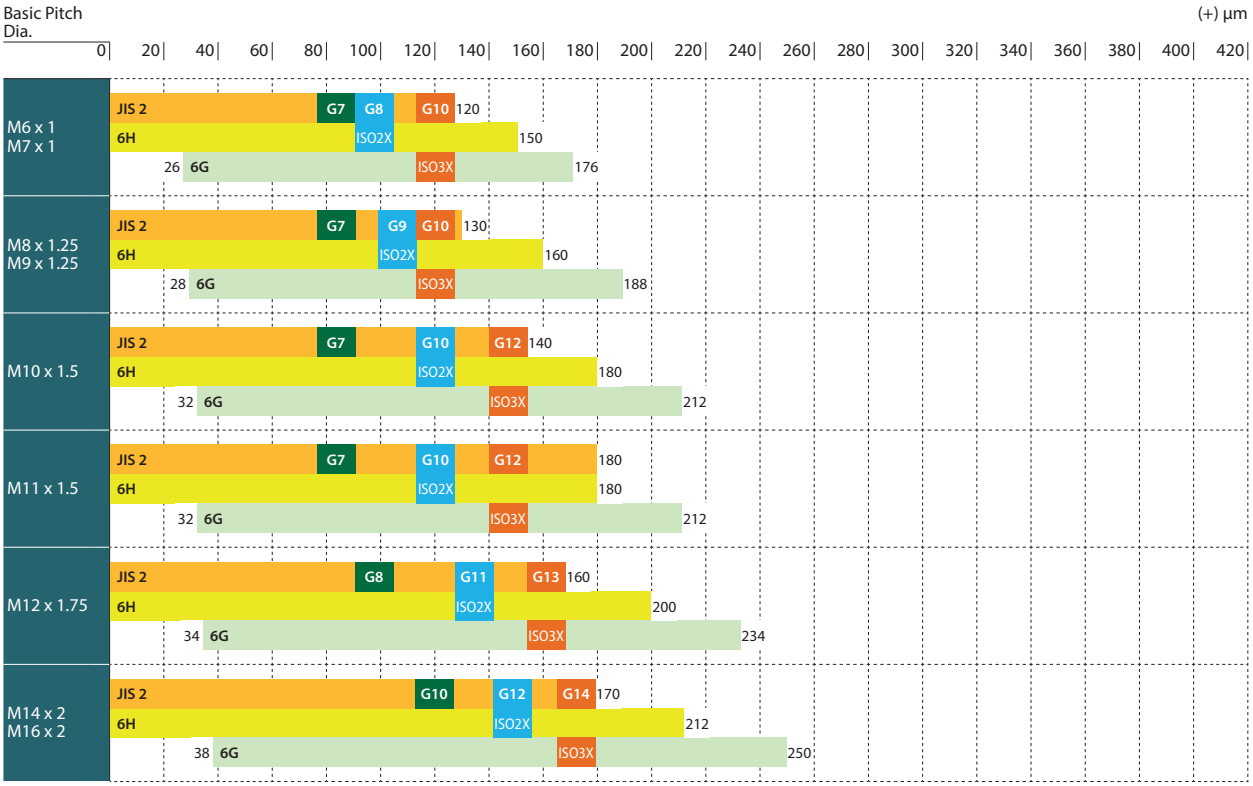





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## 9. Comparison of pitch diameter tolerance

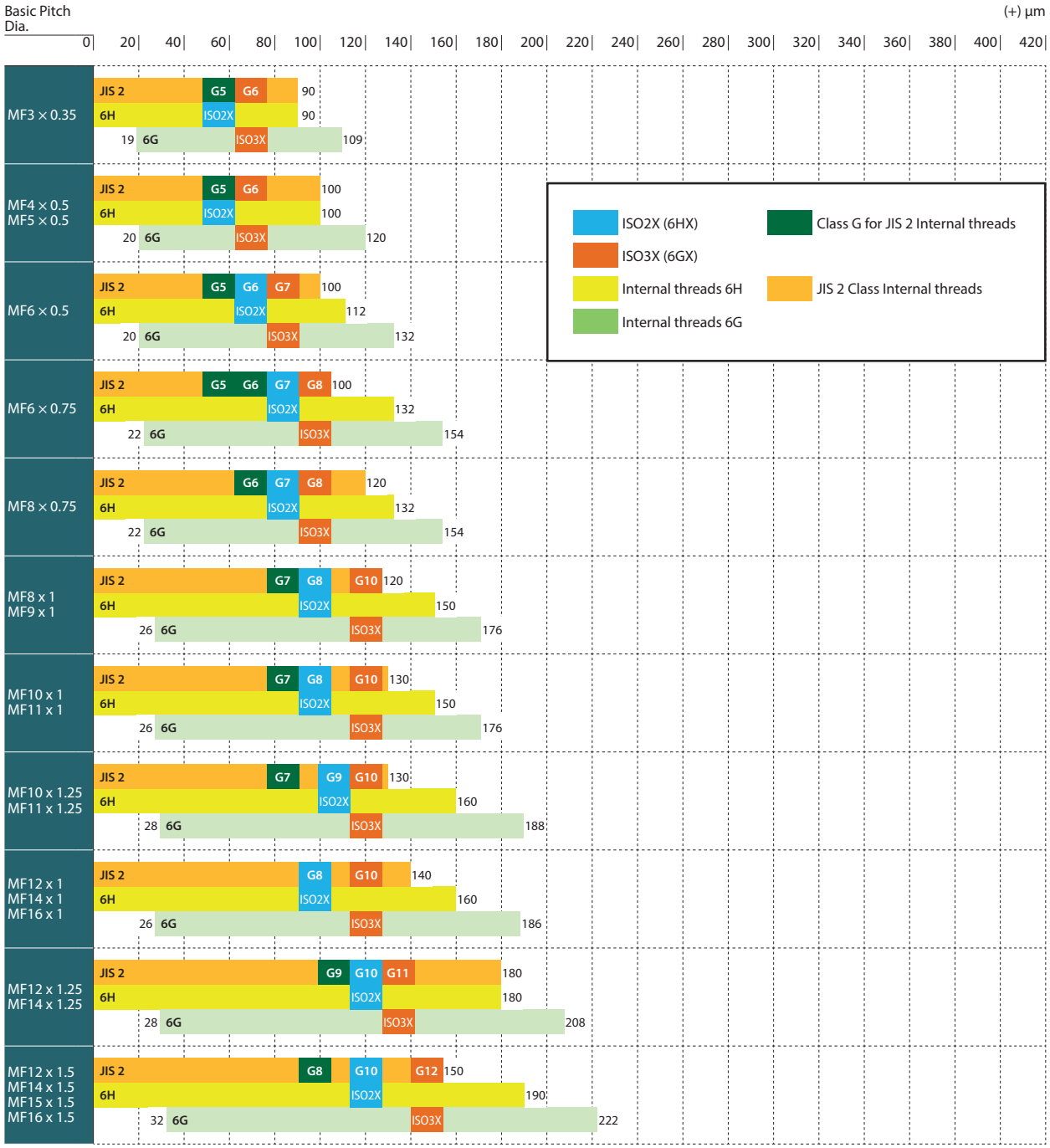
### For Forming Tap Metric Coarse Thread (M)





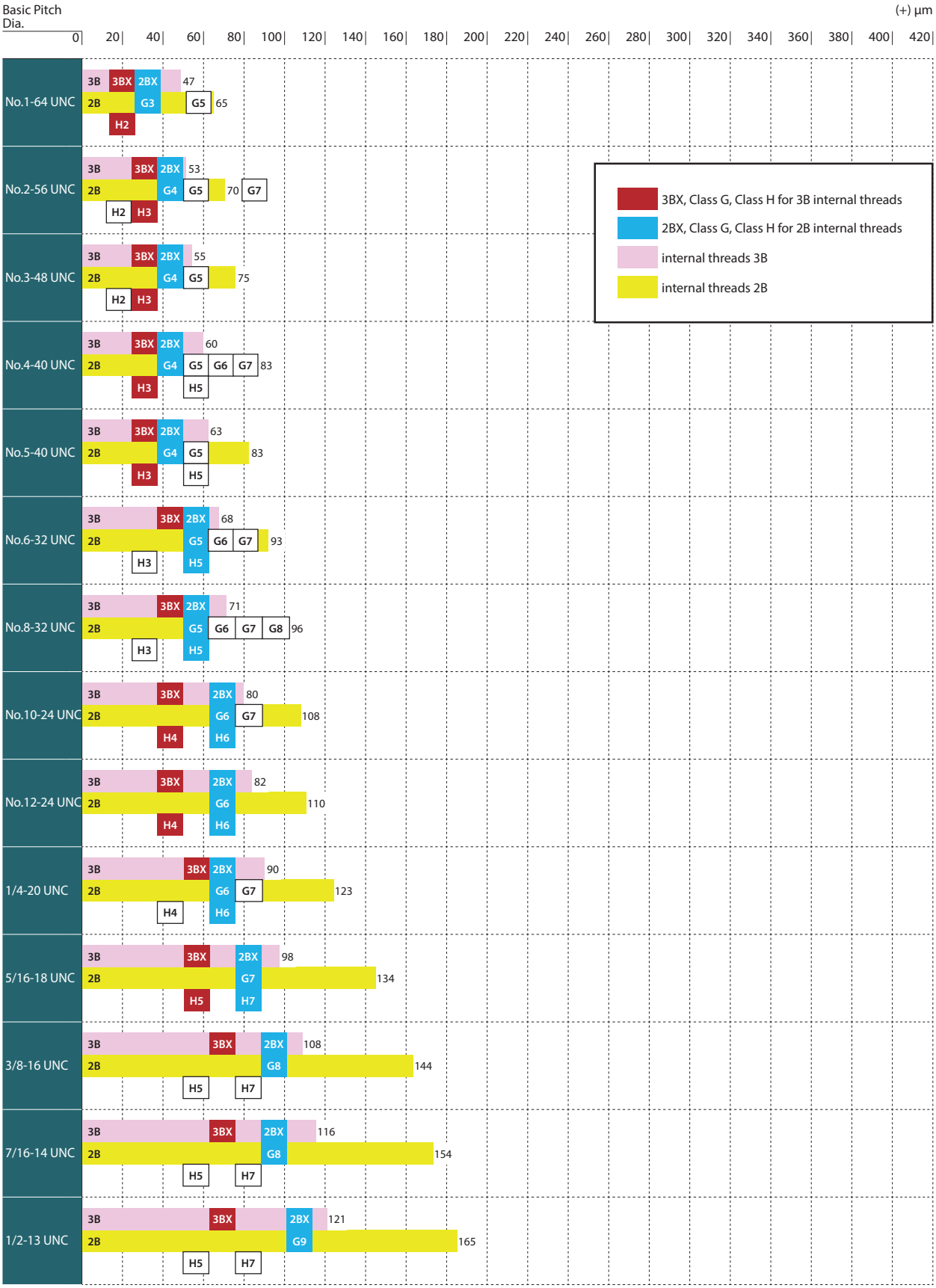

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## For Forming Tap Metric Fine Thread (MF)



## 9. Comparison of pitch diameter tolerance

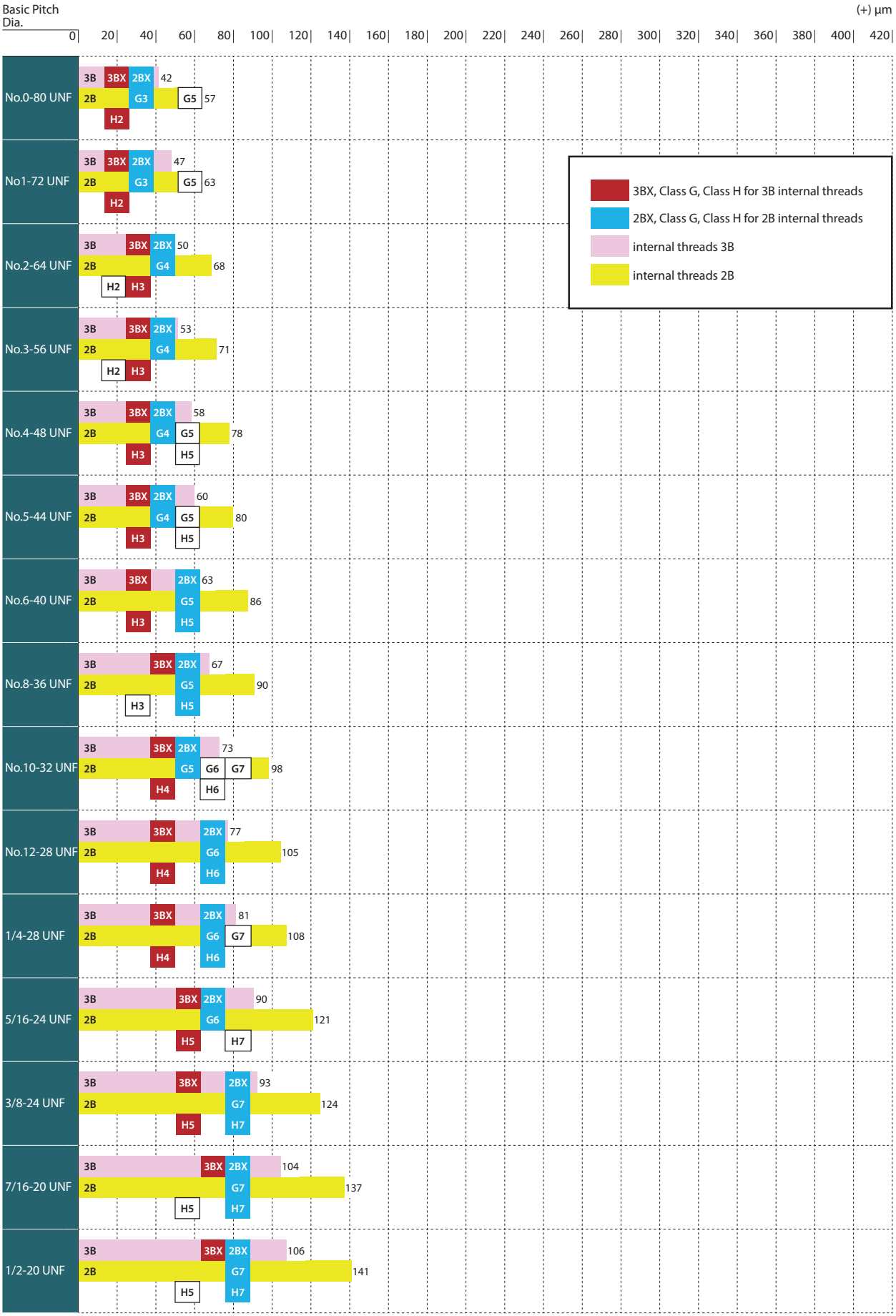
### For Forming Tap Unified Coarse Thread (UNC)






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## For Forming Tap Unified Fine Thread (UNF)






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# 10. Tap Thread Limits (JIS, DIN, ANSI)

## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M1×0.25 | cutting tap | P1 | 1.000 | 0.838 | 25 | 10 | 15 | 0.729 |
| | | ISO1 | | | 17 | 6 | 11 | |
| | | ISO2 | | | 28 | 17 | 11 | |
| | forming tap | G3 | | | 38 | 26 | 12 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | ISO1X | | | 38 | 26 | 12 | |
| | | ISO2X | | | 51 | 38 | 13 | |
| M1×0.2 | cutting tap | P1 | 1.000 | 0.870 | 25 | 10 | 15 | 0.783 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| M1.1×0.25 | cutting tap | P1 | 1.100 | 0.938 | 25 | 10 | 15 | 0.829 |
| | | ISO1 | | | 17 | 6 | 11 | |
| | | ISO2 | | | 28 | 17 | 11 | |
| | forming tap | G3 | | | 38 | 26 | 12 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | ISO1X | | | 38 | 26 | 12 | |
| | | ISO2X | | | 51 | 38 | 13 | |
| M1.1×0.2 | cutting tap | P1 | 1.100 | 0.970 | 25 | 10 | 15 | 0.883 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| M1.2×0.25 | cutting tap | P1 | 1.200 | 1.038 | 25 | 10 | 15 | 0.929 |
| | | ISO1 | | | 17 | 6 | 11 | |
| | | ISO2 | | | 28 | 17 | 11 | |
| M1.2×0.2 | cutting tap | P1 | 1.200 | 1.070 | 25 | 10 | 15 | 0.983 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| | forming tap | G3 | | | 38 | 26 | 12 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | ISO1X | | | 38 | 26 | 12 | |
| | | ISO2X | | | 51 | 38 | 13 | |
| M1.4×0.3 | cutting tap | P1 | 1.400 | 1.205 | 25 | 10 | 15 | 1.075 |
| | | ISO1 | | | 18 | 6 | 12 | |
| | | ISO2 | | | 30 | 18 | 12 | |
| | forming tap | G3 | | | 38 | 26 | 12 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | ISO2X | | | 51 | 38 | 13 | |
| | | ISO3X | | | 64 | 51 | 13 | |
| M1.4×0.2 | cutting tap | P1 | 1.400 | 1.270 | 25 | 10 | 15 | 1.183 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| M1.6×0.35 | cutting tap | P1 | 1.600 | 1.373 | 25 | 10 | 15 | 1.221 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 20 | 7 | 13 | |
| | | ISO2 | | | 34 | 20 | 14 | |
| | forming tap | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M1.6×0.2 | cutting tap | P1 | 1.600 | 1.470 | 25 | 10 | 15 | 1.383 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| M1.7×0.35 | cutting tap | P1 | 1.700 | 1.473 | 25 | 10 | 15 | 1.321 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 20 | 7 | 13 | |
| | | ISO2 | | | 34 | 20 | 14 | |
| | forming tap | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |
| M1.7×0.2 | cutting tap | P1 | 1.700 | 1.570 | 25 | 10 | 15 | 1.483 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| M1.8×0.35 | cutting tap | P1 | 1.800 | 1.573 | 25 | 10 | 15 | 1.421 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 20 | 7 | 13 | |
| | | ISO2 | | | 34 | 20 | 14 | |
| | forming tap | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |
| M1.8×0.2 | cutting tap | P1 | 1.800 | 1.670 | 25 | 10 | 15 | 1.583 |
| | | ISO1 | | | 15 | 5 | 10 | |
| | | ISO2 | | | 25 | 15 | 10 | |
| M2×0.4 | cutting tap | P1 | 2.000 | 1.740 | 25 | 10 | 15 | 1.567 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 21 | 7 | 14 | |
| | | ISO2 | | | 36 | 21 | 15 | |
| | | ISO2X | | | 51 | 36 | 15 | |
| M2×0.4 | forming tap | G4 | 2.000 | 1.740 | 51 | 38 | 13 | 1.567 |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |
| M2×0.25 | cutting tap | P1 | 2.000 | 1.838 | 25 | 10 | 15 | 1.729 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 18 | 6 | 12 | |
| | | ISO2 | | | 30 | 18 | 12 | |
| M2.2×0.45 | cutting tap | P1 | 2.200 | 1.908 | 25 | 10 | 15 | 1.713 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 23 | 8 | 15 | |
| | | ISO2 | | | 38 | 23 | 15 | |
| | | ISO2X | | | 53 | 38 | 15 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 89 | 76 | 13 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M2.2×0.25 | cutting tap | P1 | 2.200 | 2.038 | 25 | 10 | 15 | 1.929 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 18 | 6 | 12 | |
| | | ISO2 | | | 30 | 18 | 12 | |
| M2.3×0.4 | cutting tap | P1 | 2.300 | 2.040 | 25 | 10 | 15 | 1.867 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 21 | 7 | 14 | |
| | | ISO2 | | | 36 | 21 | 15 | |
| | | ISO2X | | | 51 | 36 | 15 | |
| M2.3×0.25 | cutting tap | P1 | 2.300 | 2.138 | 25 | 10 | 15 | 2.029 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 18 | 6 | 12 | |
| | | ISO2 | | | 30 | 18 | 12 | |
| M2.5×0.45 | cutting tap | P1 | 2.500 | 2.208 | 25 | 10 | 15 | 2.013 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 23 | 8 | 15 | |
| | | ISO2 | | | 38 | 23 | 15 | |
| | | ISO2X | | | 53 | 38 | 15 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 89 | 76 | 13 | |
| M2.5×0.35 | cutting tap | P1 | 2.500 | 2.273 | 25 | 10 | 15 | 2.121 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 20 | 7 | 13 | |
| | | ISO2 | | | 34 | 20 | 14 | |
| M2.6×0.45 | cutting tap | P1 | 2.600 | 2.308 | 25 | 10 | 15 | 2.113 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 23 | 8 | 15 | |
| | | ISO2 | | | 38 | 23 | 15 | |
| | | ISO2X | | | 53 | 38 | 15 | |
| | forming tap | G5 | 2.000 | | 64 | 51 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 89 | 76 | 13 | |
| M2.6×0.35 | cutting tap | P1 | 2.600 | 2.373 | 25 | 10 | 15 | 2.221 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 20 | 7 | 13 | |
| | | ISO2 | | | 34 | 20 | 14 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M3×0.5 | cutting tap | P1 | 3.000 | 2.675 | 25 | 10 | 15 | 2.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 24 | 8 | 16 | |
| | | ISO2 | | | 40 | 24 | 16 | |
| | | ISO2X | | | 55 | 39 | 16 | |
| | | ISO3 | | | 56 | 40 | 16 | |
| | | ISO3X | | | 71 | 55 | 16 | |
| | | 7G | | | 72 | 56 | 16 | |
| | | 7GX | | | 87 | 71 | 16 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | ISO2X | | | 76 | 64 | 12 | |
| | | ISO3X | | | 89 | 76 | 13 | |
| M3×0.35 | cutting tap | P1 | 3.000 | 2.773 | 25 | 10 | 15 | 2.621 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 21 | 7 | 14 | |
| | | ISO2 | | | 36 | 21 | 15 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |
| M3.5×0.6 | cutting tap | P1 | 3.500 | 3.110 | 25 | 10 | 15 | 2.850 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | P4 | | | 70 | 55 | 15 | |
| | | ISO1 | | | 27 | 9 | 18 | |
| | | ISO2 | | | 45 | 27 | 18 | |
| | | ISO2X | | | 60 | 42 | 18 | |
| | | ISO3 | | | 63 | 45 | 18 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | ISO2X | | | 89 | 76 | 13 | |
| | | ISO3X | | | 102 | 89 | 13 | |
| M3.5×0.35 | cutting tap | P1 | 3.500 | 3.273 | 25 | 10 | 15 | 3.121 |
| | | P2 | | | 40 | 25 | 15 | |
| | | ISO1 | | | 21 | 7 | 14 | |
| | | ISO2 | | | 36 | 21 | 15 | |

## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M4×0.7 | cutting tap | P1 | 4.000 | 3.545 | 20 | 0 | 20 | 3.242 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | ISO1 | | | 29 | 10 | 19 | |
| | | ISO2 | | | 48 | 29 | 19 | |
| | | ISO2X | | | 63 | 44 | 19 | |
| | | ISO3 | | | 67 | 48 | 19 | |
| | | ISO3X | | | 82 | 63 | 19 | |
| | | 7G | | | 86 | 67 | 19 | |
| | | 7GX | | | 101 | 82 | 19 | |
| | forming tap | G6 | | | 76 | 64 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | ISO2X | | | 89 | 76 | 13 | |
| | | ISO3X | | | 102 | 89 | 13 | |
| M4×0.5 | cutting tap | P1 | 4.000 | 3.675 | 25 | 10 | 15 | 3.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 24 | 8 | 16 | |
| | | ISO2 | | | 40 | 24 | 16 | |
| | | ISO3 | | | 56 | 40 | 16 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |
| M4.5×0.75 | cutting tap | P1 | 4.500 | 4.013 | 20 | 0 | 20 | 3.688 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | ISO1 | | | 29 | 10 | 19 | |
| | | ISO2 | | | 48 | 29 | 19 | |
| | | ISO2X | | | 63 | 44 | 19 | |
| | | ISO3 | | | 67 | 48 | 19 | |
| | forming tap | G6 | | | 76 | 64 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | ISO2X | | | 89 | 76 | 13 | |
| | | ISO3X | | | 102 | 89 | 13 | |
| M4.5×0.5 | cutting tap | P1 | 4.500 | 4.175 | 25 | 10 | 15 | 3.959 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 24 | 8 | 16 | |
| | | ISO2 | | | 40 | 24 | 16 | |
| | | ISO3 | | | 56 | 40 | 16 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M5×0.8 | cutting tap | P1 | 5.000 | 4.480 | 20 | 0 | 20 | 4.134 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | ISO1 | | | 30 | 10 | 20 | |
| | | ISO2 | | | 50 | 30 | 20 | |
| | | ISO2X | | | 70 | 50 | 20 | |
| | | ISO3 | | | 70 | 50 | 20 | |
| | | ISO3X | | | 90 | 70 | 20 | |
| | | 7G | | | 90 | 70 | 20 | |
| | | 7GX | | | 110 | 90 | 20 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | ISO2X | | | 89 | 76 | 13 | |
| | | ISO3X | | | 102 | 89 | 13 | |
| M5×0.5 | cutting tap | P1 | 5.000 | 4.675 | 25 | 10 | 15 | 4.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 24 | 8 | 16 | |
| | | ISO2 | | | 40 | 24 | 16 | |
| | | ISO3 | | | 56 | 40 | 16 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | ISO2X | | | 64 | 51 | 13 | |
| | | ISO3X | | | 76 | 64 | 12 | |
| M5.5×0.5 | cutting tap | P1 | 5.500 | 5.175 | 25 | 10 | 15 | 4.959 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 24 | 8 | 16 | |
| | | ISO2 | | | 40 | 24 | 16 | |
| | | ISO3 | | | 56 | 40 | 16 | |
| M6×1 | cutting tap | P2 | 6.000 | 5.350 | 40 | 20 | 20 | 4.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 35 | 12 | 23 | |
| | | ISO2 | | | 59 | 35 | 24 | |
| | | ISO2X | | | 79 | 55 | 24 | |
| | | ISO3 | | | 83 | 59 | 24 | |
| | | ISO3X | | | 103 | 79 | 24 | |
| | | 7G | | | 107 | 83 | 24 | |
| | | 7GX | | | 127 | 103 | 24 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M6×0.75 | cutting tap | P2 | 6.000 | 5.513 | 40 | 20 | 20 | 5.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 32 | 11 | 21 | |
| | | ISO2 | | | 53 | 32 | 21 | |
| | | ISO3 | | | 74 | 53 | 21 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | ISO2X | | | 89 | 76 | 13 | |
| | | ISO3X | | | 102 | 89 | 13 | |
| M6×0.5 | cutting tap | P1 | 6.000 | 5.675 | 25 | 10 | 15 | 5.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 27 | 9 | 18 | |
| | | ISO2 | | | 45 | 27 | 18 | |
| | | ISO3 | | | 63 | 45 | 18 | |
| | forming tap | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | ISO2X | | | 76 | 64 | 12 | |
| | | ISO3X | | | 89 | 76 | 13 | |
| M7×1 | cutting tap | P2 | 7.000 | 6.350 | 40 | 20 | 20 | 5.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 35 | 12 | 23 | |
| | | ISO2 | | | 59 | 35 | 24 | |
| | | ISO2X | | | 79 | 55 | 24 | |
| | | ISO3 | | | 83 | 59 | 24 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M7×0.75 | cutting tap | P2 | 7.000 | 6.513 | 40 | 20 | 20 | 6.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 32 | 11 | 21 | |
| | | ISO2 | | | 53 | 32 | 21 | |
| | | ISO3 | | | 74 | 53 | 21 | |
| M7×0.5 | cutting tap | P1 | 7.000 | 6.675 | 25 | 10 | 15 | 6.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 27 | 9 | 18 | |
| | | ISO2 | | | 45 | 27 | 18 | |
| | | ISO3 | | | 63 | 45 | 18 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M8×1.25 | cutting tap | P2 | 8.000 | 7.188 | 40 | 20 | 20 | 6.647 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 88 | 63 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| | | ISO3X | | | 113 | 88 | 25 | |
| | | 7G | | | 113 | 88 | 25 | |
| | | 7GX | | | 138 | 113 | 25 | |
| | forming tap | G9 | | | 114 | 102 | 12 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 114 | 102 | 12 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M8×1 | cutting tap | P2 | 8.000 | 7.350 | 40 | 20 | 20 | 6.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 35 | 12 | 23 | |
| | | ISO2 | | | 59 | 35 | 24 | |
| | | ISO2X | | | 79 | 55 | 24 | |
| | | ISO3 | | | 83 | 59 | 24 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M8×0.75 | cutting tap | P2 | 8.000 | 7.513 | 40 | 20 | 20 | 7.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 32 | 11 | 21 | |
| | | ISO2 | | | 53 | 32 | 21 | |
| | | ISO3 | | | 74 | 53 | 21 | |
| | forming tap | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | ISO2X | | | 89 | 76 | 13 | |
| | | ISO3X | | | 102 | 89 | 13 | |
| M8×0.5 | cutting tap | P1 | 8.000 | 7.675 | 25 | 10 | 15 | 7.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 27 | 9 | 18 | |
| | | ISO2 | | | 45 | 27 | 18 | |
| | | ISO3 | | | 63 | 45 | 18 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M9×1.25 | cutting tap | P2 | 9.000 | 8.188 | 40 | 20 | 20 | 7.647 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 88 | 63 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G9 | | | 114 | 102 | 12 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 114 | 102 | 12 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M9×1 | cutting tap | P2 | 9.000 | 8.350 | 40 | 20 | 20 | 7.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 35 | 12 | 23 | |
| | | ISO2 | | | 59 | 35 | 24 | |
| | | ISO2X | | | 79 | 55 | 24 | |
| | | ISO3 | | | 83 | 59 | 24 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M9×0.75 | cutting tap | P2 | 9.000 | 8.513 | 40 | 20 | 20 | 8.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 32 | 11 | 21 | |
| | | ISO2 | | | 53 | 32 | 21 | |
| | | ISO3 | | | 74 | 53 | 21 | |
| M10×1.5 | cutting tap | P2 | 10.000 | 9.026 | 40 | 20 | 20 | 8.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 42 | 14 | 28 | |
| | | ISO2 | | | 70 | 42 | 28 | |
| | | ISO2X | | | 95 | 67 | 28 | |
| | | ISO3 | | | 98 | 70 | 28 | |
| | | ISO3X | | | 123 | 95 | 28 | |
| | | 7G | | | 126 | 98 | 28 | |
| | | 7GX | | | 151 | 123 | 28 | |
| | forming tap | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 152 | 140 | 12 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M10×1.25 | cutting tap | P2 | 10.000 | 9.188 | 40 | 20 | 20 | 8.647 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 88 | 63 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G9 | | | 114 | 102 | 12 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 114 | 102 | 12 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M10×1 | cutting tap | P2 | 10.000 | 9.350 | 40 | 20 | 20 | 8.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 35 | 12 | 23 | |
| | | ISO2 | | | 59 | 35 | 24 | |
| | | ISO2X | | | 79 | 55 | 24 | |
| | | ISO3 | | | 83 | 59 | 24 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M10×0.75 | cutting tap | P2 | 10.000 | 9.513 | 40 | 20 | 20 | 9.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 32 | 11 | 21 | |
| | | ISO2 | | | 53 | 32 | 21 | |
| | | ISO3 | | | 74 | 53 | 21 | |
| M10×0.5 | cutting tap | P1 | 10.000 | 9.675 | 25 | 10 | 15 | 9.459 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | ISO1 | | | 27 | 9 | 18 | |
| | | ISO2 | | | 45 | 27 | 18 | |
| | | ISO3 | | | 63 | 45 | 18 | |
| M11×1.5 | cutting tap | P2 | 11.000 | 10.026 | 40 | 20 | 20 | 9.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 42 | 14 | 28 | |
| | | ISO2 | | | 70 | 42 | 28 | |
| | | ISO2X | | | 95 | 67 | 28 | |
| | | ISO3 | | | 98 | 70 | 28 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 152 | 140 | 12 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M11×1 | cutting tap | P2 | 11.000 | 10.350 | 40 | 20 | 20 | 9.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 35 | 12 | 23 | |
| | | ISO2 | | | 59 | 35 | 24 | |
| | | ISO2X | | | 79 | 55 | 24 | |
| | | ISO3 | | | 83 | 59 | 24 | |
| | forming tap | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M11×0.75 | cutting tap | P2 | 11.000 | 10.513 | 40 | 20 | 20 | 10.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 32 | 11 | 21 | |
| | | ISO2 | | | 53 | 32 | 21 | |
| | | ISO3 | | | 74 | 53 | 21 | |
| M12×1.75 | cutting tap | P2 | 12.000 | 10.863 | 40 | 20 | 20 | 10.106 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| | | ISO3X | | | 137 | 105 | 32 | |
| | | 7G | | | 144 | 112 | 32 | |
| | | 7GX | | | 169 | 137 | 32 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G11 | | | 140 | 127 | 13 | |
| | | G13 | | | 165 | 152 | 13 | |
| | | ISO2X | | | 140 | 127 | 13 | |
| | | ISO3X | | | 165 | 152 | 13 | |
| M12×1.5 | cutting tap | P2 | 12.000 | 11.026 | 40 | 20 | 20 | 10.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 152 | 140 | 12 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M12×1.25 | cutting tap | P2 | 12.000 | 11.188 | 40 | 20 | 20 | 10.647 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 42 | 14 | 28 | |
| | | ISO2 | | | 70 | 42 | 28 | |
| | | ISO2X | | | 95 | 67 | 28 | |
| | | ISO3 | | | 98 | 70 | 28 | |
| | forming tap | G9 | | | 114 | 102 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G11 | | | 140 | 127 | 13 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 140 | 127 | 13 | |
| M12×1 | cutting tap | P2 | 12.000 | 11.350 | 40 | 20 | 20 | 10.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 83 | 58 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M12×0.75 | cutting tap | P2 | 12.000 | 11.513 | 40 | 20 | 20 | 11.188 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 34 | 11 | 23 | |
| | | ISO2 | | | 56 | 34 | 22 | |
| | | ISO3 | | | 78 | 56 | 22 | |
| M14×2 | cutting tap | P2 | 14.000 | 12.701 | 40 | 20 | 20 | 11.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 51 | 17 | 34 | |
| | | ISO2 | | | 85 | 51 | 34 | |
| | | ISO2X | | | 110 | 76 | 34 | |
| | | ISO3 | | | 119 | 85 | 34 | |
| | | ISO3X | | | 144 | 110 | 34 | |
| | | 7G | | | 153 | 119 | 34 | |
| | | 7GX | | | 178 | 144 | 34 | |
| M14×2 | forming tap | G10 | 14.000 | 12.701 | 127 | 114 | 13 | 11.835 |
| | | G12 | | | 152 | 140 | 12 | |
| | | G14 | | | 178 | 165 | 13 | |
| | | ISO2X | | | 152 | 140 | 12 | |
| | | ISO3X | | | 178 | 165 | 13 | |

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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M14×1.5 | cutting tap | P2 | 14.000 | 13.026 | 40 | 20 | 20 | 12.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| | forming tap | G9 | | | 114 | 102 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 152 | 140 | 12 | |
| M14×1.25 | cutting tap | P2 | 14.000 | 13.188 | 40 | 20 | 20 | 12.647 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 42 | 14 | 28 | |
| | | ISO2 | | | 70 | 42 | 28 | |
| | | ISO2X | | | 95 | 67 | 28 | |
| | | ISO3 | | | 98 | 70 | 28 | |
| | forming tap | G9 | | | 114 | 102 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G11 | | | 140 | 127 | 13 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 140 | 127 | 13 | |
| M14×1 | cutting tap | P2 | 14.000 | 13.350 | 40 | 20 | 20 | 12.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 83 | 58 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M15×1.5 | cutting tap | P2 | 15.000 | 14.026 | 40 | 20 | 20 | 13.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| | forming tap | G9 | | | 114 | 102 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 152 | 140 | 12 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M16×2 | cutting tap | P2 | 16.000 | 14.701 | 40 | 20 | 20 | 13.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 51 | 17 | 34 | |
| | | ISO2 | | | 85 | 51 | 34 | |
| | | ISO2X | | | 110 | 76 | 34 | |
| | | ISO3 | | | 119 | 85 | 34 | |
| | | ISO3X | | | 144 | 110 | 34 | |
| | | 7G | | | 153 | 119 | 34 | |
| | | 7GX | | | 178 | 144 | 34 | |
| | forming tap | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | G14 | | | 178 | 165 | 13 | |
| | | ISO2X | | | 152 | 140 | 12 | |
| | | ISO3X | | | 178 | 165 | 13 | |
| | | G12 | | | 156 | 115 | 41 | |
| | | G14 | | | 182 | 141 | 41 | |
| M16×1.5 | cutting tap | P2 | 16.000 | 15.026 | 40 | 20 | 20 | 14.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| | forming tap | G9 | | | 114 | 102 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | G12 | | | 152 | 140 | 12 | |
| | | ISO2X | | | 127 | 114 | 13 | |
| | | ISO3X | | | 152 | 140 | 12 | |
| M16×1 | cutting tap | P2 | 16.000 | 15.350 | 40 | 20 | 20 | 14.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 83 | 58 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| | forming tap | G8 | | | 102 | 89 | 13 | |
| | | G10 | | | 127 | 114 | 13 | |
| | | ISO2X | | | 102 | 89 | 13 | |
| | | ISO3X | | | 127 | 114 | 13 | |
| M18×2.5 | cutting tap | P2 | 18.000 | 16.376 | 40 | 20 | 20 | 15.294 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| M18×2 | cutting tap | P2 | 18.000 | 16.701 | 40 | 20 | 20 | 15.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 51 | 17 | 34 | |
| | | ISO2 | | | 85 | 51 | 34 | |
| | | ISO2X | | | 110 | 76 | 34 | |
| | | ISO3 | | | 119 | 85 | 34 | |
| M18×1.5 | cutting tap | P2 | 18.000 | 17.026 | 40 | 20 | 20 | 16.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| M18×1 | cutting tap | P2 | 18.000 | 17.350 | 40 | 20 | 20 | 16.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 83 | 58 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| M20×2.5 | cutting tap | P2 | 20.000 | 18.376 | 40 | 20 | 20 | 17.294 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M20×2 | cutting tap | P2 | 20.000 | 18.701 | 40 | 20 | 20 | 17.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 51 | 17 | 34 | |
| | | ISO2 | | | 85 | 51 | 34 | |
| | | ISO2X | | | 110 | 76 | 34 | |
| | | ISO3 | | | 119 | 85 | 34 | |
| M20×1.5 | cutting tap | P2 | 20.000 | 19.026 | 40 | 20 | 20 | 18.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| M20×1 | cutting tap | P2 | 20.000 | 19.350 | 40 | 20 | 20 | 18.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 83 | 58 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| M22×2.5 | cutting tap | P2 | 22.000 | 20.376 | 40 | 20 | 20 | 19.294 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M22×2 | cutting tap | P2 | 22.000 | 20.701 | 40 | 20 | 20 | 19.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 51 | 17 | 34 | |
| | | ISO2 | | | 85 | 51 | 34 | |
| | | ISO2X | | | 110 | 76 | 34 | |
| | | ISO3 | | | 119 | 85 | 34 | |
| M22×1.5 | cutting tap | P2 | 22.000 | 21.026 | 40 | 20 | 20 | 20.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 100 | 70 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |
| M22×1 | cutting tap | P2 | 22.000 | 21.350 | 40 | 20 | 20 | 20.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 38 | 13 | 25 | |
| | | ISO2 | | | 63 | 38 | 25 | |
| | | ISO2X | | | 83 | 58 | 25 | |
| | | ISO3 | | | 88 | 63 | 25 | |
| M24×3 | cutting tap | P3 | 24.000 | 22.051 | 60 | 40 | 20 | 20.752 |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | P7 | | | 140 | 120 | 20 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M24×2 | cutting tap | P2 | 24.000 | 22.701 | 40 | 20 | 20 | 21.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M24×1.5 | cutting tap | P2 | 24.000 | 23.026 | 40 | 20 | 20 | 22.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M24×1 | cutting tap | P2 | 24.000 | 23.350 | 40 | 20 | 20 | 22.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M25×2 | cutting tap | P2 | 25.000 | 23.701 | 40 | 20 | 20 | 22.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M25×1.5 | cutting tap | P2 | 25.000 | 24.026 | 40 | 20 | 20 | 23.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M25×1 | cutting tap | P2 | 25.000 | 24.350 | 40 | 20 | 20 | 23.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M26×2 | cutting tap | P2 | 26.000 | 24.701 | 40 | 20 | 20 | 23.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M26×1.5 | cutting tap | P2 | 26.000 | 25.026 | 40 | 20 | 20 | 24.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M26×1 | cutting tap | P2 | 26.000 | 25.350 | 40 | 20 | 20 | 24.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M27×3 | cutting tap | P3 | 27.000 | 25.051 | 60 | 20 | 40 | 23.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M27×2 | cutting tap | P2 | 27.000 | 25.701 | 40 | 20 | 20 | 24.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M27×1.5 | cutting tap | P2 | 27.000 | 26.026 | 40 | 20 | 20 | 25.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M27×1 | cutting tap | P2 | 27.000 | 26.350 | 40 | 20 | 20 | 25.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M28×2 | cutting tap | P2 | 28.000 | 26.701 | 40 | 20 | 20 | 25.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M28×1.5 | cutting tap | P2 | 28.000 | 27.026 | 40 | 20 | 20 | 26.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| M28×1 | cutting tap | P2 | 28.000 | 27.350 | 40 | 20 | 20 | 26.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M30×3.5 | cutting tap | P3 | 30.000 | 27.727 | 60 | 20 | 40 | 26.211 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 67 | 22 | 45 | |
| | | ISO2 | | | 112 | 67 | 45 | |
| | | ISO2X | | | 142 | 97 | 45 | |
| | | ISO3 | | | 157 | 112 | 45 | |
| M30×3 | cutting tap | P3 | 30.000 | 28.051 | 60 | 20 | 40 | 26.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M30×2 | cutting tap | P2 | 30.000 | 28.701 | 40 | 20 | 20 | 27.835 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M30×1.5 | cutting tap | P2 | 30.000 | 29.026 | 40 | 20 | 20 | 28.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M30×1 | cutting tap | P2 | 30.000 | 29.350 | 40 | 20 | 20 | 28.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M32×2 | cutting tap | P3 | 32.000 | 30.701 | 60 | 20 | 40 | 29.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| M32×1.5 | cutting tap | P2 | 32.000 | 31.026 | 40 | 20 | 20 | 30.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M32×1 | cutting tap | P2 | 32.000 | 31.350 | 40 | 20 | 20 | 30.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M33×3.5 | cutting tap | P3 | 33.000 | 30.727 | 60 | 20 | 40 | 29.211 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 67 | 22 | 45 | |
| | | ISO2 | | | 112 | 67 | 45 | |
| | | ISO2X | | | 142 | 97 | 45 | |
| | | ISO3 | | | 157 | 112 | 45 | |
| M33×3 | cutting tap | P3 | 33.000 | 31.051 | 60 | 20 | 40 | 29.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M33×2 | cutting tap | P3 | 33.000 | 31.701 | 60 | 20 | 40 | 30.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M33×1.5 | cutting tap | P2 | 33.000 | 32.026 | 40 | 20 | 20 | 31.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M33×1 | cutting tap | P2 | 33.000 | 32.350 | 40 | 20 | 20 | 31.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |

## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M35×1.5 | cutting tap | P2 | 35.000 | 34.026 | 40 | 20 | 20 | 33.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M35×1 | cutting tap | P2 | 35.000 | 34.350 | 40 | 20 | 20 | 33.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M36×4 | cutting tap | P3 | 36.000 | 33.402 | 60 | 20 | 40 | 31.670 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 71 | 24 | 47 | |
| | | ISO2 | | | 118 | 71 | 47 | |
| | | ISO2X | | | 148 | 101 | 47 | |
| | | ISO3 | | | 165 | 118 | 47 | |
| M36×3 | cutting tap | P3 | 36.000 | 34.051 | 60 | 20 | 40 | 32.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M36×2 | cutting tap | P3 | 36.000 | 34.701 | 60 | 20 | 40 | 33.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M36×1.5 | cutting tap | P2 | 36.000 | 35.026 | 40 | 20 | 20 | 34.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M36×1 | cutting tap | P2 | 36.000 | 35.350 | 40 | 20 | 20 | 34.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M38×1.5 | cutting tap | P2 | 38.000 | 37.026 | 40 | 20 | 20 | 36.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M38×1 | cutting tap | P2 | 38.000 | 37.350 | 40 | 20 | 20 | 36.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M39×4 | cutting tap | P3 | 39.000 | 36.402 | 60 | 20 | 40 | 34.670 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 71 | 24 | 47 | |
| | | ISO2 | | | 118 | 71 | 47 | |
| | | ISO2X | | | 148 | 101 | 47 | |
| | | ISO3 | | | 165 | 118 | 47 | |
| M39×3 | cutting tap | P3 | 39.000 | 37.051 | 60 | 20 | 40 | 35.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M39×2 | cutting tap | P3 | 39.000 | 37.701 | 60 | 20 | 40 | 36.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M39×1.5 | cutting tap | P2 | 39.000 | 38.026 | 40 | 20 | 20 | 37.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M39×1 | cutting tap | P2 | 39.000 | 38.350 | 40 | 20 | 20 | 37.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| M40×3 | cutting tap | P3 | 40.000 | 38.051 | 60 | 20 | 40 | 36.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M40×2 | cutting tap | P3 | 40.000 | 38.701 | 60 | 20 | 40 | 37.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M40×1.5 | cutting tap | P2 | 40.000 | 39.026 | 40 | 20 | 20 | 38.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M42×4.5 | cutting tap | P3 | 42.000 | 39.077 | 60 | 20 | 40 | 37.129 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 75 | 25 | 50 | |
| | | ISO2 | | | 125 | 75 | 50 | |
| | | ISO2X | | | 155 | 105 | 50 | |
| | | ISO3 | | | 175 | 125 | 50 | |
| M42×4 | cutting tap | P3 | 42.000 | 39.402 | 60 | 20 | 40 | 37.670 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 71 | 24 | 47 | |
| | | ISO2 | | | 118 | 71 | 47 | |
| | | ISO2X | | | 148 | 101 | 47 | |
| | | ISO3 | | | 165 | 118 | 47 | |
| M42×3 | cutting tap | P3 | 42.000 | 40.051 | 60 | 20 | 40 | 38.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M42×2 | cutting tap | P3 | 42.000 | 40.701 | 60 | 20 | 40 | 39.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| M42×1.5 | cutting tap | P2 | 42.000 | 41.026 | 40 | 20 | 20 | 40.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |
| M42×1 | cutting tap | P2 | 42.000 | 41.350 | 40 | 20 | 20 | 40.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M45×4.5 | cutting tap | P3 | 45.000 | 42.077 | 60 | 20 | 40 | 40.129 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 75 | 25 | 50 | |
| | | ISO2 | | | 125 | 75 | 50 | |
| | | ISO2X | | | 155 | 105 | 50 | |
| | | ISO3 | | | 175 | 125 | 50 | |
| M45×4 | cutting tap | P3 | 45.000 | 42.402 | 60 | 20 | 40 | 40.670 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 71 | 24 | 47 | |
| | | ISO2 | | | 118 | 71 | 47 | |
| | | ISO2X | | | 148 | 101 | 47 | |
| | | ISO3 | | | 165 | 118 | 47 | |
| M45×3 | cutting tap | P3 | 45.000 | 43.051 | 60 | 20 | 40 | 41.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 64 | 21 | 43 | |
| | | ISO2 | | | 106 | 64 | 42 | |
| | | ISO2X | | | 136 | 94 | 42 | |
| | | ISO3 | | | 148 | 106 | 42 | |
| M45×2 | cutting tap | P3 | 45.000 | 43.701 | 60 | 20 | 40 | 42.835 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | ISO1 | | | 54 | 18 | 36 | |
| | | ISO2 | | | 90 | 54 | 36 | |
| | | ISO2X | | | 115 | 79 | 36 | |
| | | ISO3 | | | 126 | 90 | 36 | |
| M45×1.5 | cutting tap | P2 | 45.000 | 44.026 | 40 | 20 | 20 | 43.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |



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## Metric Threads (M, MF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M45×1 | cutting tap | P2 | 45.000 | 44.350 | 40 | 20 | 20 | 43.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | ISO1 | | | 40 | 14 | 26 | |
| | | ISO2 | | | 66 | 40 | 26 | |
| | | ISO2X | | | 86 | 60 | 26 | |
| | | ISO3 | | | 92 | 66 | 26 | |
| M48×5 | cutting tap | P4 | 48.000 | 44.752 | 80 | 40 | 40 | 42.587 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | P9 | | | 180 | 140 | 40 | |
| | | ISO1 | | | 80 | 27 | 53 | |
| | | ISO2 | | | 133 | 80 | 53 | |
| | | ISO2X | | | 163 | 110 | 53 | |
| | | ISO3 | | | 186 | 133 | 53 | |
| M48×4 | cutting tap | P3 | 48.000 | 45.402 | 60 | 20 | 40 | 43.670 |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | P8 | | | 160 | 120 | 40 | |
| | | ISO1 | | | 71 | 24 | 47 | |
| | | ISO2 | | | 118 | 71 | 47 | |
| | | ISO2X | | | 148 | 101 | 47 | |
| | | ISO3 | | | 165 | 118 | 47 | |
| M48×3 | cutting tap | P3 | 48.000 | 46.051 | 60 | 20 | 40 | 44.752 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 67 | 22 | 45 | |
| | | ISO2 | | | 112 | 67 | 45 | |
| | | ISO2X | | | 142 | 97 | 45 | |
| | | ISO3 | | | 157 | 112 | 45 | |
| M48×2 | cutting tap | P3 | 48.000 | 46.701 | 60 | 20 | 40 | 45.835 |
| | | P5 | | | 100 | 60 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | P7 | | | 140 | 100 | 40 | |
| | | ISO1 | | | 57 | 19 | 38 | |
| | | ISO2 | | | 95 | 57 | 38 | |
| | | ISO2X | | | 120 | 82 | 38 | |
| | | ISO3 | | | 133 | 95 | 38 | |
| M48×1.5 | cutting tap | P2 | 48.000 | 47.026 | 40 | 20 | 20 | 46.376 |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | P6 | | | 120 | 100 | 20 | |
| | | ISO1 | | | 48 | 16 | 32 | |
| | | ISO2 | | | 80 | 48 | 32 | |
| | | ISO2X | | | 105 | 73 | 32 | |
| | | ISO3 | | | 112 | 80 | 32 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| M48×1 | cutting tap | P2 | 48.000 | 47.350 | 40 | 20 | 20 | 46.917 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | P5 | | | 100 | 80 | 20 | |
| | | ISO1 | | | 45 | 15 | 30 | |
| | | ISO2 | | | 75 | 45 | 30 | |
| | | ISO2X | | | 95 | 65 | 30 | |
| | | ISO3 | | | 105 | 75 | 30 | |



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## Unified Threads (UNC/UNF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| No.0-80UNF | cutting tap | P1 | 1.524 | 1.318 | 25 | 10 | 15 | 1.181 |
| | | 3B | | | 16 | 6 | 10 | |
| | | 2B | | | 26 | 11 | 15 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 1.524 | 1.318 | 25 | 13 | 12 | 1.181 |
| | | 2BX | | | 38 | 25 | 13 | |
| | | G3 | | | 38 | 25 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| No.1-64UNC | cutting tap | P1 | 1.854 | 1.598 | 25 | 10 | 15 | 1.425 |
| | | 3B | | | 17 | 7 | 10 | |
| | | 2B | | | 28 | 12 | 16 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 1.854 | 1.598 | 25 | 13 | 12 | 1.425 |
| | | 2BX | | | 38 | 25 | 13 | |
| | | G3 | | | 38 | 25 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| No.1-72UNF | cutting tap | P1 | 1.854 | 1.626 | 25 | 10 | 15 | 1.473 |
| | | 3B | | | 17 | 7 | 10 | |
| | | 2B | | | 28 | 12 | 16 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 1.854 | 1.626 | 25 | 13 | 12 | 1.473 |
| | | 2BX | | | 38 | 25 | 13 | |
| | | G3 | | | 38 | 25 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| No.2-56UNC | cutting tap | P1 | 2.184 | 1.890 | 25 | 10 | 15 | 1.694 |
| | | 3B | | | 19 | 7 | 12 | |
| | | 2B | | | 30 | 13 | 17 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 2.184 | 1.890 | 38 | 25 | 13 | 1.694 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| No.2-64UNF | cutting tap | P1 | 2.184 | 1.928 | 25 | 10 | 15 | 1.755 |
| | | 3B | | | 17 | 6 | 11 | |
| | | 2B | | | 29 | 12 | 17 | |
| | | GH1 | | | 12.7 | 0 | 13 | |
| | | GH2 | | | 25.4 | 12.7 | 13 | |
| | forming tap | 3BX | 2.184 | 1.928 | 38 | 25 | 13 | 1.755 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| No.3-48UNC | cutting tap | P1 | 2.515 | 2.172 | 25 | 10 | 15 | 1.941 |
| | | 3B | | | 20 | 8 | 12 | |
| | | 2B | | | 32 | 14 | 18 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 2.515 | 2.172 | 38 | 25 | 13 | 1.941 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| No.3-56UNF | cutting tap | P1 | 2.515 | 2.220 | 25 | 10 | 15 | 2.024 |
| | | 3B | | | 19 | 7 | 12 | |
| | | 2B | | | 31 | 13 | 18 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 2.515 | 2.220 | 38 | 25 | 13 | 2.024 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | H2 | | | 25.4 | 12.7 | 12.7 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| No.4-40UNC | cutting tap | P1 | 2.845 | 2.433 | 25 | 10 | 15 | 2.156 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | 3B | | | 22 | 10 | 12 | |
| | | 2B | | | 34 | 16 | 18 | |
| | | 2BX | | | 49 | 31 | 18 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | forming tap | 3BX | 2.845 | 2.433 | 38 | 25 | 13 | 2.156 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.4-48UNF | cutting tap | P1 | 2.845 | 2.502 | 25 | 10 | 15 | 2.271 |
| | | 3B | | | 20 | 8 | 12 | |
| | | 2B | | | 32 | 14 | 18 | |
| | | GH1 | | | 12.7 | 0 | 12.7 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | forming tap | 3BX | 2.845 | 2.502 | 38 | 25 | 13 | 2.271 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |



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## Unified Threads (UNC/UNF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| No.5-40UNC | cutting tap | P1 | 3.175 | 2.764 | 25 | 10 | 15 | 2.487 |
| | | P2 | | | 40 | 25 | 15 | |
| | | 3B | | | 22 | 10 | 12 | |
| | | 2B | | | 35 | 16 | 19 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | forming tap | 3BX | 3.175 | 2.764 | 38 | 25 | 13 | 2.487 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.5-44UNF | cutting tap | P1 | 3.175 | 2.799 | 25 | 10 | 15 | 2.550 |
| | | P2 | | | 40 | 25 | 15 | |
| | | 3B | | | 21 | 9 | 12 | |
| | | 2B | | | 34 | 15 | 19 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | forming tap | 3BX | 3.175 | 2.799 | 38 | 25 | 13 | 2.550 |
| | | 2BX | | | 51 | 38 | 13 | |
| | | G4 | | | 51 | 38 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.6-32UNC | cutting tap | P1 | 3.505 | 2.990 | 20 | 0 | 20 | 2.647 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 25 | 11 | 14 | |
| | | 2B | | | 38 | 18 | 20 | |
| | | 2BX | | | 58 | 38 | 20 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 3.505 | 2.990 | 51 | 38 | 13 | 2.647 |
| | | 2BX | | | 64 | 51 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.6-40UNF | cutting tap | P1 | 3.505 | 3.094 | 25 | 10 | 15 | 2.817 |
| | | P2 | | | 40 | 25 | 15 | |
| | | P3 | | | 55 | 40 | 15 | |
| | | 3B | | | 23 | 9 | 14 | |
| | | 2B | | | 36 | 16 | 20 | |
| | | 2BX | | | 51 | 31 | 20 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| No.6-40UNF | forming tap | 3BX | 3.505 | 3.094 | 38 | 25 | 13 | 2.817 |
| | | 2BX | | | 64 | 51 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.8-32UNC | cutting tap | P1 | 4.166 | 3.650 | 20 | 0 | 20 | 3.307 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 25 | 11 | 14 | |
| | | 2B | | | 39 | 18 | 21 | |
| | | 2BX | | | 59 | 38 | 21 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 4.166 | 3.650 | 51 | 38 | 13 | 3.307 |
| | | 2BX | | | 64 | 51 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.8-36UNF | cutting tap | P1 | 4.166 | 3.708 | 20 | 0 | 20 | 3.401 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 24 | 10 | 14 | |
| | | 2B | | | 38 | 17 | 21 | |
| | | 2BX | | | 58 | 37 | 21 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | forming tap | 3BX | 4.166 | 3.708 | 51 | 38 | 13 | 3.401 |
| | | 2BX | | | 64 | 51 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | H3 | | | 38.1 | 25.4 | 12.7 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| No.10-24UNC | cutting tap | P1 | 4.826 | 4.138 | 20 | 0 | 20 | 3.680 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 27 | 13 | 14 | |
| | | 2B | | | 42 | 20 | 22 | |
| | | 2BX | | | 62 | 40 | 22 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 4.826 | 4.138 | 51 | 38 | 13 | 3.680 |
| | | 2BX | | | 76 | 64 | 12 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H4 | | | 50.8 | 38.1 | 12.7 | |
| | | H6 | | | 76.2 | 63.5 | 12.7 | |

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## Unified Threads (UNC/UNF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| No.10-32UNF | cutting tap | P1 | 4.826 | 4.310 | 20 | 0 | 20 | 3.967 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 25 | 11 | 14 | |
| | | 2B | | | 40 | 18 | 22 | |
| | | 2BX | | | 60 | 38 | 22 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | forming tap | 3BX | 4.826 | 4.310 | 51 | 38 | 13 | 3.967 |
| | | 2BX | | | 64 | 51 | 13 | |
| | | G5 | | | 64 | 51 | 13 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H4 | | | 50.8 | 38.1 | 12.7 | |
| | | H6 | | | 76.2 | 63.5 | 12.7 | |
| No.12-24UNC | cutting tap | P1 | 5.486 | 4.798 | 20 | 0 | 20 | 4.341 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 28 | 12 | 16 | |
| | | 2B | | | 43 | 20 | 23 | |
| | | 2BX | | | 63 | 40 | 23 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 5.486 | 4.798 | 51 | 38 | 13 | 4.341 |
| | | 2BX | | | 76 | 64 | 12 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | H4 | | | 50.8 | 38.1 | 12.7 | |
| | | H6 | | | 76.2 | 63.5 | 12.7 | |
| No.12-28UNF | cutting tap | P1 | 5.486 | 4.897 | 20 | 0 | 20 | 4.503 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 27 | 11 | 16 | |
| | | 2B | | | 42 | 19 | 23 | |
| | | 2BX | | | 62 | 39 | 23 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 5.486 | 4.897 | 51 | 38 | 13 | 4.503 |
| | | 2BX | | | 76 | 64 | 12 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | H4 | | | 50.8 | 38.1 | 12.7 | |
| | | H6 | | | 76.2 | 63.5 | 12.7 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| 1/4-20UNC | cutting tap | P1 | 6.350 | 5.524 | 20 | 0 | 20 | 4.976 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 30 | 14 | 16 | |
| | | 2B | | | 46 | 22 | 24 | |
| | | 2BX | | | 71 | 47 | 24 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| 1/4-20UNC | forming tap | 3BX | 6.350 | 5.524 | 64 | 51 | 13 | 4.976 |
| | | 2BX | | | 76 | 64 | 12 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H4 | | | 50.8 | 38.1 | 12.7 | |
| | | H6 | | | 76.2 | 63.5 | 12.7 | |
| 1/4-28UNF | cutting tap | P1 | 6.350 | 5.761 | 20 | 0 | 20 | 5.367 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 27 | 11 | 16 | |
| | | 2B | | | 43 | 19 | 24 | |
| | | 2BX | | | 63 | 39 | 24 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 6.350 | 5.761 | 51 | 38 | 13 | 5.367 |
| | | 2BX | | | 76 | 64 | 12 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H4 | | | 50.8 | 38.1 | 12.7 | |
| | | H6 | | | 76.2 | 63.5 | 12.7 | |
| 5/16-18UNC | cutting tap | P2 | 7.938 | 7.021 | 40 | 20 | 20 | 6.411 |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 32 | 14 | 18 | |
| | | 2B | | | 49 | 23 | 26 | |
| | | 2BX | | | 74 | 48 | 26 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 7.938 | 7.021 | 64 | 51 | 13 | 6.411 |
| | | 2BX | | | 89 | 76 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |



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## Unified Threads (UNC/UNF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| 5/16-24UNF | cutting tap | P1 | 7.938 | 7.249 | 20 | 0 | 20 | 6.792 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 29 | 11 | 18 | |
| | | 2B | | | 46 | 20 | 26 | |
| | | 2BX | | | 66 | 40 | 26 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 7.938 | 7.249 | 64 | 51 | 13 | 6.792 |
| | | 2BX | | | 76 | 64 | 12 | |
| | | G6 | | | 76 | 64 | 12 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |
| 3/8-16UNC | cutting tap | P2 | 9.525 | 8.494 | 40 | 20 | 20 | 7.805 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 34 | 16 | 18 | |
| | | 2B | | | 53 | 25 | 28 | |
| | | 2BX | | | 78 | 50 | 28 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | forming tap | 3BX | 9.525 | 8.494 | 76 | 64 | 12 | 7.805 |
| | | 2BX | | | 102 | 89 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |
| 3/8-24UNF | cutting tap | P1 | 9.525 | 8.837 | 20 | 0 | 20 | 8.379 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | 3B | | | 29 | 11 | 18 | |
| | | 2B | | | 48 | 20 | 28 | |
| | | 2BX | | | 68 | 40 | 28 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | forming tap | 3BX | 9.525 | 8.837 | 64 | 51 | 13 | 8.379 |
| | | 2BX | | | 89 | 76 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Tolerance (µm) | Basic Size |
| 7/16-14UNC | cutting tap | P2 | 11.112 | 9.934 | 40 | 20 | 20 | 9.149 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 37 | 17 | 20 | |
| | | 2B | | | 56 | 27 | 29 | |
| | | 2BX | | | 81 | 52 | 29 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | forming tap | 3BX | 11.112 | 9.934 | 76 | 64 | 12 | 9.149 |
| | | 2BX | | | 102 | 89 | 13 | |
| | | G8 | | | 102 | 89 | 13 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |
| 7/16-20UNF | cutting tap | P1 | 11.112 | 10.287 | 20 | 0 | 20 | 9.738 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 32 | 12 | 20 | |
| | | 2B | | | 51 | 22 | 29 | |
| | | 2BX | | | 76 | 47 | 29 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | forming tap | 3BX | 11.112 | 10.287 | 76 | 64 | 12 | 9.738 |
| | | 2BX | | | 89 | 76 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |
| 1/2-13UNC | cutting tap | P2 | 12.700 | 11.430 | 40 | 20 | 20 | 10.584 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 38 | 18 | 20 | |
| | | 2B | | | 58 | 28 | 30 | |
| | | 2BX | | | 83 | 53 | 30 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | forming tap | 3BX | 12.700 | 11.430 | 76 | 64 | 12 | 10.584 |
| | | 2BX | | | 114 | 102 | 12 | |
| | | G9 | | | 114 | 102 | 12 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |

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## Unified Threads (UNC/UNF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| 1/2-20UNF | cutting tap | P1 | 12.700 | 11.874 | 20 | 0 | 20 | 11.326 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 32 | 12 | 20 | |
| | | 2B | | | 52 | 22 | 30 | |
| | | 2BX | | | 77 | 47 | 30 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | forming tap | 3BX | 12.700 | 11.874 | 76 | 64 | 12 | 11.326 |
| | | 2BX | | | 89 | 76 | 13 | |
| | | G7 | | | 89 | 76 | 13 | |
| | | H5 | | | 63.5 | 50.8 | 12.7 | |
| | | H7 | | | 88.9 | 76.2 | 12.7 | |
| 9/16-12UNC | cutting tap | P2 | 14.288 | 12.913 | 40 | 20 | 20 | 11.996 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 39 | 19 | 20 | |
| | | 2B | | | 60 | 29 | 31 | |
| | | 2BX | | | 85 | 54 | 31 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| 9/16-18UNF | cutting tap | P1 | 14.288 | 13.371 | 20 | 0 | 20 | 12.761 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 33 | 13 | 20 | |
| | | 2B | | | 55 | 23 | 32 | |
| | | 2BX | | | 80 | 48 | 32 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| 5/8-11UNC | cutting tap | P2 | 15.875 | 14.376 | 40 | 20 | 20 | 13.376 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 41 | 19 | 22 | |
| | | 2B | | | 63 | 30 | 33 | |
| | | 2BX | | | 88 | 55 | 33 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | | GH7 | | | 88.9 | 76.2 | 12.7 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| 5/8-18UNF | cutting tap | P1 | 15.875 | 14.958 | 20 | 0 | 20 | 14.348 |
| | | P2 | | | 40 | 20 | 20 | |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 34 | 12 | 22 | |
| | | 2B | | | 56 | 23 | 33 | |
| | | 2BX | | | 81 | 48 | 33 | |
| | | GH2 | | | 25.4 | 12.7 | 12.7 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| 3/4-10UNC | cutting tap | P2 | 19.050 | 17.399 | 40 | 20 | 20 | 16.299 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 43 | 19 | 24 | |
| | | 2B | | | 66 | 31 | 35 | |
| | | 2BX | | | 91 | 56 | 35 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | | GH7 | | | 88.9 | 76.2 | 12.7 | |
| 3/4-16UNF | cutting tap | P2 | 19.050 | 18.019 | 40 | 20 | 20 | 17.330 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 35 | 13 | 22 | |
| | | 2B | | | 60 | 25 | 35 | |
| | | 2BX | | | 85 | 50 | 35 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| 7/8-9UNC | cutting tap | P2 | 22.225 | 20.391 | 40 | 20 | 20 | 19.169 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 45 | 21 | 24 | |
| | | 2B | | | 70 | 33 | 37 | |
| | | 2BX | | | 95 | 58 | 37 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | | GH7 | | | 88.9 | 76.2 | 12.7 | |
| 7/8-14UNF | cutting tap | P2 | 22.225 | 21.046 | 40 | 20 | 20 | 20.262 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 39 | 15 | 24 | |
| | | 2B | | | 64 | 27 | 37 | |
| | | 2BX | | | 89 | 52 | 37 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | | GH7 | | | 88.9 | 76.2 | 12.7 | |



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## Unified Threads (UNC/UNF)

Unit: mm

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| 1-8UNC | cutting tap | P2 | 25.400 | 23.338 | 40 | 0 | 40 | 21.963 |
| | | P3 | | | 60 | 20 | 40 | |
| | | P5 | | | 100 | 60 | 40 | |
| | | 3B | | | 48 | 22 | 26 | |
| | | 2B | | | 73 | 35 | 38 | |
| | | 2BX | | | 103 | 65 | 38 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH7 | | | 88.9 | 76.2 | 12.7 | |
| | | GH8 | | | 101.6 | 88.9 | 12.7 | |
| 1-12UNF | cutting tap | P2 | 25.400 | 24.026 | 40 | 20 | 20 | 23.109 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 42 | 16 | 26 | |
| | | 2B | | | 67 | 29 | 38 | |
| | | 2BX | | | 92 | 54 | 38 | |
| | | GH3 | | | 38.1 | 25.4 | 12.7 | |
| | | GH4 | | | 50.8 | 38.1 | 12.7 | |
| | | GH5 | | | 63.5 | 50.8 | 12.7 | |
| | | GH6 | | | 76.2 | 63.5 | 12.7 | |
| | | GH7 | | | 88.9 | 76.2 | 12.7 | |
| 1·1/8-7UNC | cutting tap | P3 | 28.575 | 26.218 | 60 | 20 | 40 | 24.648 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P5 | | | 100 | 60 | 40 | |
| | | 3B | | | 51 | 25 | 26 | |
| | | 2B | | | 78 | 38 | 40 | |
| | | 2BX | | | 108 | 68 | 40 | |
| | | GH4 | | | 50.8 | 25.4 | 25.4 | |
| | | GH6 | | | 76.2 | 50.8 | 25.4 | |
| | | GH8 | | | 101.6 | 76.2 | 25.4 | |
| 1·1/8-12UNF | cutting tap | P2 | 28.575 | 27.201 | 40 | 20 | 20 | 26.284 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 42 | 15 | 27 | |
| | | 2B | | | 69 | 29 | 40 | |
| | | 2BX | | | 94 | 54 | 40 | |
| | | GH3 | | | 38.1 | 12.7 | 25.4 | |
| | | GH5 | | | 63.5 | 38.1 | 25.4 | |
| | | GH7 | | | 88.9 | 63.5 | 25.4 | |
| 1·1/4-7UNC | cutting tap | P3 | 31.750 | 29.393 | 60 | 20 | 40 | 27.823 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P5 | | | 100 | 60 | 40 | |
| | | 3B | | | 52 | 24 | 28 | |
| | | 2B | | | 79 | 38 | 41 | |
| | | 2BX | | | 109 | 68 | 41 | |
| | | GH4 | | | 50.8 | 25.4 | 25.4 | |
| | | GH6 | | | 76.2 | 50.8 | 25.4 | |
| | | GH8 | | | 101.6 | 76.2 | 25.4 | |

| Size | Kind of tap | Class | Major diameter | Pitch Diameter | | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (μm) + | Lower Tolerance (μm) + | Tolerance (μm) | Basic Size |
| 1·1/4-12UNF | cutting tap | P2 | 31.750 | 30.376 | 40 | 20 | 20 | 29.459 |
| | | P3 | | | 60 | 40 | 20 | |
| | | P4 | | | 80 | 60 | 20 | |
| | | 3B | | | 43 | 15 | 28 | |
| | | 2B | | | 70 | 29 | 41 | |
| | | 2BX | | | 95 | 54 | 41 | |
| | | GH3 | | | 38.1 | 12.7 | 25.4 | |
| | | GH5 | | | 63.5 | 38.1 | 25.4 | |
| | | GH7 | | | 88.9 | 63.5 | 25.4 | |
| 1·3/8-6UNC | cutting tap | P3 | 34.925 | 32.174 | 60 | 20 | 40 | 30.343 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P5 | | | 100 | 60 | 40 | |
| | | 3B | | | 55 | 27 | 28 | |
| | | 2B | | | 83 | 41 | 42 | |
| | | 2BX | | | 113 | 71 | 42 | |
| | | GH4 | | | 50.8 | 25.4 | 25.4 | |
| | | GH6 | | | 76.2 | 50.8 | 25.4 | |
| | | GH8 | | | 101.6 | 76.2 | 25.4 | |
| | | GH9 | | | 114.3 | 88.9 | 25.4 | |
| 1·3/8-12UNF | cutting tap | P3 | 34.925 | 33.551 | 60 | 20 | 40 | 32.634 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P5 | | | 100 | 60 | 40 | |
| | | 3B | | | 43 | 15 | 28 | |
| | | 2B | | | 71 | 29 | 42 | |
| | | 2BX | | | 96 | 54 | 42 | |
| | | GH3 | | | 38.1 | 12.7 | 25.4 | |
| | | GH5 | | | 63.5 | 38.1 | 25.4 | |
| | | GH7 | | | 88.9 | 63.5 | 25.4 | |
| 1·1/2-6UNC | cutting tap | P3 | 38.100 | 35.349 | 60 | 20 | 40 | 33.518 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P6 | | | 120 | 80 | 40 | |
| | | 3B | | | 56 | 26 | 30 | |
| | | 2B | | | 85 | 41 | 44 | |
| | | 2BX | | | 115 | 71 | 44 | |
| | | GH4 | | | 50.8 | 25.4 | 25.4 | |
| | | GH6 | | | 76.2 | 50.8 | 25.4 | |
| | | GH8 | | | 101.6 | 76.2 | 25.4 | |
| | | GH9 | | | 114.3 | 88.9 | 25.4 | |
| 1·1/2-12UNF | cutting tap | P3 | 38.100 | 36.726 | 60 | 20 | 40 | 35.809 |
| | | P4 | | | 80 | 40 | 40 | |
| | | P5 | | | 100 | 60 | 40 | |
| | | 3B | | | 44 | 14 | 30 | |
| | | 2B | | | 73 | 29 | 44 | |
| | | 2BX | | | 98 | 54 | 44 | |
| | | GH3 | | | 38.1 | 12.7 | 25.4 | |
| | | GH5 | | | 63.5 | 38.1 | 25.4 | |
| | | GH7 | | | 88.9 | 63.5 | 25.4 | |

## Whitworth Threads (BSW)

Unit: mm

| Size | | | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|---|---|
| | | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| 1/8 | W | 40 | P1 | 3.175 | 2.768 | 25 | 10 | 2.362 |
| 5/32 | W | 32 | P2 | 3.969 | 3.460 | 40 | 20 | 2.952 |
| 3/16 | W | 24 | P2 | 4.762 | 4.085 | 40 | 20 | 3.407 |
| 7/32 | W | 24 | P2 | 5.556 | 4.879 | 40 | 20 | 4.201 |
| 1/4 | W | 20 | P2 | 6.350 | 5.537 | 40 | 20 | 4.724 |
| 5/16 | W | 18 | P2 | 7.938 | 7.034 | 40 | 20 | 6.130 |
| 3/8 | W | 16 | P2 | 9.525 | 8.509 | 40 | 20 | 7.493 |
| 7/16 | W | 14 | P3 | 11.112 | 9.950 | 60 | 40 | 8.788 |
| 1/2 | W | 12 | P3 | 12.700 | 11.345 | 60 | 40 | 9.990 |
| 9/16 | W | 12 | P3 | 14.288 | 12.933 | 60 | 40 | 11.578 |
| 5/8 | W | 11 | P3 | 15.875 | 14.396 | 60 | 40 | 12.917 |
| 3/4 | W | 10 | P3 | 19.050 | 17.424 | 60 | 40 | 15.798 |
| 7/8 | W | 9 | P3 | 22.225 | 20.418 | 60 | 40 | 18.611 |
| 1 | W | 8 | P3 | 25.400 | 23.367 | 60 | 20 | 21.334 |
| 1 1/8 | W | 7 | P4 | 28.575 | 26.252 | 80 | 40 | 23.929 |
| 1 1/4 | W | 7 | P4 | 31.750 | 29.427 | 80 | 40 | 27.104 |
| 1 3/8 | W | 6 | P4 | 34.925 | 32.214 | 80 | 40 | 29.503 |
| 1 1/2 | W | 6 | P4 | 38.100 | 35.389 | 80 | 40 | 32.678 |
| 1 5/8 | W | 5 | P4 | 41.275 | 38.022 | 80 | 40 | 34.769 |
| 1 3/4 | W | 5 | P4 | 44.450 | 41.197 | 80 | 40 | 37.944 |
| 1 7/8 | W | 4.5 | P4 | 47.625 | 44.011 | 80 | 40 | 40.397 |
| 2 | W | 4.5 | P4 | 50.800 | 47.186 | 80 | 40 | 43.572 |

## Taper Internal Pipe Threads Rc(BSPT)-PT

Unit: mm

| Size | | Major Diameter | Pitch Diameter | Minor Diameter |
|---|---|---|---|---|
| | | Basic Size | Basic Size | Basic Size |
| PT | 1/16 - 28 | 7.723 | 7.142 | 6.561 |
| PT | 1/8 - 28 | 9.728 | 9.147 | 8.566 |
| PT | 1/4 - 19 | 13.157 | 12.301 | 11.445 |
| PT | 3/8 - 19 | 16.662 | 15.806 | 14.950 |
| PT | 1/2 - 14 | 20.955 | 19.793 | 18.631 |
| PT | 5/8 - 14 | 22.911 | 21.749 | 20.587 |
| PT | 3/4 - 14 | 26.441 | 25.279 | 24.117 |
| PT | 7/8 - 14 | 30.201 | 29.039 | 27.877 |
| PT | 1 - 11 | 33.249 | 31.770 | 30.291 |
| PT | 1 1/8 - 11 | 37.897 | 36.418 | 34.939 |
| PT | 1 1/4 - 11 | 41.910 | 40.431 | 38.952 |
| PT | 1 1/2 - 11 | 47.803 | 46.324 | 44.845 |
| PT | 1 3/4 - 11 | 53.746 | 52.267 | 50.788 |
| PT | 2 - 11 | 59.614 | 58.135 | 56.656 |
| PT | 2 1/4 | 65.710 | 64.231 | 62.752 |
| PT | 2 1/2 | 75.184 | 73.705 | 72.226 |
| PT | 3 - 11 | 87.884 | 86.405 | 84.926 |
| PT | 3 1/2 | 100.330 | 98.851 | 97.372 |
| PT | 4 - 11 | 113.030 | 111.551 | 110.072 |

## Parallel Pipe Threads G(BSP)

Unit: mm

| Size | | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| G | 1/8 - 28 | - | 9.728 | 9.147 | 43 | 21 | 8.566 |
| G | 1/4 - 19 | - | 13.157 | 12.301 | 50 | 25 | 11.445 |
| G | 3/8 - 19 | - | 16.662 | 15.806 | 50 | 25 | 14.950 |
| G | 1/2 - 14 | - | 20.955 | 19.793 | 57 | 28 | 18.631 |
| G | 5/8 - 14 | - | 22.911 | 21.749 | 57 | 28 | 20.587 |
| G | 3/4 - 14 | - | 26.441 | 25.279 | 57 | 28 | 24.117 |
| G | 7/8 - 14 | - | 30.201 | 29.039 | 57 | 28 | 27.877 |
| G | 1 - 11 | - | 33.249 | 31.770 | 72 | 36 | 30.291 |
| G | 1 1/4 - 11 | - | 41.910 | 40.431 | 72 | 36 | 38.952 |
| G | 1 1/2 - 11 | - | 47.803 | 46.324 | 72 | 36 | 44.845 |

## Parallel Pipe Threads PF(G)

Unit: mm

| Size | | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| PF | 1/16 - 28 | II | 7.723 | 7.142 | 40 | 20 | 6.561 |
| PF | 1/8 - 28 | II | 9.728 | 9.147 | 40 | 20 | 8.566 |
| PF | 1/4 - 19 | II | 13.157 | 12.301 | 50 | 25 | 11.445 |
| PF | 3/8 - 19 | II | 16.662 | 15.806 | 50 | 25 | 14.950 |
| PF | 1/2 - 14 | II | 20.955 | 19.793 | 55 | 25 | 18.631 |
| PF | 5/8 - 14 | II | 22.911 | 21.749 | 55 | 25 | 20.587 |
| PF | 3/4 - 14 | II | 26.441 | 25.279 | 55 | 25 | 24.117 |
| PF | 7/8 - 14 | II | 30.201 | 29.039 | 55 | 25 | 27.877 |
| PF | 1 - 11 | II | 33.249 | 31.770 | 60 | 30 | 30.291 |
| PF | 1 1/4 - 11 | II | 41.910 | 40.431 | 65 | 30 | 38.952 |
| PF | 1 1/2 - 11 | II | 47.803 | 46.324 | 65 | 30 | 44.845 |
| PF | 2 - 11 | II | 59.614 | 58.135 | 75 | 35 | 56.656 |
| PF | 2 1/2 - 11 | II | 75.184 | 73.705 | 80 | 40 | 72.226 |
| PF | 3 - 11 | II | 87.884 | 86.405 | 85 | 40 | 84.926 |
| PF | 3 1/2 - 11 | II | 100.330 | 98.851 | 85 | 40 | 97.372 |
| PF | 4 - 11 | II | 113.030 | 111.551 | 85 | 40 | 110.072 |

## Parallel Internal Pipe Threads Rp(BSPP)-PS

Unit: mm

| Size | | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|---|
| | | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| PS | 1/16 - 28 | II | 7.723 | 7.142 | 30 | 50 | 6.561 |
| PS | 1/8 - 28 | II | 9.728 | 9.147 | 30 | 50 | 8.566 |
| PS | 1/4 - 19 | II | 13.157 | 12.301 | 50 | 75 | 11.445 |
| PS | 3/8 - 19 | II | 16.662 | 15.806 | 50 | 75 | 14.950 |
| PS | 1/2 - 14 | II | 20.955 | 19.793 | 85 | 115 | 18.631 |
| PS | 5/8 - 14 | II | 22.911 | 21.749 | 85 | 115 | 20.587 |
| PS | 3/4 - 14 | II | 26.441 | 25.279 | 85 | 115 | 24.117 |
| PS | 7/8 - 14 | II | 30.201 | 29.039 | 85 | 115 | 27.877 |
| PS | 1 - 11 | II | 33.249 | 31.770 | 120 | 150 | 30.291 |
| PS | 1 1/4 - 11 | II | 41.910 | 40.431 | 115 | 150 | 38.952 |
| PS | 1 1/2 - 11 | II | 47.803 | 46.324 | 115 | 150 | 44.845 |
| PS | 2-11 | II | 59.614 | 58.135 | 105 | 145 | 56.656 |
| PS | 2 1/2 - 11 | II | 75.184 | 73.705 | 140 | 180 | 72.226 |
| PS | 3 - 11 | II | 87.884 | 86.405 | 135 | 180 | 84.926 |
| PS | 4 - 11 | II | 113.030 | 111.551 | 135 | 180 | 110.072 |



Think threads with YAMAWA

IMROBEX
Machine Tools International

## Helical Coil Wire Thread Inserts, Metric Threads EG(STI)M-MF

Unit: mm

| Size | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|
| | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| STI M 2.6 × 0.45 | Ib | 3.185 | 2.892 | 18 | 6 | 2.698 |
| STI M 3 × 0.5 | Ib | 3.650 | 3.324 | 18 | 6 | 3.108 |
| | G3 | | | 38 | 25 | |
| STI M 4 × 0.7 | Ib | 4.909 | 4.454 | 18 | 6 | 4.151 |
| | G4 | | | 51 | 38 | |
| STI M 5 × 0.8 | Ib | 6.039 | 5.519 | 18 | 6 | 5.173 |
| | G4 | | | 51 | 38 | |
| STI M 6 × 1 | Ib | 7.299 | 6.649 | 18 | 6 | 6.216 |
| | G4 | | | 51 | 38 | |
| STI M 8 × 1.25 | Ib | 9.624 | 8.812 | 18 | 6 | 8.271 |
| | G4 | | | 51 | 38 | |
| STI M 10 × 1.5 | Ib | 11.948 | 10.974 | 22 | 7 | 10.324 |
| | G5 | | | 64 | 51 | |
| STI MF 10 × 1.25 | Ib | 11.624 | 10.812 | 18 | 6 | 10.271 |
| STI MF 10 × 1 | Ib | 11.299 | 10.649 | 18 | 6 | 10.216 |
| STI M 12 × 1.75 | Ib | 14.273 | 13.136 | 22 | 7 | 12.379 |
| | G6 | | | 76 | 64 | |
| STI MF 12 × 1.5 | Ib | 13.948 | 12.974 | 21 | 7 | 12.324 |
| STI MF 12 × 1.25 | Ib | 13.624 | 12.812 | 21 | 7 | 12.271 |
| STI M 14 × 2 | Ib | 16.598 | 15.299 | 22 | 7 | 14.433 |
| STI MF 14 × 1.5 | Ib | 15.948 | 14.974 | 21 | 7 | 14.324 |
| STI M 16 × 2 | Ib | 18.598 | 17.299 | 22 | 7 | 16.433 |
| STI MF 16 × 1.5 | Ib | 17.948 | 16.974 | 21 | 7 | 16.324 |
| STI M 18 × 2.5 | Ib | 21.248 | 19.624 | 30 | 10 | 18.542 |
| STI MF 18 × 1.5 | Ib | 19.948 | 18.974 | 24 | 8 | 18.324 |
| STI M 20 × 2.5 | Ib | 23.248 | 21.624 | 30 | 10 | 20.542 |
| STI MF 20 × 1.5 | Ib | 21.948 | 20.974 | 24 | 8 | 20.324 |
| STI M 22 × 2.5 | Ib | 25.248 | 23.624 | 30 | 10 | 22.542 |
| STI MF 22 × 1.5 | Ib | 23.948 | 22.974 | 24 | 8 | 22.324 |
| STI M 24 × 3 | Ib | 27.897 | 25.948 | 30 | 10 | 24.649 |
| STI MF 24 × 1.5 | Ib | 25.948 | 24.974 | 24 | 8 | 24.324 |

## Miniature Screw Threads (S)

Unit: mm

| Size | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|
| | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| S 0.5 × 0.125 | - | 0.500 | 0.419 | 15 | 7 | 0.380 |
| S 0.6 × 0.15 | - | 0.600 | 0.503 | 15 | 7 | 0.456 |
| | GS2 | | | 23 | 13 | |
| S 0.7 × 0.175 | - | 0.700 | 0.586 | 20 | 10 | 0.532 |
| | GS3 | | | 28 | 18 | |
| S 0.8 × 0.2 | - | 0.800 | 0.670 | 20 | 10 | 0.608 |
| | GS3 | | | 28 | 18 | |
| S 0.9 × 0.225 | - | 0.900 | 0.754 | 20 | 10 | 0.684 |
| | GS4 | | | 33 | 23 | |

## Helical Coil Wire Thread Inserts, Unified Threads EG(STI) UNC/UNF

Unit: mm

| Size | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|
| | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| STI No. 2 - 56 UNC | Ib | 2.773 | 2.479 | 18 | 6 | 2.283 |
| | GH2 | | | 25.4 | 12.7 | |
| STI No. 4 - 40 UNC | Ib | 3.670 | 3.258 | 18 | 6 | 2.981 |
| | GH2 | | | 25.4 | 12.7 | |
| STI No. 4 - 48 UNF | Ib | 3.532 | 3.189 | 18 | 6 | 2.958 |
| STI No. 5 - 40 UNC | Ib | 4.000 | 3.589 | 18 | 6 | 3.312 |
| STI No. 6 - 32 UNC | Ib | 4.536 | 4.021 | 18 | 6 | 3.678 |
| | GH3 | | | 38.1 | 25.4 | |
| STI No. 6 - 40 UNF | Ib | 4.330 | 3.919 | 18 | 6 | 3.642 |
| STI No. 8 - 32 UNC | Ib | 5.197 | 4.681 | 18 | 6 | 4.338 |
| | GH3 | | | 38.1 | 25.4 | |
| STI No. 8 - 36 UNF | Ib | 5.083 | 4.625 | 18 | 6 | 4.318 |
| STI No. 10 - 24 UNC | Ib | 6.201 | 5.513 | 18 | 6 | 5.055 |
| | GH2 | | | 25.4 | 12.7 | |
| STI No. 10 - 32 UNF | Ib | 5.857 | 5.341 | 18 | 6 | 4.998 |
| | GH2 | | | 25.4 | 12.7 | |
| STI No. 12 - 24 UNC | Ib | 6.861 | 6.173 | 18 | 6 | 5.716 |
| STI 1/4 - 20 UNC | Ib | 8.000 | 7.174 | 22 | 7 | 6.626 |
| | GH3 | | | 38.1 | 25.4 | |
| STI 1/4 - 28 UNF | Ib | 7.528 | 6.939 | 18 | 6 | 6.545 |
| | GH2 | | | 25.4 | 12.7 | |
| STI 5/16 - 18 UNC | Ib | 9.771 | 8.854 | 22 | 7 | 8.244 |
| | GH3 | | | 38.1 | 25.4 | |
| STI 5/16 - 24 UNF | Ib | 9.313 | 8.624 | 18 | 6 | 8.167 |
| STI 3/8 - 16 UNC | Ib | 11.587 | 10.556 | 22 | 7 | 9.867 |
| | GH3 | | | 38.1 | 25.4 | |
| STI 3/8 - 24 UNF | Ib | 10.900 | 10.212 | 18 | 6 | 9.754 |
| STI 7/16 - 14 UNC | Ib | 13.469 | 12.291 | 30 | 10 | 11.506 |
| | GH3 | | | 38.1 | 25.4 | |
| STI 7/16 - 20 UNF | Ib | 12.762 | 11.937 | 18 | 6 | 11.388 |
| | GH3 | | | 38.1 | 25.4 | |
| STI 1/2 - 13 UNC | Ib | 15.238 | 13.968 | 30 | 10 | 13.122 |
| | GH3 | | | 38.1 | 25.4 | |
| STI 1/2 - 20 UNF | Ib | 14.350 | 13.524 | 18 | 6 | 12.976 |
| STI 5/8 - 11 UNC | Ib | 18.875 | 17.376 | 30 | 10 | 16.376 |
| STI 5/8 - 18 UNF | Ib | 17.708 | 16.791 | 21 | 7 | 16.181 |
| STI 3/4 - 16 UNF | Ib | 21.112 | 20.081 | 21 | 7 | 19.392 |

## European Steel Conduit Threads (Pg)

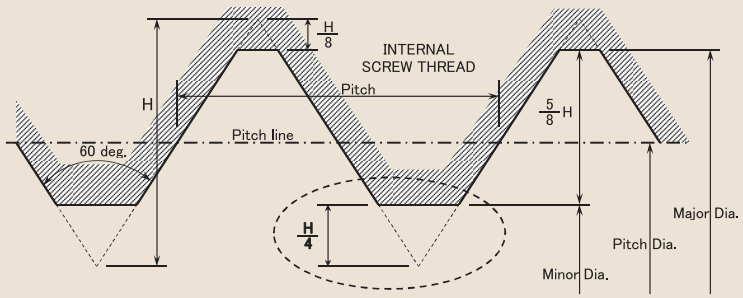
Unit: mm

| Size | Class | Major diameter | Pitch Diameter | | | Minor diameter |
|---|---|---|---|---|---|---|
| | | Basic Size | Basic Size | Upper Tolerance (µm) + | Lower Tolerance (µm) + | Basic Size |
| Pg 7 - 20 | - | 12.50 | 11.89 | 60 | 30 | 11.28 |
| Pg 9 - 18 | - | 15.20 | 14.53 | 60 | 30 | 13.86 |
| Pg 11 - 18 | - | 18.60 | 17.93 | 60 | 30 | 17.26 |
| Pg 13.5 - 18 | - | 20.40 | 19.73 | 60 | 30 | 19.06 |
| Pg 16 - 18 | - | 22.50 | 21.83 | 60 | 30 | 21.16 |
| Pg 21 - 16 | - | 28.30 | 27.54 | 100 | 50 | 26.78 |
| Pg 29 - 16 | - | 37.00 | 36.24 | 100 | 50 | 35.48 |

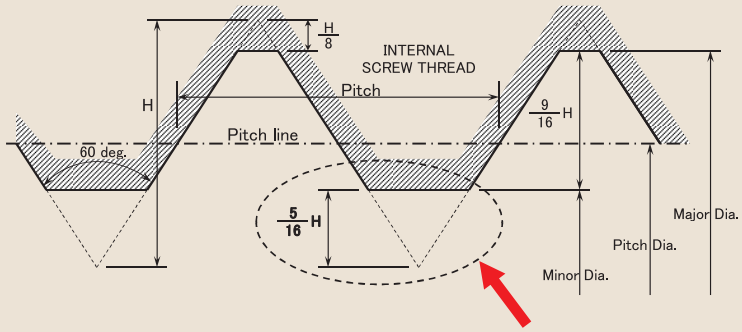
# 11. Differences between UN and UNJ threads

The minor diameter of both the external and internal screw threads of a UNJ thread are larger than that of a UN thread. This design is to enhance the bending and shearing strength of an external thread as per the diagrams below.
UNJ screw thread (MIL-S-8879, AS8879 and ISO3161) is one of the Unified screw threads standard and was established for fastening parts of commercial and military aircrafts with threaded components called "Air-fastener". UNJ threads have only one combination of 3A class external threads and 3B class internal threads per size and both are the smallest tolerance for Unified threads to ensure that air fasteners are securely fastened for excessive loads.
The external screw threads of a UNJ have rounded root with radius of specific tolerance for added strength. Yamawa (YMW) taps manufactured for UN threads can be used to produce internal UNJ threads per MIL-S-8879, AS 8879 and ISO 3161.
Internal threads require a minor diameter bore larger than those recommended for UN threads. This larger minor diameter prevents interference of external and internal threads within the tolerance for UNJ standards.
Tapping conditions must be highly accurate to produce an internal screw thread within a 3B class of thread. Thread results can be influenced by tapping conditions such as feed mechanism of tapping, machine, etc.
Tapping machines with synchronized tapping attachment are strongly recommended.

Basic profile of UNC, UNF Internal screw thread




Basic profile of UNJC, UNJF Internal screw thread



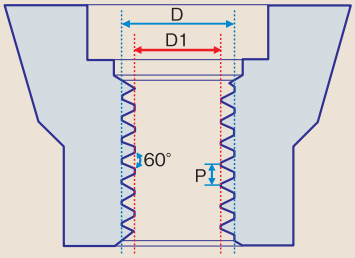

**Note:**
External threads shall be Unified form, in accordance with ASME B1.1 (Class 3A), altered at the root so that the flanks of the adjacent threads are joined by a continuous smoothly blended curve tangent to the flanks. The root radius tangent to the flanks shall be within specific values determined by the AS8879 norm.

(1) Feature of UNJ threads:
Larger minor diameter (larger core diameter) and rounded root make the external screw threads of a UNJ stronger than a UN thread. Internal UNJ threads require a minor diameter bore larger than those recommended for UN threads while staying within the tolerance of the minor diameter for UNJ standards.

(2) Example:
Limit size for minor diameter of Unified internal threads
1/4-20UNC (2B) Min: 0.1960" (or 4.979 mm) - Max: 0.2070" (or 5.257 mm)
1/4-20UNJC (3B) Min: 0.2013" (or 5.114 mm) - Max: 0.2121" (or 5.387 mm)


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# 12. Recommended drill sizes for tapping internal UN and UNJ threads




| Size | | | UNC/UNF (ANSI B 1.1) | | | | | UNJC/UNJF (SAE AS8879D) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Minor diameter D1 | | Drill size | GH* tap class suitable for 2B thread tolerance | | Minor diameter D1 | | Drill size | GH* tap class suitable for 3B thread tolerance | |
| | | | Max. | Min. | | | | Max. | Min. | | | |
| No. | 2 - 56 | UNC/UNJC | 1.871 | 1.695 | 1.80 | GH2 | | 1.859 | 1.743 | 1.81 | GH1 | GH2 |
| No. | 2 - 64 | UNF/UNJF | 1.912 | 1.756 | 1.85 | GH2 | | 1.902 | 1.799 | 1.86 | GH1 | GH2 |
| No. | 3 - 48 | UNC/UNJC | 2.146 | 1.941 | 2.10 | GH2 | | 2.136 | 1.999 | 2.10 | GH1 | GH2 |
| No. | 3 - 56 | UNF/UNJF | 2.197 | 2.025 | 2.10 | GH2 | | 2.189 | 2.073 | 2.10 | GH1 | GH2 |
| No. | 4 - 40 | UNC/UNJC | 2.385 | 2.157 | 2.30 | GH2 | GH3 | 2.392 | 2.228 | 2.30 | GH1 | GH2 |
| No. | 4 - 48 | UNF/UNJF | 2.458 | 2.271 | 2.40 | GH2 | | 2.466 | 2.330 | 2.40 | GH1 | GH2 |
| No. | 5 - 40 | UNC/UNJC | 2.697 | 2.487 | 2.60 | GH2 | | 2.722 | 2.558 | 2.60 | GH1 | GH2 |
| No. | 5 - 44 | UNF/UNJF | 2.740 | 2.551 | 2.70 | GH2 | | 2.763 | 2.614 | 2.70 | GH1 | GH2 |
| No. | 6 - 32 | UNC/UNJC | 2.895 | 2.642 | 2.80 | GH3 | GH4 | 2.938 | 2.734 | 2.85 | GH2 | GH3 |
| No. | 6 - 40 | UNF/UNJF | 3.022 | 2.820 | 2.90 | GH2 | | 3.053 | 2.888 | 3.00 | GH1 | GH2 |
| No. | 8 - 32 | UNC/UNJC | 3.530 | 3.302 | 3.40 | GH3 | GH4 | 3.599 | 3.394 | 3.50 | GH2 | GH3 |
| No. | 8 - 36 | UNF/UNJF | 3.606 | 3.404 | 3.50 | GH3 | | 3.662 | 3.480 | 3.60 | GH2 | GH3 |
| No. | 10 - 24 | UNC/UNJC | 3.962 | 3.683 | 3.90 | GH3 | GH5 | 4.064 | 3.795 | 4.00 | GH2 | GH3 |
| No. | 10 - 32 | UNF/UNJF | 4.165 | 3.963 | 4.10 | GH3 | GH4 | 4.254 | 4.054 | 4.20 | GH2 | GH3 |
| No. | 12 - 24 | UNC/UNJC | 4.597 | 4.344 | 4.50 | GH3 | | 4.704 | 4.456 | 4.60 | GH2 | GH3 |
| No. | 12 - 28 | UNF/UNJF | 4.724 | 4.496 | 4.60 | GH3 | | 4.815 | 4.603 | 4.70 | GH2 | GH3 |
| | 1/4 - 20 | UNC/UNJC | 5.257 | 4.979 | 5.10 | GH3 | GH5 | 5.387 | 5.114 | 5.30 | GH2 | GH3 |
| | 1/4 - 28 | UNF/UNJF | 5.588 | 5.360 | 5.50 | GH3 | GH4 | 5.661 | 5.467 | 5.60 | GH2 | GH3 |
| | 5/16 - 18 | UNC/UNJC | 6.731 | 6.401 | 6.60 | GH3 | GH5 | 6.832 | 6.564 | 6.70 | GH2 | GH3 |
| | 5/16 - 24 | UNF/UNJF | 7.035 | 6.782 | 6.90 | GH3 | GH4 | 7.109 | 6.907 | 7.00 | GH2 | GH3 |
| | 3/8 - 16 | UNC/UNJC | 8.153 | 7.798 | 8.00 | GH3 | GH5 | 8.255 | 7.979 | 8.10 | GH3 | |
| | 3/8 - 24 | UNF/UNJF | 8.636 | 8.382 | 8.50 | GH3 | GH5 | 8.679 | 8.494 | 8.60 | GH2 | GH3 |
| | 7/16 - 14 | UNC/UNJC | 9.550 | 9.144 | 9.40 | GH4 | GH5 | 9.639 | 9.348 | 9.50 | GH3 | |
| | 7/16 - 20 | UNF/UNJF | 10.033 | 9.729 | 9.90 | GH3 | GH4 | 10.083 | 9.876 | 10.00 | GH2 | GH3 |
| | 1/2 - 13 | UNC/UNJC | 11.023 | 10.592 | 10.90 | GH4 | GH5 | 11.094 | 10.798 | 11.00 | GH3 | |
| | 1/2 - 20 | UNF/UNJF | 11.607 | 11.329 | 11.50 | GH3 | GH4 | 11.661 | 11.464 | 11.60 | GH3 | |
| | 9/16 - 12 | UNC/UNJC | 12.446 | 11.989 | 12.20 | GH4 | | 12.481 | 12.228 | 12.40 | GH3 | |
| | 9/16 - 18 | UNF/UNJF | 13.081 | 12.751 | 12.90 | GH4 | | 13.121 | 12.914 | 13.00 | GH3 | |
| | 5/8 - 11 | UNC/UNJC | 13.868 | 13.386 | 13.60 | GH4 | GH5 | 13.903 | 13.628 | 13.80 | GH3 | |
| | 5/8 - 18 | UNF/UNJF | 14.681 | 14.351 | 14.50 | GH4 | GH5 | 14.701 | 14.501 | 14.60 | GH3 | |
| | 3/4 - 10 | UNC/UNJC | 16.840 | 16.307 | 16.60 | GH4 | GH5 | 16.880 | 16.577 | 16.70 | GH3 | |
| | 3/4 - 16 | UNF/UNJF | 17.678 | 17.323 | 17.50 | GH4 | GH5 | 17.721 | 17.506 | 17.60 | GH3 | |

* The most suitable GH tap class to cut accurate 2B, 3B (UNJ) and 2B oversized internal threads tolerance, depends on application conditions and work-piece materials. Yamawa GH class system offers a wide range of alternative tap classes allowing each customer to select the most suitable one according to application requirement.

# 13. Introduction to Thread Forming Taps (Roll Taps)

Thread Forming Taps are the tools used for producing internal threads by a thread forming process. Currently, Yamawa's Thread Forming Taps have a good reputation by being used in many areas. They are widely used along with the diversity of workpieces and with the change into miniaturization of workpieces. Followings are the features of Thread Forming Taps (Roll Taps) which are not available with cutting taps.

## Features of Roll Taps

- Tapping without producing chips. They are suitable for blind and through hole tapping. In producing internal threads with no chips, they save you a time for chip disposal.
- Roll taps are stronger than cutting taps due to their design. The effect of fluteless design gives a large cross-section area to the tap, and there is no worry of chip jamming, which makes Roll taps very tough against breakage.
- Roll taps produce excellent pitch diameter well within pitch diameter tolerances. Material deformation process produces the internal threads with good surface finish as well as precise pitch diameter.
- High efficiency and tool life. The configuration of the lobes at the crests of the tap threads makes high speed tapping possible and extends tool life compared with cutting taps. The addition of a supplemental tap surface treatment, such as Oxidizing, Nitriding, TiN, and TiCN can extend tool life 2 to 20 times longer than uncoated (bright) tap performance.

## Points to note during a Roll tapping operation

- Tapping torque is 2 to 3 times larger than that of cutting taps.
- Roll tapping is only applicable to materials producing stringy chips.
- The deviation of hole size before tapping should be about 5% of pitch. The control of hole size before tapping should be more severe than that of cutting taps.
- The selection of lubricants is important to prevent sticking or welding.
- Burrs at the face of an internal thread are larger than those produced by cutting taps. In some cases it is necessary to take additional countersink processing at the top of hole.
- In the minor diameter of internal thread, U-shape form (Tine form) at the hole entrance can be seen. U-shape form is never seen when using cutting taps.

## Selection of Yamawa Roll Taps

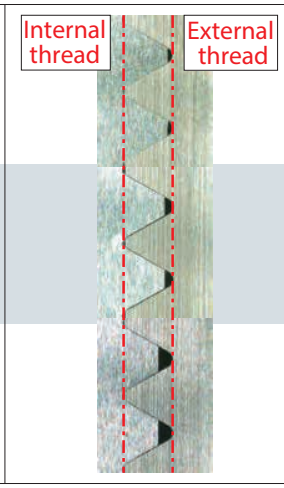
- Types of Roll Taps. Yamawa produces various types of Roll Taps which include General purpose taps, Special purpose taps for non-ferrous and steel, as well as special purpose taps with surface treatment for the specified applications. To provide for longer tool life, specially developed premium materials are also used together with physical vapor deposition coating (PVD) such as TiN and TiCN. In particular, OL-RZ is superior product developed for dry machining with regards to tapping environment and performance.
- Tap Materials. Yamawa's standard tap material is SKH58 designed for improving torque, superior anti-friction properties as well as toughness. To extend tool life, we use SKH56, or SKH10 (Powder HSS) which is the best tap material for antifriction.
- Tolerance Class. Using the datum 12.7 µm in a step form, in accordance with ANSI standard GH class, we made up Yamawa's G class system. The differences in materials being Roll tapped, as well as hole size, contribute to differences in thread forming. Yamawa offers 2 to 3 oversized tap tolerance classes in order to achieve the most suitable internal thread pitch diameter size.
- Chamfer length. 2 pitches for blind hole use and 4 pitches for through hole use. Basically 4 pitches have longer tool life than 2 pitches because force applied on one blade at 4 pitch chamfer is smaller than that at 2 pitch chamfer. However, it is difficult to say about tool life in a few words because each different tapping condition influences the tool life.

## Shape of internal threads and ratio of thread engagement affected by bored hole diameter

Compared with the basic height of thread engagement, the actual height of the thread engagement is called "thread engagement ratio" in percentage.
Depending on the bored hole diameter, internal thread and thread engagement ratio will change.
The tapping condition must be chosen by referring to the thread engagement ratio.
The portion of material to be formed can be reduced by selecting the largest possible bored hole diameter. In this way the load on taps is reduced, decreasing tap's wear and damage.

### Ck45, minor diameter of thread (cutting process)

M24x3
minor diameter tolerance of internal thread
Ø20.752 - Ø21.252

| | |
|---|---|
| [Ck45 internal thread cut]<br>M24x3<br>bored hole size: Ø20.652<br>minor dia tolerance of internal thread NG<br>thread engagement ratio: 103.1% |  |
| [Ck45 internal thread cut]<br>M24x3<br>bored hole size: Ø21.000<br>minor dia tolerance of internal thread:<br>Middle thread engagement ratio: 92.4% | |
| [Ck45 internal thread cut]<br>M24x3<br>bored hole size: Ø21.352<br>minor dia tolerance of internal thread NG<br>thread engagement ratio: 81.5% | |

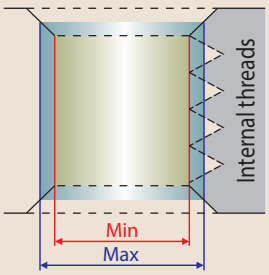
### Aluminum, minor diameter of thread (forming process)

M25x2
minor diameter tolerance of internal thread
Ø22.835 - Ø23.210

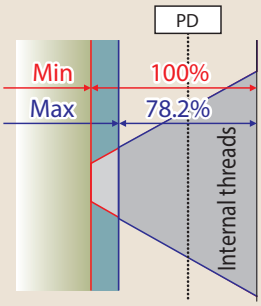
| | |
|---|---|
| [Aluminum, internal thread formed]<br>M25x2<br>bored hole size: Ø23.903<br>minor diameter of finished internal thread : 22.723 mm<br>minor dia tolerance of internal thread NG<br>thread engagement ratio: 105.2% |  |
| [Aluminum, internal thread formed]<br>M25x2<br>bored hole size: Ø24.042 mm<br>minor diameter of finished internal thread : 23.067 mm<br>minor dia tolerance of internal thread : Middle<br>thread engagement ratio: 89.3% | |
| [Aluminum, internal thread formed]<br>M25x2<br>bored hole size: Ø24.240 mm<br>minor diameter of finished internal thread : 23.462 mm<br>minor dia tolerance of internal thread NG<br>thread engagement ratio: 71.0% | |

## Example of thread engagement for M6x1 cutting and forming tap

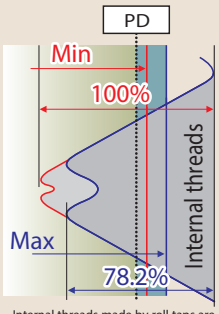
Boring before tapping - Check 1




Engagement ratio on cutting taps



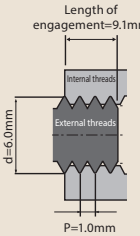

Engagement ratio on roll taps




Internal threads made by roll taps are different from those made by cutting taps on the shape of minor diameter.

| Symbol | Engagement classification / Engagement length classification | Fine | Middle | Coarse | Engagement length |
|---|---|---|---|---|---|
| S | Short engagement length | 4H | 5H | — | S≤3(mm) |
| M | Normal engagement length | 5H | 6H | 7H | 3<M≤9(mm) |
| L | Long engagement length | 6H | 7H | 8H | 9<L(mm) |

Length of engagement
On "middle" engagement class, 7H class can be chosen in case of "L" engagement length.




Unit : mm

| | Drill size (ref.) | D1 Min | D1 Max |
|---|---|---|---|
| Bored hole size | 5.0 | 4.917 | 5.153 |
| Engagement ratio | 92.4% | 100% | 78.2% |

D1 is minor diameter of 6H internal threads

Unit : mm

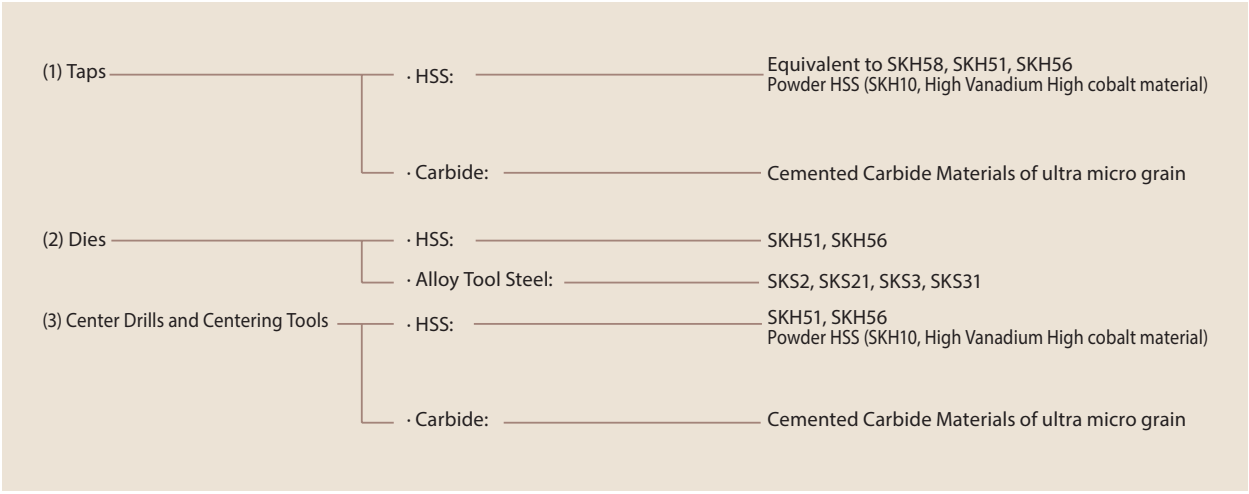
| *Hole size for thread forming taps | |
|---|---|
| Min | Max |
| 5.49 | 5.59 |

*Forming condition changes depending on workpiece's Material and shape. Above is for customer's reference.

# 14. Materials used for Cutting Tools

## Materials

We have been seeking the best materials used for cutting tools since the company establishment because the performance of tools depends on the selection of materials used. Major materials used in our company are listed below.




*For product's improvement, material may be changed without notice.

## Overview on tools materials

Tensile strength, heat resistance, corrosion resistance and accuracy are the important features required of tool's materials. These requirements have been changing due to miniaturization and lightening of parts.
And manufacturing methods, as well, have been changing because of necessity of economical efficiency such as saving process/cycle time while parts become hard-to-machine type and their hardness increases.
As a result, the demand of industrial tools by users has become very tough.
For example, higher wear resistance and chipping resistance are required in the area of hardness, and heavy cutting process or high-speed cutting are required in the area of cycle time.
Moreover, product accuracy with its rigidity, laborsaving brought by uniformity, and systematic reliability are highly required.
Therefore, technological improvement of tool steels never stops developing so that they satisfy users needs.

- The major materials used for taps are already listed in the chart, but those materials are ready to develop from conventional alloy tool steels and current high speed steel into next generation materials such as cemented carbide and cermet materials.

New materials are developed even in high-speed tool steel area, such as SKH51 and SKH58 from SKH2, and they are moving into high performance materials, such as high vanadium, cobalt, and powder HSS made of high vanadium and high cobalt contents.

- As the material for round dies, alloy tool steels are mostly used because of the relationship with the use of adjustable round dies. However, for the hard-to-machine material, die material has been shifted into High Speed Steel.
- Major materials for center drills and centering tools are high speed steel materials, but they have been shifting to cobalt type or even cemented carbide from SKH51.

We keep on seeking to develop our technology to meet user's needs and are trying to find the best materials in collaboration with steel manufacturers.



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## Chemical composition of the materials specified in JIS

| Classification | Symbol | Chemical composition | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C | Si | Mn | P | S | Cr | Mo | W | V | Co |
| W Type HSS | SKH 2 | 0.73-0.83 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | - | 17.20-18.70 | 1.00-1.20 | - |
| | SKH 3 | 0.73-0.83 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | - | 17.00-19.00 | 0.80-1.20 | 4.50- 5.50 |
| | SKH 4 | 0.73-0.83 | ≤0.45 | ≤o.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | - | 17.00-19.00 | 1.00-1.50 | 9.00-11.00 |
| | SKH10 | 1.45-1.60 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | - | 11.50-13.50 | 4.20-5.20 | 4.20- 5.20 |
| Mo Type HSS | SKH51 | 0.80-0.88 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 4.70- 5.20 | 5.90- 6.70 | 1.70-2.10 | - |
| | SKH52 | 1.00-1.10 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 5.50- 6.50 | 5.90- 6.70 | 2.30-2.80 | - |
| | SKH53 | 1.15-1.25 | ≤0.45 | ≤o.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 4.70- 5.20 | 5.90- 6.70 | 2.70-3.20 | - |
| | SKH54 | 1.25-1.40 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 4.20- 5.00 | 5.20- 6.00 | 3.70-4.20 | - |
| | SKH55 | 0.87-0.95 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 4.70- 5.20 | 5.90- 6.70 | 1.70-2.10 | 4.50- 5.00 |
| | SKH56 | 0.85-0.95 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 4.70- 5.20 | 5.90- 6.70 | 1.70-2.10 | 7.00- 9.00 |
| | SKH57 | 1.20-1.35 | ≤0.45 | ≤0.4 | ≤0.030 | ≤0.030 | 3.80-4.50 | 3.20- 3.90 | 9.00-10.00 | 3.00-3.50 | 9.50-10.50 |
| | SKH58 | 0.95-1.05 | ≤0.7 | ≤0.4 | ≤0.030 | ≤0.030 | 3.50-4.50 | 8.20- 9.20 | 1.50- 2.10 | 1.70-2.20 | - |
| | SKH59 | 1.05-1.15 | ≤0.7 | ≤0.4 | ≤0.030 | ≤0.030 | 3.50-4.50 | 9.00-10.00 | 1.20- 1.90 | 0.90-1.30 | 7.50- 8.50 |

| Classification | Symbol | Usage | Cross chart | | |
|---|---|---|---|---|---|
| | | | AISI | VDEH | ISO |
| W Type HSS | SKH 2 | Tools for general cutting and other kinds of tools | T 1 | S18-0-1 | S1 (HS18-0-1) |
| | SKH 3 | Tools for high speed heavy cutting and other kinds of tools | T 4 | S18-1-2-5 | S7 (HS18-1-1-5) |
| | SKH 4 | Tools for cutting hard -to-machine materials and other kinds of tools | T 5 | S18-1-2-10 | S6 (HS18-0-1-10) |
| | SKH10 | Tools for cutting ultra hard-to-machine materials and other kinds of tools | T 15 | - | S9 (HS12-1-5-5) |
| Mo Type HSS | SKH51 | General cutting tools from which toughness is particularly required, and other kinds of tools | M 2 | S6-5-2 | S4 (HS6-5-2) |
| | SKH52 | Tools for cutting high hardness material from which | M 3-1 | - | - |
| | SKH53 | comparatively high toughness is required and other kinds of tools | M 3-2 | S6-5-3 | S5 (HS6-5-3) |
| | SKH54 | Tools for cutting ultra hard-to-machine materials and other kinds of tools | M 4 | - | - |
| | SKH55 | High speed cutting tools from which comparatively high | M 35 | S6-5-2-5 | S8 (HS6-5-2-5) |
| | SKH56 | toughness is required and other kinds of tools | M 36 | - | - |
| | SKH57 | Tools for cutting ultra hard-to-machine materials and other kinds of tools | - | S10-4-3-10 | S10 (HS10-4-3-10) |
| | SKH58 | General cutting tools from which toughness is particularly required, and other kinds of tools | M 7 | S2-9-2 | S2 (HS2-9-2) |
| | SKH59 | High speed heavy cutting tools from which comparatively high toughness is required, and other kinds of tools | M 42 | S2-10-1-8 | S11 (HS2-9-1-8) |

The standard of HSS material is specified in JIS. But there are many HSS materials which standard is not specified in JIS. Recently even the kind of HSS-P is getting wider and various. Besides, SKH10, SKH53, SKH57 and their equivalents, such Hi vanadium/hi cobalt material as contains 4-12% vanadium and 8-11% cobalt is now being manufactured. Material engineering will be developed rapidly in the future. Under such situation, there can be many cases where JIS symbols are not used, and the use of larger classification and their symbols is getting popular.

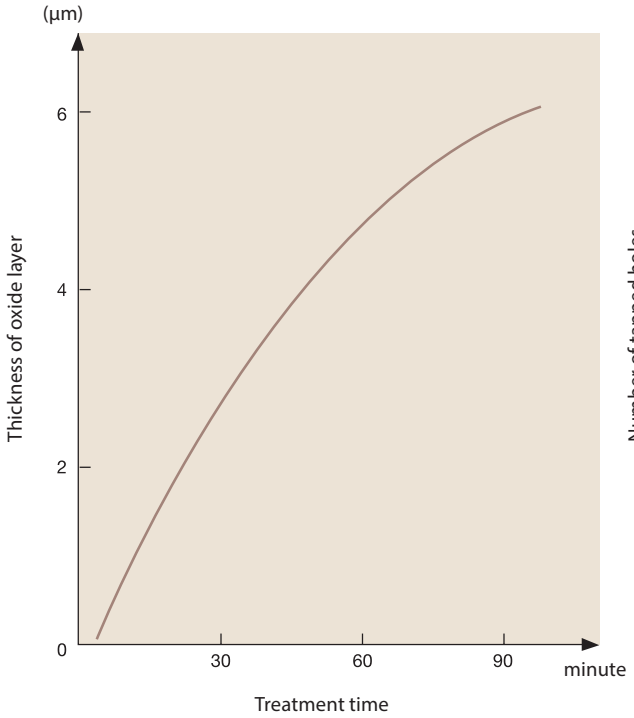
# 15. Surface Treatment

The best surface treatment is applied to each tap depending on the tapping purpose.
Characteristics and effectiveness of surface treatment are introduced at next section.

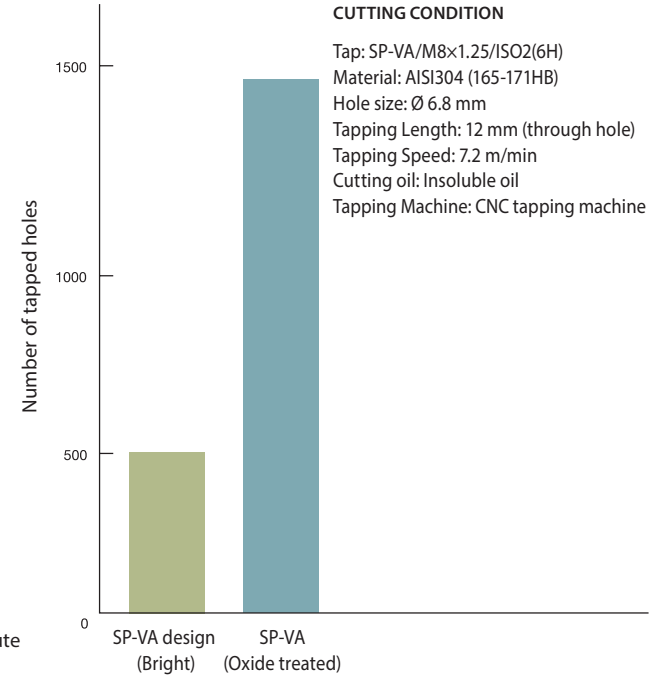
## Oxidizing

- This treatment was processed by using HOMO furnace being made by LEED AND NORTHUP company USA in 1938, and it is called HOMO treatment. This treatment is also called vapor treatment and steam treatment. Through this treatment, $Fe_3O_4$ layer of blue black color is produced over the tool surface.
- Oxidization treatment produces porous layer on tool's surface. This porous layer works as oil pocket to reduce friction, to avoid welding and to improve the surface roughness of internal screw. Moreover, longer tool life is expected because the treatment reduces the remaining stress of HSS tools.
- This treatment does not increase the hardness on tool surface. Using the furnace of YAMAWA original design and choosing the proper treatment time, we have marked good result of oxidizing for YAMAWA HSS tools.
- Stainless steel and low carbon steel are the materials that are easy to get welding. We are applying this treatment to the special purpose taps for these materials to get good result. Further due to the reduction of friction force, this treatment has good result for wide range of steel type material.
- We combine oxidizing with nitriding for the taps designed for thermal refined steels of high carbon steels and alloy steels. This double treatment wins good reputation of the market.

### Thickness of oxide layer and the time of treatment




### Comparison between bright and oxide treated




**CUTTING CONDITION**

Tap: SP-VA/M8×1.25/ISO2(6H)
Material: AISI304 (165-171HB)
Hole size: Ø 6.8 mm
Tapping Length: 12 mm (through hole)
Tapping Speed: 7.2 m/min
Cutting oil: Insoluble oil
Tapping Machine: CNC tapping machine

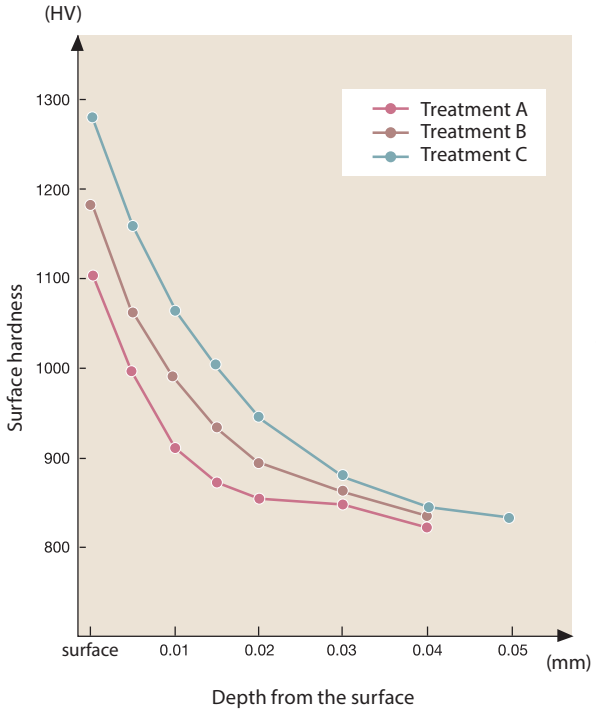


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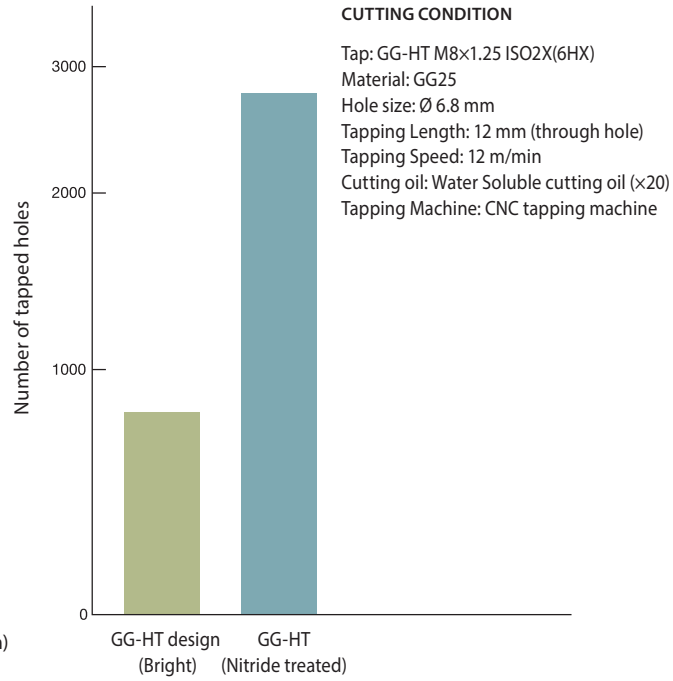
## Nitriding

- In this treatment, we have Nitrogen and Carbon soak into the surface of HSS tools, and react with chemical of HSS material to produce hard nitride. There are 3 methods in the treatment, composition gas method, salt bath nitride method and ion nitride method.
- Salt bath nitride treatment is shifted into gas nitride treatment method because of cyanic environmental pollution.
- The temperature of treatment is 500 to 550 degree. Hardness and depth of the treatment can be controlled by active nitrogen concentration and reaction time.
- The high hardness of tool surface minimizes chemical attraction. Result is less welding and friction reduction. Great improvement is expected in tool's performance.
- We have found out the best combinations of hardness and toughness through our treatment technology
- The nitride treatment will be widely applicable to the taps for such workpiece materials as gray cast irons, special cast irons, aluminum diecastings with higher silicone content, copper alloys, and resinoids (plastics). These materials produce small segmental chips and are very abrasive.
- We combine nitrogen and oxidizing for comparatively sticky material such as thermal refined steels of high carbon steel and alloy steel. This double treatment improves the chipping resistance and have won good reputation.

### Depth and hardness of Nitride Surface Treatment




### Comparison between bright and nitride treated




**CUTTING CONDITION**

Tap: GG-HT M8×1.25 ISO2X(6HX)
Material: GG25
Hole size: Ø 6.8 mm
Tapping Length: 12 mm (through hole)
Tapping Speed: 12 m/min
Cutting oil: Water Soluble cutting oil (×20)
Tapping Machine: CNC tapping machine

## Hard coating

High speed cutting and hard-to-machine material cutting are the recent technology. To meet this tendency, the hard layer coating by vapor deposition over tool's surface has become popular. There are two coating methods, CVD and PVD. PVD is mainly used for tap.

## Physical Vapor Deposition

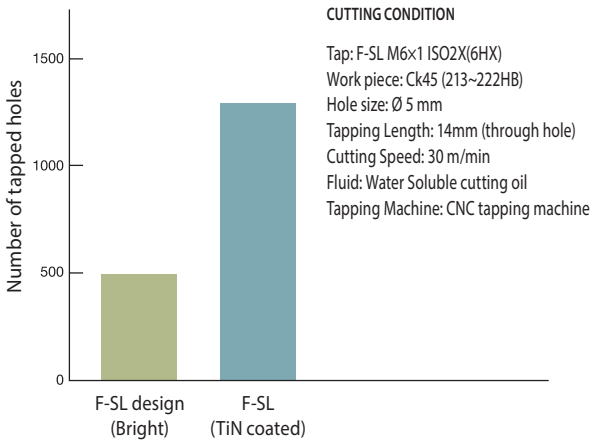
- Inside of the container of high vacuum, are vapor deposition materials heated. And we vapor-deposit particles ionized by electric discharge on tool's surface.
- Due to its low reaction temperature (lower than 500˚C), PVD makes little change in shape and hardness of HSS tools.

## The features and classification of coating

| Classification / Features | Titanium nitride (TiN) | Titanium carbonitride (TiCN) | Titanium nitride aluminium (TiAlN) | Chromium nitride (CrN) |
|---|---|---|---|---|
| Vickers Hardness | 2000-2400 | 3000-3500 | 2300-2700 | 1800-2200 |
| Wear resistance | Good | Excellent | Excellent | Normal |
| Welding resistance | Good | Good | Good | Excellent |
| Heat resistance | Good | Normal | Excellent | Excellent |
| Acid resistance | Good | Normal | Excellent | Good |
| Slippery | Good | Excellent | Good | Excellent |
| Color | Gold | Blue Gray - Violet | Violet | Silver |
| Workpiece materials | Carbon Steel<br>Aluminum forging | Carbon Steel<br>Hard Steel<br>Stainless Steel<br>Aluminum forging<br>Cast Iron<br>Brass, Bronze | Stainless Steel<br>Cast Iron | Copper |

Note: Evaluation (tri-level) of characteristic features is just comparative of these four coatings, TiN, TiCN, TiAlN, and CrN, in the table. These coatings have great advantages of wear resistance, welding resistance, and friction reduction. The values of vickers hardness are also higher than the heat treatment or nitriding of HSS cutting tools from the table.

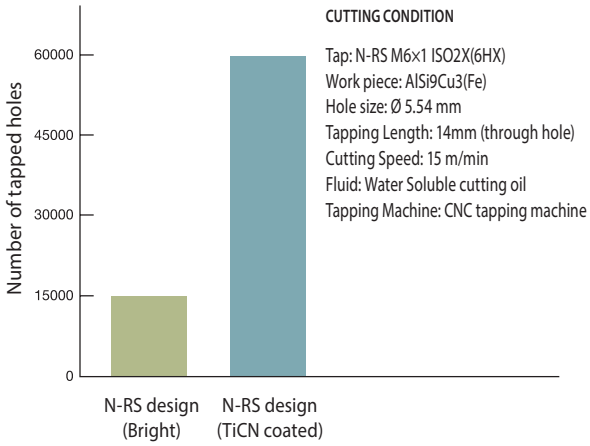
## Comparison between bright and TiN coated




**CUTTING CONDITION**

Tap: F-SL M6x1 ISO2X(6HX)
Work piece: Ck45 (213~222HB)
Hole size: Ø 5 mm
Tapping Length: 14mm (through hole)
Cutting Speed: 30 m/min
Fluid: Water Soluble cutting oil
Tapping Machine: CNC tapping machine

## Comparison between bright and TiCN coated




**CUTTING CONDITION**

Tap: N-RS M6x1 ISO2X(6HX)
Work piece: AlSi9Cu3(Fe)
Hole size: Ø 5.54 mm
Tapping Length: 14mm (through hole)
Cutting Speed: 15 m/min
Fluid: Water Soluble cutting oil
Tapping Machine: CNC tapping machine



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# 16. Carbide Taps



Technological advances in CNC machines and machining centers, and machining automation have helped to improve the overall tapping process.
YAMAWA was quick to answer to the evolving customer needs.
We have developed a wide range of carbide taps for tremendous improvements in mass-production and cost reduction. It is estimated that carbide taps have 50 times more durability than HSS taps in tapping, when used properly. YAMAWA engineering believes the best carbide materials suitable for taps are ultramicro-grain tungsten carbide, or ultrafine-grain carbide made of high cobalt.

## Features of Carbide Taps

(1) Excellent durability with high toughness is obtainable.
(2) High anti-friction features are provided by the material's high hardness and comparatively high toughness, which ultimately results in a longer tool life.
(3) Specially designed cutting angle and other dimensional features produce the internal threads with high tolerance accuracy and consistency.
(4) Under certain tapping condition, YAMAWA carbide taps can be used even for tapping hard-to-machine materials.

## Points to note during tapping with Carbide taps:

(1) Machine vibration, or run-out, can lead to Carbide tap chipping and premature failure. Tapping vibrations need to be kept to a minimum.
(2) Tap holder should be a rigid type for a Carbide tap. A holder attachment with axial float, or radial float tends to promote Carbide tap breakage and chipping.
(3) The hole to be tapped must be located correctly and on center; any centering off or non-straight drilled hole tends to cause Carbide tap breakage due to deflection. Select correct hole depth with respect to tapping length (for blind hole only). It is especially important to prevent tap damage from chip packing and bottom thrusting in blind hole tapping.
(4) Cutting lubricants - select grade of lubricant. Improper flow of coolant, or lack of sufficient amount of lubricant, or cooling can increase the likelihood of Carbide tap chipping due to work material welding. Caution must be taken during dry machining to prevent chip welding to the tap.
(5) Work pieces - we provide Carbide taps with increased toughness, but Carbide taps are inferior to High Speed Steel (HSS) in the area of toughness. As a matter of fact Carbide taps have limited application due to this difference in toughness to HSS.

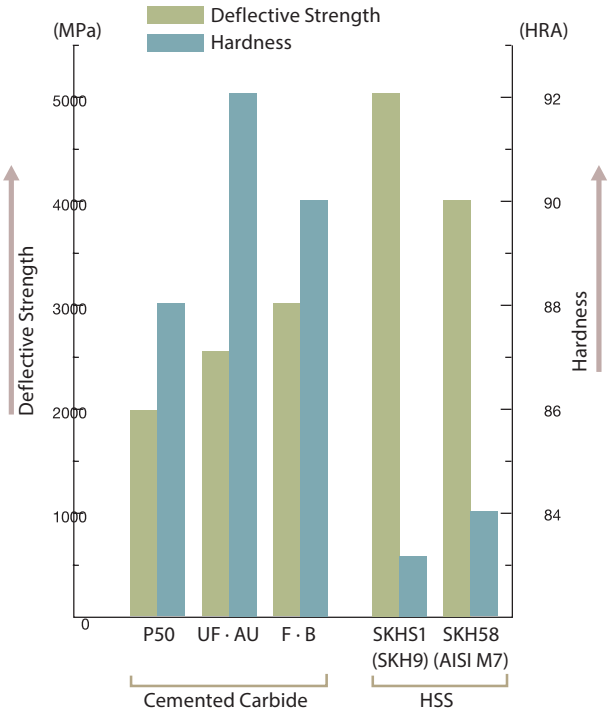
## Commonly used materials and cutting conditions

| Work Materials | | Cutting Speed (m/min) | Cutting Fluid (General recommendation) |
|---|---|---|---|
| Cast Iron | Ordinary | 15-25 | Dry, light oil, water soluble oil |
| | Nodular Graphite | 10-20 | Light oil, water soluble oil |
| | Malleable | 10-20 | Water soluble oil |
| Aluminum | | 20-40 | Light oil, water soluble oil |
| Copper | | 15-30 | Light oil, water soluble oil |
| Copper Alloy | Brass | 20-30 | Light oil, water soluble oil |
| | Phosphor Bronze | 15-30 | Light oil, water soluble oil |
| Die-Cast | Aluminum Alloy | 15-25 | Mixed oil of lard oil and kerosene |
| | Zinc Alloy | 12-20 | Mixed oil of lard oil and kerosene |
| Plastic | Thermosetting | 15-25 | Water soluble oil, air |
| | Thermo Plastic | 15-25 | Water soluble oil, air |
| Hard Rubber | | 15-30 | Dry, air |

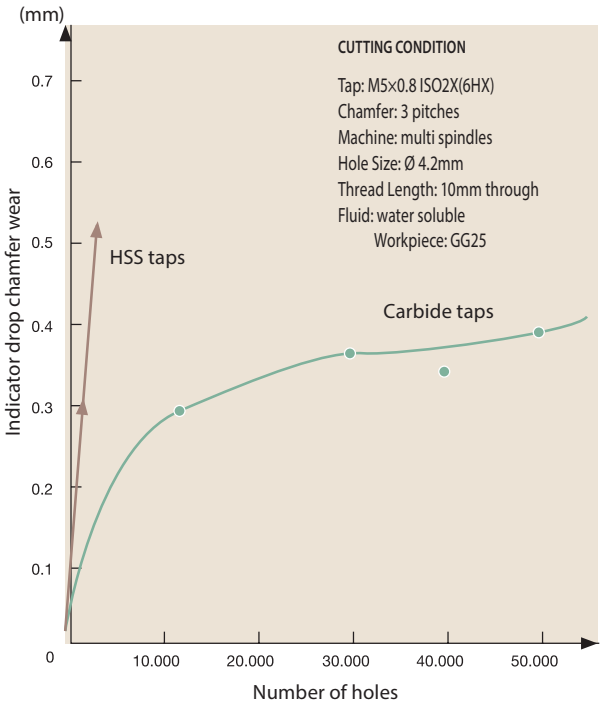
Note: The table shows only general conditions. As for actual cutting operation, please consider the following points: (1) Machine Capacity, (2) Work piece(s), (3) Work Shape, (4) Setup (5) other factors.

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## Toughness and Hardness of Cemented Carbide and HSS




## Chamfer wear and number of holes of Carbide taps and HSS taps




| Features \ Size | | M 2 x 0.4 | M 8 x 1.25 | M 6 x 1 | M 8 x 1.25 | M 10 x 1.25 |
|---|---|---|---|---|---|---|
| Workpiece | Material | Plastic with glass fibre | AlSi9Cu3(Fe) | GG25 | GG25 | GG25 |
| | Part's name | Electric Parts | Car Parts | Electric Parts | Car Parts | Car Parts |
| Thread condition | Tapping hole condition | Ø 1.6 Through | Ø 6.7 Blind | Ø 5.0 Blind | Ø 6.7 Blind | Ø 8.7 Blind |
| | Tapping length | 4 mm | 18 mm | 10 mm | 16mm | 18 mm |
| Condition of use | Machine | Special Machine | Special Machine | 4 spindle Machine | Multi Spindle Machine | Special Machine |
| | Cutting speed | 6.3 m/min | 8.5 m/min | 8 m/min | 6 m/min | 5.7 m/min |
| | Fluid | Dry | Water soluble | Water soluble | Water soluble | Water soluble |
| Number of holes | Carbide tap | 10.000 | 75.400 | 53.000 | 18.860 | 38.500 |
| | HSS tap | 200 | 1.000 | 1.000 | 300 | 500 |
| | Comparison of life | 50 | 75.4 | 53 | 62.9 | 77 |

Note: In all situations, HSS taps being used are standard ones.
Carbide taps, when used properly, bring out a long tool life.
These data have come from end users of carbide taps.



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# 17. Taps for Pipe Threads



## JIS Pipe Taps

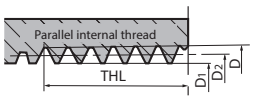
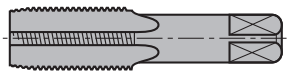
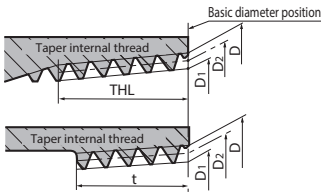
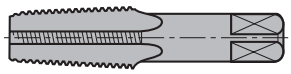
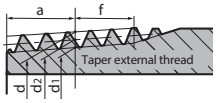
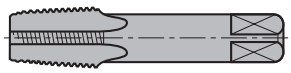
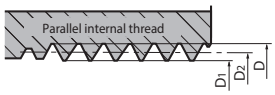
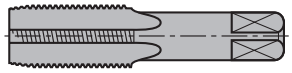
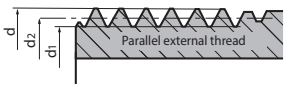
The pipe thread standard (JIS B 0202,0203) was revised in 1982 to meet ISO standard. In the same year, JIS B 4445 (straight pipe thread taps) and JIS B 4446 (taper pipe thread taps) were also revised.

- A part of the pipe thread standard was revised in 1966 to meet ISO, but in the 1982 revision, the ISO standard was defined in the main book of JIS and the old 1966 standard was defined in JIS Appendix. For Pipe Threads specified in the main book of JIS and JIS Appendix, thread symbols are different but the nominal size 1/8 to 6 inch are same. In the 1998 revision, the contents of the main book of JIS and JIS Appendix are not changed.
- ISO tap standard for pipe threads is different from the JIS tap standard in style, size and thread limit. Like the pipe thread standard, in JIS tap standards for pipe threads, style, size and thread limits of ISO standard are adopted in the main book of JIS and those of old JIS standard are in the JIS Appendix. For ISO standard (style and size), please refer to the next page.
- Thread limits of Rp and G taps are the same as the ISO standard. The thread limit of Rc taps is the same as the JIS class 2 of PT taps shown in JIS Appendix because Rc is not specified in the ISO standard. Therefore, both Rc taps and PT taps can be used interchangeably. For the relation between thread limit of internal threads and tap thread limit, please refer to the table below.
- Pipe Tap standard was revised in 1987. And tap designations shown in JIS Appendix were changed to PF taps for Parallel Pipe Thread, PT taps for Taper Pipe Thread, and PS taps for Parallel Pipe Thread.

## Symbol of Pipe threads

| Type | Classification | | Standard | JIS (ISO) | JIS Appendix |
|---|---|---|---|---|---|
| Taper Thread | Taper Thread | Internal Thread | JIS B 0203-1982 | Rc | PT |
| | | External Thread | | R | PT |
| | Parallel Thread | Internal Thread | | Rp | PS |
| | | External Thread | | - | - |
| Parallel Thread | Parallel Thread | Internal Thread | JIS B 0202-1982 | G | PF, A class |
| | | | | - | PF, B class |
| | | Internal Thread | | G, A class | PF, A class |
| | | | | G, B class | PF, B class |

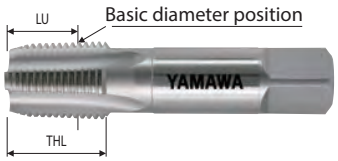
## Relation between classification/engagement of pipe threads and taps

| Kind of thread | Classification | Main usage | Type | | Engagement | pipe taps |
|---|---|---|---|---|---|---|
| Pipe thread | Taper pipe threads | In connection of pipes, pipe parts and fluid parts they are used mainly for the purpose of pressure type joints. | Internal threads | Parallel PS (Rp) |   | PS  |
| | | | | Taper PT (Rc) |   | PT  |
| | | | External threads | Taper PT (R) |   | S-PT  |
| | Parallel pipe threads | In connection of pipes, pipe parts and fluid parts, they are used mainly for the purpose of mechanical type joints. | Internal threads | PF (G) |   | PF  |
| | | | External threads | PF (G) |   | |

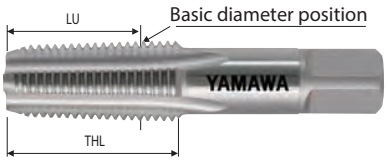
## Comparison of the thread limit of taper pipe tap

Unit mm

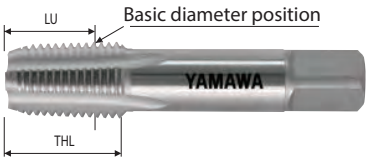
Rc



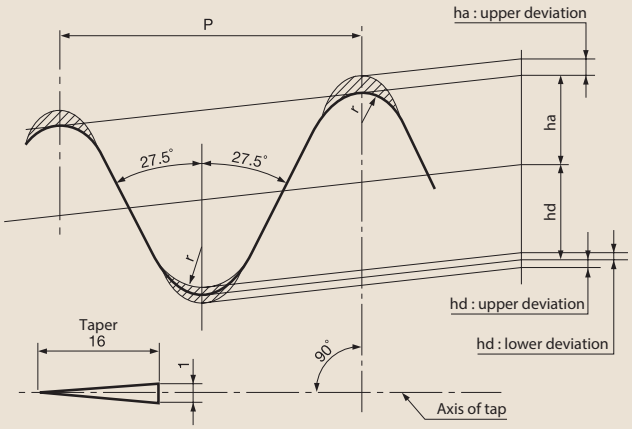

PT




S-PT




P = 25.4/n
n = Number of threads




## Comparison of the thread limit of taper internal pipe taps

Unit: mm

| Size | Basic major Dia. of Gauge Plane | Number of Threads (per inch) | ISO (Rc) | | Appendix (PT) | | | | Thread Limit | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Thread Length | Basic Diameter Position | PT Threads | | S-PT Thread | | ha | | hd | |
| | | | | | Thread Length | Basic Diameter Position | Thread Length | Basic Diameter Position | Basic Size (mm) | Tolerance | Basic Size (mm) | Tolerance |
| 1/16 | 7.723 | 28 | 14 | 10.1 | - | - | - | - | 0.291 | 0-30 | 0.291 | ±15 |
| 1/8 | 9.728 | 28 | 15 | 10.1 | 19 | 13 | 16.5 | 10.5 | 0.291 | 0-30 | 0.291 | ±15 |
| 1/4 | 13.157 | 19 | 19 | 15 | 28 | 21 | 19.5 | 12.5 | 0.428 | 0-40 | 0.428 | ±20 |
| 3/8 | 16.662 | 19 | 21 | 15.4 | 28 | 21 | 21 | 14 | 0.428 | 0-40 | 0.428 | ±20 |
| 1/2 | 20.955 | 14 | 26 | 20.5 | 35 | 25 | 27 | 17 | 0.581 | 0-50 | 0.581 | ±25 |
| 3/4 | 26.441 | 14 | 28 | 21.8 | 35 | 25 | 29 | 19 | 0.581 | 0-50 | 0.581 | ±25 |
| 1 | 33.249 | 11 | 33 | 26 | 45 | 32 | 35 | 22 | 0.740 | 0-60 | 0.740 | ±30 |
| 1 1/4 | 41.910 | 11 | 36 | 28.3 | 45 | 32 | 37.5 | 24.5 | 0.740 | 0-60 | 0.740 | ±30 |
| 1 1/2 | 47.803 | 11 | 37 | 28.3 | 45 | 32 | 38.5 | 25.5 | 0.740 | 0-60 | 0.740 | ±30 |
| 2 | 59.614 | 11 | 41 | 32.7 | 50 | 35 | 42.5 | 27.5 | 0.740 | 0-60 | 0.740 | ±30 |
| 2 1/2 | 75.184 | 11 | 45 | 37.1 | - | - | - | - | 0.740 | 0-60 | 0.740 | ±30 |
| 3 | 87.884 | 11 | 148 | 40.2 | - | - | - | - | 0.740 | 0-70 | 0.740 | ±35 |
| 4 | 113.030 | 11 | 53 | 46.2 | - | - | - | - | 0.740 | 0-70 | 0.740 | ±35 |



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## Comparison of the thread limit of parallel pipe taps

Unit: mm

| Size | Number of Threads (per inch) | Pitch (mm) | Thread Limit of ISO (G) | | | | | | | | Thread Limit ofAppendix of PF | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Major Dia | | Pitch Dia | | | | Minor Dia | | Major Dia | | Pitch Dia | | | | Minor Dia | |
| | | | Basic Size (mm) | LT (+) | Basic Size (mm) | UT (+) | LT (+) | Tolerance | Basic Size (mm) | UT | Basic Size (mm) | LT (+) | Basic Size (mm) | UT (+) | LT (+) | Tolerance | Basic Size (mm) | UT (+) |
| 1/16 | 28 | 0.9071 | 7.723 | 32 | 7.142 | 43 | 21 | 22 | 6.561 | Not Specified | - | | - | | | | - | |
| 1/8 | 28 | 0.9071 | 9.728 | 32 | 9.147 | 43 | 21 | 22 | 8.566 | | 9.728 | 65 | 9.147 | 40 | 20 | 20 | 8.566 | 40 |
| 1/4 | 19 | 1.3368 | 13.157 | 37 | 12.301 | 50 | 25 | 25 | 11.445 | | 13.157 | 90 | 12.301 | 50 | 25 | 25 | 11.445 | 50 |
| 3/8 | 19 | 1.3368 | 16.662 | 37 | 15.806 | 50 | 25 | 25 | 14.950 | | 16.662 | 90 | 15.806 | 50 | 25 | 25 | 14.950 | 50 |
| 1/2 | 14 | 1.8143 | 20.955 | 43 | 19.793 | 57 | 28 | 29 | 18.631 | | 20.955 | 115 | 19.793 | 55 | 25 | 30 | 18.631 | 55 |
| 5/8 | 14 | 1.8143 | 22.911 | 43 | 21.749 | 57 | 28 | 29 | 20.587 | | 22.911 | 115 | 21.749 | 55 | 25 | 30 | 20.587 | 55 |
| 3/4 | 14 | 1.8143 | 26.441 | 43 | 25.279 | 57 | 28 | 29 | 24.117 | | 26.441 | 115 | 25.279 | 55 | 25 | 30 | 24.117 | 55 |
| 7/8 | 14 | 1.8143 | 30.201 | 43 | 29.039 | 57 | 28 | 29 | 27.877 | | 30.201 | 115 | 29.039 | 55 | 25 | 30 | 27.877 | 55 |
| 1 | 11 | 2.3091 | 33.249 | 54 | 31.770 | 72 | 36 | 36 | 30.291 | | 33.249 | 145 | 31.770 | 60 | 30 | 30 | 30.291 | 60 |
| 1 1/8 | 11 | 2.3091 | 37.897 | 54 | 36.418 | 72 | 36 | 36 | 34.939 | | 37.897 | 145 | 36.418 | 60 | 30 | 30 | 34.939 | 60 |
| 1 1/4 | 11 | 2.3091 | 41.91 O | 54 | 40.431 | 72 | 36 | 36 | 38.952 | | 41.910 | 145 | 40.431 | 65 | 30 | 35 | 38.952 | 65 |
| 1 1/2 | 11 | 2.3091 | 47.803 | 54 | 46.324 | 72 | 36 | 36 | 44.845 | | 47.803 | 145 | 46.324 | 65 | 30 | 35 | 44.845 | 65 |
| 1 3/4 | 11 | 2.3091 | 53.746 | 54 | 52.267 | 72 | 36 | 36 | 50.788 | | 53.746 | 145 | 52.267 | 65 | 30 | 35 | 50.788 | 65 |
| 2 | 11 | 2.3091 | 59.614 | 54 | 58.135 | 72 | 36 | 36 | 56.656 | | 59.614 | 150 | 58.135 | 75 | 35 | 40 | 56.656 | 75 |
| 2 1/4 | 11 | 2.3091 | 65.710 | 65 | 64.231 | 87 | 43 | 44 | 62.752 | | | | | | | | | |
| 2 1/2 | 11 | 2.3091 | 75.184 | 65 | 73.705 | 87 | 43 | 44 | 72.226 | | | | | | | | | |
| 2 3/4 | 11 | 2.3091 | 81.534 | 65 | 80.055 | 87 | 43 | 44 | 78.576 | | | | | | | | | |
| 3 | 11 | 2.3091 | 87.884 | 65 | 86.405 | 87 | 43 | 44 | 84.926 | | | | | | | | | |
| 3 1/2 | 11 | 2 .3091 | 100.330 | 65 | 98.851 | 87 | 43 | 44 | 97 .372 | | | | | | | | | |
| 4 | 11 | 2.3091 | 113.030 | 65 | 111.551 | 87 | 43 | 44 | 110.072 | | | | | | | | | |

UT: upper deviation
LT: lower deviation

## Comparison of the thread limit of parallel internal pipe taps

Unit: mm

| Size | Number of Threads (per inch) | Pitch (mm) | Thread Limit of ISO (G) | | | | | | | | Thread Limit ofAppendix of PF | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Major Dia | | Pitch Dia | | | | Minor Dia | | Major Dia | | | Pitch Dia | | | | Minor Dia | | |
| | | | Basic Size (mm) | LT (+) | Basic Size (mm) | UT (+) | LT (+) | Tolerance | Basic Size (mm) | UT | Basic Size (mm) | | LT (+) | Basic Size (mm) | UT (+) | LT (+) | Tolerance | Basic Size (mm) | UT (+) | LT (-) |
| 1/16 | 28 | 0.9071 | 7.723 | 43 | 7.142 | 14 | 43 | 29 | 6.561 | Not Specified | - | | | - | | | | - | | |
| 1/8 | 28 | 0.9071 | 9.728 | 43 | 9.147 | 14 | 43 | 29 | 8.566 | | 9.728 | +10 | 50 | 9.147 | 30 | 50 | 20 | 8.566 | +10 | 50 |
| 1/4 | 19 | 1.3368 | 13.157 | 63 | 12.301 | 21 | 63 | 42 | 11.445 | | 13.157 | +5 | 75 | 12.301 | 50 | 75 | 25 | 11.445 | +5 | 75 |
| 3/8 | 19 | 1.3368 | 16.662 | 63 | 15.806 | 21 | 63 | 42 | 14.950 | | 16.662 | +5 | 75 | 15.806 | 50 | 75 | 25 | 14.950 | +5 | 75 |
| 1/2 | 14 | 1.8143 | 20.955 | 86 | 19.793 | 29 | 86 | 57 | 18.631 | | 20.955 | -25 | 115 | 19.793 | 85 | 115 | 30 | 18.631 | -225 | 115 |
| 3/4 | 14 | 1.8143 | 26.441 | 86 | 25.279 | 29 | 86 | 57 | 24.117 | | 26.441 | -25 | 115 | 25.279 | 85 | 115 | 30 | 24.117 | -25 | 115 |
| 1 | 11 | 2.3091 | 33.249 | 109 | 31.770 | 37 | 109 | 72 | 30.291 | | 33.249 | -50 | 150 | 31.770 | 120 | 150 | 30 | 30.291 | -50 | 150 |
| 1 1/4 | 11 | 2.3091 | 41.910 | 109 | 40.431 | 37 | 109 | 72 | 38.952 | | 41.910 | -50 | 150 | 40.431 | 115 | 150 | 35 | 38.952 | -50 | 150 |
| 1 1/2 | 11 | 2.3091 | 47.803 | 109 | 46.324 | 37 | 109 | 72 | 44.845 | | 47.803 | -50 | 150 | 46.324 | 115 | 150 | 35 | 44.845 | -50 | 150 |
| 2 | 11 | 2.3091 | 59.614 | 109 | 58.135 | 37 | 109 | 72 | 56.656 | | 59.614 | -45 | 145 | 58.135 | 105 | 145 | 40 | 56.656 | -45 | 145 |
| 2 1/2 | 11 | 2.3091 | 75.184 | 130 | 73.705 | 43 | 130 | 87 | 72.226 | | | | | | | | | | | |
| 3 | 11 | 2.3091 | 87.884 | 130 | 86.405 | 43 | 130 | 87 | 84.926 | | | | | | | | | | | |
| 4 | 11 | 2.3091 | 113.030 | 130 | 111.551 | 43 | 130 | 87 | 110.072 | | | | | | | | | | | |

UT: upper deviation
LT: lower deviation

## American Pipe Thread Taps

American standard pipe thread has various types. We show their symbols and engagement of threads as follows.

### Pair groups of external thread and internal thread.

| Standard | Description | Internal Thread | Mating Thread | External Thread | Mating Thread |
|---|---|---|---|---|---|
| Pipe Threads, General Purpose (ANSI/ASME B1.20.1) | American Standard Taper Pipe Thread for General Use | NPT | NPT | NPT | NPT NPSC |
| | American Standard Straight Pipe Thread in Pipe Couplings | NPSC | NPT | - | - |
| | American Standard Taper Pipe Threads for Railing Joints | NPTR | NPTR | NPTR | NPTR |
| | American Standard Straight Pipe Thread for Free-Fitting Mechanical Joints for Fixtures | NPSM | NPSM | NPSM | NPSM |
| | American Standard Straight Pipe Thread for Loose-Fitting Mechanical Joints with Locknuts | NPSL | NPSL | NPSL | NPSL |
| | American Standard Straight Pipe Threads for Loose-Fitting Mechanical Joints for Hose Couplings | NPSH | NPSH | NPSH | NPSH |
| Dryseal Pipe Threads (ANSI B1.20.3) | Dryseal American Standard Taper Pipe Thread | NPTF | NPTF PTF-SAE-SHORT | NPTF | NPTF, NPSF, NPSI PTF-SAE-SHORT |
| | Dryseal SAE Short Taper Pipe Thread | PTF-SAE-SHORT | NPTF | PTF-SAE-SHORT | NPTF NPSI |
| | Dryseal American Standard Fuel Internal Straight Pipe Thread | NPSF | NPTF | - | - |
| | Dryseal American Standard Intermediate Internal Straight Pipe Thread | NPSI | NPTF PTF-SAE-SHORT | - | - |

Note: These symbols correspond to the name of American pipe thread.

These threads are
(1) Thread angle is 60°
(2) Taper of Taper Thread is 3/4" per foot.
(3) Fundamental height of triangle : H=Height of triangle thread profile H=0.866025P
(4) The difference between American Standard Pipe Thread for general use and Dryseal American Standard Pipe
- Crests and roots truncation of thread is different.
- The length of engagement for pipe thread is different by types.
- With regard to standard, Dryseal American Standard Pipe Thread is available in right hand.

In accordance with ANSI B 94.9, 4 types of pipe thread are specified in American Pipe Thread Standard.
Please refer to next page about the relation between taps and threads and about thread tolerance.

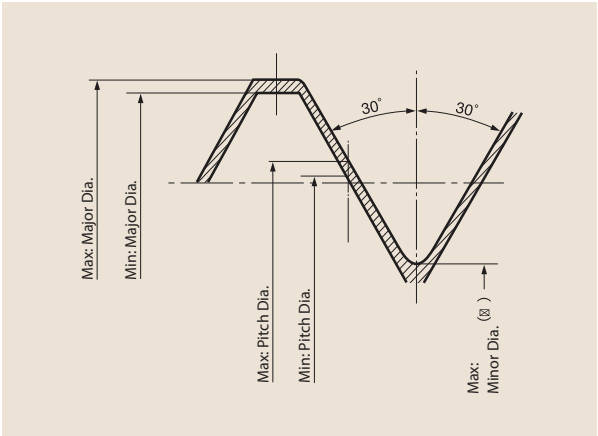


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## Classification of American pipe thread taps

| Standard | Symbol | Class | Material | Threads to be cut | Range |
|---|---|---|---|---|---|
| Straight Pipe Thread Tap | NPS | Ground Thread | HSS | NPSC, NPSM | -1 |
| Dryseal Straight Pipe Thread Tap | NPSF | Ground Thread | HSS | NPSF | -¾ |
| Taper Pipe Thread Tap | NPT | Ground Thread | HSS | NPT | -2 |
| Dryseal Taper Pipe Thread Tap | NPTF | Ground Thread | HSS | NPTF | -2 |

## Thread limit of American Pipe Thread Taps
## Straight pipe thread taps for (NPS) G Class



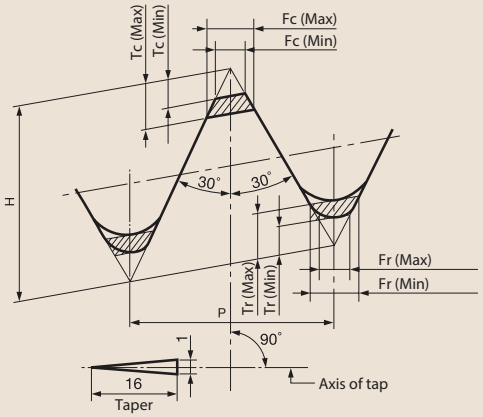

| Size | Major diameter | | | Pitch diameter | | | Minor diameter* |
|---|---|---|---|---|---|---|---|
| | Max. | Min. | Tolerance | Max. | Min. | Tolerance | Max. |
| NPS 1/8 - 27 | 10.241 | 10.216 | 0.025 | 9.527 | 9.515 | 0.012 | M - 0.053 |
| NPS 1/4 - 18 | 13.606 | 13.582 | 0.024 | 12.542 | 12.530 | 0.012 | M - 1.019 |
| NPS 3/8 - 18 | 17.045 | 17.021 | 0.024 | 15.981 | 15.969 | 0.012 | M - 1.019 |
| NPS 1/2 - 14 | 21.226 | 21.202 | 0.024 | 19.840 | 19.828 | 0.012 | M - 1.334 |
| NPS 3/4 - 14 | 26.560 | 26.536 | 0.024 | 25.186 | 25.162 | 0.024 | M - 1.334 |
| NPS 1 - 11.5 | 33.215 | 33.176 | 0.037 | 31.526 | 31.502 | 0.024 | M - 1.644 |

*Above dimensions change depending on actually measured

## Taper pipe thread taps (NPT) G Class

p = 25.4/n
n = Number of threads

H = 0.866025P



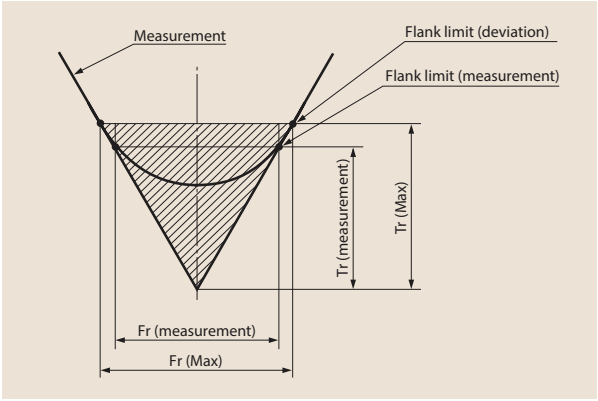

Unit: mm

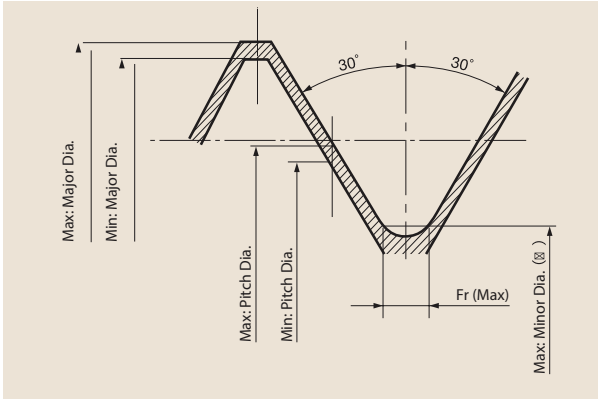
| Size | Crest | | | | Root | | | |
|---|---|---|---|---|---|---|---|---|
| | Tc | | Fc | | Tr | | Fr | |
| | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
| NPT 1/16 - 27 | 68 | 32 | 78 | 37 | 80 | 32 | 82 | 37 |
| NPT 1/8 - 27 | 68 | 32 | 78 | 37 | 80 | 32 | 82 | 37 |
| NPT 1/4 - 18 | 92 | 48 | 106 | 56 | 101 | 48 | 116 | 56 |
| NPT 3/8 - 18 | 92 | 48 | 106 | 56 | 101 | 48 | 116 | 56 |
| NPT 1/2 - 14 | 106 | 61 | 122 | 71 | 118 | 61 | 136 | 71 |
| NPT 3/4 - 14 | 106 | 61 | 122 | 71 | 118 | 61 | 136 | 71 |
| NPT 1 - 11.5 | 120 | 74 | 138 | 85 | 134 | 74 | 136 | 85 |
| NPT 1 1/4 - 11.5 | 120 | 74 | 138 | 85 | 134 | 74 | 154 | 85 |
| NPT 1 1/2 - 11.5 | 120 | 74 | 138 | 85 | 134 | 74 | 154 | 85 |
| NPT 2 - 11.5 | 120 | 74 | 138 | 85 | 134 | 74 | 154 | 85 |
| NPT 2 1/2 - 8 | 147 | 105 | 169 | 122 | 173 | 105 | 199 | 122 |
| NPT 3 - 8 | 147 | 105 | 169 | 122 | 173 | 105 | 199 | 122 |



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## Thread limit of Dryseal American Pipe Thread Taps
## Straight pipe thread taps (NPSF) G Class

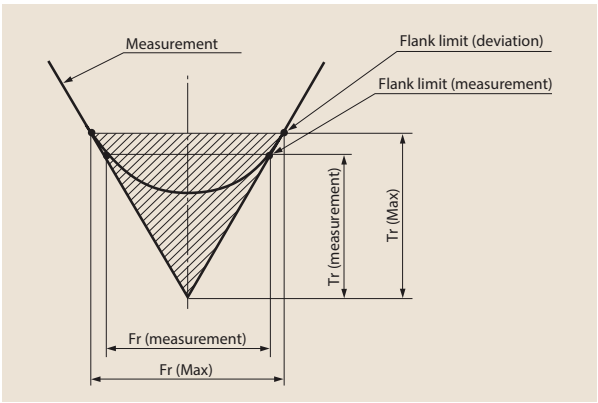


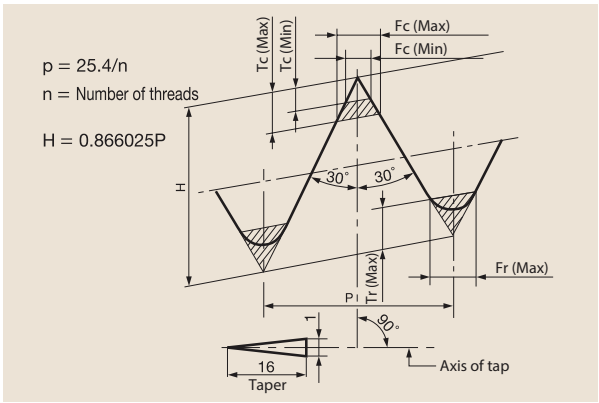




| Size | Major diameter | | | Pitch diameter | | | Minor diameter* | | |
|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Tolerance | Max. | Min. | Tolerance | Max. | Fr (Max.) | Tr (Max.) |
| NPSF 1/16 - 27 | 7.665 | 7.641 | 0.024 | 7.053 | 7.041 | 0.012 | M - 0.638 | 0.101 | 0.086 |
| NPSF 1/8 - 27 | 10.012 | 9.988 | 0.024 | 9.400 | 9.388 | 0.012 | M - 0.638 | 0.101 | 0.086 |
| NPSF 1/4 - 18 | 13.332 | 13.308 | 0.024 | 12.354 | 12.342 | 0.012 | M - 1.004 | 0.127 | 0.109 |
| NPSF 3/8 - 18 | 16.771 | 16.747 | 0.024 | 15.793 | 15.781 | 0.012 | M - 1.004 | 0.127 | 0.109 |
| NPSF 1/2 - 14 | 20.929 | 20.905 | 0.024 | 19.601 | 19.589 | 0.012 | M - 1.354 | 0.127 | 0.109 |
| NPSF 3/4 - 14 | 26.276 | 26.251 | 0.025 | 24.947 | 24.936 | 0.011 | M - 1.354 | 0.127 | 0.109 |

*Above dimensions change depending on actually measured

## Taper pipe thread taps (NPTF) G Class




Unit: mm

| Size | Crest | | | | Root | |
|---|---|---|---|---|---|---|
| | Tc | | Fc | | Tr | Fr |
| | Max. | Min. | Max. | Min. | Max. | Min. |
| NPTF 1/16 - 27 | 110 | 89 | 127 | 103 | 86 | 101 |
| NPTF 1/8 - 27 | 110 | 89 | 127 | 103 | 86 | 101 |
| NPTF 1/4 - 18 | 132 | 110 | 152 | 127 | 109 | 125 |
| NPTF 3/8 - 18 | 132 | 110 | 152 | 127 | 109 | 125 |
| NPTF 1/2 - 14 | 131 | 109 | 151 | 126 | 108 | 124 |
| NPTF 3/4 - 14 | 131 | 109 | 151 | 126 | 108 | 124 |
| NPTF 1 - 11.5 | 176 | 133 | 203 | 154 | 132 | 152 |
| NPTF 1 1/4 - 11.5 | 176 | 133 | 203 | 154 | 132 | 152 |
| NPTF 1 1/2 - 11.5 | 176 | 133 | 203 | 154 | 132 | 152 |
| NPTF 2 - 11.5 | 176 | 133 | 203 | 154 | 132 | 152 |

# 18. Selecting different tap holder combinations by machine feed system

## The function of machine feed systems

### Fully synchronous feed (Rigid) tapping system

Spindle revolution and machine feed are synchronized, a perfect thread lead and feed per revolution are realized.

### Feed by lead screws

A better-feed condition is realized because the tap is fed by a master lead screw shaft that has the same thread lead as this tap.

### Feed by gear

The tap is fed at the same thread lead by a combinations of gears. This creates a better-feed to thread lead condition.

### Asynchronous feed system

Best used when the spindle rotation and the machine feed are set independently, especially, if the machine feed value cannot be accurately predicted to be that of the tap thread lead.

### Hydraulic or Pneumatic pressure feed system

Feed is controlled by a pressure regulation system which normally results in an inaccurate feed per revolution compared to the tap thread lead.

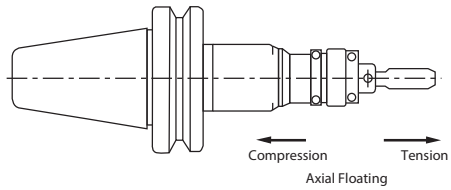
### Manual feed

Feed is controlled by operator which is difficult to keep a stable amount of feed per revolution.



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## Holders aspects




Spring direction

### Completely rigid holder type

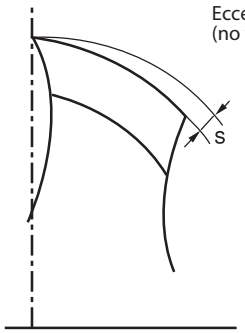
The tap is held with no axial or radial adjustment in the collet and holder.

### Adjustable spring floating holder (Tension & Compression)

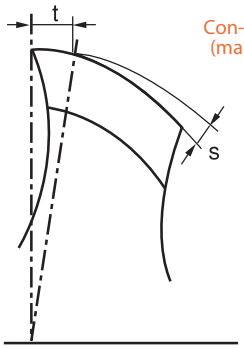
Machine feed and tap's thread lead errors are corrected by two types of spring system in the holder, the axial tension direction of the tap and the axial compression direction of the tap.

## Characteristics of tap self-guiding behavior

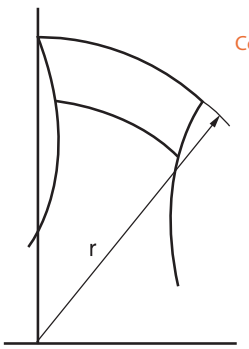
r=tap's radius, s=thread relief, t=margin width




Tap characteristics; high cutting performance and machining performance, with little to no self-guiding features. Operation; A fully synchronous machining system with fixed rigid holder is needed.
Example: "High speed tapping" and "fully synchronous tapping."



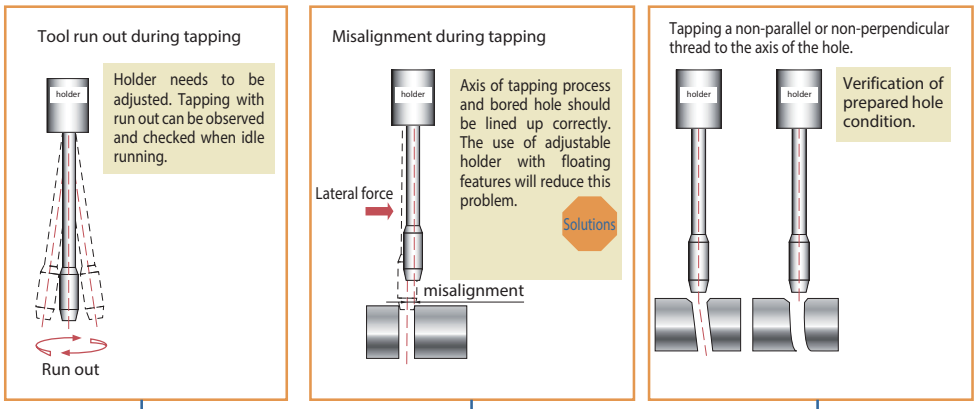

Tap; High level of self-guidance due to suitable tap diameter margin and thread relief. The combination of nice portion of margin and chamfer relief helps to make appropriate tap



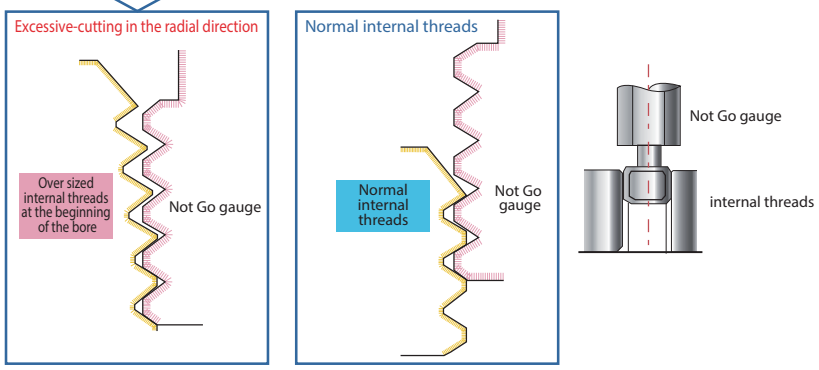

Tap; A full thread land stays in contact with the thread major diameter at all times. Tap has no thread relief on major diameter, creating a high level of self-guidance even with unbalanced feeding conditions.

# 19. The mechanism for a tap to cut oversize on an internal thread

## 1. Run out, misalignment and tap doesn't cut perpendicular into holes → Over-cutting at radial direction




Excessive cutting in radial direction causes oversized internal threads. Since tapping proceeds along bored hole, in the depth of hole, oversize cutting is minimized, that is, oversize cutting in the beginning of the hole and normal cutting in the depth of the hole.

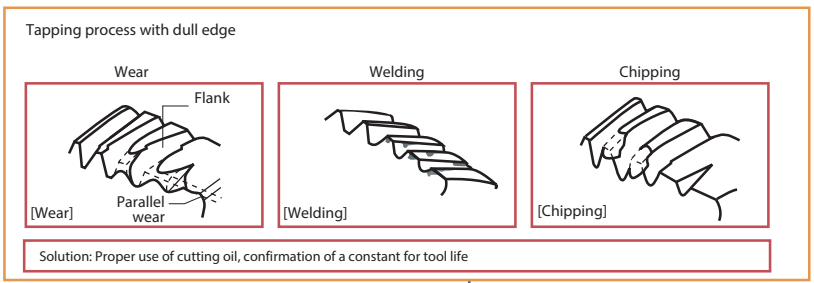



## 2. Using a tap not suitable for the operation or a tap with dull cutting edge may cause galling and result in over-cutting. → Over-cutting caused by galling and excess cutting

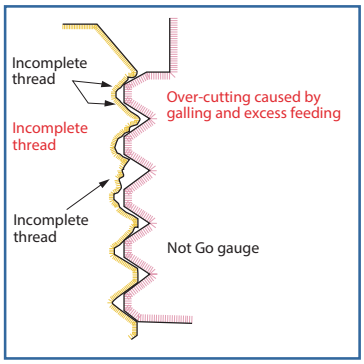
Using an incorrect tap for a specific workpiece material can cause problems

Select the correct Tap
- Straight fluted tap
- Spiral fluted tap
- Spiral pointed tap
- Roll tap

Selection of correct taps suitable for material being tapped is strongly recommended.




Torn threads occur on the thread flanks. If this situation gets worse, there occur large thread collapses or incomplete threads finally bringing out oversized internal threads.
Depending on the condition of collapsed threads such trouble tends to occur discontinuously as NOT-GO gouge enters.
Special attention needs to be taken so that random inspection should not miss this kind of trouble.



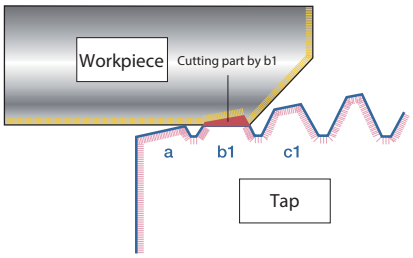



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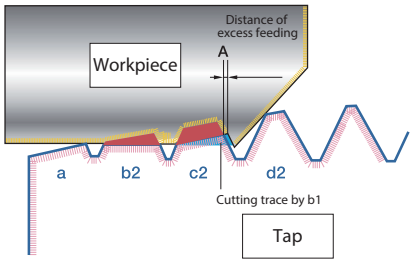
## 3. Tapping with an improper feed condition → over-cutting at axial direction

Process of over-cutting due to excessive feed

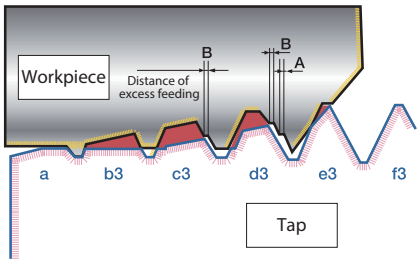
① With cutting edge b1, cutting starts.



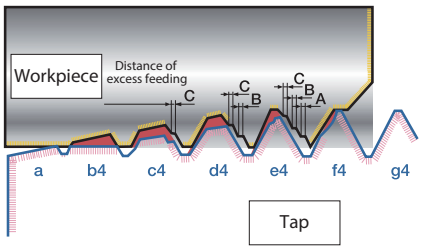

② Position between workpiece and tap after the tap rotates 1 turn.




③ Position between workpiece and tap after the tap rotates 2 turns.




④ The position between workpiece and tap after 3 rotations of tap.




Solutions

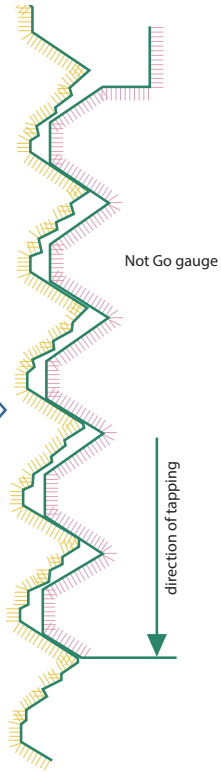
Feed adjustment is strongly recommended.

- (Use fully synchronous feed system and fixing holder)

When using machines that do not have the synchronous feed system, such as drilling machine.

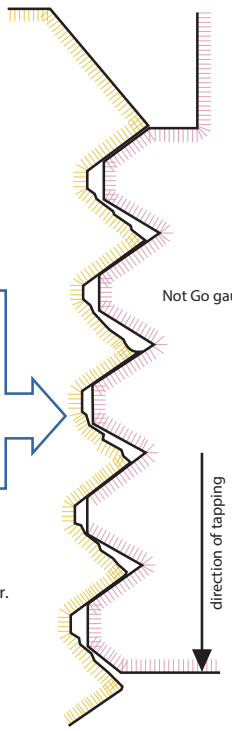
- Adjust the correct weight balance of main spindle properly.
- Use an axial/radial floating holder for adjustment.

Excessive-cutting of the thread with excessive feeding




Over-cutting of the thread by too slow feeding

Process opposite of excessive feeding factors causes extra material cutting at back frank.




over-cutting during tapping

① The tap mounting condition in the holder.
② The condition of bored hole.
③ The cutting oil selection.
④ Incorrect adjustment of feed balance.
⑤ Selection of the tap depending on material being cut.

# 20. Troubleshooting

| Troubles | | Breakage | | | Excessive wear | |
|---|---|---|---|---|---|---|
| Check point / Segments | | Prevent excessive cutting torque | Prevent clogging of chips | Tap | Workpiece | Tap |
| Workpiece | Hardness | · Use workpiece which has regular structure and hardness. | | | · Use workpiece which has regular structure and hardness. | |
| | Shape | · Pay attention to tapping position and material thickness. | | | · Pay attention to tapping position and material thickness. | |
| | Bored hole | · Provide bigger bored holes.<br>· Prevent work hardening. | | | · Provide bigger bored holes.<br>· Provide countersinking on hole entrance.<br>· Prevent work hardening | |
| | | · Provide deeper bored hole.<br>· Prevent slanting of hole. | | | | |
| Machine | | · Avoid inconsistent feed.<br>· Adjust feed stroke | | | | |
| Jigs, Holders | | · Use holder floating type.<br>· Use tap holder with torque limiter. | | | | |
| Cutting condition | | · Reduce cutting speed | | | · Reduce cutting speed | |
| Lubricant | | · Use cutting oil which prevents cold welding.<br>· Use cutting oil. | | | · Provide proper timing for changing or filling-up of cutting oil.<br>· Prevent mixing of different type of oil.<br>· Use cutting oil which prevents cold welding.<br>· Use cutting oil.<br>· Adjust flow of cutting oil and method of lubrication. | |
| On process | | | · Remove unnecessary chips during tapping.<br>· Provide bigger space for chips disposal. | | | |
| Tap | Selection | | | · Use PO tap (through hole).<br>· Use SP tap (blind hole).<br>· Use roll tap. | | |
| | Design | | · Provide bigger chiproom. | · Change material of taps.<br>· Provide proper hardness on taps. | | · Use serial set tap.<br>· Change material of taps.<br>· Provide proper hardness on taps. |
| | | · Reconsider length of cutting chamfer.<br>· Use set tap. | | | · Reconsider length of cutting chamfer.<br>· Provide nitride on taps. | |
| | Regrind | · Be careful about burning during re-sharpening.<br>· Provide proper land. | | | · Be careful about burning during re-sharpening.<br>· Increase re-sharpening frequency. | |



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<table>
<tr><th colspan="3">Undersize cutting of internal thread</th><th colspan="3">Bad surface, surface damaged</th></tr>
<tr><th>Improve cutting performance</th><th>Selection and design of tap</th><th>Work material</th><th>Improve cutting performance</th><th>Prevent welding</th><th>Check cutting condition</th></tr>
<tr><td></td><td></td><td>· Check workmaterial.</td><td></td><td></td><td>· Use workpiece which has regular structure and hardness.</td></tr>
<tr><td></td><td></td><td>· Pay attention to tapping position and material thickness.</td><td></td><td></td><td>· Pay attention to tapping position and material thickness.</td></tr>
<tr><td rowspan="2">· Adopt bigger bored hole.<br>· Prevent work hardening of material.</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>· Prevent work hardening.</td><td>· Provide bigger bored holes.</td><td>· Prevent slanting of hole.</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>· Feed according to pitch.</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>· Use floating type holder.<br>· Prevent vibration of tap.<br>· Prevent centering-off with work piece.</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">· Reduce cutting speed</td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="2">· Provide proper timing for changing or filling-up of cutting oil.<br>· Prevent mixing of different type of oil.<br>· Use cutting oil which prevents cold welding.<br>· Use cutting oil.<br>· Adjust flow of cutting oil and method of lubrication.</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td>· Remove unnecessary chips during tapping.</td><td></td></tr>
<tr><td>· Provide Nitride on taps.</td><td>· Use oversized taps.</td><td></td><td>· Use spiral pointed taps (for through hole).</td><td>· Provide oxide coating on taps.</td><td>· Use oil hole taps.</td></tr>
<tr><td rowspan="2">· Provide larger cutting angle.</td><td rowspan="2">· Adjust relief angle on cutting chamfer.<br>· Provide thread relief.</td><td rowspan="2"></td><td>· Provide larger cutting angle.<br>· Adjust relief angle on cutting chamfer.<br>· Provide smaller margin.</td><td>· Change of no. of flutes on taps.</td><td>· Reconsider length of cutting chamfer.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3" rowspan="2">· Increase re-sharpening frequency.</td><td>· Increase re-sharpening frequency.</td><td>· Provide better surface finishing on flutes.</td><td></td></tr>
<tr><td colspan="3">· Provide precise re-sharpening.</td></tr>
</table>

| Troubles | | Over-cutting of internal thread | | | | |
|---|---|---|---|---|---|---|
| Check point | | Prevent uneven in feed of tap | Prevent over cutting on thread | Prevent welding | Check cutting condition | Prevent unbalance on entering |
| Segments | | | | | | |
| Workpiece | Hardness | | | | | |
| | Shape | | | | | |
| | Bored hole | | | · Provide bigger bored holes. | · Provent slanting of hole. | · Provide countersinking on the hole entrance. |
| | | | | | | |
| Machine | | · Adjust the feed.<br>· Feed according to pitch. | | | | |
| Jigs, Holders | | | | | · Use floating type holder. | · Prevent vibration of tap.<br>· Provent centering-off with work piece.<br>· Use floating type holder. |
| Cutting condition | | | | · Reduce cutting speed. | | |
| Lubricant | | | | · Use lubricant which prevents cold welding.<br>· Check the viscosity. | | |
| On process | | | | | | |
| Tap | Selection | | | · Provide oxide surface treatment.<br>· Use tap with oil hole. | | |
| | Design | | · Provide small cutting angle.<br>· Adjust chamfer relief angle.<br>· Check the width of thread margin. | · Provide short thread length. | · Reconsider number of flutes to tap. | · Reconsider length of cutting chamfer. |
| | Regrind | | · Remove burrs on teeth after re-grinding.<br>· Provide proper land. | | · Provide precise re-sharpening. | · Avoid vibration. |



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| Chipping | | | | Tapping operation | |
|---|---|---|---|---|---|
| Prevent clogging of chips | Prevent excessive cutting torque | Improve tapping method | Tap | Prevent clogging of chips | Tap |
| | · Use workpiece material which has regular structure and hardness. | | | | |
| | | · Pay attention to tapping position and material thickness. | | · If possible, use finer pitch tap or shorter tapping length. | |
| · Provide deeper tapping hole (blind hole). | · Provide bigger bored hole.<br>· Prevent work hardening. | · Prevent slanting of holes. | | · Provide bigger bored holes.<br>· Provide deeper tapping hole (blind hole). | |
| · Provide countersinking on hole entrance. | | | | | |
| | · Avoid inconsistent feed. | | | | |
| | · Use tapping holder with torque limiter. | · Prevent centering-off with workpiece.<br>· Prevent vibration of tap.<br>· Use floating type holder. | | | · Prevent centering-off with workpiece.<br>· Prevent vibration of axis of tap.<br>· Use floating type holder. |
| · Reduce cutting speed. | | | | · Reduce cutting speed. | |
| | · Use lubricant which prevents cold welding. | | | · Check the viscosity. | |
| · Remove unncessary chips during tapping.<br>· Provide bigger space for chip disposal. | | | | · Remove unnecessary chips during tapping.<br>· Provide bigger space for chip disposal. | |
| | | | · Use PO tap (through hole).<br>· Use SP tap (blind hole).<br>· Use roll tap. | | · Use PO tap (through hole).<br>· Use SP tap (blind hole).<br>· Use roll tap. |
| · Provide bigger chip room. | | | · Change material of tap.<br>· Provide smaller cutting angle.<br>· Provide proper hardness. | · Provide bigger chip room.<br>· Reconsider length of cutting chamfer.<br>· Use oil hole tap.<br>· Provide shorter thread length to tap. | |
| · Reconsider length of cutting chamfer.<br>· Use set tap (Serial or conventional).<br>· Adjust relief angle on cutting chamfer. | | | | | |
| · Be careful about burning during re-sharpening | | | | | |

# 21. Thread Series

## Metric Threads

| Nominal Dia. | | | Pitch | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Column 1 | Column 2 | Column 2 | Coarse | Fine | | | | | | | | | | | | |
| 1 | | | 0.25 | | | | | | | | | | | | | 0.2 |
| | 1.1 | | 0.25 | | | | | | | | | | | | | 0.2 |
| 1.2 | | | 0.25 | | | | | | | | | | | | | 2.2 |
| | 1.4 | | 0.3 | | | | | | | | | | | | | 0.2 |
| 1.6 | | | 0.35 | | | | | | | | | | | | | 0.2 |
| | 1.8 | | 0.35 | | | | | | | | | | | | | 0.2 |
| 2 | | | 0.4 | | | | | | | | | | | | 0.25 | |
| | 2.2 | | 0.45 | | | | | | | | | | | | 0.25 | |
| 2.5 | | | 0.45 | | | | | | | | | | | 0.35 | | |
| 3 | | | 0.5 | | | | | | | | | | | 0.35 | | |
| | 3.5 | | 0.6 | | | | | | | | | | | 0.35 | | |
| 4 | | | 0.7 | | | | | | | | | | 0.5 | | | |
| | 4.5 | | 0.75 | | | | | | | | | | 0.5 | | | |
| 5 | | 5.5 | 0.8 | | | | | | | | | | 0.5 | | | |
| 6 | | | 1 | | | | | | | | | 0.75 | | | | |
| | 7 | | 1 | | | | | | | | 1 | 0.75 | | | | |
| 8 | | | 1.25 | | | | | | | | | 0.75 | | | | |
| | | 9 | 1.25 | | | | | | | | 1 | 0.75 | | | | |
| 10 | | | 1.5 | | | | | | 1.25 | | 1 | 0.75 | | | | |
| | | 11 | 1.5 | | | | | | | | 1 | 0.75 | | | | |
| 12 | | | 1.75 | | | | | 1.5 | 1.25 | | 1 | | | | | |
| | 14 | | 2 | | | | | 1.5 | 1.25 | | 1 | | | | | |
| | | 15 | | | | | | 1.5 | | | 1 | | | | | |
| 16 | | | 2 | | | | | 1.5 | | | 1 | | | | | |
| | | 17 | | | | | | 1.5 | | | 1 | | | | | |
| | 18 | | 2.5 | | | | 2 | 1.5 | | | 1 | | | | | |
| 20 | | | 2.5 | | | | 2 | 1.5 | | | 1 | | | | | |
| | 22 | | 2.5 | | | | 2 | 1.5 | | | 1 | | | | | |
| 24 | | | 3 | | | | 2 | 1.5 | | | 1 | | | | | |
| | | 25 | | | | | 2 | 1.5 | | | 1 | | | | | |
| | | 26 | | | | | | 1.5 | | | | | | | | |
| | 27 | | 3 | | | | 2 | 1.5 | | | 1 | | | | | |
| | | 28 | | | | | 2 | 1.5 | | | 1 | | | | | |
| 30 | | | 3.5 | | | 3 | 2 | 1.5 | | | 1 | | | | | |
| | | 32 | | | | | 2 | 1.5 | | | | | | | | |
| | 33 | | 3.5 | | | 3 | 2 | 1.5 | | | | | | | | |
| | | 35 | | | | | | 1.5 | | | | | | | | |
| 36 | | | 4 | | | 3 | 2 | 1.5 | | | | | | | | |
| | | 38 | | | | | | 1.5 | | | | | | | | |
| | 39 | | 4 | | | 3 | 2 | 1.5 | | | | | | | | |
| | | 40 | | | | 3 | 2 | 1.5 | | | | | | | | |
| 42 | | | 4.5 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | 45 | | 4.5 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| 48 | | | 5 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 50 | | | | | 3 | 2 | 1.5 | | | | | | | |
| | 52 | | 5 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 55 | | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| 56 | | | 5.5 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 58 | | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | 60 | | 5,5 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 62 | | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| 64 | | | 6 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 65 | | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | 68 | | 6 | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 70 | | | 6 | 4 | 3 | 2 | 1.5 | | | | | | | |
| 72 | | | | | 6 | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 75 | | | | 4 | 3 | 2 | 1.5 | | | | | | | |
| | 76 | | | | 6 | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 78 | | | | | | 2 | | | | | | | | |
| 80 | | | | | 6 | 4 | 3 | 2 | 1.5 | | | | | | | |
| | | 82 | | | | | | 2 | | | | | | | | |
| | 85 | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| 90 | | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| | 95 | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| 100 | | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| 110 | 105 | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| | | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| | 115 | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| 125 | 120 | | | | 6 | 4 | 3 | 2 | | | | | | | | |
| | | | | 8 | 6 | 4 | 3 | 2 | | | | | | | | |
| | 130 | | | 8 | 6 | 4 | 3 | 2 | | | | | | | | |
| 140 | | 135 | | | 6 | 4 | 3 | 2 | | | | | | | | |
| | | | | 8 | 6 | 4 | 3 | 2 | | | | | | | | |
| | | 145 | | | 6 | 4 | 3 | 2 | | | | | | | | |
| | 150 | | | 8 | 6 | 4 | 3 | 2 | | | | | | | | |



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## Unified Threads

| Size Column 1 | Size Column 2 | Nominal Dia. inch | Nominal Dia. mm | Threads per inch: Coarse UNC | Fine UNF | Extra Fine UNEF | Constant pitch series: 4UN | 6UN | 8UN | 12UN | 16UN | 20UN | 28UN | 32UN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. 0 | | 0.0600 | 1.524 | | 80 | | | | | | | | | |
| | No. 1 | 0.0730 | 1.854 | 64 | 72 | | | | | | | | | |
| No. 2 | | 0.0860 | 2.184 | 56 | 64 | | | | | | | | | |
| | No. 3 | 0.0990 | 2.515 | 48 | 56 | | | | | | | | | |
| No. 4 | | 0.1120 | 2.845 | 40 | 48 | | | | | | | | | |
| No. 5 | | 0.1250 | 3.175 | 40 | 44 | | | | | | | | | |
| No. 6 | | 0.1380 | 3.505 | 32 | 40 | | | | | | | | | UNC |
| No. 8 | | 0.1640 | 4.166 | 32 | 36 | | | | | | | | | UNC |
| No. 10 | | 0.1900 | 4.826 | 24 | 32 | | | | | | | | | UNF |
| | No. 12 | 0.2160 | 5.486 | 24 | 28 | 32 | | | | | | | UNF | UNEF |
| 1/4 | | 0.2500 | 6.350 | 20 | 28 | 32 | | | | | | UNC | UNF | UNEF |
| 5/16 | | 0.3125 | 7.938 | 18 | 24 | 32 | | | | | | 20 | 28 | UNEF |
| 3/8 | | 0.3750 | 9.525 | 16 | 24 | 32 | | | | | UNC | 20 | 28 | UNEF |
| 7/16 | | 0.4375 | 11.112 | 14 | 20 | 28 | | | | | 16 | UNF | UNEF | 32 |
| 1/2 | | 0.5000 | 12.700 | 13 | 20 | 28 | | | | | 16 | UNF | UNEF | 32 |
| 9/16 | | 0.5625 | 14.288 | 12 | 18 | 24 | | | | UNC | 16 | 20 | 28 | 32 |
| 5/8 | | 0.6250 | 15.875 | 11 | 18 | 24 | | | | 12 | 16 | 20 | 28 | 32 |
| | 11/16 | 0.6875 | 17.462 | | | 24 | | | | 12 | 16 | 20 | 28 | 32 |
| 3/4 | | 0.7500 | 19.050 | 10 | 16 | 20 | | | | 12 | UNF | UNEF | 28 | 32 |
| | 13/16 | 0.8125 | 20.638 | | | 20 | | | | 12 | 16 | UNEF | 28 | 32 |
| 7/8 | | 0.8750 | 22.225 | 9 | 14 | 20 | | | | 12 | 16 | UNEF | 28 | 32 |
| | 15/16 | 0.9375 | 23.812 | | | 20 | | | | 12 | 16 | UNEF | 28 | 32 |
| 1 | | 1.0000 | 25.400 | 8 | 12 | 20 | | | UNC | UNF | 16 | UNEF | 28 | 32 |
| | 1 1/16 | 1.0625 | 26.988 | | | 18 | | | 8 | 12 | 16 | 20 | 28 | |
| 1 1/8 | | 1.1250 | 28.575 | 7 | 12 | 18 | | | 8 | UNF | 16 | 20 | 28 | |
| | 1 3/16 | 1.1875 | 30.162 | | | 18 | | | 8 | 12 | 16 | 20 | 28 | |
| 1 1/4 | | 1.2500 | 31.750 | 7 | 12 | 18 | | | 8 | UNF | 16 | 20 | 28 | |
| | 1 5/16 | 1.3125 | 33.338 | | | 18 | | | 8 | 12 | 16 | 20 | 28 | |
| 1 3/8 | | 1.3750 | 34.925 | 6 | 12 | 18 | | UNC | 8 | UNF | 16 | 20 | 28 | |
| | 1 7/16 | 1.4375 | 36.512 | | | 18 | | 6 | 8 | 12 | 16 | 20 | 28 | |
| 1 1/2 | | 1.5000 | 38.100 | 6 | 12 | 18 | | UNC | 8 | UNF | 16 | 20 | 28 | |
| | 1 9/16 | 1.5625 | 39.688 | | | 18 | | 6 | 8 | 12 | 16 | 20 | | |
| 1 5/8 | | 1.6250 | 41.275 | | | 18 | | 6 | 8 | 12 | 16 | 20 | | |
| | 1 11/16 | 1.6875 | 42.862 | | | 18 | | 6 | 8 | 12 | 16 | 20 | | |
| 1 3/4 | | 1.7500 | 44.450 | 5 | | | | 6 | 8 | 12 | 16 | 20 | | |
| | 1 13/16 | 1.8125 | 46.038 | | | | | 6 | 8 | 12 | 16 | 20 | | |
| 1 7/8 | | 1.8750 | 47.625 | | | | | 6 | 8 | 12 | 16 | 20 | | |
| | 1 15/16 | 1.9375 | 49.212 | | | | | 6 | 8 | 12 | 16 | 20 | | |
| 2 | | 2.0000 | 50.800 | 4.5 | | | | 6 | 8 | 12 | 16 | 20 | | |
| | 2 1/8 | 2.1250 | 53.975 | | | | | 6 | 8 | 12 | 16 | 20 | | |
| 2 1/4 | | 2.2500 | 57.150 | 4.5 | | | | 6 | 8 | 12 | 16 | 20 | | |
| | 2 3/8 | 2.3750 | 60.325 | | | | | 6 | 8 | 12 | 16 | 20 | | |
| 2 1/2 | | 2.5000 | 63.500 | 4 | | | UNC | 6 | 8 | 12 | 16 | 20 | | |
| | 2 5/8 | 2.6250 | 66.675 | | | | 4 | 6 | 8 | 12 | 16 | 20 | | |
| 2 3/4 | | 2.7500 | 69.850 | 4 | | | UNC | 6 | 8 | 12 | 16 | 20 | | |
| | 2 7/8 | 2.8750 | 73.025 | | | | 4 | 6 | 8 | 12 | 16 | 20 | | |
| 3 | | 3.0000 | 76.200 | 4 | | | UNC | 6 | 8 | 12 | 16 | 20 | | |
| | 3 1/8 | 3.1250 | 79.375 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 3 1/4 | | 3.2500 | 82.550 | 4 | | | UNC | 6 | 8 | 12 | 16 | | | |
| | 3 3/8 | 3.3750 | 85.725 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 3 1/2 | | 3.5000 | 88.900 | 4 | | | UNC | 6 | 8 | 12 | 16 | | | |
| | 3 5/8 | 3.6250 | 92.075 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 3 1/4 | | 3.7500 | 95.250 | 4 | | | UNC | 6 | 8 | 12 | 16 | | | |
| | 3 7/8 | 3.8750 | 98.425 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 4 | | 4.0000 | 101.600 | 4 | | | UNC | 6 | 8 | 12 | 16 | | | |
| | 4 1/8 | 4.1250 | 104.775 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 4 1/4 | | 4.2500 | 107.950 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 4 3/8 | 4.3750 | 111.125 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 4 1/2 | | 4.5000 | 114.300 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 4 5/8 | 4.6250 | 117.475 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 4 3/4 | | 4.7500 | 120.650 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 4 7/8 | 4.8750 | 123.825 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 5 | | 5.0000 | 127.000 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 5 1/8 | 5.1250 | 130.175 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 5 1/4 | | 5.2500 | 133.350 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 5 3/8 | 5.3750 | 136.525 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 5 1/2 | | 5.5000 | 139.700 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 5 5/8 | 5.6250 | 142.875 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 5 3/4 | | 5.7500 | 146.050 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| | 5 7/8 | 5.8750 | 149.225 | | | | 4 | 6 | 8 | 12 | 16 | | | |
| 6 | | 6.0000 | 152.400 | | | | 4 | 6 | 8 | 12 | 16 | | | |

## Conversion Table

| Threads per inch (25.4mm) | Pitch (mm) |
|---|---|
| 100 | 0.2540 |
| 80 | 0.3175 |
| 72 | 0.3528 |
| 64 | 0.3969 |
| 60 | 0.4233 |
| 56 | 0.4536 |
| 48 | 0.5292 |
| 44 | 0.5773 |
| 40 | 0.6350 |
| 36 | 0.7056 |
| 32 | 0.7938 |
| 28 | 0.9071 |
| 27 | 0.9407 |
| 24 | 1.0583 |
| 20 | 1.2700 |
| 19 | 1.3368 |
| 18 | 1.4111 |
| 16 | 1.5875 |
| 14 | 1.8143 |
| 13 | 1.9538 |
| 12 | 2.1167 |
| 11.5 | 2.2087 |
| 11 | 2.3091 |
| 10 | 2.5400 |
| 9 | 2.8222 |
| 8 | 3.1750 |
| 7 | 3.6286 |
| 6 | 4.2333 |
| 5 | 5.0800 |
| 4.5 | 5.6444 |
| 4 | 6.3500 |

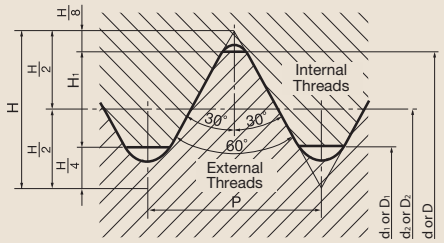
## General size list of metric trapezoidal threads

| | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|
| Tr 8 | 1.5 | | | | | | | | | |
| Tr 9 | 1.5 | 2 | | | | | | | | |
| Tr 10 | 1.5 | 2 | | | | | | | | |
| Tr 11 | | 2 | 3 | | | | | | | |
| Tr 12 | | 2 | 3 | | | | | | | |
| Tr 14 | | 2 | 3 | | | | | | | |
| Tr 16 | | 2 | | 4 | | | | | | |
| Tr 18 | | 2 | | 4 | | | | | | |
| Tr 20 | | 2 | | 4 | | | | | | |
| Tr 22 | | | 3 | | 5 | | | 8 | | |
| Tr 24 | | | 3 | | 5 | | | 8 | | |
| Tr 26 | | | 3 | | 5 | | | 8 | | |
| Tr 28 | | | 3 | | 5 | | | 8 | | |
| Tr 30 | | | 3 | | | 6 | | | 10 | |
| Tr 32 | | | 3 | | | 6 | | | 10 | |
| Tr 34 | | | 3 | | | 6 | | | 10 | |
| Tr 36 | | | 3 | | | 6 | | | 10 | |
| Tr 38 | | | 3 | | | | 7 | | 10 | |
| Tr 40 | | | 3 | | | | 7 | | 10 | |
| Tr 42 | | | 3 | | | | 7 | | 10 | |
| Tr 44 | | | 3 | | | | 7 | | | 12 |
| Tr 46 | | | 3 | | | | | 8 | | 12 |
| Tr 48 | | | 3 | | | | | 8 | | 12 |

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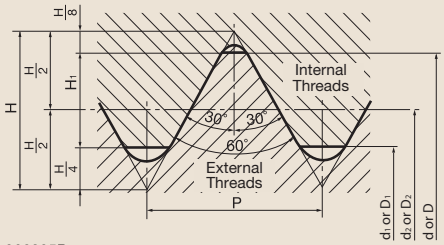
# 22. Basic Profile of Threads

## Metric Screw Threads (M, MF)



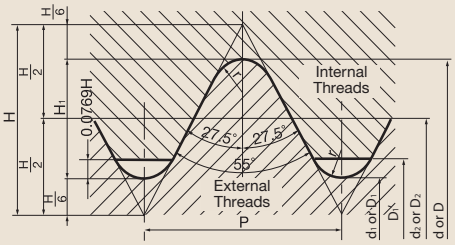

H =0.866025P
H1 =0.541266P
d2 =d−0.649519P
d1 =d−1.082532P
D =d
D2 =d2
D1 =d1

## Unified Screw Threads (UN)



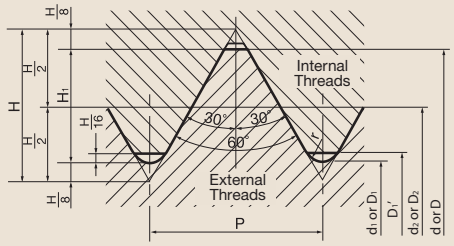

H =0.866025P
H1 =0.541266P
d2 =d−0.649519P
d1 =d−1.082532P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Threads per inch

## Whitworth Screw Threads (BSW)



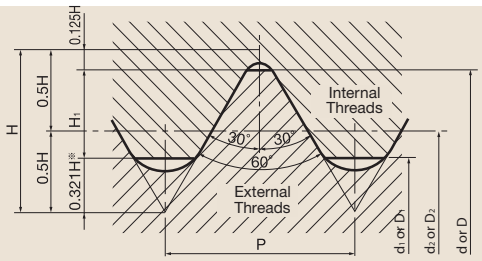

H =0.9605P
H1 =0.6403P
d2 =d−H1
d1 =d−2H1
D =d
D2 =d2
D1 =d1
D1' =d1+2×0.0769H
r =0.1373P
P =25.4/n
n =Threads per inch

## Screw Threads for Sewing Machine (SM)




H =0.8660P
H1 =0.6495P
d2 =d−H1
d1 =d−2H1
D =d
D2 =d2
D1 =d1
D1' =d1+2×H/16
r =0.1083P
P =25.4/n
n =Threads per inch

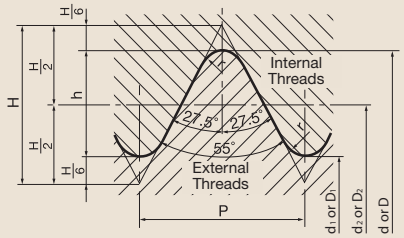
## Miniature Screw Threads (S)




H =0.866025P
H1 =0.48P
d2 =d−0.649519P
d1 =d−0.96P
D =d
D2 =d2
D1 =d1

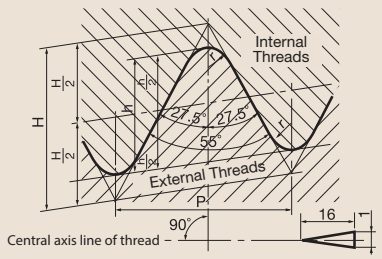
Note : This figure rounds off 0.320744H.

## Parallel Pipe Threads (G-BSP)



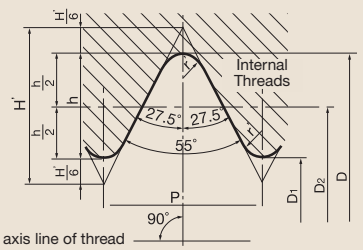

H =0.960491P
h =0.640327P
d2 =d−h
d1 =d−2h
D =d
D2 =d2
D1 =d1
r =0.137329P
P =25.4/n
n =Threads per inch

## Taper Pipe Threads (Rc-BSPT)




H =0.960237P
h =0.640327P
r =0.137278P
P =25.4/n
n =Threads per inch

## Parallel Internal Pipe Threads (Rp-BSPP)

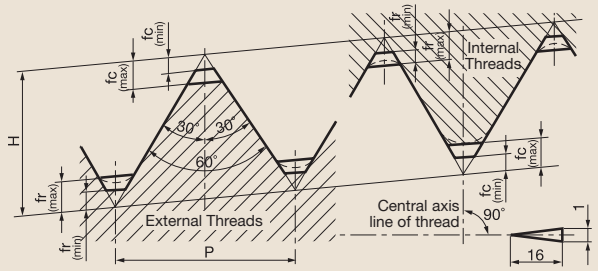



H' =0.960491P
h =0.640327P
r' =0.137329P
P =25.4/n
n =Threads per inch



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## American Standard Taper Pipe Threads (NPT)



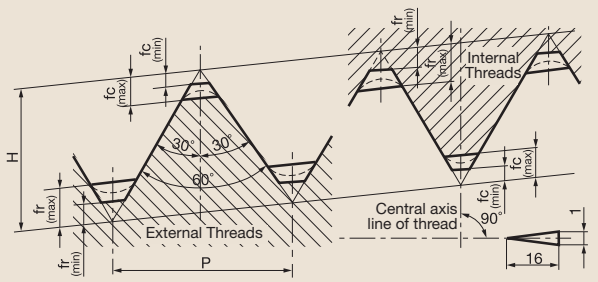

H =0.866025P
P =25.4/n
n = Threads per inch

### Truncation

Unit: mm

| Threads per inch | Section | fc = fr |
|---|---|---|
| 27 | Max. | 0.096P |
| | Min. | 0.033P |
| 18 | Max. | 0.088P |
| | Min. | 0.033P |
| 14 | Max. | 0.078P |
| | Min. | 0.033P |
| 11.5 | Max. | 0.073P |
| | Min. | 0.033P |
| 8 | Max. | 0.062P |
| | Min. | 0.033P |

## Dryseal American Standard Taper Pipe Threads (NPTF)



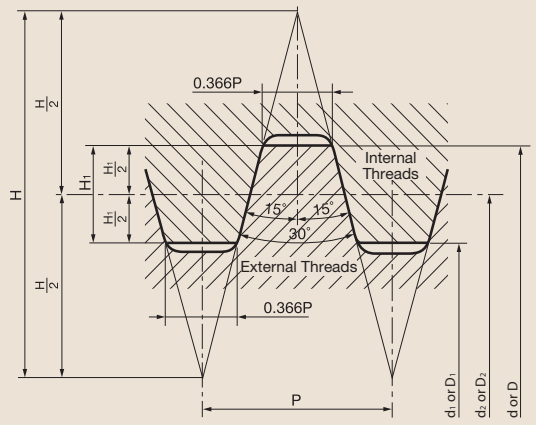

H =0.866025P
P =25.4/n
n =Threads per inch

### Truncation

Unit: mm

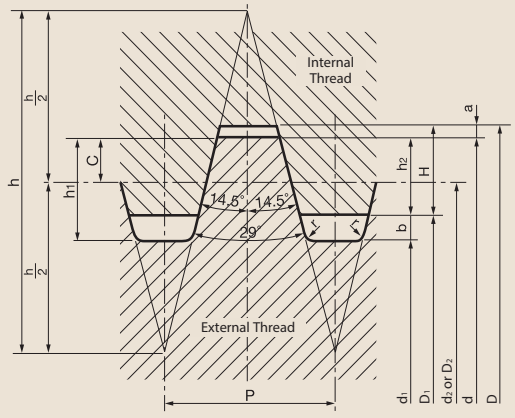
| Threads per inch | Section | fc | fr |
|---|---|---|---|
| 27 | Max. | 0.094P | 0.140P |
| | Min. | 0.047P | 0.094P |
| 18 | Max. | 0.078P | 0.109P |
| | Min. | 0.047P | 0.078P |
| 14 | Max. | 0.060P | 0.085P |
| | Min. | 0.036P | 0.060P |
| 11.5 | Max. | 0.060P | 0.090P |
| | Min. | 0.040P | 0.060P |
| 8 | Max. | 0.055P | 0.076P |
| | Min. | 0.042P | 0.055P |

## Metric Trapezoidal Screw Threads (Tr)



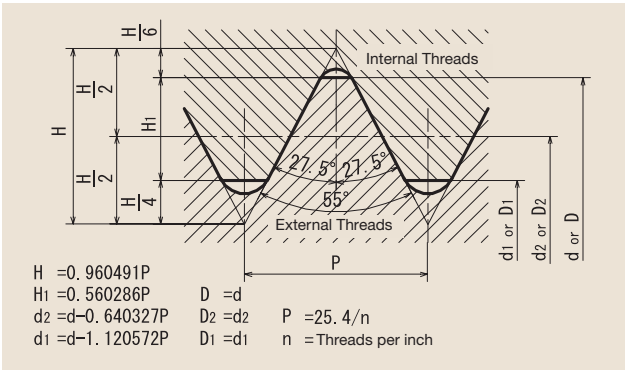

H =1.866P
H1 =0.5P
d2 =d−0.5P
d1 =d−P
D =d
D2 =d2
D1 =d1

## 29° Trapezoidal Screw Threads (29 Tr)



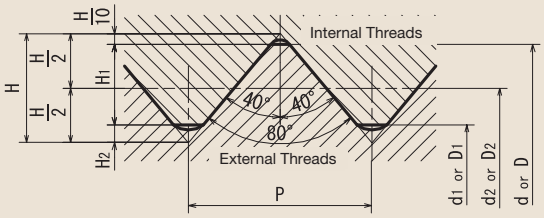

h =1.9335P
h1 =2c+a
h2 =2c+a−b
H =2c+2a−b
c ≒0.25P
d2 =d−2c
d1 =d−2h1
P =25.4/n
D =d+2a
D2 =d2
D1 =d1+2b
n =Threads per inch

## Thick Steel Conduit Threads (CTG)



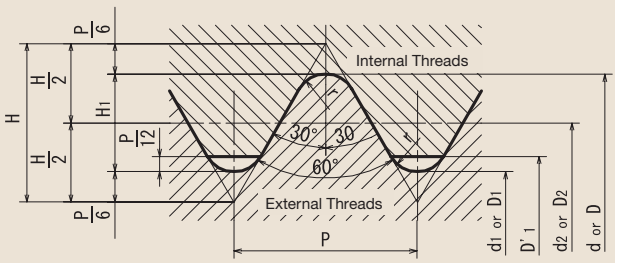

H =0.960491P
H1 =0.560286P
d2 =d−0.640327P
d1 =d−1.120572P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Threads per inch

## Steel Conduit Threads (CTC)



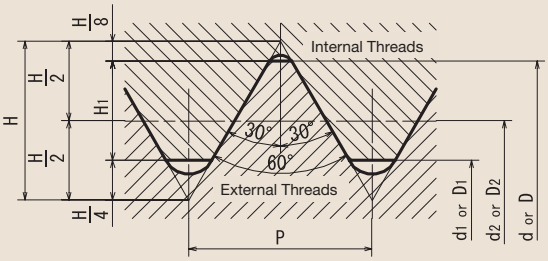

H =0.59588P
H1 =0.43851P
H2 =0.09778P
d2 =d−0.47670P
d1 =d−0.87703P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Threads per inch

## Bicycle Threads (BC)




H =0.8660P
H1 =0.5327P
r =P/6
d2 =d−H1
d1 =d−2H1
D =d
D2 =d2
D1 =d1
D'1 =d1+2×P/12
P =25.4/n
n =Threads per inch

## Tire Valve Threads (TV), Bicycle Tire Valve Threads (CTV)




H =0.866025P
H1 =0.541266P
d2 =d−0.649519P
d1 =d−1.082532P
D =d
D2 =d2
D1 =d1
P =25.4/n
n =Threads per inch



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# 23. Symbols for Standard Threads

## ISO

| Thread symbol | Kinds of thread | Related Standard |
|---|---|---|
| M | ISO Metric threads | ISO 261 |
| UNC | ISO Unified threads, coarse series | ISO 263 |
| UNF | ISO Unified threads, fine series | ISO 263 |
| UNEF | ISO Unified threads, extra fine series | ISO 263 |
| UN | ISO Unified threads, constant pitch series | ISO 263 |
| G | Parallel pipe threads | ISO 228/1 |
| Rp | Parallel internal pipe threads | ISO 7/1 |
| Rc | Taper internal pipe threads | ISO 7/1 |
| R | Taper external pipe threads | ISO 7/1 |
| S | ISO Miniature screw threads | ISO 1501 |
| Tr | ISO Metric trapezoidal screw threads | ISO2902 |
| UNJC | Aerospace - UNJ threads (coarse) | ISO 3161 |
| UNJF | Aerospace - UNJ threads (fine) | ISO 3161 |
| UNJEF | Aerospace - UNJ threads (extra fine) | ISO 3161 |
| UNJ | Aerospace - UNJ threads (constant pitch series) | ISO 3161 |
| MJ | Aerospace - MJ threads | ISO 5855 |
| GL | Glass container threads | ISO 1115 |
| V | Tire valve threads | ISO 4570/1-3 |

## Japan

| Thread symbol | Kinds of thread | Related Standard |
|---|---|---|
| M | Metric screw threads | JIS B 0205-1 - 0205-4 |
| S | Miniature screw threads | JIS B 0201 |
| UNC | Unified threads, Coarse series | JIS B 0206 |
| UNF | Unified threads, Fine series | JIS B 0208 |
| Tr | Metric Trapezoidal screw threads | JIS B 0216 |
| R | Taper external pipe threads | JIS B 0203 (JIS main book) |
| Rc | Taper internal pipe threads | JIS B 0203 (JIS main book) |
| Rp | Parallel internal pipe threads | JIS B 0203 (JIS main book) |
| G | Parallel pipe threads | JIS B 0202 (JIS main book) |
| PF | Parallel pipe threads | JIS B 0202 (JIS Appendix) |
| PT | Taper pipe threads | JIS B 0203 (JIS Appendix) |
| PS | Parallel internal pipe threads | JIS B 0203 (JIS Appendix) |
| CTC | Screw threads for rigid metal thin-walled conduit and fitting | JIS C 8305 |
| CTG | Screw threads for rigid metal thick-walled conduit and fitting | JIS C 8305 |
| BC | Cycle threads | JIS B 0225 |
| SM | Screw threads for sewing machine | JIS B 0226 (2001.2.20 repeal) |
| E | Electric socket and lamp-base threads | JIS C 7709 |
| V | Tire valve threads of automobile | JIS D 4207 |
| CTV | Tire valve threads of cycle | JIS D 9422 |

## America

| Thread symbol | Kinds of thread | Related Standard |
|---|---|---|
| UN | Unified inch screw threads | ANSI B 1.1 |
| UNC/UNRC | Unified coarse thread series | ANSI B 1.1 |
| UNF/UNRF | Unified fine thread series | ANSI B 1.1 |
| UNEF/UNREF | Unified extra-fine thread series | ANSI B 1.1 |
| 4UN/4UNR | Unified constant-pitch series with 4-threads | ANSI B 1.1 |
| 6UN/6UNR | Unified constant-pitch series with 6-threads | ANSI B 1.1 |
| 8UN/8UNR | Unified constant-pitch series with 8-threads | ANSI B 1.1 |
| 12UN/12UNR | Unified constant-pitch series with 12-threads | ANSI B 1.1 |
| 16UN/16UNR | Unified constant-pitch series with 16-threads | ANSI B 1.1 |
| 20UN/20UNR | Unified constant-pitch series with 20-threads | ANSI B 1.1 |
| 28UN/28UNR | Unified constant-pitch series with 28-threads | ANSI B 1.1 |
| 32UN/32UNR | Unified constant-pitch series with 32-threads | ANSI B 1.1 |
| UNS/UNRS | Unified threads of special diameters, pitches and lengths of engagement | ANSI B 1.1 |
| NR | American National thread with a 0.108p to 0.144p controlled root radius | MIL-B-7838 |
| Acme | Acme screw threads | ANSI B 1.5 |
| Stub-Acme | Stub Acme screw threads | ANSI B 1.8 |
| Butt | Buttress inch screw threads | ANSI B 1.9 |
| UNM | Unified miniature thread series | ANSI B 1.10 |
| NC5 | Class 5 interference-fit thread | ANSI B 1.12 |
| NPT | American Standard taper pipe threads tor general use | ANSI/ASME B 1.20.1 |
| NPTR | American Standard taper pipe threads tor railing joints | ANSI/ASME B 1.20.1 |
| NPSC | American Standard straight pipe thread in pipe couplings | ANSI/ASME B 1.20.1 |
| NPSL | American standard straight pipe threads for loose-fitting mechanical joints with locknuts | ANSI/ASME B 1.20.1 |
| NPSM | American Standard straight pipe threads for free-fitting mechanical joints for fixture | ANSI/ASME B 1.20.1 |
| NPSH | American Standard straight pipe threads tor loose-fitting mechanical joints for hose couplings | ANSI/ASME B 1.20.1 |
| NPTF | Dryseal American Standard taper pipe threads | ANSI B 1.20.3, 1.20.4 |
| F-PTF | Dryseal fine taper pipe thread series | ANSI B 1.20.3, 1.20.4 |
| PTF-SAE SHORT | Dryseal SAE short taper pipe threads | ANSI B 1.20.3, 1.20.4 |
| PTF-SPL SHORT | Dryseal special short taper pipe threads | ANSI B 1.20.3, 1.20.4 |
| PTF-SPL EXTRA SHORT | Dryseal special extra short taper pipe threads | ANSI B 1.20.3, 1.20.4 |
| SPL-PTF | Dryseal special taper pipe threads | ANSI B 1.20.3, 1.20.4 |
| NPSI | Dryseal American Standard intermediate internal straight pipe threads | ANSI B 1.20.3, 1.20.4 |
| NPSF | Dryseal American Standard fuel internal straight pipe threads | ANSI B 1.20.3, 1.20.4 |
| ANPT | Aeronautical National Form taper pipe threads | MIL-P-7150 |
| NGO | National gas outlet threads | ANSI B 57.1 |
| NGS | National gas straight threads | ANSI B 57.1 |
| NGT | National gas taper threads | ANSI B 57.1 |
| SGT | Special gas taper threads | ANSI B 57.1 |
| NH | Hose coupling and firehose coupling threads | USAS B 2.4 |
| NHR | Hose coupling and firehose coupling threads | USAS B 2.4 |
| NPSH | Hose coupling and firehose coupling threads | USAS B 2.4 |
| AMO | American standard microscope objective threads | ANSI B 1.11 |



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## British*

| Thread symbol | Kinds of thread | Related Standard |
|---|---|---|
| UNS | Unified special series | BS 1580 |
| B.S.W. | British Standard Whitworth coarse threads | BS 84 |
| B.S.F. | British Standard fine threads | BS 84 |
| BSP | British Standard pipe thread (corresponding to R, Re, Rp of ISO) | BS 21, 2779 |
| B.A. | B.A.-Screw threads | BS 93 |
| Acme | General purpose, Acme screw threads | BS 1104 |
| Buttress | Buttress threads | BS 1657 |
| BSC | Cycle threads | BS 811 |
| BSMO | Microscope objective threads | BS 3569 |
| E | Edison screw threads | BS 5042 |

* We left out the symbols after ISO standard was adopted.

## German*

| Thread symbol | Kinds of thread | Related Standard |
|---|---|---|
| GL | Glass containers thread | DIN 168 |
| S | Buttress thread | DIN 513,2781,20401 |
| Rd | Knuckle thread | DIN 262,3182, 7273, 15403,20400 |
| W | Whitworth-gewinde | DIN 168,477,6630,49301 |
| KS,KT | Screw siles for packages made of Plastics | DIN 6063 |
| E | Edison screw thread | DIN 40400 |
| Pg | Steel conduit thread | DIN 40430 |
| Vg | Automobil tire valve thread | DIN 7756 |
| Gf | Thread for freezing pipes | DIN 4930 |
| Gg | Threads for drill pipe | DIN 4941,20314 |
| HA | Thread for bone screws and nuts | DIN 58810 |
| FG | Bicycle threads | DIN 79012 |

* We left out the symbols after ISO standard was adopted.

# 24. Drill size and recommended hole size for cutting taps

## Metric Threads (M)

Unit: mm

| Size | | | | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | | |
| M | 1 | × | 0.25 | 0.785 | 0.729 | 0.75 | 0.77 |
| M | 1.1 | × | 0.25 | 0.885 | 0.829 | 0.85 | 0.87 |
| M | 1.2 | × | 0.25 | 0.985 | 0.929 | 0.95 | 0.97 |
| M | 1.4 | × | 0.3 | 1.142 | 1.075 | 1.10 | 1.13 |
| M | 1.6 | × | 0.35 | 1.321 | 1.221 | 1.25 | 1.30 |
| M | 1.7 | × | 0.35 | 1.421 | 1.321 | 1.35 | 1.40 |
| M | 1.8 | × | 0.35 | 1.521 | 1.421 | 1.45 | 1.50 |
| M | 2 | × | 0.4 | 1.679 | 1.567 | 1.60 | 1.65 |
| M | 2.2 | × | 0.45 | 1.838 | 1.713 | 1.75 | 1.81 |
| M | 2.3 | × | 0.4 | 1.979 | 1.867 | 1.90 | 1.95 |
| M | 2.5 | × | 0.45 | 2.138 | 2.013 | 2.10 | 2.11 |
| M | 2.6 | × | 0.45 | 2.238 | 2.113 | 2.20 | 2.21 |
| M | 3 | × | 0.5 | 2.599 | 2.459 | 2.50 | 2.56 |
| M | 3.5 | × | 0.6 | 3.010 | 2.850 | 2.90 | 2.97 |
| M | 4 | × | 0.7 | 3.422 | 3.242 | 3.30 | 3.38 |
| M | 4.5 | × | 0.75 | 3.878 | 3.688 | 3.80 | 3.83 |
| M | 5 | × | 0.8 | 4.334 | 4.134 | 4.20 | 4.28 |
| M | 6 | × | 1 | 5.153 | 4.917 | 5.00 | 5.09 |
| M | 7 | × | 1 | 6.153 | 5.917 | 6.00 | 6.09 |
| M | 8 | × | 1.25 | 6.912 | 6.647 | 6.80 | 6.85 |
| M | 9 | × | 1.25 | 7.912 | 7.647 | 7.80 | 7.85 |
| M | 10 | × | 1.5 | 8.676 | 8.376 | 8.50 | 8.60 |
| M | 11 | × | 1.5 | 9.676 | 9.376 | 9.50 | 9.60 |
| M | 12 | × | 1.75 | 10.441 | 10.106 | 10.30 | 10.36 |
| M | 14 | × | 2 | 12.210 | 11.835 | 12.00 | 12.12 |
| M | 16 | × | 2 | 14.210 | 13.835 | 14.00 | 14.12 |
| M | 18 | × | 2.5 | 15.744 | 15.294 | 15.50 | 15.63 |
| M | 20 | × | 2.5 | 17.744 | 17.294 | 17.50 | 17.63 |
| M | 22 | × | 2.5 | 19.744 | 19.294 | 19.50 | 19.63 |
| M | 24 | × | 3 | 21.252 | 20.752 | 21.00 | 21.13 |
| M | 27 | × | 3 | 24.252 | 23.752 | 24.00 | 24.13 |
| M | 30 | × | 3.5 | 26.771 | 26.211 | 26.50 | 26.63 |
| M | 33 | × | 3.5 | 29.771 | 29.211 | 29.50 | 29.63 |
| M | 36 | × | 4 | 32.270 | 31.670 | 32.00 | 32.12 |
| M | 39 | × | 4 | 35.270 | 34.670 | 35.00 | 35.12 |
| M | 42 | × | 4.5 | 37.799 | 37.129 | 37.50 | 37.63 |
| M | 45 | × | 4.5 | 40.799 | 40.129 | 40.50 | 40.63 |
| M | 48 | × | 5 | 43.297 | 42.587 | 43.00 | 43.12 |
| M | 52 | × | 5 | 47.297 | 46.587 | 47.00 | 47.10 |
| M | 56 | × | 5.5 | 50.796 | 50.046 | 50.50 | 50.60 |
| M | 60 | × | 5.5 | 54.796 | 54.046 | 54.50 | 54.60 |
| M | 64 | × | 6 | 58.305 | 57.505 | 58.00 | 58.10 |
| M | 68 | × | 6 | 62.305 | 61.505 | 62.00 | 62.10 |
| M | 70 | × | 6 | 64.305 | 63.505 | 64.00 | 64.10 |
| M | 72 | × | 6 | 66.305 | 65.505 | 66.00 | 66.10 |
| M | 76 | × | 6 | 70.305 | 69.505 | 70.00 | 70.10 |
| M | 80 | × | 6 | 74.305 | 73.505 | 74.00 | 74.10 |
| M | 85 | × | 6 | 79.305 | 78.505 | 79.00 | 79.10 |
| M | 90 | × | 6 | 84.305 | 83.505 | 84.00 | 84.10 |
| M | 95 | × | 6 | 89.305 | 88.505 | 89.00 | 89.10 |
| M | 100 | × | 6 | 94.305 | 93.505 | 94.00 | 94.10 |

## Metric Fine Threads (MF)

Unit: mm

| Size | | | | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | | |
| MF | 1 | × | 0.2 | 0.821 | 0.783 | 0.80 | 0.81 |
| MF | 1.1 | × | 0.2 | 0.921 | 0.883 | 0.90 | 0.91 |
| MF | 1.2 | × | 0.2 | 1.021 | 0.983 | 1.00 | 1.01 |
| MF | 1.4 | × | 0.2 | 1.221 | 1.183 | 1.20 | 1.21 |
| MF | 1.6 | × | 0.2 | 1.421 | 1.383 | 1.40 | 1.41 |
| MF | 1.7 | × | 0.2 | 1.521 | 1.483 | 1.50 | 1.51 |
| MF | 1.8 | × | 0.2 | 1.621 | 1.583 | 1.60 | 1.61 |
| MF | 2 | × | 0.25 | 1.785 | 1.729 | 1.75 | 1.77 |
| MF | 2.2 | × | 0.25 | 1.985 | 1.929 | 1.95 | 1.97 |
| MF | 2.3 | × | 0.25 | 2.085 | 2.029 | 2.05 | 2.07 |
| MF | 2.5 | × | 0.35 | 2.221 | 2.121 | 2.20 | 2.20 |
| MF | 2.6 | × | 0.35 | 2.321 | 2.221 | 2.30 | 2.30 |
| MF | 3 | × | 0.35 | 2.721 | 2.621 | 2.70 | 2.70 |
| MF | 3.5 | × | 0.35 | 3.221 | 3.121 | 3.20 | 3.20 |
| MF | 4 | × | 0.5 | 3.599 | 3.459 | 3.50 | 3.56 |
| MF | 4.5 | × | 0.5 | 4.099 | 3.959 | 4.00 | 4.06 |
| MF | 5 | × | 0.5 | 4.599 | 4.459 | 4.50 | 4.56 |
| MF | 5.5 | × | 0.5 | 5.099 | 4.959 | 5.00 | 5.06 |
| MF | 6 | × | 0.75 | 5.378 | 5.188 | 5.30 | 5.33 |
| MF | 6 | × | 0.5 | 5.599 | 5.459 | 5.50 | 5.56 |
| MF | 7 | × | 0.75 | 6.378 | 6.188 | 6.30 | 6.33 |
| MF | 7 | × | 0.5 | 6.599 | 6.459 | 6.50 | 6.56 |
| MF | 8 | × | 1 | 7.153 | 6.917 | 7.00 | 7.09 |
| MF | 8 | × | 0.75 | 7.378 | 7.188 | 7.30 | 7.33 |
| MF | 8 | × | 0.5 | 7.599 | 7.459 | 7.50 | 7.56 |
| MF | 9 | × | 1 | 8.153 | 7.917 | 8.00 | 8.09 |
| MF | 9 | × | 0.75 | 8.378 | 8.188 | 8.30 | 8.33 |
| MF | 10 | × | 1.25 | 8.912 | 8.647 | 8.80 | 8.85 |
| MF | 10 | × | 1 | 9.153 | 8.917 | 9.00 | 9.09 |
| MF | 10 | × | 0.75 | 9.378 | 9.188 | 9.30 | 9.33 |
| MF | 10 | × | 0.5 | 9.599 | 9.459 | 9.50 | 9.56 |
| MF | 11 | × | 1 | 10.153 | 9.917 | 10.00 | 10.10 |
| MF | 11 | × | 0.75 | 10.378 | 10.188 | 10.30 | 10.33 |
| MF | 11 | × | 0.5 | 10.599 | 10.459 | 10.50 | 10.56 |
| MF | 12 | × | 1.5 | 10.676 | 10.376 | 10.50 | 10.60 |
| MF | 12 | × | 1.25 | 10.912 | 10.647 | 10.80 | 10.85 |
| MF | 12 | × | 1 | 11.153 | 10.917 | 11.00 | 11.09 |
| MF | 12 | × | 0.5 | 11.599 | 11.459 | 11.50 | 11.56 |
| MF | 14 | × | 1.5 | 12.676 | 12.376 | 12.50 | 12.60 |
| MF | 14 | × | 1 | 13.153 | 12.917 | 13.00 | 13.09 |
| MF | 15 | × | 1.5 | 13.676 | 13.376 | 13.50 | 13.60 |
| MF | 15 | × | 1 | 14.153 | 13.917 | 14.00 | 14.09 |
| MF | 16 | × | 1.5 | 14.676 | 14.376 | 14.50 | 14.60 |
| MF | 16 | × | 1 | 15.153 | 14.917 | 15.00 | 15.09 |
| MF | 17 | × | 1.5 | 15.676 | 15.376 | 15.50 | 15.60 |
| MF | 17 | × | 1 | 16.153 | 15.917 | 16.00 | 16.09 |
| MF | 18 | × | 2 | 16.210 | 15.835 | 16.00 | 16.12 |
| MF | 18 | × | 1.5 | 16.676 | 16.376 | 16.50 | 16.60 |
| MF | 18 | × | 1 | 17.153 | 16.917 | 17.00 | 17.09 |
| MF | 20 | × | 2 | 18.210 | 17.835 | 18.00 | 18.12 |
| MF | 20 | × | 1.5 | 18.676 | 18.376 | 18.50 | 18.60 |



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Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| MF 20 × 1 | 19.153 | 18.917 | 19.00 | 19.09 |
| MF 22 × 2 | 20.210 | 19.835 | 20.00 | 20.12 |
| MF 22 × 1.5 | 20.676 | 20.376 | 20.50 | 20.60 |
| MF 22 × 1 | 21.153 | 20.917 | 21.00 | 21.09 |
| MF 24 × 2 | 22.210 | 21.835 | 22.00 | 22.12 |
| MF 24 × 1.5 | 22.676 | 22.376 | 22.50 | 22.60 |
| MF 24 × 1 | 23.153 | 22.917 | 23.00 | 23.09 |
| MF 25 × 2 | 23.210 | 22.835 | 23.00 | 23.12 |
| MF 25 × 1.5 | 23.676 | 23.376 | 23.50 | 23.60 |
| MF 25 × 1 | 24.153 | 23.917 | 24.00 | 24.09 |
| MF 26 × 1.5 | 24.676 | 24.376 | 24.50 | 24.60 |
| MF 27 × 2 | 25.210 | 24.835 | 25.00 | 25.12 |
| MF 27 × 1.5 | 25.676 | 25.376 | 25.50 | 25.60 |
| MF 27 × 1 | 26.153 | 25.917 | 26.00 | 26.09 |
| MF 28 × 2 | 26.210 | 25.835 | 26.00 | 26.12 |
| MF 28 × 1.5 | 26.676 | 26.376 | 26.50 | 26.60 |
| MF 28 × 1 | 27.153 | 26.917 | 27.00 | 27.09 |
| MF 30 × 3 | 27.252 | 26.752 | 27.00 | 27.13 |
| MF 30 × 2 | 28.210 | 27.835 | 28.00 | 28.12 |
| MF 30 × 1.5 | 28.676 | 28.376 | 28.50 | 28.60 |
| MF 30 × 1 | 29.153 | 28.917 | 29.00 | 29.09 |
| MF 32 × 2 | 30.210 | 29.835 | 30.00 | 30.12 |
| MF 32 × 1.5 | 30.676 | 30.376 | 30.50 | 30.60 |
| MF 33 × 3 | 30.252 | 29.752 | 30.00 | 30.13 |
| MF 33 × 2 | 31.210 | 30.835 | 31.00 | 31.12 |
| MF 33 × 1.5 | 31.676 | 31.376 | 31.50 | 31.60 |
| MF 35 × 1.5 | 33.676 | 33.376 | 33.50 | 33.60 |
| MF 36 × 3 | 33.252 | 32.752 | 33.00 | 33.13 |
| MF 36 × 2 | 34.210 | 33.835 | 34.00 | 34.12 |
| MF 36 × 1.5 | 34.676 | 34.376 | 34.50 | 34.60 |
| MF 38 × 1.5 | 36.676 | 36.376 | 36.50 | 36.60 |
| MF 39 × 3 | 36.252 | 35.752 | 36.00 | 36.13 |
| MF 39 × 2 | 37.210 | 36.835 | 37.00 | 37.12 |
| MF 39 × 1.5 | 37.676 | 37.376 | 37.50 | 37.60 |
| MF 40 × 3 | 37.252 | 36.752 | 37.00 | 37.13 |
| MF 40 × 2 | 38.210 | 37.835 | 38.00 | 38.12 |
| MF 40 × 1.5 | 38.676 | 38.376 | 38.50 | 38.60 |
| MF 42 × 4 | 38.270 | 37.670 | 38.00 | 38.12 |
| MF 42 × 3 | 39.252 | 38.752 | 39.00 | 39.13 |
| MF 42 × 2 | 40.210 | 39.835 | 40.00 | 40.12 |
| MF 42 × 1.5 | 40.676 | 40.376 | 40.50 | 40.60 |
| MF 45 × 4 | 41.270 | 40.670 | 41.00 | 41.12 |
| MF 45 × 3 | 42.252 | 41.752 | 42.00 | 42.13 |
| MF 45 × 2 | 43.210 | 42.835 | 43.00 | 43.12 |
| MF 45 × 1.5 | 43.676 | 43.376 | 43.50 | 43.60 |
| MF 48 × 4 | 44.270 | 43.670 | 44.00 | 44.12 |
| MF 48 × 3 | 45.252 | 44.752 | 45.00 | 45.13 |
| MF 48 × 2 | 46.210 | 45.835 | 46.00 | 46.12 |
| MF 48 × 1.5 | 46.676 | 46.376 | 46.50 | 46.60 |
| MF 50 × 3 | 47.252 | 46.752 | 47.00 | 47.13 |
| MF 50 × 2 | 48.210 | 47.835 | 48.00 | 48.12 |

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| MF 50 × 1.5 | 48.676 | 48.376 | 48.50 | 48.60 |
| MF 52 × 4 | 48.270 | 47.670 | 48.00 | 48.10 |
| MF 52 × 3 | 49.252 | 48.752 | 49.00 | 49.10 |
| MF 52 × 2 | 50.210 | 49.835 | 50.00 | 50.10 |
| MF 52 × 1.5 | 50.676 | 50.376 | 50.50 | 50.60 |
| MF 55 × 4 | 51.270 | 50.670 | 51.00 | 51.10 |
| MF 55 × 3 | 52.252 | 51.752 | 52.00 | 52.10 |
| MF 55 × 2 | 53.210 | 52.835 | 53.00 | 53.10 |
| MF 55 × 1.5 | 53.676 | 53.376 | 53.50 | 53.60 |
| MF 56 × 4 | 52.270 | 51.670 | 52.00 | 52.10 |
| MF 56 × 3 | 53.252 | 52.752 | 53.00 | 53.10 |
| MF 56 × 2 | 54.210 | 53.835 | 54.00 | 54.10 |
| MF 56 × 1.5 | 54.676 | 54.376 | 54.50 | 54.60 |
| MF 58 × 4 | 54.270 | 53.670 | 54.00 | 54.10 |
| MF 58 × 3 | 55.252 | 54.752 | 55.00 | 55.10 |
| MF 58 × 2 | 56.210 | 55.835 | 56.00 | 56.10 |
| MF 58 × 1.5 | 56.676 | 56.376 | 56.50 | 56.60 |
| MF 60 × 4 | 56.270 | 55.670 | 56.00 | 56.10 |
| MF 60 × 3 | 57.252 | 56.752 | 57.00 | 57.10 |
| MF 60 × 2 | 58.210 | 57.835 | 58.00 | 58.10 |
| MF 60 × 1.5 | 58.676 | 58.376 | 58.50 | 58.60 |
| MF 62 × 4 | 58.270 | 57.670 | 58.00 | 58.10 |
| MF 62 × 3 | 59.252 | 58.752 | 59.00 | 59.10 |
| MF 62 × 2 | 60.210 | 59.835 | 60.00 | 60.10 |
| MF 62 × 1.5 | 60.676 | 60.376 | 60.50 | 60.60 |
| MF 64 × 4 | 60.270 | 59.670 | 60.00 | 60.10 |
| MF 64 × 3 | 61.252 | 60.752 | 61.00 | 61.10 |
| MF 64 × 2 | 62.210 | 61.835 | 62.00 | 62.10 |
| MF 64 × 1.5 | 62.676 | 62.376 | 62.50 | 62.60 |
| MF 65 × 4 | 61.270 | 60.670 | 61.00 | 61.10 |
| MF 65 × 3 | 62.252 | 61.752 | 62.00 | 62.10 |
| MF 65 × 2 | 63.210 | 62.835 | 63.00 | 63.10 |
| MF 65 × 1.5 | 63.676 | 63.376 | 63.50 | 63.60 |
| MF 68 × 4 | 64.270 | 63.670 | 64.00 | 64.10 |
| MF 68 × 3 | 65.252 | 64.752 | 65.00 | 65.10 |
| MF 68 × 2 | 66.210 | 65.835 | 66.00 | 66.10 |
| MF 68 × 1.5 | 66.676 | 66.376 | 66.50 | 66.60 |
| MF 70 × 4 | 66.270 | 65.670 | 66.00 | 66.10 |
| MF 70 × 3 | 67.252 | 66.752 | 67.00 | 67.10 |
| MF 70 × 2 | 68.210 | 67.835 | 68.00 | 68.10 |
| MF 70 × 1.5 | 68.676 | 68.376 | 68.00 | 68.60 |
| MF 72 × 4 | 68.270 | 67.670 | 68.00 | 68.10 |
| MF 72 × 3 | 69.252 | 68.752 | 69.00 | 69.10 |
| MF 72 × 2 | 70.210 | 69.835 | 70.00 | 70.10 |
| MF 72 × 1.5 | 70.676 | 70.376 | 70.50 | 70.60 |
| MF 75 × 4 | 71.270 | 70.670 | 71.00 | 71.10 |
| MF 75 × 3 | 72.252 | 71.752 | 72.00 | 72.10 |
| MF 75 × 2 | 73.210 | 72.835 | 73.00 | 73.10 |
| MF 75 × 1.5 | 73.676 | 73.376 | 73.50 | 73.60 |
| MF 76 × 4 | 72.270 | 71.670 | 72.00 | 72.10 |
| MF 76 × 3 | 73.252 | 72.752 | 73.00 | 73.10 |

# 24. Drill size and recommended hole size for cutting taps

## Metric Fine Threads (MF)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| MF 76 × 2 | 74.210 | 73.835 | 74.00 | 74.10 |
| MF 76 × 1.5 | 74.676 | 74.376 | 74.50 | 74.60 |
| MF 78 × 2 | 76.210 | 75.835 | 76.00 | 76.10 |
| MF 80 × 4 | 76.270 | 75.670 | 76.00 | 76.10 |
| MF 80 × 3 | 77.252 | 76.752 | 77.00 | 77.10 |
| MF 80 × 2 | 78.210 | 77.835 | 78.00 | 78.10 |
| MF 80 × 1.5 | 78.676 | 78.376 | 78.50 | 78.60 |
| MF 82 × 2 | 80.210 | 79.835 | 80.00 | 80.10 |
| MF 85 × 4 | 81.270 | 80.670 | 81.00 | 81.10 |
| MF 85 × 3 | 82.252 | 81.752 | 82.00 | 82.10 |
| MF 85 × 2 | 83.210 | 82.835 | 83.00 | 83.10 |
| MF 90 × 4 | 86.270 | 85.670 | 86.00 | 86.10 |
| MF 90 × 3 | 87.252 | 86.752 | 87.00 | 87.10 |
| MF 90 × 2 | 88.210 | 87.835 | 88.00 | 88.10 |
| MF 95 × 4 | 91.270 | 90.670 | 91.00 | 91.10 |
| MF 95 × 3 | 92.252 | 91.752 | 92.00 | 92.10 |
| MF 95 × 2 | 93.210 | 92.835 | 93.00 | 93.10 |
| MF 100 × 4 | 96.270 | 95.670 | 96.00 | 96.10 |
| MF 100 × 3 | 97.252 | 96.752 | 97.00 | 97.10 |
| MF 100 × 2 | 98.210 | 97.835 | 98.00 | 98.10 |

## Miniature threads (S)

Unit: mm

| Size | Recommended Hole Size |
|---|---|
| S 0.4 X 0.1 | 0.32 |
| S 0.5 X 0.125 | 0.41 |
| S 0.6 X 0.15 | 0.49 |
| S 0.7 X 0.175 | 0.57 |
| S 0.8 X 0.2 | 0.65 |
| S 0.9 X 0.225 | 0.73 |

## Unified Coarse Threads (UNC)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| No. 1 - 64 UNC | 1.582 | 1.425 | 1.55 | 1.54 |
| No. 2 - 56 UNC | 1.871 | 1.695 | 1.80 | 1.83 |
| No. 3 - 48 UNC | 2.146 | 1.941 | 2.10 | 2.09 |
| No. 4 - 40 UNC | 2.385 | 2.157 | 2.30 | 2.33 |
| No. 5 - 40 UNC | 2.697 | 2.487 | 2.60 | 2.64 |
| No. 6 - 32 UNC | 2.895 | 2.642 | 2.80 | 2.83 |
| No. 8 - 32 UNC | 3.530 | 3.302 | 3.40 | 3.47 |
| No. 10 - 24 UNC | 3.962 | 3.683 | 3.90 | 3.89 |
| No. 12 - 24 UNC | 4.597 | 4.344 | 4.50 | 4.53 |
| 1/4 - 20 UNC | 5.257 | 4.979 | 5.10 | 5.19 |
| 5/16 - 18 UNC | 6.731 | 6.401 | 6.60 | 6.65 |
| 3/8 - 16 UNC | 8.153 | 7.798 | 8.00 | 8.07 |
| 7/16 - 14 UNC | 9.550 | 9.144 | 9.40 | 9.45 |
| 1/2 - 13 UNC | 11.023 | 10.592 | 10.90 | 10.91 |
| 9/16 - 12 UNC | 12.446 | 11.989 | 12.20 | 12.33 |
| 5/8 - 11 UNC | 13.868 | 13.386 | 13.60 | 13.75 |
| 3/4 - 10 UNC | 16.840 | 16.307 | 16.60 | 16.7 |
| 7/8 - 9 UNC | 19.761 | 19.177 | 19.60 | 19.61 |
| 1 - 8 UNC | 22.606 | 21.971 | 22.30 | 22.45 |
| 1 1/8 - 7 UNC | 25.349 | 24.638 | 25.00 | 25.17 |
| 1"1/4 - 7 UNC | 28.524 | 27.813 | 28.20 | 28.35 |
| 1"3/8 - 6 UNC | 31.115 | 30.353 | 30.80 | 30.92 |
| 1"1/2 - 6 UNC | 34.290 | 33.528 | 34.00 | 34.10 |
| 1"3/4 - 5 UNC | 39.827 | 38.964 | 39.50 | 39.61 |
| 2 - 4.5 UNC | 45.593 | 44.679 | 45.20 | 45.37 |

## Unified Fine Threads (UNF)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| No. 0 - 80 UNF | 1.305 | 1.182 | 1.25 | 1.27 |
| No. 1 - 72 UNF | 1.612 | 1.474 | 1.55 | 1.58 |
| No. 2 - 64 UNF | 1.912 | 1.756 | 1.85 | 1.87 |
| No. 3 - 56 UNF | 2.197 | 2.025 | 2.10 | 2.15 |
| No. 4 - 48 UNF | 2.458 | 2.271 | 2.40 | 2.41 |
| No. 5 - 44 UNF | 2.740 | 2.551 | 2.70 | 2.69 |
| No. 6 - 40 UNF | 3.022 | 2.820 | 2.90 | 2.97 |
| No. 8 - 36 UNF | 3.606 | 3.404 | 3.50 | 3.55 |
| No. 10 - 32 UNF | 4.165 | 3.963 | 4.10 | 4.12 |
| No. 12 - 28 UNF | 4.724 | 4.496 | 4.60 | 4.67 |
| 1/4 - 28 UNF | 5.588 | 5.360 | 5.50 | 5.53 |
| 5/16 - 24 UNF | 7.035 | 6.782 | 6.90 | 6.97 |
| 3/8 - 24 UNF | 8.636 | 8.382 | 8.50 | 8.57 |
| 7/16 - 20 UNF | 10.033 | 9.729 | 9.90 | 9.96 |
| 1/2 - 20 UNF | 11.607 | 11.329 | 11.50 | 11.54 |
| 9/16 - 18 UNF | 13.081 | 12.751 | 12.90 | 13.00 |
| 5/8 - 18 UNF | 14.681 | 14.351 | 14.50 | 14.6 |
| 3/4 - 16 UNF | 17.678 | 17.323 | 17.50 | 17.59 |
| 7/8 - 14 UNF | 20.675 | 20.270 | 20.50 | 20.57 |
| 1 - 12 UNF | 23.571 | 23.114 | 23.30 | 23.46 |
| 1"1/8 - 12 UNF | 26.746 | 26.289 | 26.50 | 26.63 |
| 1"1/4 - 12 UNF | 29.921 | 29.464 | 29.60 | 29.81 |
| 1"3/8 - 12 UNF | 33.096 | 32.639 | 32.80 | 32.98 |
| 1"1/2 - 12 UNF | 36.271 | 35.814 | 36.00 | 36.16 |



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## Unified Threads (8UN)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| 1"1/8 - 8 UN | 25.781 | 25.146 | 25.50 | 25.62 |
| 1"1/4 - 8 UN | 28.956 | 28.321 | 28.50 | 28.80 |
| 1"3/8 - 8 UN | 32.131 | 31.496 | 31.80 | 31.97 |
| 1"1/2 - 8 UN | 35.306 | 34.671 | 35.00 | 35.15 |
| 1"5/8 - 8 UN | 38.481 | 37.846 | 38.10 | 38.32 |
| 1"3/4 - 8 UN | 41.656 | 41.021 | 41.30 | 41.50 |
| 2 - 8 UN | 48.006 | 47.371 | 47.80 | 47.85 |

## Unified Threads (12UN)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| 1"5/8 - 12 UN | 39.446 | 38.989 | 39.10 | 39.33 |
| 1"3/4 - 12 UN | 42.621 | 42.164 | 42.30 | 42.51 |
| 2 - 12 UN | 48.971 | 48.514 | 48.60 | 48.86 |

## Unified Extra Fine Threads (UNEF)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| No. 12 - 32 UNEF | 4.826 | 4.623 | 4.70 | 4.78 |
| 1/4 - 32 UNEF | 5.689 | 5.487 | 5.60 | 5.64 |
| 5/16 - 32 UNEF | 7.264 | 7.087 | 7.10 | 7.22 |
| 3/8 - 32 UNEF | 8.864 | 8.662 | 8.70 | 8.81 |
| 7/16 - 28 UNEF | 10.337 | 10.135 | 10.20 | 10.29 |
| 1/2 - 28 UNEF | 11.938 | 11.710 | 11.80 | 11.88 |
| 9/16 - 24 UNEF | 13.385 | 13.132 | 13.20 | 13.32 |
| 5/8 - 24 UNEF | 14.986 | 14.732 | 14.80 | 14.92 |
| 3/4 - 20 UNEF | 17.957 | 17.679 | 17.80 | 17.89 |
| 7/8 - 20 UNEF | 21.132 | 20.854 | 21.00 | 21.06 |
| 1 - 20 UNEF | 24.307 | 24.029 | 24.10 | 24.24 |
| 1"1/8 - 18 UNEF | 27.381 | 27.051 | 27.20 | 27.3 |
| 1"1/4 - 18 UNEF | 30.556 | 30.226 | 30.30 | 30.47 |
| 1"3/8 - 18 UNEF | 33.731 | 33.401 | 33.50 | 33.65 |
| 1"1/2 - 18 UNEF | 36.906 | 36.576 | 36.70 | 36.82 |
| 1"5/8 - 18 UNEF | 40.081 | 39.751 | 39.80 | 40.00 |

## Cylindrical Pipe Threads - G(BSP)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| G 1/16 - 28 | 6.843 | 6.561 | 6.75 | 6.77 |
| G 1/8 - 28 | 8.848 | 8.566 | 8.75 | 8.78 |
| G 1/4 - 19 | 11.890 | 11.445 | 11.75 | 11.78 |
| G 3/8 - 19 | 15.395 | 14.950 | 15.25 | 15.28 |
| G 1/2 - 14 | 19.172 | 18.631 | 19.00 | 19.04 |
| G 5/8 - 14 | 21.128 | 20.587 | 21.00 | 21.00 |
| G 3/4 - 14 | 24.658 | 24.117 | 24.50 | 24.52 |
| G 7/8 - 14 | 28.418 | 27.877 | 28.25 | 28.28 |
| G 1 - 11 | 30.931 | 30.291 | 30.75 | 30.77 |
| G 1 1/8 - 11 | 35.579 | 34.939 | 35.30 | 35.42 |
| G 1 1/4 - 11 | 39.592 | 38.952 | 39.30 | 39.43 |
| G 1 1/2 - 11 | 45.485 | 44.845 | 45.25 | 45.33 |
| G 1 3/4 - 11 | 51.428 | 50.788 | 51.25 | 51.27 |
| G 2 - 11 | 57.296 | 56.656 | 57.00 | 57.14 |
| G 2 1/2 - 11 | 72.866 | 72.226 | 72.50 | 72.70 |
| G 3 - 11 | 85.566 | 84.926 | 85.25 | 85.40 |
| G 3 1/2 - 11 | 98.012 | 97.372 | 97.75 | 97.90 |
| G 4 - 11 | 110.712 | 110.072 | 110.50 | 110.60 |

## Parallel Internal Pipe Threads - Rp(BSPP) - PS

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| Rp 1/16 - 28 | 6.632 | 6.490 | 6.50 | 6.55 |
| Rp 1/8 - 28 | 8.637 | 8.495 | 8.50 | 8.55 |
| Rp 1/4 - 19 | 11.549 | 11.341 | 11.40 | 11.50 |
| Rp 3/8 - 19 | 15.054 | 14.846 | 14.80 | 14.90 |
| Rp 1/2 - 14 | 18.773 | 18.489 | 18.50 | 18.55 |
| Rp 5/8 - 14 | 20.729 | 20.445 | 20.50 | 20.55 |
| Rp 3/4 - 14 | 24.259 | 23.975 | 24.00 | 24.10 |
| Rp 7/8 - 14 | 28.019 | 27.735 | 27.75 | 27.80 |
| Rp 1 - 11 | 30.472 | 30.110 | 30.20 | 30.25 |
| Rp 1 1/8 - 11 | 35.120 | 34.758 | 34.75 | 34.80 |
| Rp 1 1/4 - 11 | 39.133 | 38.771 | 38.75 | 38.80 |
| Rp 1 1/2 - 11 | 45.026 | 44.664 | 44.60 | 44.70 |
| Rp 1 3/4 - 11 | 50.969 | 50.607 | 50.60 | 50.70 |
| Rp 2 - 11 | 56.837 | 56.475 | 56.50 | 56.60 |
| Rp 2 1/4 - 11 | 62.933 | 62.571 | 62.50 | 62.60 |
| Rp 2 1/2 - 11 | 72.442 | 72.010 | 72.00 | 72.10 |
| Rp 3 - 11 | 85.142 | 84.710 | 84.75 | 84.80 |
| Rp 3 1/2 - 11 | 97.588 | 97.156 | 97.20 | 97.30 |
| Rp 4 - 11 | 110.288 | 109.856 | 109.90 | 110.00 |

## American Pipe Threads (NPSC)

Unit: mm

| Size | | | | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | | |
| NPSC | 1/16 | - | 27 | 6.604 | 6.300 | 6.50 | 6.53 |
| NPSC | 1/8 | - | 27 | 8.940 | 8.636 | 8.80 | 8.86 |
| NPSC | 1/4 | - | 18 | 11.633 | 11.227 | 11.50 | 11.53 |
| NPSC | 3/8 | - | 18 | 15.087 | 14.656 | 14.90 | 14.98 |
| NPSC | 1/2 | - | 14 | 18.643 | 18.161 | 18.50 | 18.52 |
| NPSC | 3/4 | - | 14 | 24.003 | 23.495 | 23.75 | 23.88 |
| NPSC | 1 | - | 11.5 | 30.073 | 29.490 | 29.80 | 29.93 |
| NPSC | 1 1/4 | - | 11.5 | 38.836 | 38.253 | 38.50 | 38.69 |
| NPSC | 1 1/2 | - | 11.5 | 44.907 | 44.323 | 44.75 | 44.76 |
| NPSC | 2 | - | 11.5 | 56.946 | 56.363 | 56.75 | 56.80 |

## American Pipe Threads (NPSM)

Unit: mm

| Size | | | | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | | |
| NPSM | 1/16 | - | 27 | 6.898 | 6.747 | 6.80 | 6.86 |
| NPSM | 1/8 | - | 27 | 9.246 | 9.094 | 9.20 | 9.21 |
| NPSM | 1/4 | - | 18 | 12.217 | 11.888 | 12.10 | 12.13 |
| NPSM | 3/8 | - | 18 | 15.554 | 15.317 | 15.50 | 15.49 |
| NPSM | 1/2 | - | 14 | 19.278 | 18.974 | 19.20 | 19.20 |
| NPSM | 3/4 | - | 14 | 24.638 | 24.334 | 24.50 | 24.60 |
| NPSM | 1 | - | 11.5 | 30.759 | 30.506 | 30.60 | 30.70 |
| NPSM | 1 1/4 | - | 11.5 | 39.497 | 39.269 | 39.40 | 39.40 |
| NPSM | 1 1/2 | - | 11.5 | 45.567 | 45.339 | 45.50 | 45.50 |
| NPSM | 2 | - | 11.5 | 57.607 | 57.379 | 57.50 | 57.60 |

## Dryseal American Pipe Threads (NPSF)

Unit: mm

| Size | | | | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | | |
| NPSF | 1/16 | - | 27 | 6.482 | 6.305 | 6.40 | 6.44 |
| NPSF | 1/8 | - | 27 | 8.740 | 8.652 | 8.70 | 8.72 |
| NPSF | 1/4 | - | 18 | 11.363 | 11.232 | 11.30 | 11.33 |
| NPSF | 3/8 | - | 18 | 14.803 | 14.672 | 14.75 | 14.77 |
| NPSF | 1/2 | - | 14 | 18.288 | 18.118 | 18.25 | 18.20 |
| NPSF | 3/4 | - | 14 | 23.634 | 23.465 | 23.50 | 23.50 |
| NPSF | 1 | - | 11.5 | 29.669 | 29.464 | 29.50 | 29.60 |
| NPSF | 1 1/4 | - | 11.5 | 38.514 | 38.220 | 38.30 | 38.40 |
| NPSF | 1 1/2 | - | 11.5 | 44.584 | 44.290 | 44.50 | 44.50 |
| NPSF | 2 | - | 11.5 | 56.621 | 56.328 | 56.50 | 56.50 |



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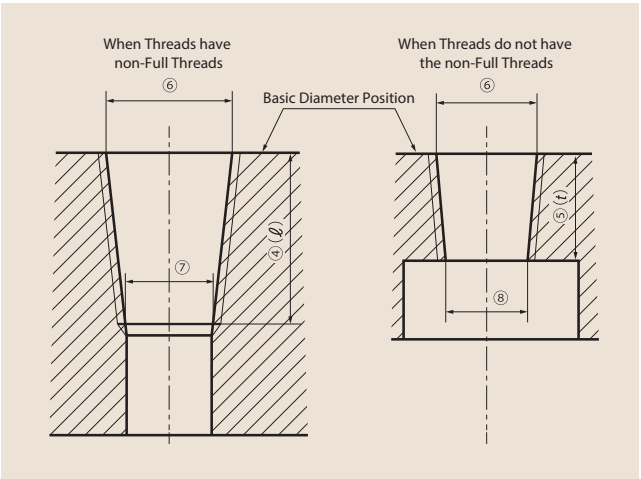
## Taper Internal Pipe Threads - Rc(BSPT)-PT (refer to JIS B 0203 or ISO 7-1)

Unit: mm

| Size | Thread Standards | | | | Minor Diameter | | | Recommended Bored Hole Sizes (reference) | | Reference | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Basic Diameter | Basic Diameter | Effective Thread Length (Minimum) | | Pipe End (Workpiece Face) (Basic Diameter) | When Threads have non-Full Threads | When Threads do not have the non-Full Threads | Maximum Size of Straight Bored Hole | | Tap | | |
| | | Pipe End | | | | | | | | Basic Diameter Position. ℓg | | |
| | Tolerance in radial direction | Tolerance in axial direction c | When Threads have non-Full Threads ℓ | When Threads do not have the non-Full Threads t | | Position away from Pipe End by ℓ | Position away from Pipe End by t | When Threads have non-Full Threads | When Threads do not have the non-Full Threads | Long Thread Type | Short Thread Type | Rc |
| | | | | | Basic Size | Basic Size | Basic Size | | | | | |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ |
| PT 1/16 - 28 | ±0.071 | ±1.13 | 6.2 | 4.4 | 6.561 | 6.174 | 6.286 | 6.1 | 6.2 | 13.0 | 10.5 | 10.1 |
| PT 1/8 - 28 | ±0.071 | ±1.13 | 6.2 | 4.4 | 8.566 | 8.179 | 8.291 | 8.1 | 8.2 | 13.0 | 10.5 | 10.1 |
| PT 1/4 - 19 | ±0.104 | ±1.67 | 9.4 | 6.7 | 11.445 | 10.858 | 11.026 | 10.7 | 10.9 | 21.0 | 12.5 | 15.0 |
| PT 3/8 - 19 | ±0.104 | ±1.67 | 9.7 | 7.0 | 14.950 | 14.344 | 14.513 | 14.2 | 14.4 | 21.0 | 14.0 | 15.4 |
| PT 1/2 - 14 | ±0.142 | ±2.27 | 12.7 | 9.1 | 18.631 | 17.837 | 18.062 | 17.6 | 17.9 | 25.0 | 17.0 | 20.5 |
| PT 5/8 - 14 | ±0.142 | ±2.27 | (13.4) | (9.65) | 20.587 | 19.750 | 19.984 | 19.6 | 19.8 | 25.0 | - | - |
| PT 3/4 - 14 | ±0.142 | ±2.27 | 14.1 | 10.2 | 24.117 | 23.236 | 23.480 | 23.0 | 23.3 | 25.0 | 19.0 | 21.8 |
| PT 7/8 - 14 | ±0.142 | ±2.27 | (15.2) | (10.9) | 27.877 | 26.930 | 27.196 | 26.7 | 27.0 | 28.0 | - | - |
| PT 1 - 11 | ±0.181 | ±2.89 | 16.2 | 11.6 | 30.291 | 29.279 | 29.566 | 29.0 | 29.3 | 32.0 | 22.0 | 26.0 |
| PT 1 1/8 - 11 | ±0.181 | ±2.89 | (17.4) | (12.5) | 34.939 | 33.855 | 34.158 | 33.6 | 33.9 | 32.0 | - | - |
| PT 1 1/4 - 11 | ±0.181 | ±2.89 | 18.5 | 13.4 | 38.952 | 37.796 | 38.115 | 37.6 | 37.9 | 32.0 | 24.5 | 28.3 |
| PT 1 1/2 - 11 | ±0.181 | ±2.89 | 18.5 | 13.4 | 44.845 | 43.689 | 44.008 | 43.5 | 43.8 | 32.0 | 25.5 | 28.3 |
| PT 1 3/4 - 11 | ±0.181 | ±2.89 | (18.5) | (13.4) | 50.788 | 49.632 | 49.951 | 49.4 | 49.7 | 32.0 | - | - |
| PT 2 - 11 | ±0.181 | ±2.89 | 22.8 | 16.9 | 56.656 | 55.231 | 55.600 | 55.0 | 55.4 | 35.0 | 27.5 | 32.7 |
| PT 2 1/4 - 11 | ±0.216 | ±3.46 | (26.7) | (18.6) | 65.710 | 64.041 | 64.548 | 63.8 | 64.3 | 50.0 | - | - |
| PT 2 1/2 - 11 | ±0.216 | ±3.46 | 26.7 | 18.6 | 72.226 | 70.557 | 71.064 | 70.3 | 70.8 | 50.0 | 32.0 | 37.1 |
| PT 3 - 11 | ±0.216 | ±3.46 | 29.8 | 21.1 | 84.926 | 83.064 | 83.607 | 82.8 | 83.3 | 52.0 | 36.0 | 40.2 |
| PT 3 1/2 - 11 | ±0.216 | ±3.46 | 31.4 | 22.4 | 97.372 | 95.410 | 95.972 | 95.1 | 95.7 | 52.0 | - | 46.2 |
| PT 4 - 11 | ±0.216 | ±3.46 | 35.8 | 25.9 | 110.072 | 107.835 | 108.453 | 107.6 | 108.2 | 55.0 | - | 46.2 |

Note: Length toward End of Smaller Diameter from Basic Diameter Position

REMARKS DURING TAPPING
1. PT internal threads have R design on their crests. The tap should cut threads with their thread rot.
2. On thread drawing non-full threads. If you are going to cut effective thread length ℓ., use the tap of long type.

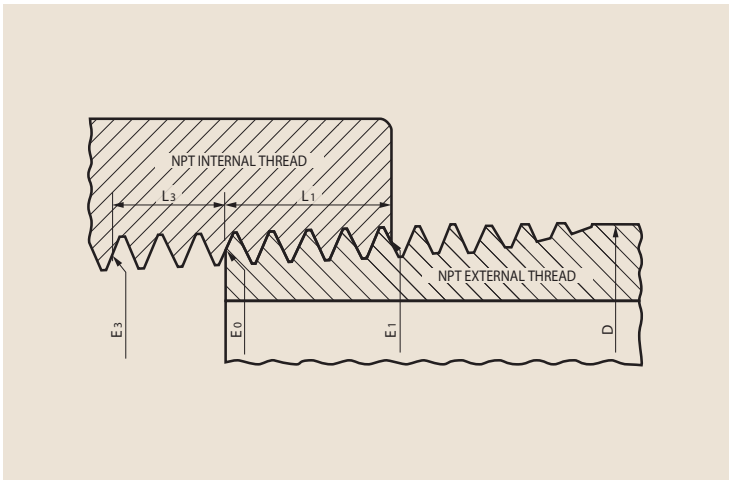



Remarks 1. Opening of Internal Thread (Face of workpiece) is Basic Diameter Position.
Remarks 2. Effective Thread Length has 2 types: with non-Full Thread Type and without non-Full Thread Type.
Remarks 3. Concerning bored hole shape, considering load on taps, taper bored hole is recommended.
Remarks 4. Use the machines that has synchronized feed system in the case of taper bored hole.
Remarks 5. When applying taper bored hole, by referring to values shown in columns ②⑤⑧, prepare the taper hole by using pipe reamer (1/16 taper). By referring to values shown in columns ⑨ and ⑩, select the drill diameter before reaming by taking reamer's margin into account.
Remarks 6. When preparing straight bored hole, by referring to values shown in columns ⑨ and ⑩, select drill diameter.

## American Taper Pipe Threads (NPT) (Refer to ANSI/ASME B1.20.1-1983)

Unit: mm

| Size | L1 | L3 | L1+L3 | Minor Diameter | | | | | | Bored Hole Size (reference) | reference Tap |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Pipe End (Basic Diameter Position) | | | Position away from Pipe End by (L1+L3) | | | Maximum Size of Straight Bored Hole | Basic Diameter Position ℓg |
| | | | | Maximum Value | Minimum Value | Tolerance | Maximum Value | Minimum Value | Tolerance | | |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ |
| NPT 1/16 - 27 | 4.064 | 2.822 | 6.886 | 6.510 | 6.388 | 0.122 | 6.080 | 5.958 | 0.122 | 6.05 | 12.00 |
| NPT 1/8 - 27 | 4.102 | 2.822 | 6.924 | 8.857 | 8.736 | 0.121 | 8.425 | 8.303 | 0.122 | 8.39 | 12.05 |
| NPT 1/4 - 18 | 5.786 | 4.234 | 10.020 | 11.514 | 11.357 | 0.157 | 10.888 | 10.730 | 0.158 | 10.85 | 17.45 |
| NPT 3/8 - 18 | 6.096 | 4.234 | 10.330 | 14.953 | 14.796 | 0.157 | 14.308 | 14.150 | 0.158 | 14.27 | 17.65 |
| NPT 1/2 - 14 | 8.128 | 5.443 | 13.571 | 18.485 | 18.323 | 0.162 | 17.637 | 17.475 | 0.162 | 17.60 | 22.85 |
| NPT 3/4 - 14 | 8.611 | 5.443 | 14.054 | 23.831 | 23.668 | 0.163 | 22.952 | 22.790 | 0.162 | 22.91 | 22.95 |
| NPT 1 - 11.5 | 10.160 | 6.627 | 16.787 | 29.868 | 29.696 | 0.172 | 28.819 | 28.647 | 0.172 | 28.78 | 27.40 |
| NPT 1 1/4 - 11.5 | 10.668 | 6.627 | 17.295 | 38.625 | 38.452 | 0.173 | 37.544 | 37.372 | 0.172 | 37.50 | 28.10 |
| NPT 1 1/2 - 11.5 | 10.668 | 6.627 | 17.295 | 44.695 | 44.522 | 0.173 | 43.614 | 43.441 | 0.173 | 43.57 | 28.40 |
| NPT 2 - 11.5 | 11.074 | 6.627 | 17.701 | 56.732 | 56.560 | 0.172 | 55.626 | 55.454 | 0.172 | 55.58 | 28.00 |
| NPT 2 1/2 - 8 | 17.323 | 6.350 | 23.673 | 67.806 | 67.618 | 0.188 | 66.326 | 66.138 | 0.188 | 66.28 | 40.80 |
| NPT 3 - 8 | 19.456 | 6.350 | 25.806 | 83.715 | 83.527 | 0.188 | 82.102 | 81.914 | 0.188 | 82.05 | 42.95 |




Remarks 1. Pipe End is Basic Diameter Position (E1).
Remarks 2. Effective Thread Length is the length away from Pipe End by (L1+L3).
Remarks 3. Concerning bored hole shape, considering load on taps, taper bored hole is recommended.
Remarks 4. When applying taper bored hole. by referring to values in shown columns ⑤, ⑥ and ⑧, ⑨, prepare the taper hole by using pipe reamer (1/16 taper). By referring to values shown in column ⑪, select the drill diameter before reaming by taking reamer's margin into account.
Remarks 5. When preparing straight bored hole, by referring to values shown in column ⑪, select drill diameter.

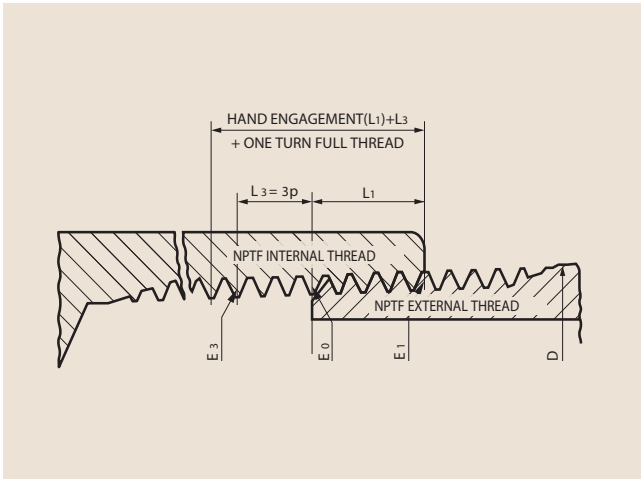


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## American Taper Pipe Threads (NPTF) (Refer to ANSI/ASME B1.20.1-1983)

Unit: mm

| Size | L1 | L3 (3P) | L1+L3+1P | Minor Diameter | | | | | | Bored Hole Size (reference) | reference Tap |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Pipe End (Basic Diameter Position) | | | Position away from Pipe End by (L1+L3+1P ) | | | Maximum Size of Straight Bored Hole | Basic Diameter Position ℓg |
| | | | | Maximum Value | Minimum Value | Tolerance | Maximum Value | Minimum Value | Tolerance | | |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ |
| NPTF 1/16 - 27 | 4.064 | 2.822 | 7.827 | 6.505 | 6.414 | 0.091 | 6.015 | 5.923 | 0.092 | 5.99 | 12.00 |
| NPTF 1/8 - 27 | 4.102 | 2.822 | 7.865 | 8.852 | 8.761 | 0.091 | 8.362 | 8.270 | 0.092 | 8.34 | 12.05 |
| NPTF 1/4 - 18 | 5.786 | 4.234 | 11.431 | 11.484 | 11.397 | 0.087 | 10.770 | 10.684 | 0.086 | 10.75 | 17.45 |
| NPTF 3/8 - 18 | 6.096 | 4.234 | 11.741 | 14.923 | 14.836 | 0.087 | 14.189 | 14.103 | 0.086 | 14.17 | 17.65 |
| NPTF 1/2 - 14 | 8.128 | 5.443 | 15.386 | 18.419 | 18.333 | 0.086 | 17.459 | 17.373 | 0.086 | 17.44 | 22.85 |
| NPTF 3/4 - 14 | 8.611 | 5.443 | 15.868 | 23.764 | 23.678 | 0.086 | 22.773 | 22.687 | 0.086 | 22.75 | 22.95 |
| NPTF 1 - 1 1.5 | 10.160 | 6.627 | 18.996 | 29.812 | 29.726 | 0.086 | 28.625 | 28.538 | 0.087 | 28.60 | 27.40 |
| NPTF 1 1/4 - 1 1.5 | 10.668 | 6.627 | 19.504 | 38.569 | 38.483 | 0.086 | 37.350 | 37.263 | 0.087 | 37.33 | 28.10 |
| NPTF 1 1/2 - 1 1.5 | 10.668 | 6.627 | 19.504 | 44.639 | 44.552 | 0.087 | 43.420 | 43.334 | 0.086 | 43.40 | 28.40 |
| NPTF 2 - 1 1.5 | 11.074 | 6.627 | 19.910 | 56.677 | 56.590 | 0.087 | 55.432 | 55.345 | 0.087 | 55.41 | 28.00 |




Remarks 1. Pipe End is Basic Diameter Position (E1).
Remarks 2. Effective Thread Length is the length away from Pipe End by (L1+L3+1P).
Remarks 3. Concerning bored hole shape, considering load on taps. taper bored hole is recommended.
Remarks 4. When applying taper bored hole, by referring to values shown in columns ⑤, ⑥ and ⑧, ⑨, prepare the taper hole by using pipe reamer (1/16 taper). By referring to values in shown column ⑪, select the drill diameter before reaming by taking reamer's margin into account.
Remarks 5. When preparing straight bored hole, by referring to values shown in column ⑪, select drill diameter.

# 24. Drill size and recommended hole size for cutting taps

## Whitworth Threads (BSW)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| BSW 1/16 - 60 | 1.23 | 1.107 | 1.15 | 1.20 |
| BSW 3/32 - 48 | 1.914 | 1.785 | 1.85 | 1.88 |
| BSW 1/8 - 40 | 2.591 | 2.456 | 2.55 | 2.56 |
| BSW 5/32 - 32 | 3.214 | 3.071 | 3.15 | 3.20 |
| BSW 3/16 - 24 | 3.745 | 3.563 | 3.70 | 3.70 |
| BSW 7/32 - 24 | 4.54 | 4.358 | 4.50 | 4.49 |
| BSW 1/4 - 20 | 5.204 | 4.914 | 5.10 | 5.13 |
| BSW 5/16 - 18 | 6.67 | 6.34 | 6.50 | 6.59 |
| BSW 3/8 - 16 | 8.113 | 7.733 | 8.00 | 8.02 |
| BSW 7/16 - 14 | 9.508 | 9.048 | 9.30 | 9.39 |
| BSW 1/2 - 12 | 10.83 | 10.31 | 10.60 | 10.70 |
| BSW 9/16 - 12 | 12.418 | 11.898 | 12.25 | 12.29 |
| BSW 5/8 - 11 | 13.817 | 13.257 | 13.50 | 13.68 |
| BSW 3/4 - 10 | 16.778 | 16.178 | 16.50 | 16.63 |
| BSW 7/8 - 9 | 19.691 | 19.031 | 19.50 | 19.53 |
| BSW 1 - 8 | 22.514 | 21.814 | 22.20 | 22.34 |
| BSW 1 1/8 - 7 | 25.229 | 24.469 | 24.75 | 25.04 |
| BSW 1 1/4 - 7 | 28.404 | 27.644 | 28.00 | 28.21 |
| BSW 1 3/8 - 6 | 30.923 | 30.123 | 30.50 | 30.72 |
| BSW 1 1/2 - 6 | 34.098 | 33.298 | 33.75 | 33.90 |
| BSW 1 5/8 - 5 | 36.409 | 35.529 | 36.00 | 36.19 |
| BSW 1 3/4 - 5 | 39.584 | 38.704 | 39.20 | 39.36 |
| BSW 1 7/8 - 4 1/2 | 42.227 | 41.237 | 42.00 | 41.98 |
| BSW 2 - 4.5 | 45.402 | 44.412 | 45.00 | 45.15 |
| BSW 2 1/4 - 4 | 51.068 | 49.958 | 50.50 | 50.79 |
| BSW 2 1/2 - 4 | 57.418 | 56.308 | 57.00 | 57.14 |
| BSW 2 3/4 - 3 1/2 | 62.816 | 61.636 | 62.50 | 62.52 |
| BSW 3 - 3 1/2 | 69.166 | 67.986 | 68.50 | 68.87 |
| BSW 3 1/4 - 3 1/4 | 74.902 | 73.702 | 74.50 | 74.60 |
| BSW 3 1/2 - 3 1/4 | 81.252 | 80.052 | 81.00 | 81.10 |
| BSW 3 3/4 - 3 | 86.908 | 85.668 | 86.50 | 86.60 |
| BSW 4 - 3 | 93.258 | 92.018 | 92.80 | 92.95 |

## Helical Coil Wire Thread Inserts Metric Coarse (EG STI M)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| EG(STI) M 2 × 0.4 | 2.16 | 2.10 | 2.13 | 2.15 |
| EG(STI) M 2.5 × 0.45 | 2.68 | 2.60 | 2.60 | 2.66 |
| EG(STI) M 2.6 × 0.45 | 2.78 | 2.70 | 2.70 | 2.76 |
| EG(STI) M 3 × 0.5 | 3.20 | 3.12 | 3.15 | 3.18 |
| EG(STI) M 4 × 0.7 | 4.30 | 4.17 | 4.20 | 4.27 |
| EG(STI) M 5 × 0.8 | 5.33 | 5.16 | 5.20 | 5.29 |
| EG(STI) M 6 × 1 | 6.42 | 6.25 | 6.30 | 6.38 |
| EG(STI) M 8 × 1.25 | 8.52 | 8.31 | 8.40 | 8.47 |
| EG(STI) M 10 × 1.5 | 10.62 | 10.37 | 10.50 | 10.56 |
| EG(STI) M 12 × 1.75 | 12.73 | 12.43 | 12.60 | 12.66 |
| EG(STI) M 14 × 2 | 14.83 | 14.49 | 14.70 | 14.75 |
| EG(STI) M 16 × 2 | 16.83 | 16.49 | 16.70 | 16.75 |
| EG(STI) M 18 × 2.5 | 19.04 | 18.58 | 18.90 | 18.93 |
| EG(STI) M 20 × 2.5 | 21.04 | 20.58 | 20.90 | 20.93 |
| EG(STI) M 22 × 2.5 | 23.04 | 22.58 | 22.90 | 22.93 |
| EG(STI) M 24 × 3 | 25.25 | 24.70 | 25.10 | 25.11 |

## Helical Coil Wire Thread Inserts Metric Fine (EG STI MF)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| EG(STI) MF 10 × 1.25 | 10.52 | 10.31 | 10.40 | 10.47 |
| EG(STI) MF 10 × 1 | 10.42 | 10.25 | 10.30 | 10.38 |
| EG(STI) MF 12 × 1.5 | 12.62 | 12.37 | 12.50 | 12.56 |
| EG(STI) MF 12 × 1.25 | 12.52 | 12.31 | 12.40 | 12.47 |
| EG(STI) MF 14 × 1.5 | 14.62 | 14.37 | 14.50 | 14.56 |
| EG(STI) MF 14 × 1.25 | 14.52 | 14.31 | 14.40 | 14.47 |
| EG(STI) MF 16 × 1.5 | 16.62 | 16.37 | 16.50 | 16.56 |
| EG(STI) MF 18 × 1.5 | 18.62 | 18.37 | 18.50 | 18.56 |
| EG(STI) MF 20 × 1.5 | 20.62 | 20.37 | 20.50 | 20.56 |
| EG(STI) MF 22 × 1.5 | 22.62 | 22.37 | 22.50 | 22.56 |
| EG(STI) MF 24 × 1.5 | 24.62 | 24.37 | 24.50 | 24.56 |

## Helical Coil Wire Thread Inserts Unified Coarse (EG STI UNC)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| EG(STI) No. 2 - 56 UNC | 2.440 | 2.284 | 2.35 | 2.4 |
| EG(STI) No. 4 - 40 UNC | 3.180 | 2.985 | 3.10 | 3.13 |
| EG(STI) No. 5 - 40 UNC | 3.487 | 3.315 | 3.40 | 3.44 |
| EG(STI) No. 6 - 32 UNC | 3.878 | 3.678 | 3.80 | 3.83 |
| EG(STI) No. 8 - 32 UNC | 4.523 | 4.339 | 4.40 | 4.48 |
| EG(STI) No. 10 - 24 UNC | 5.283 | 5.055 | 5.20 | 5.23 |
| EG(STI) No. 12 - 24 UNC | 5.943 | 5.715 | 5.80 | 5.89 |
| EG(STI) 1/4 - 20 UNC | 6.868 | 6.625 | 6.80 | 6.81 |
| EG(STI) 5/16 - 18 UNC | 8.488 | 8.243 | 8.40 | 8.43 |
| EG(STI) 3/8 - 16 UNC | 10.126 | 9.868 | 10.00 | 10.06 |
| EG(STI) 7/16 - 14 UNC | 11.783 | 11.507 | 11.70 | 11.71 |
| EG(STI) 1/2 - 13 UNC | 13.393 | 13.122 | 13.20 | 13.33 |
| EG(STI) 5/8 - 11 UNC | 16.672 | 16.376 | 16.50 | 16.60 |

## Helical Coil Wire Thread Inserts Unified Fine (EG STI UNF)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| EG(STI) No. 4 - 48 UNF | 3.121 | 2.962 | 3.00 | 3.08 |
| EG(STI) No. 6 - 40 UNF | 3.817 | 3.645 | 3.70 | 3.77 |
| EG(STI) No. 8 - 36 UNF | 4.498 | 4.321 | 4.40 | 4.45 |
| EG(STI) No. 10 - 32 UNF | 5.184 | 4.999 | 5.10 | 5.14 |
| EG(STI) 1/4 - 28 UNF | 6.720 | 6.546 | 6.60 | 6.68 |
| EG(STI) 5/16 - 24 UNF | 8.351 | 8.167 | 8.30 | 8.31 |
| EG(STI) 3/8 - 24 UNF | 9.931 | 9.754 | 9.80 | 9.89 |
| EG(STI) 7/16 - 20 UNF | 11.584 | 11.387 | 11.50 | 11.53 |
| EG(STI) 1/2 - 20 UNF | 13.172 | 12.975 | 13.10 | 13.12 |
| EG(STI) 5/8 - 18 UNF | 16.385 | 16.180 | 16.30 | 16.33 |
| EG(STI) 3/4 - 16 UNF | 19.608 | 19.393 | 19.50 | 19.55 |



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## Aerospace Metric Coarse Threads (MJ)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| MJ 3 x 0.5 | 2.653 | 2.513 | 2.60 | 2.62 |
| MJ 4 x 0.7 | 3.498 | 3.318 | 3.10 | 3.45 |
| MJ 5 x 0.8 | 4.421 | 4.221 | 4.30 | 4.37 |
| MJ 6 x 1 | 5.216 | 5.026 | 5.10 | 5.17 |
| MJ 8 x 1.25 | 6.994 | 6.782 | 6.90 | 6.94 |
| MJ 10 x 1.5 | 8.775 | 8.539 | 8.65 | 8.72 |
| MJ 12 x 1.75 | 10.560 | 10.295 | 10.43 | 10.50 |
| MJ 16 x 2 | 14.351 | 14.051 | 14.20 | 14.30 |

## Aerospace Metric Fine Threads (MFJ)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| MJ 8 x 1 | 7.216 | 7.026 | 7.10 | 7.17 |

## Aerospace Unified Coarse Threads (UNJC)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| No. 2 - 56 UNJC | 1.859 | 1.743 | 1.81 | 1.83 |
| No. 3 - 48 UNJC | 2.136 | 1.999 | 2.10 | 2.10 |
| No. 4 - 40 UNJC | 2.392 | 2.228 | 2.30 | 2.35 |
| No. 5 - 40 UNJC | 2.722 | 2.558 | 2.60 | 2.68 |
| No. 6 - 32 UNJC | 2.938 | 2.734 | 2.84 | 2.89 |
| No. 8 - 32 UNJC | 3.599 | 3.394 | 3.50 | 3.55 |
| No. 10 - 24 UNJC | 4.064 | 3.795 | 3.93 | 4.00 |
| No. 12 - 24 UNJC | 4.704 | 4.456 | 4.60 | 4.64 |
| 1/4 - 20 UNJC | 5.387 | 5.114 | 5.30 | 5.32 |
| 5/16 - 18 UNJC | 6.832 | 6.564 | 6.70 | 6.76 |
| 3/8 - 16 UNJC | 8.255 | 7.979 | 8.10 | 8.19 |
| 7/16 - 14 UNJC | 9.639 | 9.348 | 9.50 | 9.57 |
| 1/2 - 13 UNJC | 11.094 | 10.798 | 11.00 | 11.02 |
| 9/16 - 12 UNJC | 12.481 | 12.228 | 12.40 | 12.42 |
| 5/8 - 11 UNJC | 13.903 | 13.628 | 13.80 | 13.83 |
| 3/4 - 10 UNJC | 16.880 | 16.577 | 16.70 | 16.80 |
| 7/8 - 9 UNJC | 19.814 | 19.477 | 19.70 | 19.73 |
| 1 - 8 UNJC | 22.689 | 22.309 | 22.50 | 22.59 |

## Aerospace Unified Fine Threads (UNJF)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| No. 2 - 64 UNJF | 1.902 | 1.799 | 1.86 | 1.88 |
| No. 3 - 56 UNJF | 2.189 | 2.073 | 2.10 | 2.16 |
| No. 4 - 48 UNJF | 2.466 | 2.330 | 2.40 | 2.43 |
| No. 5 - 44 UNJF | 2.763 | 2.614 | 2.70 | 2.73 |
| No. 6 - 40 UNJF | 3.053 | 2.888 | 3.00 | 3.01 |
| No. 8 - 36 UNJF | 3.662 | 3.480 | 3.60 | 3.62 |
| No. 10 - 32 UNJF | 4.254 | 4.054 | 4.20 | 4.20 |
| No. 12 - 28 UNJF | 4.815 | 4.603 | 4.70 | 4.76 |
| 1/4 - 28 UNJF | 5.661 | 5.467 | 5.60 | 5.61 |
| 5/16 - 24 UNJF | 7.109 | 6.907 | 7.00 | 7.06 |
| 3/8 - 24 UNJF | 8.679 | 8.494 | 8.60 | 8.63 |
| 7/16 - 20 UNJF | 10.083 | 9.876 | 10.00 | 10.03 |
| 1/2 - 20 UNJF | 11.661 | 11.464 | 11.60 | 11.61 |
| 9/16 - 18 UNJF | 13.121 | 12.914 | 13.00 | 13.07 |
| 5/8 - 18 UNJF | 14.701 | 14.501 | 14.60 | 14.65 |
| 3/4 - 16 UNJF | 17.721 | 17.506 | 17.60 | 17.67 |
| 7/8 - 14 UNJF | 20.706 | 20.460 | 20.60 | 20.64 |
| 1 - 12 UNJF | 23.594 | 23.341 | 23.50 | 23.53 |

## Steel Conduit Threads (Pg)

Unit: mm

| Size | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|
| | Max. | Min. | | |
| Pg 7 - 20 | 11.43 | 11.28 | 11.40 | 11.45 |
| Pg 9 - 18 | 14.01 | 13.86 | 14.00 | 14.10 |
| Pg 11 - 18 | 17.41 | 17.26 | 17.30 | 17.35 |
| Pg 13.5 - 18 | 19.21 | 19.06 | 19.10 | 19.15 |
| Pg 16 - 18 | 21.31 | 21.16 | 21.25 | 21.30 |
| Pg 21 - 16 | 27.03 | 26.78 | 27.00 | 27.10 |
| Pg 29 - 16 | 35.73 | 35.48 | 35.60 | 35.70 |

## Trapezoidal Threads (Tr)

Unit: mm

| Size | | | | Minor Diameter | | Drill Size | Recommended Hole Size |
|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | | |
| Tr | 10 | × | 2 | 8.236 | 8.000 | 8.20 | 8.18 |
| Tr | 12 | × | 2 | 10.236 | 10.000 | 10.20 | 10.20 |
| Tr | 12 | × | 3 | 9.315 | 9.000 | 9.20 | 9.20 |
| Tr | 14 | × | 3 | 11.315 | 11.000 | 11.20 | 11.20 |
| Tr | 16 | × | 3 | 13.315 | 13.000 | 13.20 | 13.20 |
| Tr | 16 | × | 4 | 12.375 | 12.000 | 12.25 | 12.30 |
| Tr | 18 | × | 4 | 14.375 | 14.000 | 14.25 | 14.30 |
| Tr | 20 | × | 4 | 16.375 | 16.000 | 16.25 | 16.30 |
| Tr | 22 | × | 5 | 17.450 | 17.000 | 17.25 | 17.30 |
| Tr | 24 | × | 5 | 19.450 | 19.000 | 19.25 | 19.30 |
| Tr | 25 | × | 5 | 20.450 | 20.000 | 20.25 | 20.30 |
| Tr | 26 | × | 5 | 21.450 | 21.000 | 21.25 | 21.30 |
| Tr | 26 | × | 6 | 20.500 | 20.000 | 20.30 | 20.40 |
| Tr | 28 | × | 5 | 23.450 | 23.000 | 23.25 | 23.30 |
| Tr | 30 | × | 6 | 24.500 | 24.000 | 24.30 | 24.40 |



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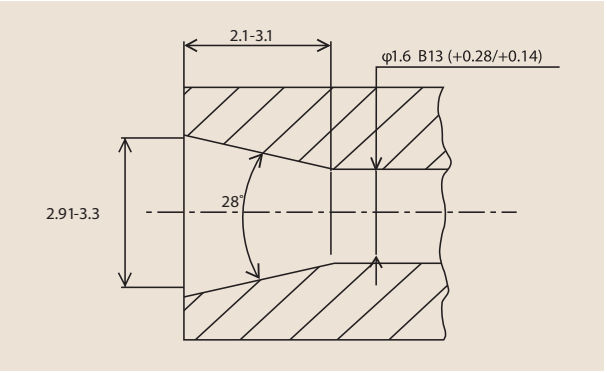
## Camera tripod mounting screws

Unit: mm

| Size | Minor Diameter | | Recommended Hole Size |
|---|---|---|---|
| | Max. | Min. | |
| 1/4 - 20 | 5.267 | 4.975 | 5.19 |

## Camera release mounting taper female thread

Unit: mm




## Automotive tire valve screws

Unit: mm

| Size | Minor Diameter | | Recommended Hole Size |
|---|---|---|---|
| | Max. | Min. | |
| 5 V 1 | 4.801 | 4.597 | 4.75 |
| 8 V 1 | 7.239 | 7.036 | 7.19 |
| 8 V 2 | 7.035 | 6.782 | 6.97 |
| 9 V 1 | 8.865 | 8.661 | 8.81 |
| 10 V 1 | 8.900 | 8.750 | 8.86 |
| 10 V 2 | 9.550 | 9.350 | 9.50 |
| 11 V 1 | 10.033 | 9.729 | 9.96 |
| 12 V 1 | 11.379 | 11.176 | 11.33 |
| 13 V 1 | 11.608 | 11.328 | 11.54 |
| 13 V 2 | 12.039 | 11.837 | 11.99 |
| 15 V 1 | 13.950 | 13.750 | 13.90 |
| 16 V 1 | 15.088 | 14.859 | 15.03 |
| 17 V 1 | 15.950 | 15.750 | 15.90 |
| 17 V 2 | 16.560 | 16.307 | 16.50 |
| 17 V 3 | 16.103 | 15.748 | 16.01 |
| 19 V 1 | 17.678 | 17.323 | 17.59 |
| 20 V 1 | 19.450 | 19.250 | 19.40 |

## Bicycle tire valve screws

Unit: mm

| Size | Minor Diameter | | Recommended Hole Size |
|---|---|---|---|
| | Max. | Min. | |
| CTV 5 - 36 | 4.732 | 4.630 | 4.71 |
| CTV 5 - 24 | 4.214 | 3.954 | 4.15 |
| CTV 8 - 32 | 7.192 | 7.040 | 7.15 |
| CTV 8 - 30 | 7.344 | 7.183 | 7.30 |
| 5 V 2 | 4.600 | 4.400 | 4.55 |
| 6 V 1 | 5.540 | 5.440 | 5.52 |

## Thin steel conduit screws (CTC)

Unit: mm

| Size | Minor Diameter | | Recommended Hole Size |
|---|---|---|---|
| | Max. | Min. | |
| CTC 19 - 16 | 18.208 | 17.808 | 18.11 |
| CTC 25 - 16 | 24.508 | 24.108 | 24.41 |
| CTC 31 - 16 | 30.908 | 30.508 | 30.81 |
| CTC 39 - 16 | 37.208 | 36.808 | 37.11 |
| CTC 51 - 16 | 49.908 | 49.508 | 49.81 |
| CTC 63 - 16 | 62.608 | 62.208 | 62.51 |
| CTC 75 - 16 | 75.308 | 74.908 | 75.21 |

## Bicycle screws general (BC)

Unit: mm

| Size | Minor Diameter | | Recommended Hole Size |
|---|---|---|---|
| | Max. | Min. | |
| BC 5/16 - 26 | 7.16 | 7.06 | 7.13 |
| BC 3/8 - 26 | 8.75 | 8.65 | 8.73 |
| BC 7/16 - 26 | 10.33 | 10.23 | 10.31 |
| BC 1/2 - 20 | 11.66 | 11.55 | 11.63 |
| BC 9/16 - 20 | 13.25 | 13.14 | 13.23 |
| BC 5/8 - 20 | 14.84 | 14.73 | 14.81 |
| BC 11/16 - 24 | 16.59 | 16.48 | 16.57 |
| BC 3/4 - 30 | 18.40 | 18.29 | 18.37 |
| BC 31/32 - 30 | 23.96 | 23.85 | 23.94 |
| BC 1 - 24 | 24.56 | 24.44 | 24.53 |
| BC 1.29 - 24 | 31.95 | 31.82 | 31.92 |
| BC 1.37 - 24 | 33.98 | 33.85 | 33.95 |
| BC 1 7/16 - 24 | 35.69 | 35.56 | 35.66 |
| BC 1.45 - 24 | 36.01 | 35.88 | 35.98 |
| BC 1 9/16 - 24 | 38.87 | 38.74 | 38.84 |

## Thick steel conduit tube screws (CTG)

Unit: mm

| Size | Minor Diameter | | Recommended Hole Size |
|---|---|---|---|
| | Max. | Min. | |
| CTG 16 - 14 | 19.522 | 19.022 | 19.40 |
| CTG 22 - 14 | 25.008 | 24.508 | 24.88 |
| CTG 28 - 11 | 31.361 | 30.761 | 31.21 |
| CTG 36 - 11 | 40.022 | 39.422 | 39.87 |
| CTG 42 - 11 | 45.915 | 45.315 | 45.77 |
| CTG 54 - 11 | 57.826 | 57.126 | 57.65 |
| CTG 70 - 11 | 73.396 | 72.696 | 73.22 |
| CTG 82 - 11 | 86.096 | 85.396 | 85.92 |
| CTG 92 - 11 | 98.542 | 97.842 | 98.37 |
| CTG 104 - 11 | 111.242 | 110.542 | 111.07 |

# 25. Drill size and recommended hole size for forming taps

## Metric Coarse Threads (M)

Unit: mm

| Size | Class | Minor Diameter | | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|---|
| | | Tol. | Max. | Min. | | Max. | Min. |
| M 1 × 0.25 | ISO2X | 6H | (0.785) | (0.729) | 0.91 | 0.92 | 0.89 |
| | ISO3X | 6G | (0.803) | (0.747) | 0.92 | 0.93 | 0.91 |
| M 1.2 × 0.25 | ISO2X | 6H | (0.985) | (0.929) | 1.11 | 1.12 | 1.09 |
| | ISO3X | 6G | (1.003) | (0.947) | 1.12 | 1.13 | 1.11 |
| M 1.4 × 0.3 | ISO2X | 6H | 1.142 | 1.075 | 1.27 | 1.28 | 1.25 |
| | ISO3X | 6G | 1.160 | 1.093 | 1.29 | 1.3 | 1.27 |
| M 1.6 × 0.35 | ISO2X | 6H | 1.321 | 1.221 | 1.46 | 1.48 | 1.43 |
| | ISO3X | 6G | 1.340 | 1.240 | 1.47 | 1.49 | 1.44 |
| M 1.7 × 0.35 | ISO2X | 6H | 1.421 | 1.321 | 1.55 | 1.57 | 1.53 |
| | ISO3X | 6G | 1.440 | 1.340 | 1.57 | 1.59 | 1.54 |
| M 1.8 × 0.35 | ISO2X | 6H | 1.521 | 1.421 | 1.65 | 1.67 | 1.62 |
| | ISO3X | 6G | 1.540 | 1.440 | 1.67 | 1.69 | 1.64 |
| M 2 × 0.4 | ISO2X | 6H | 1.679 | 1.567 | 1.83 | 1.86 | 1.80 |
| | ISO3X | 6G | 1.698 | 1.586 | 1.85 | 1.87 | 1.82 |
| M 2.2 × 0.45 | ISO2X | 6H | 1.838 | 1.713 | 2.01 | 2.04 | 1.97 |
| | ISO3X | 6G | 1.858 | 1.733 | 2.03 | 2.06 | 1.99 |
| M 2.3 × 0.4 | ISO2X | 6H | 1.979 | 1.867 | 2.13 | 2.16 | 2.10 |
| | ISO3X | 6G | 1.998 | 1.886 | 2.15 | 2.17 | 2.12 |
| M 2.5 × 0.45 | ISO2X | 6H | 2.138 | 2.013 | 2.31 | 2.34 | 2.27 |
| | ISO3X | 6G | 2.158 | 2.033 | 2.34 | 2.37 | 2.31 |
| M 2.6 × 0.45 | ISO2X | 6H | 2.238 | 2.113 | 2.41 | 2.44 | 2.37 |
| | ISO3X | 6G | 2.258 | 2.133 | 2.44 | 2.47 | 2.41 |
| M 3 × 0.5 | ISO2X | 6H | 2.599 | 2.459 | 2.80 | 2.83 | 2.76 |
| | ISO3X | 6G | 2.619 | 2.479 | 2.82 | 2.85 | 2.78 |
| M 3.5 × 0.6 | ISO2X | 6H | 3.010 | 2.850 | 3.25 | 3.29 | 3.21 |
| | ISO3X | 6G | 3.031 | 2.871 | 3.27 | 3.31 | 3.23 |
| M 4 × 0.7 | ISO2X | 6H | 3.422 | 3.242 | 3.71 | 3.75 | 3.66 |
| | ISO3X | 6G | 3.444 | 3.264 | 3.73 | 3.77 | 3.68 |
| M 5 × 0.8 | ISO2X | 6H | 4.334 | 4.134 | 4.65 | 4.70 | 4.60 |
| | ISO3X | 6G | 4.358 | 4.158 | 4.67 | 4.72 | 4.62 |
| M 6 × 1 | ISO2X | 6H | 5.153 | 4.917 | 5.56 | 5.61 | 5.50 |
| | ISO3X | 6G | 5.179 | 4.943 | 5.60 | 5.65 | 5.54 |
| M 8 × 1.25 | ISO2X | 6H | 6.912 | 6.647 | 7.45 | 7.52 | 7.38 |
| | ISO3X | 6G | 6.940 | 6.675 | 7.47 | 7.53 | 7.40 |
| M 10 × 1.5 | ISO2X | 6H | 8.676 | 8.376 | 9.34 | 9.41 | 9.26 |
| | ISO3X | 6G | 8.708 | 8.408 | 9.37 | 9.44 | 9.29 |
| M 12 × 1.75 | ISO2X | 6H | 10.441 | 10.106 | 11.22 | 11.3 | 11.13 |
| | ISO3X | 6G | 10.475 | 10.140 | 11.25 | 11.33 | 11.16 |
| M 14 × 2 | ISO2X | 6H | 12.210 | 11.835 | 13.10 | 13.19 | 13.00 |
| | ISO3X | 6G | 12.248 | 11.873 | 13.14 | 13.23 | 13.04 |
| M 16 × 2 | ISO2X | 6H | 14.210 | 13.835 | 15.10 | 15.19 | 15.00 |
| | ISO3X | 6G | 14.248 | 13.873 | 15.14 | 15.23 | 15.04 |

## Metric Fine Threads (MF)

Unit: mm

| Size | Class | Minor Diameter | | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|---|
| | | Tol. | Max. | Min. | | Max. | Min. |
| MF 6 × 0.75 | ISO2X | 6H | 5.378 | 5.188 | 5.67 | 5.72 | 5.62 |
| | ISO3X | 6G | 5.400 | 5.210 | 5.70 | 5.75 | 5.65 |
| MF 6 × 0.5 | ISO2X | 6H | 5.599 | 5.459 | 5.78 | 5.81 | 5.74 |
| | ISO3X | 6G | 5.619 | 5.479 | 5.80 | 5.83 | 5.76 |
| MF 8 × 1 | ISO2X | 6H | 7.153 | 6.917 | 7.55 | 7.61 | 7.49 |
| | ISO3X | 6G | 7.179 | 6.943 | 7.59 | 7.65 | 7.53 |
| MF 10 × 1.25 | ISO2X | 6H | 8.912 | 8.647 | 9.45 | 9.51 | 9.38 |
| | ISO3X | 6G | 8.940 | 8.675 | 9.47 | 9.53 | 9.40 |
| MF 10 × 1 | ISO2X | 6H | 9.153 | 8.917 | 9.55 | 9.61 | 9.49 |
| | ISO3X | 6G | 9.179 | 8.943 | 9.59 | 9.65 | 9.53 |
| MF 12 × 1.5 | ISO2X | 6H | 10.676 | 10.376 | 11.32 | 11.39 | 11.24 |
| | ISO3X | 6G | 10.708 | 10.408 | 11.35 | 11.42 | 11.27 |
| MF 12 × 1.25 | ISO2X | 6H | 10.912 | 10.647 | 11.45 | 11.51 | 11.38 |
| | ISO3X | 6G | 10.940 | 10.675 | 11.46 | 11.52 | 11.39 |
| MF 12 × 1 | ISO2X | 6H | 11.153 | 10.917 | 11.56 | 11.62 | 11.50 |
| | ISO3X | 6G | 11.179 | 10.943 | 11.57 | 11.63 | 11.51 |
| MF 14 × 1.5 | ISO2X | 6H | 12.676 | 12.376 | 13.32 | 13.39 | 13.24 |
| | ISO3X | 6G | 12.708 | 12.408 | 13.35 | 13.42 | 13.27 |
| MF 14 × 1 | ISO2X | 6H | 13.153 | 12.917 | 13.55 | 13.61 | 13.49 |
| | ISO3X | 6G | 13.179 | 12.943 | 13.57 | 13.62 | 13.51 |
| MF 16 × 1.5 | ISO2X | 6H | 14.676 | 14.376 | 15.31 | 15.38 | 15.23 |
| | ISO3X | 6G | 14.708 | 14.408 | 15.34 | 15.41 | 15.26 |
| MF 16 × 1 | ISO2X | 6H | 15.153 | 14.917 | 15.55 | 15.61 | 15.49 |
| | ISO3X | 6G | 15.179 | 14.943 | 15.56 | 15.62 | 15.50 |
| MF 18 × 1.5 | ISO2X | 6H | 16.676 | 16.376 | 17.31 | 17.38 | 17.23 |
| | ISO3X | 6G | 16.708 | 16.408 | 17.34 | 17.41 | 17.26 |
| MF 20 × 1.5 | ISO2X | 6H | 18.676 | 18.376 | 19.30 | 19.37 | 19.22 |
| | ISO3X | 6G | 18.708 | 18.408 | 19.34 | 19.41 | 19.26 |

## Miniature threads (S)

Unit: mm

| Size | Recommended Hole Size | |
|---|---|---|
| | Max. | Min. |
| S 0.6 X 0.15 | 0.55 | 0.54 |
| S 0.7 X 0.175 | 0.64 | 0.62 |
| S 0.8 X 0.2 | 0.73 | 0.71 |
| S 0.9 X 0.225 | 0.82 | 0.80 |



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## Unified Coarse Threads (UNC)

Unit: mm

| Size | Class | | Minor Diameter | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|---|
| | | | Max. | Min. | | Max. | Min. |
| No. 1 - 64 UNC | 2BX | G4 | 1.582 | 1.425 | 1.71 | 1.75 | 1.67 |
| No. 2 - 56 UNC | 2BX | G4 | 1.871 | 1.695 | 2.01 | 2.05 | 1.96 |
| No. 3 - 48 UNC | 2BX | G4 | 2.146 | 1.941 | 2.30 | 2.35 | 2.25 |
| No. 4 - 40 UNC | 2BX | G5 | 2.385 | 2.157 | 2.60 | 2.65 | 2.54 |
| No. 5 - 40 UNC | 2BX | G5 | 2.697 | 2.487 | 2.92 | 2.97 | 2.87 |
| No. 6 - 32 UNC | 2BX | G5 | 2.895 | 2.642 | 3.17 | 3.23 | 3.11 |
| No. 8 - 32 UNC | 2BX | G6 | 3.530 | 3.302 | 3.84 | 3.89 | 3.78 |
| No. 10 - 24 UNC | 2BX | G6 | 3.962 | 3.683 | 4.37 | 4.44 | 4.30 |
| No. 12 - 24 UNC | 2BX | G6 | 4.597 | 4.344 | 5.02 | 5.08 | 4.96 |
| 1/4 - 20 UNC | 2BX | G7 | 5.257 | 4.979 | 5.80 | 5.87 | 5.73 |
| 5/16 - 18 UNC | 2BX | G7 | 6.731 | 6.401 | 7.31 | 7.39 | 7.22 |
| 3/8 - 16 UNC | 2BX | G7 | 8.153 | 7.798 | 8.80 | 8.89 | 8.71 |
| 7/16 - 14 UNC | 2BX | G8 | 9.550 | 9.144 | 10.30 | 10.40 | 10.20 |
| 1/2 - 13 UNC | 2BX | G8 | 11.023 | 10.592 | 11.82 | 11.93 | 11.70 |

## Unified Fine Threads (UNF)

Unit: mm

| Size | Class | | Minor Diameter | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|---|
| | | | Max. | Min. | | Max. | Min. |
| No. 0 - 80 UNF | 2BX | G4 | 1.305 | 1.182 | 1.41 | 1.44 | 1.38 |
| No. 1 - 72 UNF | 2BX | G4 | 1.612 | 1.474 | 1.73 | 1.76 | 1.69 |
| No. 2 - 64 UNF | 2BX | G4 | 1.912 | 1.756 | 2.03 | 2.06 | 1.99 |
| No. 3 - 56 UNF | 2BX | G4 | 2.197 | 2.025 | 2.33 | 2.37 | 2.29 |
| No. 4 - 48 UNF | 2BX | G5 | 2.458 | 2.271 | 2.64 | 2.68 | 2.59 |
| No. 5 - 44 UNF | 2BX | G5 | 2.740 | 2.551 | 2.95 | 2.99 | 2.90 |
| No. 6 - 40 UNF | 2BX | G5 | 3.022 | 2.820 | 3.24 | 3.29 | 3.19 |
| No. 8 - 36 UNF | 2BX | G5 | 3.606 | 3.404 | 3.86 | 3.91 | 3.81 |
| No. 10 - 32 UNF | 2BX | G6 | 4.165 | 3.963 | 4.49 | 4.54 | 4.44 |
| No. 12 - 28 UNF | 2BX | G6 | 4.724 | 4.496 | 5.09 | 5.14 | 5.03 |
| 1/4 - 28 UNF | 2BX | G7 | 5.588 | 5.360 | 5.96 | 6.01 | 5.90 |
| 5/16 - 24 UNF | 2BX | G7 | 7.035 | 6.782 | 7.48 | 7.54 | 7.41 |
| 3/8 - 24 UNF | 2BX | G7 | 8.636 | 8.382 | 9.05 | 9.11 | 8.99 |
| 7/16 - 20 UNF | 2BX | G8 | 10.033 | 9.729 | 10.55 | 10.63 | 10.47 |
| 1/2 - 20 UNF | 2BX | G8 | 11.607 | 11.329 | 12.14 | 12.21 | 12.06 |

## Cylindrical Pipe Threads - G(BSP)

Unit: mm

| Size | Class | Minor Diameter | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|
| | | Max. | Min. | | Max. | Min. |
| G 1/8 - 28 | - | 8.848 | 8.566 | 9.29 | 9.36 | 9.22 |
| G 1/4 - 19 | - | 11.890 | 11.445 | 12.53 | 12.64 | 12.42 |
| G 3/8 - 19 | - | 15.395 | 14.950 | 16.03 | 16.14 | 15.92 |
| G 1/2 - 14 | - | 19.172 | 18.631 | 20.12 | 20.25 | 19.99 |

## Helical Coil Wire Thread Inserts Metric Coarse (EG STI M)

Unit: mm

| Size | Class | Minor Diameter | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|
| | | Max. | Min. | | Max. | Min. |
| EG(STI) M 3 × 0.5 | - | 3.220 | 3.108 | 3.43 | 3.45 | 3.40 |
| EG(STI) M 4 × 0.7 | - | 4.292 | 4.152 | 4.59 | 4.63 | 4.56 |
| EG(STI) M 5 × 0.8 | - | 5.334 | 5.174 | 5.67 | 5.71 | 5.64 |
| EG(STI) M 6 × 1 | - | 6.407 | 6.217 | 6.84 | 6.89 | 6.80 |
| EG(STI) M 8 × 1.25 | - | 8.483 | 8.271 | 9.05 | 9.10 | 8.99 |
| EG(STI) M 10 × 1.5 | - | 10.560 | 10.324 | 11.25 | 11.31 | 11.19 |
| EG(STI) M 12 × 1.75 | - | 12.644 | 12.379 | 13.45 | 13.52 | 13.39 |

## Helical Coil Wire Thread Inserts Metric Fine (EG STI MF)

Unit: mm

| Size | Class | Minor Diameter | | Drill Size | Recommended Hole Size | |
|---|---|---|---|---|---|---|
| | | Max. | Min. | | Max. | Min. |
| EG(STI) MF 10 × 1.25 | | 10.483 | 10.271 | 11.04 | 11.10 | 10.99 |
| EG(STI) MF 12 × 1.5 | | 12.560 | 12.324 | 13.25 | 13.31 | 13.18 |
| EG(STI) MF 12 × 1.25 | | 12.483 | 12.271 | 13.04 | 13.09 | 12.98 |

# 26. Bar diameter for cutting dies

## Metric Threads (M. MF)

Unit: mm

| Size | | | Major diameter of external threads ISO Max. | Major diameter of external threads ISO Min. | Major diameter of external threads old JIS Max. | Major diameter of external threads old JIS Min. | Bar Diameter ISO | Bar Diameter old JIS |
|---|---|---|---|---|---|---|---|---|
| M1 | × | 0.25 | 1.000 | 0.933 | 0.985 | 0.940 | 0.95 | 0.95 |
| MF1 | × | 0.2 | 1.000 | 0.944 | 0.980 | 0.930 | 0.96 | 0.94 |
| M1.1 | × | 0.25 | 1.100 | 1.033 | 1.100 | 1.033 | 1.05 | 1.05 |
| MF1.1 | × | 0.2 | 1.100 | 1.044 | 1.100 | 1.044 | 1.06 | 1.06 |
| M1.2 | × | 0.25 | 1.200 | 1.133 | 1.185 | 1.140 | 1.15 | 1.15 |
| MF1.2 | × | 0.2 | 1.200 | 1.144 | 1.180 | 1.130 | 1.16 | 1.14 |
| M1.4 | × | 0.3 | 1.400 | 1.325 | 1.380 | 1.320 | 1.34 | 1.34 |
| MF1.4 | × | 0.2 | 1.400 | 1.344 | 1.380 | 1.330 | 1.36 | 1.34 |
| M1.6 | × | 0.35 | 1.581 | 1.496 | 1.581 | 1.496 | 1.52 | 1.52 |
| MF1.6 | × | 0.2 | 1.583 | 1.527 | 1.583 | 1.527 | 1.54 | 1.54 |
| M1.7 | × | 0.35 | 1.681 | 1.596 | 1.680 | 1.610 | 1.62 | 1.63 |
| MF1.7 | × | 0.2 | 1.683 | 1.627 | 1.680 | 1.630 | 1.64 | 1.64 |
| M1.8 | × | 0.35 | 1.781 | 1.696 | 1.781 | 1.696 | 1.72 | 1.72 |
| MF1.8 | × | 0.2 | 1.783 | 1.727 | 1.783 | 1.727 | 1.74 | 1.74 |
| M2 | × | 0.4 | 1.981 | 1.886 | 1.980 | 1.890 | 1.91 | 1.91 |
| MF2 | × | 0.25 | 1.982 | 1.915 | 1.980 | 1.930 | 1.93 | 1.94 |
| M2.2 | × | 0.45 | 2.180 | 2.080 | 2.180 | 2.080 | 2.11 | 2.11 |
| MF2.2 | × | 0.25 | 2.182 | 2.115 | 2.182 | 2.115 | 2.13 | 2.13 |
| M2.3 | × | 0.4 | 2.281 | 2.186 | 2.280 | 2.190 | 2.21 | 2.21 |
| MF2.3 | × | 0.25 | 2.282 | 2.215 | 2.280 | 2.230 | 2.23 | 2.24 |
| M2.5 | × | 0.45 | 2.480 | 2.380 | 2.480 | 2.380 | 2.41 | 2.41 |
| MF2.5 | × | 0.35 | 2.481 | 2.396 | 2.481 | 2.396 | 2.42 | 2.42 |
| M2.6 | × | 0.45 | 2.580 | 2.480 | 2.580 | 2.480 | 2.51 | 2.51 |
| MF2.6 | × | 0.35 | 2.581 | 2.496 | 2.580 | 2.480 | 2.52 | 2.51 |
| M3 | × | 0.5 | 2.980 | 2.874 | 2.980 | 2.874 | 2.90 | 2.90 |
| MF3 | × | 0.35 | 2.981 | 2.896 | 2.980 | 2.880 | 2.92 | 2.91 |
| M3.5 | × | 0.6 | 3.479 | 3.354 | 3.470 | 3.360 | 3.39 | 3.39 |
| MF3.5 | × | 0.35 | 3.481 | 3.396 | 3.480 | 3.380 | 3.42 | 3.41 |
| M4 | × | 0.7 | 3.978 | 3.838 | 3.978 | 3.838 | 3.87 | 3.87 |
| MF4 | × | 0.5 | 3.980 | 3.874 | 3.970 | 3.860 | 3.90 | 3.89 |
| M4.5 | × | 0.75 | 4.478 | 4.338 | 4.470 | 4.340 | 4.37 | 4.37 |
| MF4.5 | × | 0.5 | 4.480 | 4.374 | 4.470 | 4.360 | 4.40 | 4.39 |
| M5 | × | 0.8 | 4.976 | 4.826 | 4.976 | 4.826 | 4.86 | 4.86 |
| MF5 | × | 0.5 | 4.980 | 4.874 | 4.970 | 4.860 | 4.90 | 4.89 |
| MF5.5 | × | 0.5 | 5.480 | 5.374 | 5.470 | 5.360 | 5.40 | 5.39 |
| M6 | × | 1 | 5.974 | 5.794 | 5.970 | 5.820 | 5.84 | 5.86 |
| MF6 | × | 0.75 | 5.978 | 5.838 | 5.970 | 5.850 | 5.87 | 5.88 |
| M7 | × | 1 | 6.974 | 6.794 | 6.970 | 6.820 | 6.84 | 6.86 |
| MF7 | × | 0.75 | 6.978 | 6.838 | 6.970 | 6.850 | 6.87 | 6.88 |
| M8 | × | 1.25 | 7.972 | 7.760 | 7.960 | 7.790 | 7.81 | 7.83 |
| MF8 | × | 1 | 7.974 | 7.794 | 7.970 | 7.830 | 7.84 | 7.87 |
| MF8 | × | 0.75 | 7.978 | 7.838 | 7.970 | 7.830 | 7.87 | 7.87 |
| M9 | × | 1.25 | 8.972 | 8.760 | 8.960 | 8.790 | 8.81 | 8.83 |
| MF9 | × | 1 | 8.974 | 8.794 | 8.970 | 8.830 | 8.84 | 8.87 |
| MF9 | × | 0.75 | 8.978 | 8.838 | 8.970 | 8.830 | 8.87 | 8.87 |
| M10 | × | 1.5 | 9.968 | 9.732 | 9.960 | 9.770 | 9.79 | 9.82 |
| MF10 | × | 1.25 | 9.972 | 9.760 | 9.960 | 9.810 | 9.81 | 9.85 |
| MF10 | × | 1 | 9.974 | 9.794 | 9.970 | 9.820 | 9.84 | 9.86 |
| MF10 | × | 0.75 | 9.978 | 9.838 | 9.978 | 9.838 | 9.87 | 9.87 |
| M11 | × | 1.5 | 10.968 | 10.732 | 10.968 | 10.732 | 10.79 | 10.79 |

| Size | | | Major diameter of external threads ISO Max. | Major diameter of external threads ISO Min. | Major diameter of external threads old JIS Max. | Major diameter of external threads old JIS Min. | Bar Diameter ISO | Bar Diameter old JIS |
|---|---|---|---|---|---|---|---|---|
| MF11 | × | 1 | 10.974 | 10.794 | 10.970 | 10.820 | 10.84 | 10.86 |
| MF11 | × | 0.75 | 10.978 | 10.838 | 10.978 | 10.838 | 10.87 | 10.87 |
| M12 | × | 1.75 | 11.966 | 11.701 | 11.950 | 11.760 | 11.8 | 11.8 |
| MF12 | × | 1.5 | 11.968 | 11.732 | 11.960 | 11.790 | 11.8 | 11.8 |
| MF12 | × | 1.25 | 11.972 | 11.760 | 11.972 | 11.760 | 11.8 | 11.8 |
| MF12 | × | 1 | 11.974 | 11.794 | 11.960 | 11.810 | 11.84 | 11.85 |
| M14 | × | 2 | 13.962 | 13.682 | 13.950 | 13.740 | 13.8 | 13.8 |
| MF14 | × | 1.5 | 13.968 | 13.732 | 13.960 | 13.790 | 13.8 | 13.8 |
| MF14 | × | 1 | 13.974 | 13.794 | 13.960 | 13.810 | 13.84 | 13.85 |
| MF15 | × | 1.5 | 14.968 | 14.732 | 14.960 | 14.790 | 14.8 | 14.8 |
| MF15 | × | 1 | 14.974 | 14.794 | 14.960 | 14.810 | 14.84 | 14.85 |
| M16 | × | 2 | 15.962 | 15.682 | 15.950 | 15.740 | 15.8 | 15.8 |
| MF16 | × | 1.5 | 15.968 | 15.732 | 15.960 | 15.790 | 15.8 | 15.8 |
| MF16 | × | 1 | 15.974 | 15.794 | 15.960 | 15.810 | 15.84 | 15.85 |
| MF17 | × | 1.5 | 16.968 | 16.732 | 16.968 | 16.732 | 16.8 | 16.8 |
| MF17 | × | 1 | 16.974 | 16.794 | 16.974 | 16.794 | 16.84 | 16.84 |
| M18 | × | 2.5 | 17.958 | 17.623 | 17.950 | 17.710 | 17.7 | 17.8 |
| MF18 | × | 2 | 17.962 | 17.682 | 17.950 | 17.650 | 17.8 | 17.7 |
| MF18 | × | 1.5 | 17.968 | 17.732 | 17.950 | 17.780 | 17.8 | 17.8 |
| MF18 | × | 1 | 17.974 | 17.794 | 17.960 | 17.810 | 17.84 | 17.85 |
| M20 | × | 2.5 | 19.958 | 19.623 | 19.950 | 19.710 | 19.7 | 19.8 |
| MF20 | × | 2 | 19.962 | 19.682 | 19.950 | 19.650 | 19.8 | 19.7 |
| MF20 | × | 1.5 | 19.968 | 19.732 | 19.950 | 19.780 | 19.8 | 19.8 |
| MF20 | × | 1 | 19.974 | 19.794 | 19.960 | 19.810 | 19.84 | 19.85 |
| M22 | × | 2.5 | 21.958 | 21.623 | 21.950 | 21.710 | 21.7 | 21.8 |
| MF22 | × | 2 | 21.962 | 21.682 | 21.950 | 21.650 | 21.8 | 21.7 |
| MF22 | × | 1.5 | 21.968 | 21.732 | 21.950 | 21.780 | 21.8 | 21.8 |
| MF22 | × | 1 | 21.974 | 21.794 | 21.960 | 21.810 | 21.84 | 21.85 |
| M24 | × | 3 | 23.952 | 23.577 | 23.940 | 23.680 | 23.7 | 23.7 |
| MF24 | × | 2 | 23.962 | 23.682 | 23.940 | 23.640 | 23.8 | 23.7 |
| MF24 | × | 1.5 | 23.968 | 23.732 | 23.950 | 23.780 | 23.8 | 23.8 |
| MF24 | × | 1 | 23.974 | 23.794 | 23.960 | 23.810 | 23.84 | 23.85 |
| MF25 | × | 2 | 24.962 | 24.682 | 24.940 | 24.640 | 24.8 | 24.7 |
| MF25 | × | 1.5 | 24.968 | 24.732 | 24.950 | 24.780 | 24.8 | 24.8 |
| MF25 | × | 1 | 24.974 | 24.794 | 24.960 | 24.810 | 24.84 | 24.85 |
| MF26 | × | 1.5 | 25.968 | 25.732 | 25.950 | 25.780 | 25.8 | 25.8 |
| M27 | × | 3 | 26.952 | 26.577 | 26.940 | 26.680 | 26.7 | 26.7 |
| MF27 | × | 2 | 26.962 | 26.682 | 26.962 | 26.682 | 26.8 | 26.8 |
| MF27 | × | 1.5 | 26.968 | 26.732 | 26.950 | 26.780 | 26.8 | 26.8 |
| MF27 | × | 1 | 26.974 | 26.794 | 26.974 | 26.794 | 26.84 | 26.84 |
| MF28 | × | 2 | 27.962 | 27.682 | 27.940 | 27.640 | 27.8 | 27.7 |
| MF28 | × | 1.5 | 27.968 | 27.732 | 27.950 | 27.780 | 27.8 | 27.8 |
| MF28 | × | 1 | 27.974 | 27.794 | 27.960 | 27.810 | 27.84 | 27.85 |
| M30 | × | 3.5 | 29.947 | 29.522 | 29.940 | 29.660 | 29.6 | 29.7 |
| MF30 | × | 3 | 29.952 | 29.577 | 29.952 | 29.577 | 29.7 | 29.7 |
| MF30 | × | 2 | 29.962 | 29.682 | 29.940 | 29.640 | 29.8 | 29.7 |
| MF30 | × | 1.5 | 29.968 | 29.732 | 29.950 | 29.780 | 29.8 | 29.8 |
| MF30 | × | 1 | 29.974 | 29.794 | 29.960 | 29.810 | 29.84 | 29.85 |
| MF32 | × | 2 | 31.962 | 31.682 | 31.940 | 31.640 | 31.8 | 31.7 |
| MF32 | × | 1.5 | 31.968 | 31.732 | 31.950 | 31.780 | 31.8 | 31.8 |



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Unit: mm

| Size | | | Major diameter of external threads | | | | Bar Diameter | |
|---|---|---|---|---|---|---|---|---|
| | | | ISO | | old JIS | | | |
| | | | Max. | Min. | Max. | Min. | ISO | old JIS |
| M33 | × | 3.5 | 32.947 | 32.522 | 32.940 | 32.660 | 32.6 | 32.7 |
| MF33 | × | 3 | 32.952 | 32.577 | 32.952 | 32.577 | 32.7 | 32.7 |
| MF33 | × | 2 | 32.962 | 32.682 | 32.962 | 32.682 | 32.8 | 32.8 |
| MF33 | × | 1.5 | 32.968 | 32.732 | 32.950 | 32.780 | 32.8 | 32.8 |
| MF35 | × | 1.5 | 34.968 | 34.732 | 34.950 | 34.780 | 34.8 | 34.8 |
| M36 | × | 4 | 35.940 | 35.465 | 35.930 | 35.630 | 35.6 | 35.7 |
| MF36 | × | 3 | 35.952 | 35.577 | 35.952 | 35.577 | 35.7 | 35.7 |
| MF36 | × | 2 | 35.962 | 35.682 | 35.940 | 35.640 | 35.8 | 35.7 |
| MF36 | × | 1.5 | 35.968 | 35.732 | 35.950 | 35.780 | 35.8 | 35.8 |
| MF38 | × | 1.5 | 37.968 | 37.732 | 37.950 | 37.780 | 37.8 | 37.8 |
| M39 | × | 4 | 38.940 | 38.465 | 38.930 | 38.630 | 38.6 | 38.7 |
| MF39 | × | 3 | 38.952 | 38.577 | 38.952 | 38.577 | 38.7 | 38.7 |
| MF39 | × | 2 | 38.962 | 38.682 | 38.962 | 38.682 | 38.8 | 38.8 |
| MF39 | × | 1.5 | 38.968 | 38.732 | 38.968 | 38.732 | 38.8 | 38.8 |
| MF40 | × | 3 | 39.952 | 39.577 | 39.952 | 39.577 | 39.7 | 39.7 |
| MF40 | × | 2 | 39.962 | 39.682 | 39.940 | 39.640 | 39.8 | 39.7 |
| MF40 | × | 1.5 | 39.968 | 39.732 | 39.950 | 39.780 | 39.8 | 39.8 |
| M42 | × | 4.5 | 41.937 | 41.437 | 41.930 | 41.610 | 41.6 | 41.7 |
| MF42 | × | 4 | 41.940 | 41.465 | 41.940 | 41.465 | 41.6 | 41.6 |
| MF42 | × | 3 | 41.952 | 41.577 | 41.952 | 41.577 | 41.7 | 41.7 |
| MF42 | × | 2 | 41.962 | 41.682 | 41.940 | 41.640 | 41.8 | 41.7 |
| MF42 | × | 1.5 | 41.968 | 41.732 | 41.950 | 41.780 | 41.8 | 41.8 |
| M45 | × | 4.5 | 44.937 | 44.437 | 44.930 | 44.610 | 44.6 | 44.7 |
| MF45 | × | 4 | 44.940 | 44.465 | 44.940 | 44.465 | 44.6 | 44.6 |
| MF45 | × | 3 | 44.952 | 44.577 | 44.952 | 44.577 | 44.7 | 44.7 |
| MF45 | × | 2 | 44.962 | 44.682 | 44.940 | 44.640 | 44.8 | 44.7 |
| MF45 | × | 1.5 | 44.968 | 44.732 | 44.950 | 44.780 | 44.8 | 44.8 |
| M48 | × | 5 | 47.929 | 47.399 | 47.930 | 47.590 | 47.5 | 47.7 |
| MF48 | × | 4 | 47.940 | 47.465 | 47.940 | 47.465 | 47.6 | 47.6 |
| MF48 | × | 3 | 47.952 | 47.577 | 47.952 | 47.577 | 47.7 | 47.7 |
| MF48 | × | 2 | 47.962 | 47.682 | 47.940 | 47.640 | 47.8 | 47.7 |
| MF48 | × | 1.5 | 47.968 | 47.732 | 47.950 | 47.780 | 47.8 | 47.8 |

## Unified Threads (UNC/UNF) 2A class

Unit: mm

| Size | Major diameter of external threads | | Bar Diameter |
|---|---|---|---|
| | Max. | Min. | |
| No.0-80UNF | 1.511 | 1.431 | 1.45 |
| No.1-64UNC | 1.838 | 1.743 | 1.77 |
| No.1-72UNF | 1.838 | 1.751 | 1.77 |
| No.2-56UNC | 2.169 | 2.066 | 2.09 |
| No.2-64UNF | 2.169 | 2.073 | 2.10 |
| No.3-48UNC | 2.496 | 2.383 | 2.41 |
| No.3-56UNF | 2.496 | 2.393 | 2.42 |
| No.4-40UNC | 2.824 | 2.695 | 2.73 |
| No.4-48UNF | 2.827 | 2.713 | 2.74 |
| No.5-40UNC | 3.154 | 3.026 | 3.06 |
| No.5-44UNF | 3.157 | 3.036 | 3.07 |
| No.6-32UNC | 3.484 | 3.333 | 3.37 |
| No.6-40UNF | 3.484 | 3.356 | 3.39 |
| No.8-32UNC | 4.142 | 3.991 | 4.03 |
| No.8-36UNF | 4.145 | 4.006 | 4.04 |
| No.10-24UNC | 4.800 | 4.618 | 4.66 |
| No.10-32UNF | 4.803 | 4.651 | 4.69 |
| No.12-24UNC | 5.461 | 5.279 | 5.32 |
| No.12-28UNF | 5.461 | 5.296 | 5.34 |
| 1/4-20UNC | 6.322 | 6.117 | 6.17 |
| 1/4-28UNF | 6.324 | 6.160 | 6.20 |
| 5/16-18UNC | 7.907 | 7.687 | 7.74 |
| 5/16-24UNF | 7.909 | 7.727 | 7.77 |
| 3/8-16UNC | 9.491 | 9.254 | 9.31 |
| 3/8-24UNF | 9.497 | 9.315 | 9.36 |
| 7/16-14UNC | 11.076 | 10.816 | 10.88 |
| 7/16-20UNF | 11.079 | 10.874 | 10.93 |
| 1/2-13UNC | 12.611 | 12.386 | 12.4 |
| 1/2-20UNF | 12.666 | 12.462 | 12.5 |
| 9/16-12UNC | 14.246 | 13.958 | 14.0 |
| 9/16-18UNF | 14.251 | 14.031 | 14.1 |
| 5/8-11UNC | 15.834 | 15.528 | 15.6 |
| 5/8-18UNF | 15.839 | 15.619 | 15.7 |
| 3/4-10UNC | 19.004 | 18.677 | 18.8 |
| 3/4-16UNF | 19.011 | 18.774 | 18.8 |
| 7/8-9UNC | 22.176 | 21.824 | 21.9 |
| 7/8-14UNF | 22.184 | 21.923 | 22.0 |
| 1-8UNC | 25.349 | 24.969 | 25.1 |
| 1-12UNF | 25.354 | 25.065 | 25.1 |
| 1 1/8-7UNC | 28.519 | 28.103 | 28.2 |
| 1 1/8-12UNF | 28.529 | 28.240 | 28.3 |
| 1 1/4-7UNC | 31.694 | 31.278 | 31.4 |
| 1 1/4-12UNF | 31.704 | 31.415 | 31.5 |
| 1 3/8-6UNC | 34.864 | 34.402 | 34.5 |
| 1 3/8-12UNF | 34.876 | 34.588 | 34.7 |
| 1 1/2-6UNC | 38.039 | 37.577 | 37.7 |
| 1 1/2-12UNF | 38.051 | 37.763 | 37.8 |
| 1 3/4-5UNC | 44.381 | 43.861 | 44.0 |
| 2-4.5UNC | 50.726 | 50.168 | 50.3 |



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## Parallel pipe threads (PF - G) A class

Unit: mm

| Size | Major diameter of external threads | | Bar Diameter |
|---|---|---|---|
| | Max. | Min. | |
| PF 1/16 - 28 | 7.723 | 7.509 | 7.56 |
| PF 1/8 - 28 | 9.728 | 9.514 | 9.57 |
| PF 1/4 - 19 | 13.157 | 12.907 | 13.00 |
| PF 3/8 - 19 | 16.662 | 16.412 | 16.50 |
| PF 1/2 - 14 | 20.955 | 20.671 | 20.70 |
| PF 5/8 - 14 | 22.911 | 22.627 | 22.70 |
| PF 3/4 - 14 | 26.441 | 26.157 | 26.20 |
| PF 7/8 - 14 | 30.201 | 29.917 | 30.00 |
| PF 1 - 11 | 33.249 | 32.889 | 33.00 |
| PF 1 1/8 - 11 | 37.897 | 37.537 | 37.60 |
| PF 1 1/4 - 11 | 41.910 | 41.550 | 41.60 |
| PF 1 1/2 - 11 | 47.803 | 47.443 | 47.50 |
| PF 2 - 11 | 59.614 | 59.254 | 59.30 |

## Taper Pipe Threads (PT. R)

Unit: mm

| Size | Bar diameter | |
|---|---|---|
| | Taper (dia of threads end) | Straight |
| PT 1/16 - 28 | 7.5 | 7.9 |
| PT 1/8 - 28 | 9.5 | 9.9 |
| PT 1/4 - 19 | 12.8 | 13.4 |
| PT 3/8 - 19 | 16.3 | 16.9 |
| PT 1/2 - 14 | 20.5 | 21.3 |
| PT 3/4 - 14 | 25.9 | 26.8 |
| PT 1 - 11 | 32.7 | 33.7 |
| PT 1 1/4 - 11 | 41.2 | 42.3 |
| PT 1 1/2 - 11 | 47.1 | 48.2 |
| PT 2 - 11 | 58.7 | 60.1 |

# 27. Lineup arranged by size

| M | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M1X0.25 | | | | J | J | | | | | | D - J |
| M1.1X0.25 | | | | J | | | | | | | D - J |
| M1.2X0.25 | J | | J | J | J | | | | | | D - J |
| M1.4X0.3 | J | | D - J | J | J | J | | | | | D - J |
| M1.6X0.35 | J | | D - J | J | J | J | | | | | D - J |
| M1.7X0.35 | J | | J | J | J | J | | | | | D - J |
| M1.8X0.35 | J | | J | J | J | | | | | | D - J |
| M2X0.4 | D - J | | D - J | D - J | D - J | J | J | | | J | D - J |
| M2.2X0.45 | D - J | | D - J | J | J | J | | | | | D - J |
| M2.3X0.4 | J | | D - J | J | J | J | J | | | J | D - J |
| M2.5X0.45 | D - J | | D - J | D - J | D - J | J | J | | | J | D - J |
| M2.6X0.45 | D - J | | D - J | J | J | J | J | | | J | D - J |
| 3M0.6 | J | | J | J | | | | | | J | |
| M3X0.5 | D - J | D | D - J | D - J | D - J | D - J | J | | | D - J | D - J |
| M3.5X0.6 | D - J | | D - J | J | D - J | J | | | | J | D - J |
| 4M0.75 | J | | J | J | | | | | | J | |
| M4X0.7 | D - J | D | D - J | D - J | D - J | D - J | J | | | D - J | D - J |
| M4.5X0.75 | J | | J | J | | | | | | J | |
| 5M0.9 | J | | J | J | | | | | | J | |
| M5X0.8 | D - J | D | D - J | D - J | D - J | D - J | J | | | D - J | D - J |
| M5.5X0.9 | J | | J | J | | | | | | J | |
| M6X1 | D - J | D | D - J | D - J | D - J | D - J | J | | | D - J | D - J |
| M7X1 | D - J | | D - J | J | J | J | | | | J | D |
| M8X1.25 | D - J | D | D - J | D - J | D - J | D - J | J | | | D - J | D - J |
| M9X1.25 | D - J | | D - J | J | | | | | | J | D |
| M10X1.5 | D - J | D | D - J | D - J | D - J | D - J | J | | | D - J | D - J |
| M11X1.5 | D - J | | D - J | J | | | | | | | D |
| M12X1.75 | D - J | D | D - J | D - J | D - J | D - J | J | | | J | D |
| M14X2 | D - J | D | D - J | D - J | D - J | D - J | J | | | J | D |
| M16X2 | D - J | D | D - J | D - J | D - J | D - J | J | | | J | D |
| M18X2.5 | D - J | D | D - J | D - J | | D - J | J | | | J | D |
| M20X2.5 | D - J | D | D - J | D - J | J | D - J | J | | | J | D |
| M22X2.5 | D - J | | D - J | D - J | | J | J | | | J | D |
| M24X3 | D - J | | D - J | D - J | | J | J | | | J | D |
| M27X3 | D - J | | D - J | J | | | J | | | J | D |
| M30X3.5 | D - J | | D - J | J | | J | J | | | J | D |
| M33X3.5 | D - J | | D - J | J | | | J | | | J | D |
| M36X4 | D - J | | D - J | J | | | J | | | J | D |
| M39X4 | D - J | | D - J | J | | | J | | | J | |
| M42X4.5 | D - J | | D - J | J | | | J | | | J | |
| M45X4.5 | D - J | | D - J | J | | | J | | | | |
| M48X5 | D - J | | D - J | J | | | J | | | | |
| M52X5 | J | | | J | | | | | | | |
| M56X5.5 | J | | | J | | | | | | | |
| M60X5.5 | J | | | J | | | | | | | |
| M64X6 | J | | | J | | | | | | | |
| M68X6 | | | | J | | | | | | | |
| M70X6 | | | | J | | | | | | | |
| M72X6 | | | | J | | | | | | | |
| M76X6 | | | | J | | | | | | | |
| M80X6 | | | | J | | | | | | | |
| M85X6 | | | | J | | | | | | | |
| M90X6 | | | | J | | | | | | | |
| M95X6 | | | | J | | | | | | | |
| M100X6 | | | | J | | | | | | | |

**D** = available in DIN standard, **J** = available in JIS standard, **A** = available in ANSI standard



Think threads with YAMAWA
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| MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M1X0.2 | | | | J | | | | | | | |
| M1.1X0.2 | | | | J | | | | | | | |
| M1.2X0.2 | | | | J | | | | | | | |
| M1.4X0.2 | | | | J | J | | | | | | |
| M1.6X0.2 | | | | J | J | | | | | | |
| M1.7X0.2 | | | | J | | | | | | | |
| M1.8X0.2 | | | | J | | | | | | | |
| M2X0.25 | J | | J | J | J | | | | | | D - J |
| M2.2X0.25 | | | J | J | | | | | | | |
| M2.3X0.25 | J | | | J | | | | | | | |
| M2.5X0.35 | J | | J | J | J | | | | | | D - J |
| M2.6X0.35 | J | | J | J | J | | | | | | J |
| M3X0.35 | D - J | | D - J | J | J | J | | | | | D - J |
| M3.5X0.35 | J | | J | J | J | | | | | | |
| M4X0.5 | D - J | | D - J | J | J | J | | | | | D - J |
| M4.5X0.5 | J | | J | J | | | | | | | |
| M5X0.75 | J | | | J | | | | | | | |
| M5X0.5 | D - J | | D - J | J | J | J | | | | | D - J |
| M5.5X0.75 | | | | J | | | | | | | |
| M5.5X0.5 | J | | J | J | | | | | | | |
| M6X0.75 | D - J | | D - J | J | J | J | J | | | J | D - J |
| M6X0.5 | D - J | | D - J | J | J | J | | | | | D - J |
| M6.5X0.5 | | | | J | | | | | | | |
| M7X0.75 | D - J | | D - J | J | J | J | | | | | D - J |
| M7X0.5 | D - J | | D - J | J | | | | | | | J |
| M7.5X0.5 | | | | J | | | | | | | |
| M8X1 | D - J | D | D - J | D - J | J | J | J | | | J | D - J |
| M8X0.75 | D - J | | D - J | J | J | J | J | | | J | D - J |
| M8X0.5 | D - J | | D - J | J | | | | | | | D - J |
| M8.5X1 | | | | J | | | | | | | |
| M8.5X0.75 | | | | J | | | | | | | |
| M8.5X0.5 | | | | J | | | | | | | |
| M9X1 | D - J | | D - J | J | | | | | | J | D - J |
| M9X0.75 | J | | J | J | | | | | | | J |
| M9X0.5 | J | | J | J | | | | | | | |
| M9.5X1 | | | | J | | | | | | | |
| M9.5X0.75 | | | | J | | | | | | | |
| M9.5X0.5 | | | | J | | | | | | | |
| M10X1.25 | D - J | D | D - J | D - J | D - J | J | J | | | J | D - J |
| M10X1 | D - J | D | D - J | D - J | J | J | J | | | J | D - J |
| M10X0.75 | D - J | | D - J | J | | | J | | | | D |
| M10X0.5 | J | | J | J | | | | | | | D |
| M11X1.25 | J | | J | J | | | | | | | |
| M11X1 | J | | J | J | | | | | | | |
| M11X0.75 | J | | J | J | | | | | | | |
| M11X0.5 | | | J | J | | | | | | | |
| M12X1.5 | D - J | D | D - J | D - J | D - J | J | J | | | J | D |
| M12X1.25 | D - J | D | D - J | D - J | D - J | J | J | | | J | D |
| M12X1 | D - J | | D - J | D - J | J | J | J | | | J | D |
| M12X0.75 | J | | J | J | | | | | | | D |
| M12X0.5 | J | | J | J | | | | | | | D |
| M13X1.75 | J | | J | J | | | | | | | |
| M13X1.5 | J | | J | J | | | | | | | |
| M13X1.25 | J | | | J | | | | | | | |
| M13X1 | J | | J | J | | | | | | | |

| MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M13X0.75 | | | J | J | | | | | | | |
| M13X0.5 | | | J | J | | | | | | | |
| M14X1.75 | | | | J | | | | | | | |
| M14X1.5 | D - J | D | D - J | D - J | D - J | J | J | | | J | D |
| M14X1.25 | D - J | | D - J | J | | J | | | | J | D |
| M14X1 | D - J | | D - J | J | J | J | J | | | J | D |
| M14X0.75 | | | J | J | | | | | | | |
| M14X0.5 | | | J | J | | | | | | | |
| M15X2 | J | | J | J | | | | | | | |
| M15X1.5 | J | | J | J | | | | | | | D |
| M15X1.25 | | | | J | | | | | | | |
| M15X1 | J | | J | J | | | | | | | |
| M15X0.75 | | | | J | | | | | | | |
| M15X0.5 | | | | J | | | | | | | |
| M16X1.5 | D - J | D | D - J | D - J | D - J | J | J | | | J | D |
| M16X1.25 | J | | J | J | | | | | | | |
| M16X1 | D - J | | D - J | J | J | J | J | | | J | D |
| M16X0.75 | | | | J | | | | | | | |
| M16X0.5 | | | | J | | | | | | | |
| M17X2 | | | | J | | | | | | | |
| M17X1.5 | J | | J | J | | | | | | | |
| M17X1.25 | | | | J | | | | | | | |
| M17X1 | J | | J | J | | | | | | | |
| M17X0.75 | | | | J | | | | | | | |
| M17X0.5 | | | | J | | | | | | | |
| M18X2 | D - J | | D - J | J | | | J | | | J | D |
| M18X1.5 | D - J | D | D - J | D - J | D - J | J | J | | | J | D |
| M18X1.25 | J | | J | J | | | | | | | |
| M18X1 | D - J | | D - J | J | | | | | | J | D |
| M18X0.75 | | | | J | | | | | | | |
| M18X0.5 | | | | J | | | | | | | |
| M19X2.5 | | | | J | | | | | | | |
| M19X2 | | | | J | | | | | | | |
| M19X1.5 | J | | J | J | | | | | | | |
| M19X1 | J | | J | J | | | | | | | |
| M19X0.75 | | | | J | | | | | | | |
| M19X0.5 | | | | J | | | | | | | |
| M20X2 | D - J | | D - J | J | | | J | | | J | D |
| M20X1.5 | D - J | D | D - J | D - J | D - J | J | J | | | J | D |
| M20X1.25 | J | | | J | | | | | | | |
| M20X1 | D - J | | D - J | J | | | | | | J | D |
| M20X0.75 | | | | J | | | | | | | |
| M20X0.5 | | | | J | | | | | | | |
| M21X2 | | | | J | | | | | | | |
| M21X1.5 | | | | J | | | | | | | |
| M21X1 | | | | J | | | | | | | |
| M22X2 | D - J | | D - J | J | | | J | | | | D |
| M22X1.5 | D - J | | D - J | D - J | | J | J | | | J | D |
| M22X1.25 | | | | J | | | | | | | |
| M22X1 | D - J | | D - J | J | | | | | | | D |
| M22X0.75 | | | | J | | | | | | | |
| M22X0.5 | | | | J | | | | | | | |
| M23X2 | | | | J | | | | | | | |
| M23X1.5 | J | | | J | | | | | | | |
| M23X1 | | | | J | | | | | | | |

**D** = available in DIN standard, **J** = available in JIS standard, **A** = available in ANSI standard



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| MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M24X2 | D - J | | D - J | J | | | J | | | J | D |
| M24X1.5 | D - J | | D - J | D - J | | J | J | | | J | D |
| M24X1.25 | | | | J | | | | | | | |
| M24X1 | D - J | | D - J | J | | | | | | | D |
| M24X0.75 | | | | J | | | | | | | |
| M24X0.5 | | | | J | | | | | | | |
| M25X3 | | | | J | | | | | | | |
| M25X2 | J | | J | J | | | | | | J | |
| M25X1.5 | D - J | | D - J | J | | | | | | J | |
| M25X1 | J | | J | J | | | | | | | |
| M26X3 | J | | J | J | | | | | | | |
| M26X2 | J | | J | J | | | | | | | |
| M26X1.5 | D - J | | D - J | J | | | | | | J | D |
| M26X1 | J | | J | J | | | | | | | |
| M27X2 | D - J | | D - J | J | | | J | | | J | D |
| M27X1.5 | D - J | | D - J | J | | | J | | | J | D |
| M27X1 | D - J | | D - J | J | | | | | | | D |
| M28X3 | | | | J | | | | | | | |
| M28X2 | D - J | | D - J | J | | | | | | | D |
| M28X1.5 | D - J | | D - J | J | | | | | | J | D |
| M28X1 | D - J | | D - J | J | | | | | | | |
| M29X1.5 | | | | J | | | | | | | |
| M30X3 | D - J | | J | J | | | J | | | | |
| M30X2 | D - J | | D - J | J | | | J | | | J | |
| M30X1.5 | D - J | | D - J | J | | | J | | | J | D |
| M30X1 | D - J | | D - J | J | | | | | | | |
| M32X3.5 | | | | J | | | | | | | |
| M32X3 | J | | J | J | | | | | | | |
| M32X2 | D - J | | D - J | J | | | | | | | |
| M32X1.5 | D - J | | D - J | J | | | | | | | |
| M32X1 | D - J | | D | J | | | | | | | |
| M33X3 | D - J | | J | J | | | J | | | | |
| M33X2 | D - J | | D - J | J | | | J | | | | |
| M33X1.5 | D - J | | D - J | J | | | J | | | | |
| M33X1 | D - J | | D | J | | | | | | | |
| M34X3 | J | | | J | | | | | | | |
| M34X2 | J | | J | J | | | | | | | |
| M34X1.5 | J | | J | J | | | | | | | |
| M34X1 | J | | | J | | | | | | | |
| M35X3 | J | | | J | | | | | | | |
| M35X2 | J | | J | J | | | | | | | |
| M35X1.5 | D - J | | J | J | | | | | | | |
| M35X1 | J | | | J | | | | | | | |
| M36X3 | D - J | | D - J | J | | | J | | | | |
| M36X2 | D - J | | D - J | J | | | J | | | | |
| M36X1.5 | D - J | | D - J | J | | | J | | | | |
| M36X1 | D - J | | D | J | | | | | | | |
| M37X1.5 | | | | J | | | | | | | |
| M38X3 | J | | | J | | | | | | | |
| M38X2 | J | | J | J | | | | | | | |
| M38X1.5 | J | | J | J | | | | | | | |
| M38X1 | | | | J | | | | | | | |
| M39X3 | D - J | | J | J | | | J | | | | |
| M39X2 | D - J | | J | J | | | J | | | | |
| M39X1.5 | D - J | | J | J | | | J | | | | |

| MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M39X1 | D | | | J | | | | | | | |
| M40X4 | | | | J | | | | | | | |
| M40X3 | J | | J | J | | | J | | | | |
| M40X2 | J | | J | J | | | J | | | | |
| M40X1.5 | J | | J | J | | | J | | | | |
| M40X1 | | | | J | | | | | | | |
| M42X4 | | | | J | | | | | | | |
| M42X3 | D - J | | J | J | | | J | | | | |
| M42X2 | D - J | | J | J | | | J | | | | |
| M42X1.5 | D - J | | J | J | | | J | | | | |
| M42X1 | D | | | J | | | | | | | |
| M44X4 | | | | J | | | | | | | |
| M44X3 | | | | J | | | | | | | |
| M44X2 | | | | J | | | | | | | |
| M44X1.5 | | | | J | | | | | | | |
| M44X1 | | | | J | | | | | | | |
| M45X4 | | | | J | | | | | | | |
| M45X3 | D - J | | J | J | | | J | | | | |
| M45X2 | D - J | | J | J | | | J | | | | |
| M45X1.5 | D - J | | J | J | | | J | | | | |
| M45X1 | D | | | J | | | | | | | |
| M46X4 | | | | J | | | | | | | |
| M46X3 | | | | J | | | | | | | |
| M46X2 | | | | J | | | | | | | |
| M46X1.5 | | | | J | | | | | | | |
| M48X4 | J | | | J | | | | | | | |
| M48X3 | D - J | | J | J | | | J | | | | |
| M48X2 | D - J | | J | J | | | J | | | | |
| M48X1.5 | D - J | | J | J | | | J | | | | |
| M48X1 | D | | | J | | | | | | | |
| M50X5 | | | | J | | | | | | | |
| M50X4 | | | | J | | | | | | | |
| M50X3 | | | | J | | | | | | | |
| M50X2 | | | | J | | | | | | | |
| M50X1.5 | | | J | J | | | | | | | |
| M50X1 | | | | J | | | | | | | |
| M52X4 | | | | J | | | | | | | |
| M52X3 | | | | J | | | | | | | |
| M52X2 | | | | J | | | | | | | |
| M52X1.5 | | | | J | | | | | | | |
| M55X4 | | | | J | | | | | | | |
| M55X3 | | | | J | | | | | | | |
| M55X2 | | | | J | | | | | | | |
| M55X1.5 | | | | J | | | | | | | |
| M56X4 | | | | J | | | | | | | |
| M56X3 | | | | J | | | | | | | |
| M56X2 | | | | J | | | | | | | |
| M56X1.5 | | | | J | | | | | | | |
| M58X4 | | | | J | | | | | | | |
| M58X3 | | | | J | | | | | | | |
| M58X2 | | | | J | | | | | | | |
| M58X1.5 | | | | J | | | | | | | |
| M60X4 | | | | J | | | | | | | |
| M60X3 | | | | J | | | | | | | |
| M60X2 | | | | J | | | | | | | |

**D** = available in DIN standard, **J** = available in JIS standard, **A** = available in ANSI standard



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| MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M60X1.5 | | | | J | | | | | | | |
| M62X4 | | | | J | | | | | | | |
| M62X3 | | | | J | | | | | | | |
| M62X2 | | | | J | | | | | | | |
| M62X1.5 | | | | J | | | | | | | |
| M64X4 | | | | J | | | | | | | |
| M64X3 | | | | J | | | | | | | |
| M64X2 | | | | J | | | | | | | |
| M64X1.5 | | | | J | | | | | | | |
| M65X6 | | | | J | | | | | | | |
| M65X4 | | | | J | | | | | | | |
| M65X3 | | | | J | | | | | | | |
| M65X2 | | | | J | | | | | | | |
| M65X1.5 | | | | J | | | | | | | |
| M68X4 | | | | J | | | | | | | |
| M68X3 | | | | J | | | | | | | |
| M68X2 | | | | J | | | | | | | |
| M68X1.5 | | | | J | | | | | | | |
| M70X4 | | | | J | | | | | | | |
| M70X3 | | | | J | | | | | | | |
| M70X2 | | | | J | | | | | | | |
| M70X1.5 | | | | J | | | | | | | |
| M72X4 | | | | J | | | | | | | |
| M72X3 | | | | J | | | | | | | |
| M72X2 | | | | J | | | | | | | |
| M72X1.5 | | | | J | | | | | | | |
| M75X6 | | | | J | | | | | | | |
| M75X4 | | | | J | | | | | | | |
| M75X3 | | | | J | | | | | | | |
| M75X2 | | | | J | | | | | | | |
| M75X1.5 | | | | J | | | | | | | |
| M76X4 | | | | J | | | | | | | |
| M76X3 | | | | J | | | | | | | |
| M76X2 | | | | J | | | | | | | |
| M76X1.5 | | | | J | | | | | | | |
| M78X3 | | | | J | | | | | | | |
| M78X2 | | | | J | | | | | | | |
| M80X4 | | | | J | | | | | | | |
| M80X3 | | | | J | | | | | | | |
| M80X2 | | | | J | | | | | | | |
| M80X1.5 | | | | J | | | | | | | |
| M82X2 | | | | J | | | | | | | |
| M85X4 | | | | J | | | | | | | |
| M85X3 | | | | J | | | | | | | |
| M85X2 | | | | J | | | | | | | |
| M90X4 | | | | J | | | | | | | |
| M90X3 | | | | J | | | | | | | |
| M90X2 | | | | J | | | | | | | |
| M95X4 | | | | J | | | | | | | |
| M95X3 | | | | J | | | | | | | |
| M95X2 | | | | J | | | | | | | |
| M100X4 | | | | J | | | | | | | |
| M100X3 | | | | J | | | | | | | |
| M100X2 | | | | J | | | | | | | |

| UNC | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No.1-64UNC | J | | J - A | J - A | | | | | | | D |
| No.2-56UNC | J - A | A | J - A | J - A | J - A | | | | | | D |
| No.3-48UNC | J - A | | J - A | J - A | J - A | | | | | | D |
| No.4-40UNC | D - J - A | A | D - J - A | J - A | J - A | J | | | | | D |
| No.5-40UNC | D - J - A | A | D - J - A | J - A | J - A | J | | | | | D |
| No.6-32UNC | D - J - A | A | D - J - A | J - A | J - A | J | | | | | D |
| No.8-32UNC | D - J - A | A | D - J - A | J - A | J - A | J | | | | | D |
| No.10-24UNC | D - J - A | A | D - J - A | J - A | J - A | J | | | | | D |
| No.12-24UNC | D - J - A | | D - J - A | J - A | J | | | | | | D |
| 1/4-20UNC | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 5/16-18UNC | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 3/8-16UNC | D - J - A | A | D - J - A | D - J - A | A | J | J | | | | D |
| 7/16-14UNC | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 1/2-13UNC | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 9/16-12UNC | D - J - A | | D - J - A | D - J - A | | | | | | | D |
| 5/8-11UNC | D - J - A | A | D - J - A | D - J - A | | J | J | | | | D |
| 3/4-10UNC | D - J - A | A | D - J - A | D - J - A | | J | J | | | | D |
| 7/8-9UNC | D - J - A | | D - J - A | D - J - A | | | J | | | | D |
| 1 -8UNC | D - J - A | | D - J - A | D - J - A | | | J | | | | D |
| 1 1/8-7UNC | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 1/4-7UNC | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 3/8-6UNC | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 1/2-6UNC | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 3/4-5UNC | D - J - A | | D - A | J | | | | | | | |
| 2 -4.5UNC | D - J - A | | A | J | | | | | | | |

| UNF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No.0-80UNF | | | J - A | J - A | J - A | | | | | | D |
| No.1-72UNF | | | J - A | J - A | J | | | | | | D |
| No.2-64UNF | J - A | | J - A | J - A | J | | | | | | D |
| No.3-56UNF | J - A | | J - A | J - A | J - A | | | | | | D |
| No.4-48UNF | D - J - A | | D - J - A | J - A | J - A | J | | | | | D |
| No.5-44UNF | D - J - A | | D - J - A | J - A | J | | | | | | D |
| No.6-40UNF | D - J - A | | D - J - A | J - A | J | | | | | | D |
| No.8-36UNF | D - J - A | | D - J - A | J - A | J | | | | | | D |
| No.10-32UNF | D - J - A | A | D - J - A | J - A | J - A | J | | | | | D |
| No.12-28UNF | D - J - A | | D - J - A | J - A | J | | | | | | D |
| 1/4-28UNF | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 5/16-24UNF | D - J - A | A | D - J - A | D - J - A | A | J | J | | | | D |
| 3/8-24UNF | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 7/16-20UNF | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 1/2-20UNF | D - J - A | A | D - J - A | D - J - A | J - A | J | J | | | | D |
| 9/16-18UNF | D - J - A | | D - J - A | D - J - A | | | J | | | | D |
| 5/8-18UNF | D - J - A | A | D - J - A | D - J - A | | J | J | | | | D |
| 3/4-16UNF | D - J - A | A | D - J - A | D - J - A | | J | J | | | | D |
| 7/8-14UNF | D - J - A | | D - J - A | D - J - A | | | J | | | | D |
| 1 -12UNF | D - J - A | | D - J - A | D - J - A | | | J | | | | D |
| 1 1/8-12UNF | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 1/4-12UNF | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 3/8-12UNF | D - J - A | | D - J - A | J - A | | | | | | | |
| 1 1/2-12UNF | D - J - A | | D - J - A | J - A | | | | | | | |

**D** = available in DIN standard, **J** = available in JIS standard, **A** = available in ANSI standard



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| UNS | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/16-24UNS | | | | J | | | | | | | |
| 1/2-24UNS | | | | J | | | | | | | |
| 1 -14UNS | J | | J | J | | | | | | | |
| 1 1/16-14UNS | | | | J | | | | | | | |
| 1 1/8-14UNS | J | | | | | | | | | | |
| 1 5/8-5UNS | | | | J | | | | | | | |

| 8UN | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 1/8-8UN | D - J | | | J | | | | | | | |
| 1 1/4-8UN | D - J | | | J | | | | | | | |
| 1 3/8-8UN | D - J | | | J | | | | | | | |
| 1 1/2-8UN | D - J | | | J | | | | | | | |
| 1 5/8-8UN | D | | | J | | | | | | | |
| 1 3/4-8UN | D | | | J | | | | | | | |
| 1 7/8-8UN | | | | J | | | | | | | |
| 2 -8UN | D | | | J | | | | | | | |
| 2 1/4-8UN | | | | J | | | | | | | |
| 2 1/2-8UN | | | | J | | | | | | | |
| 2 3/4-8UN | | | | J | | | | | | | |
| 3 -8UN | | | | J | | | | | | | |

| 12UN | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 1/16-12UN | | | | J | | | | | | | |
| 1 3/16-12UN | | | | J | | | | | | | |
| 1 5/16-12UN | | | | J | | | | | | | |
| 1 5/8-12UN | | | | J | | | | | | | |
| 1 3/4-12UN | D - J | | | J | | | | | | | |
| 1 7/8-12UN | | | | J | | | | | | | |
| 2 -12UN | J | | | J | | | | | | | |

| 20UN | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/16-20UN | | | | J | | | | | | | |
| 5/8-20UN | | | | J | | | | | | | |

| 32UN | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2-32UN | | | | J | | | | | | | |

| UNEF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No.12-32UNEF | | | | J | | | | | | | |
| 1/4-32UNEF | J | | J | J | | | | | | | |
| 5/16-32UNEF | J | | J | J | | | | | | | |
| 3/8-32UNEF | J | | J | J | | | | | | | |
| 7/16-28UNEF | J | | J | J | | | | | | | |
| 1/2-28UNEF | J | | J | J | | | | | | | |

| UNEF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/16-24UNEF | J | | | J | | | | | | | |
| 5/8-24UNEF | J | | J | J | | | | | | | |
| 3/4-20UNEF | J | | J | J | | | | | | | |
| 7/8-20UNEF | J | | | J | | | | | | | |
| 1 -20UNEF | J | | | J | | | | | | | |

| G(BSP) | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/16-28 | D | | D | | | | | | | | |
| 1/8-28 | D | | D | D - J | D | J | J | | | | D |
| 1/4-19 | D | | D | D - J | D | J | J | | | | D |
| 3/8-19 | D | | D | D - J | D | D - J | J | | | | D |
| 1/2-14 | D | | D | D - J | | J | J | | | | D |
| 5/8-14 | D | | D | | | | | | | | D |
| 3/4-14 | D | | D | D - J | | J | J | | | | D |
| 7/8-14 | D | | D | | | | | | | | D |
| 1 -11 | D | | D | D - J | | J | J | | | | D |
| 1 1/8-11 | D | | D | | | | | | | | |
| 1 1/4-11 | D | | D | J | | | J | | | | D |
| 1 1/2-11 | D | | D | J | | | J | | | | D |
| 2 -11 | | | | J | | | J | | | | |

| Rp(BSPP) | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8-28 | D | | | | | | J | | | | |
| 1/4-19 | D | | | | | | J | | | | |
| 3/8-19 | D | | | | | | J | | | | |
| 1/2-14 | D | | | | | | J | | | | |
| 3/4-14 | D | | | | | | J | | | | |
| 1 -11 | D | | | | | | J | | | | |
| 1 1/4-11 | | | | | | | J | | | | |
| 1 1/2-11 | | | | | | | J | | | | |

| Rc(BSPT) | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/16-28 | D | | | | | | J | | | | |
| 1/8-28 | D | | | D | | | J | | | | |
| 1/4-19 | D | | | D | | | J | | | | |
| 3/8-19 | D | | | D | | | J | | | | |
| 1/2-14 | D | | | D | | | J | | | | |
| 3/4-14 | D | | | D | | | J | | | | |
| 1 -11 | D | | | D | | | J | | | | |
| 1 1/4-11 | | | | | | | J | | | | |
| 1 1/2-11 | | | | | | | J | | | | |
| 2 -11 | | | | | | | J | | | | |

| NPT | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/16-27 | D - A | | | A | | | J | | | | |
| 1/8-27 | D - A | | | A | | | J | | | | D |

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| NPT | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/4-18 | D - A | | | A | | | J | | | | D |
| 3/8-18 | D - A | | | A | | | J | | | | D |
| 1/2-14 | D - A | | | A | | | J | | | | D |
| 3/4-14 | D - A | | | A | | | J | | | | D |
| 1 -11 1/2 | D - A | | | A | | | J | | | | D |
| 1 1/4-11 1/2 | | | | A | | | | | | | |
| 1 1/2-11 1/2 | | | | A | | | | | | | |
| 2 -11 1/2 | | | | A | | | | | | | |

| NPTF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/16-27 | A | | | A | | | J | | | | |
| 1/8-27 | A | | | A | | | J | | | | |
| 1/4-18 | A | | | A | | | J | | | | |
| 3/8-18 | A | | | A | | | J | | | | |
| 1/2-14 | A | | | A | | | J | | | | |
| 3/4-14 | A | | | A | | | J | | | | |
| 1 -11 1/2 | A | | | A | | | J | | | | |
| 1 1/4-11 1/2 | | | | A | | | | | | | |
| 1 1/2-11 1/2 | | | | A | | | | | | | |
| 2 -11 1/2 | | | | A | | | | | | | |

| NPS | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8-27 | | | | A | | | | | | | |
| 1/4-18 | | | | A | | | | | | | |
| 3/8-18 | | | | A | | | | | | | |
| 1/2-14 | | | | A | | | | | | | |
| 3/4-14 | | | | A | | | | | | | |
| 1 -11 1/2 | | | | A | | | | | | | |

| NPSF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/8-27 | | | | A | | | | | | | |
| 1/4-18 | | | | A | | | | | | | |
| 3/8-18 | | | | A | | | | | | | |
| 1/2-14 | | | | A | | | | | | | |
| 3/4-14 | | | | A | | | | | | | |
| 1 -11 1/2 | | | | A | | | | | | | |

| BSW | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/16W60 | | | | J | | | | | | | |
| 3/32W48 | | | | J | | | | | | | |
| 1/8W40 | J | | J | J | | | | | | J | |
| 5/32W32 | J | | J | J | | | | | | | |
| 3/16W24 | J | | J | J | | | | | | J | |
| 7/32W24 | J | | J | J | | | | | | | |
| 1/4W20 | J | | J | J | | | J | | | J | |
| 5/16W18 | J | | J | J | | | J | | | J | |

| BSW | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/8W16 | J | | J | J | | | J | | | J | |
| 7/16W14 | J | | J | J | | | J | | | J | |
| 1/2W12 | J | | J | J | | | J | | | J | |
| 9/16W12 | J | | J | J | | | | | | J | |
| 5/8W11 | J | | J | J | | | J | | | J | |
| 3/4W10 | J | | J | J | | | J | | | J | |
| 7/8W9 | J | | J | J | | | J | | | J | |
| 1 W8 | J | | J | J | | | J | | | J | |
| 1 1/8W7 | J | | J | J | | | | | | J | |
| 1 1/4W7 | J | | J | J | | | | | | J | |
| 1 3/8W6 | J | | J | J | | | | | | J | |
| 1 1/2W6 | J | | J | J | | | | | | J | |
| 1 5/8W5 | J | | | J | | | | | | | |
| 1 3/4W5 | J | | | J | | | | | | | |
| 1 7/8W4 1/2 | J | | | J | | | | | | | |
| 2 W4 1/2 | J | | J | J | | | | | | | |
| 2 1/4W4 | | | | J | | | | | | | |
| 2 1/2W4 | | | | J | | | | | | | |
| 2 3/4W3 1/2 | | | | J | | | | | | | |
| 3 W3 1/2 | | | | J | | | | | | | |
| 3 1/4W3 1/4 | | | | J | | | | | | | |
| 3 1/2W3 1/4 | | | | J | | | | | | | |
| 3 3/4W3 | | | | J | | | | | | | |
| 4 W3 | | | | J | | | | | | | |

| EG(STI) M | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STI M2.6X0.45 | | | | | | | | | J | | |
| STI M3X0.5 | | | | | | | | | J | | |
| STI M4X0.7 | | | | | | | | | J | | |
| STI M5X0.8 | | | | | | | | | J | | |
| STI M6X1 | | | | | | | | | J | | |
| STI M8X1.25 | | | | | | | | | J | | |
| STI M10X1.5 | | | | | | | | | J | | |
| STI M12X1.75 | | | | | | | | | J | | |
| STI M14X2 | | | | | | | | | J | | |
| STI M16X2 | | | | | | | | | J | | |
| STI M18X2.5 | | | | | | | | | J | | |
| STI M20X2.5 | | | | | | | | | J | | |
| STI M22X2.5 | | | | | | | | | J | | |
| STI M24X3 | | | | | | | | | J | | |

| EG(STI) MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STI M10X1 | | | | | | | | | J | | |
| STI M10X1.25 | | | | | | | | | J | | |
| STI M12X1.25 | | | | | | | | | J | | |
| STI M12X1.5 | | | | | | | | | J | | |
| STI M14X1.25 | | | | | | | | | J | | |
| STI M14X1.5 | | | | | | | | | J | | |
| STI M16X1.5 | | | | | | | | | J | | |
| STI M18X1.5 | | | | | | | | | J | | |
| STI M20X1.5 | | | | | | | | | J | | |

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| EG(STI) MF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STI M22X1.5 | | | | | | | | | J | | |
| STI M24X1.5 | | | | | | | | | J | | |
| STI M24X2 | | | | | | | | | J | | |

| EG(STI) UNC | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STI No.2-56UNC | | | | | | | | | A | | |
| STI No.4-40UNC | | | | | | | | | J - A | | |
| STI No.5-40UNC | | | | | | | | | J | | |
| STI No.6-32UNC | | | | | | | | | J - A | | |
| STI No.8-32UNC | | | | | | | | | J - A | | |
| STI No.10-24UNC | | | | | | | | | J - A | | |
| STI No.12-24UNC | | | | | | | | | J | | |
| STI 1/4-20UNC | | | | | | | | | J - A | | |
| STI 5/16-18UNC | | | | | | | | | J - A | | |
| STI 3/8-16UNC | | | | | | | | | J - A | | |
| STI 7/16-14UNC | | | | | | | | | J - A | | |
| STI 1/2-13UNC | | | | | | | | | J - A | | |
| STI 5/8-11UNC | | | | | | | | | J | | |
| STI 3/4-10UNC | | | | | | | | | J | | |

| EG(STI) UNF | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STI No.4-48UNF | | | | | | | | | J | | |
| STI No.6-40UNF | | | | | | | | | J - A | | |
| STI No.8-36UNF | | | | | | | | | J | | |
| STI No.10-32UNF | | | | | | | | | J - A | | |
| STI 1/4-28UNF | | | | | | | | | J - A | | |
| STI 5/16-24UNF | | | | | | | | | J - A | | |
| STI 3/8-24UNF | | | | | | | | | J - A | | |
| STI 7/16-20UNF | | | | | | | | | J - A | | |
| STI 1/2-20UNF | | | | | | | | | J - A | | |
| STI 5/8-18UNF | | | | | | | | | J | | |
| STI 3/4-16UNF | | | | | | | | | J | | |

| Pg | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pg 7 | | | | | | | | | | D | |
| Pg 9 | | | | | | | | | | D | |
| Pg 11 | | | | | | | | | | D | |
| Pg 13.5 | | | | | | | | | | D | |
| Pg 16 | | | | | | | | | | D | |
| Pg 21 | | | | | | | | | | D | |
| Pg 29 | | | | | | | | | | D | |
| Pg 36 | | | | | | | | | | D | |

| Tr | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TR10X2 | | | | | | | | | | J | |
| TR12X3 | | | | | | | | | | J | |

| Tr | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TR12X2 | | | | | | | | | | J | |
| TR14X3 | | | | | | | | | | J | |
| TR16X4 | | | | | | | | | | J | |
| TR16X3 | | | | | | | | | | J | |
| TR18X4 | | | | | | | | | | J | |
| TR20X4 | | | | | | | | | | J | |
| TR22X5 | | | | | | | | | | J | |
| TR24X5 | | | | | | | | | | J | |
| TR25X5 | | | | | | | | | | J | |
| TR26X5 | | | | | | | | | | J | |
| TR28X5 | | | | | | | | | | J | |
| TR30X6 | | | | | | | | | | J | |

| S Miniature | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.4X0.1 | | | | | | | | | | J | |
| S0.5X0.125 | | | | | | | | | | J | |
| S0.6X0.15 | | | | | | | | | | J | |
| S0.7X0.175 | | | | | | | | | | J | |
| S0.8X0.2 | | | | | | | | | | J | |
| S0.9X0.225 | | | | | | | | | | J | |

| TRI | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/4-20 | | | | | | | | | | J | |

| RLS | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.4X0.5X28° | | | | | | | | | | J | |

| V | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5V1 | | | | | | | | | | J | |
| 8V2 | | | | | | | | | | J | |
| 8V1 | | | | | | | | | | J | |
| 9V1 | | | | | | | | | | J | |
| 10V1 | | | | | | | | | | J | |
| 10V2 | | | | | | | | | | J | |
| 11V1 | | | | | | | | | | J | |
| 12V1 | | | | | | | | | | J | |
| 13V1 | | | | | | | | | | J | |
| 13V2 | | | | | | | | | | J | |
| 15V1 | | | | | | | | | | J | |
| 16V1 | | | | | | | | | | J | |
| 17V1 | | | | | | | | | | J | |
| 17V3 | | | | | | | | | | J | |
| 17V2 | | | | | | | | | | J | |
| 19V1 | | | | | | | | | | J | |
| 20V1 | | | | | | | | | | J | |

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| CTV | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CTV5-24 | | | | | | | | | | J | |
| 5V2 | | | | | | | | | | J | |
| CTV5-36 | | | | | | | | | | J | |
| 6V1 | | | | | | | | | | J | |
| CTV8-32 | | | | | | | | | | J | |
| CTV8-30 | | | | | | | | | | J | |

| BC | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BC 5/16-26 | | | | | | | | | | J | |
| BC 3/8-26 | | | | | | | | | | J | |
| BC 7/16-26 | | | | | | | | | | J | |
| BC 1/2-20 | | | | | | | | | | J | |
| BC 9/16-20 | | | | | | | | | | J | |
| BC 5/8-20 | | | | | | | | | | J | |
| BC 11/16-24 | | | | | | | | | | J | |
| BC 3/4-30 | | | | | | | | | | J | |
| BC 31/32-30 | | | | | | | | | | J | |
| BC 1-24 | | | | | | | | | | J | |
| BC 1.29-24 | | | | | | | | | | J | |
| BC 1.37-24 | | | | | | | | | | J | |
| BC 1 7/16-24 | | | | | | | | | | J | |
| BC 1.45-24 | | | | | | | | | | J | |
| BC 1 9/16-24 | | | | | | | | | | J | |

| CTC | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CTC19-16 | | | | | | | | | | J | |
| CTC25-16 | | | | | | | | | | J | |
| CTC31-16 | | | | | | | | | | J | |
| CTC39-16 | | | | | | | | | | J | |

| CTG | SP | SL | PO | ST | ROLL | CARBIDE | LONG | HAND TAPS | EG (STI) | SPECIAL THREADS, GAUGES | Dies |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CTG16-14 | | | | | | | | | | J | |
| CTG22-14 | | | | | | | | | | J | |
| CTG28-11 | | | | | | | | | | J | |
| CTG36-11 | | | | | | | | | | J | |
| CTG42-11 | | | | | | | | | | J | |

# 28. List of work materials

| Gr. | Materials | W.-Nr | DIN | EN-Nr. | EN | UNI | BS | JIS | AFNOR |
|---|---|---|---|---|---|---|---|---|---|
| P1 | **Free cutting steel and structural steel** Rm < 500 N/mm² | 1.0037 | St 37-2 | 1.0037 | S235JR | Fe 360 B | | STKM 12 C | E 24-2 |
| | | 1.0116 | St 37-3 | 1.0038 | S235JRG2 | Fe 360 D FF | 4360-40 C | | E 24-3, E 24-4 |
| | | 1.0144 | St 44-3 N | 1.0144 | S275J2G3 | Fe 430 D FF | 4360-43 C | SM 41 C | E 28-3, E 28-4 |
| | | 1.0301 | C 10 | 1.0301 | C 10 | C 10 | 045 M 10 | S 10 C | 34 C 10, XC 10 |
| | | 1.0401 | C 15 | | | C 15, C 16 | 080 M 15 | | 37 C 12, XC 18 |
| | | 1.0402 | C 22 | 1.0402 | C 22 | C 20, C 21 | 050 A 20 | | C 20 |
| | | 1.0570 | St 52-3 | 1.0570 | S355JR | Fe 510 B | 4360-50 C | SM 50 YA | E 36-3, E 36-4 |
| | | 1.0715 | 9 SMn 28 | 1.0715 | 11 SMn 30 | CF 9 SMn 28 | 230 M 07 | SUM 22 | S 250 |
| | | 1.0718 | 9 SMnPb 28 | 1.0718 | 11 SMnPb 30 | CF 9 SMnPb 28 | | SUM 22 L | S 250 Pb |
| | | 1.0721 | 10 S 20 | 1.0721 | 10 S 20 | CF 10 S 20 | 210 M 15 | | 10 F 1 |
| | | 1.0722 | 10 SPb 20 | | | CF 10 SPb 20 | | | 10 PbF 2 |
| | | 1.0723 | 15 S 20 | 1.0725 | 15 SMn 13 | | 210 A 15 | SUM 32 | |
| | | 1.0726 | 35 S 20 | 1.0726 | 35 S20 | | 212 M 36 | | 35 MF 4 |
| | | 1.0727 | 46 S 20 | 1.0727 | 46 S20 | | 212 M 44 | | 45 MF 4 |
| | | 1.0736 | 9 SMn 36 | 1.0736 | 11 SMn 37 | CF 9 SMn 36 | 240 M 07 | | S 300 |
| | | 1.0765 | 36 SMnPb 14 | | 36 SMnPb 14 | CF 35 SMnPb 10 | 216 M 36 | | 35 MF 6 Pb |
| | | 1.1141 | Ck 15 | 1.1141 | C 15R | C 15, C 16 | 080 M 15 | S 15 C, S 15 CK | XC 15, XC 18 |
| | | | Ck 25 | | | C 25 | 060 A 25 | S 25 C | XC 25 |
| P2 | **Carbon steel and low alloy steel** Rm 500÷700 N/mm² | 1.0501 | C 35 | | C 35 | C 35 | 060 A 35 | | 55 C 35 |
| | | 1.0503 | C 45 | 1.0503 | E 335 | C 45 | 80 M 46 | S 45 C | 65 C 45 |
| | | 1.0511 | C 40 | | C 40 | C 40 | 080 M 40 | S 40 C | 60 C 40 |
| | | 1.0535 | St 70-2 | 1.0070 | E 360 | Fe 690 | | | A 70-2 |
| | | 1.0601 | C 60 | 1.0601 | C60 | C 60 | 080 A 62 | | CC 55 |
| | | 1.1157 | 40 Mn 4 | | | | 150 M 36 | | 35 M 5 |
| | | 1.1165 | 30 Mn 5 | 1.1165 | G 28 Mn6 | | 120 M 36 | SMn 1 H, SCMn 2 | |
| | | 1.1181 | Ck 35 | 1.1181 | C 35E | C 35 | 080 M 36 | S 35 C | XC 38 H1 |
| | | 1.1191 | Ck 45 | 1.1191 | C 45E | C 45 | 080 M 46 | S 45 C | XC 42 |
| | | 1.1221 | Ck 60 | 1.1221 | C 60E | C 60 | 080 A 62 | S 58 C | XC 60 |
| | | 1.1740 | C 60 W | | | | | SK 7 | Y3 55 |
| | | 1.2162 | 21 MnCr 5 | | | | | SCR 420 H | 20 NC 5 |
| | | 1.5415 | 15 Mo 3 | 1.5415 | 16 Mo 3 | 16 Mo 3 | 1501-240 | | 15 D 3 |
| | | 1.5423 | 16 Mo 5 | | | 16 Mo 5 | 1503-245-420 | SB 450 M | |
| | | 1.5752 | 14 NiCr 14 | 1.5752 | 14 NiCr 14 | | 655 M 13 | SNC 815 (H) | 12 NC 15 |
| | | 1.5919 | 15 CrNi 6 | | | 16 CrNi 4 | S 107 | | 16 NC 6 |
| | | 1.6587 | 18 CrNiMo 7 6 | 1.6587 | 18 NiCrMo 7 6 | 18 NiCrMo 7 | 820 A 16 | | 18 NCD 6 |
| | | 1.7131 | 16 MnCr 5 | 1.7131 | 16 MnCr 5 | 16 MnCr 5 | 527 M 17 | SCR 415 | 16 MC 5 |
| | | 1.7139 | 16 MnCrS 5 | 1.7139 | 16 MnCrS 5 | | | | |
| | | 1.7147 | 20 MnCr 5 | 1.7147 | 20 MnCr 5 | 20 MnCr 5 | | SMnC 420 (H) | 20 MC 5 |
| | | 1.7149 | 20 MnCrS 5 | 1.7149 | 20 MnCrS 5 | | | SMnC 21 H | 20 MnCrS 5 |
| | | 1.7335 | 13 CrMo 4 4 | 1.7335 | 13 CrMo 4 5 | 14 CrMo 4 5 | 1501-620 Gr. 27 | | 15 CD 3.5 |
| | | 1.7337 | 16 CrMo 4 4 | | | 14 CrMo 4 5 | 1501-620 Gr. 27 | | 15 CD 4.5 |
| | | 1.7380 | 10 CrMo 9 10 | 1.7380 | 10 CrMo 9 10 | 12 CrMo 9 10 | 1501-622 Gr. 31 | | 10 CD 9.10 |
| P3 | **Medium alloy steel** Rm 600÷800 N/mm² | 1.0904 | 55 Si 7 | 1.7100 | 55 SiCr7 | 55 Si 8 | 250 A 53 | | 55 S 7 |
| | | 1.2330 | 35 CrMo 4 | | | 35 CrMo 4 | 708 A 37 | | 34 CD 4 |
| | | 1.2542 | 45 WCrV 7 | | | 45 WCrV 8 KU | BS 1 | | |
| | | 1.2714 | 56 NiCrMoV 7 | 1.2714 | | 56 NiCrMoV7-KU | BH 224-5 | SKT 4 | |
| | | 1.5121 | 46 MnSi 4 | | | | | | |
| | | 1.5710 | 36 NiCr 6 | | | | 640 A 35 | SNC 236 | 35 NC 6 |
| | | 1.5736 | 36 NiCr 10 | | | 35 NiCr 9 | | SNC 631 (H) | 35 NC 11 |
| | | 1.6511 | 36 CrNiMo 4 | | 36 CrNiMo 4 | 38 NiCrMo 4 (KB) | 816 M 40 | | 40 NCD 3 |
| | | 1.6582 | 34 CrNiMo 6 | 1.6582 | 34 CrNiMo 6 | 35 NiCrMo 6 (KW) | 817 M 40 | SNCM 447 | 35 NCD 6 |
| | | 1.7033 | 34 Cr 4 | 1.7033 | 34 Cr 4 | 34 Cr 4 (KB) | 530 A 32 | SCR 430 (H) | 32 C 4 |
| | | 1.7035 | 41 Cr 4 | 1.7035 | 41 Cr 4 | 41 Cr 4 | 530 M 40 | SCR 440 (H) | 42 C 4 |
| | | 1.7218 | 25 CrMo 4 | 1.7218 | 25 CrMo 4 | 25 CrMo 4 (KB) | 708 M 25 | SCM 425 | 25 CD 4 S |
| | | 1.7225 | 42 CrMo 4 | 1.7225 | 42 CrMo 4 | 42 CrMo 4 | 708 M 40 | SCM 440 (H) | 42 CD 4 |
| | | 1.7361 | 32 CrMo 12 | | | 32 CrMo 12 | 722 M 24 | | 30 CD 12 |
| | | 1.8159 | 50 CrV 4 | 1.8159 | 50 CrV 4 | 51 CrV 4 | 735 A 50 | SUP 10 | 50 CV 4 |
| | | 1.8509 | 41 CrAlMo 7 | 1.8509 | 41 CrAlMo 7 10 | 41 CrAlMo 7 | 905 M 39 | SACM 645 | 40 CAD 6.12 |



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IMROBEX Machine Tools International

| SS | UNS | U.N.E. / I.H.A. | AISI-ASTM | GOST | ČSN | Trade Mark | Structure |
|---|---|---|---|---|---|---|---|
| 1311 | | | | 16D | | | |
| 1312, 1313 | | | A573 Grade 58 | 18kp | 11 378 | | |
| 1412, 1414 | | | A573 Grade 70 | St14kP | 11 448 | | |
| | G10100 | | 1010 | 10 | | | |
| 1350 | G10170 | F.1110 | 1015 | 15 | | | |
| 1450 | G10200 | | 1020, 1023 | 20 | 12 024 | | |
| 2172, 2132 | | | | 17G1S | 11 523 | | |
| 1912 | G12130 | | 1213 | | | AVP | |
| 1914 | G12134 | | 12 L 13 | | | | |
| | | | 1108 | | | | |
| | | | 11 L 08 | | | | |
| 1922 | | | | | | | |
| 1957 | G11400 | | 1140 | 40 | | | |
| 1973 | G11460 | | 1146 | | | | |
| | G12150 | | 12 L14 | | | AVZ | |
| | | | 11 L 37 | AS35G2 | | PR80 | |
| 1370 | G10170 | F.1511 | 1015 | 15 | | | |
| | G10250 | F.1120 | 1025 | 25 | | | |
| 1550 | G10350 | F.1130 | 1035 | 35 | 12 040 | | |
| 1650 | G10430 | F.5110 | 1045 | 45 | 12 050 | | |
| | | | 1040 | 40 | 12 041 | | |
| 1655 | | F.1150 | 1055 | 55 | | | |
| | G10600 | | 1060 | 60 | 12 061 | | |
| | G10390 | | 1039 | 40G | | | |
| | G13300 | | 1330 | 30G2 | | | |
| 1572 | G10340 | F.1135 | 1035 | 35 | | | |
| 1672 | G10420 | F.1140 | 1045 | 45 | 12 050 | | |
| 1665, 1678 | G10640 | F.1150 | 1064 | 60 | | | |
| | | | 1060 | 60 | | | |
| | | | | | | | |
| 2912 | | | A204 Grade A | | 15 020 | | |
| | G45200 | | 4520 | | | | |
| | G33106 | | 3310, 9314 | 20X2H4A | 16 420 | | |
| | | | 4320 | | 16 220 | | |
| | | | | | | | |
| 2511 | G51170 | F.1516 | 5115 | 12KHN2 | 14 220 | | |
| | | | | 18HG | | | |
| | G51200 | | 5120 | 20KH | 14 221 | | |
| | | | 5120 H | 20KH | | | |
| 2216 | | | A182-F11, A182-F12 | 12KHM | 15 121 | | |
| 2216 | | | A387 Grade 12 Cl. 2 | | | | |
| 2218 | J21890 | F.155 | A182-F22 | 12KH8 | 15 313 | | |
| 2085, 2090 | | F.144 | 9255 | 55S2 | | | |
| 2234 | T51620 | F.1250 | 4135 | 35KHM | | | |
| 2710 | T41901 | F.5241 | S1 | 5KHV2S | | | |
| | T61206 | | L6 | 5KHNV | | | |
| | | | 5045 | | | | |
| | | | 3135 | | | | |
| | | | 3435 | | | | |
| | G98400 | | 9840 | | | | |
| 2541 | G43400 | F.1280 | 4340 | 38H2N2MA | 16 343 | | |
| | G51320 | | 5132 | 35KH | | | |
| | G51400 | | 5140 | 40H | 14 140 | | |
| 2225 | G41300 | F.1251 | 4130 | 20KHM | 15 130 | | |
| 2244 | G41400 | F.1252 | 4142, 4140 | 38HM | 15 142 | | |
| 2240 | | | | | | | |
| 2230 | H61500 | F.143 | 6150 | 50KHFA | 15 260 | | |
| 2940 | K24065 | F.1740 | A355 Cl. A | | | | |

| Gr. | Materials | W.-Nr | DIN | EN-Nr. | EN | UNI | BS | JIS | AFNOR |
|---|---|---|---|---|---|---|---|---|---|
| P4 | **High alloy steel** Rm 800÷1000 N/mm² | 1.1231 | Ck 67 | 1.1231 | C 67S | C 70 | 060 A 67 | | XC 68 |
| | | 1.1274 | Ck 101 | 1.1274 | C 100S | | 060 A 96 | SUP 4 | |
| | | 1.1545 | C 105 W1 | 1.1545 | C 105U | C 100 KU | | | Y1 105 |
| | | 1.1645 | C 105 W2 | | | C 100 KU | | SK 3 | Y1 105 |
| | | 1.1663 | C 125 W | | | C 120 KU | | SK 2 | Y2 120 |
| | | 1.2210 | 115 CrV 3 | 1.2210 | 107 CrV 3 | 107 CrV 3 KU | | | 100 C 3 |
| | | 1.2510 | 100 MnCrW 4 | | | 95 MnWCr 5 KU | BO 1 | SKS 3 | 90 MWCV 5 |
| | | 1.2842 | 90 MnCrV 8 | 1.2842 | 90 MnCrV 8 | 90 MnVCr 8 KU | BO 2 | | 90 MV 8 |
| | | 1.3505 | 100 Cr 6 | 1.3505 | 100 Cr 6 | 100 Cr 6 | 534 A 99 | SUJ 2 | 100 C 6 |
| | | | | | | | | | |
| P5 | **Tool steel** Rm 900÷1200 N/mm² | 1.2080 | X 210 Cr 12 | 1.2080 | X 210 Cr 12 | X 210 Cr 13 KU | BD 3 | SKD 1 | Z 200 C 12 |
| | | 1.2311 | 40 CrMnMo 7 | | | | | | |
| | | 1.2312 | 40 CrMnMoS 86 | | | | | | |
| | | 1.2343 | X 38 CrMoV 5 1 | | | X 37 CrMoV 5 1 KU | BH 11 | SKD 6 | Z 38 CDV 5 |
| | | 1.2344 | X 40 CrMoV 5 1 | 1.2344 | X 40 CrMoV 5 1 | X 40 CrMo 5 1 1 KU | BH 13 | SKD 61 | Z 40 CDV 5 |
| | | 1.2363 | X 100 CrMoV 5 | 1.2363 | X 100 CrMoV 5 1 | X 100 CrMoV 5 1 KU | BA 2 | SKD 12 | Z 100 CDV 5 |
| | | 1.2365 | X 32 CrMoV 3 3 | | | 30 CrMoV 12 27 KU | BH 10 | SKD 7 | 32 DCV 28 |
| | | 1.2379 | X 155 CrVMo 12 1 | | | X 155 CrMo 12 KU | | | |
| | | 1.2436 | X 210 CrW 12 | | | X 215 CrW 12 1 KU | | SKD 2 | |
| | | 1.2601 | X 165 CrMoV 12 | | | X 165 CrMoW 12 KU | | | |
| | | 1.2713 | 55 NiCrMoV 6 | | | | | SKT 4 | 55 NCDV 7 |
| | | 1.2714 | 56 NiCrMoV 7 | | | 56 NiCrMoV 7 KU | | | |
| | | 1.3243 | S 6-5-2-5 | 1.3243 | HS 6-5-2-5 | HS 6-5-2-5 | | SKH 55 | Z 85 WDKCV 06-05-05-04-02 |
| | | 1.3247 | S 2-10-1-8 | 1.3247 | HS 2-10-1-8 | HS 2-9-1-8 | BM 42 | SKH 51 | Z 110 DKCWV 09-08-04 |
| | | 1.3255 | S 18-1-2-5 | 1.3255 | HS 18-1-2-5 | HS 18-1-1-5 | BT 4 | SKH 3 | Z 80 WKCV 18-05-04-01 |
| | | 1.3343 | S 6-5-2 | 1.3343 | HS 6-5-2 | HS 6-5-2 | BM 2 | SKH 9, SKH 51 | Z 85 WDCV 06-05-04-02 |
| | | 1.3348 | S 2-9-2 | 1.3348 | HS 2-9-2 | HS 2-9-2 | | SKH 58 | Z 100 DCWV 09-04-02-02 |
| | | 1.3355 | S 18-0-1 | 1.3355 | HS 18-0-1 | HS 18-0-1 | BT 1 | SKH 2 | Z 80 WCV 18-04-01 |
| P6 | **High tensile strength steel** Rm 1200÷1480 N/mm² HRC 38÷45 | 1.6546 | 40 NiCrMo 2 2 | 1.6546 | 40 NiCrMo 2 KD | 40NiCrMo2 | 311 - Type 7 | SNCM 240 | 40 NCD 2 |
| | | 1.7045 | 42 Cr 4 | 1.7045 | | 41Cr4 | 530 A 40 | SCR 440 | 42 C 4 TS |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| P7 | **Ferritic - Martensitic stainless steel** | 1.4000 | X 6 Cr 13 | 1.4000 | X 6 Cr 13 | X 6 Cr 13 | 403 S 17 | SUS 403 | Z 6 C 12 |
| | | 1.4006 | X 10 Cr 13 | 1.4006 | X 12 Cr 13 | X 12 Cr 13 | 410 S 21 | SUS 410 | Z 10 C 13 |
| | | 1.4016 | X 6 Cr 17 | 1.4016 | X 6 Cr 17 | X 8 Cr 17 | 430 S 15 | SUS 430 | Z 8 C 17 |
| | | 1.4021 | X 20 Cr 13 | 1.4021 | X 20 Cr 13 | X 20 Cr 13 | 420 S 37 | SUS 420 J 1 | Z 20 C 13 |
| | | 1.4031 | X 40 Cr 13 | 1.4031 | X 39 Cr 13 | X 40 Cr 14 | 420 S 45 | SUS 420 | Z 40 C 14 |
| | | 1.4109 | X 65 CrMo 14 | 1.4109 | X 70 CrMo 15 | | | SUS 440 A | Z 70 D 14 |
| | | 1.4112 | X 90 CrMoV 18 | 1.4112 | X 90 CrMoV 18 | X CrTi 12 | 409 S 19 | SUS 440 B | Z 2 CND 18 05 |
| | | 1.4125 | X 105 CrMo 17 | 1.4125 | X 105 CrMo 17 | X 105 CrMo 17 | | SUS 440 C | Z 100 CD 17 |
| | | 1.4313 | X 5 CrNi 13 4 | 1.4313 | X 5 CrNiMo 13 3 | X 6 CrNi 13 04 | 425 C 11 | SCS 5 | Z 5 CN 13.4 |
| | | 1.4749 | X 18 CrN 28 | 1.4749 | X 18 CrN 28 | | | | Z 18 C 25 |
| P8 | **PH stainless steel** | 1.4534 | X 3 CrNiMoAl 13 8 2 | 1.4534 | X 6 NiCrTiMoV 25 15 | | | | |
| | | 1.4540 | X 4 CrNiCuNb 16 4 | 1.4540 | X 4 CrNiCuNb 16 4 | Z 4 CNUNb 16.4 M | | | Z 4 CNUNb 16.4 M |
| | | 1.4548 | X 5 CrNiCuNb 17 4 | 1.4548 | X 5 CrNiCuNb 17 4 | Z 6 CNU 17.4 | | SCS 24, SUS 630 | |
| | | 1.4568 | X 7 CrNiAl 17 7 | 1.4564 | X 3 CrNiMoAl 13 8 2 | X 7 CrNiAl 17 7 | 301 S 81 | SUS 631 | Z 9 CAN 17.7 |
| | | 1.6356 | X 2 NiCoMoTi 18 12 4 | 1.6356 | X 2 NiCoMoTi 18 12 4 | | | | |



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| SS | UNS | U.N.E. / I.H.A. | AISI-ASTM | GOST | ČSN | Trade Mark | Structure |
|---|---|---|---|---|---|---|---|
| 1770 | G10700 | F.5103 | 1070 | 70 | | | |
| 1870 | G10950 | F.5117 | 1095 | | | | |
| 1880 | | F.5118 | W1 | U10A | | | |
| | | | | U10 | | | |
| | | | W1 | U13 | | | |
| | T61202 | F.520L | L2 | 11KHF | | | |
| 2140 | T31501 | F.5220 | O1 | 9KHVG | | | |
| | T31502 | | O2 | 9G2F | | K720 | |
| 2258 | G51986 | F.5230 | 52100 | SHKH15 | 14 109 | | |
| | | | | | | TOOLOX 33 | |
| | T30403 | F.5212 | D3 | KH12 | | K100 | |
| | | | | | | M201 | |
| | | | | | | M200 - HOLDAX | |
| | T20811 | | H11 | 4KH5MFS | | VIDAR - W300 | |
| 2242 | T20813 | F.5318 | H13 | 4KH5MF1S | | ORVAR - W302 | |
| 2260 | T30102 | F.5227 | A2 | 9KH5VF | | | |
| | T20810 | | H10 | 3KH3M3F | | W320 | |
| | | | | | | K110 | |
| 2312 | | F.5213 | | KH12 | | | |
| 2310 | | | | KH12MF | | | |
| | T61206 | F.520.S | L6 | 5KHNM | | | |
| | | | L6 | | | W500 | |
| 2723 | | F.5613 | M35 | R6M5K5 | | | |
| | T11342 | | M42 | R2AM9K5 | | | |
| | T12004 | | T4 | R18K5F2 | | | |
| 2722 | T11302 | F.5603 | M2 | R6M5 | | S600 | |
| 2782 | T11307 | | M7 | | | | |
| | T12001 | | T1 | R18 | | | |
| | G86400 | | 8640 | | | Monix | |
| 2245 | | | 5140 | | | | |
| | | | | | | HARDOX 400® | |
| | | | | | | HARDOX 450® | |
| | | | | | | TOOLOX 40® | |
| | | | | | | TOOLOX 44® | |
| 2301 | S41008 | | 403 | 08KH13 | | | Ferritic |
| 2302 | S41000 | F.3401 | 410, CA-15 | 12KH13 | | | Martensitic |
| 2320 | S43000 | F.3113 | 430 | 12KH17 | | | Ferritic |
| 2303 | S42000 | F.5261 | 420 | 20KH13 | 17 022 | | Martensitic |
| 2304 | S40280 | F.3404 | 420 C | 40KH13 | | | Martensitic |
| | S44002 | | 440 A | | | | Martensitic |
| 2327 | S44003 | | 440 B | 95KH18 | | | Martensitic |
| | S44004 | | 440 C | 95KH18 | | | Martensitic |
| 2385 | S41500 | | A182 F6NM | | | | Martensitic |
| 2322 | S44600 | | 446 | 15KH28 | | | Ferritic |
| | S13800 | | XM-13 | | | PH13-8 Mo | Austenitic |
| | S15500 | | XM-12 | | | 15-5-PH | Martensitic |
| | S17400 | | 630 | | | 17-4-PH | Martensitic |
| 2388 | S17700 | | 631 | 09KH17N7YU1 | | 17-7-PH | Austenitic/Ferritic |
| | K93160 | | AMS 6515 | | | | Martensitic |

| Gr. | Materials | W.-Nr | DIN | EN-Nr. | EN | UNI | BS | JIS | AFNOR |
|---|---|---|---|---|---|---|---|---|---|
| M1 | Austenitic stainless steel (good machinability) | 1.4300 | X 12 CrNi 18 8 | 1.4300 | X 12 CrNi 18 8 | | 302 S 25 | SUS 302 | Z 12 CN 18 |
| | | 1.4301 | X 5 CrNi 18 10 | 1.4301 | X 5 CrNi 18 10 | X 5 CrNi 18 11 | 304 S 31 | SUS 304 | Z 6 CN 18.09 |
| | | 1.4305 | X 10 CrNiS 18 9 | 1.4305 | X 10 CrNiS 18 9 | X 10 CrNi 18 09 | 303 S 31 | SUS 303 | Z 10 CNF 18.09 |
| | | 1.4306 | X 2 CrNi 19 11 | 1.4306 | X 2 CrNi 19 11 | X 3 Cr Ni 18 11 | 304 S 12 | SUS 304 L | Z 2 CN 18.10 |
| | | 1.4310 | X 12 CrNi 17 7 | 1.4310 | X 9 CrNi 18 8 | X 12 CrNi 17 07 | 301 S 21 | SUS 301 | Z 12 CN 17.07 |
| | | 1.4550 | X 6 CrNiNb 18 10 | 1.4550 | X 6 CrNiNb 18 10 | X 6 CrNiNb 18 11 | 347 S 31 | SUS 347 | Z 6 CNNb 18.10 |
| M2 | Austenitic stainless steel (medium machinability) and Duplex | 1.4311 | X 2 CrNiN 19 11 | 1.4311 | X 2 CrNiN 18 10 | X 2 CrNiN 18 11 | 304 S 62 | SUS 304 LN | Z 2 CN 18 .10 Az |
| | | 1.4335 | X 12 CrNi 25 21 | 1.4335 | X 12 CrNi 25 21 | X 6 CrNi 26 20 | 310 S 24 | SUH 310, SUS 310 S | Z 12 CN 25.20 |
| | | 1.4401 | X 5 CrNiMo 17 12 2 | 1.4401 | X 5 CrNiMo 17 12 2 | X 5 CrNiMo 17 12 | 316 S 31 | SUS 316 | Z 3 CND 17.11.1 |
| | | 1.4417 | X 2 CrNiMoSi 19 5 | 1.4424 | X 2 CrNiMoSi 19 5 | | | | Z 2 CND 18.05.03 |
| | | 1.4429 | X 2 CrNiMoN 17 13 3 | 1.4429 | X 2 CrNiMoN 17 13 3 | X 2 CrNiMoN 17 13 3 | 316 S 62 | SUS 316 LN | Z 2 CND 17.13 Az |
| | | 1.4435 | X 2 CrNiMo 18 14 3 | 1.4435 | X 2 CrNiMo 18 14 3 | X 2 CrNiMo 17 13 2 | 316 S 12 | SCS 16, SUS 316 L | Z 2 CND 17.13 |
| | | 1.4438 | X2 CrNiMo 18 16 | | | X2CrNiMo18 16 | 317 S 12 | SUS 317 L | Z 2 CND 19.15 |
| | | 1.4460 | X 4 CrNiMo 27 5 2 | 1.4460 | X 3 CrNiMo 27 5 2 | X 3 CrNiMo 27 5 2 | | SUS 329 J 1 | Z 3 CND 25.7 Az |
| | | 1.4462 | X 2 CrNiMoN 22 5 | 1.4462 | X 2 CrNiMoN 22 5 3 | X 2 CrNiMoN 22 5 | 332 S 15 | | Z 2 CND 22.05 Az |
| | | 1.4466 | X 5 CrNi 18 15 | 1.4466 | X 3 CrNiMo 18 12 3 | X 5 CrNi 18 15 | 317 S 16 | SUS 317 | |
| | | 1.4541 | X10 CrNiTi 18 9 | 1.4541 | | X6CrNiTi18 11 | 321 S 12 | SUS 321 | Z 6 CND 18.10 |
| | | 1.4550 | X 6 CrNiNb 18 10 | 1.4550 | X 6 CrNiNb 18 10 | X 6 CrNiNb 18 11 | 347 S 31 | SUS 347 | Z 6 CNNb 18.10 |
| | | 1.4571 | X10 CrNiMoTi 18 10 | | | X6CrNiMoTi 17 12 | 320 S 17 | - | Z 6 CNDT 17.12 |
| | | 1.4893 | X 9 CrNiSiNCe 21 11 2 | 1.4835 | X 9 CrNiSiNCe 21 11 2 | | 310 S 31 | | |
| M3 | Super austenitic stainless steel and super Duplex | 1.4410 | X 2 CrNiMoN 25 7 4 | 1.4410 | X 2 CrNiMoN 25 7 4 | X 2 CrNiMoN 25 7 4 | | | Z 3 CND 25.07 Az |
| | | 1.4501 | X 2 CrNiMoCuWN 15 7 4 | | | X 2 CrNiMoCuWN 15 7 4 | | | |
| | | 1.4529 | X 1 CrNiMoN 20 18 7 | 1.4547 | X 1 CrNiMoN 20 18 7 | X 1 CrNiMoN 20 18 7 | | | Z 1 CNDU 20.18.05 Az |
| | | 1.4539 | X 2 NiCrMoCu 25 20 5 | 1.4539 | X 2 NiCrMoCu 25 20 5 | | 904 S 13 | | Z 2 NCDU 25 20 |
| | | 1.4652 | X 2 CrNiMoN 25 22 7 | 1.4652 | X 1 CrNiMoN 25 22 8 | | | | |
| | | 1.4876 | X 10 NiCrAlTi 32 20 | 1.4876 | X 10 NiCrAlTi 32 20 | | | NCF 800 | Z 10 NC 32.21 |
| | | 1.4943 | X 4 NiCrTi 25 15 | 1.4980 | X 5 CrNiCuNb 16 4 | | HR 51 | SUH 660 | Z 6 NCTDV 25.15 |
| K1 | Grey cast iron 150 ÷ 250 HB | 0.6015 | GG-15 | 5.1200 | EN-GJL-150 | G15 | Grade 150 | FC 150 | Ft 15 D |
| | | 0.6020 | GG-20 | 5.1300 | EN-GJL-200 | G20 | Grade 220 | FC 200 | Ft 20 D |
| | | 0.6025 | GG-25 | 5.1301 | EN-GJL-250 | G25 | Grade 260 | FC 250 | Ft 25 D |
| | | 0.6027 | GG-220 HB | | EN-GJL-215 | | | | |
| | | 0.6035 | GG-35 | 5.1303 | EN-GJL-350 | G35 | Grade 350 | FC 350 | Ft 35 D |
| K2 | Nodular cast iron 150 ÷ 350 HB | 0.7033 | GGG 35.3 | 5.3100 | EN-GJS-350-22 | | Grade 350/22 | FCD 350-22L | FGS 370-17 |
| | | 0.7040 | GGG 40 | 5.3106 | EN-GJS-400-15 | GS400-12 | Grade 420/12 | | FGS 400-12 |
| | | 0.7043 | GGG 40.3 | 5.3105 | EN-GJS-400-18 | GS0 42/17 | Grade 370/17 | FCD 400-18L | FGS 370-17 |
| | | 0.7050 | GGG 50 | 5.3200 | EN-GJS-500-7 | GS500-7 | Grade 500/7 | FCD 500-7 | FGS 500-7 |
| | | 0.7060 | GGG 60 | 5.3201 | EN-GJS-600-3 | GS600-3 | Grade 600/3 | FCD 600-3 | FGS 600-3 |
| | | 0.7070 | GGG 70 | 5.3300 | EN-GJS-700-2 | GS700-2 | Grade 700/2 | FCD 700-2 | FGS 700-2 |
| | | 0.8155 | GTS-55-04 | | EN-GJMB-550-4 | P 55-04 | P 540/5 | PCMP55-04 | P 540/5 |
| | | 0.9990 | GGV-40 | 5.2201 | EN-GJV-400 | | | | |
| | | | GGV-45 | 5.2300 | EN-GJV-450 | | | | |
| | | | GGV-50 | 5.2301 | EN-GJV-500 | | | | |
| K3 | Austenitic cast iron 120 ÷ 260 HB | 0.6655 | GGL-NiCuCr 15 6 2 | | EN-GJLA-XNiCuCr 15-6-2 | | Grade F1 | | FGL Ni15 Cu6 Cr2 |
| | | 0.6660 | GGL-NiCr 20 2 | | EN-GJLA-XNiCr 20-2 | | Grade F2 | | FGL Ni20 Cr2 |
| | | 0.6676 | GGL-NiCr 30 3 | | EN-GJLA-XNiCr 30-3 | | Grade F3 | | FGL Ni30 Cr3 |
| | | 0.7652 | GGG-NiMn 13 7 | | EN-GJSA-XNiMn 13-7 | | Grade S6 | | FGS Ni13 Mn7 |
| | | 0.7660 | GGG-NiCr 20 2 | 5.3500 | EN-GJSA-XNiCr 20-2 | | Grade S2 | | FGS Ni20 Cr2 |
| | | 0.7673 | GGG-NiMn 23 4 | | EN-GJSA-XNiMn 23-4 | | Grade S2M | | FGS Ni23 Mn4 |
| | | 0.7676 | GGG-NiCr 30 3 | 5.3507 | EN-GJSA-XNiCr 30-3 | | Grade S3 | | FGS Ni30 Cr3 |
| | | 0.7683 | GGG-Ni 35 | 5.3504 | EN-GJSA-XNi 35 | | | | FGS Ni35 |
| K4 | ADI cast iron 250 ÷ 500 HB | | GJS-800-8 | 5.3301 | EN-GJS-800-8 | | | | |
| | | | GJS-1000-5 | | EN-GJS-1000-5 | | | | |
| | | | GJS-1200-2 | | EN-GJS-1200-2 | | | | |
| | | | GJS-1400-1 | 5.3405 | EN-GJS-1400-1 | | | | |



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IMROBEX Machine Tools International

| SS | UNS | U.N.E. / I.H.A. | AISI-ASTM | GOST | ČSN | Trade Mark | Structure |
|---|---|---|---|---|---|---|---|
| 2331 | S30200 | | 302 | 12KH18N9 | | | Austenitic |
| 2333 | S30400 | F.3504 | 304 | 08KH18N10 | 17 240 | | Austenitic |
| 2346 | S30300 | F.3508 | 303 | 12KH19N9 | | | Austenitic |
| 2352 | S30403 | F.3504 | 304 L | 03KH18N11 | | | Austenitic |
| | S30100 | F.3517 | 301 | 07KH16N6 | | | Austenitic |
| 2338 | S34700 | | 347 | 08KH18N12B | | | Austenitic |
| 2371 | S30453 | F.3541 | 304 LN | 03KH18N11 | | | Austenitic |
| 2361 | S31008 | | 310 S | 12KH25N20 | | | Austenitic |
| 2347 | S31600 | F.3534 | 316 | 08KH17H13M2T | 17 346 | | Austenitic |
| 2376 | S31500 | | | | | | Duplex |
| 2375 | S31653 | | 316 LN | 03KH16N15M3 | | | Austenitic |
| 2353 | S31603 | F.3533 | 316 L | 03KH17N14M3 | 17 349 | | Austenitic |
| 2367 | | | 317 L | | | | Austenitic |
| 2324 | S32900 | | 329 | | | | Duplex |
| 2377 | S31803 | | 329 LN | | | | Duplex |
| 2366 | S31700 | | 317 | 08KH17H15M3T | | | Austenitic |
| 2337 | | | 321 | | | | Austenitic |
| 2338 | S34700 | F.3524 | 347 | 08KH18N12B | | | Austenitic |
| 2350 | | | 316 Ti | | | | Austenitic |
| 2368 | S30815 | | | | | | Austenitic |
| 2328 | S32750 | | F 53 | | | | Super duplex |
| | S32760 | | F 55-329 S | | | | Super duplex |
| 2778 | S31254 | | | | | | Super Austenitic |
| 2562 | N08904 | | 904L | | | | Super Austenitic |
| | S32654 | | | | | | Super Austenitic |
| | N08800 | | | | | Alloy 800 | Austenitic |
| 2570 | S66286 | | 660 | | | A286 | Austenitic |
| 01 15-00 | F11601 | | A48 25 B | Sc 15 | 422 415 | | Lamellar |
| 01 20-00 | F12101 | | A48 30 B | Sc 20 | 422 420 | | Lamellar |
| 01 25-00 | F12401 | | A48 35 B | Sc 25 | 422 425 | | Lamellar |
| 02 19 | | | | | | | Lamellar |
| 01 35-00 | F13502 | | A48 50 B | Sc 35 | | | Lamellar |
| 07 17-15 | | | | | 422 303 | | Nodular |
| 07 17-02 | | FGE 38-17 | | Vc 42-12 | 422 304 | | Nodular |
| 07 17-12 | F32800 | | 60-40-18 | Vc 42-12 | 422 314 | | Nodular |
| 07 27-02 | F33800 | FGE 50-7 | A536, 80-55-06 | Vc 50-2 | 422 305 | | Nodular |
| 07 32-03 | F34100 | FGE 60-2 | A476, 80-60-03 | Vc 60-2 | 422 306 | | Nodular |
| 07 37-01 | F34800 | FGE 70-2 | A536, 100-70-03 | Vc 70-2 | 422 307 | | Nodular |
| 08 54-00 | F24130 | | A220 60004 | | | | Malleable |
| | | | Grade 400-15 | | | | Vermicular |
| | | | Grade 450 | | | | Vermicular |
| | | | Grade 500 | | | | Vermicular |
| | F41000 | | A436 Type 1 | | | Ni-Resist 1 | Lamellar |
| 05 23-00 | F41002 | | A436 Type 2 | | | Ni-Resist 2 | Lamellar |
| | F41004 | | A436 Type 3 | | | Ni-Resist 3 | Lamellar |
| 07 72-00 | | | | | | Nodumag | Nodular |
| | F43000 | | A436 Type D-2 | | | Ni-Resist D-2 | Nodular |
| | F43010 | | A439 Type D-2M | | | Ni-Resist D-2M | Nodular |
| | F43003 | | A436 Type D-3 | | | Ni-Resist D-3 | Nodular |
| | F43006 | | A439 Type D-5 | | | Ni-Resist D-5 | Nodular |
| | ADI grade 1 | | 850/550/10 | | | ADI 800 | Ductile austempered |
| | ADI grade 2 | | 1050/700/7 | | | ADI 1000 | Ductile austempered |
| | ADI grade 3 | | 1200/850/4 | | | ADI 1200 | Ductile austempered |
| | ADI grade 4 | | 1400/1100/1 | | | ADI 1400 | Ductile austempered |

| Gr. | Materials | W.-Nr | DIN | EN-Nr. | EN | UNI | BS | JIS | AFNOR |
|---|---|---|---|---|---|---|---|---|---|
| N1 | Aluminium alloy < 12% Si | 3.0205 | Al 99 | | | 9001/1 | 1C | A1x3 | A4 |
| | | 3.0255 | Al99.5 | Al99.5 | AW-1050A | 9001/2 | 1B | (A1050) | A-5/1050A |
| | | 3.0505 | AlMn0,5Mg0,5 | | | | N31 | | |
| | | 3.0517 | AlMn1Cu | AlMn1Cu | AW-3003 | | | A3003 | A-M1/3003 |
| | | 3.0615 | AlMgSiPb | | | | | | ASGPB |
| | | 3.1255 | AlCuSiMn | AlCuSiMn | AW-2014 | | H15 | | A-U4SG |
| | | 3.1305 | AlCuMg0,5 | | | 9002/1 | L86 | | AU2G |
| | | 3.1325 | AlCuMg 1 | | | 9002/2 | (H14) | A3x2 | AU4G |
| | | 3.1355 | AlCuMg 2 | | | 9002/4 | DTD5090 | A3x4 | AU4G1 |
| | | 3.1645 | AlCuMgPb | | | 9002/8 | - | - | AU4Pb |
| | | 3.1655 | AlCuBiPb | AlCuBiPb | AW-2011 | | FC1 | A2011 | A-U5PbBi |
| | | 3.2161 | G-AlSi8Cu3 | AlSi8Cu3(Si) | AC-46200 | | | | |
| | | 3.2315 | AlSi1MgMn | AlMgSi1 | AW-6082 | 90006/4 | H30 | | A-SGM0.7 |
| | | 3.2341 | G-AlSi5Mg | | AC-42000 | 3599 | LM25 | AC 4C | A-S7G |
| | | 3.2381 | G-AlSi10Mg | AlSi10Mg(Fe) | AC-43400 | | LM9 | | A-S10G |
| | | 3.2383 | G-AlSi10Mg (Cu) | | 43200 | | (LM9) | | A-S10UG |
| | | 33.206 | AlMgSi0.5 | AlMgSi0.5 | AW-6060 | | (H9) | | A-GS/6060 |
| | | 3.3210 | AlMgSi0.7 | AlMgSi0.7 | AW-6063 | | (H10) | (A6063) | A-GSUC/6061 |
| | | 3.3211 | AlMg1SiCu | | | 9006/2 | H20 | A2x4 | AGSUC |
| | | 3.3315 | AlMg1 | AlMg1 | AW-5005 | | N41 | | A-G0.6 |
| | | 3.3316 | AlMg1,5 | | | 9005/7 | | | |
| | | 3.3523 | AlMg2,5 | | | 9005/2 | | A2x1 | AG2,5C |
| | | 3.3535 | AlMg3 | | | 9005/8 | N5/N56 | | AG3 |
| | | 3.3547 | AlMg4.5Mn0.7 | | | 9005/5 | N8 | A2x7 | AG4,5MC |
| | | 3.3555 | AlMg5 | | | | N6 | | A-G5 |
| | | 3.4335 | AlZn4.5Mg1 | AlZn4.5Mg1 | AW-7020 | | H17 | | A-Z5G |
| | | 34.365 | AlZn5.5MgCu | | AW-7075 | 9007/2 | 2L95 | A7075 | A-Z5GU |
| | | 3.5612 | G-MgAl6Zn | MgAl6Zn | MG-P-63 | | MAG-E-121 | | G-A6-Z1 |
| | | 3.5812 | G-MgAl8Zn | MgAl8Zn | MG-P-61 | | | | (G-A7-Z1) |
| N2 | Aluminium alloy > 12% Si and Aluminium-Magnesium | 32.382 | G-AlSi12 | AlSi12 | AC-44200 | 4514 | LM6 | AC3A | AS 13 |
| | | 3.2583 | G-AlSi12 (Cu) | AlSi12 (Cu) | AC-47000 | | LM20 | Al-Si12Cu | |
| | | 3.5101 | G-MgZn4SE1Zr1 | | | | MAG5 | | G-Z4TR |
| | | 3.5102 | G-MgZn5Th2Zr1 | | | | | | |
| | | 35.103 | G-MgSe3Zn2Zr1 | MgSe3Zn2Zr1 | MN65120 | | MAG6-TE | | ZRE1 |
| | | 3.5106 | G-MgAg3SE2Zr1 | | | | MAG 12 | | G-Ag22,5 |
| | | 3.5312 | G-MgAl3Zn | | | | MAG-E-111 | | |
| | | 3.5912 | G-MgAl9Zn1 | | | | MAG7 | | G-A9Z1 |
| N3 | Copper alloy | 2.0040 | OF Cu | | CW008A | | C103 | C1020 | Cu/c1 |
| | | 2.0060 | E-Cu57 | | CW004A | E-Cu57 | C101 | C1100 | Cu/a1 |
| | | 2.0070 | SE Cu | | CW021A | | | | |
| | | 2.0090 | SF Cu | | CW024A | | C106 | C1220 | Cu/b |
| | | 2.0240 | CuZn15 | CuZn15 | CW502L | | CZ102 | C2300 | CuZn15 |
| | | 2.0321 | CuZn37 | | CW508L | | CZ108 | | CuZn37 |
| | | 2.0401 | CuZn39Pb3 | CuZn39Pb3 | CW614N | | CZ121 | | CuZn39Pb3 |
| | | 2.0402 | CuZn40Pb2 | CuZn40Pb2 | CW612N | | CZ120 | | CuZn39Pb2 |
| | | 20.530 | CuZn38Sn1 | CuZn38Sn1 | CW717R | | | | |
| | | 2.0790 | CuNi18Zn19Pb | CW408J | | | | | CuNi18Zn19Pb1 |
| | | 2.0872 | CuNi10Fe1Mn | CuNi10Fe1Mn | | | CN102 | | CuNi10Fe1Mn |
| | | 2.0940 | CuAl10Fe | | CC331G | | AB1 | | CuAl10Fe |
| | | 2.0975 | CuAl10Ni | | CC333G | | AB2 | | CuAl10Ni5Fe5 |
| | | 2.1050 | CuSn10 | | CC480K | | CT1 | | CuSn10 |
| | | 2.1087 | CuSn10Zn | | | | | | |
| | | 2.1176 | CuPb10Sn | | CW352H | | LB2 | | CuSn10Pb10 |
| | | 2.1202 | SB Cu | | | | C107 | | |



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| SS | UNS | U.N.E. / I.H.A. | AISI-ASTM | GOST | ČSN | Trade Mark | Structure |
|---|---|---|---|---|---|---|---|
| 4010 | | | A1200 | | | | |
| 4007 | AA1050A | | A1050/1050A | | | | |
| | | | 3105 | | | | |
| | AA3003 | | | | | Aluman 100 | |
| | | | 6012 | | | | |
| 4338 | AA2014 | | 2014 | | | Avional 660 | |
| | | | 2117 | | | Avional 050 | |
| | | | 2017 | | | Avional 100 | |
| | | | 2024 | | | Avional 150 | |
| 4335 | | | 2030 | | | | |
| 4355 | AA2011 | | 2011 | | | Recidal 11 | |
| 4251 | A13800 | | A380 | | | | |
| 4212 | A96082 | | 6082 | | | Anticorodal 100 | |
| 4244 | | | B26 | | | | |
| 4253 | A13600 | | B85 | | | | |
| | | | | | | | |
| 4103 | AA6060 | | | | | Anticorodal 063 | |
| 4104, 4107 | AA6005 | | | | | | |
| | | | 6061 | | | Anticorodal 061 | |
| 4106 | AA5005 | | | | | Peraluman 080 | |
| | | | 5050 | | | Peraluman 150 | |
| 4120 | | | 5052 | | | Peraluman 250 | |
| | | | 5154 | | | Peraluman 350 | |
| 4140 | A95083 | | 5083 | | | Peraluman 440 | |
| | | | 5056 | | | Peraluman 500 | |
| 4425 | AA7020 | | 7020 | | | | |
| | A97075 | | 7075 | B95 | | Ergal | |
| | M11600 | | AZ61A | | | | |
| | | | AZ80A | | | | |
| | | | A413.2 | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | M12330 | | AMS 4442 | | | | |
| | | | | | | | |
| | | | AZ31B | | | | |
| | | | | | | | |
| | C10200 | | | | | | |
| | C11000 | | | | | | |
| | C10300 | | | | | | |
| | C12200 | | | | | | |
| 5112 | C23000 | | | L90 | | | |
| 5150 | C27200 | | | | | | |
| 5170 | C38500 | | | | | | |
| 5168 | C37800 | | | | | | |
| | C46400 | | | L060-1 | | | |
| | C76300 | | | | | | |
| 5667 | C70600 | | | | | | |
| 5710 | C95200 | | CA952 | BrA9ZH3L | | | |
| 5716 | C95500 | | CA955 | BrA10ZH4N4L | | | |
| 5443 | C90700 | | | | | | |
| 5458 | C90500 | | | | | | |
| 5640 | C93700 | | CA937 | | | | |
| | C14200 | | | | | | |

| Gr. | Materials | W.-Nr | DIN | EN-Nr. | EN | UNI | BS | JIS | AFNOR |
|---|---|---|---|---|---|---|---|---|---|
| N4 | Brass alloy and Bronze alloy | 2.0220 | CuZn5 | | CW500L | | CZ125 | C2100 | |
| | | 2.0230 | CuZn10 | | CW501L | | CZ101 | C2200 | |
| | | 2.0250 | CuZn20 | | CW503L | | CZ103 | C2400 | |
| | | 2.0265 | CuZn30 | | CW505L | | CZ106 | C2600 | |
| | | 2.0331 | CuZn36Pb1.5 | | CW600N | | CZ119 | C3501 | |
| | | 2.0360 | CuZn40 | | CW509L | | CZ109 | C2800 | |
| | | 2.0372 | CuZn39Pb0.5 | | CW610N | | CZ123 | | |
| | | 2.0375 | CuZn36Pb3 | | CW603N | | CZ124 | C3601 | |
| | | 2.0380 | CuZn39Pb2 | | CW612N | | CZ 131 | C3771 | |
| | | 2.0401 | CuZn39Pb3 | 12164 | CW614N | 5705 | CZ121 | C3603 | |
| | | 2.0402 | CuZn40Pb2 | | CW617N | | CZ122 | | |
| | | 2.0410 | CuZn44Pb2 | CuZn44Pb2 | CW622N | | CZ104 | | |
| | | 2.0460 | CuZn20Al2 | | | | CZ110 | | |
| | | 2.0470 | CuZn28Sn1 | CuZn28Sn1 | CW706R | | | | CuZn29Sn1 |
| | | 2.0932 | CuAl8Fe3 | | CW303G | | | | |
| | | 2.0966 | CuAl10Ni5Fe4 | | CW307G | | CA104 | | |
| | | 2.1010 | CuSn2 | | | | - | - | |
| | | 2.1016 | CuSn4 | | | | PB101 | C5111 | |
| | | 21.020 | CuSn6 | CuSn6 | CW452K | | PB103 | C5191 | CuSn6 |
| | | 2.1030 | CUSn8 | | | | PB104 | C5212 | |
| N5 | Plastic material | | | | | | | | |
| N6 | Carbon fiber and composite | | | | | | | | |
| S1 | Heat resistant super alloy (HRSA) Ni base (good machinability) < 25 HRC | 1.4980 | | | | | | | Z3NCT25 |
| | | 2.4617 | | | | | | | NiMo28 |
| | | | NiCr17Mo17Few | | | | | | NC17DWY |
| | | 2.4816 | NiCr15Fe | | | | | | NC15Fe |
| | | 2.4851 | NiCr23Fe | | | | | | NC15FeA |
| | | 2.4856 | NiCr22Mo9Nb | | | | | | NC22DNb |
| | | | | | | | | | |
| | | 2.4669 | NiCr 15 Fe 7 TiAl | | | | HR505 | | NC19FeNB |
| S2 | Heat resistant super alloy (HRSA) Ni base (medium machinability) 25 ÷ 35 HRC | | | | | | | | |
| | | 1.4876 | X10NiCrAlTi32-21 | | | | 3075 | | |
| | | 2.4858 | NiCr21Mo | | | | | | NC21FeDU |
| | | 2.4665 | NiCr22FeMo | | | | HR6,204 | | NC22FeD |
| | | 2.4856 | NiCr22Mo9Nb | | | | | | NC22DNb |
| | | 2.4856 | NiCr22Mo9Nb | | | | | | NC22DNb |
| | | 2.4668 | NiCr19Fe19NbMo | | | | HR8 | | Nc19FeNb |
| | | 2.4668 | NiCr19Fe19NbMo | | | | HR8 | | Nc19FeNb |
| | | 2.4630 | NiCr20Ti | | | | HR5,203-4 | | NC20T |
| | | 2.4631 | NiCr20TiAl | | | | HR401,601 | | NC20TA |
| | | 2.4654 | NiCr20Co14MoTi | | | | | | NC20K14 |
| S3 | Heat resistant super alloy (HRSA) Ni base (low machinability) 35 ÷ 45 HRC | | | | | | | | |
| | | 2.4654 | NiCr20Co14MoTi | | | | | | NC20K14 |
| | | 2.4668 | NiCr19Fe19NbMo | | | | HR8 | | Nc19FeNb |
| | | 2.4669 | NiCr 15 Fe 7 TiAl | | | | HR505 | | NC19FeNB |
| | | | NiW13Co10Cr9AlTi | | | | | | |
| | | | NiCo10W10Cr9AlTi | | | | | | |
| | | | | | | | | | |
| | | | NiCr18cCoMoAlTi | | | | | | NCK19DAT |
| | | | NiCo15Cr15MoAlTi | | | | | | NCKD20AT |



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| SS | UNS | U.N.E. / I.H.A. | AISI-ASTM | GOST | ČSN | Trade Mark | Structure |
|---|---|---|---|---|---|---|---|
| | C21000 | | | | | | |
| | C22000 | | | | | | |
| | C24000 | | | | | | |
| | C26000 | | | | | | |
| | C34000 | | | | | | |
| | C28000 | | | | | | |
| | C36500 | | | | | | |
| | C36000 | | | | | | |
| | C37700 | | | | | | |
| | C38500 | | | | | OT-58 | |
| | C38000 | | | | | | |
| 5272 | C68700 | | | LAMsh77-2-0.05 | | | |
| | C68700 | | | | | | |
| 5220 | C44300 | | | LOMsh70-1-0.05 | | | |
| | C61400 | | | | | | |
| | C63000 | | | | | | |
| | C50700 | | | | | | |
| | C51100 | | | | | | |
| 5428 | C51900 | | | BrOF6.5-0.15 | | | |
| | C52100 | | | | | | |
| | | | | | | | Polycarbonate |
| | | | | | | | E-glass |
| | | | | | | | Epoxy |
| | | | | | | | HTA |
| | | | | | | | HX |
| | | | | | | | Kevlar |
| | | | | | | | PEEK |
| | | | | | | | PPS |
| | | | | | | | T300 |
| | | | | | | | T700 |
| | | | | | | | T800 |
| | | | 5725 | | | Discalloy | HRSA Iron-based |
| | N10665 | | | | | Hastelloy B-2 | HRSA Nickel-based |
| | N10002 | | | | | Hastelloy C (casting) | HRSA Nickel-based |
| | N06600 | | | | | Inconel 600 | HRSA Nickel-based |
| | N06601 | | | | | Inconel 601 | HRSA Nickel-based |
| | N06625 | | | | | Inconel 625 (casting) | HRSA Nickel-based |
| | | | | | | Inconel 706 | HRSA Nickel-based |
| | N07750 | | | | | Inconel X750 (solubilized) | HRSA Nickel-based |
| | | | | | | Stellite | HRSA Cobalt-based |
| | N08800 | | | | | Incoloy 800 | HRSA Iron-based |
| | N08825 | | | | | Incoloy 825 | HRSA Iron-based |
| | N06002 | | | | | Hastelloy X | HRSA Nickel-based |
| | N06625 | | | | | Inconel 625 (forged) | HRSA Nickel-based |
| | N06625 | | | | | Inconel 625 (pipe) | HRSA Nickel-based |
| | N07718 | | | | | Inconel 718 (casting) | HRSA Nickel-based |
| | N07718 | | | | | Inconel 718 (pipe) | HRSA Nickel-based |
| | N06075 | | | | | Nimonic 80 | HRSA Nickel-based |
| | N07080 | | | | | Nimonic 81 | HRSA Nickel-based |
| | N07001 | | | | | Waspalloy (casting) | HRSA Nickel-based |
| | | | | | | Haynes | HRSA Cobalt-based |
| | N07001 | | | | | Waspalloy (forged) | HRSA Nickel-based |
| | N07718 | | | | | Inconel 718 (forged) | HRSA Nickel-based |
| | N07750 | | | | | Inconel X750 (precipitation) | HRSA Nickel-based |
| | | | | | | Mar-M 200 | HRSA Nickel-based |
| | | | | | | Mar-M 247 | HRSA Nickel-based |
| | | | | | | Rene 95 | HRSA Nickel-based |
| | | | | | | Udimet 500 | HRSA Nickel-based |
| | | | | | | Udimet 700 | HRSA Nickel-based |

| Gr. | Materials | W.-Nr | DIN | EN-Nr. | EN | UNI | BS | JIS | AFNOR |
|---|---|---|---|---|---|---|---|---|---|
| S4 | Titanium alloy good machinability | | TiAl2Sn4Zr2MoSi | | | | | | |
| | | | TiAl2Sn4Zr6Mo | | | | | | |
| | | 3.7055 | Ti 99,6 | | | | | | |
| | | 3.7195 | Ti3Al2.5V | | | | | | |
| | | 3.7115 | TiAl5Sn2.5 | | | | TA14/17 | | |
| | | 3.7124 | TiCu2,5 | | | | | | |
| | | 3.7155 | TiAl6Zr5Mo0,5 | | | | | | |
| | | 3.7165 | TiAl6V4 ELI | | | | TA11 | | |
| | | 3.7175 | TiAl6V6Sn2 | | | | | | |
| | | 3.7185 | TiAl4Mo4Sn2 | | | | | | |
| | | 3.7025 | Ti 99,8 | | | | TA 1 | | |
| | | 3.7035 | Ti 99,7a | | | | TA 2-5 | | |
| S5 | Titanium alloy medium machinability | | | | | | | | |
| | | 3.7164 | TiAl6V4 | | | | | | |
| | | | Ti5Al2.5SN | | | | | | |
| | | | TiAl2Sn4Zr2MoSi | | | | | | |
| | | | TiAl2Sn4Zr6Mo | | | | | | |
| H1 | Hardened steel 45 ÷ 55 HRC | 1.1231 | Ck 67 | 1.1231 | C 67S | C 70 | 060 A 67 | | XC 68 |
| | | 1.1248 | Ck 75 | 1.1248 | C 75S | C 75 | 060 A 78 | | XC 75 |
| | | 1.1274 | Ck 101 | 1.1274 | C 100S | | 060 A 96 | SUP 4 | |
| | | 1.1545 | C 105 W1 | 1.1545 | C 105U | C 100 KU | | | Y1 105 |
| | | 1.2550 | 60 WCrV 7 | | | 55 WCrV 8 KU | | | 55 WC 20 |
| | | 1.7131 | 16 MnCr 5 | 1.7131 | 16 MnCr 5 | 16 MnCr 5 | 527 M 17 | SCR 415 | 16 MC 5 |
| | | 1.7176 | 55 Cr 3 | 1.7176 | 55 Cr 3 | 55 Cr 3 | 527 A 60 | SUP 9 (A) | 55 C 3 |
| | | 2.4669 | NiCr 15 Fe 7 TiAl | | | | HR505 | | NC19FeNB |
| H2 | Hardened steel 55 ÷ 63 HRC | 1.2210 | 115 CrV 3 | 1.2210 | 107 CrV 3 | 107 CrV 3 KU | | | 100 C 3 |
| | | 1.2510 | 100 MnCrW 4 | | | 95 MnWCr 5 KU | BO 1 | SKS 3 | 90 MWCV 5 |
| | | 1.2842 | 90 MnCrV 8 | 1.2842 | 90 MnCrV 8 | 90 MnVCr 8 KU | BO 2 | | 90 MV 8 |
| | | 1.3505 | 100 Cr 6 | 1.3505 | 100 Cr 6 | 100 Cr 6 | 534 A 99 | SUJ 2 | 100 C 6 |



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| SS | UNS | U.N.E. / I.H.A. | AISI-ASTM | GOST | ČSN | Trade Mark | Structure |
|---|---|---|---|---|---|---|---|
| | R50250 | | 265-G1 | | | Grade 1 | |
| | R50400 | | 265-G2 | | | Grade 2 | |
| | R50550 | | 265-G3 | | | Grade 3 | |
| | R56320 | | | | | Grade 9 | |
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| | R50700 | | 265-G4 | | | Grade 4 | |
| | R56400 | | | | | Grade 5 | |
| | | | | | | Grade 6 | |
| | | | 4975 | | | 6242 | |
| | R56260 | | | | | 6246 | |
| 1770 | G10700 | F.5103 | 1070 | 70 | | | |
| 1774, 1778 | G10780 | F.5107 | 1078, 1080 | 75 | | | |
| 1870 | G10950 | F.5117 | 1095 | | | | |
| 1880 | | F.5118 | W1 | U10A | | | |
| | | | S1 | 5KHV2SF | | | |
| 2511 | G51170 | F.1516 | 5115 | 12KHN2 | 14 220 | | |
| 2253 | G51550 | | 5155 | | | | |
| | N07750 | | | | | Inconel X750 (solubilized) | HRSA Nickel-based |
| | T61202 | F.520L | L2 | 11KHF | | | |
| 2140 | T31501 | F.5220 | O1 | 9KHVG | | | |
| | T31502 | | O2 | 9G2F | | | |
| 2258 | G51986 | F.5230 | 52100 | SHKH15 | 14 109 | | |

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COMPANY INFORMATION

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# Company History

**November 1923:** Founded by Jokichi Watanabe in Shibuya-ku, Tokyo.
**December 1937:** Company incorporated.
**May 1945:** Factory established in Yonezawa City in Yamagata prefecture.
**January 1953:** Spun off Yonezawa Factory into a separate company as YAMAWA TAP Co.,Ltd.
**June 1955:** All products certified to Japanese Industrial Standard (JIS) categories.
**October 1956:** Awarded by the Department of Trade and Industry for superiority in industrial standardization.
**October 1963:** Awarded by the Institute of Industrial Technology for superiority in industrial standardization.
**April 1964:** Newly constructed Fukushima Factory began operation.
**November 1973:** Awarded from the Department of Trade and Industry as superiority in industrial standardization.
**October 1983:** Established YAMAWA ENGINEERING Co., Ltd.
**December 1984:** New machine tool manufacturing shop constructed inside the Fukushima Factory.
**October 1986:** Newly completed Aizu Factory began operation.
**July 1989:** Newly constructed Taiwan Factory opened.
**April 1991:** Spun off Fukushima Factory and Aizu Factory into a separate company, YAMAWA PRECISION Co., Ltd.
**November 1995:** Established TC (Total Cutting) CENTER Co., Ltd.
**June 1996:** YAMAWA TAP Co., Ltd. obtained ISO 9001 certification.
**July 2000:** YAMAWA PRECISION Co., Ltd. in Aizu Factory obtained ISO 9001 certification.
**October 2000:** YAMAWA PRECISION Co., Ltd. in Fukushima Factory also obtained ISO 9001 certification.
**August 2001:** Established YAMAWA TC CENTER Co., Ltd from TC CENTER.
**October 2002:** Obtained ISO14001 certification in YAMAWA PRECISION Co., Ltd. at Fukushima Factory.
**December 2002:** Obtained ISO14001 certification in YAMAWA PRECISION Co., Ltd. at Aizu Factory.
**January 2003:** Obtained ISO14001 certification in YAMAWA TAP Co.,Ltd.
**October 2003:** Obtained ISO14001 certificaiton in YAMAWA Mfg. Co.,Ltd.
**April 2006:** Obtained ISO14001 certification in TAIWAN YAMAWA Co.,Ltd.
**October 2006:** Spun off Export Dept. into a separate company, YAMAWA INTERNATIONAL Co., Ltd.
**January 2007:** Spun off Taiwan Sales Dept into a separate company, YAMAWA ASIA Co., Ltd.
**May 2007:** Obtained ISO14001 certification in YAMAWA ASIA Co.,Ltd.
**March 2008:** Newly constructed Tsutsumi Factory of Yamawa Mfg began operation.
**September 2008:** Obtained ISO14001certification in YAMAWA ENGINEERING Co.,Ltd., YAMAWA TC CENTER Co.,Ltd and YAMAWA INTERNATIONAL Co.,Ltd.
**June 2011:** Obtained ISO14001 and ISO9001 certification in YAMAWA Tsutsumi Factory.
**February 2012:** Obtained ISO9001 certification in TAIWAN YAMAWA and YAMAWA ASIA.
**October 2012:** Obtained ISO9001 certification in YAMAWA Mfg. Co., Ltd.
**December 2013:** Newly constructed Tsutsumi No.2 Factory of Yamawa Mfg. began operation.
**October 2014:** YAMAWA TC Center Co., LTD. and YAMAWA Engineering Co., LTD. were merged into a new company "YAMAWAEngineering Service Co., LTD."
**January 2016:** YAMAWA Europe S.p.A. founded in Italy.

ISO 9001/14001 certitication



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## Origin of corporate name, "YA" "MA" "WA".

Y Mr. Jokichi Watanabe, the founder of the company, decided to use shop name "YA""MA""WA", which he had been using in his family business instead of using his personal name. And he gave to his company the name "YA""MA""WA" by employing lucky words and the same connotaion "YAMAWA" from ancient Japanese characters, MANYOGANA. The meaning of YAMAWA is "Greater prosperity, More united". In this word, he put a wish "as the company becomes prosperous, the harmony among employees becomes more precious".



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# Yamawa factories in Japan



**TSUTSUMI PLANT**
(ISO9001 : 2011 - ISO14001 : 2011)

The Tsutsumi plant is the main tool blank manufacturing operation of Yamawa group. This location is also the testing center where Yamawa executes the innovation in metal machining and performance tests of the products for the Yamawa group.



**YONEZAWA PLANT**
(ISO9001 : 1996 - ISO14001 : 2003)

Yonezawa is the main manufacturing plant of the Yamawa Group, this location is equipped with production lines and is the Quality Control Center. The plant obtained ISO 9001 certification in 1996. Of the four Yamawa plants, the Yonezawa location has the longest history of manufacturing and the highest production capacity. Products include roll taps, spiral pointed, pipe and hand taps. The Yonezawa Plant stepped ahead of our competitors by receiving ISO 9001 before any other cutting tool manufacturing in Japan.



**FUKUSHIMA PLANT**
(ISO9001 : 2000 - ISO14001 : 2002)

The Fukushima plant provides both tap production lines and in-house facilities for the manufacturing of specialized production machine tools to produce the exceptional high quality cutting tools. This plant develops and manufactures special tap and die production equipment. It also supplies these machines to our other manufacturing sites. Products include spiral fluted taps, dies and combined drills/countersinks as well as production machinery.



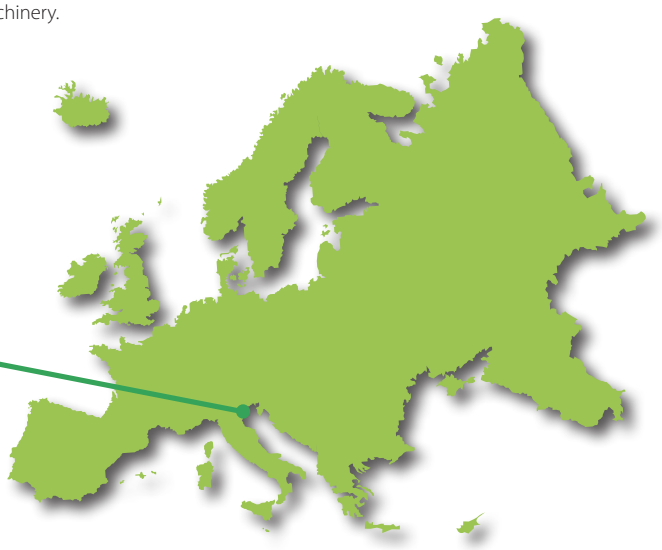
**AIZU PLANT**
(ISO9001 : 2000 - ISO14001 : 2002)

Equipped with the most sophisticated machine tools available, this plant is famous for its automation and robotized labor saving manufacturing processes. The plant is designed for mass production of the highest quality cutting tools and screw thread tools. Products include spiral fluted taps and carbide taps.



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www.yamawa.eu



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**ROBERT GENICH**
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