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Official Accounts



• 技术支持 •
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博越旗舰店：东莞市长安镇乌沙社区振安中路60号博越五金城A05-1-2

Boyue Flagship Store: A05-1-2, Boyue Mall, No. 60, Zhen'an Middle Road, Wusha, Chang'an Town, Dongguan, Guangdong, China

莞深旗舰店：东莞市长安镇霄边社区振安东路莞深智造装备商贸城一楼D栋28号(D28)

Guanshen Flagship Store: No. 28, Building D, 1st Floor, Guanshen Mall, Zhen'an East Road, Xiaobian, Chang'an Town, Dongguan, Guangdong, China

株洲旗舰店：株洲市荷塘区丽舍路1号莞深智造技术装备商贸城3栋120号

Zhuzhou Flagship Store: 120, Building 3, Guanshen Mall, No. 1, Lishe Road, Hetang District, Zhuzhou, Hunan, China

东莞市御钻数控科技有限公司

DONGGUAN YUZUAN CNC TECHNOLOGY CO., LTD.

📍 东莞市厚街镇莞太路桥头村第一工业区316号1号楼
Building 1, No. 316, 1st Industrial Zone, Qiaotou, Houjie Town, Dongguan, Guangdong, China

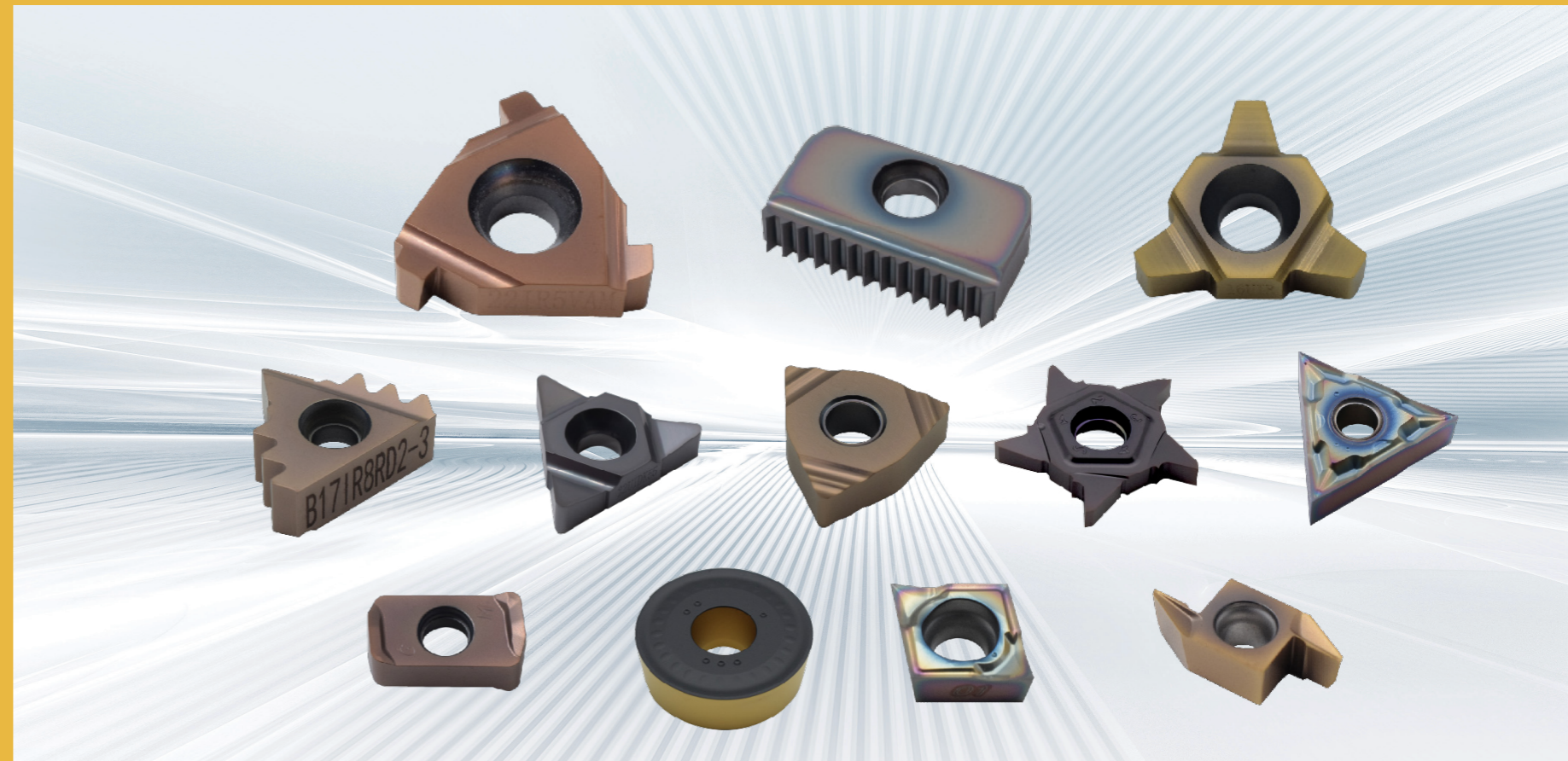
📞 13809824058 / 13809824537 ✉️ yz@yuzuancn.com

🌐 www.yuzuancn.com / www.yuzuan-carbide.com

SINCE 1998
SPECIALIZE IN CNC CUTTING TOOLS
您值得信赖的数控刀具专家

2025-2026

御钻产品手册
YUZUAN PRODUCT CATALOGUE



质量成就品牌 诚信铸就未来
Quality Builds The Brand Integrity Creates The Future



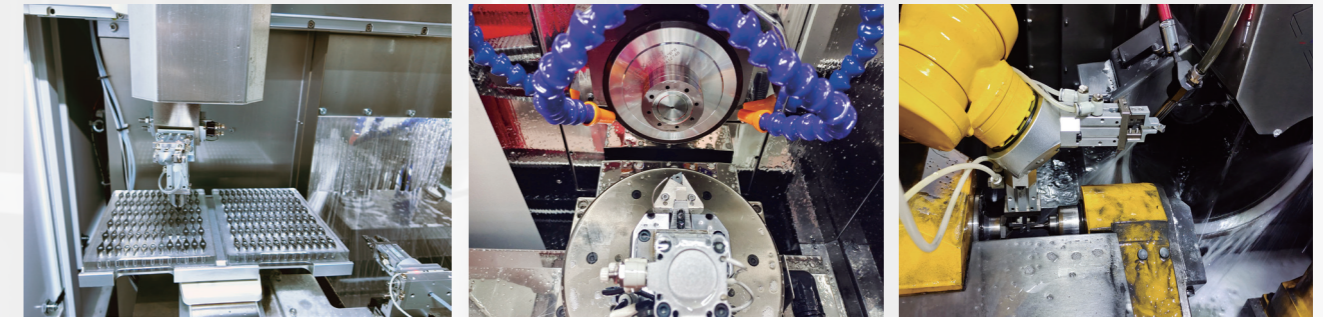
公司简介

COMPANY PROFILE

东莞市御钻数控科技有限公司位于被誉为“世界制造之都”的东莞厚街，是一家集研发、生产和销售为一体，具有自主研发和创新能力的高新技术企业。公司主要生产硬质合金涂层石油管螺纹刀片、医疗螺纹刀片、铣削刀片、车削刀片、OEM及非标定制刀具。

公司拥有先进、可靠的刀具生产线，能够提供高品质、高精度、高效率切削性能的刀具。产品可通用于国内外同类产品的刀盘和刀杆，且达到同等水平的精度及切削性能。目前御钻刀具已广泛应用于数控车床、CNC加工中心、模胚、模架、模具、精密五金、机械制造、金属铸造加工、地质矿山、木工机械等行业。

御钻科技一直秉承“质量成就品牌，诚信铸就未来”的宗旨，并以“严格控制产品质量稳定，信誉至上、真诚服务、互惠互利、供货快捷”的经营理念与广大新老客户共谋发展。自成立以来，以优质的产品和周到的服务赢得良好的声誉和客户的青睐，业务覆盖中国各个省份及海外(俄罗斯、泰国、越南、土耳其、印度、马来西亚、韩国、巴基斯坦、埃及、印尼等)。目前我们创立了《御钻》、《刀界》、《伊欧克》等知名品牌，并在刀具行业中获得了良好的口碑。



YU ZUAN

Dongguan YuZuan CNC Technology Co., Ltd. , located in where known as the "Manufacturing Capital of the World", Houjie, Dongguan, is a company manufacturing carbide coated petroleum pipe thread inserts, milling inserts, turning inserts, OEM and non-standard custom tools, integrating R&D, production, sales and service.

YuZuan CNC company has advanced and reliable production lines of various cutting tools, which can provide cutting tools with high quality, high precision, high efficiency and excellent cutting performance. The product is commonly used on the cutter heads and tool holders of similar international brands products, its precision and cutting performance have reached the international level of similar products. As so far, YuZuan cutting tools have been widely used in CNC lathes, CNC machining centers, mold blanks, mold bases, molds, precision hardware, machinery manufacturing, metal casting processing, geological mining, woodworking machinery and other industries.

Technology leads development, service creates value! Since establishment, YuZuan CNC company through arduous entrepreneurship and continuous innovation as its development policy. It has won a good reputation and customer favor with high-quality products and considerate services. Its business covers various provinces in China and overseas, such as Europe, America, India, Vietnam, Thailand, Turkey, Egypt, South Korea, Malaysia, Pakistan, and Indonesia, etc.

YuZuan CNC Company has always been adhering to the business philosophy of "Quality builds the brand, integrity creates the future", and we strictly control products quality and stability, comply with reputation first, sincere service, mutual benefit, and fast supply, seeking win-win cooperation with the new and old customers. With excellent quality, pragmatic service and affordable prices, we have created well-known brands, such as "YuZuan", "Knife World", and "YIOUKE" etc., and have a good reputation among the cutting tools industry.

 **价值观** 服务好每一位客户，成就每一位伙伴
Value Serve every customer well, make every partner successful

 **愿景** 以品质提升价值，以创新为导向，做中国最受信赖的刀具品牌
Vision To enhance value with quality, and to be innovation-oriented, to be the most trusted cutting tools brand in China

公司参展

EXHIBITION

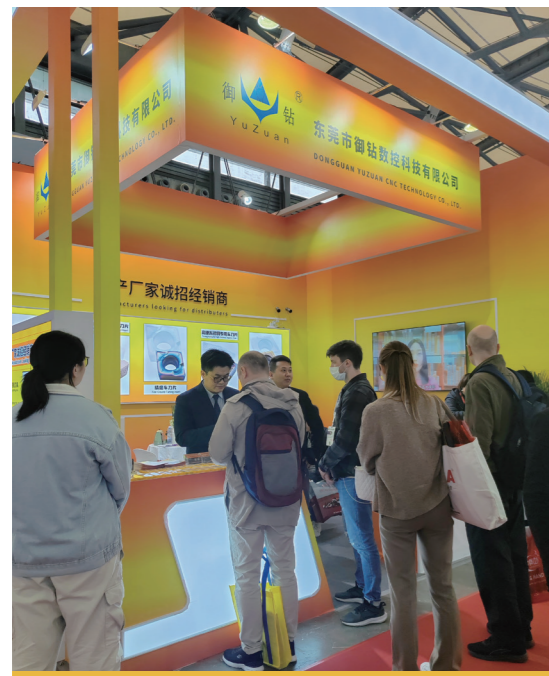


202504北京CIMT
The 18th China International Machine Tools Show



202409土耳其MAKTEK

202310越南METALEX Vietnam



202404上海CCMT2024
China CNC Machine Tool Fair 2024

202405俄罗斯Metallobrabotka

202306泰国Manufacturing Expo

企业荣誉

ENTERPRISE HONOR



公司专利证书



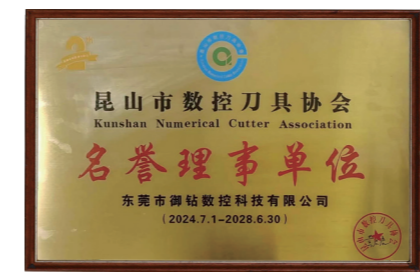
专精特新中小企业



高新技术企业



中国刀协常务理事单位



昆山刀协名誉理事单位



东莞刀协副会长单位



东莞电子协会理事单位



管理体系ISO认证书

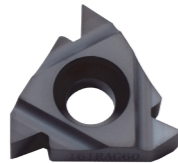
PRODUCT CATALOGUE

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螺纹车削刀具 Thread Turning Tools

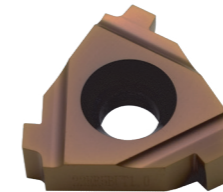
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60° 公制航空航天螺纹 - MJ	61
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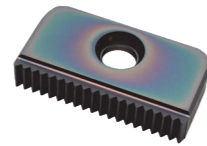


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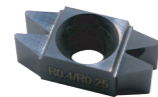
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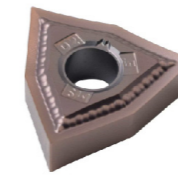
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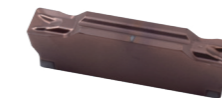
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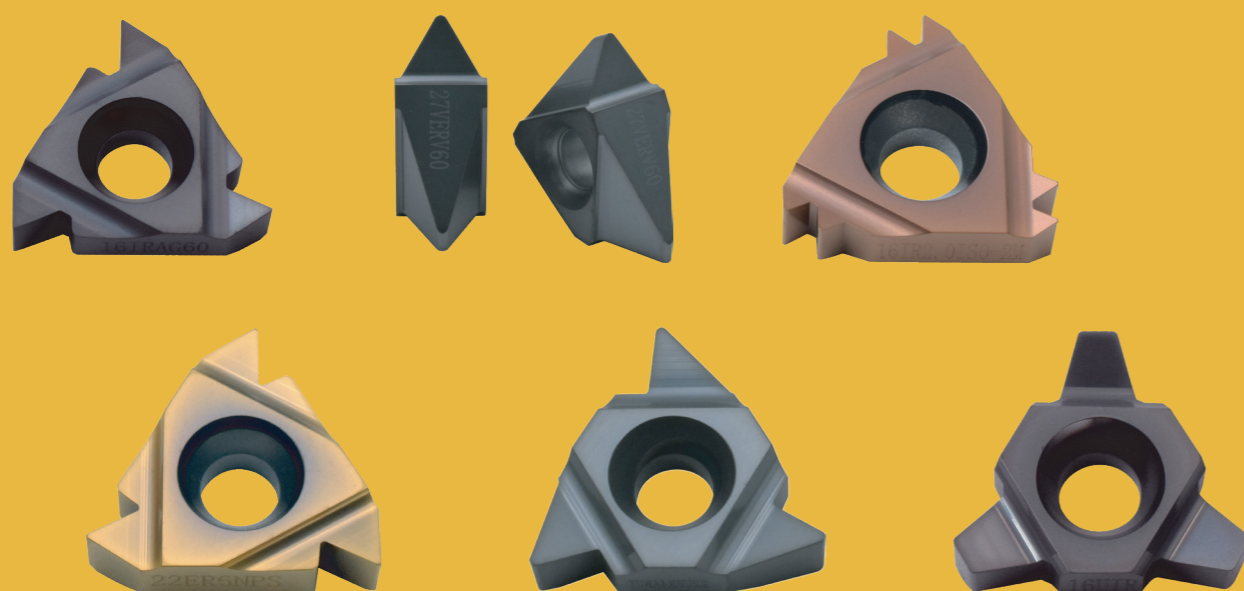
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THREAD TURNING TOOLS

螺纹车削刀具



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55° 范牙型 - Partial Profile 55°	20
60° ISO公制 - ISO	22
60° 美制统一螺纹 - UN	30
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30° 公制梯形螺纹 - Tr	47
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可转位螺纹车刀片型号编制说明

THREAD TURNING INSERT NAMING RULES

沉孔压紧式螺纹刀片

INDEXABLE THREAD INSERTS



1 刀片尺寸 Insert Size

切削刀长度 (mm) Length of Flank (mm)	内切圆I.C.	
	mm	inch
06	3.96	5/32
08	4.76	3/16
11	6.35	1/4
16	9.525	3/8
22	12.7	1/2
27	15.875	5/8
33	19.05	3/4

2 刀片安装类型 Insert Style

:	卧式 (平装) 螺纹刀片
V:	立式 (立装) 螺纹刀片
U:	卧式对中螺纹刀片

3 机加工类型 Type Cutting

E (external)	外螺纹刀片
I (internal)	内螺纹刀片

4 刀片手式 Hand of Tools

R (right - hand)	右手式
L (left - hand)	左手式

5 螺距 Pitch

完全形 (全牙形) - (螺距范围用数字表示)
Full Profile - Pitch Range

完全形	mm	TPI
螺距	0.5 ~ 5	48 ~ 4

范围牙型 - V牙形 (螺距范围用字母表示)
Partial Profile V-tooth

局部剖面	mm	TPI
A	0.5 ~ 1.5	48 ~ 16
AG	0.5 ~ 3.0	48 ~ 8
G	1.75 ~ 3.0	14 ~ 8
N	3.5 ~ 5.0	7 ~ 5
Q	5.5 ~ 6.0	4.5 ~ 4
U	5.5 ~ 8.0	4.5 ~ 3.25
V	6.0 ~ 10.0	4 ~ 2.5

6 螺纹标准 Thread Standard

60	分段螺距局部剖面 60°	Partial Profile 60°
55	分段螺距局部剖面 55°	Partial Profile 55°
ISO	ISO公制螺纹 60°	ISO Metric Thread 60°
UN	美制统一螺纹 60°	Unified National Thread 60°
W	英国惠氏螺纹标准 55°	British Whitworth Thread 55°
BSPT	英国管螺纹标准 55°	British Standard Pipe Taper 55°
NPT	美国管螺纹标准 60°	National Pipe Taper 60°
NPTF	美国干密封管螺纹标准 60°	National Pipe Taper Fuel 60°
NPS	美国平行管螺纹标准 60°	National Pipe Straight 60°
RD	德制圆螺纹 30° (DIN405)	German Round Thread 30° (DIN405)
RD20400	德制圆螺纹 30° (DIN20400)	German Round Thread 30° (DIN20400)
TR	公制梯形螺纹 30° (DIN103)	Metric Trapez Thread 30° (DIN103)
ACME	美制梯形(爱克母)螺纹 29°	American Trapez ACME Thread 29°
STACME	美制矮牙梯形(爱克母)螺纹 29°	American Trapez Stub ACME Thread 29°
UNJ	美制统一航空螺纹 60°	Unified National Aerospace Thread 60°
MJ	公制航空航天螺纹 60°	Metric Aerospace Thread 60°
ABUT	美国锯齿形螺纹标准 7°/45°	American Buttress Thread 7°/45°
BBUT	英国锯齿形螺纹标准 7°/45°	British Buttress Thread 7°/45°
SAGE	公制锯齿形螺纹标准 3°/30° (GB/T 13576.1; DIN513)	Metric Buttress Thread 3°/30° (Säge) (GB/T 13576.1; DIN513)
YS	水压机锯齿形螺纹 45° (DIN2781)	Hydraulic Presses Buttress Thread 45° (DIN2781)
PG	德国钢管螺纹 80° (DIN40430)	German Steel Conduit Thread 80° (Pg) (DIN40430)
EL	极限连接油管螺纹	API-Extreme Line Thread
H90	90°牙型钻杆螺纹	Hughes Thread H-90
BUT	API偏梯形套管螺纹	API Buttress Casing Thread
APIRD	美国套管及油管圆螺纹 60°	API Round Casing & Tubing Thread 60°
NVAM	新瓦姆螺纹	New VAM Thread
DZ	地质螺纹	
NGO / NGT	美国压缩气瓶螺纹 60°	National Gas Outlet / Taper Thread 60°
PZ / PG80	气瓶专用螺纹 55°	Special Threads for Gas Cylinders 55°
JFE	油气行业专用螺纹	Special Threads for Oil & Gas Industry
HBPV	高背压阀螺纹	High Back Pressure Valve Thread
FJWP	双级短齿偏梯形同步螺纹	Two-Step Stub Buttress Synchronous Thread
	气门芯气门嘴螺纹	Valve Core Thread 60°
MTRR	走心机立装范围牙型	Swiss-Type Vertical Style Partial Profile Thread

7 切削刃上的齿数 Number of Teeth per Edge

2M - 2齿	3M - 3齿
2M - Two Teeth	3M - Three Teeth

16 V E R 1.25 ISO 2M DJ006-D88

1 2 3 4 5 6 7 8

8 刀片材质 Insert Grade

刀片牌号 Grade	刀片颜色 Color	加工材质 Application
DJ006-J66	古铜色 Bronze	全磨制高精度螺纹刀片, HRC60°以下钢件、不锈钢、高温合金, 畅销高端产品 Fully ground thread insert. For steel below HRC60°, stainless steel, superalloy
DJ006-D88	灰黑 Grey Black	全磨制高精度螺纹刀片, HRC60°以下钢件, 镍基合金, 高端产品 Fully ground thread insert. For steel below HRC60°, nickel-based alloy
DJ006-820J	金黄色 Gold	高端巴尔查斯涂层! 不锈钢杀手! HRC60°以下不锈钢、高温合金、钛合金通用, 高端产品 Oerlikon Balzers coating, for steel below HRC60°, stainless steel, superalloy, titanium alloy, high-end products
DJ003-J68P	七彩 Multi-color	HRC55°以下钢件、不锈钢、粘性材料, 高温合金、钛合金通用, 高端产品 For steel below HRC55°, stainless steel, sticky materials, superalloy, titanium alloy, high-end products
DJ006-820JX-1	古铜色 Bronze	金钢系列, HRC62°以下加硬材料、焊接材料、SS410马氏体不锈钢, 针对高难度加工材质, 高端产品 For hardened materials, steel below HRC62°, SS410, Inconel, Gas cutting, difficult-to-machining materials
YZ001-820J	金黄色 Gold	压制螺纹刀片, 超级耐用! 专业不锈钢、HRC50°以下钢件、高温合金, 性价比之王 Pressed thread insert. For stainless steel, steel below HRC50°, superalloy, good value for money
YZ001-DY88	灰黑 Grey Black	压制螺纹刀片, HRC55°以下钢件, 镍基合金等难加工材料, 高难度材质加工产品 Pressed thread insert, for steel below HRC55°, stainless steel, nickel-based alloy, good value for money
YZ001-Z5255	深黑色 Dark Black	压制螺纹刀片, 高级黑金钢化学涂层! 铸件首选! 加工球墨铸铁、灰口铸铁、铸钢件, 专业产品 CVD coating, pressed thread insert, for ductile iron, grey cast iron, cast steel, specialty products
DSS-YZ	黑色 Dark Black	压制螺纹刀片, 高端化学涂层, 专注于双相不锈钢, 钽合金, 压铸不锈钢, 难加工复合材质, 专业产品 CVD coating, pressed thread insert, for duplex stainless steel, tantalum alloy, cast stainless steel, specialty products
SL003-F66	紫红色 Purple	压制螺纹刀片, 精磨齿型, HRC50°以下钢件、不锈钢, 高端产品 Pressed thread, teeth grinding, for steel below HRC55°, stainless steel, high-end products
JSL003-J68	七彩 Multi-color	压制螺纹刀片, 精磨齿型, HRC55°以下钢件、不锈钢、粘性材料, 高温合金通用, 高端产品 Pressed thread, teeth grinding, for steel below HRC55°, sticky materials, superalloy, high-end products
SL003-820JR	古铜色 Bronze	压制螺纹刀片, 精磨齿型, HRC58°以下硬料、不锈钢、高温合金通用, 高端产品 Pressed thread, teeth grinding, for hardened steel HRC58°, stainless steel, heat-resistant alloys
DJ3225	镜面抛光 Mirror Polished	铝、铜、塑胶 For aluminum, copper and non-metallic materials
DJ001-N	DLC镜面七彩 Multi-color	铝件、铜件、非金属材料, 铝用专属涂层, 增加耐磨性 For aluminum, copper and non-metallic materials. Specialized aluminum coating for enhanced wear resistance

刀片选用指南
INSERT SELECTION GUIDE

为了使您有良好的加工品质, 在选择和使用时请考虑以下几点:
To ensure high machining quality, consider the following when selecting and using threading tools:

① 根据加工内、外螺纹、螺纹旋向及工件螺距、牙数/英寸, 按我们提供的“车削外(内)螺纹用刀片”表选择合适型号的螺纹刀片(样本), 并请与我们的销售人员沟通, 根据被加工零件的材料, 选择最适合您使用的刀片牌号。

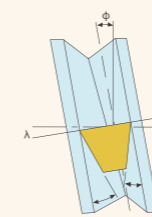
① Threading Insert Selection
Choose the appropriate insert based on thread type (internal/external), handedness (left/right), pitch, and TPI. Refer to our Thread Turning Insert Chart and consult our sales team to select the best insert grade for your workpiece material.

② 根据您所采用的车床的型号, 加工方式及已选用的刀片型号来选择适当的刀杆型号。

② Toolholder Selection
Select a compatible toolholder based on your lathe type, machining method, and insert code to ensure stability and tool longevity.

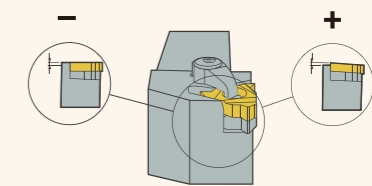
③ 刀垫选择: 螺纹的螺旋升角必须和刀片的倾斜角一致, 尽可能避免后刀面一侧的不利磨损, 致使刀具寿短。
我们在制造螺纹刀杆时已经将倾角设计为1°

③ Shim Selection & Adjustment
- The thread helix angle must match the insert inclination angle to prevent uneven wear and extend tool life.
- Our toolholders are designed with a 1° inclination angle for optimal performance.



为了加工出正确的螺纹牙型并保持刀片磨损均匀, 切削刃倾角(λ)应该等于螺纹导程角(ϕ)。

The cutting edge inclination angle (λ) should be same as the thread lead angle (ϕ) to ensure accurate thread profiles and even insert wear.



通过变换刀垫, 刃倾角可以在+5到-2变动。同一个刀垫既可用于右手刀杆又可用于左手刀杆。中心高保持恒定。

Adjusting the shim allows the cutting edge inclination angle to vary from +5° to -2°. A single shim fits both left-hand and right-hand toolholders while maintaining a constant center

④ 切削速度的选择 Selection of Cutting Speed

转速 RPM $n = \frac{V_c \cdot 1000}{\pi \cdot D}$ (rev/min)

切削速度 Cutting Speed $V_c = \frac{\pi \cdot D \cdot n}{1000}$ (m/min)

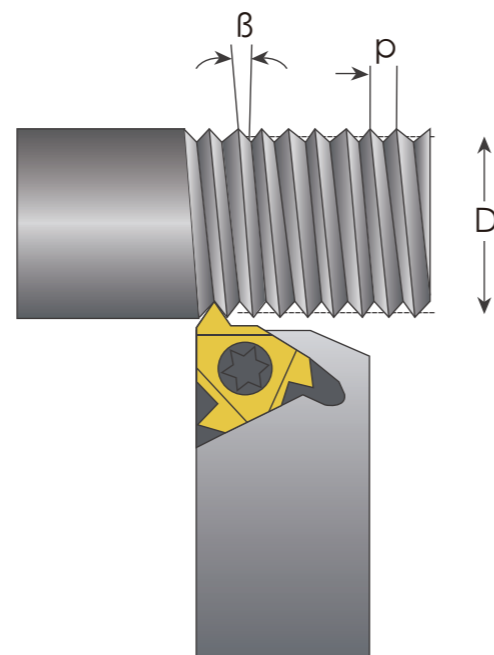
移动速度/进给速度 Feed Speed $V_f = \frac{n \cdot P_h}{1000}$ (m/min)

导程 Lead $P_h = P \cdot \text{头数}$ (mm)

刃倾角 Inclination Angle $\lambda = \arctan \frac{P_h}{D_2 \cdot \pi}$ (°)

螺距与TPI换算 Transfer from Pitch to TPI $TPI = \frac{25.4}{P}$ (m/min)

- D = 工件直径 Workpiece Diameter (mm)
- D₂ = 螺纹中径 (公称直径) Thread Diameter (Nominal Diameter) (mm)
- n = 转速 RPM (rev/min)
- P = 螺距 Pitch (mm)
- P_h = 导程 Lead (mm)
- V_f = 移动速度 (进给速度) Feed Speed (m/min)
- TPI = 每英寸牙数 Thread Per Inch
- V_c = 切削速度 Cutting Speed (m/min)
- λ = 刃倾角 Inclination Angle (°)



$$\beta = \arctan \frac{P \times N}{\pi \times D}$$

切削速度V_c: m/min

碳钢 Carbon Steel	低合金钢 Low Alloy Steel	HB180	125
		HB250	100
		HB275	95
高合金钢 High Alloy Steel		HB200	110
		HB325	80
	铸钢 Cast Steel	HB180	200
不锈钢 Stainless Steel		HB200	110
	易切钢 Free-cutting Steel	HB220	120-140
	铁素体/马氏体 Ferritic/Martensitic Steel	HB330	90
铸铁 Cast Iron	奥化体 Austenitic Steel	HB200	90
		HB330	65
	球墨铸铁 Ductile Iron	HB130	135
	HB230	65	
冷硬铸铁 Chilled Cast Iron	灰口铸铁 Grey Cast Iron	HB180	130
		HB260	110
		HB400	15-45

对于不锈钢的螺纹切削，最重要的是切削速度V_c要足够高，以避免“积屑瘤”现象。为了提高小刀尖角刀片的寿命，比如NPT螺纹，可先用较大刀尖角刀片先加工一次，或将切削参数相应改变（增加切削次数）。

For stainless steel threading, maintaining a high cutting speed (V_c) is crucial to prevent built-up edge (BUE) formation. To extend the lifespan of inserts with small tip angles (e.g., for NPT threads), consider using a larger tip angle insert for an initial pass or adjusting cutting parameters by increasing the number of passes.



⑤ 进刀方式选择 Selection of Infeed Methods

- 径向进刀：通常车削螺纹时，应首先选择径向进刀的方式进行，此法操作简单，且对有加工硬化倾向材料如奥氏体不锈钢材料的首选。当加工大螺距时，易产生振动，可改为侧向进刀法或互动式进刀方法。

Radial Infeed:

The default method for threading due to its simplicity.

Recommended for work-hardening materials like austenitic stainless steel.

For large-pitch threads, radial infeed may cause vibrations—switching to flank or incremental infeed is advised.

- 侧向进刀法：易于对切屑流向的控制，便于切屑的排出及减轻车削螺纹时的振动，螺纹的表面粗糙度良好。为了在侧向进刀时保持刀片齿形仍能获得均匀的磨损，对600公制螺纹采用在径向切深AP的同时，在轴向进给1/2 AP的方法获得：

Flank Infeed:

Provides better chip flow control, reduces vibrations, and improves thread surface finish.

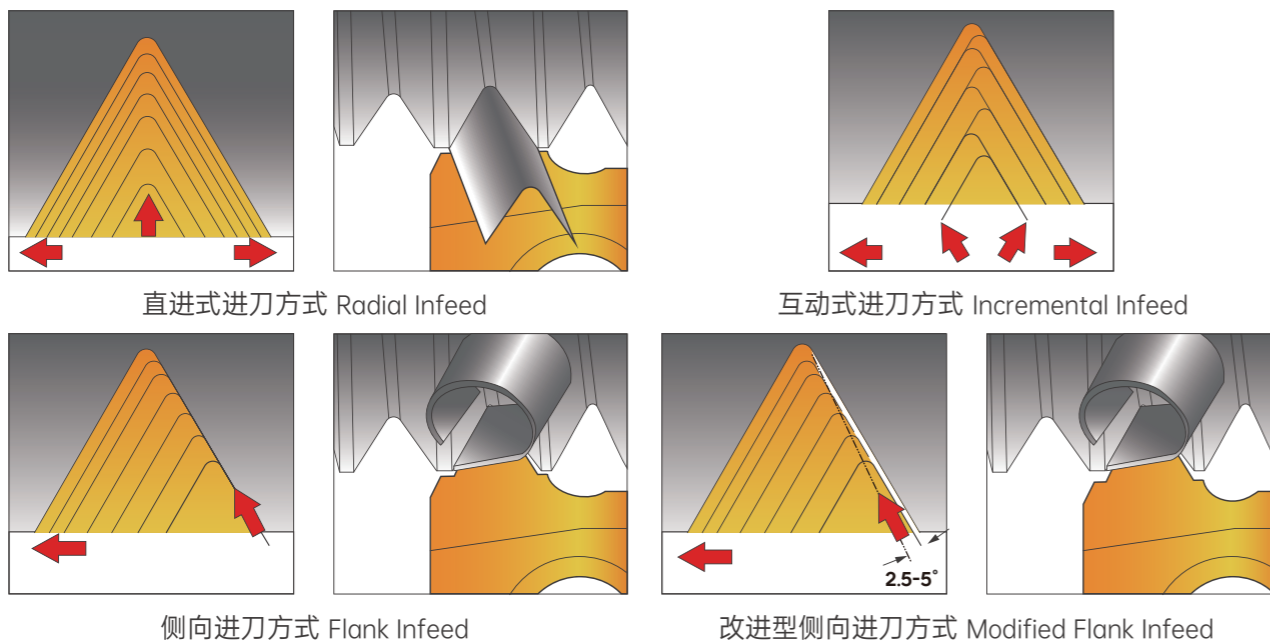
To ensure uniform insert wear, for 600-metric threads, use 1/2 AP axial feed while applying radial depth AP.

- 互动式进刀：大螺距粗牙螺纹首选，可明显减少刀片磨损，提高刀具寿命，易产生断屑问题，适合CNC数控机床上使用。

Incremental Infeed:

Best for large-pitch coarse threads, as it reduces insert wear, extends tool life, and minimizes chip-breaking issues.

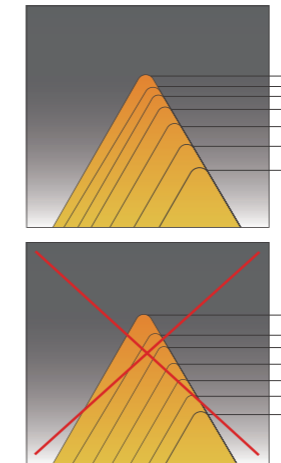
Ideal for CNC machining applications.



⑥ 步数与进刀深度 Cutting Passes & Depth of Cut

由于相对较脆的切削刃，螺纹不能一次切削完成。总的切削深度要分几步完成，每一步都需保持相近的切削力（相同的切削面积）。

Due to the brittle cutting edge, threads cannot be cut in a single pass. The total cutting depth must be completed in multiple steps, ensuring consistent cutting force (equal cutting area) for each pass.



- 如果发生刀片崩刃，步数应该增加。
If insert chipping occurs, increase the number of passes.
- 进刀深度应该不低于0.05MM/步。
The depth of cut per pass should not be less than 0.05 mm.
- 对于不锈钢，每步的进刀深度应该大于0.08MM/步。
For stainless steel, each pass should have a depth of at least 0.08 mm.
- 推荐值也可用于非全牙型刀片，步数应该增加。
These recommended values also apply to partial-profile inserts, but more passes may be required.

⑦ 进刀量推荐值 Recommended Infeed Depth

在大多数CNC机床上，螺纹加工的一个周期中，（如螺纹加工的固定循环）总的螺纹深度和第一刀或最后一刀的切深AP值应给出而在第一次进刀时采用最大的进刀深度（刀尖圆弧半径的1.5~2倍），随后的进刀深度应逐渐减小。最后一刀的进刀深度应不小于0.05MM的单边进刀量，否则易造成刀尖的磨损和工件齿面光洁度较差。

在目前的数控机床中，螺纹切削（固定循环）有两种加工方法：

径向进刀法均采用G32方式；(G33, G34, G35)；

侧向进刀法较多采用G76方式；

由于切削方法不同，编程方法不同，造成的加工误差不同。

In most CNC machines, during a threading cycle (e.g., fixed-threading loops), both total thread depth and the depth of cut (AP) for the first and final passes should be specified.

- The first pass should use the maximum depth of cut (1.5 to 2 times the tool tip radius).
- Subsequent passes should gradually decrease in depth.
- The final pass should have a depth of at least 0.05 mm per side, as smaller values may lead to excessive tool wear and poor thread surface finish.

CNC machines typically support two threading methods:

- Radial Infeed using G32 (G33, G34, G35).
- Lateral Infeed commonly using G76.

Since these methods differ in cutting approach, programming, and accuracy, they produce different machining errors.

(1) 两种加工方式的编程指令。

(A) G32X (U) - Z (W) - F ---;

G32编程：切削深度分配方式一般为常量值，双刃切削，每次的切削深度AP编程人员给出。

径向进刀法由于双侧刃同时工作，切削刀较大，而且排屑困难。因此在切削时，两切削刃容易磨损。在切削螺距较大的螺纹时，由于切削深度较大，刀刃磨损较快，从而造成螺纹中径产生误差。由于其加工的牙形精度较高，多用于小螺距螺纹加工中，注意一点的是，刃口容易磨损，因此加工中要做到勤测量。

(B) G76P (M) (2) Q (ΔD_{min}) R(D);

G76X (U) Z (W) R () Q () F ();

G76编程：切削深度分配方式为递减式，其切削为单刃切削，其切削深度由控制系统自动计算给出。

G76侧向进刀法，由于为单侧刃加工，加工刃容易损坏和磨损，使加工的螺纹表面不直，刀尖角发生变化，而造成牙形精度降低。同时其为单刃切削，刀具负载较小，排屑容易，及减轻车削时振动。此种方法一般适用于大螺距螺纹加工。在加工较高精度螺纹时，建议采用“双刀”切削，即是先按G76方法时行粗加工，G32方法进行精加工。注意一点的是刀具起始点要准确定位一致，否则易造成乱扣。

(1) Programming Commands for Two Infeed Methods

(A) G32 Radial Infeed

G32X (U) --- Z(W) -----;

- Characteristics:

- Uses a constant cutting depth, with double-edged cutting.
- The programmer specifies cutting depth (AP) for each pass.
- Both cutting edges engage simultaneously, leading to higher cutting forces and chip evacuation issues.
- Faster tool wear, especially for large-pitch threads, potentially causing pitch diameter errors.
- Provides high thread profile accuracy, making it suitable for fine-pitch threads.
- Frequent measurement is necessary due to edge wear.

(B) G76 Lateral Infeed

G76P (M) Q (ΔD_{min}) R(D);

G76X (U) Z (W) R () Q () F ();

- Characteristics:

- Uses a degressive cutting depth distribution.
- Performs single-edge cutting, with depth automatically calculated by the control system.
- Since only one cutting edge is engaged, uneven tool wear may occur, affecting thread surface straightness and profile accuracy.
- Lower tool load, better chip evacuation, and reduced vibration make it ideal for large-pitch threads.
- For high-precision threads, a "double-tool" strategy is recommended:
 - G76 for rough threading.
 - G32 for finish threading.

》》》 各型号螺纹刀片切削推荐参考参数

Cutting Parameters of Different Thread Inserts

公制ISO有修光刃外螺纹进刀参数 Infeed of Metric ISO External Thread Insert with Wiper						
螺距 Pitch (mm)	1.0	1.25	1.5	1.75	2.0	2.5
总进刀量 (ap)	0.72	0.86	1.02	1.17	1.33	1.63
走刀次数 (nap)	5	6	7	8	9	11
走刀顺序 Passes Sequence	径向进刀 Radial Infeed (X) 齿侧进刀 Flank Infeed (Z)					
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.20/-	0.20/-	0.21/-	0.22/-	0.24/-	0.25/-
2	0.18/0.10	0.18/0.10	0.18/0.10	0.20/0.12	0.22/0.13	0.24/0.14
3	0.16/0.09	0.16/0.09	0.18/0.10	0.18/0.10	0.20/0.12	0.21/0.12
4	0.10/0.06	0.14/0.06	0.15/0.09	0.15/0.09	0.15/0.09	0.18/0.10
5	0.08/-	0.10/0.06	0.12/0.07	0.13/0.08	0.12/0.07	0.15/0.09
6		0.08/-	0.10/0.06	0.11/0.06	0.12/0.07	0.12/0.07
7			0.08/-	0.10/0.06	0.10/0.06	0.12/0.07
8				0.08/-	0.09/0.05	0.10/0.06
9					0.08/-	0.10/0.06
10						0.08/0.05
11						0.08/-

公制ISO有修光刃内螺纹进刀参数 Infeed of Metric ISO Internal Thread Insert with Wiper						
螺距 Pitch (mm)	1.0	1.25	1.5	1.75	2.0	2.5
总进刀量 (ap)	0.62	0.77	0.92	1.07	1.21	1.49
走刀次数 (nap)	5	6	7	8	9	11
走刀顺序 Passes Sequence	径向进刀 Radial Infeed (X) 齿侧进刀 Flank Infeed (Z)					
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.18/-	0.20/-	0.22/-	0.23/-	0.24/-	0.25/-
2	0.14/0.08	0.15/0.09	0.16/0.09	0.16/0.09	0.18/0.10	0.20/0.12
3	0.12/0.07	0.12/0.07	0.14/0.08	0.14/0.08	0.15/0.09	0.15/0.09
4	0.10/0.06	0.12/0.07	0.12/0.07	0.13/0.08	0.14/0.08	0.15/0.09
5	0.08/-	0.10/0.06	0.11/0.06	0.12/0.07	0.12/0.07	0.13/0.08
6		0.08/-	0.09/0.05	0.11/0.06	0.11/0.06	0.12/0.07
7			0.08/-	0.10/0.06	0.10/0.06	0.12/0.07
8				0.08/-	0.09/0.05	0.10/0.06
9					0.08/-	0.10/0.06
10						0.09/0.05
11						0.08/-

美制统一螺纹UN外螺纹进刀参数 Infeed of UN External Thread Insert					
螺距 (TPI)	12	16	18	20	
总进刀量 (ap)	1.299	0.974	0.866	0.779	
走刀次数 (nap)	9	7	6	6	
走刀顺序 Passes Sequence	径向进刀 Radial Infeed (X) 齿侧进刀 Flank Infeed (Z)				
	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.229/-	0.226/-	0.233/-	0.210/-	
2	0.222/0.128	0.188/0.109	0.181/0.104	0.163/0.094	
3	0.170/0.098	0.145/0.083	0.139/0.080	0.125/0.072	
4	0.143/0.083	0.122/0.070	0.117/0.068	0.105/0.072	
5	0.126/0.073	0.107/0.062	0.103/0.059	0.093/0.054	
6	0.114/0.066	0.097/0.056	0.093/0.054	0.084/0.048	
7	0.105/0.061	0.089/0.052			
8	0.098/0.056				
9	0.092/0.053				

美制统一螺纹UN内螺纹进刀参数 Infeed of UN Internal Thread Insert					
螺距 (TPI)	12	16	18	20	
总进刀量 (ap)	1.222	0.916	0.815	0.733	
走刀次数 (nap)	9	7	6	6	
走刀顺序 Passes Sequence	径向进刀 Radial Infeed (X) 齿侧进刀 Flank Infeed (Z)				
	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.222/-	0.230/-	0.174/-	0.191/-	
2	0.207/0.120	0.173/0.10	0.161/0.093	0.155/0.089	
3	0.159/0.092	0.132/0.076	0.124/0.072	0.119/0.069	
4	0.134/0.077	0.112/0.064	0.104/0.060	0.100/0.058	
5	0.118/0.068	0.098/0.057	0.092/0.053	0.088/0.051	
6	0.107/0.062	0.089/0.051	0.083/0.048	0.08/0.046	
7	0.098/0.057	0.082/0.047	0.077/0.044		
8	0.091/0.053				
9	0.086/0.050				

美制管螺纹NPT内/外螺纹进刀参数 Infeed of NPT Internal/External Thread Insert					
螺距 (TPI)	11.5	14	18		
总进刀量 (ap)	1.767	1.451	1.129		
走刀次数 (nap)	12	10	8		
走刀顺序 Passes Sequence	径向进刀 Radial Infeed (X) 齿侧进刀 Flank Infeed (Z)				
	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.24/-	0.24/-	0.22/-		
2	0.208/0.12	0.200/0.115	0.181/0.104		
3	0.182/0.105	0.170/0.098	0.152/0.088		
4	0.168/0.097	0.150/0.086	0.141/0.081		
5	0.155/0.089	0.140/0.081	0.131/0.075		
6	0.145/0.084	0.130/0.075	0.121/0.070		
7	0.138/0.079	0.120/0.069	0.101/0.058		
8	0.124/0.072	0.010/0.063	0.082/0.047		
9	0.117/0.067	0.100/0.058			
10	0.105/0.060	0.090/0.052			
11	0.095/0.055				
12	0.090/0.052				

英制管螺纹BSPT内/外螺纹进刀参数 Infeed of BSPT Internal/External Thread Insert					
螺距 (TPI)	11	14	19		
总进刀量 (ap)	1.479	1.162	0.856		
走刀次数 (nap)	10	8	6		
走刀顺序 Passes Sequence	径向进刀 Radial Infeed (X) 齿侧进刀 Flank Infeed (Z)				
	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.214/-	0.222/-	0.223/-		
2	0.242/0.126	0.213/0.111	0.181/0.094		
3	0.186/0.097	0.163/0.085	0.139/0.072		
4	0.157/0.082	0.138/0.072	0.117/0.061		
5	0.138/0.072	0.121/0.063	0.103/0.054		
6	0.125/0.065	0.110/0.057	0.093/0.049		
7	0.115/0.060	0.101/0.052			
8	0.107/0.056	0.094/0.049			
9	0.100/0.052				
10	0.095/0.049				

在螺纹加工中应注意的事项

KEY CONSIDERATIONS FOR THREAD MACHINING

- ① 首先是刀杆的安装，根据所使用的机床，选购符合本机床中心高的螺纹刀杆。外螺纹不论工件直径大小选用一把刀杆即可。内螺纹要根据工件内径大小选用不同直径刀杆，（型号及适用的范围见样本第7页）主要是考虑刀杆的强度。在安装刀杆时，应充分了解所使用机床的实际中心高，由于现生产机床的厂家众多，在所接触的客户中，同一厂家的同一型号机床的中心高都有不同。

(1) 外螺纹刀杆安装时，标明同一中心高（机床、刀杆）的刀杆直接安装即可，我们在制造刀杆时已将中心高控制在最佳尺寸。

(2) 内螺纹刀杆安装时应注意：（如果是使用圆刀杆，而使用机床的刀台本身是使用圆柄的刀杆，压聚后就无须调整。如果是四方刀台，使用圆柄刀杆，不可避免地要将刀杆垫到合适的中心高，就可能造成中心高不准确，而且容易造成加工后的螺纹半角不正确。加工时最好将中心高调整到机床中心在线（垫高）0.1-0.2MM，不能太高否则造成后刀面的磨损，如中心高低于机床中心线，则容易将刀尖打掉。另外可选用方柄的内螺纹刀杆，中心高已在制造时控制在最佳尺寸。

(3) 选用刀垫；（参考选用指南资料）不正确刀垫将导致刀片侧后刀面的过度磨损。

① Toolholder Installation

- Choose a thread toolholder that matches the center height of the machine.
- External threading: One toolholder can be used regardless of workpiece diameter.
- Internal threading: Select different toolholder diameters based on the workpiece's internal diameter to ensure sufficient strength.

(1) External Threading Toolholder Installation

- If the machine and toolholder share the same center height, install directly.
- Our toolholders are designed with an optimized center height.

(2) Internal Threading Toolholder Installation

- For round toolholders: No adjustment is needed if the machine's tool post supports round shanks.
- For square tool posts: Shimming may be required to achieve the correct center height, ideally 0.1-0.2 mm above the centerline. Incorrect height can cause tool wear or profile errors.

- Alternative: Square-shank internal threading toolholders are pre-set at the optimal center height.

(3) Shim Selection

- Incorrect shims can cause excessive wear on the tool's clearance face. Refer to the selection guide.

- ② 其二考虑机床的性能，要求有较好的刚性及足够高的转速和良好的冷却系统。在螺纹加工中往往要求的切削速度较高，一般都在80-120转/分之间，这是为了避免在切削加工中产生积屑瘤和得到较低的表面粗糙度（较高的表面光洁度）。切削速度的选用根据被加工材料来确定（参考选用指南资料）。在螺纹加工中另一个值得注意的问题就是冷却。一般我们都是将冷却液冲到工件上就可以了，其是不然，应将冷却液直接冲到刀尖与工件接触的地方，并且冷却液要冷却系统中要得到足够高的流量15-20升/分（压力），这是因为在加工中刀尖处产生很高的温度，一般无衡力（压力）的冷却液体还没有到达刀尖处就已经气化了，基本上没有起到冷却刀尖处的作用，而只是冷却了被加工的零件，而这时刀尖就容易被烧掉。

② Machine Performance Considerations

- Rigidity, spindle speed, and cooling system are critical.
- Cutting speed: Typically 80-120 RPM, preventing built-up edge (BUE) formation and improving surface finish.
- Cooling:
 - Coolant must directly hit the tool tip, not just the workpiece.
 - Flow rate should be 15-20 L/min with sufficient pressure to prevent heat buildup at the tool tip.

- ③ 选用合理的切削参数也是提高刀片寿命的因素。

(1) 外螺纹加工时，由于排屑顺利，一般为了编程方便，我们采用直进式的加工方式，而只是在螺纹要求极高的情况下，才采用控制切屑流向的加工方式。

(2) 内螺纹加工时，对于大内径的工件，由于排屑顺利，大多数情况下，采用直进式加工方式；对于内径较小的内螺纹，由于排屑空间很小，采用直进式加工方式切屑缠绕在刀杆上很容易将刀尖打掉，同时切屑使已加工表面产生划道从而影响工件的表面质量，这时可采用斜进式加工方式，控制切屑使切屑沿刀体背向切削方向排出，这样可使刀片的寿命延长及得到较好的表面质量（参数选用见附表）。

③ Optimal Cutting Parameters

(1) External Threading

- Radial infeed is standard for programming convenience.
- For high-precision threads, a controlled chip-breaking method is preferred.

(2) Internal Threading

- For large internal diameters: Radial infeed is generally used due to better chip evacuation.
- For small internal diameters:
 - Chips tend to entangle around the toolholder, risking tool tip breakage.
 - Tangential infeed helps direct chips away, prolonging tool life and improving surface quality.

④ 被加工零件毛坯的加工：（适用于有修光刃螺纹刀片）

(1) 加工外螺纹时，毛坯外径尺寸应大于螺纹的名义尺寸。如M30X1.5，毛坯外径尺寸为中30.1MM。

(2) 加工内螺纹时，毛坯外径尺寸应大于螺纹的名义尺寸。如M30X1.5，毛坯外径尺寸为中29.9MM。

④ Workpiece Blank Preparation (For inserts with finishing edges)

- External threading: The blank diameter should be slightly larger than the nominal thread size.
 - Example: For M30×1.5, the blank diameter should be 30.1 mm.
- Internal threading: The blank diameter should be slightly smaller than the nominal size.
 - Example: For M30×1.5, the blank diameter should be 29.9 mm.

- ⑤ 如在加工中刀片崩掉，重新换刀片（或转位）加工时应仔细检查工件上是否有残留的合金碎渣。如有，应全部将其去除后，方能继续加工。

⑤ Tool Breakage Handling

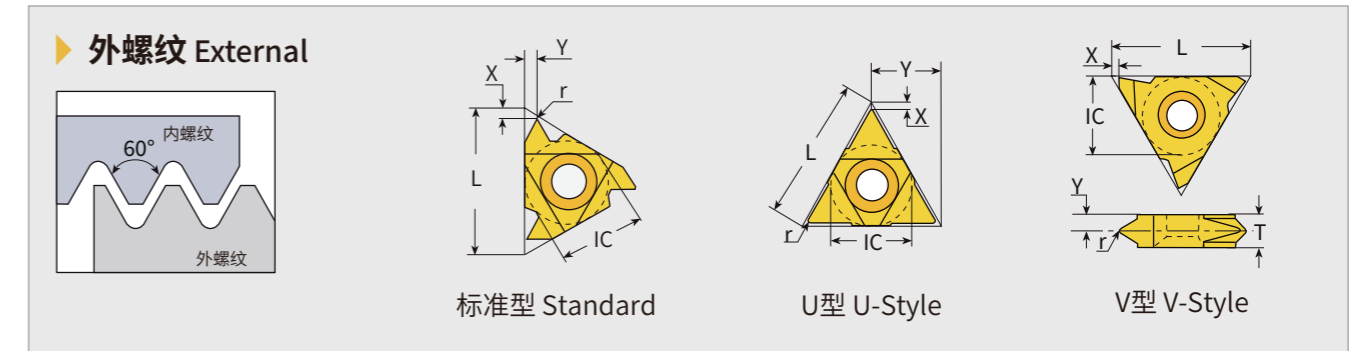
- If an insert breaks, carefully inspect the workpiece for any remaining carbide debris before resuming machining.
- All residues must be removed to prevent further tool damage.



螺纹车削问题及解决方法 Thread Turning Problems And Solutions

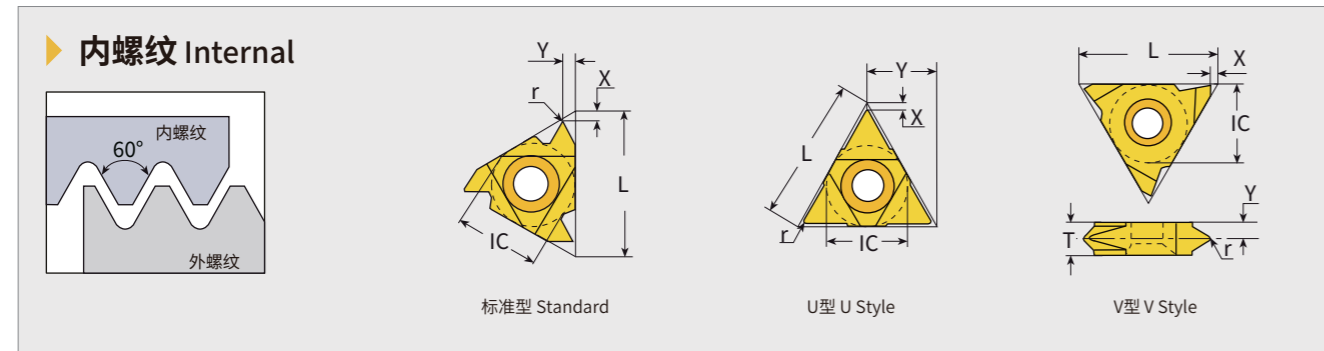
问题 Problems	可能原因 Possible Reasons	解决方法 Solutions
振动 Vibration 	工件装夹不正确 Workpiece not clamped correctly 刀具安装不正确 Tool not installed correctly 切削参数不正确 Incorrect cutting parameters 刀具中心高不正确 Incorrect tool center height 螺纹底径不正确 Incorrect thread bottom diameter	选择较软的夹头 Choose softer chuck 减少刀具悬深, 检查刀具是否压紧 Reduce overhang 提高线速度, 如不行则大大降低线速度 Increase Vc, otherwise greatly reduce Vc 使用连续恒定进给量0.1-0.16 Choose continuous feed 采用正确的中心高 Adjust the center height 检查螺纹底径是否正确 Check thread bottom diameter
后刀面快速磨损 Rapid Flank Wear 	切削速度太高 High cutting speed 每步切深太浅 Shallow cutting depth 刀片材质选择不正确 Incorrect insert grade 刀垫选择不合理 Incorrect shim selection	降低切削速度 Lower cutting speed 增加每步进刀深度 Increase depth of cutting passes 选择侧向进给方式加工 Choose flank infeed method 选用更耐磨的材质 Choose more wear-resistant insert 检查并确保正确选择刀垫 Confirm to use right shim
刀片崩刃 Insert Chipped 	切削力过大, 加工步数不合理 Large force, incorrect cutting passes 刀片材质过硬 Insert is too hard 切削刃中心高不正确 Incorrect center height 刀杆、刀片松动 Holder, insert mounted untightly 积屑瘤产生 Build-up edge	增加进刀次数 Increase the No. of cutting passes 选用韧性更好的材质 Choose insert with better toughness 检查刀具的装夹 Re-clamp the tool 检查切削刃的中心高 Adjust the center height 检查积屑瘤 Check the built-up edge
螺纹表面品质差 Poor Thread Surface Finish 	切削速度过低 Low cutting speed 刀片在中心线以上 Insert is above the center line 切屑控制较差 Poor chip control	提高切削速度 Increase cutting speed 采用正确的中心高 Adjust the center height 检查并确保正确选择刀垫 Confirm to use right shim 选择侧向进给方式加工 Choose flank infeed method
切屑控制差 Poor Chip Control 	切削速度低 Low cutting speed 切削区温度过高 High cutting temperature 刀垫选择不合理 Incorrect shim selection 冷却液供应量不足 Insufficient coolant	减少进刀次数 Reduce the No. of cutting passes 提高切削速度 Increase cutting speed 选择侧向进给方式加工 Choose flank infeed method 增加冷却液供应量 Increase coolant supply 选择正确的刀垫, 控制切屑流向 Choose right shim
积屑瘤 Built-Up Edge 	切削速度影响 Affected by cutting speed	改切削速度 Changing cutting speed 不使用冷却液 No coolant
刀片微崩 Insert Slightly Chipped 	刀片材质选择不正确 Incorrect insert material grade selection 刀杆的装夹是否可靠 Is the clamping of the tool holder not firm 刀片的安装是否可靠 Is the installation of the insert not firm	选用韧性更好的材质 Choose insert with better toughness 检查刀具的装夹 Check tool clamping 检查切削速度 Check cutting speed 使用侧向进刀 Choose flank infeed method
塑性变形 Plastic Deformation 	刀片材质选择不正确 Incorrect insert material grade selection 切削速度太高 Cutting speed is too high 加工步数不合理 Incorrect No. of passes 冷却液供应量不足 Insufficient coolant	选择抗塑性变形能力更好的材质 Choose insert with resistance to plastic deformation 降低切削速度 Lower cutting speed 增加进刀次数 Increase the No. of cutting passes 增加冷却液供应量 Increase coolant supply 切削螺纹前检查螺纹底径 Check thread bottom diameter

60° 范牙型 Partial Profile 60°



标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	ø1.C	L mm	mm	TPI	RH	LH	X	Y
	3/16	08	0.5-1.5		08ERA60		0.8	0.6
	1/4	11	0.5-1.5		11ERA60	11ELA60	0.8	0.9
	3/8	16	0.5-1.5		16ERA60	16ELA60	1.7	2.5
			1.75-3.0		16ERG60	16ELG60	1.2	1.7
	1/2	22	0.5-3.0		16ERAG60	16ELAG60	1.2	1.7
5/8	27	3.5-5.0		22ERN60	22ELN60	1.7	2.5	
			5.5-6.0		27ERQ60	27ELQ60**	1.7	2.5
U型 U-Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	ø1.C	L mm	mm	TPI	RH+LH		X	Y
	1/2	22	5.5-8.0		22UEI-U60		0.6	11.0
	5/8	27	6.5-9.0		27UEI-U60		1.0	13.7
V型 V-Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	ø1.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	0.5-1.5		11VERA60**	11VELA60**	0.69	2.3
			0.5-1.5		16VERA60	16VELA60**	1.0	0.9
3/8	16	1.75-3.0		16VERG60	16VELG60**	1.0	1.8	
		0.5-3.0		16VERAG60	16VERAG60**	1.9	3.6	
1/2	22	1.75-3.0		22VERAG60*	22VERAG60**	1.2	1.7	
		3.5-5.0		22VERN60	22VERN60**	1.2	2.5	
5/8	27	6.5-9.0		27VERV60**	27VELV60**	1.0	4.3	

60° 范牙型
Partial Profile 60°

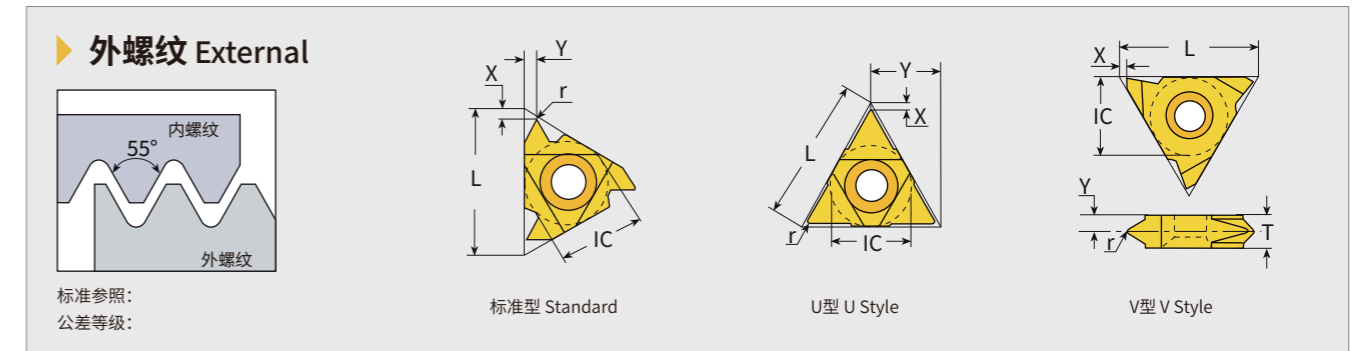


标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	∅.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06	0.5-1.5		06IRA60		0.6	0.6
	3/16	08	0.5-1.5		08IRA60		0.6	0.7
	1/4	11	0.5-1.5		11IRA60	11ILA60	0.6	0.8
			0.5-1.5		16IRA60	16ILA60	0.6	0.8
	3/8	16	1.75-3.0		16IRG60	16ILG60	1.1	1.5
			0.5-3.0		16IRAG60	16ILAG60	1.1	1.5
	1/2	22	3.5-5.0		22IRN60	22ILN60	1.8	2.5
	5/8	27	5.5-6.0		27IRQ60	27ILQ60**	1.8	2.7

U型 U-Style									
刀片形状 Image	∅.C	L mm	mm	TPI	RH+LH		X	Y	
		1/2	22	5.5-8.0		22UEI-U60		0.6	11.0
		5/8	27	6.5-9.0		27UEI-U60		1.0	13.7

V型 V-Style									
刀片形状 Image	∅.C	L mm	mm	TPI	RH	LH	X	Y	
		1/2	22	3.5-5.0		22VIRN60			
		5/8	27	6.0-10.0		27VIRV60	27VILV60**	1.0	1.0

55° 范牙型
Partial Profile 55°



标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	∅.C	L mm	mm	TPI	RH	LH	X	Y
	3/16	08		48-16	08ERA55		0.6	0.7
	1/4	11		48-16	11ERA55	11ELA55	0.8	0.9
				48-16	16ERA55	16ELA55	0.8	0.9
	3/8	16		14-8	16ERG55	16ELG55	1.2	1.7
				48-8	16ERAG55	16ELAG55	0.9	0.9
	1/2	22		7-5	22ERN55	22ELN55	0.8	0.9
	5/8	27		4.5-4	27ERQ55	27ELQ55**	2.0	2.9

U型 U-Style									
刀片形状 Image	∅.C	L mm	mm	TPI	RH+LH		X	Y	
		1/2	22		4.5-3.25	22UEI-U55**		0.9	11.0
		5/8	27		4-2.75	27UEI-U55**		1.2	13.7

V型 V-Style								
刀片形状 Image	∅.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11		48-16	11VERA55	11VELA55	0.8	2.7
				48-16	16VERA55	16VELA55	1.0	0.9
	3/8	16		14-8	16VERG55	16VELG55	1.0	1.7
				48-8	16VERAG55	16VELAG55	1.0	1.8
	1/2	22		7-5	22VERN55	22VELN55	1.2	2.5
5/8	27		4-2.75	27VERV55	27VELV55	1.0	4.3	

55° 范牙型
Partial Profile 55°

▶ 内螺纹 Internal

标准参照：
公差等级：

标准型 Standard U型 U Style V型 V Style

标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06		48-16	06IRA55		0.6	0.6
	3/16	08		48-16	08IRA55		0.6	0.7
	1/4	11		48-16	11IRA55	11ILA55	0.8	0.9
	3/8	16		48-16	16IRA55	16ILA55	1.2	1.7
				14-8	16IRG55	16ILG55	1.2	1.7
				48-8	16IRAG55	16ILAG55	1.2	1.7
	1/2	22		7-5	22IRN55	22ILN55	1.2	1.7
	5/8	27		4.5-4	27IRQ55	27ILQ55**	2.0	2.9

U型 U-Style

刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions			
	øI.C	L mm	mm	TPI	RH+LH	X	Y
	1/2	22		4.5-3.25	22UEI-U55**	0.9	11.0
	5/8	27		4-2.75	27UEI-U55**	1.2	13.7

V型 V-Style

刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions				
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/8	27		4-2.5	27VIRV55	27VILV55**	1.0	4.3

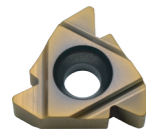
60° ISO 公制
Metric Thread 60° (ISO)

▶ 外螺纹 External

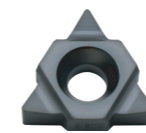
标准参照：
公差等级：

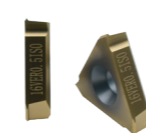
标准型 Standard M+型 M+ Style U型 U Style V型 V Style

标准型 Standard										
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions			
	øI.C	L mm	mm	TPI	RH	LH	X	Y		
	1/4	11		0.35	11ER0.35ISO	11EL0.35ISO**	0.8	0.4		
				0.4	11ER0.4ISO	11EL0.4ISO**	0.7	0.4		
				0.45	11ER0.45ISO	11EL0.45ISO**	0.7	0.4		
				0.5	11ER0.5ISO	11EL0.5ISO	0.6	0.4		
				0.6	11ER0.6ISO**	11EL0.6ISO**	0.6	0.6		
				0.7	11ER0.7ISO	11EL0.7ISO**	0.6	0.6		
				0.75	11ER0.75ISO	11EL0.75ISO	0.6	0.6		
				0.8	11ER0.8ISO	11EL0.8ISO	0.6	0.6		
				1.0	11ER1.0ISO	11EL1.0ISO	0.7	0.7		
				1.25	11ER1.25ISO	11EL1.25ISO	0.8	0.9		
				1.5	11ER1.5ISO	11EL1.5ISO	0.8	1.0		
				1.75	11ER1.75ISO	11EL1.75ISO	0.8	1.1		
				2.0	11ER2.0ISO	11EL2.0ISO				
			3/8	16		0.35	16ER0.35ISO	16EL0.35ISO	0.8	0.4
						0.4	16ER0.4ISO	16EL0.4ISO	0.7	0.4
	0.45	16ER0.45ISO			16EL0.45ISO	0.7	0.4			
	0.5	16ER0.5ISO			16EL0.5ISO	0.8	0.8			
	0.6	16ER0.6ISO			16EL0.6ISO					
	0.7	16ER0.7ISO			16EL0.7ISO					
	0.75	16ER0.75ISO			16EL0.75ISO	0.8	0.8			
	0.8	16ER0.8ISO			16EL0.8ISO	0.6	0.6			
	1.0	16ER1.0ISO			16EL1.0ISO	0.8	0.8			

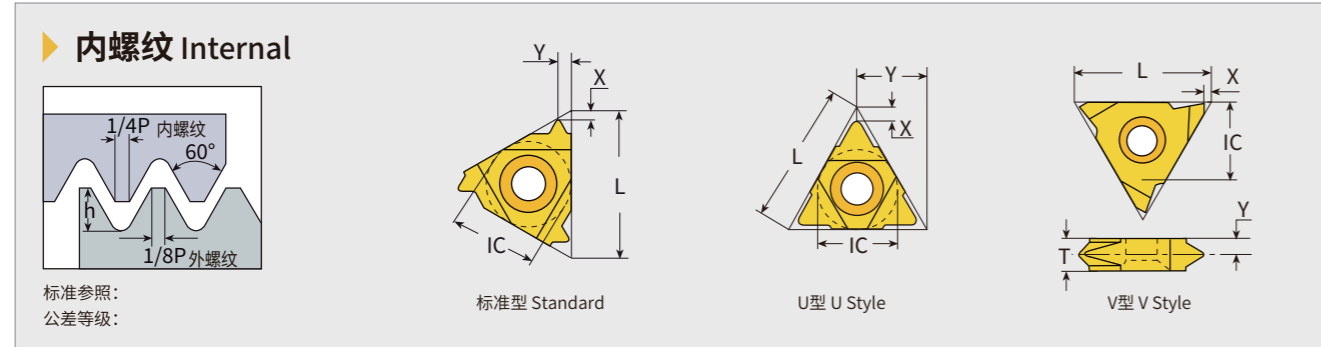
标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	ø1.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16	1.25		16ER1.25ISO	16EL1.25ISO	0.8	0.8
			1.5		16ER1.5ISO	16EL1.5ISO	0.8	0.8
			1.75		16ER1.75ISO	16EL1.75ISO	1.2	1.5
			2.0		16ER2.0ISO	16EL2.0ISO	1.2	1.5
			2.5		16ER2.5ISO	16EL2.5ISO	1.2	1.5
			3.0		16ER3.0ISO	16EL3.0ISO	1.2	1.5
	1/2	22	3.5		22ER3.5ISO	22EL3.5ISO**	1.2	1.5
			4.0		22ER4.0ISO	22EL4.0ISO	1.8	2.5
			4.5		22ER4.5ISO	22EL4.5ISO	1.8	2.5
			5.0		22ER5.0ISO	22EL5.0ISO	1.8	2.5
5/8	27	5.5		27ER5.5ISO	27EL5.5ISO**	1.9	2.7	
		6.0		27ER6.0ISO	27EL6.0ISO**	2.0	2.9	
		7.0		27ER7.0ISO	27EL7.0ISO**			
		8.0		27ER8.0ISO	27EL8.0ISO**			

M+型 M+ Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	ø1.C	L mm	mm	NT	RH	LH	X	Y
	3/8	16	1.0	3	16ER1.0ISO-3M		1.7	2.6
			1.0	2	16ER1.0ISO-2M			
			1.25	3	16ER1.25ISO-3M			
			1.25	2	16ER1.25ISO-2M			
			1.5	2	16ER1.5ISO-2M		1.6	2.4
			1.75	2	16ER1.75ISO-2M			
	1/2	22	1.5	3	22ER1.5ISO-3M		2.4	3.8
			2.0	3	22ER2.0ISO-3M		2.0	3.0
			2.0	2	22ER2.0ISO-2M			
	2.5	2	22ER2.5ISO-2M		3.1	4.9		
5/8	27	3.0	2	27ER3.0ISO-2M		2.7	4.3	

U型 U-Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	ø1.C	L mm	mm	TPI	RH+LH		X	Y
	1/2	22	5.5		22UE-5.5ISO		2.3	11.0
			6.0		22UE-6.0ISO		2.6	11.0
			6.0		27UE-6.0ISO			
	5/8	27	8.0		27UE-8.0ISO**		2.4	13.7
	3/4	33	10.0		27UE-10.0ISO			

V型 V-Style									
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	ø1.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11	0.75		11VER0.75ISO**	11VEL0.75ISO**	0.7	2.6	3.2
			1.0		11VER1.0ISO**	11VEL1.0ISO**	0.7	2.5	3.2
			1.5		11VER1.5ISO**	11VEL1.5ISO**	0.7	2.2	3.2
			1.75		11VER1.75ISO**	11VEL1.75ISO**	0.7	2.1	3.2
			2.0		11VER2.0ISO**	11VEL2.0ISO**	0.7	1.9	3.2
3/8	16	0.5		16VER0.5ISO	16VEL0.5ISO**	1.1	3.0	3.6	
		0.75		16VER0.75ISO	16VEL0.75ISO**	1.1	3.0	3.6	
		0.8		16VER0.8ISO	16VEL0.8ISO**	1.1	3.0	3.6	
		1.0		16VER1.0ISO	16VEL1.0ISO**	1.1	2.9	3.6	
		1.25		16VER1.25ISO	16VEL1.25ISO**	1.1	2.7	3.6	
		1.5		16VER1.5ISO	16VEL1.5ISO**	1.1	2.6	3.6	
		1.75		16VER1.75ISO	16VEL1.75ISO**	1.1	2.45	3.6	
		2.0		16VER2.0ISO	16VEL2.0ISO**	1.1	2.3	3.6	
		2.5		16VER2.5ISO	16VEL2.5ISO**	1.1	2.1	3.6	
		3.0		16VER3.0ISO	16VEL3.0ISO**	1.0	2.0	3.6	
1/2	22	1.5		22VER1.5ISO	22VEL1.5ISO**				
		2.0		22VER2.0ISO	22VEL2.0ISO**				
5/8	27	5.5		27VER5.5ISO**	27VEL5.5ISO**	1.0	3.3	6	
		6.0		27VER6.0ISO**	27VEL6.0ISO**	1.0	3.3	6	
		8.0		27VER8.0ISO**	27VEL8.0ISO**	1.0	4.3	8	
		10.0		27VER10.0ISO	27VEL10.0ISO**	1.0	5.2	10	

60° ISO 公制
Metric Thread 60° (ISO)

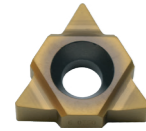


标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06	0.5		06IR0.5ISO	06IL0.5ISO**	0.9	0.5
			0.75		06IR0.75ISO	06IL0.75ISO**	0.8	0.5
			1.0		06IR1.0ISO	06IL1.0ISO	0.7	0.6
			1.25		06IR1.25ISO	06IL1.25ISO	0.6	0.6
			1.5		06IR1.5ISO	06IL1.5ISO**	0.6	0.6
	3/16	08	0.5		08IR0.5ISO	08IL0.50ISO**	0.6	0.5
			0.75		08IR0.75ISO	08IL0.75ISO**	0.6	0.5
			1.0		08IR1.0ISO	08IL1.0ISO	0.6	0.6
			1.25		08IR1.25ISO	08IL1.25ISO	0.6	0.7
			1.5		08IR1.5ISO	08IL1.5ISO	0.6	0.7
	1/4	11	0.35		11IR0.35ISO**	11IL0.35ISO**	0.8	0.3
			0.4		11IR0.4ISO**	11IL0.4ISO**	0.8	0.4
			0.45		11IR0.45ISO**	11IL0.45ISO**	0.8	0.4
			0.5		11IR0.5ISO	11IL0.5ISO	0.6	0.4
			0.6		11IR0.6ISO	11IL0.6ISO**	0.6	0.6
			0.7		11IR0.7ISO	11IL0.7ISO**	0.6	0.6
			0.75		11IR0.75ISO	11IL0.75ISO	0.6	0.6
			0.8		11IR0.8ISO	11IL0.8ISO**	0.6	0.6
			1.0		11IR1.0ISO	11IL1.0ISO	0.6	0.7
			1.25		11IR1.25ISO	11IL1.25ISO	0.8	0.9
			1.5		11IR1.5ISO	11IL1.5ISO	0.8	1.0
			1.75		11IR1.75ISO	11IL1.75ISO	0.9	1.1
			2.0		11IR2.0ISO	11IL2.0ISO	0.9	1.1
			2.5		11IR2.5ISO	11IL2.5ISO**	0.8	1.1

标准型 Standard											
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions				
	øI.C	L mm	mm	TPI	RH	LH	X	Y			
	3/8	16	0.35		16IR0.35ISO	16IL0.35ISO**	0.8	0.3			
			0.4		16IR0.4ISO	16IL0.4ISO**	0.8	0.4			
			0.45		16IR0.45ISO	16IL0.45ISO**	0.8	0.4			
			0.5		16IR0.5ISO	16IL0.5ISO	0.6	0.4			
			0.6		16IR0.6ISO	16IL0.6ISO**	0.6	0.6			
			0.7		16IR0.7ISO	16IL0.7ISO**	0.6	0.6			
			0.75		16IR0.75ISO	16IL0.75ISO	0.6	0.6			
			0.8		16IR0.8ISO	16IL0.8ISO**	0.6	0.6			
			1.0		16IR1.0ISO	16IL1.0ISO	0.6	0.7			
			1.25		16IR1.25ISO	16IL1.25ISO	0.8	0.9			
			1.5		16IR1.5ISO	16IL1.5ISO	0.8	1.0			
			1.75		16IR1.75ISO	16IL1.75ISO	0.9	1.2			
			2.0		16IR2.0ISO	16IL2.0ISO	1.0	1.3			
			2.5		16IR2.5ISO	16IL2.5ISO	1.1	1.5			
			3.0		16IR3.0ISO	16IL3.0ISO	1.1	1.5			
			3.5		16IR3.5ISO	16IL3.5ISO	1.2	1.5			
				1/2	22	3.5		22IR3.5ISO	22IL3.5ISO	1.6	2.3
						4.0		22IR4.0ISO	22IL4.0ISO	1.6	2.4
4.5		22IR4.5ISO				22IL4.5ISO	1.6	2.3			
5.0		22IR5.0ISO				22IL5.0ISO	1.6	2.3			
5.5		22IR5.5ISO				22IL5.5ISO**	1.6	2.5			
	5/8	27	6.0		27IR6.0ISO	27IL6.0ISO**	1.6	2.3			
			7.0		27IR7.0ISO	27IL7.0ISO**	1.6	2.3			
			8.0		27IR8.0ISO	27IL8.0ISO**	1.8	2.5			

M+ 型 M+ Style								
刀片形状 Image	刀片尺寸 Size		mm	NT	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm			RH	X	Y	
	3/8	16	1.0	3	16IR1.0ISO-3M			
			1.0	2	16IR1.0ISO-2M			
			1.5	3	16IR1.5ISO-3M			
			1.5	2	16IR1.5ISO-2M			
			1.75	2	16IR1.75ISO-2M			
			2.0	2	16IR2.0ISO-2M			
	1/2	22	1.5	4	22IR1.5ISO-4M			
			1.5	3	22IR1.5ISO-3M			
			2.0	3	22IR2.0ISO-3M			
			2.0	2	22IR2.0ISO-2M			
5/8	27	3.0	2	27IR3.0ISO-2M				

U型 U-Style



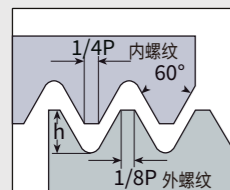
øI.C	L mm	mm	TPI	RH+LH	X	Y
3/16	08	2.0		08UIR2.0ISO	2.4	11.0
3/8	16	4.0		16UIR4.0ISO	2.1	11.0
		4.5		16UIR4.5ISO	2.4	13.7
		5.0		16UIR5.0ISO	3.2	16.9
		6.0		16UIR6.0ISO		
1/2	22	5.5		22UI-5.5ISO		
		6.0		22UI-6.0ISO		
5/8	27	5.5		27UI-5.5ISO		
		6.0		27UI-6.0ISO		
3/4	33	8.0		27UI-8.0ISO		
		12.0		33UI-12.0ISO**		

V型 V-Style

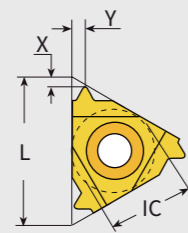
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions			
øI.C	L mm	mm	TPI	RH	LH	X	Y
5/8	27	6.0		27VIR6.0ISO**	27VIL6.0ISO**	1.0	3.3
		8.0		27VIR8.0ISO**	27VIL8.0ISO**	1.0	4.3
		10.0		27VIR10.0ISO**	27VIL10.0ISO**	1.0	5.2

60° 美制UN
Unified National Thread 60° (UN)

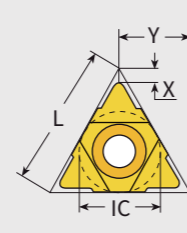
外螺纹 External



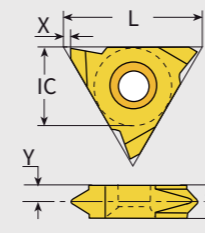
标准参照：
公差等级：



标准型 Standard



U型 U Style



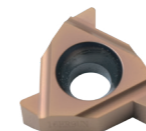
V型 V Style

标准型 Standard

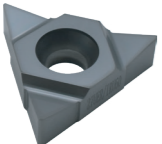
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions			
øI.C	L mm	mm	TPI	RH	LH	X	Y
1/4	11	72		11ER72UN**	11EL72UN**	0.8	0.4
		64		11ER64UN**	11EL64UN**	0.8	0.4
		56		11ER56UN**	11EL56UN**	0.7	0.4
		48		11ER48UN**	11EL48UN**	0.6	0.6
		44		11ER44UN**	11EL44UN**	0.6	0.6

标准型 Standard

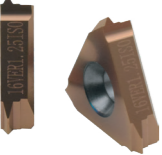
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions					
øI.C	L mm	mm	TPI	RH	LH	X	Y		
1/4	11	40		11ER40UN**	11EL40UN**	0.6	0.6		
		36		11ER36UN**	11EL36UN**	0.6	0.6		
		32		11ER32UN**	11EL32UN**	0.6	0.6		
		28		11ER28UN**	11EL28UN**	0.6	0.7		
		27		11ER27UN**	11EL27UN**	0.7	0.8		
		24		11ER24UN**	11EL24UN**	0.7	0.8		
		20		11ER20UN	11EL20UN**	0.8	0.9		
		18		11ER18UN**	11EL18UN**	0.8	1.0		
		16		11ER16UN**	11EL16UN**	0.9	1.1		
		14		11ER14UN**	11EL14UN**	0.9	1.1		
		11.5		11ER11.5UN	11EL11.5UN**				
		3/8	16	72		16ER72UN	16EL72UN**	0.8	0.4
				64		16ER64UN	16EL64UN**	0.8	0.4
				56		16ER56UN	16EL56UN**	0.7	0.4
				48		16ER48UN	16EL48UN**	0.6	0.6
44				16ER44UN	16EL44UN**	0.6	0.6		
40				16ER40UN	16EL40UN**	0.6	0.6		
36				16ER36UN	16EL36UN**	0.6	0.6		
32				16ER32UN	16EL32UN**	0.6	0.6		
28				16ER28UN	16EL28UN**	0.6	0.7		
27				16ER27UN	16EL27UN**				
24				16ER24UN	16EL24UN	0.7	0.8		
20				16ER20UN	16EL20UN	0.8	0.9		
18				16ER18UN	16EL18UN**	0.8	1		
16				16ER16UN	16EL16UN**	0.9	1.1		
14				16ER14UN	16EL14UN**	1	1.2		
13		16ER13UN	16EL13UN**	1	1.3				
12		16ER12UN	16EL12UN**	1.1	1.4				
11.5		16ER11.5UN	16EL11.5UN**						
11		16ER11UN	16EL11UN**	1.1	1.5				
10		16ER10UN	16EL10UN**	1.1	1.5				
9		16ER9UN	16EL9UN**	1.2	1.7				
8		16ER8UN	16EL8UN**	1.2	1.6				
1/2	22	7		22ER7UN	22EL7UN**	1.6	2.3		
		6		22ER6UN	22EL6UN**	1.6	2.3		
		5		22ER5UN	22EL5UN**	1.7	2.5		
5/8	27	4.5		27ER4.5UN	27EL4.5UN**	1.9	2.7		
		4		27ER4UN	27EL4UN**	2.1	3.0		



U型 U-Style

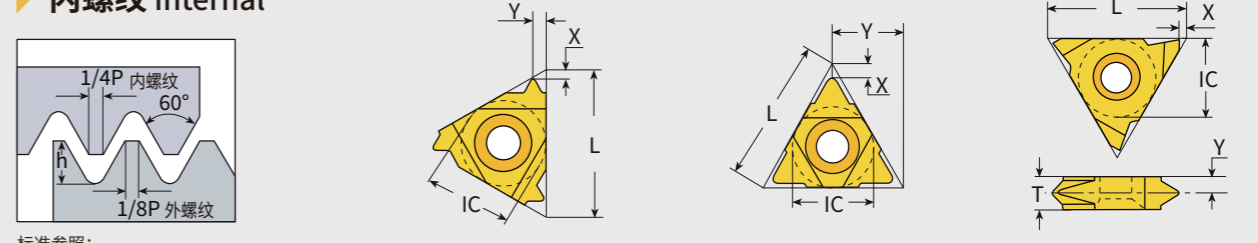
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH+LH		X	Y
	1/2	22	4.5	4.5	22UE-4.5UN**		2.0	11.0
			4	4	22UE-4UN**		2.0	11.0
			3	3	27UE-3UN**		2.5	13.7
			2	2	33UE-2UN**		2.8	16.5

V型 V-Style

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	20	20	11VER20UN	11VEL20UN	0.69	2.3
			18	18	11VER18UN	11VEL18UN	0.69	2.2
			16	16	11VER16UN	11VEL16UN	0.69	2.2
			14	14	11VER14UN	11VEL14UN	0.69	2.0
	3/8	16	12	12	11VER12UN	11VEL12UN	0.69	1.8
			32	32	16VER32UN	16VEL32UN	1.1	3.0
			28	28	16VER28UN	16VEL28UN	1.1	3.0
			24	24	16VER24UN	16VEL24UN	1.1	2.9
			20	20	16VER20UN	16VEL20UN	1.1	2.7
			18	18	16VER18UN	16VEL18UN	1.1	2.6
			16	16	16VER16UN	16VEL16UN	1.1	2.55
			14	14	16VER14UN	16VEL14UN	1.1	2.4
	1/2	22	12	12	16VER12UN	16VEL12UN	1.1	2.2
			10	10	16VER10UN	16VEL10UN	1.1	2.1
			8	8	16VER8UN	16VEL8UN	1.1	2.0
			7	7	22VER7UN	22VEL7UN	1.1	2.5
5/8	27	4	4	27VER4UN	27VEL4UN	1.0	3.3	
		3	3	27VER3UN	27VEL3UN	1.0	4.3	

60° 美制统一螺纹
Unified National Thread 60° (UN)

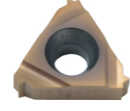
内螺纹 Internal




标准型 Standard U型 U Style V型 V Style

标准参照：
公差等级：

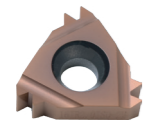
标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06	32	32	06IR32UN	06IL32UN**		
			28	28	06IR28UN	06IL28UN**		
			24	24	06IR24UN	06IL24UN**		
			20	20	06IR20UN	06IL20UN**		
			18	18	06IR18UN	06IL18UN**		
	3/16	08	40	40	08IR40UN	08IL40UN**		
			32	32	08IR32UN	08IL32UN**		
			28	28	08IR28UN	08IL28UN**		
			24	24	08IR24UN	08IL24UN**		
			20	20	08IR20UN	08IL20UN**		
1/4	11	18	18	08IR18UN	08IL18UN**			
		16	16	08IR16UN	08IL16UN**			
		14	14	08IR14UN	08IL14UN**			
		32	32	11IR32UN	11IL32UN**	0.6	0.6	
		28	28	11IR28UN	11IL28UN**	0.6	0.7	
		27	27	11IR27UN	11IL27UN**	0.7	0.8	
		24	24	11IR24UN	11IL24UN**	0.7	0.8	
		20	20	11IR20UN	11IL20UN**	0.8	0.9	
		18	18	11IR18UN	11IL18UN**	0.8	1.0	
		16	16	11IR16UN	11IL16UN**	0.9	1.1	
1/4	11	14	14	11IR14UN	11IL14UN**	0.9	1.1	
		13	13	11IR13UN	11IL13UN**			
		12	12	11IR12UN	11IL12UN**	0.8	1.1	
1/4	11	11.5	11.5	11IR11.5UN	11IL11.5UN**			
		11	11	11IR11UN	11IL11UN**	0.8	1.1	


标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16		72	16IR72UN	16IL72UN**	0.8	0.3
				64	16IR64UN	16IL64UN**	0.8	0.4
				56	16IR56UN	16IL56UN**	0.7	0.4
				48	16IR48UN	16IL48UN**	0.6	0.6
				44	16IR44UN	16IL44UN**	0.6	0.6
				40	16IR40UN	16IL40UN**	0.6	0.6
				36	16IR36UN	16IL36UN**	0.6	0.6
				32	16IR32UN	16IL32UN**	0.6	0.6
				28	16IR28UN	16IL28UN**	0.6	0.7
				27	16IR27UN	16IL27UN**	0.7	0.8
				24	16IR24UN	16IL24UN**	0.7	0.8
				20	16IR20UN	16IL20UN	0.8	0.9
				18	16IR18UN	16IL18UN**	0.8	1.0
				16	16IR16UN	16IL16UN**	0.9	1.1
				14	16IR14UN	16IL14UN**	0.9	1.2
				13	16IR13UN	16IL13UN**	1.0	1.3
				12	16IR12UN	16IL12UN	1.1	1.4
				11.5	16IR11.5UN	16IL11.5UN**	1.1	1.5
				11	16IR11UN	16IL11UN**	1.1	1.5
				10	16IR10UN	16IL10UN**	1.1	1.5
	9	16IR9UN	16IL9UN**	1.2	1.7			
	8	16IR8UN	16IL8UN**	1.1	1.5			
	1/2	22	7	22IR7UN	22IL7UN**	1.6	2.3	
			6	22IR6UN	22IL6UN**	1.6	2.3	
	5/8	27	4.5	27IR4.5UN	27IL4.5UN**	1.7	2.4	
			4	27IR4UN	27IL4UN**	1.8	2.7	

M+型 M+ Style

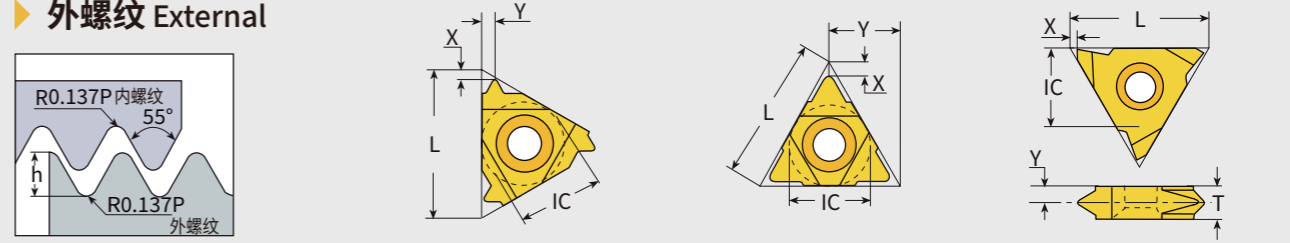
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code		尺寸 Dimensions
			RH	LH	
	3/8	16	16	3	16IR16UN-3M
			16	2	16IR16UN-2M
	1/2	22	12	3	22IR12UN-3M
			12	2	22IR12UN-2M
5/8	27	8	2	27IR8UN-2M	

U型 U Style

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH+LH	X	Y	
	1/2	22		4.5	22UI-4.5UN**	2.4	11.0	
				4	22UI-4UN**	2.4	11.0	
	5/8	27		3	27UI-3UN**	2.7	13.7	
	3/4	33		2	33UI-2UN**	2.8	16.5	

55°英国惠氏螺纹
British Whitworth Thread 55° (W)

外螺纹 External

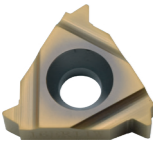


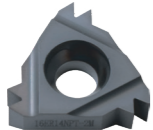
标准型 Standard U型 U Style V型 V Style

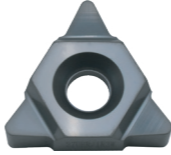
标准参照：
公差等级：


标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11		72	11ER72W**	11EL72W**	0.7	0.4
				60	11ER60W**	11EL60W**	0.7	0.4
				56	11ER56W**	11EL56W**	0.7	0.4
				48	11ER48W**	11EL48W**	0.6	0.6
				40	11ER40W**	11EL40W**	0.6	0.6
				36	11ER36W**	11EL36W**	0.6	0.6
				32	11ER32W**	11EL32W**	0.6	0.6
				28	11ER28W**	11EL28W**	0.6	0.7
				26	11ER26W**	11EL26W**	0.7	0.8
				24	11ER24W**	11EL24W**	0.7	0.8
				22	11ER22W**	11EL22W**	0.8	0.9
				20	11ER20W**	11EL20W**	0.8	0.9
				19	11ER19W**	11EL19W**	0.8	1.0
				18	11ER18W**	11EL18W**	0.8	1.0
				16	11ER16W**	11EL16W**	0.9	1.1
				14	11ER14W**	11EL14W**	1.0	1.2

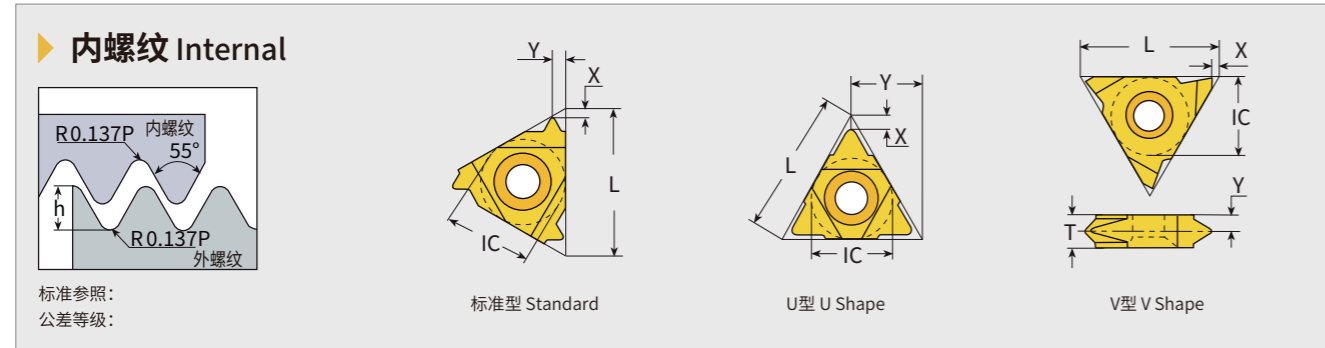
标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16		72	16ER72W*	16EL72W**	0.7	0.4
				60	16ER60W	16EL60W**	0.7	0.4
				56	16ER56W	16EL56W**	0.7	0.4
				48	16ER48W	16EL48W**	0.6	0.6
				40	16ER40W	16EL40W**	0.6	0.6
				36	16ER36W	16EL36W**	0.6	0.6
				32	16ER32W	16EL32W**	0.6	0.6
				28	16ER28W	16EL28W**	0.6	0.7
				26	16ER26W	16EL26W**	0.7	0.8
				24	16ER24W	16EL24W**	0.7	0.8
				22	16ER22W	16EL22W**	0.8	0.9
				20	16ER20W	16EL20W**	0.8	0.9
				19	16ER19W	16EL19W**	0.8	1.0
				18	16ER18W	16EL18W**	0.8	1.0
				16	16ER16W	16EL16W**	0.9	1.1
				14	16ER14W	16EL14W	1.0	1.2
				12	16ER12W	16EL12W**	1.1	1.4
				11	16ER11W	16EL11W	1.1	1.5
		10	16ER10W	16EL10W**	1.1	1.5		
		9	16ER9W	16EL9W**	1.2	1.7		
		8	16ER8W	16EL8W**	1.2	1.5		
	1/2	22		7	22ER7W	22EL7W**	1.6	2.3
				6	22ER6W	22EL6W**	1.6	2.3
				5	22ER5W	22EL5W**	1.7	2.4
5/8	27		4.5	27ER4.5W	27EL4.5W**	1.8	2.6	
			4	27ER4W	27EL4W**	2.0	2.9	

M+型 M+ Style							
刀片形状 Image	øI.C	L mm	TPI	NT	RH	X	Y
		3/8	16	14	2	16ER14W-2M	
1/2		22	14	2	22ER14W-2M		
			11	2	22ER11W-2M		

U型 U-Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH+LH	X	Y	
	1/2	22		4.5	22UEI-4.5W**	2.3	11.0	
				4	22UEI-4W**	1.8	11.0	
				3.5	22UEI-3.5W**	2.1	11.0	
	5/8	27		3.25	22UEI-3.25W**	2.0	11.0	
				3.5	27UEI-3.5W	2.1	13.7	
				3.25	27UEI-3.25W	2.0	13.7	
3/4	33		3	27UEI-3W	2.3	13.7		
			2.75	27UEI-2.75W*	2.4	13.7		
			2	33UEI-2W*				

V型 V-Style								
刀片形状 Image	øI.C	L mm	mm	TPI	RH	LH	X	Y
		1/4	11		19	11VER19W**	11VEL19W**	0.69
				14	11VER14W**	11VEL14W**	0.69	2.0
				11	11VER11W**	11VEL11W**	0.69	1.7
3/8		16		19	16VER19W**	16VEL19W**	1.1	2.7
				18	16VER18W**	16VEL18W**	1.1	2.6
				16	16VER16W**	16VEL16W**	1.1	2.6
			14	16VER14W**	16VEL14W**	1.1	2.4	
5/8	27		12	16VER12W**	16VEL12W**	1.1	2.2	
			11	16VER11W**	16VEL11W**	1.1	2.1	
			4	27VER4W**	27VEL4W**	1.0	3.3	
			3	27VER3W**	27VEL3W**	1.0	4.3	
			2.5	27VER2.5W**	27VEL2.5W**	1.0	5.2	

55°英国惠氏螺纹 British Whitworth Thread 55° (W)



标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06	26	06R26W	06L26W**			
			22	06R22W	06L22W**			
			20	06R20W	06L20W**			
			18	06R18W	06L18W**			
3/16	08	28	08R28W	08L28W**				
		24	08R24W	08L24W**				
		20	08R20W	08L20W**				
		19	08R19W	08L19W**				
		18	08R18W	08L18W**				
		16	08R16W	08L16W**				
1/4	11	32	11R32W	11L32W**	0.6	0.6		
		28	11R28W	11L28W**	0.6	0.7		
		26	11R26W	11L26W**	0.7	0.8		
		24	11R24W	11L24W**	0.7	0.8		
		22	11R22W	11L22W**	0.8	0.9		
		20	11R20W	11L20W**	0.8	0.9		
		19	11R19W	11L19W**	0.8	1.0		
		18	11R18W	11L18W**	0.8	1.0		
		16	11R16W	11L16W**	0.9	1.1		
		14	11R14W	11L14W**	0.9	1.1		
		12	11R12W	11L12W**	0.9	1.2		
3/8	16	72	16R72W	16L72W**	0.7	0.4		
		60	16R60W	16L60W**	0.7	0.4		
		56	16R56W	16L56W**	0.7	0.4		
		48	16R48W	16L48W**	0.6	0.6		

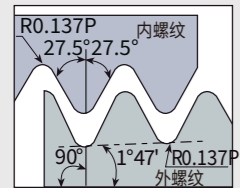
标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16	40	16R40W	16L40W**	0.6	0.6	
			36	16R36W	16L36W**	0.6	0.6	
			32	16R32W	16L32W**	0.6	0.6	
			28	16R28W	16L28W**	0.6	0.7	
			26	16R26W	16L26W**	0.7	0.8	
			24	16R24W	16L24W**	0.7	0.8	
			22	16R22W	16L22W**	0.8	0.9	
			20	16R20W	16L20W**	0.8	0.9	
			19	16R19W	16L19W**	0.8	1.0	
			18	16R18W	16L18W**	0.8	1.0	
			16	16R16W	16L16W**	0.9	1.1	
			14	16R14W	16L14W	1.0	1.2	
			12	16R12W	16L12W**	1.1	1.4	
			11	16R11W	16L11W	1.1	1.5	
			10	16R10W	16L10W**	1.1	1.5	
			9	16R9W	16L9W**	1.2	1.7	
			8	16R8W	16L8W**	1.2	1.5	
			1/2	22	7	22R7W	22L7W**	1.6
6	22R6W	22L6W**			1.6	2.3		
5	22R5W	22L5W**			1.7	2.4		
5/8	27	4	22R4W	22L4W**				
		4.5	27R4.5W	27L4.5W**	1.8	2.6		
		4	27R4W	27L4W**	2.0	2.9		

U型 U-Style							
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions			
	øI.C	L mm	mm	TPI	RH+LH	X	Y
	1/2	22	4.5	22UEI-4.5W**	2.3	11.0	
			4	22UEI-4W**	1.8	11.0	
			3.5	22UEI-3.5W**	2.1	11.0	
			3.25	22UEI-3.25W**	2.0	11.0	
5/8	27	3.5	27UEI-3.5W	2.1	13.7		
		3.25	27UEI-3.25W	2.0	13.7		
		3	27UEI-3W	2.3	13.7		
		2.75	27UEI-2.75W*	2.4	13.7		
3/4	33	2	33UEI-2W*				

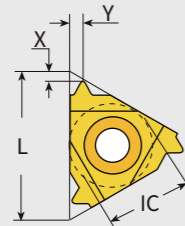
V型 V-Style								
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions				
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/8	27	4	27VIR4W**	27VIL4W**	1.0	3.3	
			3	27VIR3W**	27VIL3W**	1.0	4.3	
			2.5	27VIR2.5W**	27VIL2.5W**	1.0	5.2	

55°英制标准管螺纹
British Standard Pipe Taper Thread 55° (BSPT)

▶ 外螺纹 External



标准参照：
公差等级：



标准型 Standard

标准型 Standard

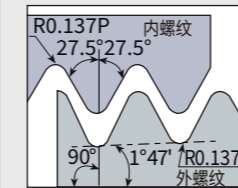
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	Lmm	mm	TPI	RH	LH	X	Y
	1/4	11		28	11ER28BSPT	11EL28BSPT**	0.6	0.6
				19	11ER19BSPT	11EL19BSPT**	0.8	0.9
				14	11ER14BSPT	11EL14BSPT**	0.9	1.0
	3/8	16		28	16ER28BSPT	16EL28BSPT**	0.6	0.6
				19	16ER19BSPT	16EL19BSPT**	0.8	0.9
				14	16ER14BSPT	16EL14BSPT**	1.0	1.2
			11	16ER11BSPT	16EL11BSPT**	1.1	1.5	

V型 V-Style

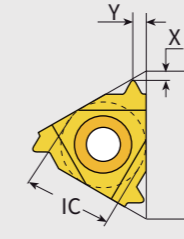
øI.C	L mm	mm	TPI	RH	LH	X	Y
3/8	16		28	16VER28BSPT**	16VEL28BSPT**	1.1	3.0
			19	16VER19BSPT**	16VEL19BSPT**	1.1	2.7
			14	16VER14BSPT**	16VEL14BSPT**	1.1	2.4
			11	16VER11BSPT**	16VEL11BSPT**	1.1	2.1

55°英制标准管螺纹
British Standard Pipe Taper Thread 55° (BSPT)

▶ 内螺纹 Internal



标准参照：
公差等级：



标准型 Standard

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	Lmm	mm	TPI	RH	LH	X	Y
	5/32	06		28	06IR28BSPT*			
				28	08IR28BSPT	08IL28BSPT**		
	3/16	08		19	08IR19BSPT	08IL19BSPT**		
				14	08IR14BSPT*			
	1/4	11		28	11IR28BSPT	11IL28BSPT**	0.6	0.6
				19	11IR19BSPT	11IL19BSPT**	0.8	0.9
				14	11IR14BSPT	11IL14BSPT**	0.9	1.0
				11	11IR11BSPT*			
	3/8	16		28	16IR28BSPT	16IL28BSPT**	0.6	0.6
				19	16IR19BSPT	16IL19BSPT**	0.8	0.9
				14	16IR14BSPT	16IL14BSPT**	1.0	1.2
				11	16IR11BSPT	16IL11BSPT**	1.1	1.5

60°美国标准管螺纹
National Pipe Taper Thread 60° (NPT)

60°美国标准管螺纹
National Pipe Taper Thread 60° (NPT)

外螺纹 External

标准参照:
公差等级:

U型 U Style

内螺纹 Internal

标准参照:
公差等级:

U型 U Style

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11		27	11ER27NPT**	11EL27NPT**	0.7	0.8
				18	11ER18NPT**	11EL18NPT**	0.8	1.0
				14	11ER14NPT**	11EL14NPT**	0.8	1.0
	3/8	16		27	16ER27NPT	16EL27NPT**	0.7	0.8
				18	16ER18NPT	16EL18NPT**	0.8	1.0
				14	16ER14NPT	16EL14NPT**	0.9	1.2
1/2	22		11.5	16ER11.5NPT	16EL11.5NPT**	1.1	1.5	
			8	16ER8NPT	16EL8NPT**	1.3	1.8	

V型 V-Style

øI.C	L mm	mm	TPI	RH	LH	X	Y
1/4	11		27	11VER27NPT**	11VEL27NPT**	0.7	2.0
			18	11VER18NPT**	11VEL18NPT**	0.7	1.8
			14	11VER14NPT**	11VEL14NPT**	0.7	1.8
3/8	16		11.5	11VER11.5NPT**	11VEL11.5NPT**	0.7	2.1
			27	16VER27NPT**	16VEL27NPT**	1.1	2.9
			18	16VER18NPT**	16VEL18NPT**	1.1	2.6
		11.5	16VER11.5NPT**	16VEL11.5NPT**	1.1	2.1	

M+型 M+ Style

øI.C	L mm	TPI	NT	RH	X	Y
3/8	16	14	2	16ER14NPT-2M*		
		11.5	2	16ER11.5NPT-2M*		
1/2	22	11.5	2	22ER11.5NPT-2M*		
		8	2	22ER8NPT-2M*		

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06		27	06IR27NPT	06IL27NPT**		
				27	08IR27NPT	08IL27NPT**		
	3/16	08		18	08IR18NPT	08IL18NPT**		
				27	11IR27NPT	11IL27NPT**	0.7	0.8
	1/4	11		18	11IR18NPT	11IL18NPT**	0.8	1.0
				14	11IR14NPT	11IL14NPT**	0.8	1.0
				27	16IR27NPT	16IL27NPT**	0.7	0.8
	3/8	16		18	16IR18NPT	16IL18NPT**	0.8	1.0
				14	16IR14NPT	16IL14NPT**	0.9	1.2
				11.5	16IR11.5NPT	16IL11.5NPT**	1.1	1.5
			8	16IR8NPT	16IL8NPT**	1.3	1.8	

U型 U-Style

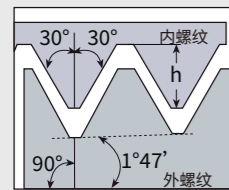
øI.C	L mm	mm	TPI	RH+LH	X	Y
3/8	16		8	16UEI-8NPT		

M+型 M+ Style

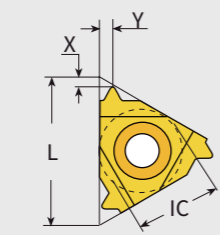
øI.C	L mm	TPI	NT	RH	X	Y
3/8	16	11.5	2	16IR11.5NPT-2M*		
		11.5	2	22IR11.5NPT-2M*		
1/2	22	8	2	22IR8NPT-2M*		

60° 美国航空标准管螺纹
Aerospace National Pipe Thread 60° (ANPT)

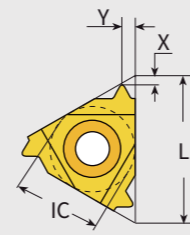
▶ 外螺纹 External / 内螺纹 Internal



标准参照:
公差等级:



外部标准型 External standard

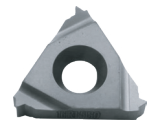


内部标准型 Internal standard

标准型 Standard 外螺纹 External

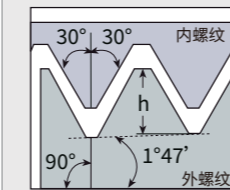
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16	18	18	16ER18ANPT**	16EL18ANPT**	0.8	1.0
			14	14	16ER14ANPT**	16EL14ANPT**	0.8	1.0

标准型 Standard 内螺纹 Internal

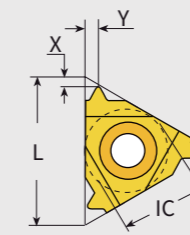
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	18	18	11IR18ANPT**	11IL18ANPT**	0.8	1.0
			14	14	16IR18ANPT**	16IL14ANPT**	0.8	1.0

60° 美国干密封标准管螺纹
National Pipe Taper Fuel Thread 60° (NPTF)

▶ 外螺纹 External



标准参照:
公差等级:

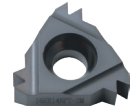


标准型 Standard

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	27	27	11ER27NPTF	11EL27NPTF**	0.7	0.8
			18	18	11ER18NPTF	11EL18NPTF**	0.8	1.0
			14	14	11ER14NPTF	11EL14NPTF**	0.8	1.0
3/8	16	27	27	16ER27NPTF	16EL27NPTF**	0.7	0.8	
		18	18	16ER18NPTF	16EL18NPTF**	0.8	1.0	
		14	14	16ER14NPTF	16EL14NPTF**	0.9	1.2	
		11.5	11.5	16ER11.5NPTF	16EL11.5NPTF**	1.1	1.5	
		8	8	16ER8NPTF	16EL8NPTF**	1.3	1.8	

M+型 M+ Style

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	NT	RH	LH	X	Y
	3/8	16	14	2	16ER14NPTF-2M			

60°美国干密封标准管螺纹 National Pipe Taper Fuel Thread 60° (NPTF)

▶ **内螺纹 Internal**

标准参照：
公差等级：

标准型 Standard

标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	5/32	06		27	06IR27NPTF*		0.7	0.8
				27	08IR27NPTF*		0.8	1.0
	3/16	08		18	08IR18NPTF*		0.8	1.0
				14	08IR14NPTF*		0.7	0.8
				27	11IR27NPTF	11IL27NPTF**	0.8	1.0
	1/4	11		18	11IR18NPTF	11IL18NPTF**	0.9	1.2
				14	11IR14NPTF	11IL14NPTF**	1.1	1.5
				27	16IR27NPTF	16IL27NPTF**	1.3	1.8
				18	16IR18NPTF	16IL18NPTF**		
	3/8	16		14	16IR14NPTF	16IL14NPTF**		
				11.5	16IR11.5NPTF	16IL11.5NPTF**		
				8	16IR8NPTF	16IL8NPTF**		

M+型 M+ Style							
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	牙数 TPI	牙型 NT	订货代码 Ordering Code	尺寸 X	尺寸 Y
	3/8 16	14	2		16IR14NPTF-2M		

60°美制平行管螺纹 National Pipe Straight Thread 60° (NPS)

▶ **外螺纹 External / 内螺纹 Internal**

标准参照：
公差等级：

外部标准型 External standard 内部标准型 Internal standard

标准型 Standard		外螺纹 External						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
		mm	TPI	RH	LH	X	Y	
	3/8	16		24	16ER24NPS	16EL24NPS**	0.7	0.8
				18	16ER18NPS	16EL18NPS**		
				16	16ER16NPS	16EL16NPS**	0.8	1.1
				14	16ER14NPS	16EL14NPS**	0.9	1.2
				12	16ER12NPS	16EL12NPS**	1.1	1.4
				11.5	16ER11.5NPS	16EL11.5NPS**	1.1	1.5
	1/2	22		9	16ER9NPS	16EL9NPS**	1.2	1.6
				8	16ER8NPS	16EL8NPS**		
				8	22ER8NPS	22EL8NPS**	1.3	1.9
				7	22ER7NPS	22EL7NPS**	1.6	2.3
				6	22ER6NPS	22EL6NPS**	1.6	2.3
				5	27ER5NPS	27EL5NPS**	1.9	2.8

标准型 Standard		内螺纹 Internal						
刀片形状 Image	刀片尺寸 Size	mm	TPI	订货代码 Ordering Code		尺寸 X	尺寸 Y	
				RH	LH			
	3/8	16		24	16IR24NPS	16IL24NPS**	0.7	0.8
				18	16IR18NPS*			
				16	16IR16NPS*			
				14	16IR14NPS	16IL14NPS**	0.9	1.2
				12	16IR12NPS	16IL12NPS**	1.1	1.4
				11.5	16IR11.5NPS	16IL11.5NPS**	1.1	1.5
	1/2	22		9	16IR9NPS	16IL9NPS**	1.2	1.6
				8	16IR8NPS*			
				8	22IR8NPS	22IL8NPS**	1.3	1.9
				7	22IR7NPS	22IL7NPS**	1.6	2.3
				6	22IR6NPS	22IL6NPS**	1.6	2.3
				5	27IR5NPS	27IL5NPS**	1.9	2.8

30° 德国消防食品机械圆螺纹
German Round Thread 30° (Rd) (DIN 405)

▶ 外螺纹 External / 内螺纹 Internal

标准参照:
公差等级:

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	3/8 16	10	16ER10RD	16EL10RD**	1.1	1.2	
		8	16ER8RD	16EL8RD**	1.4	1.3	
		7	16ER7RD	16EL7RD**			
		6	16ER6RD	16EL6RD**	1.5	1.7	
1/2 22	8	22ER8RD*					
	6	22ER6RD	22EL6RD**	1.5	1.7		
	5	22ER5RD	22EL5RD**				
	4	22ER4RD	22EL4RD	1.5	2.3		
5/8 27	4	27ER4RD	27EL4RD**	2.2	2.3		

标准型 Standard		内螺纹 Internal					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C Lmm	mm	TPI	RH	LH	X	Y
	3/8 16	10	16IR10RD	16IL10RD**	1.1	1.2	
		8	16IR8RD	16IL8RD**	1.4	1.3	
		7	16IR7RD	16IL7RD**			
		6	16IR6RD	16IL6RD**			
1/2 22	8	22IR8RD*	22IL8RD*	1.5	1.7		
	6	22IR6RD	22IL6RD**				
	5	22IR5RD	22IL5RD**	1.5	1.7		
	4	22IR4RD	22IL4RD	1.5	2.3		
5/8 27	8		27IL8RD*				
	4	27IR4RD	27IL4RD**	2.2	2.3		

30° 德国消防食品机械圆螺纹
German Round Thread 30° (Rd) (DIN 20400)

▶ 外螺纹 External

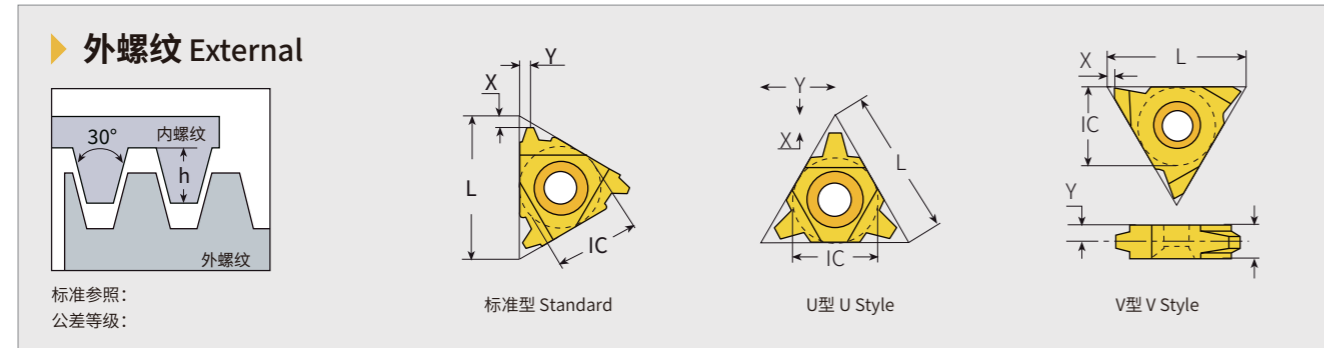
标准参照:
公差等级:

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	1/2 22	3.0		22ER3.0RD20400	22EL3.0RD20400**	1.3	1.7
		4.0		22ER4.0RD20400	22EL4.0RD20400**	1.6	2.2
		5.0		22ER5.0RD20400	22EL5.0RD20400**	1.4	1.7
		6.0		22ER6.0RD20400	22EL6.0RD20400**	1.7	2.1

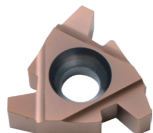
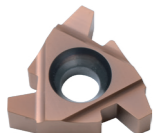
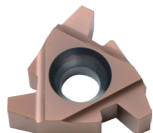
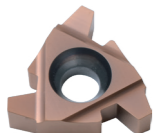
标准型 Standard		内螺纹 Internal					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	1/2 22	3.0		22IR3.0RD20400	22IL3.0RD20400**	1.3	1.7
		4.0		22IR4.0RD20400	22IL4.0RD20400**	1.6	2.2
		5.0		22IR5.0RD20400	22IL5.0RD20400**	1.4	1.7
		6.0		22IR6.0RD20400	22IL6.0RD20400**	1.7	2.1

U型 U-Style							
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH+LH		X	Y
	5/8 27	8.0		27UEI-8.0RD20400		2.9	13.5

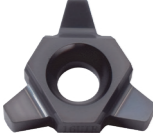
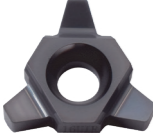
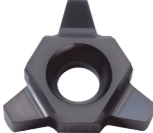
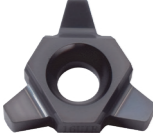
30° 公制梯形螺纹
Metric Trapez Thread 30° (Tr) (DIN103)







标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	1.0		11ER1.0TR**	11EL1.0TR		
			1.5		11ER1.5TR**	11EL1.5TR	0.8	0.9
			2.35			11EL2.35TR		
	3/8	16	1.0		16ER1.0TR	16EL1.0TR		
			1.5		16ER1.5TR	16EL1.5TR	1.0	1.1
			2.0		16ER2.0TR	16EL2.0TR	1.1	1.3
			2.5		16ER2.5TR	16EL2.5TR	1.2	1.4
			3.0		16ER3.0TR	16EL3.0TR	1.3	1.5
	1/2	22	4.0		22ER4.0TR	22EL4.0TR	1.7	1.9
			5.0		22ER5.0TR	22EL5.0TR	2.1	2.5
			6.0		22ER6.0TR	22EL6.0TR	2.3	2.7
	5/8	27	6.0		27ER6.0TR	27EL6.0TR	2.3	2.7
			7.0		27ER7.0TR			
			8.0		27ER8.0TR			

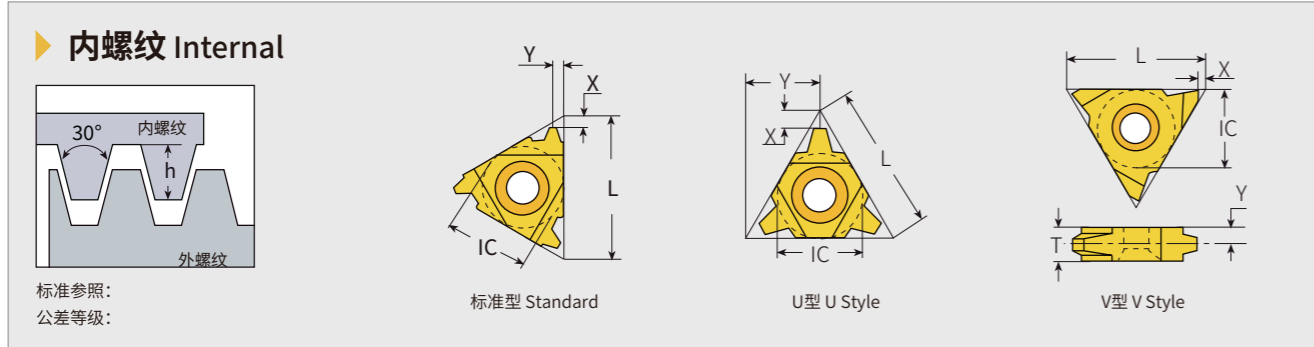
U型 U-Style

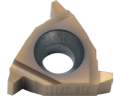
刀片形状 Image	刀片尺寸 Size		mm	TPI	RH+LH	X	Y
	øI.C	L mm					
	3/8	16	3.0		11UEI-3.0TR		
			4.0		11UEI-4.0TR		
	1/2	22	6.0		22UEI-6.0TR	2.0	11.0
			7.0		22UEI-7.0TR	2.3	11.0
			8.0		22UEI-8.0TR	2.6	11.0
	5/8	27	8.0		27UEI-8.0TR	2.6	13.7
			9.0		27UEI-9.0TR	3.0	13.7
			10.0		27UEI-10.0TR	3.2	13.7
	3/4	33	12.0		33UEI-12.0TR	3.9	16.9

V型 V-Style

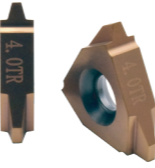
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16	1.5		16VER1.5TR	16VEL1.5TR**		
			2.0		16VER2.0TR	16VEL2.0TR**		
			2.5		16VER2.5TR	16VEL2.5TR**		
			3.0		16VER3.0TR	16VEL3.0TR**		
	1/2	22	3.0		22VER3.0TR	22VEL3.0TR**		
			4.0		22VER4.0TR	22VEL4.0TR**		
			5.0		22VER5.0TR	22VEL5.0TR**		
			6.0		22VER6.0TR	22VEL6.0TR		
	5/8	27	6.0		27VER6.0TR	27VEL6.0TR**		
			7.0		27VER7.0TR	27VEL7.0TR**		
			8.0		27VER8.0TR	27VEL8.0TR**		
			9.0		27VER9.0TR	27VEL9.0TR**		
			10.0		27VER10.0TR	27VEL10.0TR**		
			12.0		27VER12.0TR	27VEL12.0TR**		
			14.0		27VER14.0TR	27VEL14.0TR**		
16.0		27VER16.0TR	27VEL16.0TR**					
24.0		27VER24.0TR	27VEL24.0TR**					
	3/4	33	14.0		33VER14.0TR	33VEL14.0TR		

30° 公制梯形螺纹
Metric Trapez Thread 30° (Tr) (DIN103)

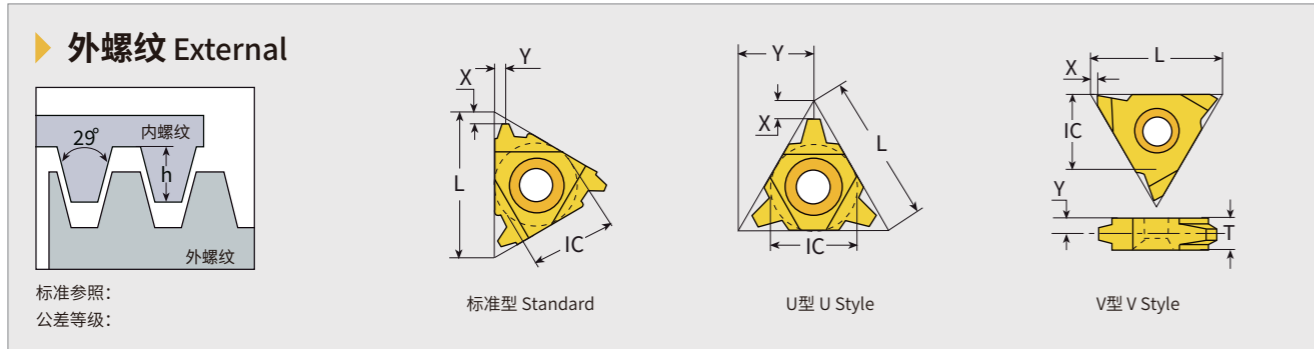


标准型 Standard							
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions
	øI.C	L mm	mm	TPI	RH	LH	X Y T
	5/32	06	1.0		06IR1.0TR*		0.8 0.9
			1.5		06IR1.5TR*		1.0 1.1
	3/16	08	1.0		08IR1.0TR*		1.1 1.3
			1.5		08IR1.5TR*		1.2 1.4
			2.0		08IR2.0TR*		1.3 1.5
	1/4	11	1.0		11IR1.0TR*		1.7 1.9
			1.5		11IR1.5TR	11IL1.5TR**	2.1 2.5
			2.0		11IR2.0TR*		2.3 2.7
	3/8	16	1.5		16IR1.5TR	16IL1.5TR**	2.3 2.7
			2.0		16IR2.0TR	16IL2.0TR**	
			2.5		16IR2.5TR	16IL2.5TR**	
			3.0		16IR3.0TR	16IL3.0TR	
			4.0		16IR4.0TR*		
	1/2	22	3.0		22IR3.0TR*		
			4.0		22IR4.0TR	22IL4.0TR	
			5.0		22IR5.0TR	22IL5.0TR	
			6.0		22IR6.0TR	22IL6.0TR	
	5/8	27	6.0		27IR6.0TR	27IL6.0TR**	
			7.0		27IR7.0TR		
			8.0		27IR8.0TR		

U型 U-Style							
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions
	øI.C	L mm	mm	TPI	RH+LH	X Y T	
	1/4	11	3.0		11UI-3.0TR*		
			4.0		11UI-4.0TR*		
	3/8	16	4.0		16UI-4.0TR*		
			5.0		16UI-5.0TR*		
			6.0		16UI-6.0TR*		
	1/2	22	6.0		22UI-6.0TR	2.0 11.0	
			7.0		22UI-7.0TR	2.3 11.0	
			8.0		22UI-8.0TR	2.6 11.0	
	5/8	27	8.0		27UI-8.0TR	2.6 13.7	
			9.0		27UI-9.0TR	3.0 13.7	
			10.0		27UI-10.0TR	3.2 13.7	
	3/4	33	12.0		33UI-12.0TR	3.9 16.9	

V型 V-Style							
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions
	øI.C	L mm	mm	TPI	RH	LH	X Y T
	1/2	22	4.0		22VIR4.0TR	22VIL4.0TR	
			5.0		22VIR5.0TR	22VIL5.0TR	
			6.0		22VIR6.0TR	22VIL6.0TR	
	5/8	27	6.0		27VIR6.0TR	27VIL6.0TR	1.0 3.3 6
			7.0		27VIR7.0TR	27VIL7.0TR	1.0 3.3 6
			8.0		27VIR8.0TR	27VIL8.0TR	1.0 3.3 6
			9.0		27VIR9.0TR	27VIL9.0TR	1.0 4.3 8
			10.0		27VIR10.0TR	27VIL10.0TR	1.0 4.3 8
			12.0		27VIR12.0TR	27VIL12.0TR	1.0 5.2 10

29° 美制爱克母螺纹
American Trapez ACME Thread 29° (ACME)



标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11	16	16	11ER16ACME**	11EL16ACME**	1.0	1.1	
			16	16	16ER16ACME	16EL16ACME	1.0	1.1	
	3/8	16	14	14	16ER14ACME	16EL14ACME**	1.0	1.2	
			12	12	16ER12ACME	16EL12ACME**	1.1	1.2	
			10	10	16ER10ACME	16EL10ACME**	1.3	1.4	
			8	8	16ER8ACME	16EL8ACME**	1.4	1.5	
1/2	22	7	7	16ER7ACME	16EL7ACME**	1.9	2.2		
		6	6	16ER6ACME*					
		7	7	22ER7ACME	22EL7ACME**	1.9	2.2		
		6	6	22ER6ACME	22EL6ACME**	1.8	2.1		
5/8	27	5	5	22ER5ACME	22EL5ACME**	2.0	2.3		
		4	4	22ER4ACME*					
		4	4	27ER4ACME	27EL4ACME**	2.4	2.7		
			3	3	27ER3.5ACME*				
			3	3	27ER3ACME*				

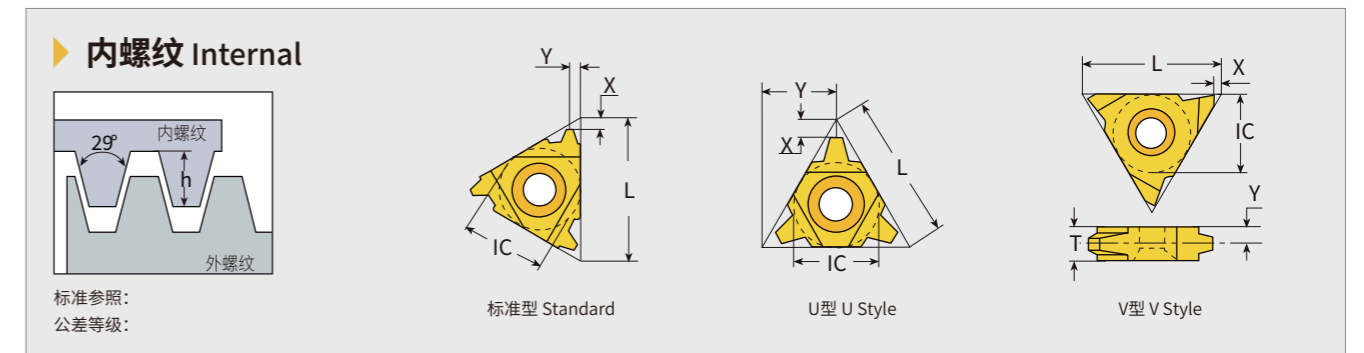
U型 U-Style

刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions	
øI.C	L mm	mm	TPI	RH+LH	
	1/2	22	4	22UE-4ACME	2.3 11.0
			3	22UE-3ACME	3.0 11.0
	5/8	27	3	27UE-3ACME	3.0 13.7
	3/4	33	2	33UE-2ACME	4.3 16.9

V型 V-Style

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	T
	3/8	16	6	6	16VER6ACME*				
			8	8	22VER8ACME*				
			6	6	22VER6ACME*				
1/2	22	5	5	22VER5ACME*					
		4	4	22VERL-4ACME					
		4	4	27VERL-4ACME			1.0	3.3	6
5/8	27	3.5	3.5	27VERL-3.5ACME			1.0	3.3	6
		3	3	27VERL-3ACME**			1.0	3.3	6
		2	2	27VERL-2ACME			1.0	5.2	10

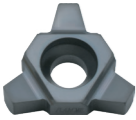
29° 美制爱克母螺纹
American Trapez ACME Thread 29° (ACME)



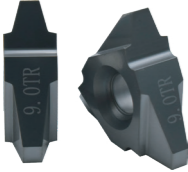
标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11	16	16	11IR16ACME**	11IL16ACME**	0.9	0.9	
			12	12	11IR12ACME*				
			16	16	16IR16ACME	16IL16ACME**	1.0	1.1	
3/8	16	14	14	16IR14ACME	16IL14ACME**	1.1	1.2		
		12	12	16IR12ACME	16IL12ACME**	1.2	1.3		
		10	10	16IR10ACME	16IL10ACME**	1.2	1.3		
		8	8	16IR8ACME	16IL8ACME**	1.4	1.5		
		6	6	16IR6ACME*					
1/2	22	6	6	22IR6ACME	22IL6ACME**	1.8	2.1		
		5	5	22IR5ACME	22IL5ACME	2.0	2.3		
		4	4	22IR4ACME*					
5/8	27	4	4	27IR4ACME	27IL4ACME**	2.3	2.6		
		3.5	3.5	27IR3.5ACME*					
		3	3	27IR3ACME*					

U型 U-Style

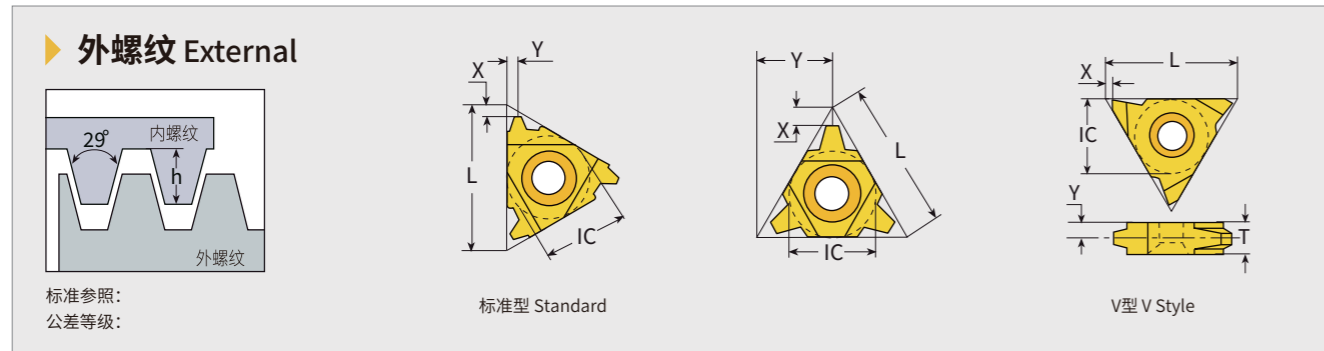
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code	尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH+LH	X	Y	T
	3/16	08		14	08UIRL-14ACME*			
				12	08UIRL-12ACME*			
				10	08UIRL-10ACME*			
	1/4	11		16	11UIRL-16ACME*			
				14	11UIRL-14ACME*			
				12	11UIRL-12ACME*			
				10	11UIRL-10ACME*			
				8	11UIRL-8ACME*			
				6	11UIRL-6ACME*			
	3/8	16		6	16UIR/L-6ACME*			
				5	16UIR/L-5ACME*			
				4	16UIR/L-4ACME*			
	1/2	22		4	22UI-4ACME*			
				3	22UI-3ACME	2.6	11.0	
	5/8	27		3	27UI-3ACME	3.4	11.0	
3/4	33		2	33UI-2ACME	5.0	16.9		

V型 V-Style

刀片形状 Image	øI.C	L mm	mm	TPI	RH	LH	X	Y	T
		3/8	16		6	16VIR6ACME*			
				8	22VIR8ACME*				
1/2		22		6	22VIR6ACME*				
				5	22VIR5ACME*				
				4	22VIRL-4ACME*				
5/8		27		4	27VIRL-4ACME	1.0	3.3	6	
				3.5	27VIRL-3.5ACME*				
				3	27VIRL-3ACME**	1.0	3.3	6	
				2	27VIRL-2ACME	1.0	4.3	8	

29° 美制矮牙爱克母螺纹

American Trapez Stub ACME Thread 29° (STACME)



标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11		16	11ER16STACME	11EL16STACME**	1.0	1.0	
				16	16ER16STACME	16EL16STACME**	1.0	1.0	
	3/8	16		14	16ER14STACME	16EL14STACME**	1.1	1.1	
				12	16ER12STACME	16EL12STACME**	1.2	1.2	
				10	16ER10STACME	16EL10STACME**	1.2	1.3	
				8	16ER8STACME	16EL8STACME**	1.4	1.5	
				7	16ER7STACME*				
				6	16ER6STACME	16EL6STACME**	1.7	1.8	
	1/2	22		6	22ER6STACME	22EL6STACME**	1.7	1.8	
				5	22ER5STACME	22EL5STACME**	2.1	2.3	
	5/8	27		4	22ER4STACME	22EL4STACME**	2.3	2.3	
				4	27ER4STACME	27EL4STACME**	2.3	2.4	
			3	27ER3STACME	27EL3STACME**	2.9	2.9		

U型 U-Style

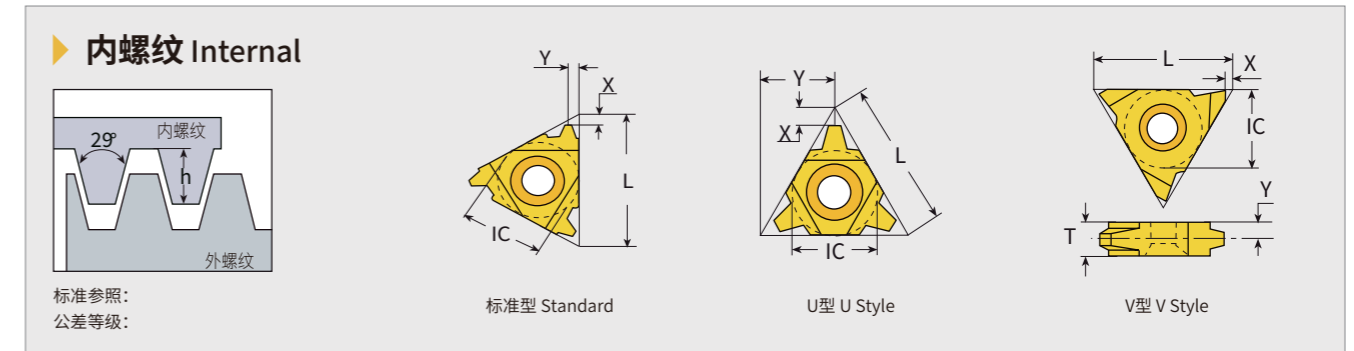
øI.C	L mm	mm	TPI	RH+LH	X	Y	T
1/2	22		4	22UE-4STACME**	2.6	11.0	
			3	22UE-3STACME**	3.4	11.0	
3/4	33		2	22UE-2STACME**	5.0	16.9	

V型 V-Style

øI.C	L mm	mm	TPI	RH	LH	X	Y	T
1/2	22		6	22VER6STACME*				
			4	22VER4STACME*				
5/8	27		4	27VERL-4STACME		1.0	3.3	6
			3	27VERL-3STACME		1.0	3.3	6
			2	27VERL-2STACME**		1.0	4.3	8

29° 美制矮牙爱克母螺纹

American Trapez Stub ACME Thread 29° (STACME)



标准型 Standard

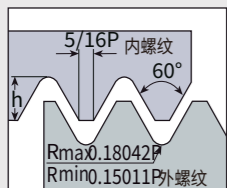
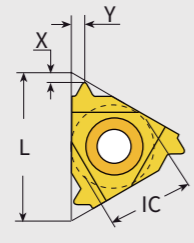
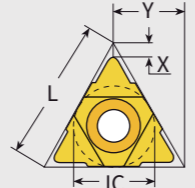
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11		16	11IR16STACME	11IL16STACME**	1.0	1.0	
				12	11IR12STACME*				
	3/8	16		16	16IR16STACME	16IL16STACME**	1.0	1.0	
				14	16IR14STACME	16IL14STACME**	1.1	1.1	
				12	16IR12STACME	16IL12STACME**	1.2	1.2	
				10	16IR10STACME	16IL10STACME**	1.2	1.3	
				8	16IR8STACME	16IL8STACME**	1.4	1.5	
				7	16IR7STACME*				
	1/2	22		6	16IR6STACME	16IL6STACME**	1.7	1.8	
				6	22IR6STACME	22IL6STACME**	1.7	1.8	
	5/8	27		5	22IR5STACME	22IL5STACME**	2.1	2.3	
				4	22IR4STACME	22IL4STACME**	2.3	2.3	
			4	27IR4STACME	27IL4STACME**	2.3	2.4		
			3	27IR3STACME	27IL3STACME**	2.9	2.9		

U型 U-Style

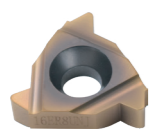
øI.C	L mm	mm	TPI	RH+LH	X	Y	T
3/16	08		14	08UIRL-14STACME*			
			12	08UIRL-12STACME*			
1/4	11		10	08UIRL-10STACME*			
			16	11UIRL-16STACME*			
			14	11UIRL-14STACME*			
1/2	22		12	11UIRL-12STACME*			
			10	11UIRL-10STACME*			
			4	22UI-4STACME**	2.6	11.0	
5/8	27		3	22UI-3STACME**	3.4	11.0	
			2	22UI-2STACME**	5.0	16.9	

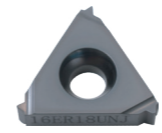
60°美国统一航空螺纹 Unified National Aerospace Thread 60° (UNJ)

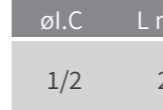
外螺纹 External

标准参照：
公差等级：

标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11		48	11ER48UNJ**	11EL48UNJ**	0.6	0.5
				44	11ER44UNJ**	11EL44UNJ**	0.6	0.6
				40	11ER40UNJ**	11EL40UNJ**	0.6	0.6
				36	11ER36UNJ**	11EL36UNJ**	0.6	0.6
				32	11ER32UNJ	11EL32UNJ**	0.6	0.7
				28	11ER28UNJ	11EL28UNJ**	0.7	0.7
				24	11ER24UNJ	11EL24UNJ**	0.7	0.8
				20	11ER20UNJ	11EL20UNJ**	0.8	0.9
	3/8	16		18	11ER18UNJ	11EL18UNJ**	0.8	1.0
				16	11ER16UNJ	11EL16UNJ**	0.9	1.1
				14	11ER14UNJ	11EL14UNJ**	1.0	1.2
				48	16ER48UNJ**	16EL48UNJ**	0.6	0.5
				44	16ER44UNJ	16EL44UNJ**	0.6	0.6
				40	16ER40UNJ	16EL40UNJ**	0.6	0.6
				36	16ER36UNJ	16EL36UNJ**	0.6	0.6
				32	16ER32UNJ	16EL32UNJ**	0.6	0.7
	28	16ER28UNJ	16EL28UNJ**	0.7	0.7			
	24	16ER24UNJ	16EL24UNJ	0.7	0.8			
	20	16ER20UNJ	16EL20UNJ**	0.8	0.9			
	18	16ER18UNJ	16EL18UNJ**	0.8	1.0			
	16	16ER16UNJ	16EL16UNJ**	0.9	1.1			
	14	16ER14UNJ	16EL14UNJ**	1.0	1.2			
	13	16ER13UNJ	16EL13UNJ**	1.0	1.3			

标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16		12	16ER12UNJ	16EL12UNJ**	1.1	1.3
				11	16ER11UNJ	16EL11UNJ**	1.2	1.5
				10	16ER10UNJ	16EL10UNJ**	1.2	1.5
				9	16ER9UNJ	16EL9UNJ**	1.3	1.7
				8	16ER8UNJ	16EL8UNJ**	1.2	1.6
1/2	22		7	22ER7UNJ	22EL7UNJ**	1.7	2.3	
			6	22ER6UNJ	22EL6UNJ**	1.7	2.3	
			5	22ER5UNJ	22EL5UNJ**	1.8	2.5	
5/8	27		4.5	27ER4.5UNJ	27EL4.5UNJ**	2.0	2.7	
			4	27ER4UNJ	27EL4UNJ**	2.2	3.1	

U型 U-Style						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions		
øI.C	L mm	mm	TPI	RH+LH	X	Y
	1/2	22	4.5	22UE-4.5UNJ**	2.1	11.0
			4	22UE-4UNJ**	2.2	11.0

60°美国统一航空螺纹
Unified National Aerospace Thread 60° (UNJ)

内螺纹 Internal

标准参照：
公差等级：

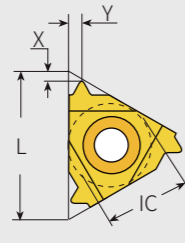
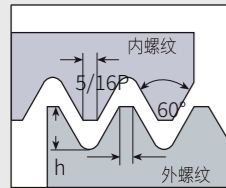
标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11		24	06R24UNJ*		0.6	0.5
				32	08R32UNJ*		0.6	0.6
				28	08R28UNJ*		0.6	0.6
				24	08R24UNJ*		0.6	0.6
				20	08R20UNJ*		0.6	0.7
				18	08R18UNJ*		0.7	0.7
				16	08R16UNJ*		0.7	0.8
				14	08R14UNJ*		0.8	0.9
				48	11R48UNJ**	11L48UNJ**	0.8	1.0
				44	11R44UNJ**	11L44UNJ**	0.9	1.1
	1/4	11		40	11R40UNJ**	11L40UNJ**	1.0	1.2
				36	11R36UNJ**	11L36UNJ**	0.6	0.5
				32	11R32UNJ	11L32UNJ**	0.6	0.6
				28	11R28UNJ	11L28UNJ**	0.6	0.6
				24	11R24UNJ	11L24UNJ**	0.6	0.6
				20	11R20UNJ	11L20UNJ	0.6	0.7
				18	11R18UNJ	11L18UNJ**	0.7	0.7
				16	11R16UNJ	11L16UNJ**	0.7	0.8
				14	11R14UNJ	11L14UNJ**	0.8	0.9
				12	11R12UNJ*	11L12UNJ**		
	3/8	16		48	16R48UNJ	16L48UNJ**	0.8	1.0
				44	16R44UNJ	16L44UNJ**	0.9	1.1
				40	16R40UNJ	16L40UNJ**	1.0	1.2
				36	16R36UNJ	16L36UNJ**	1.0	1.3

标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16		32	16R32UNJ	16L32UNJ**		
				28	16R28UNJ	16L28UNJ**		
				24	16R24UNJ	16L24UNJ**		
				20	16R20UNJ	16L20UNJ**		
				18	16R18UNJ	16L18UNJ**		
				16	16R16UNJ	16L16UNJ**		
				14	16R14UNJ	16L14UNJ**		
				13	16R13UNJ	16L13UNJ**		
				12	16R12UNJ	16L12UNJ**	1.1	1.3
				11	16R11UNJ	16L11UNJ**	1.2	1.5
	1/2	22		7	22R7UNJ	22L7UNJ**	1.7	2.3
				6	22R6UNJ	22L6UNJ**	1.7	2.3
				5	22R5UNJ	22L5UNJ**	1.8	2.5
	5/8	27		4.5	27R4.5UNJ	27L4.5UNJ**	2.0	2.7
				4	27R4UNJ	27L4UNJ**	2.2	2.4

U型 U-Style						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions		
øI.C	L mm	mm	TPI	RH+LH	X	Y
	1/2	22	4.5	22UI-4.5UMJ**	2.1	11.0
			4	22UI-4UNJ**	2.2	11.0

60° 公制航空航天螺纹
Metric Aerospace Thread 60° (MJ)

外螺纹 External

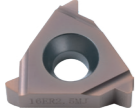


标准参照:
公差等级:

标准型 Standard

V型 V Style

标准型 Standard

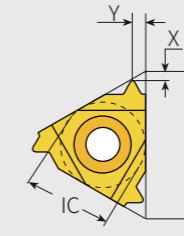
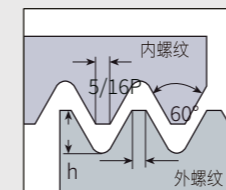
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	0.7		11ER0.7MJ*			
			0.75		11ER0.75MJ*			
			0.8		11ER0.8MJ*			
			0.9		11ER0.9MJ*			
			1.0		11ER1.0MJ	11EL1.0MJ**	0.7	0.7
			1.25		11ER1.25MJ	11EL1.25MJ**	0.8	0.9
			1.5		11ER1.5MJ	11EL1.5MJ**	0.8	1.0
			2.0		11ER2.0MJ	11EL2.0MJ**	0.9	1.0
			2.5		11ER2.5MJ*			
			3/8	16	0.7		16ER0.7MJ	16EL0.7MJ**
0.75		16ER0.75MJ	16EL0.75MJ**		0.7	0.55		
0.8		16ER0.8MJ	16EL0.8MJ**		0.7	0.7		
0.9		16ER0.9MJ*						
1.0		16ER1.0MJ	16EL1.0MJ**		0.7	0.7		
1.25		16ER1.25MJ	16EL1.25MJ**		0.8	0.9		
1.5		16ER1.5MJ	16EL1.5MJ**		0.8	1.0		
1.75		16ER1.75MJ*						
2.0		16ER2.0MJ	16EL2.0MJ**		1.0	1.3		
2.5		16ER2.5MJ	16EL2.5MJ**		1.1	1.5		
1/2	22	3.0		16ER3.0MJ	16EL3.0MJ**	1.2	1.6	
		4.0		22ER4.0MJ	22EL4.0MJ**	1.55	2.1	
		6.0		22ER6.0MJ*				

V型 V-Style

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	0.7		11VER0.7MJ**	11VEL0.7MJ**	0.7	2.5
			0.8		11VER0.8MJ**	11VEL0.8MJ**	0.7	2.5
			0.9		11VER0.9MJ**	11VEL0.9MJ**	0.7	2.6
			1.0		11VER1.0MJ**	11VEL1.0MJ**	0.7	2.5
			1.25		11VER1.25MJ**	11VEL1.25MJ**	0.7	2.3
			1.5		11VER1.5MJ**	11VEL1.5MJ**	0.7	2.2

60° 公制航空航天螺纹
Metric Aerospace Thread 60° (MJ)

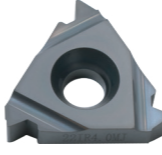
内螺纹 Internal



标准参照:
公差等级:

标准型 Standard

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	
	3/8	16	0.7		16IR0.7MJ*				
			0.75		16IR0.75MJ	16IL0.75MJ**	0.6	0.6	
			0.8		16IR0.8MJ	16IL0.8MJ**	0.7	0.7	
			0.9		16IR0.9MJ*				
			1.0		16IR1.0MJ	16IL1.0MJ**	0.6	0.7	
1/2	22	1.25		16IR1.25MJ	16IL1.25MJ**	0.8	0.9		
		1.5		16IR1.5MJ	16IL1.5MJ**	0.8	1.0		
		1.75		16IR1.75MJ*					
		2.0		16IR2.0MJ	16IL2.0MJ**	0.8	1.3		
		2.5		16IR2.5MJ	16IL2.5MJ**	1.1	1.5		
		3.0		16IR3.0MJ	16IL3.0MJ**	1.2	1.6		
		4.0		22IR4.0MJ*					
		6.0		22IR6.0MJ*					
		3/16	08	1.25		08IR1.25MJ*			
				1.0		11IR1.0MJ	11IL1.0MJ**	0.6	0.7
1.25				11IR1.25MJ	11IL1.25MJ**	0.8	0.9		
1/4	11	1.5		11IR1.5MJ	11IL1.5MJ**	0.8	1.0		
		2.0		11IR2.0MJ	11IL2.0MJ**	0.8	1.0		
		2.5		11IR2.5MJ*					
		0.7		16IR0.7MJ*					
		0.75		16IR0.75MJ	16IL0.75MJ**	0.6	0.6		

7° / 45° 美制锯齿螺纹

American Buttress Thread 7°/45° (ABUT)

外螺纹 External

标准型 Standard U型 U Style V型 V Style

标准参照：
公差等级：

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	ø.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11	20	20	11ER20ABUT	11EL20ABUT**	1.0	1.4	
			16	16	11ER16ABUT	11EL16ABUT**	1.3	1.9	
	3/8	16	20	20	16ER20ABUT	16EL20ABUT**	1.0	1.4	
			16	16	16ER16ABUT	16EL16ABUT	1.3	1.9	
			12	12	16ER12ABUT	16EL12ABUT**	1.4	2.0	
			10	10	16ER10ABUT	16EL10ABUT**	1.5	2.3	
1/2	22	8	8	16ER8ABUT*					
		8	8	22ER8ABUT	22EL8ABUT**	2.0	3.2		
			6	6	22ER6ABUT	22EL6ABUT**	2.2	3.5	

U型 U-Style

刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions				
ø.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/2	22	4	22UER4ABUT	22UEL4ABUT**	2.4	9.8	
	5/8	27	3	27UER3ABUT**	27UEL3ABUT**	3.1	12.1	

V型 V-Style

刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions					
ø.C	L mm	mm	TPI	RH	LH	X	Y	T
5/8	27	4	4	27VER4ABUT**	27VEL4ABUT**	0.6	1.8	6
		3	3	27VER3ABUT**	27VEL3ABUT**	0.6	2.2	8
		2.5	2.5	27VER2.5ABUT**	27VEL2.5ABUT**	0.6	2.7	10

7° / 45° 美制锯齿螺纹

American Buttress Thread 7°/45° (ABUT)

内螺纹 Internal

标准型 Standard U型 U Style V型 V Style

标准参照：
公差等级：

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	ø.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/4	11	20	20	11IR20ABUT	11IL20ABUT**	1.0	1.4	
			16	16	11IR16ABUT	11IL16ABUT**	1.3	1.9	
	3/8	16	20	20	16IR20ABUT	16IL20ABUT**	1.0	1.4	
			16	16	16IR16ABUT	16IL16ABUT**	1.3	1.9	
			15	15	16IR15ABUT*				
			13	13	16IR13ABUT*				
1/2	22	12	12	16IR12ABUT	16IL12ABUT**	1.4	2.0		
		10	10	16IR10ABUT	16IL10ABUT**	1.5	2.3		
			8	8	16IR8ABUT*				
			8	8	22IR8ABUT	22IL8ABUT**	2.0	3.2	
			6	6	22IR6ABUT	22IL6ABUT**	2.2	3.5	

U型 U-Style

刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions				
ø.C	L mm	mm	TPI	RH	LH	X	Y	T
	1/2	22	4	22UIR4ABUT	22UIL4ABUT**	2.4	9.8	
	5/8	27	3	27UIR3ABUT	27UIL3ABUT**	3.1	12.1	

V型 V-Style

刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code	尺寸 Dimensions					
ø.C	L mm	mm	TPI	RH	LH	X	Y	T
5/8	27	4	4	27VIR4ABUT	27VIL4ABUT**	0.6	1.8	6
		3	3	27VIR3ABUT	27VIL3ABUT**	0.6	2.2	8
		2.5	2.5	27VIR2.5ABUT	27VIL2.5ABUT**	0.6	2.7	10

7° / 45° 英制锯齿螺纹
British Buttress Thread 7°/45° (BBUT)

▶ 外螺纹 External

标准参照：
公差等级：

标准型 Standard U型 U Style

标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	20	20	11ER20BBUT**	11EL20BBUT**	1.0	1.3
			16	16	11ER16BBUT**	11EL16BBUT**	1.0	1.5
	3/8	16	20	20	16ER20BBUT**	16EL20BBUT**	1.0	1.3
			16	16	16ER16BBUT	16EL16BBUT**	1.1	1.6
			12	12	16ER12BBUT	16EL12BBUT**	1.4	2.1
			10	10	16ER10BBUT	16EL10BBUT**	1.4	2.2
			8	8	16ER8BBUT	16EL8BBUT**	1.6	2.5
	1/2	22	6	6	22ER6BBUT**	22EL6BBUT**	2.1	2.5
			8	8	22ER8BBUT	22EL8BBUT**	1.6	2.5

U型 U-Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/2	22	4	4	22UER4BBUT	22UEL4BBUT**	2.3	9.5
			3	3	22UER3BBUT*		3.1	11.7
	5/8	27	3	3	27UER3BBUT**	27UEL3BBUT**		

7° / 45° 英制锯齿螺纹
British Buttress Thread 7°/45° (BBUT)

▶ 内螺纹 Internal

标准参照：
公差等级：

标准型 Standard

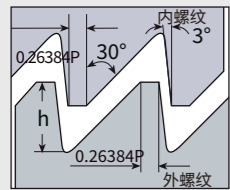
标准型 Standard								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/4	11	20	20	11IR20BBUT**	11IL20BBUT**	1.0	1.3
			16	16	11IR16BBUT**	11IL16BBUT**	1.0	1.5
	3/8	16	20	20	16IR20BBUT**	16IL20BBUT**	1.0	1.3
			16	16	16IR16BBUT	16IL16BBUT**	1.1	1.6
			12	12	16IR12BBUT	16IL12BBUT**	1.4	2.1
			10	10	16IR10BBUT	16IL10BBUT**	1.4	2.2
			8	8	16IR8BBUT	16IL8BBUT**	1.6	2.5
	1/2	22	6	6	22IR6BBUT**	22IL6BBUT**	2.1	2.5
			8	8	22IR8BBUT	22IL8BBUT**	1.6	2.5

U型 U-Style								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/2	22	4	4	22UIR4BBUT	22UIL4BBUT**	2.3	9.5
			3	3	22UIR3BBUT*			
	5/8	27	3	3	27UIR3BBUT	27UIL3BBUT**	3.1	11.7

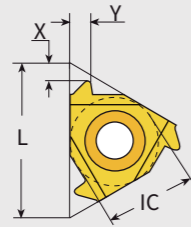
3° / 30° 公制锯齿螺纹

Metric Buttress Thread 3°/30°(Säge) (DIN513)

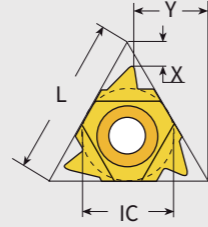
外螺纹 External



标准参照：
公差等级：



标准型 Standard

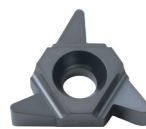


U型 U Style

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16	1.5		16ER1.5SAGE*			
			2.0		16ER2.0SAGE	16EL2.0SAGE	1.5	2.1
	1/2	22	2.0		22ER2.0SAGE	22EL2.0SAGE	1.5	2.1
			3.0		22ER3.0SAGE	22EL3.0SAGE	1.8	2.6
			4.0		22ER4.0SAGE	22EL4.0SAGE	1.75	3.1
	5/8	27	4.0		27ER4.0SAGE	27EL4.0SAGE**	1.9	3.2
6.0				27ER6.0SAGE				

U型 U-Style

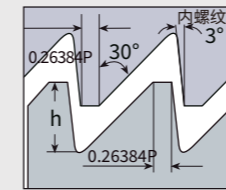


øI.C	L mm	mm	TPI	RH	LH	X	Y
1/2	22	5.0		22UER5.0SAGE	22UEL5.0SAGE**	1.27	10.35
		6.0		22UER6.0SAGE	22UEL6.0SAGE**	1.25	10.28
		8.0		22UER8.0SAGE*			

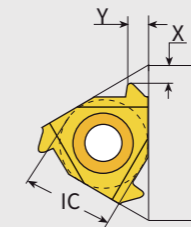
3° / 30° 公制锯齿螺纹

Metric Buttress Thread 3°/30°(Säge) (DIN513)

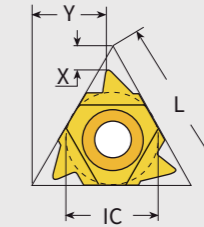
内螺纹 Internal



标准参照：
公差等级：



标准型 Standard

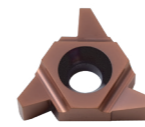


U型 U Style

标准型 Standard

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	3/8	16	1.5		16IR1.5SAGE*			
			2.0		16IR2.0SAGE	16IL2.0SAGE	1.5	2.2
	1/2	22	3.0		22IR3.0SAGE	22IL3.0SAGE	1.7	2.9
			4.0		22IR4.0SAGE	22IL4.0SAGE	2.03	3.25
	5/8	27	4.0		27IR4.0SAGE	27IL4.0SAGE**	2.1	3.2
			6.0		27IR6.0SAGE*			

U型 U-Style



øI.C	L mm	mm	TPI	RH	LH	X	Y
1/2	22	5.0		22UIR5.0SAGE	22UIL5.0SAGE**	1.8	10.3
		6.0		22UIR6.0SAGE	22UIL6.0SAGE**	1.9	10.15
		8.0		22UIR8.0SAGE*			

45° 水压机锯齿螺纹

Hydraulic Presses Buttress Thread 45°(YS) (DIN2781)

▶ 外螺纹 External

标准参照：
公差等级：

U型 U-Style V型 V-Style

U型 U-Style									
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	
5/8	27		10.0				27UER10.0YS*		
			12.0				27UER12.0YS*		
			16.0				27UER16.0YS*		
			20.0				27UER20.0YS*		
3/4	33		12.0				33UER12.0YS*		
			16.0				33UER16.0YS*		
			20.0				33UER20.0YS*		
			22.0				33UER22.0YS*		
			24.0				33UER24.0YS*		
			32.0				33UER32.0YS*		

V型 V-Style									
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	
5/8	27		5.0				27VER5.0YS*		
			6.0				27VER6.0YS*		
							27VER8.0YS*		

45° 水压机锯齿螺纹

Hydraulic Presses Buttress Thread 45°(YS) (DIN2781)

▶ 内螺纹 Internal

标准参照：
公差等级：

U型 U-Style V型 V-Style

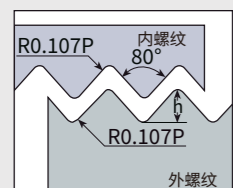
U型 U-Style									
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	
5/8	27		10.0				27UIR10.0YS*		
			12.0				27UIR12.0YS*		
			16.0				27UIR16.0YS*		
			20.0				27UIR20.0YS*		
3/4	33		12.0				33UIR12.0YS*		
			16.0				33UIR16.0YS*		
			20.0				33UIR20.0YS*		
			22.0				33UIR22.0YS*		
			24.0				33UIR24.0YS*		
			32.0				33UIR32.0YS*		

V型 V-Style									
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	mm	TPI	RH	LH	X	Y	
5/8	27		5.0				27VIR5.0YS*		
			6.0				27VIR6.0YS*		
							27VIR8.0YS*		

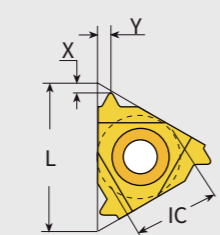
80° 德国钢导管螺纹

German Steel Conduit Thread 80° (Pg) (DIN40430)

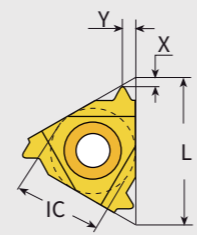
外螺纹 External / 内螺纹 Internal



标准参照:
公差等级:



外部标准型 External standard



内部标准型 Internal standard

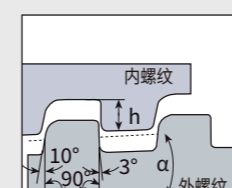
标准型 Standard		外螺纹 External						
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	RH	LH		X	Y
	1/4	11	20	11ER20PG	11EL20PG**	Pg 7	0.8	0.9
			18	11ER18PG**	11EL18PG**	Pg 9/11/13.5/16	0.8	1.0
			16	11ER16PG	11EL16PG**	Pg 21/29/36/42/48	0.9	1.1
	3/8	16	20	16ER20PG	16EL20PG**	Pg 7	0.8	0.9
			18	16ER18PG	16EL18PG**	Pg 9/11/13.5/16	0.8	1.0
			16	16ER16PG	16EL16PG**	Pg 21/29/36/42/48	0.9	1.1

标准型 Standard		内螺纹 Internal						
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	RH	LH		X	Y
	3/16	08	20	08IR20PG*		Pg 7		
			18	08IR18PG*		Pg 9/11/13.5/16		
	1/4	11	20	11IR20PG	11IL20PG**	Pg 7	0.8	0.9
			18	11IR18PG	11IL18PG**	Pg 9/11/13.5/16	0.8	1.0
			16	11IR16PG	11IL16PG**	Pg 21/29/36/42/48	0.9	1.1
	3/8	16	20	16IR20PG	16IL20PG**	Pg 7	0.8	0.9
			18	16IR18PG	16IL18PG**	Pg 9/11/13.5/16	0.8	1.0
			16	16IR16PG	16IL16PG**	Pg 21/29/36/42/48	0.8	1.1

直联型套管螺纹

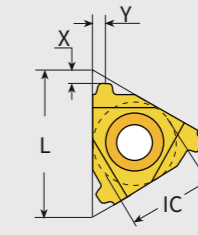
API Extreme Line Thread (EL)

外螺纹 External / 内螺纹 Internal

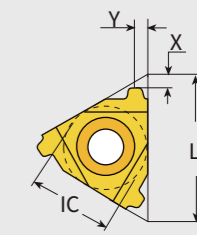


标准参照:
公差等级:

$\alpha = \arctg (IPF/24)$



外部标准型 External standard



内部标准型 Internal standard

标准型 Standard		外螺纹 External								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		锥度 Taper		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	TPF	RH	LH	X	Y		
	3/8	22	6	1.5	22ER6EL1.5		1.9	1.9		
			5	1.25	22ER5EL1.25		2.3	2.4		

标准型 Standard		内螺纹 Internal								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		锥度 Taper		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	TPF	RH	LH	X	Y		
	3/8	22	6	1.5	22IR6EL1.5		1.9	1.9		
			5	1.25	22IR5EL1.25		2.3	2.4		

V型 V-Style		外螺纹 External								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		锥度 Taper		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	TPF	RH	LH	X	Y		
	3/8	22	6	1.5	22VER6EL1.5					
			5	1.25	22VER5EL1.25					

V型 V-Style		内螺纹 Internal								
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		锥度 Taper		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	TPF	RH	LH	X	Y		
	3/8	22	6	1.5	22VIR6EL1.5					
			5	1.25	22VIR5EL1.25					

》》 H-90 休斯标准螺纹
Hughes Standard Thread

▶ 外螺纹 External / 内螺纹 Internal

标准参照:
公差等级:

U型 U-Style		外螺纹 External						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	TPI	TPF	RH		X	Y
	1/2	22	3.5	2	22UER3.5H902	3 1/2" - 6 5/8"	4.2	11
			3.5	3	22UER3.5H903	7" - 8 5/8"	4.2	11
5/8	27	3	1.25	27UER3H90SL	2 3/8" - 3 1/2"	5.5	13.7	

U型 U-Style		内螺纹 Internal						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	TPI	TPF	RH		X	Y
	1/2	22	3.5	2	22UIR3.5H902	3 1/2" - 6 5/8"	4.2	11
			3.5	3	22UIR3.5H903	7" - 8 5/8"	4.2	11
5/8	27	3	1.25	27UIR3H90SL	2 3/8" - 3 1/2"	5.5	13.7	

V型 V-Style		外螺纹 External						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	TPI	TPF	RH	LH	X	Y
	5/8	27	3.5	2	27VER3.5H902			

V型 V-Style		内螺纹 Internal						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	øI.C	L mm	TPI	TPF	RH	LH	X	Y
	5/8	27	3.5	2	27VIR3.5H902			

》》 API 偏梯形套管螺纹
API Buttress Casing Thread (BUT)

▶ 外螺纹 External / 内螺纹 Internal

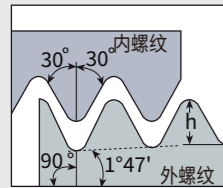
标准参照:
公差等级:

标准型 Standard		外螺纹 External							
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions			
	øI.C	L mm	TPI	TPF	RH	LH	X	Y	
	3/8	16	5	0.75	16ER5BUT0.75			1.3	1.5
			5	1.0	16ER5BUT1.0			1.3	1.5
	1/2	22	5	0.75	22ER5BUT0.75			3.1	1.9
			5	1.0	22ER5BUT1.0			3.1	1.9

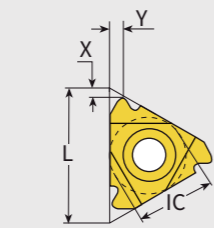
标准型 Standard		内螺纹 Internal							
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions			
	øI.C	L mm	TPI	TPF	RH	LH	X	Y	
	3/8	16	5	0.75	16IR5BUT0.75			1.3	1.5
			5	1.0	16IR5BUT1.0			1.3	1.5
	1/2	22	5	0.75	22IR5BUT0.75			3.1	1.9
			5	1.0	22IR5BUT1.0			3.1	1.9

60°美国API 套管及油管圆螺纹
API Round Casing & Tubing 60° (APIRD)

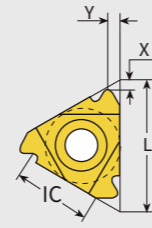
外螺纹 External / 内螺纹 Internal



标准参照:
公差等级:



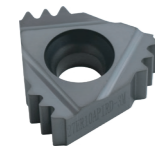
外部标准型 External standard



内部标准型 Internal standard

标准型 Standard		外螺纹 External						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	3/8	16	10	0.75	RH	LH	X	Y
			8	0.75	16ER8APIRD		1.3	1.5
	1/2	22	10	0.75	22ER10APIRD		1.5	1.7
			8	0.75	22ER8APIRD		2.2	2.3

M+型 M+ Style



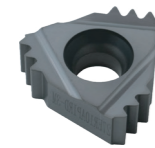
刀片尺寸 Size	螺距 Pitch	锥度 Taper	NT	RH	X	Y
5/8	10	0.75	2	22ER10APIRD-2M		
	10	0.75	3	27ER10APIRD-3M		
5/8	8	0.75	2	27ER8APIRD-2M		

标准型 Standard 内螺纹 Internal



刀片尺寸 Size	螺距 Pitch	锥度 Taper	RH	LH	X	Y
3/8	10	0.75	16IR10APIRD		1.2	1.4
	8	0.75	16IR8APIRD		1.3	1.5
1/2	10	0.75	22IR10APIRD		1.5	1.7
	8	0.75	22IR8APIRD		2.2	2.3

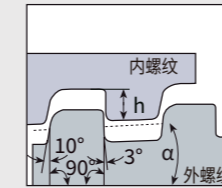
M+型 M+ Style



刀片尺寸 Size	螺距 Pitch	锥度 Taper	NT	RH	X	Y
1/2	10	0.75	3	22IR10APIRD-3M		
	10	0.75	2	22IR10APIRD-2M		
5/8	10	0.75	3	27IR10APIRD-3M		
	8	0.75	2	27IR8APIRD-2M		

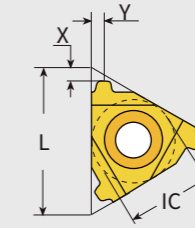
新瓦姆螺纹
NAmerican New VAM Thread (NVAM)

外螺纹 External / 内螺纹 Internal

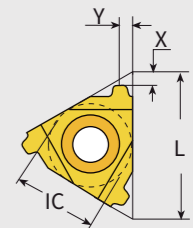


标准参照:
公差等级:

$\alpha = \arctg (IPF/24)$



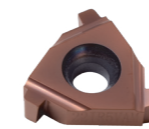
外部标准型 External standard



内部标准型 Internal standard

标准型 Standard		外螺纹 External						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	3/8	16	8	0.75	RH	LH	X	Y
			8	0.75	16ER8NVAM		1.8	1.8
	1/2	22	8	0.75	22ER8NVAM		2.3	2.3
			6	0.75	22ER6NVAM		2.3	2.3
			5	0.75	22ER5NVAM			

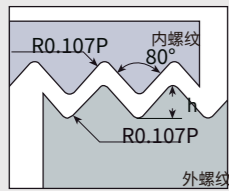
标准型 Standard 内螺纹 Internal



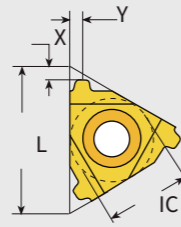
刀片尺寸 Size	螺距 Pitch	锥度 Taper	RH	LH	X	Y
3/8	8	0.75	16IR8NVAM		1.8	1.8
	8	0.75	22IR8NVAM			
1/2	6	0.75	22IR6NVAM		2.3	2.3
	5	0.75	22IR5NVAM		2.3	2.3

地质螺纹
DZ

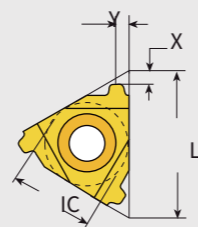
外螺纹 External / 内螺纹 Internal



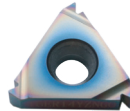
标准参照:
公差等级:




外部标准型 External standard



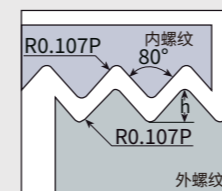
内部标准型 Internal standard

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	1/2 22	4	4	22ER4DZ		0.8	0.9
		4	4	22ER4DZII			

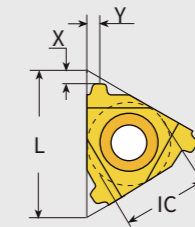
标准型 Standard		内螺纹 Internal					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	1/2 22	4	4	22IR4DZ			
		4	4	22IR4DZII			

60° 美国压缩气瓶螺纹
National Gas Outlet Thread 60°

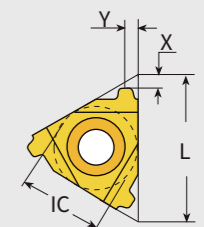
外螺纹 External / 内螺纹 Internal



标准参照:
公差等级:




外部标准型 External standard



内部标准型 Internal standard

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	TPI	TPF	RH	LH	X	Y
	3/8 16	14		16ER14NGO	16EL14NGO	1.15	
		14	0.75	16ER14NGT	16EL14NGT		

标准型 Standard		内螺纹 Internal					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	TPI	TPF	RH	LH	X	Y
	3/8 16	14		16IR14NGO	16IL14NGO	1.1	
		14	0.75	16IR14NGT	16IL14NGT		

55° 气瓶专用锥螺纹
Special Thread for Gas Cylinder Taper 55° (PZ)

▶ 外螺纹 External / 内螺纹 Internal

标准参照：
公差等级：

外部标准型 External standard 内部标准型 Internal standard

标准型 Standard		外螺纹 External						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	1/4	11	3:25	TPI	TPF	RH	Y	
				14	3:25	11ER14PZ	PZ 39.0	1.05
	3/8	16	3:25	12	3:25	11ER12PZ	PZ 30.3/27.8/19.2	1.15
				14	3:25	16ER14PZ	PZ 39.0	1.05
			12	3:25	16ER12PZ	PZ 30.3/27.8/19.2	1.15	

标准型 Standard		内螺纹 Internal						
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code		尺寸 Dimensions		
	1/4	11	3:25	TPI	TPF	RH	Y	
				14	3:25	11IR14PZ	PZ 39.0	1.05
	3/8	16	3:25	12	3:25	11IR12PZ	PZ 30.3/27.8/19.2	1.15
				14	3:25	16IR14PZ	PZ 39.0	1.05
			12	3:25	16IR12PZ	PZ 30.3/27.8/19.2	1.15	

55° 气瓶专用直螺纹
Special Thread for Gas Cylinder Straight 55° (PG80)

▶ 外螺纹 External ▶ 内螺纹 Internal

标准参照：
公差等级：

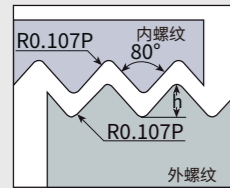
标准型 Standard 标准型 Standard

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code		尺寸 Dimensions		
	1/4	11	mm	TPI	RH	LH	Y
			11	11	11ER11PG80		
			16	11	16ER11PG80		

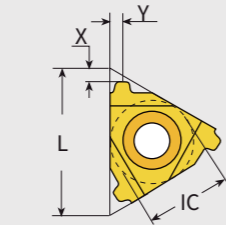
标准型 Standard		内螺纹 Internal					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	订货代码 Ordering Code		尺寸 Dimensions		
	1/4	11	mm	TPI	RH	LH	Y
			11	11	11IR11PG80		
			16	11	16IR11PG80		

油气行业专用螺纹
JFE FOX / JFE BEAR

外螺纹 External



标准参照:
公差等级:



外部标准型 External standard

标准型 Standard 外螺纹 External

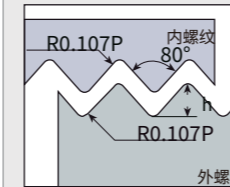
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		锥度 Taper		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	TPF	RH	LH	X	Y		
	1/2	22	8	0.75	22ER8JFEFOX					
			6	0.75	22ER6JFEFOX					
			5	0.75	22ER5JFEFOX					
			8	0.75	22ER8JFEBEAR					
			6	0.75	22ER6JFEBEAR					
			5	0.75	22ER5JFEBEAR					

标准型 Standard 内螺纹 Internal

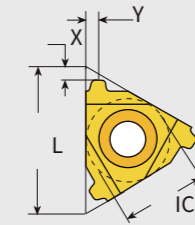
刀片形状 Image	刀片尺寸 Size		螺距 Pitch		锥度 Taper		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	TPI	TPF	RH	LH	X	Y		
	1/2	22	8	0.75	22IR8JFEFOX					
			6	0.75	22IR6JFEFOX					
			5	0.75	22IR5JFEFOX					
			8	0.75	22IR8JFEBEAR					
			6	0.75	22IR6JFEBEAR					
			5	0.75	22IR5JFEBEAR					

高背压阀螺纹
High Back Pressure Valve Thread (HBPV)

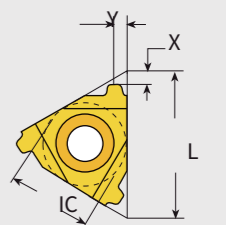
外螺纹 External / 内螺纹 Internal



标准参照:
公差等级:



外部标准型 External standard



内部标准型 Internal standard

标准型 Standard 外螺纹 External

刀片形状 Image	刀片尺寸 Size		螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C	L mm	mm	TPI	RH	LH	X	Y
	1/2	22		4	22EL4.0-HBPV			2.65

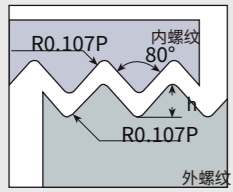
标准型 Standard 内螺纹 Internal

刀片形状 Image	刀片尺寸 Size	螺距 Pitch	锥度 Taper	订货代码 Ordering Code	尺寸 Dimensions		
øI.C	L mm	mm	TPI	RH	LH	X	Y
1/2	22		4	22IL4.0-HBPV			2.65

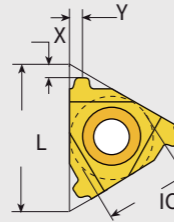
双级同步扣

Two-Step Stub Buttress Synchronous Thread (FJWP)

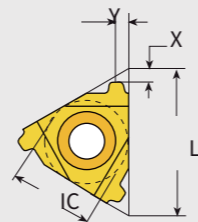
外螺纹 External / 内螺纹 Internal



标准参照:
公差等级:



外部标准型 External standard



内部标准型 Internal standard

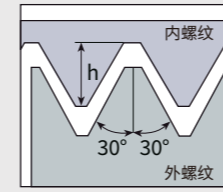
标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	1/2 22		8	22ER8FJWP			
			6	22ER6FJWP			
			4	22ER4FJWP			

标准型 Standard		内螺纹 Internal					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	1/2 22		8	22IR8FJWP			
			6	22IR6FJWP			
			4	22IR4FJWP			

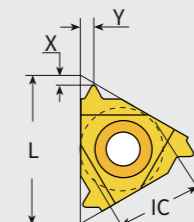
60° 气门芯气门嘴螺纹

Valve Core Thread 60°

外螺纹 External



标准参照:
公差等级:



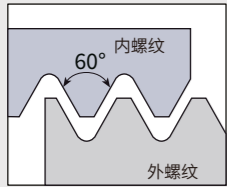
外部标准型 External standard

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch		订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	TPI	RH	LH	X	Y
	3/8 16			16ER5CV			
				16ER5V1			
				16ER5V2			
				16ER6V1			
				16ER8CV			
				16ER8V1			
				16ER9V1			
				16ER10V1			
				16ER10V2			
				16ER11V1			
				16ER12V1			
				16ER13V1			
				16ER13V2			
		16ER19V1					
		16ER20V1					

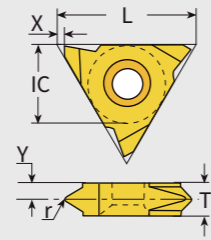
60° 走心机立装范围螺纹

Swiss-type Vertical Partial Profile 60° (MTTR)

外螺纹 External



标准参照：
公差等级：

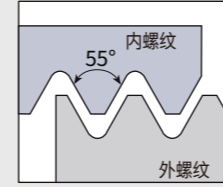


V型 V-Style

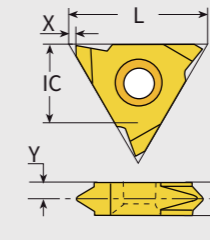
55° 走心机立装范围螺纹

Swiss-type Vertical Partial Profile 55° (MTTR)

外螺纹 External



标准参照：
公差等级：



V型 V Style

标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	R角 Radius	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	r	RH	LH	X	Y
	3/8 16	0.5-0.8	0.05	MTTR3260005			
		1.0-1.75	0.1	MTTR326001			
		2.0-2.5	0.2	MTTR326002			
		3.0-3.5	0.3	MTTR326003			
		4.0-4.5	0.4	MTTR326004			
1/2 22	1.0-1.75	0.1	MTTR436001				
	2.0	0.2	MTTR436002				
	2.5	0.3	MTTR436003				
	3.0-3.5	0.4	MTTR436004				
	4.0-4.5	0.5	MTTR436005				

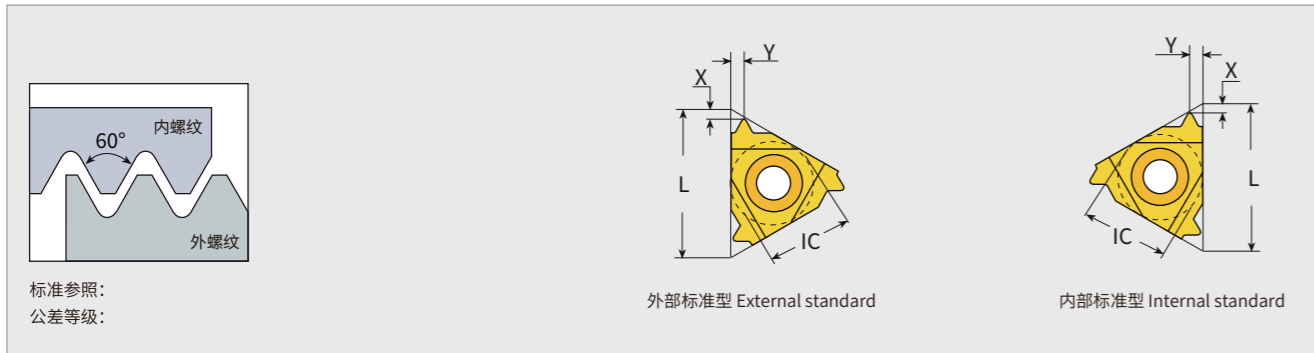
齿形靠左 CL-Style		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	R角 Radius	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	mm	r	RH	LH	X	Y
	3/8 16	0.5-0.8	0.05	MTTR3260005-CL			
		1.0-1.75	0.1	MTTR326001-CL			
		2.0-2.5	0.2	MTTR326002-CL			
		3.0-3.5	0.3	MTTR326003-CL			
		4.0-4.5	0.4	MTTR326004-CL			
1/2 22	1.0-1.75	0.1	MTTR436001-CL				
	2.0	0.2	MTTR436002-CL				
	2.5	0.3	MTTR436003-CL				
	3.0-3.5	0.4	MTTR436004-CL				
	4.0-4.5	0.5	MTTR436005-CL				


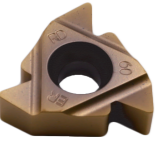
标准型 Standard		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	R角 Radius	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	TPI	r	RH	LH	X	Y
	3/8 16	20-18	0.1	MTTR325501			
		16-8	0.2	MTTR325502			
		11-8	0.3	MTTR325503			
		6-5.5	0.4	MTTR325504			
1/2 22	20-18	0.1	MTTR435501				
	16-8	0.2	MTTR435502				
	11-8	0.3	MTTR435503				
	6-5.5	0.4	MTTR435504				

齿形靠左 CL-Style		外螺纹 External					
刀片形状 Image	刀片尺寸 Size	螺距 Pitch	R角 Radius	订货代码 Ordering Code		尺寸 Dimensions	
	øI.C L mm	TPI	r	RH	LH	X	Y
	3/8 16	20-18	0.1	MTTR325501-CL			
		16-8	0.2	MTTR325502-CL			
		11-8	0.3	MTTR325503-CL			
		6-5.5	0.4	MTTR325504-CL			
1/2 22	20-18	0.1	MTTR435501-CL				
	16-8	0.2	MTTR435502-CL				
	11-8	0.3	MTTR435503-CL				
	6-5.5	0.4	MTTR435504-CL				

压制M级螺纹刀片

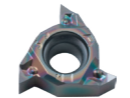

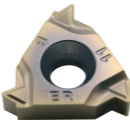
Pressed M Grade Thread Inserts



刀片形状 Image	订货代码 Ordering Code	尺寸 Dimensions				螺距 Pitch		
		I.C.	L	X	Y	mm	TPI	
	11IRA60	1/4	11	0.6	0.8	0.5-1.5		
	11IR1.0ISO	1/4	11	0.8	0.8	1.0		
	16ER/IRAG55	3/8	16	0.6	0.7		48-16	
	16ER/IRAG60	3/8	16	1.2	1.7	0.5-3.0		
	16ER/IR1.0ISO	3/8	16	0.6	0.7	1.0		
	16ER/IR1.5ISO	3/8	16	0.8	1.0	1.5		
	16ER/IR2.0ISO	3/8	16	1.0	1.3	2.0		
	16ER/IR2.5ISO	3/8	16	1.1	1.5	2.5		
	16ER/IR3.0ISO	3/8	16	1.1	1.5	3.0		
	16ER/IR11.5NPT	3/8	16	0.8	1.0		11.5	
	16ER/IR14NPT	3/8	16	0.8	1.0		14	
	16ER/IR11BSPT	3/8	16	1.1	1.5		11	
	16ER/IR14BSPT	3/8	16	1.0	1.2		14	
	16ER/IR11W	3/8	16	1.1	1.5		11	
	16ER/IR14W	3/8	16	1.0	1.2		14	
		22ER/IRN60	1/2	22	1.8	2.5	3.5-5.0	
		22ER/IR4.0ISO	1/2	22	2.0	2.5	4.0	
		22ER/IR5.0ISO	1/2	22	1.8	2.5	5.0	
22ER/IR6.0ISO		1/2	22	2.2	3.2	6.0		

压制精磨级螺纹刀片

Pressed M Grade Thread Inserts With Grinding Teeth

刀片形状 Image	订货代码 Ordering Code	尺寸 Dimensions				螺距 Pitch		
		I.C.	L	X	Y	mm	TPI	
	11IRA60-SL	1/4	11	0.6	0.8	0.5-1.5		
	11IRA55-SL	1/4	11	0.6	0.8		48-16	
	16ER/IRA55-SL	3/8	16	0.8	0.9		48-16	
	16ER/IRA60-SL	3/8	16	0.8	0.9	0.5-1.5		
	16ER/IRG55-SL	3/8	16	1.5	1.7		14-8	
	16ER/IRG60-SL	3/8	16	1.5	1.7	1.75-3.0		
	16ER/IRAG55-SL	3/8	16	0.6	0.7		48-16	
	16ER/IRAG60-SL	3/8	16	1.2	1.7	0.5-3.0		
	16ER/IR1.0ISO-SL	3/8	16	0.6	0.7	1.0		
	16ER/IR1.25ISO-SL	3/8	16	0.8	0.8	1.25		
	16ER/IR1.5ISO-SL	3/8	16	0.8	1.0	1.5		
	16ER/IR1.75ISO-SL	3/8	16	1.2	1.5	1.75		
	16ER/IR2.0ISO-SL	3/8	16	1.0	1.3	2.0		
	16ER/IR2.5ISO-SL	3/8	16	1.1	1.5	2.5		
	16ER/IR3.0ISO-SL	3/8	16	1.1	1.5	3.0		
		16ER/IRAG60-JM	3/8	16			0.5-1.5	
		16ER/IRAG55-JM	3/8	16				48-16
		16ER/IR1.0ISO-JM	3/8	16			1.0	
16ER/IR1.5ISO-JM		3/8	16			1.5		
16ER/IR2.0ISO-JM		3/8	16			2.0		
16ER/IR2.5ISO-JM		3/8	16			2.5		
16ER/IR3.0ISO-JM		3/8	16			3.0		
16ER/IR11.5NPT-JM		3/8	16	0.8	1.0		11.5	
16ER/IR14NPT-JM		3/8	16	0.8	1.0		14	
16ER/IR11BSPT-JM		3/8	16	1.1	1.5		11	
	16ER/IR14BSPT-JM	3/8	16	1.0	1.2		14	
	16ER/IR11W-JM	3/8	16	1.1	1.5		11	
	16ER/IR14W-JM	3/8	16	1.0	1.2		14	



扫码了解更多

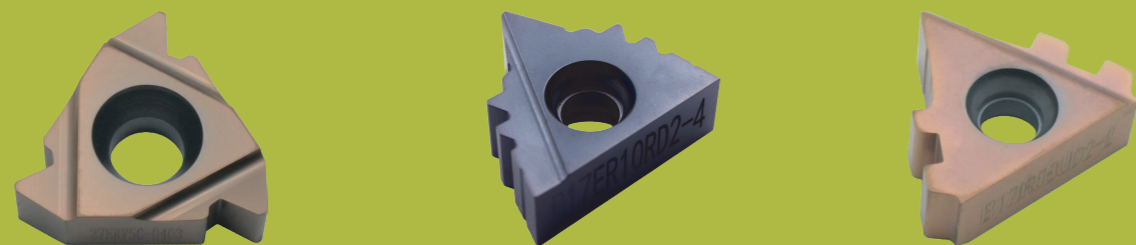


THREAD TOOLS FOR OIL & GAS

石油管螺纹刀具系列



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石油管螺纹刀片型号编制说明

NAMING RULES FOR OIL PIPE THREADING INSERTS



1 刀片形状及适应机床 Insert style or used for machine tools

- L 长条形 prism
- S 方形 square and rectangle
- B 蝶形 butterfly
- T 三角形 triangle
- R 平行四边形 parallelogram
- P 适用于PMG (美) 机床 Used for PMG machine tools (USA)
- C 适用于Colinet (比利时) 机床 Used for Colinet machine tools (Belgium)

2 刀片尺寸 (mm) Insert size

3 刀片安装类 Insert style

- U: 卧式对中螺纹刀片 - U style
- V: 立式 (立装) 螺纹刀片 - V style
- : 不标注为其他形状刀片 (Nothing means others)

4 机加工类型 Type of cutting

- E (external) - 外螺纹刀片
- I (internal) - 内螺纹刀片

5 刀片手式 Hand of Tools

- R (right-handed) - 右手式
- L (left-handed) - 左手式

6 螺距 Pitch

- 4 - 每寸4牙 (4TPI) 5 - 每寸5牙 (5TPI)
- 6 - 每寸6牙 (6TPI) 8 - 每寸8牙 (8TPI)
- 10 - 每寸10牙 (10TPI)

7 螺纹标准 Thread Standard

- RD - API圆螺纹 For API Round
- BU - API偏梯扣螺纹 For API Buttress
- G - API管线管螺纹 For API Line Type

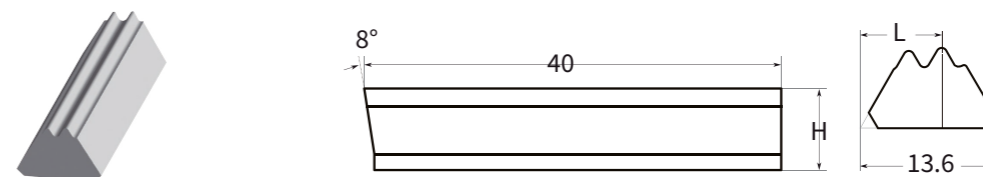
8 刀片切削刃数 (Edges of the Insert)

9 每切削刃上的齿数 (Number of Teeth per Edge)

10 对多刀片配合使用的用1, 2, 3代表刀号 (Sequence Number of the Insert)

长条形油、套管外螺纹刀片

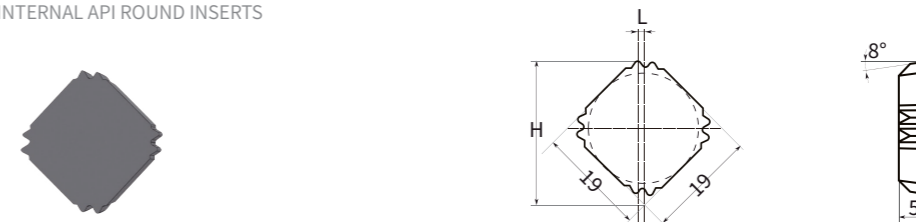
EXTERNAL API ROUND INSERTS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
L40VER8RD1-2	8	1:16	7.7	7.85
L40VER10RD1-2	10	1:16	7.7	7.2

四边形油、套管内螺纹刀片

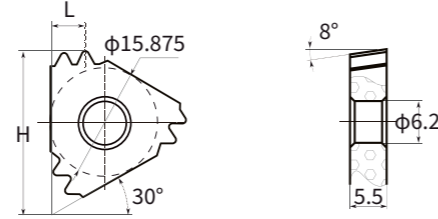
INTERNAL API ROUND INSERTS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S19IR8RD4-2	8	1:16	25	1.35	M10 (8) N4-DXQ
S19IR10RD4-2	10	1:16	25.2	1.1	M10 (8) N4-DXQ

▶▶▶ 三角形石油油、套管圆扣二齿外螺纹刀片

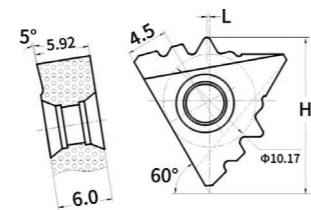
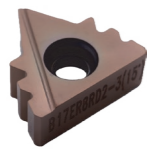
EXTERNAL API ROUND INSERTS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
T27ER8RD3-2	8	1:16	24.3	5.0	J10 (8) N3-DXQ
T27ER10RD3-2	10	1:16	24.5	4.7	J10 (8) N3-DXQ

▶▶▶ 蝶形油、套管外螺纹刀片

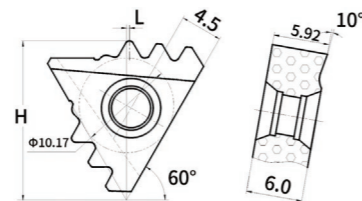
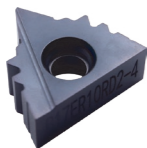
EXTERNAL API ROUND INSERTS



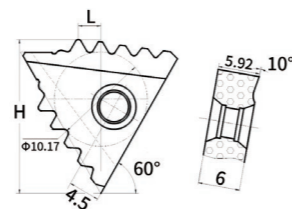
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
B17ER8RD2-3 (15°)	8	1:16	17.09	0.32
B17ER8RD2-3 (12°)	8	1:16	17.09	0.32
B17ER10RD2-4	10	1:16	17.09	0.01

▶▶▶ 蝶形油、套管内螺纹刀片

INTERNAL API ROUND INSERTS



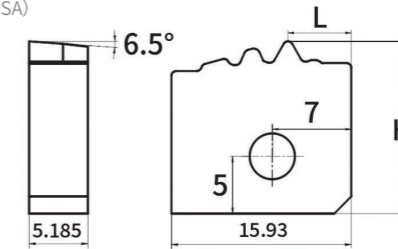
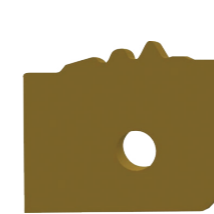
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
B17IR8RDN2-3	8	1:16	17.09	0.32
B17IR10RDN2-4	10	1:16	17.09	0.01



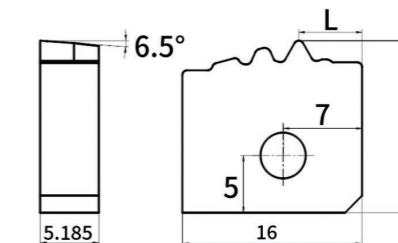
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
B23IR8RD2-5	8	1:16	21.84	3.24

▶▶▶ PMC (美) 车丝机用石油油、套管圆扣外螺纹刀片

EXTERNAL API ROUND INSERTS FOR PMC MACHINE TOOLS (USA)



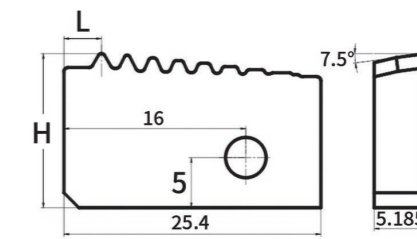
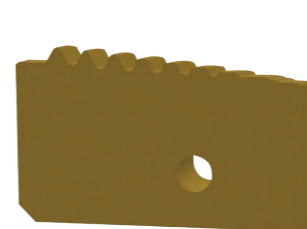
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
P16ER8RD1-31 (12°)	8	1:16	14.7	7.72	XP8W1-31, XP8W1B
P16ER8RD1-32 (12°)	8	1:16	14.96	6.67	XP8W1-32, XP8W1B
P16ER8RD1-33 (12°)	8	1:16	15.04	5.61	XP8W1-33, XP8W1B
P16ER8RD1-31 (15°)	8	1:16	14.71	7.72	XP8W1-31, XP8W1B
P16ER8RD1-32 (15°)	8	1:16	14.96	6.67	XP8W1-32, XP8W1B
P16ER8RD1-33 (15°)	8	1:16	15.04	5.61	XP8W1-33, XP8W1B



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
P16ER10RD1-31	10	1:16	14.315	7.3	XP10W1-31, XP10W1B
P16ER10RD1-32	10	1:16	14.57	6.46	XP10W1-32, XP10W1B
P16ER10RD1-33	10	1:16	14.65	5.61	XP10W1-33, XP10W1B

▶▶▶ PMC (美) 车丝机用石油油、套管圆扣内螺纹刀片

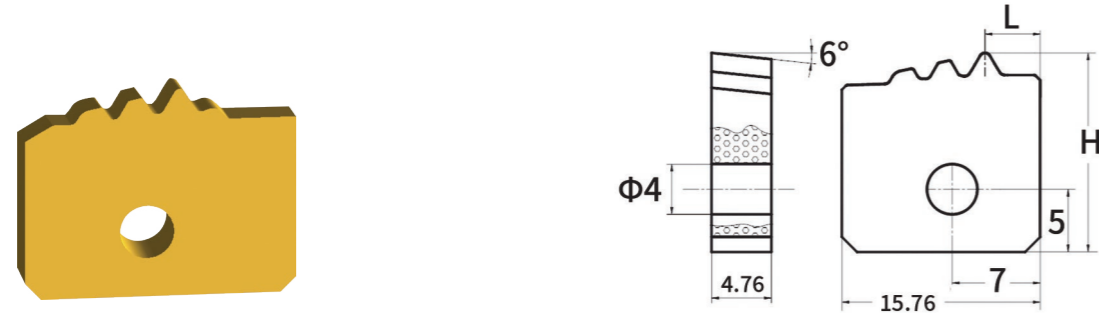
INTERNAL API ROUND INSERTS FOR PMC MACHINE TOOLS (USA)



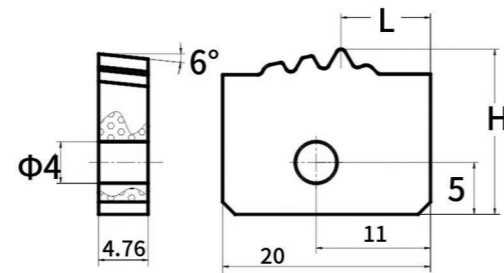
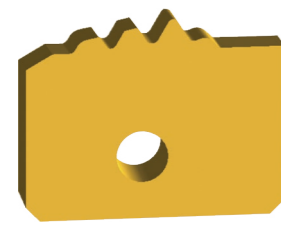
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
P25IR10RD1-8	10	1:16	15.34	3.7	XP10I1-8, BXPQN1G
P25IR8RD1-7	8	1:16	15.715	3.7	XP8I1-7, XP8I1-7A XP8I1-7B, BXPQN1C

比利时 (Colinet) 车丝机用石油、套管圆扣外螺纹刀片

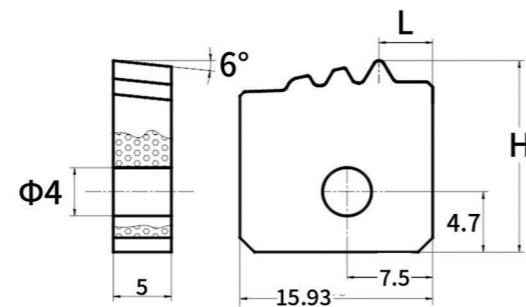
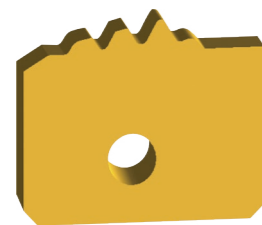
EXTERNAL API ROUND INSERTS FOR COLINET MACHINE TOOLS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
C16ER8RD1-31 (15°)	8	1:16	15.54	5.98	BXCQW1BI
C16ER8RD1-32 (15°)	8	1:16	15.86	4.393	BXCQW1BI
C16ER10RD1-31	10	1:16	15.16	5.67	BXCQW1BI
C16ER10RD1-32	10	1:16	15.45	4.4	BXCQW1BI



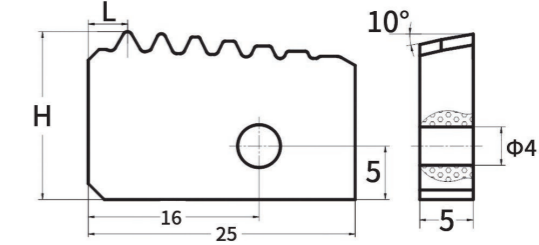
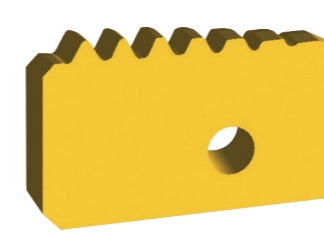
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
C20ER8RD1-31 (12°)	8	1:16	15.6	10.2	BXCQW1BII
C20ER8RD1-32 (12°)	8	1:16	15.9	8.61	BXCQW1BII



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
C16ER8RD1-3	8	1:16	15.75	4.4	BXCQW1BI
C16ER10RD1-4	10	1:16	15.75	2.5	BXCQW1BI

比利时 (Colinet) 车丝机用石油、套管圆扣内螺纹刀片

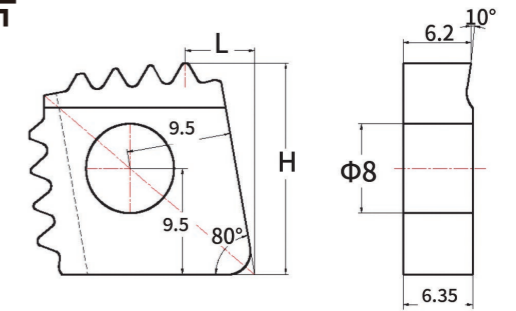
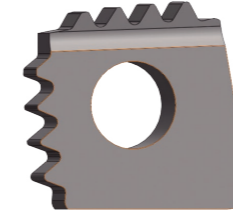
INTERNAL API ROUND INSERTS FOR COLINET MACHINE TOOLS



型号 Ordering Code	牙数 TPI	锥度 TPF	螺纹扣型 Thread Standard	H	L	断屑器 Chipbreaker
C25IR8RD1-7	8	1:16	API油套管圆螺纹 - APIRD	15.715	3.7	XCQN1BIII
C25IR10RD1-8	10	1:16	API油管圆螺纹 - APIRD	15.49	2.5	XCQN1BIII

石油油、套管80°菱形圆扣外螺纹刀片

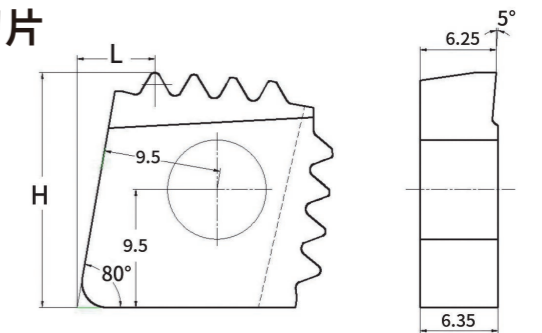
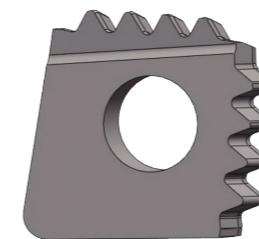
EXTERNAL API ROUND INSERTS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
R19ER8RD2-4	8	1:16	18.93	6.29
R19ER10RD2-4	10	1:16	18.93	6.29

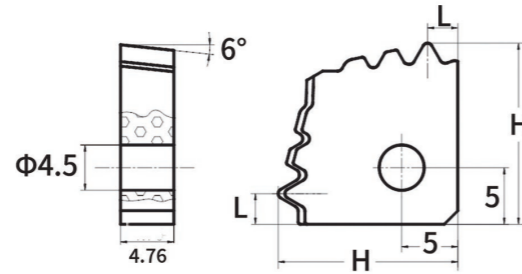
石油油、套管80°菱形圆扣内螺纹刀片

INTERNAL API ROUND INSERTS

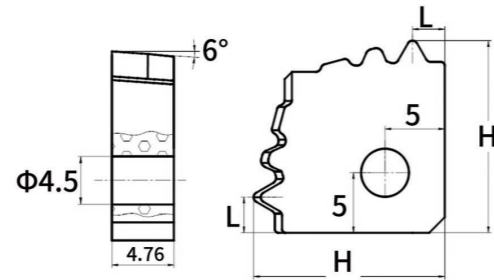


型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
R19IR8RD2-4	8	1:16	18.93	6.29
R19IR10RD2-4	10	1:16	18.93	6.29

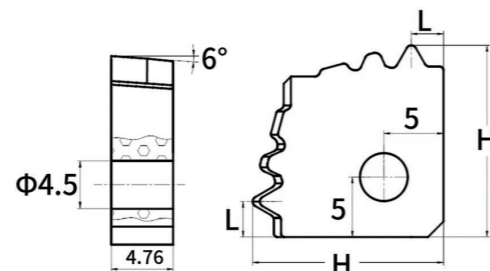
双面刃石油油、套管圆扣外螺纹刀片
EXTERNAL API ROUND INSERT



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16ER10RD2-31	10	1:16	15.3	3.97	TA2118B
S16ER10RD2-32	10	1:16	15.59	2.7	TA2118B
S16ER8RD2-31 (15°)	8	1:16	15.54	4.29	TA2118B
S16ER8RD2-32 (15°)	8	1:16	15.86	2.7	TA2118B
S16ER8RD2-31 (12°)	8	1:16	15.54	4.29	TA2118B
S16ER8RD2-32 (12°)	8	1:16	15.86	2.7	TA2118B

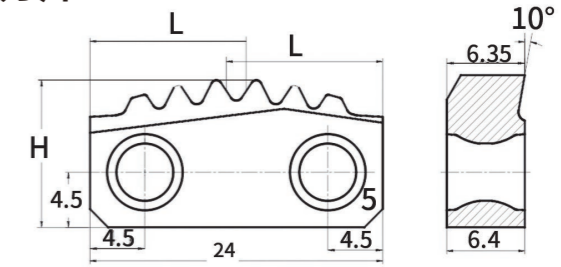
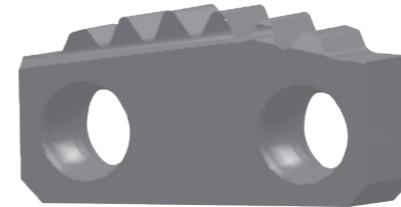


型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16ER10RD2-31	10	1:16	15.2	4.39	TA2118B
S16ER10RD2-32	10	1:16	15.53	3.547	TA2118B
S16ER10RD2-33	10	1:16	15.6	2.7	TA2118B
S16ER8RD2-31 (15°)	8	1:16	15.67	4.817	TA2118B
S16ER8RD-32 (15°)	8	1:16	15.92	3.76	TA2118B
S16ER8RD2-33 (15°)	8	1:16	16	2.7	TA2118B



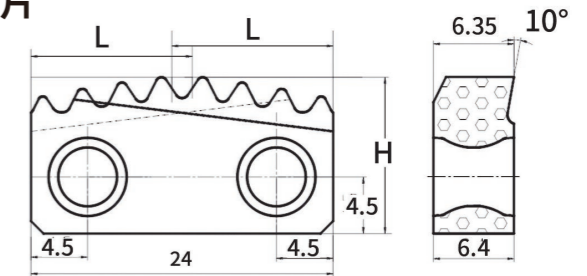
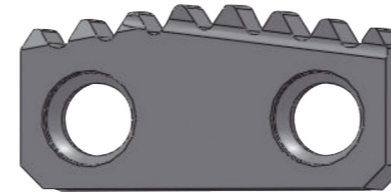
型号	每吋牙数	锥度	H	L	断屑器
S16ER10RD2-4	10	1:16	15.6	2.7	TA2118B
S16ER8RD2-3 (15°)	8	1:16	16.0	2.7	TA2118B

双孔双刃平装石油管圆扣外螺纹刀片
EXTERNAL API ROUND INSERTS

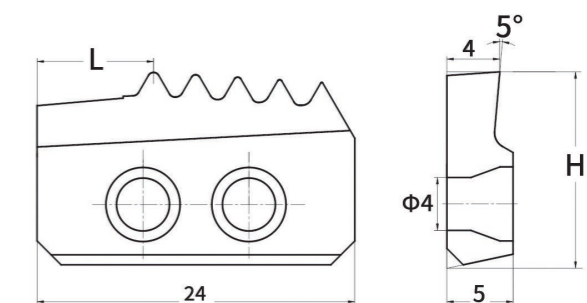
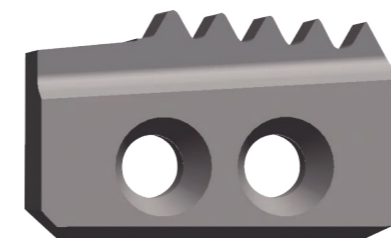


型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
S24ER8RD2-3	8	1:16	12	12.815
S24ER10RD2-3	10	1:16	11.93	16.48

双孔双刃平装石油管圆扣内螺纹刀片
INTERNAL API ROUND INSERTS



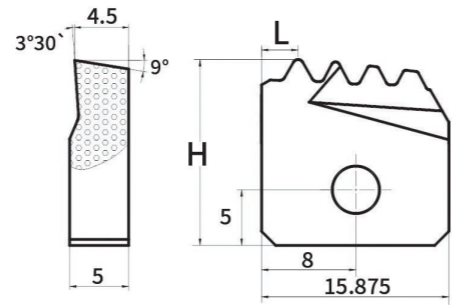
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
S24IR8RD2-3	8	1:16	12.4	12.815
S24IR10RD2-3	10	1:16	12.4	12.815



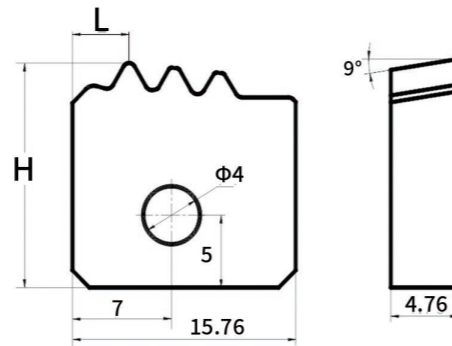
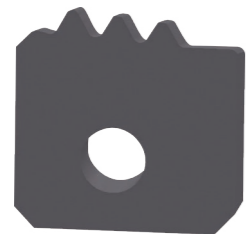
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
24IR8RD1-5	8	1:16	14.85	8.8
24IR8RD1-5F	8	1:16	14.85	2
S24IR8RD1-7	8	1:16	14.85	3.4
S24IR8RD1-7F	8	1:16	14.85	3.4
S24IR10RD1-7	10	1:16	14.85	7.4

平装单面刃石油管圆扣内螺纹刀片

INTERNAL API ROUND INSERT



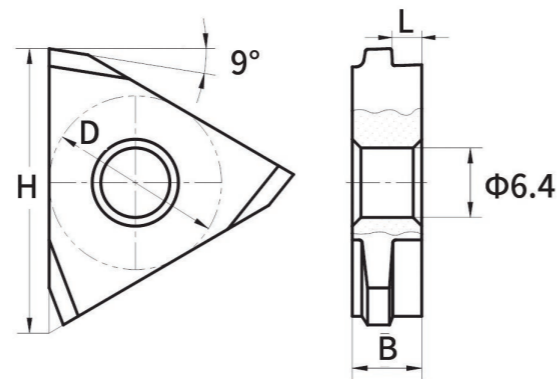
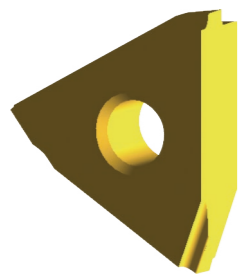
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16IR8RD1-4	8	1:16	15.7	3.1	XCQN1BII
S16IR10RD1-5	10	1:16	15.75	2.5	XCQN1BII



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16IR8RD1-3	8	1:16	15.5	4.0	XCQN1BII
S16IR10RD1-3F	8	1:16	15.7	3.15	XCQN1BII

石油套管立装偏梯扣外螺纹刀片

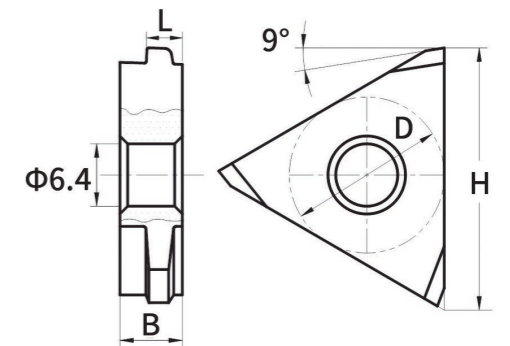
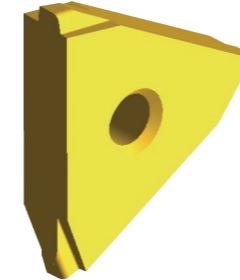
EXTERNAL API BUTTRESS INSERTS (V STYLE)



型号 Ordering Code	牙数 TPI	螺纹扣型 Thread Standard	锥度 TPF	H	L	D	B
T28VER5BU3-1	5	API偏梯形螺纹 - BUT	1:16	26.2	2.76	16	6.45
T27VER5BU3-1	5	API偏梯形螺纹 - BUT	1:16	26.7	2.65	15.875	6.90

石油套管立装偏梯扣内螺纹刀片

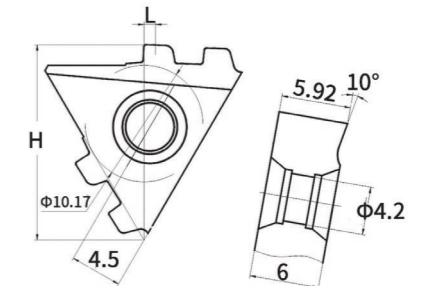
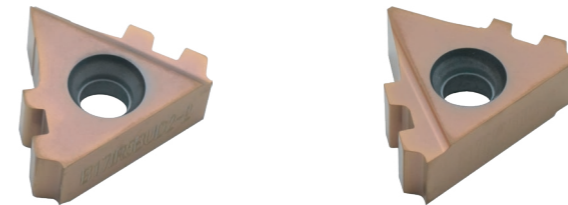
INTERNAL API BUTTRESS INSERTS (V STYLE)



型号 Ordering Code	牙数 TPI	螺纹扣型 Thread Standard	锥度 TPF	H	L	D	B
T28VIR5BU3-1	5	API偏梯形螺纹	1:16	26.7	3.69	16	6.45
T27VIR5BU3-1	5	API偏梯形螺纹	1:16	26.75	3.40	15.875	6.90

石油套管蝶形偏梯扣二齿螺纹刀片

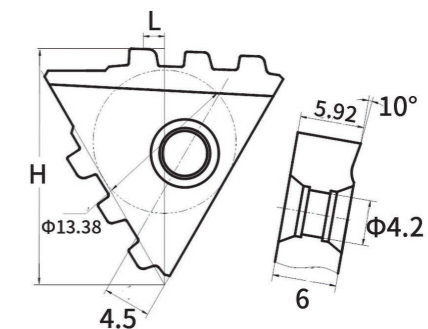
INTERNAL API ROUND INSERTS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
B17ER5BU2-2	5	1:16	17.05	1.0
B17IR5BU2-2	5	1:16	17.05	1.0

石油套管蝶形偏梯扣三齿内螺纹刀片

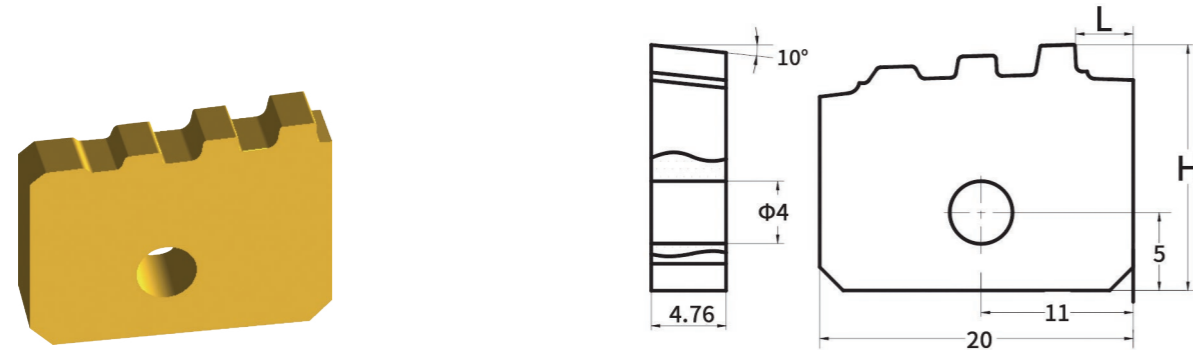
INTERNAL API ROUND INSERTS



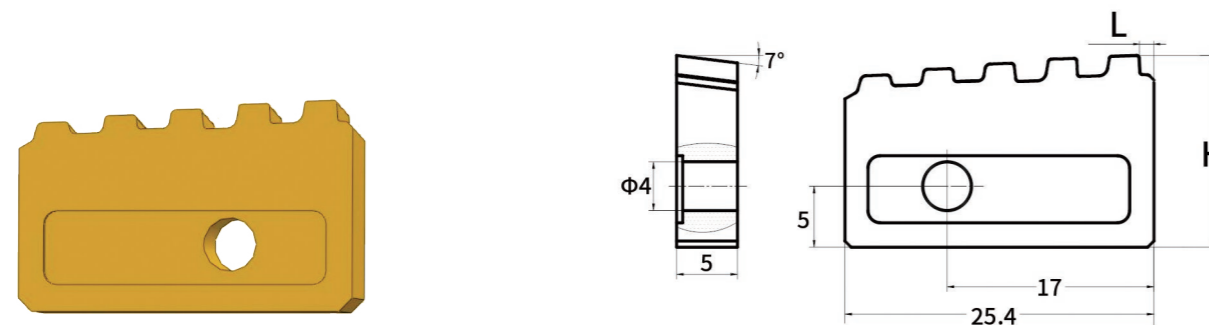
型号 Ordering Code	牙数 TPI	螺纹扣型 Thread Standard	锥度 TPF	H	L
B23IR5BU2-3	5	API偏梯形螺纹	1:16	22.075	2.0

比利时 (Colinet) 车丝机用石油套管偏梯扣外螺纹刀片

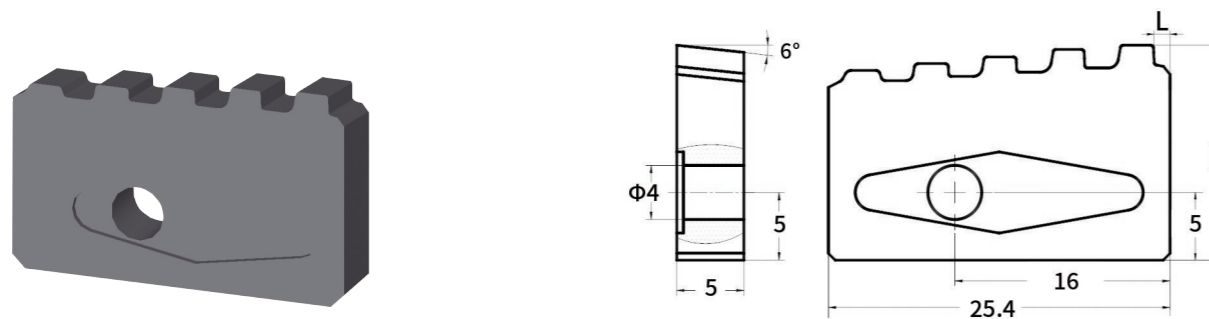
EXTERNAL API ROUND INSERTS FOR COLINET MACHINE TOOLS



型号 Ordering Code	牙数 TPI	螺纹扣型 Thread Standard	锥度 TPF	H	L	断屑器 Chipbreaker
C20ER5BU1-31	5	API偏梯形螺纹 - BUT	1:16	15.70	3.67	BXCQW1-BII
C20ER5BU1-32	5	API偏梯形螺纹 - BUT	1:16	15.88	1.0	BXCQW1-BII
C5BW1-31B	5	API偏梯形螺纹 - BUT	1:16	15.50	3.13	BXCQW1-BII
C5BW1-32B	5	API偏梯形螺纹 - BUT	1:16	15.88	3.0	BXCQW1-BII



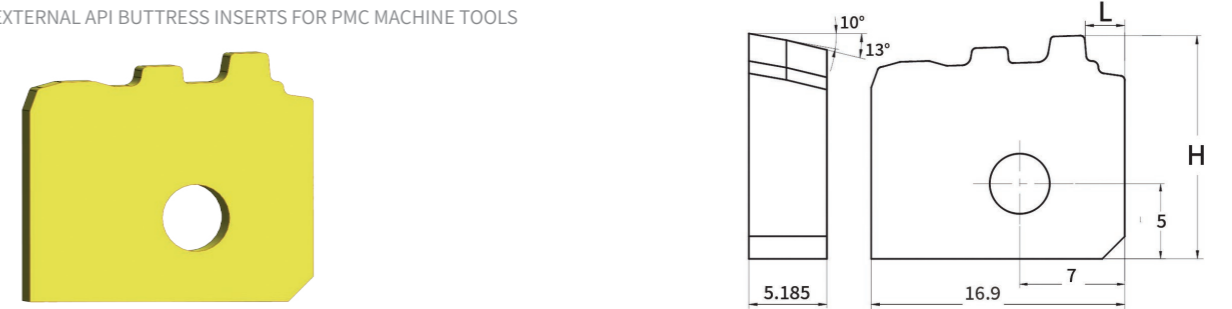
型号 Ordering Code	牙数 TPI	螺纹扣型 Thread Standard	锥度 TPF	H	L	断屑器 Chipbreaker
C25ER5BU1-5	5	API偏梯形螺纹 - BUT	1:16	15.736	1.185	BXCQW1-BII



型号 Ordering Code	牙数 TPI	螺纹扣型 Thread Standard	锥度 TPF	H	L	断屑器 Chipbreaker
C25ER5BU1-5D	5	API偏梯形螺纹 - BUT	1:12	15.875	1.2	BXCQW1-BIII

PMC (美) 车丝机用石油套管偏梯扣外螺纹刀片

EXTERNAL API BUTTRESS INSERTS FOR PMC MACHINE TOOLS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
P16ER5BU1-31	5	1:16	14.57	4.46	BXP5BW1-31, XP5BW1-B
P16ER5BU1-32	5	1:16	14.84	2.74	XP5BW1-32, XP5BW1-B
P16ER5BU1-33	5	1:16	14.97	0.97	XP5BW1-33, XP5BW1-B

PMC (美) 车丝机用石油套管偏梯扣内螺纹刀片

INTERNAL API BUTTRESS INSERTS FOR PMC MACHINE TOOLS



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
P25IR5BU1-5	5	1:16	15.608	1.7	XP5BW11-5, BXPQN1C, XP5B11-5A

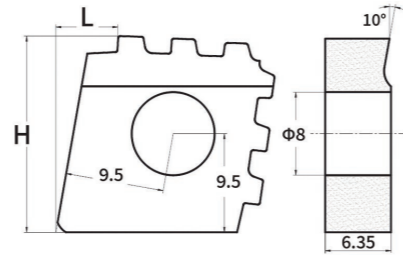
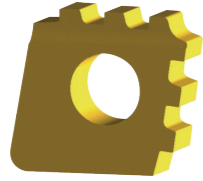
石油套管80°棱形偏梯扣外螺纹刀片

EXTERNAL API BUTTRESS INSERTS



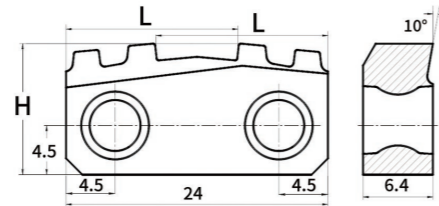
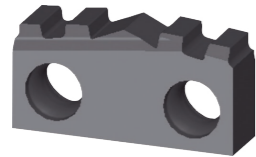
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
R19ER5BU2-3	5	1:16	18.9	5.95
R19ER5BU2-3D	5	1:16	18.9	5.95

石油套管80°棱形偏梯扣内螺纹刀片
INTERNAL API BUTTRESS INSERTS



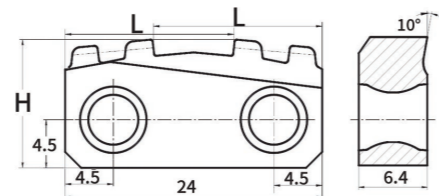
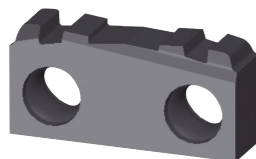
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
R19IR5BU2-3	5	1:16	18.9	5.95
R19IR5BU2-3D	5	1:16	18.9	5.95

双孔双刃平装石油管偏梯扣外螺纹刀片
EXTERNAL API BUTTRESS INSERTS

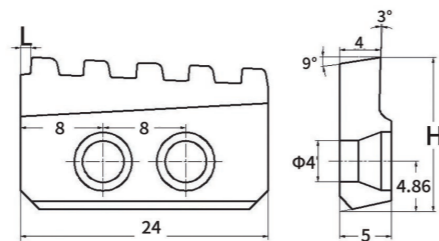
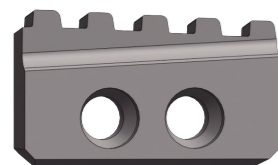


型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
S24ER5BU2-2	5	1:16	12.0	15.76

双孔双刃平装石油管偏梯扣内螺纹刀片
INTERNAL API BUTTRESS INSERTS

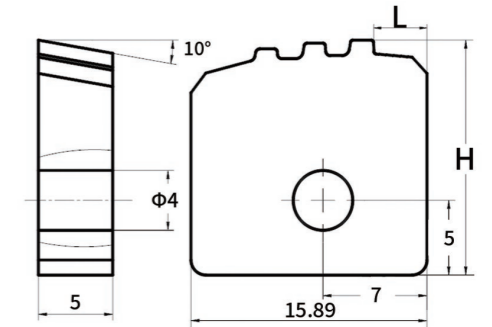
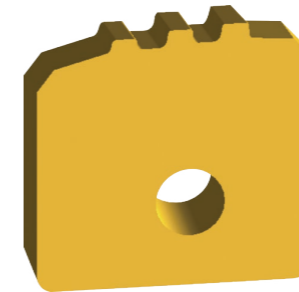


型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
S24IR5BU2-2	5	1:16	12.0	15.76



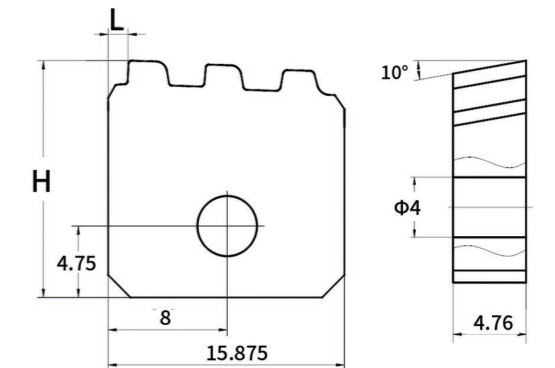
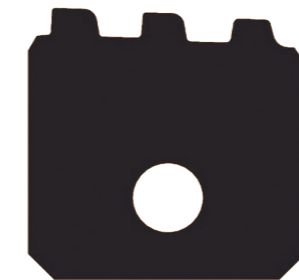
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L
S24IR5BU2-2	5	1:16	12.0	15.76

平装单面刃石油管偏梯扣外螺纹刀片
EXTERNAL API ROUND INSERT



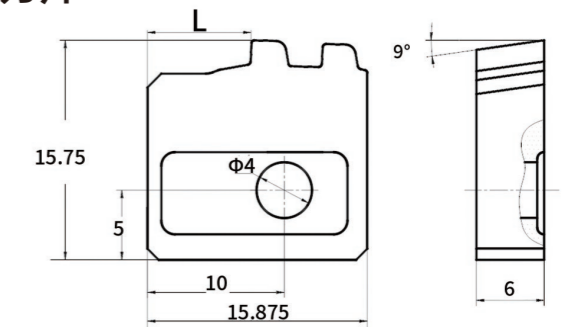
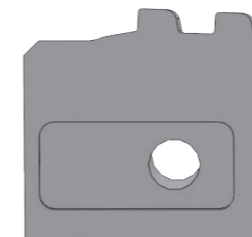
型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16ER5BU1-3	5	1:16	15.73	1.85	BXCQW1-BI

平装单面刃石油管偏梯扣内螺纹刀片
INTERNAL API ROUND INSERT



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16IR5BU1-3	5	1:16	15.75	1.34	TG2-8T

平装单面刃API石油管偏梯扣内螺纹刀片
INTERNAL API ROUND INSERT



型号 Ordering Code	牙数 TPI	锥度 TPF	H	L	断屑器 Chipbreaker
S16IR5BU1-2	5	1:16	15.75	7.65	BXCQN1B, XC5B11-2

石油钻杆(接头)螺纹车刀片型号编制说明

NAMING RULES FOR THREADING INSERTS FOR DRILL PIPE (JOINT) THREADS

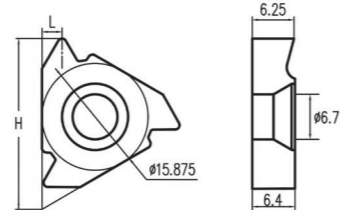
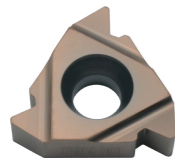
22	E	R	V38R	-	04	02	A
1	2	3	4	5	6	7	8

1 刀片尺寸 Insert Size	2 加工类型 Type of Cutting	3 螺纹旋向 RH/LH Standard
27 - I.C. = 15.875mm 22 - I.C. = 12.7mm	E (external) - 外螺纹刀片 I (internal) - 内螺纹刀片	R - 右旋螺纹 Right hand L - 左旋螺纹 Left hand

4 螺纹牙型 Thread Standard	5 螺距 Pitch	6 螺纹锥度 Thread Taper
V38R - V0.038R V40 - V0.040 V50 - V0.050 V55 - V0.055 V65 - V0.065	4 - 每寸4牙 (4TPI) 5 - 每寸5牙 (5TPI) 6 - 每寸6牙 (6TPI)	01 - 1:8 02 - 1:6 03 - 1:4 04 - 1:12 05 - 1:16 06 - 1:6

石油钻杆(接头) A型外螺纹刀片

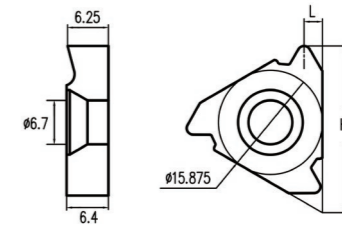
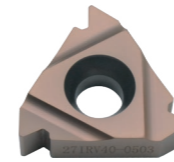
A STYLE EXTERNAL INSERTS



型号	牙数	锥度	扣型	H	L
Ordering code	TPI	TPF	Thread Standard	H	L
27ERV38R-0405A	4	1:16	V-0.038R	25.4	2.8
27ERV38R-0402A	4	1:6	V-0.038R	25.4	2.8
27ERV38R-0403A	4	1:4	V-0.038R	25.4	2.8
27ERV40-0503A	5	1:4	V-0.040	25.6	2.5
27ERV50-0403A	4	1:4	V-0.050	25.4	3
27ERV50-0402A	4	1:6	V-0.050	25.4	3
27ERV50-0404A	4	1:12	V-0.050	25.45	3.15
27ERV55-0601A	6	1:8	V-0.055	25.2	3
27ERV65-0402A	4	1:6	V-0.065	25.2	3

石油钻杆(接头) A型内螺纹刀片

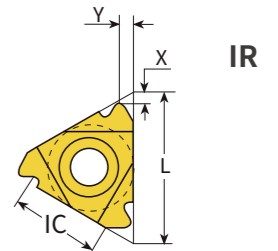
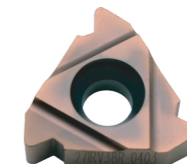
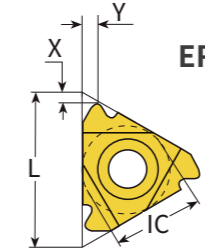
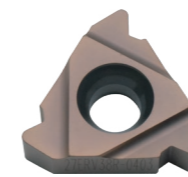
A STYLE INTERNAL INSERTS



型号	牙数	锥度	扣型	H	L
Ordering Code	TPI	TPF	Thread Standard	H	L
27IRV38R-0405A	4	1:16	V-0.038R	25.4	2.8
27IRV38R-0402A	4	1:6	V-0.038R	25.4	2.8
27IRV38R-0403A	4	1:4	V-0.038R	25.4	2.8
27IRV40-0503A	5	1:4	V-0.040	25.6	2.5
27IRV50-0403A	4	1:4	V-0.050	25.4	3
27IRV50-0402A	4	1:6	V-0.050	25.4	3
27IRV50-0404A	4	1:12	V-0.050	25.45	3.15
27IRV55-0601A	6	1:8	V-0.055	25.2	3
27IRV65-0402A	4	1:6	V-0.065	25.2	3

石油钻杆(接头) B型螺纹刀片

B STYLE INTERNAL INSERTS

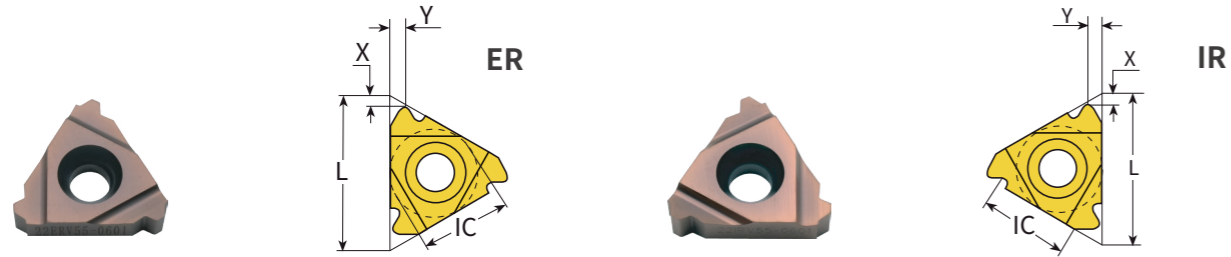


V-0.040									
牙数 TPI	L	I.C	锥度 TPF	外螺纹 Ext.	内螺纹 Int.	X	Y	连接编号尺寸 Connection	
5	27	5/8"	1:4	27ERV40-0503B	27IRV40-503B	1.8	2.5	2 ₃ /8 ~ 2 ₁ /2 REG	

V-0.038R									
牙数 TPI	L	I.C	锥度 TPF	外螺纹 Ext.	内螺纹 Int.	X	Y	连接编号尺寸 Connection	
4	27	5/8"	1:6	27ERV38R-0402B	27IRV38-0402B	2.1	2.8	NC23 ~ NC50	
4	27	5/8"	1:4	27ERV38R-0403B	27IRV38R-0403B	2.1	2.8	NC56 ~ NC77	

V-0.050									
牙数 TPI	L	I.C	锥度 TPF	外螺纹 Ext.	内螺纹 Int.	X	Y	连接编号尺寸 Connection	
4	27	5/8"	1:6	27ERV50-0402B	27IRV50-0402B	2.0	3.0	2 ₅ /8 REG	
4	27	5/8"	1:4	27ERV50-0403B	27IRV50-0403B	2.0	3.0	5 ₁ /2, 7 ₅ /8, 8 ₅ /8 REG	

石油钻杆（接头）C型螺纹刀片
C STYLE INTERNAL INSERTS



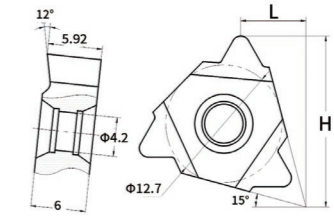
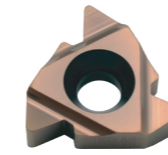
牙数		锥度		扣形		外螺纹		内螺纹	
TPI	L	I.C	TPF	Thread Standard	External	Internal	X	Y	
4	22	1/2"	1:6	V-0.038R	22ERV38R-0402C	22IRV38R-0402C	2.1	2.8	
4	22	1/2"	1:4	V-0.038R	22ERV38R-0403C	22IRV38R-0403C	2.1	2.8	
4	22	1/2"	1:4	V-0.040	22ERV40-0503C	22IRV40-0503C	1.8	2.5	
4	22	1/2"	1:6	V-0.050	22ERV50-0402C	22IRV50-0402C	2.0	3.0	
4	22	1/2"	1:4	V-0.050	22ERV50-0403C	22IRV50-0403C	2.0	3.0	
4	22	1/2"	1:8	V-0.055	22ERV55-0601C	22IRV55-0601C	1.7	2.0	
4	22	1/2"	1:6	V-0.065	22ERV65-0402C	22IRV65-0402C	2.2	2.65	

石油钻杆（接头）D型外螺纹刀片
D STYLE EXTERNAL INSERTS



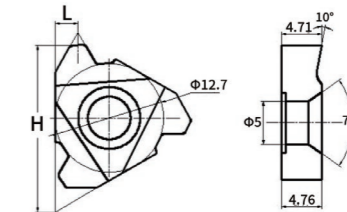
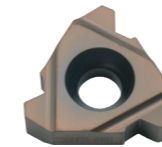
型号	牙数	锥度	扣型	H	L
Ordering Code	TPI	TPF	Thread Standard	H	L
22ERV38R-0402D	4	1:6	V-0.038R	18.43	7.13
22ERV38R-0403D	4	1:4	V-0.038R	18.43	7.13
22ERV40-0503D	5	1:4	V-0.040	18.43	7.13
22ERV50-0403D	4	1:4	V-0.050	18.58	7.13
22ERV50-0402D	4	1:6	V-0.050	18.43	7.13
22ERV55-0601D	6	1:8	V-0.055	17.75	6.85
22ERV65-0402D	4	1:6	V-0.065	18.50	7.3

石油钻杆（接头）D型内螺纹刀片
D STYLE INTERNAL INSERTS



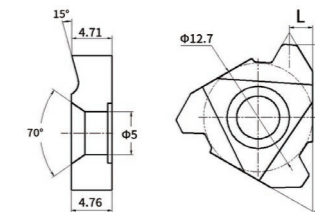
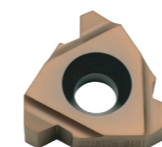
型号	牙数	锥度	扣型	H	L
Ordering Code	TPI	TPF	Thread Standard	H	L
22IRV38R-0402D	4	1:6	V-0.038R	18.43	7.13
22IRV38R-0403D	4	1:4	V-0.038R	18.43	7.13
22IRV40-0503D	5	1:4	V-0.040	18.43	7.13
22IRV50-0403D	4	1:4	V-0.050	18.58	7.13
22IRV50-0402D	4	1:6	V-0.050	18.43	7.13
22IRV55-0601D	6	1:8	V-0.055	17.75	6.85
22IRV65-0402D	4	1:6	V-0.065	18.50	7.3

石油钻杆PAC型外螺纹刀片
PAC STYLE EXTERNAL INSERTS



型号	牙数	锥度	扣型	H	L
Ordering Code	TPI	TPF	Thread Standard	H	L
22ERV76-0401	4	1:8	V-0.076	19.5	2.7

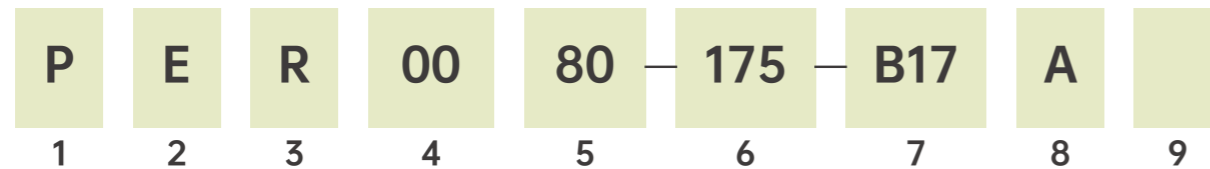
石油钻杆PAC型内螺纹刀片
PAC STYLE INTERNAL INSERTS



型号	牙数	锥度	扣型	H	L
Ordering Code	TPI	TPF	Thread Standard	H	L
22IRV76-0401	4	1:8	V-0.076	19.5	2.7

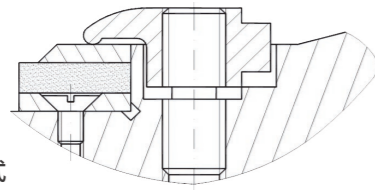
石油管螺纹加工刀杆型号编制说明

NAMING RULES FOR OIL PIPE THREAD MACHINING TOOL HOLDERS



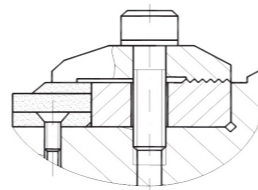
1 用M、C、P、J、F、G等字母分别表示不同类型的刀片夹紧方式，具体含义如下表：
The letters M, C, P, J, F, G represent different types of insert clamping mechanisms, as detailed in the table below.

夹紧形式Clamping Mechanism	钩形螺母压紧
夹紧代号Clamping Code	M



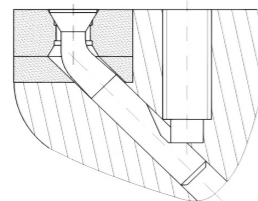
M: 表示钩形螺母上压式
M: Hook nut top compression clamping

夹紧形式Clamping Mechanism	上压板压紧
夹紧代号Clamping Code	C



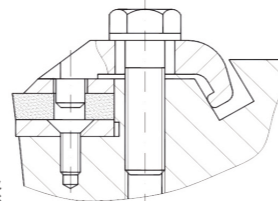
C: 表示锯齿形压板上压式
C: Serrated plate top clamping

夹紧形式Clamping Mechanism	斜拉杆钩面压紧
夹紧代号Clamping Code	P



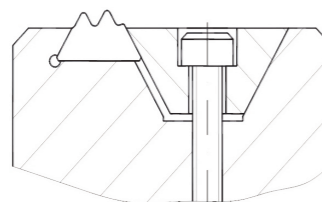
P: 表示斜拉杆内拉式钩面压紧
P: Oblique pull rod internal hook surface clamping

夹紧形式Clamping Mechanism	斜面双向压紧
夹紧代号Clamping Code	J



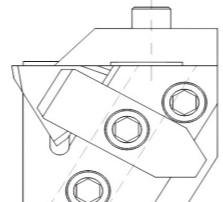
J: 表示带芯杆压板斜面双向压紧
J: Core rod and top plate dual inclined face clamping

夹紧形式Clamping Mechanism	楔块斜面压紧
夹紧代号Clamping Code	F



F: 表示楔块斜面侧向压紧
F: Wedge block inclined face side clamping

夹紧形式Clamping Mechanism	侧面压板压紧
夹紧代号Clamping Code	G



G: 表示立装刀片侧面压紧
G: Vertical-mounted insert side clamping

2 用字母E表示外刀杆、字母I表示内刀杆
The letter E denotes an external toolholder, while I denotes an internal toolholder.

3 用字母R表示右手刀、字母L表示左手刀
The letter R indicates a right-hand tool, while L indicates a left-hand tool.

4 用00表示内螺纹圆柄刀杆，方柄刀杆为刀具中心高（mm）
00 represents an internal threading round-shank toolholder, while a square-shank toolholder is identified by its center height (mm).

5 方柄刀杆为方柄厚度（mm），圆柄刀杆为圆柄直径（mm）
For square-shank toolholders, the value represents the shank thickness (mm), while for round-shank toolholders, it represents the shank diameter (mm).

6 表示刀杆总长（mm） Specifies the total length of the toolholder (mm).

7 表示刀片形式，对复合刀杆多个刀片用"/"隔开
Specifies the insert type. For multi-insert toolholders, different inserts are separated by a "/" symbol.

8 用字母A、B、C、D分别表示被加工的石油油管、套管、钻杆直径范围如下表：
The letters A, B, C, D represent the diameter range of the processed oil tubing, casing, and drill pipe, as shown in the table below.

石油管材名称 Oil Pipe Material Type	管材直径 Pipe Diameter			
	A类	B类	C类	D类
石油油管、套管 (加工V形圆螺纹) Oil tubing and casing (for machining V-shaped round threads)	2 $\frac{3}{8}$ " ~ 3 $\frac{1}{2}$ "	4" ~ 5 $\frac{1}{2}$ "	6 $\frac{5}{8}$ " ~ 8 $\frac{5}{8}$ "	9 $\frac{5}{8}$ " ~ 13 $\frac{3}{8}$ "
石油钻杆 Oil drill pipe	2 $\frac{3}{8}$ " ~ 3 $\frac{1}{2}$ "	4" ~ 5 $\frac{1}{2}$ "	6 $\frac{5}{8}$ " ~ 8 $\frac{5}{8}$ "	
石油套管 (加工偏梯形螺纹) Oil casing (for machining partial trapezoidal threads)		4 $\frac{1}{2}$ " ~ 6 $\frac{5}{8}$ "	7" ~ 11 $\frac{3}{4}$ "	13 $\frac{3}{8}$ " ~ 20"

9 特别注意事项，无需要注明可省
Special notes: If no special instructions are required, this section can be omitted.

硬质合金石油管螺纹刀具的使用

USE OF CEMENTED CARBIDE OIL PIPE THREADING TOOLS

(1) 影响石油管螺纹加工质量和刀具切削性能的三要素

Three Key Factors Affecting Oil Pipe Threading Quality and Tool Cutting Performance

- (A) 刀具本身的外部要素。包含：
 - ①、刀具结构设计的合理性；
 - ②、刀片刃面及齿形精度、光洁度及表层组织状况；
 - ③、刀片刃口强化质量；
 - ④、刀杆制造精度及附件如断屑器等的质量。
- (B) 刀片本身的内在要素。主要包含：
 - ①、刀片基体材料质量与性能；
 - ②、刀片表面涂层质量与性能；
 - ③、刀杆材质及热处理性能。
- (C) 刀片的使用要素。主要包含：
 - ①、刀具的正确选择和使用；
 - ②、螺纹加工设备状况；
 - ③、切削冷却方式及效果；
 - ④、被加工材料的可加工性及材质均匀性；
 - ⑤、螺纹加工切削规范的正确选择。

要素 (A)、(B) 取决于刀具生产者单位，要素 (C) 取决于刀具使用者单位。刀具合理使用的重要性可见一斑。

- (A) External Factors of the Tool
 - ① Rationality of tool structure design
 - ② Precision, surface finish, and microstructure of the insert edge and thread profile
 - ③ Quality of edge strengthening
 - ④ Manufacturing precision of the toolholder and quality of accessories such as chip breakers
- (B) Internal Factors of the Insert
 - ① Quality and performance of the insert substrate material
 - ② Quality and performance of the insert surface coating
 - ③ Material and heat treatment performance of the toolholder
- (C) Usage Factors of the Insert
 - ① Correct selection and use of tools
 - ② Condition of threading equipment
 - ③ Cooling method and its effectiveness
 - ④ Machinability and uniformity of the workpiece material
 - ⑤ Correct selection of threading cutting parameters

Factors (A) and (B) are determined by the tool manufacturer, while factor (C) is determined by the tool user. The importance of proper tool usage is evident.

(2) 石油管螺纹加工的两种方式 Two Methods of Oil Pipe Threading

- 第一种：螺纹车削方式：（油、套管及钻杆螺纹加工均采用）其切削运动的特点为：
 - 工件（管体或接箍、接头）—— 作旋转运动。产生切削主运动。
 - 刀具（螺纹刀具及拔荒刀）—— 作沿锥螺纹母线方向的走刀运动及间断的吃刀。

螺纹车削方式为最广泛应用的石油管螺纹加工方式。其中有单个刀片切削及成组刀片（一般为二片刀）配合组合刀具切削二种，视具体生产条件及车丝机而定。钻杆接头螺纹加工全部采用单刀螺纹车削方式。
- 第二种：螺纹切头加工方式：（仅油、套管螺纹加工采用）其切削运动的特点为：
 - 工件（管体或接箍）—— 在切削加工时被定位装夹牢固及静止。
 - 刀具（螺纹刀具及拔荒刀）—— 作绕工件轴线旋转的切削主运动及同时作沿锥螺纹母线方向的走刀运动及间断的吃刀。

螺纹切头加工方式分为外切头及内切头两种。适用于大量生产油管、套管及其接箍的加工，生产效率高。外切头一般含三片刀片的成组螺纹刀片及成组的拔荒刀，内切头含一片螺纹刀片及多片拔荒刀片等。
- First Method: Thread Turning (Lathe Cutting)
(Used for threading oil pipes, casings, and drill pipes)
Workpiece (pipe body, coupling, or joint) → Rotates to generate the main cutting motion.
Tool (threading insert and roughing insert) → Moves along the conical thread helix direction and intermittently feeds into the material.
Thread turning is the most widely used oil pipe threading method. There are two approaches:
 - 1. Single-insert cutting
 - 2. Multi-insert cutting (typically two-insert configurations) with combination tooling

The specific method used depends on the production conditions and the threading machine. For drill pipe connections, single-insert thread turning is always used.
- Second Method: Thread Cutting (Rotary Tool Cutting)
(Used only for oil pipe and casing threading)
Workpiece (pipe body or coupling) → Is securely clamped and remains stationary during cutting.
Tool (threading insert and roughing insert) → Rotates around the workpiece axis to generate the main cutting motion while simultaneously feeding along the conical thread helix direction with intermittent cutting.
Thread cutting is divided into:
 - External cutting heads
 - Internal cutting heads

This method is suitable for high-volume production of oil pipes, casings, and couplings, offering high efficiency. External cutting heads typically contain three-insert thread assemblies and roughing inserts. Internal cutting heads contain a single threading insert and multiple roughing inserts.

(3) 硬质合金石油管螺纹刀片的选用建议 Recommendations for Selecting Cemented Carbide Oil Pipe Threading Inserts

- (1) 油管套管螺纹刀片 Tubing and Casing Threading Inserts:
 - (A) 大批量生产条件 Inserts for High-Volume Production
 - (A) 采用螺纹切头加工方式的车丝机选用的刀片 Inserts for Machines Using the Thread Cutting (Rotary Tool) Method:
 - 加工外螺纹 (成组刀片) 有 For External Threads (Multi-insert assemblies):
P16ER8RD1-31/P16ER8RD1-32/ P16ER8RD1-33;P16ER10RD1-31/
P16ER10RD1-32/P16ER10RD1-33;P16ER5BU1-31/ P16ER5BU1-32/P16ER5BU1-33等。
 - 加工内螺纹有 For Internal Threads:
P25IR8RD1-7;P25IR10RD1-8;P25IR5BU1-5;
 - (B) 采用螺纹车削方式的车丝机选用的刀片 Inserts for Machines Using the Thread Turning (Lathe Cutting) Method:
 - 加工外螺纹成组刀片有 For External Threads (Multi-insert assemblies):
C16ER8RD1-31/C16ER8RD1-32;C16ER10RD1-31/ C16ER10RD1-32;C20ER5BU1-31/C20ER5BU1-32
 - 单片刀片有 For External Threads (Single-insert tools):
B17ER8RD2-3;B17ER10RD2-4;B17ER5BU2-2 S24ER8RD2-3;S24ER5BU2-2
SC16ER8RD2-3;SC16ER10RD2-4;
R19ER8RD2-4;R19ER5BU2-3;R19ER5BU2-3D S24IR8RD1-7;S24IR8RD1-7F;S24IR10RD1-7
S24ER5BRD1-3;C25ER5BU1-5 C16ER8RD1-3;C16ER10RD1-4;
 - 加工内螺纹 For Internal Threads:
C25IR8RD1-7;C25IR10RD1-8;C25IR5BU1-5;C16IR5BU1-2;C16IR5BU1-3
B17IR8RD2-3;B23IR8RD2-5;B17IR10RD2-4;B23IR5BU2-3;B17IR5BU2-2 S16IR8RD2-4;S16IR5BU2-2
R19IR8RD2-4;R19IR5BU2-3;S19IR5BU2-3D S24IR5BU1-5;S25IR5BU1-5F
S24IR8RD1-3;S24IR8RD1-5
 - (B) 小批量生产条件(均采用螺纹车削方式加工)选用的刀片 Inserts for Small Batch Production (All Processed Using the Thread Turning Method):
 - 加工外螺纹 For External Threads:
L40ER10RD1-2;L40ER8RD1-2; T27ER8RD3-2;T27ER10RD3-2;
16ER8APIRD;16ER10APIRD
T28ER5BU3-1;
 - 加工内螺纹 For Internal Threads:
S19IR10RD4-2;S19IR8RD4-2;
T27IR10RD3-2;T27IR8RD3-2;16IR8APIRD;16IR10APIRD
T28IR5BU3-1;

- (2) 钻杆螺纹刀片 (均采用螺纹车削方式加工) Drill Pipe Threading Inserts (All Processed Using the Thread Turning Method):
 - A型刀片: 通用
A-Type Inserts: General-purpose
 - B型刀片: 优选, 刀片及刀杆通用互换性强
B-Type Inserts: Preferred, offering strong interchangeability between inserts and toolholders
 - C型刀片: 主要适用于3"以下小规模钻杆接头内外螺纹加工
C-Type Inserts: Mainly used for drill pipe joints with an outer diameter of 3 inches or smaller for both internal and external threading processing

(4) 石油管螺纹刀片切削图形 Thread Cutting Profile Design for Oil Pipe Threading Inserts

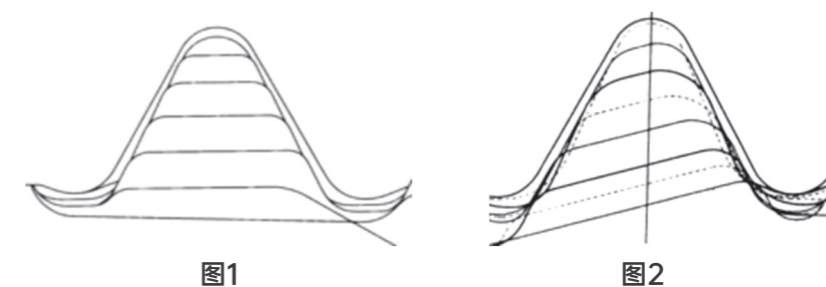
石油管螺纹刀片存在如何合理设计各齿结构的切削图形及各齿切削负荷的分配问题, 它对于改善及提高螺纹加工质量、效率及刀具寿命十分重要。单齿刀片 (如钻杆接头刀片) 存在设计不同进给及吃刀方式决定每次切削行程的切削图形问题, 而不由刀齿齿形结构决定。

(1) 一次走刀行程完成全螺纹切削的情况:

在机床功率及刚性足够大时, 以一次行程完成全螺纹切削的方案为最佳方案, 即可以显著提高效率, 又可最为合理设计切削图形, 提高螺纹刀片寿命。必须注意, 无论是一次走刀行程还是多次行程完成全螺纹切削的螺纹刀片, 其最后一个精车齿即为保证螺纹精度的齿形, 必须覆盖全螺纹牙形并在各部位均含有合理切削余量。(两齿侧为0.07-0.12MM, 齿底齿顶为0.10-0.20MM)

例1: P25IR8RD1-7的套管接箍圆螺纹的内螺纹切削图形 (图1)

例2: P16ER8RD1-31/P16ER8RD1-32/P16ER8RD1-33的三片成组套管管体圆螺纹的外螺纹切削图形 (图2)



The design of the cutting profile and the distribution of cutting loads across different insert teeth are critical for improving threading quality, efficiency, and tool lifespan.

For single-tooth inserts (e.g., drill pipe joint inserts), the cutting profile is determined by the feed rate and depth of cut in each pass rather than by the thread tooth geometry itself.

(1) Single-Pass Full Thread Cutting

When the machine power and rigidity are sufficient, completing the entire threading process in a single pass is the optimal solution because it:

- Significantly increases efficiency
- Allows for optimal cutting profile design
- Enhances threading insert lifespan

Regardless of whether single-pass or multi-pass threading is used, the final finishing tooth must ensure thread accuracy by covering the entire thread profile while maintaining an appropriate cutting allowance in all areas:

- Tooth flanks: 0.07 - 0.12 mm
- Tooth root and crest: 0.10 - 0.20 mm

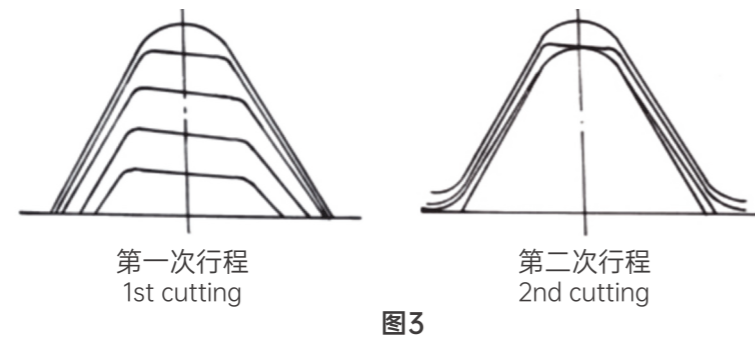
Examples of Single-Pass Thread Cutting Profiles:

- Example 1: Internal threading profile of a casing coupling round thread using P25IR8RD1-7 (Figure 1)
- Example 2: External threading profile of a three-insert assembly casing pipe round thread using P16ER8RD1-31 / P16ER8RD1-32 / P16ER8RD1-33 (Figure 2)

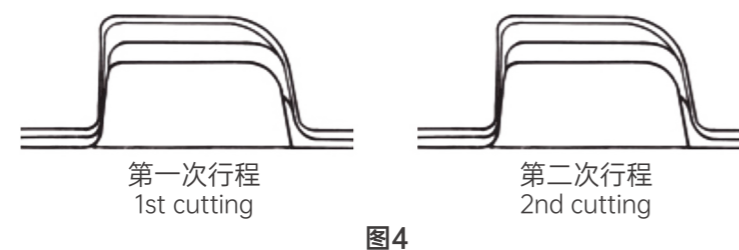
(2) 多次走刀行程完成全螺纹切削的情况:

车丝机功率及刚性不能满足一次走刀行程完成全螺纹切削的情况下只能采取多次走刀行程来完成。此时，第一次行程应切除主要的余量，（特别是对3个齿以上的刀片），故螺纹刀片切削图形设计以第一次行程的分配作为依据。随后的行程对各粗车齿而言，切削量都是较小的。

例1: B23IR8RD2-5套管接箍圆螺纹的内螺纹切削图形 (图3)



例2: P25IR5BU1-5套管接箍偏梯形螺纹的内螺纹切削图形 (图4)



(2) Multi-Pass Full Thread Cutting

If the threading machine lacks sufficient power and rigidity to complete the entire thread cutting process in a single pass, multi-pass threading must be used.

In this case, the first pass should remove the majority of the material, which is especially important for inserts with three or more cutting teeth.

Therefore, the cutting profile of the threading insert should be designed based on the first pass distribution.

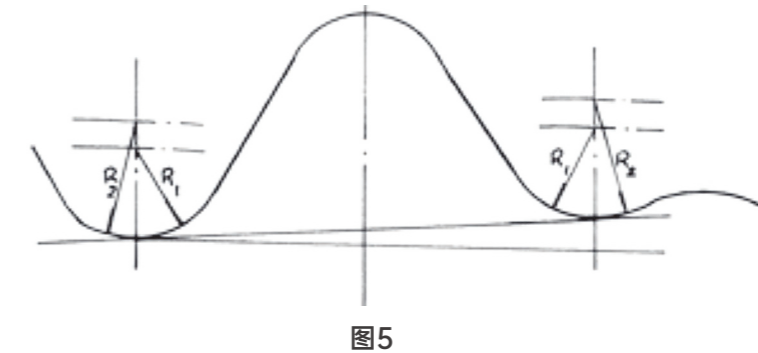
Subsequent passes remove smaller amounts of material on each roughing tooth.

Examples of Multi-Pass Thread Cutting Profiles:

- Example 1: Internal threading profile of a casing coupling round thread using B23IR8RD2-5 (Figure 3)
- Example 2: Internal threading profile of a casing coupling trapezoidal thread using P25IR5BU1-5 (Figure 4)

(5) 石油油管套管圆螺纹刀片精车齿底的“双圆弧”结构
"Double Arc" Structure at the Finishing Tooth Root of Round Thread Inserts for Oil Tubing and Casing

如图5所示，石油油管及套管及其接箍加工的圆螺纹刀片，在精车齿两侧齿底处采用“双圆弧”结构，即：R1与R2二个圆弧段，且 $R2 \approx R1 + (0.2 - 0.3)$ ，（R1为0.508MM或0.432MM），实践证明，可避免工件螺纹齿顶出现“小平顶扣”及齿顶“对接”划道等缺陷。



As shown in Figure 5, the round thread inserts used for machining oil tubing, casing, and their couplings adopt a "double arc" structure at the root of the finishing tooth on both sides.

This structure consists of two arc segments, denoted as R1 and R2, where:

$$R2 \approx R1 + (0.2 - 0.3) \text{ mm}$$

R1 is either 0.508 mm or 0.432 mm

Practical application has demonstrated that this design effectively prevents defects such as:

- "Flat-top thread crests"
- "Thread crest misalignment scratches"

(6) 石油管螺纹刀片槽形及断屑器的几种类型:
Types of Oil Pipe Threading Insert Chipbreaker Designs and Chipbreaking Structures

采用如图6的四种型式的螺纹刀片槽形或断屑器结构。

As shown in Figure 6, there are four types of threading insert chipbreaker designs or chipbreaking structures:

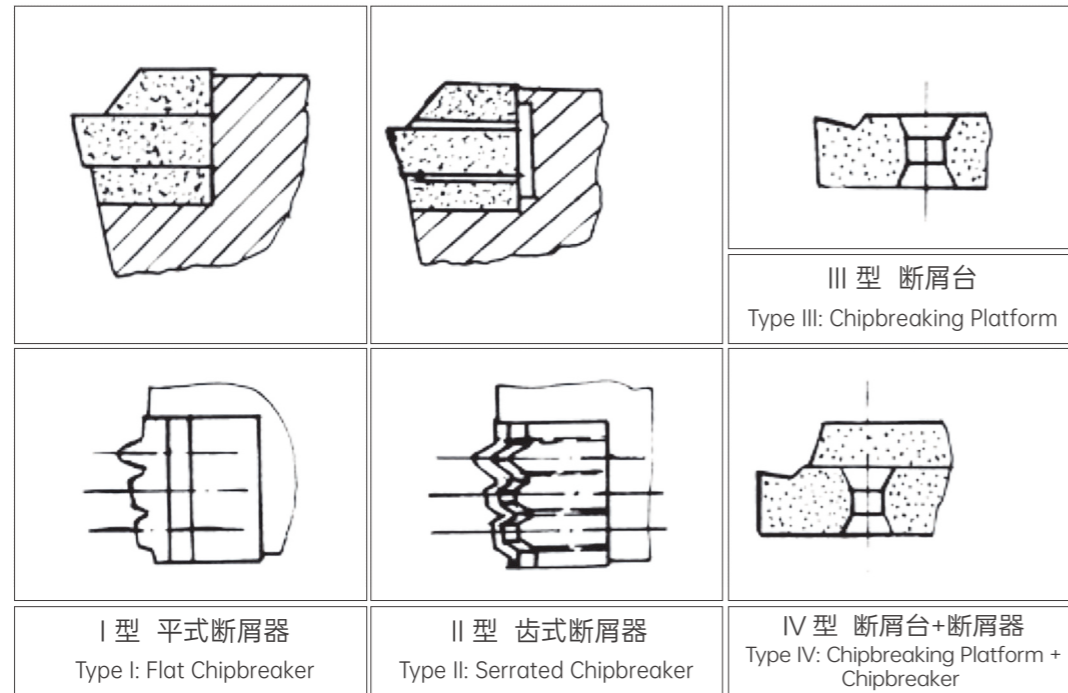


图6

必须指出，石油管螺纹加工中的断屑问题是当今的技术难题之一，且在多齿的刀片上优甚，特别是精车齿的断屑最为困难。上述刀片槽形及断屑器结构可对排屑及卷屑状况以明显改善，也能部分断屑。

It must be noted that chip breaking in oil pipe threading is one of the major technical challenges today, especially for multi-tooth inserts, where chip breaking at the finishing tooth is the most difficult. The chipbreaker designs and insert groove structures mentioned above can significantly improve chip evacuation and chip curling behavior while also providing partial chip breaking functionality.



(7) 石油管螺纹刀片装夹结构及刀杆结构的几种形式
Clamping Structures of Oil Pipe Threading Inserts and Toolholder Designs

刀杆是介于刀片和刀架（或刀座）之间的连接部分。应具有足够的强度、硬度和精度。刀杆头部是装夹刀片的部分，柄部是装入刀架（或刀座）的部分。

刀杆头部即装夹刀片部分的结构主要是依据刀片形状而确定的。除要求本身具有足够强度和刚性外，还要保证装夹刀片的刚性、定位可靠性准确性、使用方便以及排屑断屑等要求。不同结构形状的刀片有相应的装夹结构。可参见硬质合金石油管螺纹刀杆型号标注说明。上压式（M及C结构）为不带孔的四方形刀片（或扇形刀片）的装夹结构。大多用于加工油、套管接箍内螺纹。勾形螺母的螺钉两端各带左、右螺纹并起压板作用将刀片及导屑板夹紧斜拉杆内拉式（P结构）为带双锥孔刀片的内拉式夹紧结构。具有双向夹紧作用。刀片双锥孔应保证需要的精度。结构紧凑、定位可靠、刀片材料利用率高等是其特点。油、套管及钻杆等刀片（双锥孔刀片）均适用。

带芯杆压板斜面双向夹紧结构（J结构）主要用在钻杆接头螺纹刀片及抽油杆部件油管螺纹的三角形直孔刀片的夹紧。

楔块斜面侧面夹紧（F结构）用于棱体长条形非涂层可重磨式刀片的装夹结构。使用在油、套管管体外螺纹加工，夹紧牢固，刀刃磨损后可沿前刀面进行重磨以多次使用。使用时刀刃中心高可根据需要调整。

立装刀片侧面压紧（G结构）主要用于立装三角形可转位偏梯形套管螺纹单齿刀片的装夹结构。刀片强度及刚性较好，夹紧牢固是其特点。此结构在上压及侧压两个方向分别加以夹固。

刀杆的柄部装入刀架（或刀座）内，一般的刀杆柄部截面为方形或长方形。在某些加工内螺纹的数控车丝机上，柄部截面为圆形。柄部尺寸应保证刀杆具有足够的强度和刚性的要求，并使刀杆头部伸出长度应尽可能小，以防止产生切削振动及螺纹表面波纹。

大多数情况下，刀杆柄部和头部为整体结构，但也有将头部及柄部分离的模块式拼装结构，主要在内螺纹刀杆上使用，如图所示。头部损坏时，只需要更换头部，不要更换整个刀杆。

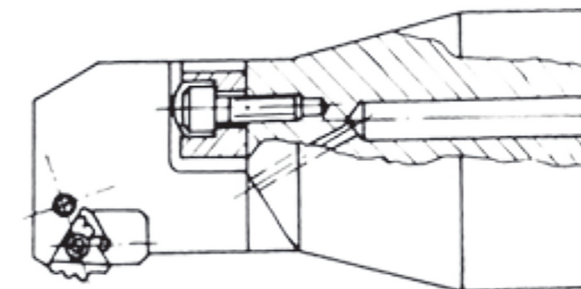


图7

为了保持加工螺纹时刀片两侧刃有大致相同的侧刃法向后角，刀片安装在刀杆上需要倾斜一个角度，其值应等于或接近于螺纹的螺旋升角。故与螺距及螺纹直径有关。这一倾斜角在刀杆上已加工出来，大约 $0^{\circ}\sim 1^{\circ}20'$ 之间，分四种档次。故使用者在刀杆选用时应在管螺纹规格（直径及螺距）确定之后，来提取相应的刀杆规格。本样本刀杆标注说明⑥的A、B、C、D即表示适用不同直径管材的刀杆规格。

刀杆及刀杆部件需用优质钢材制造，并进行热处理以保持及达到要求的硬度及强度，断屑器应由性能良好的硬质合金制造。刀杆基面及定位面等均应磨削以达到要求的精度。

The toolholder is the connecting component between the insert and the tool post (or tool seat). It must possess sufficient strength, hardness, and precision.

- The head of the toolholder is the part that holds the insert.
- The shank of the toolholder is the part that fits into the tool post (or tool seat).

Toolholder Head Clamping Structures

The structure of the toolholder head, which clamps the insert, is primarily determined by the insert shape.

In addition to having sufficient strength and rigidity, it must also ensure:

- Firm clamping of the insert
- Accurate positioning and reliability
- Ease of use
- Efficient chip evacuation and chip breaking

Different insert shapes require corresponding clamping structures. Refer to the cemented carbide oil pipe threading toolholder model description for details.

Types of Clamping Structures:

- Top Compression Clamping (M & C Types)
 - Designed for square or fan-shaped inserts without holes.
 - Mainly used for internal threading of oil tubing and casing couplings.
 - Uses a hook nut with screws on both ends (left and right threads) that act as a pressure plate to clamp the insert and chip breaker.
- Oblique Pull Rod Internal Clamping (P Type)
 - Utilizes a double-cone hole insert for internal pull-type clamping.
 - Provides bi-directional clamping for secure positioning and high material utilization.
 - Applicable for oil tubing, casing, and drill pipe threading inserts.
- Core Rod Press Plate Inclined Bi-Directional Clamping (J Type)
 - Used primarily for drill pipe joint threading inserts and oil tubing threading inserts with triangular straight-hole designs.
- Wedge Block Inclined Side Clamping (F Type)
 - Used for prismatic, long-strip, non-coated, regrindable inserts.
 - Applied in external threading of oil tubing and casing pipes.
 - Provides firm clamping and allows the cutting edge to be re-ground multiple times by sharpening the front cutting surface.
 - The cutting edge center height can be adjusted as needed.
- Vertical-Mounted Insert Side Clamping (G Type)
 - Used for vertically-mounted triangular indexable inserts with a single tooth profile for tapered casing threads.
 - Offers high insert strength and rigidity with secure clamping.
 - This structure applies both top and side clamping forces for additional stability.

Toolholder Shank and Structural Considerations

- The shank of the toolholder fits into the tool post (or tool seat).
- Most toolholder shanks are square or rectangular, while some CNC threading machines for internal threading use cylindrical shank toolholders.

- The shank dimensions must ensure sufficient toolholder strength and rigidity, while minimizing overhang length to prevent vibrations and thread waviness.

In most cases, the shank and head are integrated into a single structure, but some modular toolholder designs separate the head and shank.

- This modular design is mainly used in internal threading toolholders.
- If the head is damaged, only the head needs to be replaced, rather than the entire toolholder.

Threading Insert Installation Angle Considerations

To maintain a consistent normal relief angle on both sides of the cutting edge, the insert must be tilted when mounted on the toolholder.

- The required tilt angle should match or approximate the thread helix angle, which depends on the thread pitch and thread diameter.
- This tilt angle is pre-machined into the toolholder and typically falls between 0° to 1°20', with four different grading levels.

When selecting a toolholder, users must first determine the pipe thread specifications (diameter and pitch) to choose the appropriate toolholder model.

- In the toolholder model descriptions, designations A, B, C, D indicate suitability for different pipe diameters.

Material and Manufacturing Requirements for Toolholders

- Toolholders and toolholder components must be made from high-quality steel and heat-treated to achieve the necessary hardness and strength.
- Chipbreakers must be manufactured from high-performance cemented carbide for durability.
- Toolholder base surfaces and positioning surfaces must be precision-ground to meet accuracy requirements.



(8) 石油管螺纹刀片切削用量的选择建议
Recommendations for selecting cutting parameters for oil pipe thread inserts

(1) 切削速度推荐表: 表1
Vc recommendations: Table 1

刀片类型 Insert Type	工件钢级 Workpiece Grade					
	普通钢级 Ordinary	次高钢级 2nd Highest	高钢级 High-grade	抗S	抗挤压 Anti-crushing	高Cr、高镍 High Cr, nickel containing
	以J55为代表其他如H40, K55, M65等	以N80为代表其他如C75, L80等	以P110为代表其他如C90, T95, Q125等	N80+S P110+S等	N80+T P110+T等	13Cr等
	切削速度 Vc (m/min)					
未涂层 - Uncoated	90 ~ 120	80 ~ 100	—	—	—	—
涂层 - Coated	170 ~ 220	150 ~ 200	120 ~ 180	120 ~ 180	100 ~ 160	50 ~ 100

注: 表列数据为带冷却液充分冷却时的选择; 如为干切削则速度应低20%
Note: The data listed in the table are for applications with adequate coolant cooling; for cutting without coolant, the speed should be 20% lower.

(2) 走刀次数及各次吃刀深度推荐表: 见表2
No. of passes and cutting depth recommendations: Table 2

刀片种类规格 Insert Type	走刀行程次序 Cutting Passes												
	1	2	3	4	5	6	7	8	9	10	11	12	
	吃刀深度 Cutting Depth (mm)												
每英寸8牙圆螺纹 8APIRD	内螺纹 Int.	2齿刀片 - 2 teeth	0.6	0.4	0.35	0.3	0.2	0.2					
		3齿刀片 - 3 teeth	0.8	0.6	0.4	0.2							
		5齿刀片 - 5 teeth	1.75	0.25									
	外螺纹 Ext.	7齿刀片 - 7 teeth	1.8	0.2									
		7齿刀片 - 7 teeth	2										
		2齿刀片 - 2 teeth	0.7	0.45	0.4	0.3	0.2						
每英寸10牙圆螺纹 10APIRD	内螺纹 Int.	3齿刀片 - 3 teeth	0.85	0.6	0.35	0.2							
		3齿刀片 - 3 teeth (2片成组 - 2 pcs)	2										
		3齿刀片 - 3 teeth (3片成组 - 3 pcs)	2										
每英寸10牙圆螺纹 10APIRD	内螺纹 Int.	2齿刀片 - 2 teeth	0.55	0.4	0.35	0.2	0.15						
		3齿刀片 - 3 teeth	0.8	0.55	0.2								
		4齿刀片 - 4 teeth	1	0.5	0.15								
	外螺纹 Ext.	8齿刀片 - 8 teeth	1.6										
		2齿刀片 - 2 teeth	0.55	0.5	0.35	0.2							
		3齿刀片 - 3 teeth	0.9	0.55	0.15								
每英寸10牙圆螺纹 10APIRD	外螺纹 Ext.	4齿刀片 - 4 teeth	1.05	0.5	0.15								
		3齿刀片 - 3 teeth (2片、3片成组 - 2, 3 pcs)	1.6										

刀片种类规格 Insert Type	走刀行程次序 Cutting Passes													
	1	2	3	4	5	6	7	8	9	10	11	12		
	吃刀深度 Cutting Depth (mm)													
每英寸5牙偏梯扣 SBUT	内螺纹 Int.	单齿立装刀片 - 1tooth vertical	0.35	0.30	0.25	0.25	0.20	0.20	0.20					
		3齿 - 3 teeth	0.50	0.40	0.35	0.30	0.20							
		5齿 - 5 teeth	1.30	0.45										
	外螺纹 Ext.	单齿立装刀片 - 1tooth vertical	0.45	0.35	0.30	0.25	0.25	0.20						
		2齿 - 2 teeth	0.45	0.40	0.35	0.35	0.20							
		3齿 - 3 teeth	0.55	0.50	0.40	0.30								
钻杆接头螺纹 API	内螺纹 Int.	27IRV38R-0402A 27IRV38R-0403A 27IRV40-0503A 单齿刀片 - 1 tooth	0.50	0.45	0.40	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.10	
		27IRV50-0402A 27IRV50-0403A 单齿刀片 - 1 tooth	0.50	0.45	0.45	0.40	0.35	0.35	0.35	0.30	0.30	0.25	0.15	0.10
		27IRV55-0601A 单齿刀片 - 1 tooth	0.45	0.45	0.40	0.40	0.30	0.30	0.25	0.20	0.20	0.10		
	外螺纹 Ext.	27ERV38R-0402A 27ERV38R-0403A 27ERV40-0503A 单齿刀片	0.50	0.45	0.45	0.40	0.35	0.30	0.30	0.25	0.20	0.10		
		27ERV50-0402A 27ERV50-0403A 单齿刀片 - 1 tooth	0.55	0.50	0.45	0.40	0.40	0.35	0.35	0.35	0.30	0.20	0.10	
		27ERV55-0601A 单齿刀片 - 1 tooth	0.50	0.45	0.40	0.40	0.35	0.35	0.25	0.20	0.10			

注: 加工钻杆接头螺纹如用普通刀粗车, 再用成形刀片精车时, 则此表中成形刀片的吃刀次数应相应减少。
Note: When machining drill pipe joint threads, if roughing is done with a regular insert and then finishing with a form insert, the number of passes for the form insert in this table should be reduced accordingly.



(9) 石油管螺纹刀具使用中应注意的若干问题

Important Considerations for the Use of Oil Pipe Threading Tools

① 使用前,使用者应了解刀具结构,加工要求及使用要求。

① Before use, operators must fully understand the tool structure, machining requirements, and operating guidelines.

② 刀杆必须正确牢固装夹在刀架(或刀座)上。安装前,刀架及刀杆基面应擦拭干净。普通车丝机的刀杆柄部基面应采用百分表进行找正,使之平行或垂直于螺纹轴线方向。找正误差应在0.015MM/100MM之内。否则将引起螺纹牙形误差,甚至超差。

② The toolholder must be correctly and securely clamped into the tool post (or tool seat).
- Before installation, the contact surfaces of the tool post and toolholder must be cleaned.
- On conventional threading machines, the toolholder base surface should be aligned using a dial indicator to ensure it is parallel or perpendicular to the thread axis.
- Alignment error must be within 0.015 mm per 100 mm, or thread profile errors and out-of-tolerance issues may occur.

③ 螺纹刀片应正确安装到刀杆的刀片槽内。用手将刀片侧边定位面靠牢,然后拧紧夹紧螺钉。刀片定位应正确可靠,夹紧牢固。夹紧螺钉或其他夹紧零件以及断屑器等如有损坏应及时更换,以免在切削时损坏螺纹刀片。每次换刀片时,刀杆上的刀片槽及刀片各基面均应擦拭干净,不得有碎屑夹入,否则会影响定位精度或把刀片夹碎。

③ The threading insert must be correctly installed into the insert slot on the toolholder.
- Press the insert firmly against the side locating surface by hand, then tighten the clamping screw.
- Ensure proper positioning and firm clamping of the insert.
- If the clamping screws, other fastening components, or chipbreakers are damaged, they must be replaced immediately to prevent insert failure during cutting.
- Every time an insert is replaced, the insert slot and the base surfaces of both the insert and toolholder must be cleaned. No debris should be trapped in between, as this could affect positioning accuracy or cause the insert to break.

④ 机床锥度板一定要调整准确,尽量减少加工螺纹锥度误差。

④ The machine's taper plate must be accurately adjusted to minimize taper errors in the threaded part.

⑤ 根据不同螺纹直径和螺距大小,螺纹刀杆上的刀片槽底面具有不同的刃倾角,以调节螺旋升角的变化需要,改善刀片侧后角状况,使用者在选用刀杆时应加以注意。

⑤ The bottom surface of the insert slot in the threading toolholder has different rake angles based on thread diameter and pitch.
- This adjustment compensates for changes in the thread helix angle, improving the relief angle conditions of the insert.
- Operators must pay attention to this when selecting toolholders.

⑥ 在加工过程中,应随时注意螺纹表面状态、刀片刃口状态及车丝机运转状态,以便及时调整操作,保持加工正常进行。螺纹表面缺陷最常见的是波纹和划道,影响其出现的因素较多,有螺纹刀片方面的,有机床方面的等。划道的出现可能由于:或因刀刀的光洁度,或因刀刀有微小崩刃及缺口,或因刀刀上粘有积屑瘤或因切屑缠绕刮伤所致。精车齿齿底圆弧在一侧为全圆弧者最易出现“对接”划道(指油、套管圆螺纹)。加工螺纹时,吃刀深度不够以致未能加工完拔荒的余量则在螺纹牙顶会出现明显划道。机床系统刚性差时易在管端处几扣出现牙顶划道(刀片切削时)。螺纹表面的波纹系因系统的振动引起,可能由于:系统刚度较差、机床功率不够,或由于刀刀过于锋利(如非涂层刀片的刀刀未强化的情况),或因刀刀磨损过大,或因系统自振频率与切削时强迫振动频率接近时均可能引起波纹。如出现上述划道和波纹缺陷均应根据具体情况及原因加以处理。

⑥ During machining, continuously monitor the following to ensure stable operation:
- Thread surface condition
- Insert edge condition
- Threading machine performance

The most common thread defects are waviness and scratches, which may arise from various factors, including the insert and the machine itself:

- Scratches may occur due to:
 - Poor cutting edge finish
 - Small edge chipping or cracks
 - Built-up edge on the insert
 - Chip entanglement damaging the surface
- Thread waviness is usually caused by machine vibration, which may be due to:
 - Insufficient system rigidity
 - Inadequate machine power
 - Excessively sharp cutting edge (especially if the insert is uncoated and lacks edge strengthening)
 - Excessive insert wear
 - Resonance between machine vibrations and cutting forces

If thread scratches or waviness occur, the specific cause should be identified and corrected accordingly.

⑦ 加工石油管螺纹时,对螺纹精度必须进行单项仪检查及螺纹量规检查。如果螺纹参数检查中的齿高及齿形角出现超差者,通常与刀片的齿形精度有关。必须检查刀片齿形精度或更换新的刀片。精车齿刀尖若产生“塌尖”现象易引起齿高增大超差。刀尖磨损易引起齿高减小而超差。相应地也会影响齿形角的变化。其他螺纹参数如螺距、锥度、紧密距等产生误差则往往与机床调整不当有关,需重新调整机床。

⑦ Thread accuracy must be verified using individual measurement instruments and thread gauges.
- If tooth height or thread profile angle is out of tolerance, the insert's thread profile accuracy should be checked.
- Worn finishing insert edges ("edge collapse") can lead to excessive tooth height errors.
- Insert wear may cause a reduction in tooth height and changes in thread profile angle.
- Errors in thread pitch, taper, or pitch diameter are often caused by machine misalignment and require recalibration.

⑧ 正确的刀片刃口强化对螺纹加工过程至关重要。涂层螺纹刀片的成品本身在生产厂家已进行合理的刃口强化工序。其刃口倒圆半径应选为R=0.04-0.06MM为合适。刀片齿顶及齿底的倒圆半径应均匀,差值不能过

大。非涂层的可重磨刀片往往在生产厂家未进行过刃口强化。加工过程中若出现不正常情况(如波纹等),操作者可用小三角油石(碳化硅或金刚石油石)顺着刃口方向对刀刃进行仔细研磨以实现刃口强化要求。重磨后的刀片刃口也应如此处理。

- ⑧ Proper edge strengthening of the insert is critical to the threading process.
- Factory-produced coated threading inserts undergo a pre-set edge honing process, where the optimal edge radius is $R = 0.04 - 0.06$ mm.
 - The radius at the thread crest and root must be uniform, with minimal variation.
 - Uncoated regrindable inserts do not undergo edge strengthening at the factory.
 - If abnormal machining issues (such as waviness) occur, operators can lightly hone the insert edge using a fine triangular oilstone (silicon carbide or diamond oilstone) in the direction of the cutting edge to achieve proper edge strengthening.
 - Reground inserts should also undergo this edge finishing process.

⑨ 在当前情况下,石油管螺纹加工时必须进行充分的冷却,仍以供给冷却液的方式为主。这是提高螺纹加工质量及刀具耐用度的重要因素。冷却液应正好喷射到刀齿切削部分。有条件时可用高压冷却液喷射。并在通过刀片前刃面或底面及断屑器或垫片的小槽将冷却液直接高压喷射到刀刃切削区域,效果十分明显。且有利于增加排屑作用。

- ⑨ Sufficient cooling must be provided during oil pipe threading.
- Flood coolant supply remains the primary cooling method.
 - Proper cooling is a key factor in improving thread quality and extending tool life.
 - The coolant must be precisely directed onto the cutting area of the insert teeth.
 - If possible, high-pressure coolant should be used.
 - High-pressure coolant can be directly injected through the insert's front cutting surface, bottom surface, chipbreaker, or shim channels to improve chip evacuation significantly.

⑩ 刀片的重磨:涂层刀片一般不宜进行重磨。非涂层刀片一般应进行重磨。重磨时只刃磨刀片的前刃面,按照原刀片前刃面的方向重磨。不应当在砂轮机上用手握持刀片或刀杆重磨,而应当在工具磨床上采用专用夹具重磨。砂轮规格推荐:

JR1, 120#-180#粒度, 75%浓度: S. BW100x20x35

- ⑩ Insert regrinding guidelines:
- Coated inserts should generally not be reground.
 - Uncoated inserts should be reground as necessary.
 - Only the front cutting surface should be ground, following the original rake face direction.
 - Do not hand-hold the insert or toolholder against a grinding wheel—always use a dedicated fixture on a tool grinder.

Recommended grinding wheel specifications:

- JR1, 120-180 grit, 75% concentration
- S. BW100 x 20 x 35

使用中常见问题产生原因及推荐解决措施: (如表3)

COMMON ISSUES DURING USE: CAUSES AND RECOMMENDED SOLUTIONS (REFER TO TABLE 3)

常见问题Common Issues Causes	产生原因及推荐措施Recommended Solutions
(1) 切削时产生振 Vibration During Cutting	<p>① 检查系统刚度是否足够,工件及刀杆伸出量是否太长,主轴轴承是否适当调整、刀片是否夹紧牢固等。 Check if the system rigidity is sufficient, whether the toolholder and workpiece overhang are excessive, whether the spindle bearings are properly adjusted, and whether the insert is securely clamped.</p> <p>② 调低或调高主轴一~二档转速试加工,选择避免波纹产生的转速。 Try increasing or decreasing the spindle speed by one or two levels and select a speed that avoids vibration-induced waviness.</p> <p>③ 对非涂层刀片,若刀刃原来未进行刃口强化,可在现场用细油石轻轻研磨刃口(顺着刃口方向)。或者在新刃口加工几个工件后,波纹即能减轻或消除。 For uncoated inserts, if the cutting edge has not been strengthened, lightly hone the edge with a fine oilstone (in the direction of the edge). Alternatively, after machining a few workpieces with a new cutting edge, waviness may naturally reduce or disappear.</p>
(2) 刀片磨损很快,耐用度很低 Rapid Insert Wear & Low Tool Life	<p>① 检查一下切削用量是否选择太高,特别是切削速度及吃刀深度是否太大。并进行调整。 Check whether cutting parameters (cutting speed and depth of cut) are too high and adjust accordingly.</p> <p>② 是否未供给足够冷却液。 Ensure that adequate coolant supply is being provided.</p> <p>③ 切削挤住刀刃,引起细微崩刃而增大刀具磨损。 Cutting forces may be pressing chips against the cutting edge, causing small fractures that accelerate insert wear.</p> <p>④ 刀片夹固不牢,或者在切削过程中产生晃动。 Check if the insert is not firmly clamped or if chatter occurs during cutting.</p> <p>⑤ 刀片本身质量问题。 If wear persists, check for potential insert quality issues.</p>

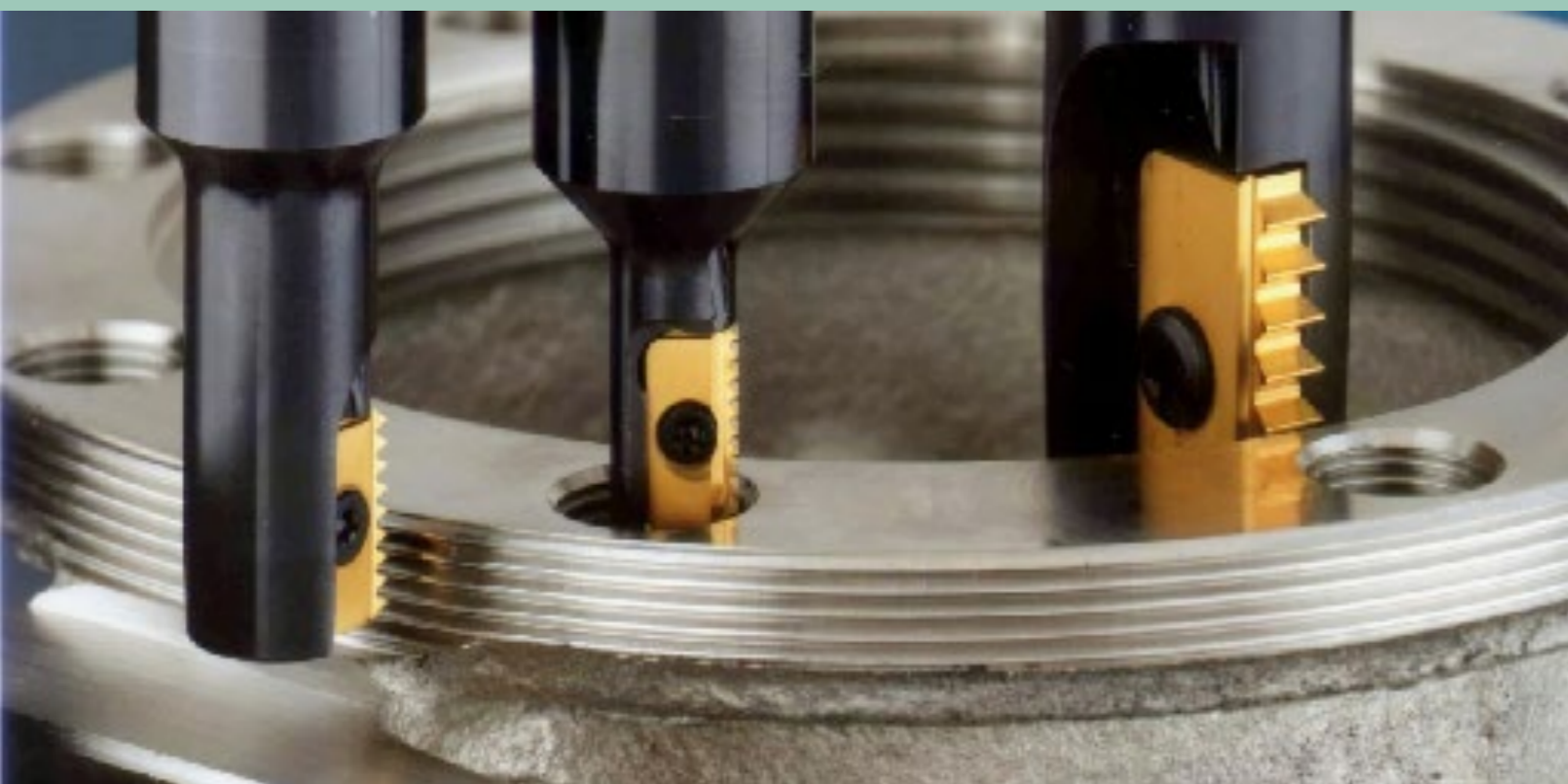
常见问题Common Issues Causes	产生原因及推荐措施Recommended Solutions
<p>(3) 刀片大块崩刃或碎裂 Large Insert Chipping or Fracture</p>	<ul style="list-style-type: none"> ① 刀片槽内是否有碎屑或硬质颗粒夹入, 在夹紧时已产生裂纹或应力。 Check if there are debris or hard particles inside the insert slot, which could cause cracks or stress when clamping. ② 切屑在切削过程中缠绕及打坏刀片。 Ensure that chips are not entangling and damaging the insert during cutting. ③ 走刀过程中刀片受到偶然碰撞。 Avoid unexpected impacts on the insert during feed movements. ④ 拔荒刀等的前序刀具打刀引起螺纹刀片的随后崩裂。 Verify that preliminary roughing tools (e.g., roughing inserts) are not causing damage to the threading insert. ⑤ 用手操作退刀的机床, 多次退时, 因后面次数的退刀动作缓慢而引起刀 刃负荷陡然增大打刀。 For manual retraction on lathe machines, repeated retractions with slow feed rates in later passes may cause sudden increases in tool load, leading to breakage. ⑥ 工件材质不均匀或可加工性很差。 Workpiece material inconsistency or poor machinability may contribute to insert fracture. ⑦ 刀片本身质量问题。 If all conditions are optimal, the issue may be due to insert quality defects.
<p>(4) 管螺纹齿形误差超差 Out-of-Tolerance Thread Profile Errors</p>	<ul style="list-style-type: none"> ① 刀片精车齿刀刃已磨损, 需更换新的刀片。 If the finishing edge of the insert is worn, replace it with a new insert. ② 刀片精车齿产生“塌尖”现象, 应适当降低切削速度及吃刀深度。 If the finishing edge has collapsed ("tip breakage"), reduce cutting speed and depth of cut. ③ 刀片或刀杆安装不正确。如刀杆安装时未找正基面, 刀片基面未靠牢等。 Ensure that the insert and toolholder are correctly installed. Misalignment of the toolholder base or improper seating of the insert can cause errors. ④ 刀刃上产生微小崩刃, 应及时换刀。 If minor chipping is found on the cutting edge, replace the insert immediately. ⑤ 刀刃上产生积屑瘤, 应适当提高切削速度, 或用细油石轻轻研磨去除积 屑瘤, 或更换刀片。 If built-up edge (BUE) forms on the insert, increase cutting speed, lightly hone the cutting edge with a fine oilstone to remove the BUE, or replace the insert.



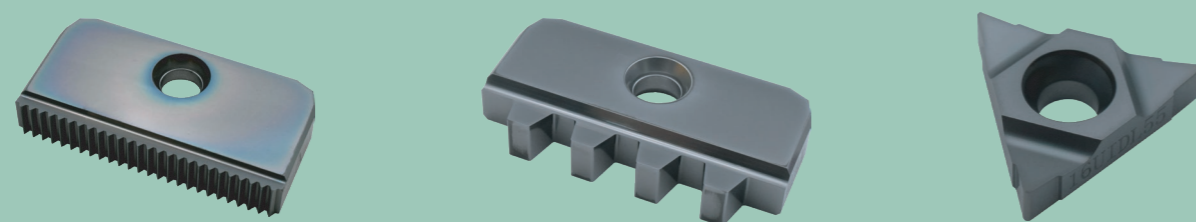
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THREAD MILLING TOOLS

螺纹铣削刀具系列

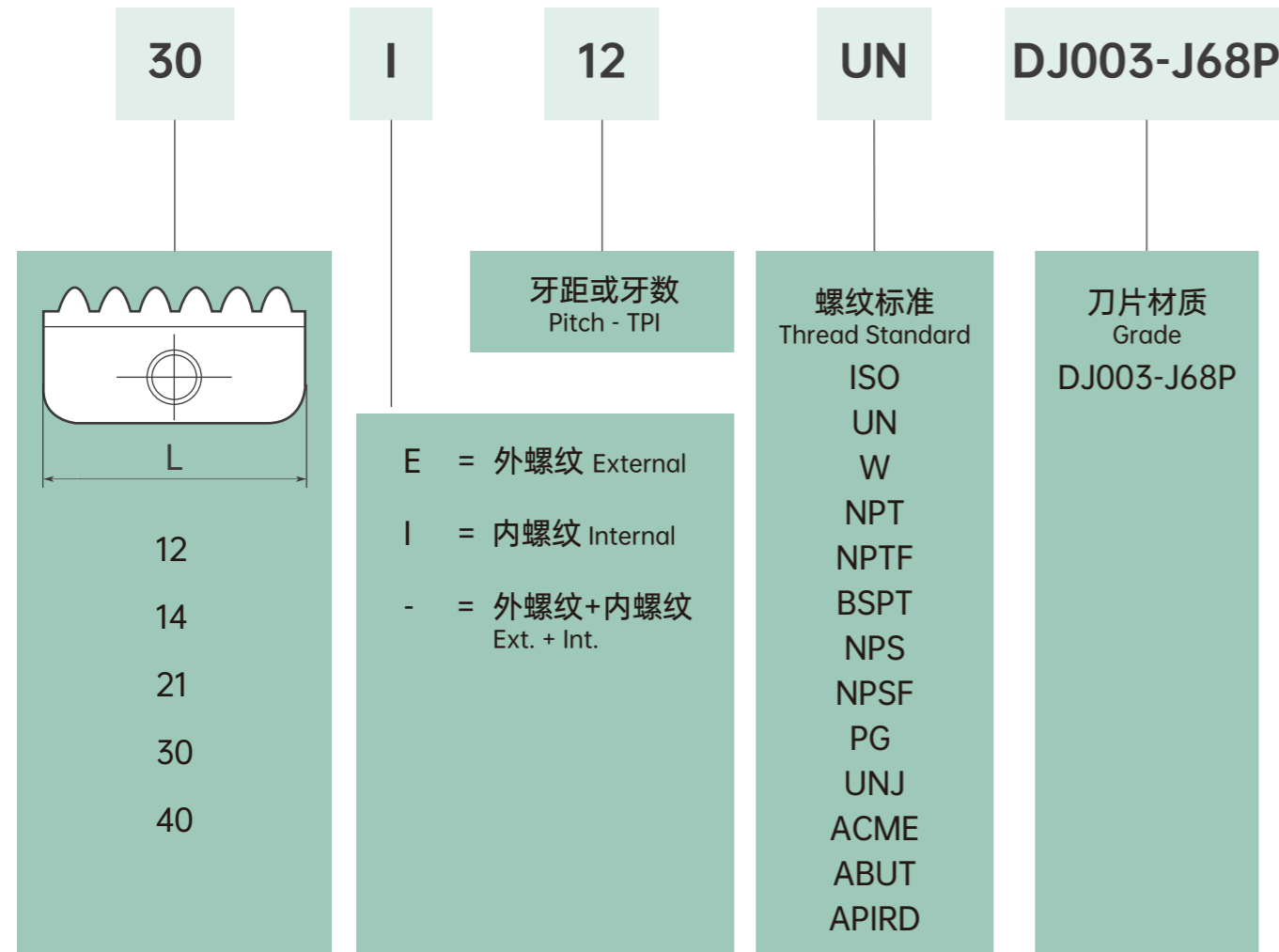


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螺纹铣削刀片型号编制说明

THREAD MILLING INSERT NAMING RULES



推荐切削参数表

RECOMMENDED CUTTING PARAMETERS

ISO	工件材料 Workpiece Materials	切削速度 Vc (m/min)	
		GY01	GY03
P	低碳钢和中碳钢 Low and Medium Carbon Steel	100-250	115-280
	高碳钢 High Carbon Steel	110-180	130-200
	合金钢 Alloy Steel	90-160	105-180
M	不锈钢 Stainless Steel	110-170	130-190
K	铸钢 Cast Steel	130-170	150-190
	铸铁 Cast Iron	70-150	80-150
N	有色金属 Non-ferrous Metal	160-300	180-340
	人工合成材料、热塑塑胶 Synthetic Materials, Thermoplastics	100-400	115-460
S	镍基合金、钛合金 Heat-resistant Alloy, Titanium Alloy	20-80	25-90

进给速度 F: 0.05 - 0.15mm

■ 铣削螺纹注意事项 Precautions for Thread Milling

大多数情况下刚开始使用时选择中档数值, 对于硬度较高的材料, 减低切削速度。

深孔加工刀杆悬伸度大时, 请降低切削速度和进给速度至原来的20%-40% (取之于工件材料, 牙距和悬伸量)。

对于螺距大 (牙形不对称) 的必须分粗精铣, 材质硬或弹性大、深径比大的都需要分2-3刀进行加工, 否则会出现振动大、表面质量差、塞规进不去等问题。在加工中还要注意螺纹刀杆的伸出尽量短以增加刚性, 减少振动, 提高进给。

1. Initial Parameter Selection

- When starting, use mid-range parameters. For materials with higher hardness, reduce cutting speed appropriately.

2. Deep-Hole Machining

- If the tool holder has excessive tool overhang during deep-hole machining, reduce cutting speed and feed rate to 20%-40% of their original values (depending on workpiece material, thread pitch, and overhang length).

3. Multi-Pass Machining Requirements

- For large-pitch threads (asymmetric tooth profiles), perform roughing and finishing passes.

- For hard materials, elastic materials, or threads with high depth-to-diameter ratios, divide the process into 2-3 passes to avoid issues such as:

- Excessive vibration

- Poor surface quality

- Go / No-go gauge failure

- Minimize tool overhang to enhance rigidity, reduce vibration, and improve feed stability.

■ 刀具选择步骤 Tool Selection Procedure

根据待加工螺距选择刀片
 选择回转直径dc小于被加工尺寸
 对照上表将符合上面两条件的刀具按最大刀具直径选择

1. Select the insert based on the required thread pitch.
2. Ensure the rotational diameter (dc) of the tool is smaller than the machined dimension (refer to the corresponding table).
3. From tools meeting the above criteria, choose the one with the largest possible diameter.

■ 螺纹铣削编程 Thread Milling Programming

在螺纹铣削的切入方法中，圆弧切入法、径向切入法、切向切入法。我们推荐采用1/8或1/4圆弧切入法，螺纹铣刀走过1/8或1/4螺距后，切线切进工件，然后再走360°整圆切削插补一周，轴向移动一个导程，最后再走1/8或1/4螺距切出工件。

采用圆弧切入法，刀具切入，切出平衡，不留任何痕迹，不产生振动，即使是加工硬的材料也如此。

- Entry Methods: Arc entry, radial entry, or tangential entry.
- Recommended Method: 1/8 or 1/4 arc entry.
- After the thread mill completes a 1/8 or 1/4 pitch arc, transition tangentially into the workpiece.
- Perform a full 360° circular interpolation while axially advancing by one lead.
- Exit with another 1/8 or 1/4 pitch arc.

Advantages of Arc Entry

- Balanced entry and exit motion.
- Leaves no tool marks and avoids vibration, even for hard materials.

(1) 螺纹铣削参数及计算公式 Thread Milling Parameters and Calculation Formula

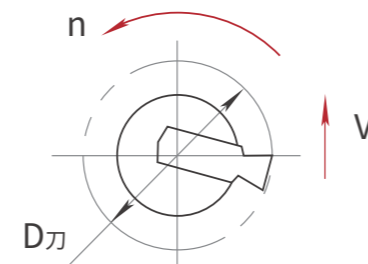
① 刀具转速的计算 Cutting Speed Formula

刀具的转速等于机床主轴的转速，即 Tool speed matches machine spindle speed, so

$$n = \frac{1000 \cdot v}{\pi \cdot D_{\text{刀}}}$$

公式中 In the formula:

- n——刀具转速 Rpm (r/min);
- v——刀具线速度 Vc (m/min);
- D_刀——铣刀回转直径(包括刀片) (mm);
Tool Rotation Diameter (Including Inserts) (mm);



② 刀具径向进给速度计算 Tool Radial Feed Rate Formula

刀具的径向进给速度就是铣刀回转直径(包括刀片)进给速度，也称为每分钟进给量，即

The radial feed rate of the tool is equal to the rotational speed of the cutter, also known as feed per minute, so

$$F_1 = f \cdot z \cdot n$$

式中 In the formula:

- F₁——刀具径向进给速度 (mm/min); Tool Radial Feed Rate (mm/min)
- f——每刃每转进给量 (mm/r); Feed per Cutting Edge per Revolution (mm/r)
- z——刀具切削刃数; Number of Cutting Edges

③ 刀具中心进给速度计算 Tool Center Feed Rate Formula

大多数的CNC机床，在编程时要求采用刀具中心进给速度编程。刀具的进给速度由刀具中心的进给速度的大小决定，而刀具中心的进给速度没有直接给出，但可由刀具进给速度与刀具中心的关系方程式求得。程序按刀具中心轨迹编写，这种编程方法不考虑刀具半径补偿和磨损抵消，程序简单，修改方便。

In most CNC machines, programming requires the use of tool center feed rate. The tool's feed rate is determined by the magnitude of the tool center feed rate, which is not directly specified but can be derived from the relational equation between the tool feed rate and the tool center. The program is written based on the tool center trajectory, a method that eliminates the need for tool radius compensation or wear offset adjustments. This approach simplifies programming and facilitates modifications.

加工外螺纹时的刀具中心进给速度，即

Tool Center Feed Rate in External Thread Machining, which is

$$F_2 = \frac{F_1 \cdot (D - D_{\text{刀}})}{D}$$

公式中 In the formula:

- F₂——刀具中心进给速度 (mm/min); Tool Center Feed Rate (mm/min)
- D——螺纹公称直径(螺纹大径) (mm); Nominal Diameter of Thread (Major Diameter of Thread) (mm)

加工内螺纹时的刀具中心进给速度，即

Tool Center Feed Rate in Internal Thread Machining, which is

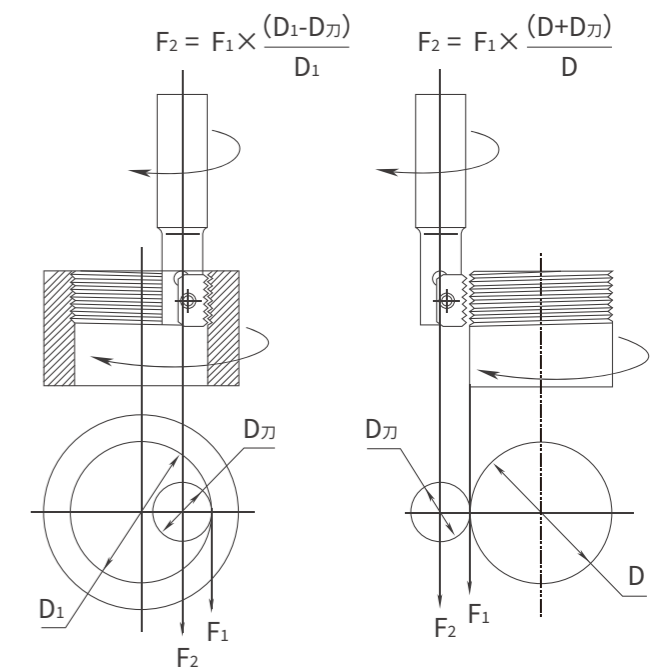
$$F_2 = \frac{F_1 \cdot (D_1 - D_{\text{刀}})}{D_1}$$

公式中 In the formula:

- D₁——螺纹小径 (mm); Minor Diameter of Thread (mm)

在生产现场，未知小径的情况下，可用螺纹公称直径(螺纹大径)简便计算。

In production settings, the nominal diameter (major diameter) of a thread can be conveniently used for simplified calculations when the minor diameter is unknown.



螺纹铣削通用程序 General Procedure for Thread Milling

```
G90 G00 G54 G43 H1 XO YO Z10 S- G00
Z- (螺纹深度 Thread Depth)
G01 G91 G41 D1 X (A/2) Y- (A/2) Z0 F- G03
X (A/2) Y (A/2) R (A/2) Z (1/8螺距TPI)
G03 XO YO I- (A) JO Z (螺距TPI)
G03 X- (A/2) Y (A/2) R (A/2) Z (1/8螺距TPI)
G01 G40 X- (A/2) Y- (A/2) Z0
G90 XO YO ZO
```

以上的数据是按理论的推算给出的,在实际螺纹铣削加工过程中,由于螺纹加工深度、螺距大小、加工材料、冷却条件等不同而有所变化。在加工中还要注意螺纹刀杆的伸出尽量短以增加刚性,减少振动,提高进给。对于盲孔螺纹,为防止加工到孔底部时,加工部位被切屑遮盖,切屑堆积与刀具产生干涉,采用从孔底向外加工的走刀方向。

The data provided above is based on theoretical calculations. In actual thread milling processes, variations may occur due to differences in thread depth, pitch dimensions, workpiece materials, and cooling conditions. During machining, it is essential to minimize the extension length of the thread arbor to enhance rigidity, reduce vibration, and improve feed rate. For blind-hole threading, to prevent chip accumulation at the hole bottom from obscuring the machining area and causing interference between accumulated chips and the cutting tool, the machining direction should be adjusted from the hole bottom outward in the tool path.

(2) 螺纹铣削编程实例 Thread Milling Programming Example

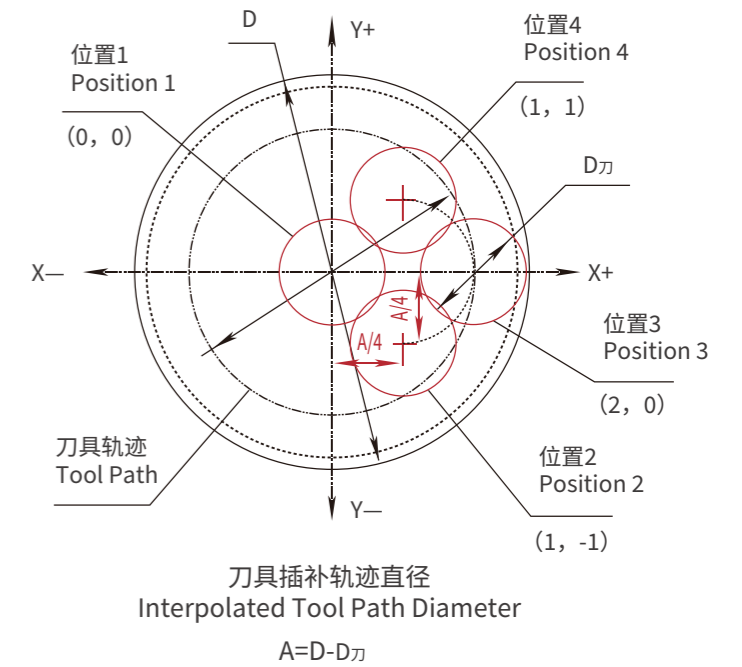
编制M25X1.5内螺纹程序,螺纹深度18mm,工件材料为45*;
根据螺纹大小,选择刀具型号: ST90-21R1T21-B20,刀具回转直径中21mm;
刀片型号: 21I1.5ISO,材料牌号: DJ003-J68P。
刀具线速度153m/min;一片铣刀加工,每转进给量0.07mm/r;
数据系统为FANUCOi。

Develop a program for machining an internal M25 × 1.5 thread with a depth of 18 mm. The workpiece material is No. 45 steel. Based on the thread specifications, select the following tooling:
- Toolholder model: ST90-21R1T21-B20, with a tool rotational diameter of 21 mm.
- Insert model: 21I-1.5ISO, material grade: DJ003-J68P.

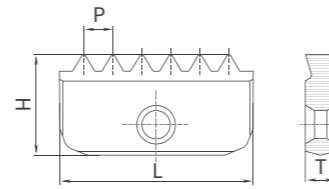
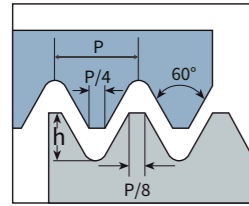
Cutting parameters:
- Tool cutting speed: 153 m/min.
- Single-flute milling cutter with a feed per revolution of 0.07 mm/r.

Control system: FANUCOi.

```
N10 G40 G80;
N20 G91 G28 Z0;
N30 M6 T1;
N40 G17 G54 G90 G0 XO YO M3 S2320;
N50 G43 H1 Z60;
N60 GO1 Z-18.188 F5000 M08;
N70 G91;
N80 G41 D10 X1. Y1. Z0 F26;
N90 GO3 X1. Y1. Z0.188 10 J1.;
N100 GO3 XO YO Z1.5 I-2. J0;
N110 GO3 X-1. Y1. Z0.188 1-1. J0;
N120 GO1 G40 X-1. Y-1. Z0.F5000;
N130 G01 Z25.;
N140 G90 GO XO YO Z50;
N150 G91 G28 Z0;
N160 M30;
```

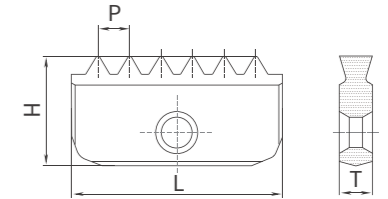
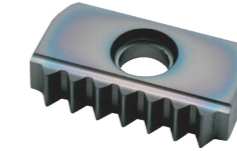
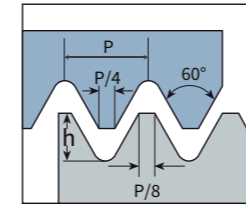


ISO 公制螺纹60° 完全形
ISO - Metric Full Profile



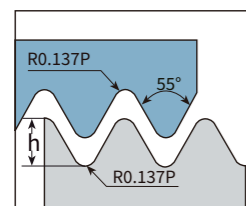
螺距	切削刃长 L					
	mm	12mm	14mm	21mm	30mm	40mm
0.5	Ext.					
	Int.	12 0.5 ISO	14 0.5 ISO			
0.75	Ext.		14 E 0.75 ISO			
	Int.	12 0.75 ISO	14 0.75 ISO			
1	Ext.		14 E 1.0 ISO	21 E 1.0 ISO**		
	Int.	12 1.0 ISO	14 1.0 ISO	21 1.0 ISO		
1.25	Ext.		14 E 1.25 ISO	21 E 1.25 ISO**		
	Int.	12 1.25 ISO	14 1.25 ISO	21 1.25 ISO		
1.5	Ext.		14 E 1.5 ISO	21 E 1.5 ISO**	30 E 1.5 ISO	40 E 1.5 ISO
	Int.	12 1.5 ISO	14 1.5 ISO	21 1.5 ISO	30 1.5 ISO	40 1.5 ISO
1.75	Ext.		14 E 1.75 ISO	21 E 1.75 ISO		
	Int.	12 1.75 ISO*	14 1.75 ISO	21 1.75 ISO		
2	Ext.		14 E 2.0 ISO	21 E 2.0 ISO	30 E 2.0 ISO	40 E 2.0 ISO
	Int.		14 2.0 ISO	21 2.0 ISO	30 2.0 ISO	40 2.0 ISO
2.5	Ext.		14 E 2.5 ISO	21 E 2.5 ISO	30 E 2.5 ISO*	
	Int.		14 2.5 ISO	21 2.5 ISO		
3	Ext.		14 E 3.0 ISO*	21 E 3.0 ISO	30 E 3.0 ISO	40 E 3.0 ISO
	Int.		14 3.0 ISO*	21 3.0 ISO	30 3.0 ISO	40 3.0 ISO
3.5	Ext.				30 E 3.5 ISO	
	Int.			21 3.5 ISO	30 3.5 ISO	40 3.5 ISO
4	Ext.				30 E 4.0 ISO	40 E 4.0 ISO
	Int.			21 4.0 ISO	30 4.0 ISO	40 4.0 ISO
4.5	Ext.					
	Int.			21 4.5 ISO	30 4.5 ISO	40 4.5 ISO
5	Ext.					40 E 5.0 ISO
	Int.				30 5.0 ISO**	40 5.0 ISO
5.5	Ext.					
	Int.				30 5.5 ISO**	40 5.5 ISO
6	Ext.					40 E 6.0 ISO
	Int.					40 6.0 ISO
H		6.3	7.5	12	16	20
T		2.9	3.1	4.7	5.5	6.3

UN 美制统一螺纹60° 完全形 (UNC, UNF, UNEF, UNS)
UN - Unified National Thread 60° Full Profile

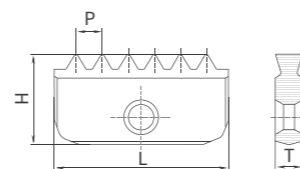
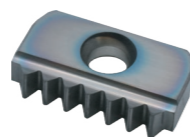


螺距	切削刃长 L					
	TPI	12mm	14mm	21mm	30mm	40mm
32	Ext.		14 E 32 UN			
	Int.	12 32 UN	14 32 UN			
28	Ext.		14 E 28 UN			
	Int.	12 28 UN	14 28 UN			
27	Ext.					
	Int.		14 27 UN			
24	Ext.		14 E 24 UN	21 E 24 UN		
	Int.	12 24 UN	14 24 UN	21 24 UN		
20	Ext.		14 E 20 UN	21 E 20 UN	30 E 20 UN	
	Int.	12 20 UN	14 20 UN	21 20 UN	30 20 UN**	
18	Ext.		14 E 18 UN	21 E 18 UN	30 E 18 UN	
	Int.	12 18 UN	14 18 UN	21 18 UN	30 18 UN	
16	Ext.		14 E 16 UN	21 E 16 UN	30 E 16 UN	40 E 16 UN
	Int.	12 16 UN	14 16 UN	21 16 UN	30 16 UN	40 16 UN
14	Ext.		14 E 14 UN	21 E 14 UN	30 E 14 UN	40 E 14 UN
	Int.		14 14 UN	21 14 UN	30 14 UN**	40 14 UN
12	Ext.		14 E 12 UN**	21 E 12 UN	30 E 12 UN	40 E 12 UN
	Int.		14 12 UN	21 12 UN	30 12 UN	40 12 UN
11	Ext.		14 E 11 UN**	21 E 11 UN**		40 E 10 UN
	Int.		14 11 UN			40 10 UN
10	Ext.		14 E 10 UN**	21 E 10 UN	30 E 10 UN	40 E 8 UN
	Int.		14 10 UN	21 10 UN	30 10 UN	40 8 UN
8	Ext.				30 E 8 UN	
	Int.			21 8 UN	30 8 UN	
7	Ext.					40 E 6 UN
	Int.			21 7 UN		40 6 UN
6	Ext.				30 E 6 UN	
	Int.				30 6 UN	
5	Ext.					
	Int.				30 5 UN	
4.5	Ext.					
	Int.					40 4.5 UN
4	Ext.					40 E 4 UN**
	Int.					40 4 UN

» 英制惠氏螺纹55° 完全形 WHIT BSW, BSF, BSP
W - British Whitworth Thread 55° Full Profile

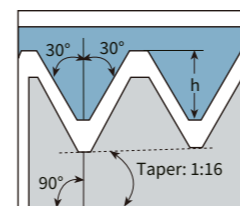


内外通用
Same Insert for
External and Internal thread.

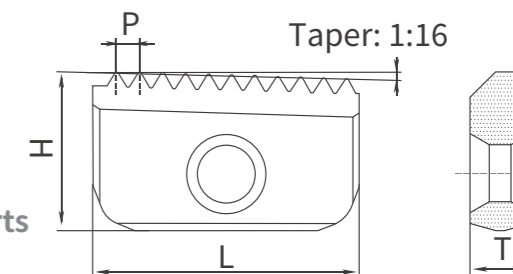


螺距	切削刃长 L				
	12mm	14mm	21mm	30mm	40mm
TPI					
24		14-24 W			
20		14-20 W	21-20 W		
19	12-19 W	14-19 W	21-19 W		
18		14-18 W**			
16		14-16 W	21-16 W	30-16 W	
14		14-14 W	21-14 W	30-14 W	
12		14-12 W**	21-12 W	30-12 W*	
11		14-11 W	21-11 W	30-11 W	40-11 W
10			21-10 W	30-10 W*	
8			21-8 W*	30-8 W*	40-8 W
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

» 美国干密封管螺纹60° 标准 NPTF
NPTF - National Seal Pipe Thread 60°

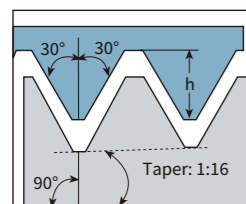


单面设计/内外通用
Conical pipe thread inserts
are one-sided and same inserts
for both External and Intrnal.

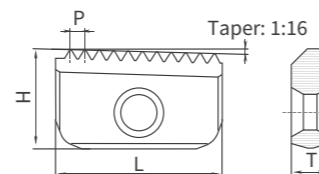


螺距	切削刃长 L				
	12mm	14mm	21mm	30mm	40mm
TPI					
18	12-18 NPTF	14-18 NPTF			
14		14-14 NPTF	21-14 NPTF		
11.5			21-11.5 NPTF	30-11.5 NPTF	40-11.5 NPTF
8				30-8 NPTF	40-8 NPTF
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

» 美国标准管螺纹60° NPT
NPT - National Pipe Tread 60°

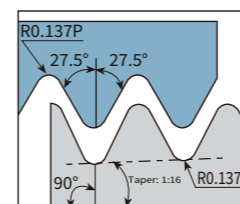


单面设计/内外通用
Conical pipe thread inserts
are one-sided and same inserts
for both External and Intrnal.

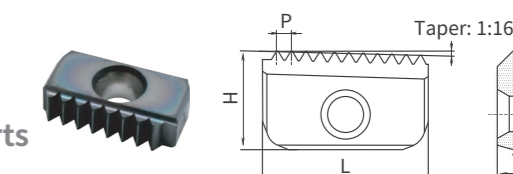


螺距	切削刃长 L				
	12mm	14mm	21mm	30mm	40mm
TPI					
18	12-18 NPT	14-18 NPT			
14	12-14 NPT*	14-14 NPT	21-14 NPT		
11.5			21-11.5 NPT	30-11.5 NPT	40-11.5 NPT
8				30-8 NPT	40-8 NPT
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

» 英国标准管螺纹55° BSPT
BSPT - British Standard Pipe Taper 55°

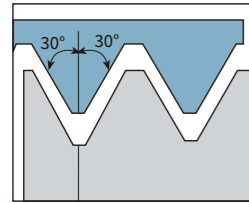


单面设计/内外通用
Conical pipe thread inserts
are one-sided and same inserts
for both External and Intrnal.

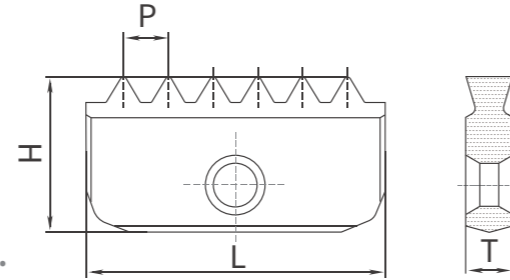


螺距	切削刃长 L				
	12mm	14mm	21mm	30mm	40mm
TPI					
19	12-19 BSPT	14-19 BSPT			
14		14-14 BSPT	21-14 BSPT		
11			21-11 BSPT	30-11 BSPT	40-11 BSPT
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

»» 美制平行管螺纹60° 标准 NPS
NPS - National Pipe Straight 60°

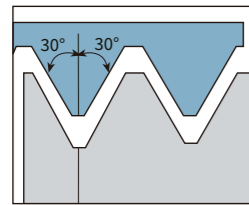


内外通用
Same Insert for
External and Internal thread.

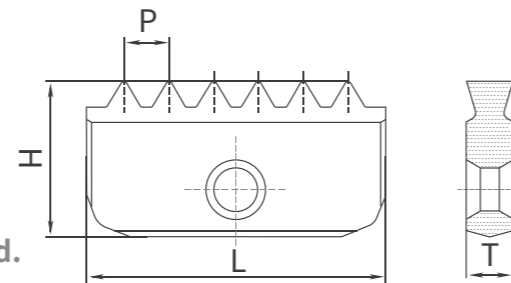


螺距	切削刃长 L				
TPI	12mm	14mm	21mm	30mm	40mm
18	12-18 NPS	14-18 NPS			
14		14-14 NPS	21-14 NPS		
11.5			21-11.5 NPS	30-11.5 NPS	40-11.5 NPS
8				30-8 NPS	40-8 NPS
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

»» 美制干密封平行管螺纹60° 标准 NPSF
NPSF - National Seal Pipe Straight 60°

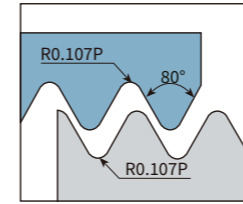


内外通用
Same Insert for
External and Internal thread.

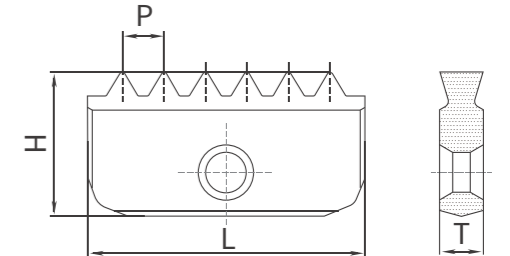


螺距	切削刃长 L				
TPI	12mm	14mm	21mm	30mm	40mm
18	12-18 NPSF	14-18 NPSF			
14		14-14 NPSF**	21-14 NPSF		
11.5			21-11.5 NPSF	30-11.5 NPSF	40-11.5 NPSF**
8				30-8 NPSF	40-8 NPSF**
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

»» 德国钢导管螺纹80° PG DIN40430
PG - Germany Steel Conduit Thread 80° DIN40430

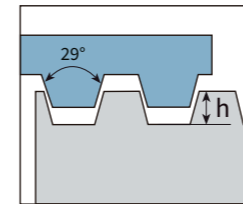


内外通用
Same Insert for
External and Internal thread.

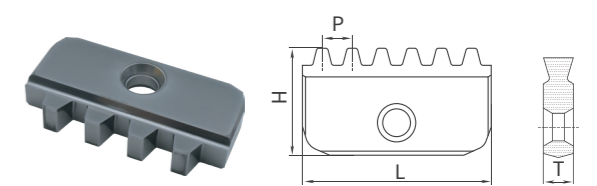


螺距	切削刃长 L			
TPI	12mm	14mm	21mm	30mm
20	12-20 PG*			
18		14-18 PG (PG 9, 11, 13.5, 16)	21-18 PG (PG 16)	
16			21-16 PG (PG 21, 29, 36, 42, 48)	30-16 PG (PG 36, 42, 48)
H	6.3	7.5	12	16
T	2.9	3.1	4.7	5.5

»» 美制梯形 (爱克母) 螺纹29° ACME
ACME - American Trapez ACME Thread 29°

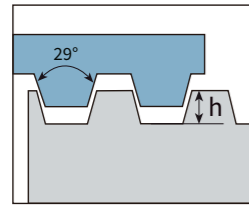


内螺纹用
Insert for Internal thread.

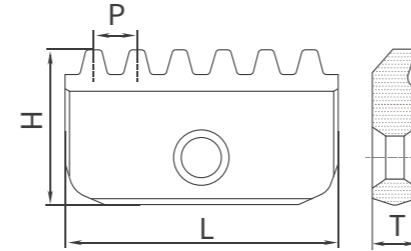


螺距	切削刃长 L			
TPI	14mm	21mm	30mm	40mm
16	14 16 ACME*	21 16 ACME*	30 16 ACME	40 16 ACME
14	14 14 ACME*	21 14 ACME*	30 14 ACME	40 14 ACME
12		21 12 ACME	30 12 ACME	40 12 ACME
10		21 10 ACME	30 10 ACME	40 10 ACME
8		21 8 ACME**	30 8 ACME	40 8 ACME
6			30 6 ACME	40 6 ACME
5			30 5 ACME	40 5 ACME
4			30 4 ACME	40 4 ACME
3.5				40 3.5 ACME
3				40 3 ACME
H	7.5	12	20	20
T	3.1	4.7	6.3	6.3

公制梯形螺纹30° TR DIN103
TR - Metric Trapez Thread 30° DIN103

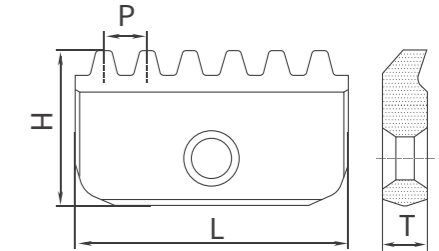
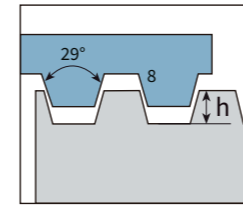


单面设计
Inserts are one-sided.



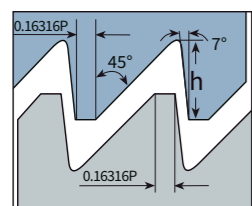
螺距		切削刃长 L			
mm		14mm	21mm	30mm	40mm
1.5	Ext.	14 E 1.5 TR	21 E 1.5 TR	30 E 1.5 TR	
	Int.	14 I 1.5 TR**	21 I 1.5 TR	30 I 1.5 TR	
2.0	Ext.	14 E 2.0 TR	21 E 2.0 TR	30 E 2.0 TR	40 E 2.0 TR
	Int.	14 I 2.0 TR	21 I 2.0 TR	30 I 2.0 TR	40 I 2.0 TR
2.5	Ext.		21 E 2.5 TR	30 E 2.5 TR	40 E 2.5 TR
	Int.		21 I 2.5 TR	30 I 2.5 TR	40 I 2.5 TR
3.0	Ext.		21 E 3.0 TR	30 E 3.0 TR	40 E 3.0 TR
	Int.		21 I 3.0 TR	30 I 3.0 TR	40 I 3.0 TR
4.0	Ext.			30 E 4.0 TR	40 E 4.0 TR
	Int.			30 I 4.0 TR	40 I 4.0 TR
5.0	Ext.				40 E 5.0 TR
	Int.				40 I 5.0 TR
6.0	Ext.				40 E 6.0 TR
	Int.				40 I 6.0 TR
7.0	Ext.				40 E 7.0 TR
	Int.				40 I 7.0 TR
H		7.5	12	16	20
T		3.1	4.7	5.5	6.3

美制矮牙梯形 (爱克母) 螺纹29° STACME
STACME - American Trapez Stub ACME Thread 29°

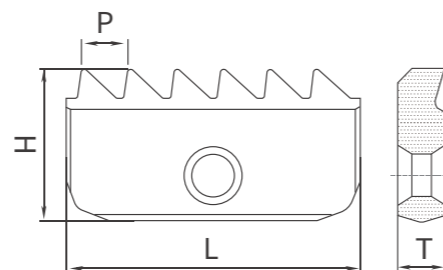


螺距		切削刃长 L			
TPI		14mm	20mm	30mm	40mm
16		14 I 16 STACME	21 I 16 STACME	30 I 16 STACME	40 I 16 STACME
14		14 I 14 STACME	21 I 14 STACME	30 I 14 STACME	40 I 14 STACME
12			21 I 12 STACME	30 I 12 STACME	40 I 12 STACME
10				30 I 10 STACME	40 I 10 STACME
8				30 I 8 STACME	40 I 8 STACME
6				30 I 6 STACME	40 I 6 STACME
5				30 I 5 STACME**	40 I 5 STACME
4				30 I 4 STACME**	40 I 4 STACME
3				30 I 3 STACME**	40 I 3 STACME
H		7.5	12	20	20
T		3.1	4.7	6.3	6.3

美制锯齿形螺纹7°/45° ABUT
ABUT - American Buttress Thread 7°/45°

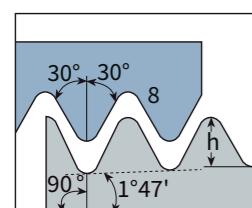


单面设计/内外通用
ABUT thread inserts
are one-sided and same inserts
for both External and Intrnal.

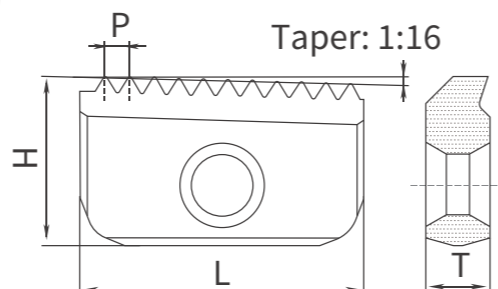


螺距 TPI	切削刃长 L		
	21mm	30mm	40mm
16	21-16 ABUT	30-16 ABUT	
12	21-12 ABUT	30-12 ABUT	
10	21-10 ABUT	30-10 ABUT	
8	21-8 ABUT	30-8 ABUT	
6		30-6 ABUT**	
4		30-4 ABUT**	40-4 ABUT**
H	7.5	20	20
T	3.1	6.3	6.3

美国石油管圆螺纹60° API RD
API RD - API Round Casing & Tubing Thread 60°

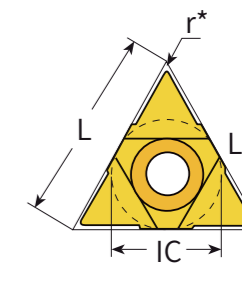
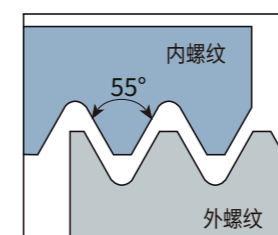
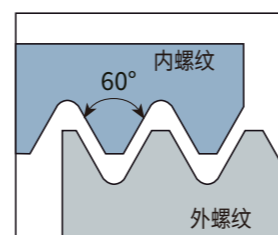


单面设计/内外通用
API RD thread inserts
are one-sided and same inserts
for both External and Intrnal.



螺距 TPI	切削刃长 L		
	21mm	30mm	40mm
10	21-10 API RD	30-10 API RD	40-10 API RD
8	21-8 API RD*	30-8 API RD	40-8 API RD
H	7.5	20	20
T	3.1	6.3	6.3

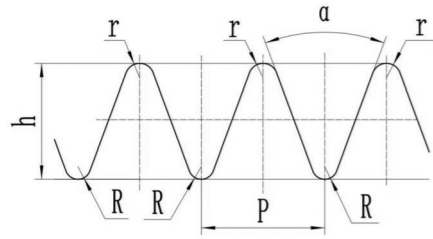
深孔铣螺纹刀片
Thread Milling for Deep Hole



U型 U Style

刀片形状 Image	I.C.	螺距 Pitch (mm)		内螺纹 Internal	L	r
		mm	TPI	右螺纹 Right-hand		
	1/4"	0.5-1.5	-	11UIDA60	11	0.05
		1.5-2.0	-	11UIDB60		0.06
		2.0-2.5	-	11UIDD60		0.11
		1.5	-	11UIDM60-1.5		0.11
		2.0	-	11UIDM60-2.0		0.15
		2.5	-	11UIDM60-2.5		0.18
3/8"	3/8"	2.5-4.0	-	11UIDC60	16	0.14
		1.5-2.0	-	16UIDB60		0.06
		2.5-3.5	-	16UIDE60		0.14
1/2"	1/2"	4.0-6.0	-	16UIDH60	22	0.25
		6.0-8.0	-	22UIDK60		0.30
		-	48-16	11UIDA55*		0.11
1/4"	1/4"	-	16-12	11UIDB55*	11	0.08
		-	11-7	11UIDL55		0.24
		-	16-12	16UIDB55		0.08
3/8"	3/8"	-	11-7	16UIDL55	16	0.24
		-	6-4	16UIDH55		0.27
		-	4-3	22UIDK55		0.50

»» 皮带轮系列刀片
Belt Pulley Grooving Inserts

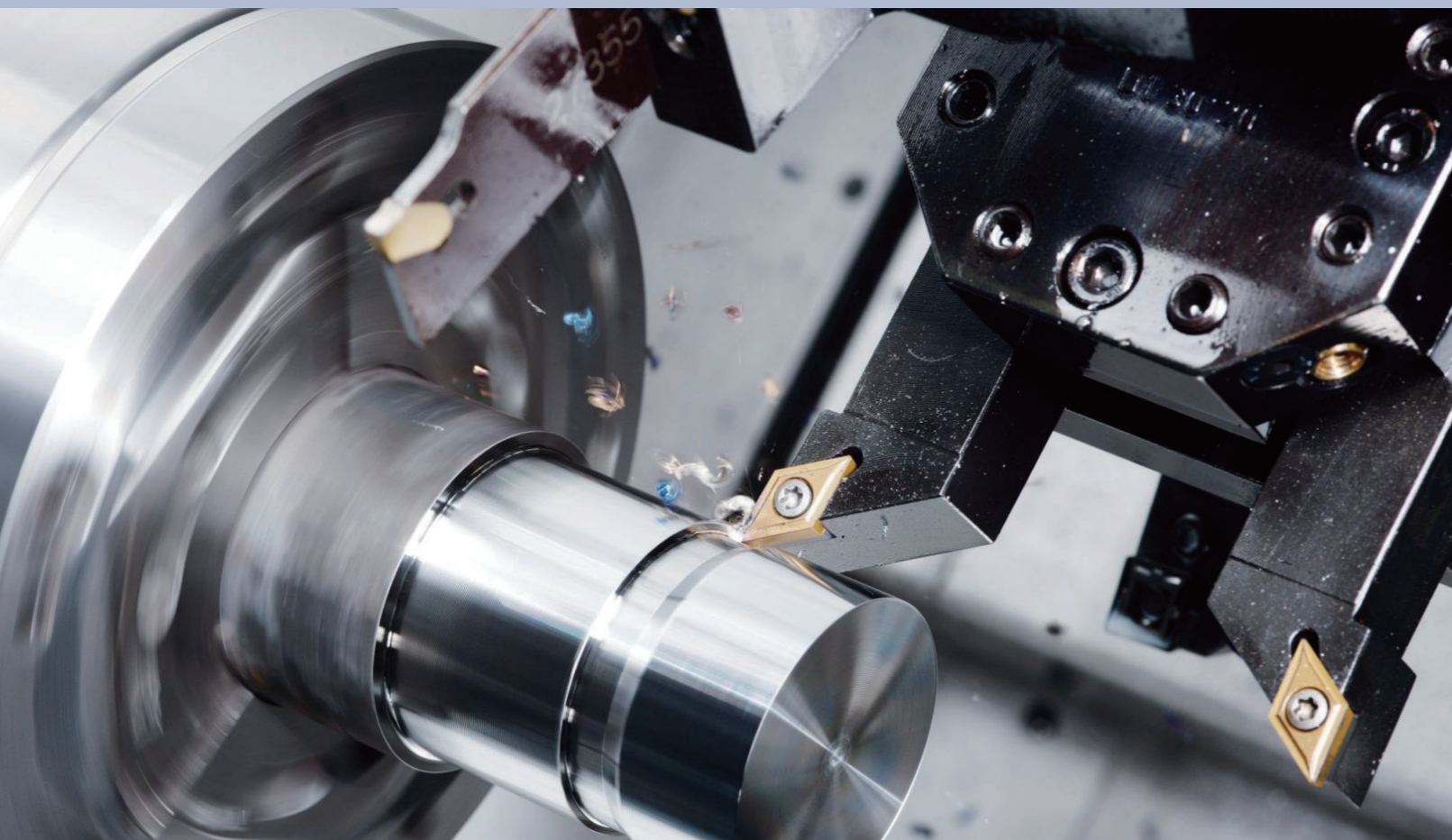


刀片形状 Image	型号 Ordering Code	r	P	a	H	S	R
	PDL40-22	0.4	2.34	40	16.2	4.7	0.2
		0.2	2.34	40	16.2	4.7	0.4
		0.2	3.56	40	16.2	4.7	0.4
		0.25	3.56	40	16.2	4.7	0.4
		0.3	3.56	40	16.2	4.7	0.4
		0.35	3.56	40	16.2	4.7	0.4
	PDL40-12	0.2	3.56	40	26.3	4.7	0.4
		0.3	3.56	40	26.3	4.7	0.4
		0.4	3.56	40	26.3	4.7	0.2
	PDLM40-12	0.2	3.56	40	25.2	4.0	0.4
		0.3	3.56	40	25.2	4.0	0.4
		0.4	3.56	40	25.2	4.0	0.2
	PDLF40-23	0.2	3.56	40	21.3	7.0	0.4
		0.3	3.56	40	21.3	7.0	0.4
		0.4	3.56	40	21.3	7.0	0.2
	PDLS4018234	0.25	3.56	40	17.3	4.8	0.3
		0.3	3.56	40	17.3	4.8	0.4
		0.4	3.56	40	17.3	4.8	0.2

刀片形状 Image	型号 Ordering Code	h	P	a	H	S	R	r	NT
	VDL34R0.41	3.39	3.56	40	27.6	6.3	0.4	0.36	3
	VDL44R0.41	3.39	3.56	40	27.6	6.3	0.4	0.36	4
	VDL64R0.41-3	3.39	3.56	40	27.6	6.3	0.4	0.36	6
	VDL44R0.41-33	3.49	3.56	40	27.6	6.3	0.4	0.36	4
	VDL54R0.41-3B	3.36	3.56	40	27.6	6.3	0.4	0.37	5
	VDL54R0.41-3A	3.22	3.56	40	27.6	6.3	0.4	0.44	5



扫码了解更多

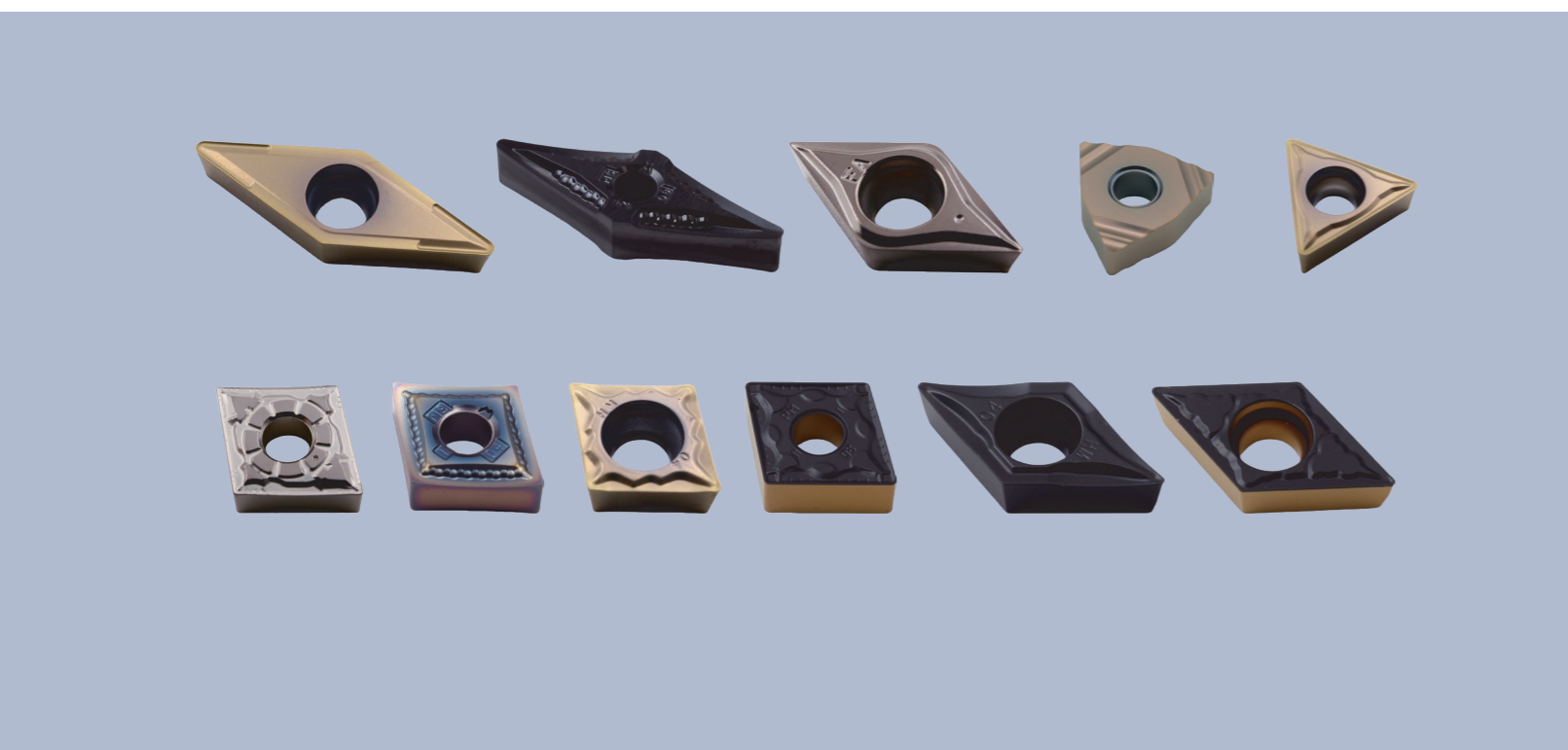


TURNING

车削系列



粗车内圆系列 - Rough Turning Internal	139
粗车外圆系列 - Rough Turning External	149
粗镗 - Rough Boring	164
倒角 - Chamfering	165
精车内圆 - Finish Turning Internal	167
精车外圆 - Finish Turning External	177
精镗 - Finish Boring	179



刀片型号编制说明

NAMING RULES FOR INDEXABLE MILLING

T	N	M	G	16	04	08	JM (ISO)	4	3	2 (inch)
1	2	3	4	5	6	7	8	9	10	11

1 刀片形状/代号 Insert Shape/Code

Diagram illustrating various insert shapes (A through Z) and their corresponding angles. Codes include A (85°), B (82°), C (80°), D (55°), E (75°), H, K (55°), L, M (86°), O, P, R, S, T (75°), V (35°), W (80°), and Z (Other).

2 主切削刃后角 Main Cutting Edge Clearance Angle

代号 Code	后角 Clearance Angle	代号 Code	后角 Clearance Angle
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	其他的后角 Other Clearance Angle

3 公差 Tolerance

(参考) M级精度详细情况 (按形状, 大小分) (Reference) M level accuracy details (by size, shape)
刀尖高度公差 (mm) Tip height tolerance (mm)

代号 Code	m - 刀尖高度公差 (mm) Tip Height Tolerance (mm)	ØI.C. - 内切圆公差 (mm) ØI.C. Tolerance (mm)	S - 厚度公差 (mm) S-Thickness Tolerance (mm)
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
M	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-0.38	±0.08-±0.25	±0.13

内切圆 ØI.C. 公差 (mm) Inscribed Circle Tolerance (mm)

内切圆 ØI.C.	正三角形 Triangle	正方形 Square	80° 菱形 80° Diamond	55° 菱形 55° Diamond	35° 菱形 35° Diamond	圆形 Circle
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	±0.08	±0.08
15.875	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10
19.05	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10
25.4	±0.13	±0.13	±0.13	±0.13	±0.13	±0.13

4 断屑槽及夹固形式 Chipbreaker and Clamping form

代号 Code	有无孔 Hole	有无断屑槽 Chipbreaker	刀片剖面 Insert Profile	代号 Code	有无孔 Hole	有无断屑槽 Chipbreaker	刀片剖面 Insert Profile
B	✓	X	>65°	N	X	X	
H	✓	单面 One-sided	>65°	R	X	单面 One-sided	
C	✓	X	>65°	F	X	双面 Duplex	
J	✓	双面 Duplex	>65°	A	✓	X	
W	✓	X	≤65°	M	✓	单面 One-sided	
T	✓	单面 One-sided	≤65°	G	✓	双面 Duplex	
Q	✓	X	≤65°	X	----	----	特殊 Special
U	✓	双面 Duplex	≤65°				

5 切削刃长度 Cutting Edge Length

内切圆直径 I.C. (mm)	刀片形状 Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5.0			05					
5.56					09			
6.0			06					
6.35	06	07			11	11		
8.0			08					
9.525	09	11	09	09	16	16	06	16
10.0			10					
12.0			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16.0		19	16					
19.05	19		19	19	33			
20.0			20					
25.0	25	25	25					
25.4			25	25				
31.75			31					
32			32					

6 刀片厚度 Insert Thickness

厚度指刀片底面与切削刃最高部分之间的高度
Thickness refers to the height between the bottom of insert and the top of cutting edge.

代号 Code	刀片厚度 (mm) Insert Thickness
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.56
T5	5.96
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.10
12	12.70

T	N	M	G	16	04	08	JM (ISO)	4	3	2 (inch)
1	2	3	4	5	6	7	8	9	10	11

7 刀尖圆弧代号 Corner Radius Code	
代号 Code	刀尖圆弧半径(mm) Corner Radius (mm)
00	无圆角 No Round Angle
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
x	其他 other

刀尖直径尺寸MO (公制) Tip Corner Diameter MO (Metric)

圆形刀片 Circular Insert

8 断屑槽型代号 Chipbreaker Code		
MA	MSK	MS
JM	PF	PM
SJ	GC	V
1L	CL	YZ
HM	TS	MV

9 内切圆 Inscribed Circle	
代号 Code	内切圆直径(mm) I.C. (mm)
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

10 厚度 Thickness	
代号 Code	厚度 Thickness
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

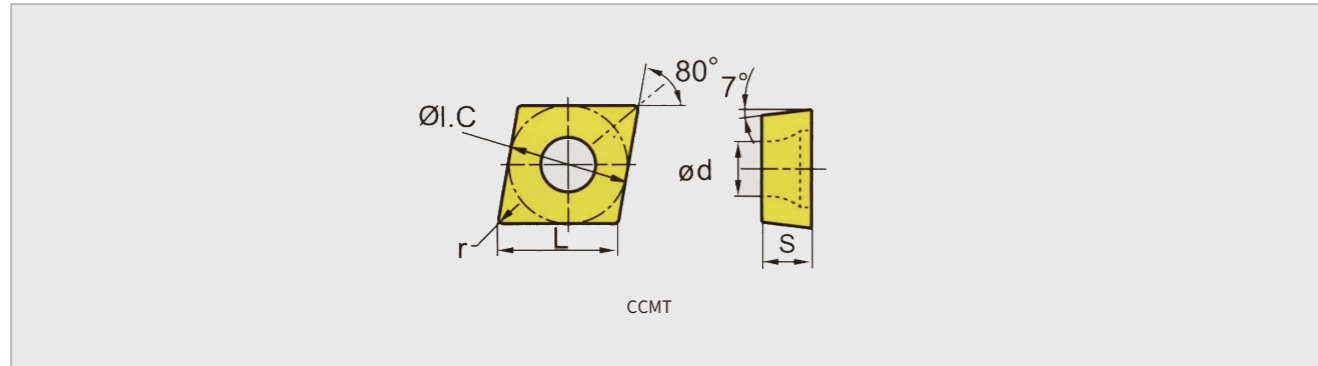
11 刀尖圆弧半径 Corner Radius	
代号 Code	刀尖圆弧半径(mm) Corner Radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

牌号 Grade	颜色 Color	涂层厚度 Thickness (μm)	加工材质范围 Application
RD5235-V88	灰黑色 Grey Black	2-3	物理涂层, 加工HRC 45 以下钢件、不锈钢、球墨铸铁 PVD coating, for HRC 45 steel, stainless steel, ductile iron
RD3225	镜面抛光 Mirror Polished	Uncoated	未涂层, 加工铝、铜等非金属材料 For aluminum, copper, non-metallic materials
RD666	银白色 Cermet Silver	Uncoated	金属陶瓷材质, 加工HRC 45 钢件, 高光洁度 Cermet, for HRC 45 steel, good surface finish

牌号一览表 Grades for Insert Application

牌号 Grade	颜色 Color	涂层厚度 Thickness (μm)	加工材质范围 Application
RD6235-F66	紫红色 Purple	2-3	物理涂层, 加工HRC 45 以下钢件、不锈钢, 锻打件、翻砂材料 PVD coating, for HRC 45 steel, stainless steel, intermitten processing
RD820-J	金黄色 Gold	2-4	巴尔查斯涂层, HRC 50 以下钢件、不锈钢、高温合金、钛合金通用 Balzers coating, for HRC 50 steel, stainless steel, titanium alloy
RD820JX-1	古铜色 Bronze	2-4	巴尔查斯涂层, 加工HRC 58 以下钢件、钛合金、难加工材质 Balzers coating, for HRC 58 steel, titanium alloy, difficult-to-machine materials
RD6235-J68 RD6235-JY68	七彩色 Multi-Color	2-4	物理涂层, 加工HRC 55 以下钢件、不锈钢、粘性材料、高温合金 PVD, for HRC 55 steel, stainless steel, sticky-materials, heat-resistant alloy
RD6235-D155	古铜色 Bronze	2-3	物理涂层, 加工HRC 62 以下硬料, 针对高难度加工材质 PVD coating, for HRC 62 hardened materials, difficult-to-machine materials
RD6235-DZ66	紫红色 Purple	2-3	物理涂层, 加工HRC 45 以下钢件、不锈钢 PVD coating, for HRC 45 steel, stainless steel
RD5215H	深黑色 Dark Black	13-18	化学涂层, 加工HRC 45 以下钢件, 耐磨 CVD coating, for HRC 45 steel, wear-resistant
RDZ5255	深黑色 Dark Black	13-18	化学涂层, 加工球墨铸铁、灰口铸铁、铸钢件 CVD coating, for ductile iron, grey cast iron, casting steel
RDHKZ5255	内孔黄 Yellow Hole	13-18	化学涂层, 加工球墨铸铁, 灰口铸铁, 铸钢件, 双色涂层更抗崩 CVD coating, for ductile iron, grey cast iron, cast steel
RD5555	黑、黄双色 Double Coated	13-18	化学涂层, 加工钢件、铸件, 双色涂层耐磨抗崩 CVD coating, for steel, cast iron, wear-resistant, impact-resistant
DSS-YZ	深黑色 Dark Black	13-18	化学涂层, 专注于加工双相不锈钢 CVD coating, special for duplex stainless steel
RD5235 RD5235-88	紫红色 Purple	2-3	物理涂层, 加工HRC 45 以下钢件、不锈钢 PVD coating, for HRC 45 steel, stainless steel
RD5235-D88CT	银白色 Silver	2-3	物理涂层, 加工钛合金、高温合金、不锈钢 PVD coating, for titanium alloy, heat-resistant alloy, stainless steel

粗车内圆系列
Rough Turning Internal



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
CCMT060202-FG	6.4	6.35	2.38	2.8	0.2
CCMT060202-MS	6.4	6.35	2.38	2.8	0.2
CCMT060202-MSK	6.4	6.35	2.38	2.8	0.2
CCMT060202-MT	6.4	6.35	2.38	2.8	0.2
CCMT060202-TS	6.4	6.35	2.38	2.8	0.2
CCMT060204-FG	6.4	6.35	2.38	2.8	0.4
CCMT060204-HM	6.4	6.35	2.38	2.8	0.4
CCMT060204-MS	6.4	6.35	2.38	2.8	0.4
CCMT060204-MSK	6.4	6.35	2.38	2.8	0.4
CCMT060204-MT	6.4	6.35	2.38	2.8	0.4
CCMT060204-PM	6.4	6.35	2.38	2.8	0.4
CCMT060204-TS	6.4	6.35	2.38	2.8	0.4
CCMT060208-MS	6.4	6.35	2.38	2.8	0.8
CCMT060208-MSK	6.4	6.35	2.38	2.8	0.8
CCMT060208-PM	6.4	6.35	2.38	2.8	0.8
CCMT060208-TS	6.4	6.35	2.38	2.8	0.8
CCMT09T302-MSK	9.7	9.525	3.97	4.4	0.2
CCMT09T302-MT	9.7	9.525	3.97	4.4	0.2
CCMT09T302-PS	9.7	9.525	3.97	4.4	0.2
CCMT09T304-FG	9.7	9.525	3.97	4.4	0.4
CCMT09T304-HM	9.7	9.525	3.97	4.4	0.4
CCMT09T304-MS	9.7	9.525	3.97	4.4	0.4
CCMT09T304-MSK	9.7	9.525	3.97	4.4	0.4
CCMT09T304-MT	9.7	9.525	3.97	4.4	0.4

型号 Model	CCMT06 0202-FG	CCMT060202-MS			CCMT060202-MSK		CCMT06 0202-MT	CCMT06 0202-TS
图片 Picture								
牌号 Grade	RD6255	RD820-J	RD6235-J68	RD6235-D88	RD820JX-1	RD6235-J68	RD6255	RD6235-F66

型号 Model	CCMT06 0204-FG	CCMT060204-HM			CCMT060204-MS		CCMT060204-MSK	
图片 Picture								
牌号 Grade	RD6255	RD5215H	RD820-J	RD820-J	RD5215H	RD6235-J68	RD6235-D88	RD6235-J68

型号 Model	CCMT060 204-MSK	CCMT06 0204-MT	CCMT06 0204-PM	CCMT06 0204-TS	CCMT060208-MS				
图片 Picture									
牌号 Grade	RD820JX-1	RD6255	RD5555	RD6235-F66	RD5215H	RD6235-J68	RD820-J	RD820JX-1	

型号 Model	CCMT060208-MSK		CCMT06 0208-PM	CCMT06 0208-TS	CCMT09T302-MSK			CCMT09 T302-MT
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-J68	RD5555	RD6235-F66	RD820JX-1	RD6235-D88	RD6235-J68	RD6255

型号 Model	CCMT09 T302-PS	CCMT09 T304-FG	CCMT09T304-HM			CCMT09T304-MS		
图片 Picture								
牌号 Grade	RD666	RD6255	RD6235-F66	RD5215H	RD820-J	RD820-J	RD5215H	RD6235-J68

型号 Model	CCMT09T304-MSK			CCMT09 T304-MT			
图片 Picture							
牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	RD6225			



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	D1	RE
CCMT09T304-PM	9.7	9.525	3.97	4.4	0.4
CCMT09T304-PS	9.7	9.525	3.97	4.4	0.4
CCMT09T304-TS	9.7	9.525	3.97	4.4	0.4
CCMT09T308-FG	9.7	9.525	3.97	4.4	0.8
CCMT09T308-MS	9.7	9.525	3.97	4.4	0.8
CCMT09T308-MSK	9.7	9.525	3.97	4.4	0.8
CCMT09T308-MT	9.7	9.525	3.97	4.4	0.8
CCMT09T308-PM	9.7	9.525	3.97	4.4	0.8
CCMT09T308-PS	9.7	9.525	3.97	4.4	0.8
CCMT09T308-TS	9.7	9.525	3.97	4.4	0.8
CCMT120404-MS	12.9	12.7	4.76	5.16	0.4
CCMT120404-PM	12.9	12.7	4.76	5.16	0.4
CCMT120404-TS	12.9	12.7	4.76	5.16	0.4
CCMT120408-HM	12.9	12.7	4.76	5.16	0.8
CCMT120408-MS	12.9	12.7	4.76	5.16	0.8
CCMT120408-PM	12.9	12.7	4.76	5.16	0.8
CCMT120408-TS	12.9	12.7	4.76	5.16	0.8
DCMT070202-FG	7.8	6.35	2.38	2.8	0.2
DCMT070202-MSK	7.8	6.35	2.38	2.8	0.2
DCMT070202-MT	7.8	6.35	2.38	2.8	0.2
DCMT070202-MV	7.8	6.35	2.38	2.8	0.2
DCMT070202-PM	7.8	6.35	2.38	2.8	0.2
DCMT070204-FG	7.8	6.35	2.38	2.8	0.4
DCMT070204-HM	7.8	6.35	2.38	2.8	0.4
DCMT070204-MSK	7.8	6.35	2.38	2.8	0.4
DCMT070204-MT	7.8	6.35	2.38	2.8	0.4
DCMT070204-MV	7.8	6.35	2.38	2.8	0.4
DCMT070204-PM	7.8	7.8	2.38	2.8	0.4

型号 Model	CCMT09 T304-PM	CCMT09 T304-PS	CCMT09 T304-TS	CCMT09 T308-FG	CCMT09T308-MS			CCMT09T 308-MSK
图片 Picture								
牌号 Grade	RD5555	RD666	RD6235-F66	RD6225	RD820-J	RD5215H	RD6235-J68	RD820JX-1

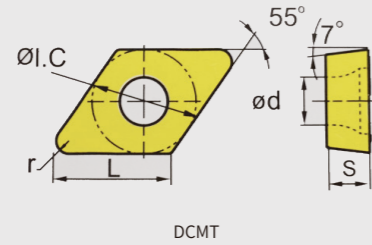
型号 Model	CCMT09T308-MSK		CCMT09 T308-MT	CCMT09 T308-PM	CCMT09 T308-PS	CCMT09 T308-TS	CCMT120404-MS	
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-J68	RD6255	RD5555	RD666	RD6235-F66	RD5215H	RD820-J

型号 Model	CCMT12 0404-MS	CCMT12 0404-PM	CCMT12 0404-TS	CCMT120408-HM		CCMT120408-MS		
图片 Picture								
牌号 Grade	RD6235-J68	RD5555	RD6235-F66	RD820-J	RD5215H	RD820-J	RD5215H	RD6235-J68

型号 Model	CCMT12 0408-PM	CCMT12 0408-TS	DCMT07 0202-FG	DCMT070202-MSK			DCMT07 0202-MT	DCMT07 0202-MV
图片 Picture								
牌号 Grade	RD5555	RD6235-F66	RD6225	RD820JX-1	RD6235-D88	RD6235-J68	RD6255	RD820-J

型号 Model	DCMT070202-MV		DCMT07 0202-PM	DCMT07 0204-FG	DCMT070204-HM		DCMT070204-MSK	
图片 Picture								
牌号 Grade	RD6235-F66	RD6235-J68	RD5555	RD6225	RD820-J	RD5215H	RD820JX-1	RD6235-D88

型号 Model	DCMT07 0204-MSK	DCMT07 0204-MT	DCMT070204-MV				DCMT07 0204-PM
图片 Picture							
牌号 Grade	RD6235-J68	RD6255	RD820-J	RD5215H	RD6235-F66	RD6235-J68	RD5555



DCMT

型号 Model	尺寸 Size (mm)				
	L	øl.C	S	D1	RE
DCMT070208-MT	7.8	7.8	2.38	2.8	0.8
DCMT070208-MV	7.8	7.8	2.38	2.8	0.8
DCMT070208-PM	7.8	7.8	2.38	2.8	0.8
DCMT11T302-FA	11.6	11.6	3.97	4.4	0.2
DCMT11T302-MSK	11.6	11.6	3.97	4.4	0.2
DCMT11T304-FA	11.6	11.6	3.97	4.4	0.4
DCMT11T304-FG	11.6	11.6	3.97	4.4	0.4
DCMT11T304-HM	11.6	11.6	3.97	4.4	0.4
DCMT11T304-MS	11.6	11.6	3.97	4.4	0.4
DCMT11T304-MSK	11.6	11.6	3.97	4.4	0.4
DCMT11T304-MV	11.6	11.6	3.97	4.4	0.4
DCMT11T304-PM	11.6	11.6	3.97	4.4	0.4
DCMT11T308-FA	11.6	11.6	3.97	4.4	0.8
DCMT11T308-FG	11.6	11.6	3.97	4.4	0.8
DCMT11T308-HM	11.6	11.6	3.97	4.4	0.8
DCMT11T308-MS	11.6	11.6	3.97	4.4	0.8
DCMT11T308-MV	11.6	11.6	3.97	4.4	0.8
DCMT11T308-PM	11.6	11.6	3.97	4.4	0.8
SCMT09T304-HM	9.525	9.525	3.97	4.4	0.4
SCMT09T308-HM	9.525	9.525	3.97	4.4	0.8
SCMT120404-HM	12.7	12.7	4.76	5.5	0.4
SCMT120408-HM	12.7	12.7	4.76	5.5	0.8

型号 Model	DCMT070208-MT	DCMT070208-MV				DCMT070208-PM	DCMT11T302-FA	DCMT11T302-MSK
图片 Picture								
牌号 Grade	RD6255	RD820-J	RD5215H	RD6235-F66	RD6235-J68	RD5555	RD666	RD820JX-1

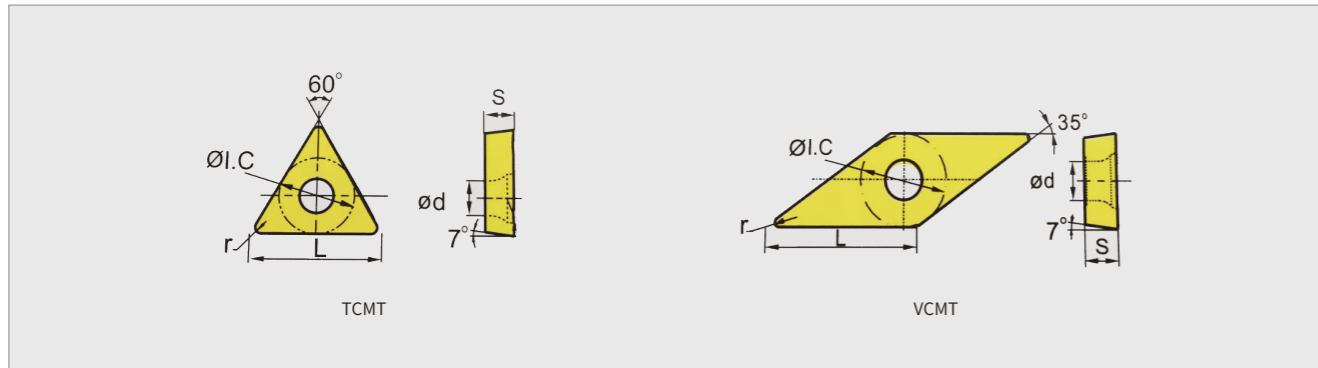
型号 Model	DCMT11T302-MSK	DCMT11T304-FA	DCMT11T304-FG	DCMT11T304-HM		DCMT11T304-MS		
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-J68	RD666	RD6255	RD666	RD820-J	RD5215H	RD820-J

型号 Model	DCMT11T304-MS		DCMT11T304-MSK			DCMT11T304-MV	DCMT11T304-PM	
图片 Picture								
牌号 Grade	RD5215H	RD6235-J68	RD6235-F66	RD820JX-1	RD6235-D88	RD6235-J68	RD820-J	RD5555

型号 Model	DCMT11T308-FA	DCMT11T308-FG	DCMT11T308-HM		DCMT11T308-MS			
图片 Picture								
牌号 Grade	RD666	RD6255	RD820-J	RD5215H	RD820-J	RD5215H	RD6235-J68	RD6235-F66

型号 Model	DCMT11T308-MV	DCMT11T308-PM	SCMT09T304-HM				SCMT09T308-HM	
图片 Picture								
牌号 Grade	RD820-J	RD5555	RD820-J	RD5215H	RD6235-F66	RD6235-J68	RD820-J	RD5215H

型号 Model	SCMT09T308-HM		SCMT120404-HM			SCMT120408-HM		
图片 Picture								
牌号 Grade	RD6235-F66	RD6235-J68	RD820-J	RD5215H	RD6235-J68	RD820-J	RD5215H	RD6235-J68



型号 Model	尺寸 Size (mm)				
	L	Øl.C	S	D1	RE
TCMT090204-HM	9.63	5.56	2.38	2.8	0.4
TCMT110202-MSK	11	6.35	2.38	2.8	0.2
TCMT110204-HM	11	6.35	2.38	2.8	0.4
TCMT110204-MS	11	6.35	2.38	2.8	0.4
TCMT110204-MSK	11	6.35	2.38	2.8	0.4
TCMT110208-HM	11	6.35	2.38	2.8	0.8
TCMT110208-MS	11	6.35	2.38	2.8	0.8
TCMT110304-PM	11	6.35	3.18	2.8	0.4
TCMT110308-PM	11	6.35	3.18	2.8	0.8
TCMT16T304-HM	16.5	9.525	4.76	3.81	0.4
TCMT16T304-MS	16.5	9.525	4.76	3.81	0.4
TCMT16T304-PM	16.5	9.525	4.76	3.81	0.4
TCMT16T308-HM	16.5	9.525	4.76	3.81	0.8
TCMT16T308-MS	16.5	9.525	4.76	3.81	0.8
TCMT16T308-PM	16.5	9.525	4.76	3.81	0.8
VBMT110302-MSK	11	6.35	3.18	2.8	0.2
VBMT110304-MSK	11	6.35	3.18	2.8	0.4
VBMT160402-MSK	16.6	9.525	4.76	4.4	0.2
VBMT160404-MSK	16.6	9.525	4.76	4.4	0.4
VBMT160404-PM	16.6	9.525	4.76	4.4	0.4
VBMT160408-PM	16.6	9.525	4.76	4.4	0.8

型号 Model	TCMT090204-HM			TCMT110202-MSK			TCMT110204-HM	
图片 Picture								
牌号 Grade	RD5215H	RD6235-F66	RD6235-J68	RD820JX-1	RD6235-D88	RD6235-J68	RD5215H	RD820-J

型号 Model	TCMT110204-MS				TCMT110204-MSK			TCMT110208-HM
图片 Picture								
牌号 Grade	RD820-J	RD5215H	RD6235-J68	RD6235-F66	RD820JX-1	RD6235-D88	RD6235-J68	RD5215H

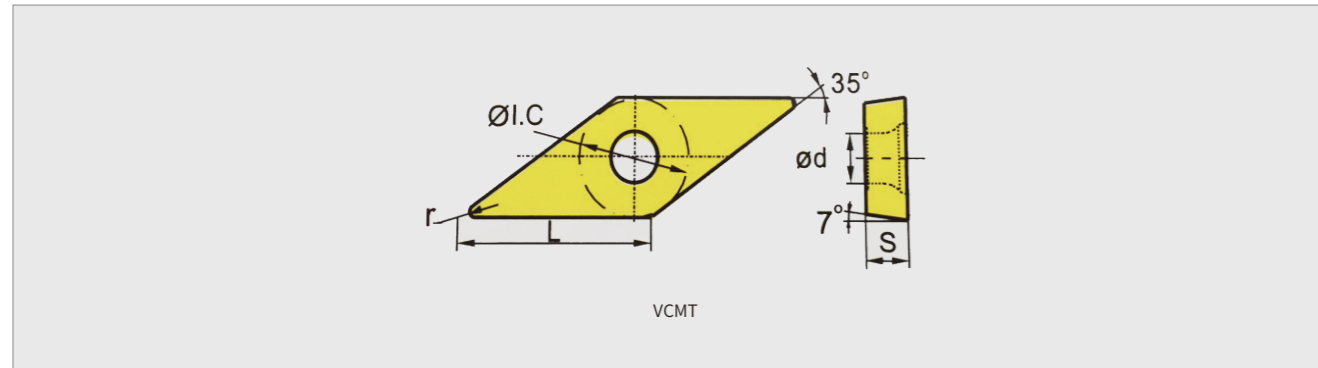
型号 Model	TCMT110208-MS				TCMT110304-PM	TCMT110308-PM	TCMT16T304-HM	
图片 Picture								
牌号 Grade	RD820-J	RD5215H	RD6235-J68	RD6235-F66	RD5555	RD5555	RD820-J	RD5215H

型号 Model	TCMT16T304-MS				TCMT16T304-PM	TCMT16T308-HM		TCMT16T308-MS
图片 Picture								
牌号 Grade	RD820-J	RD5215H	RD6235-J68	RD6235-F66	RD5555	RD820-J	RD5215H	RD820-J

型号 Model	TCMT16T308-MS			TCMT16T308-PM	VBMT110302-MSK			VBMT110304-MSK
图片 Picture								
牌号 Grade	RD5215H	RD6235-F66	RD6235-J68	RD5555	RD6235-D88	RD6235-J68	RD820JX-1	RD820JX-1

型号 Model	VBMT110304-MSK	VBMT160402-MSK			VBMT160404-MSK			
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-J68	RD820JX-1	RD6235-J68	RD6235-D88	RD820JX-1	RD6235-D88	RD6235-J68

型号 Model	VBMT160404-PM	VBMT160408-PM						
图片 Picture								
牌号 Grade	RD5555	RD5555						

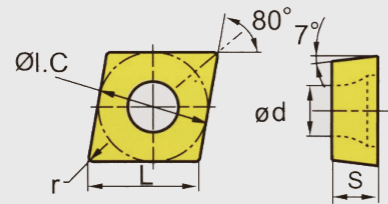


型号 Model	尺寸 Size (mm)				
	L	$\phi I.C$	S	D1	RE
VBMT160412-PM	16.6	9.525	4.76	4.4	1.2
VCMT110304-MS	11	6.35	3.18	2.8	0.4
VCMT160404-MS	16.6	9.525	4.76	4.4	0.4
VCMT160408-MS	16.6	9.525	4.76	4.4	0.8

型号 Model	VBMT160412-PM	VCMT110304-MS				VCMT160404-MS		
图片 Picture								
牌号 Grade	RD5555	RD820-J	RD5215H	RD6235-F66	RD6235-J68	RD820-J	RD5215H	RD6235-J68

型号 Model	VCMT160404-MS	VCMT160408-MS						
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD5215H	RD6235-F66	RD6235-J68			

粗车外圆系列
Rough Turning External



CNMA / CNMG

型号 Model	尺寸 Size (mm)				
	L	øl.C	S	ød	r
CNMA120404	12.9	12.7	4.76	5.16	0.4
CNMA120408	12.9	12.7	4.76	5.16	0.8
CNMA120412	12.9	12.7	4.76	5.16	1.2
CNMG120402-MSK	12.9	12.7	4.76	5.16	0.2
CNMG120402-LH	12.9	12.7	4.76	5.16	0.2
CNMG120404-JM	12.9	12.7	4.76	5.16	0.4
CNMG120404-43	12.9	12.7	4.76	5.16	0.4
CNMG120404-LH	12.9	12.7	4.76	5.16	0.4
CNMG120404-MA	12.9	12.7	4.76	5.16	0.4
CNMG120404-MS	12.9	12.7	4.76	5.16	0.4
CNMG120404-MSK	12.9	12.7	4.76	5.16	0.4
CNMG120404-PF	12.9	12.7	4.76	5.16	0.4
CNMG120404-PM	12.9	12.7	4.76	5.16	0.4
CNMG120404-SJ	12.9	12.7	4.76	5.16	0.4
CNMG120404-TM	12.9	12.7	4.76	5.16	0.4
CNMG120408-JM	12.9	12.7	4.76	5.16	0.8
CNMG120408-43	12.9	12.7	4.76	5.16	0.8
CNMG120408-LH	12.9	12.7	4.76	5.16	0.8
CNMG120408-FG	12.9	12.7	4.76	5.16	0.8
CNMG120408-MA	12.9	12.7	4.76	5.16	0.8
CNMG120408-MS	12.9	12.7	4.76	5.16	0.8
CNMG120408-MSK	12.9	12.7	4.76	5.16	0.8
CNMG120408-PF	12.9	12.7	4.76	5.16	0.8
CNMG120408-PM	12.9	12.7	4.76	5.16	0.8
CNMG120408-SJ	12.9	12.7	4.76	5.16	0.8
CNMG120408-TM	12.9	12.7	4.76	5.16	0.8

型号 Model	CNMA 120404	CNMA120408			CNMA 120412	CNMG120402-MSK		
图片 Picture								
牌号 Grade	RD6235-D155	RD6235-D155	RDZ5255	RDZ5255	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ

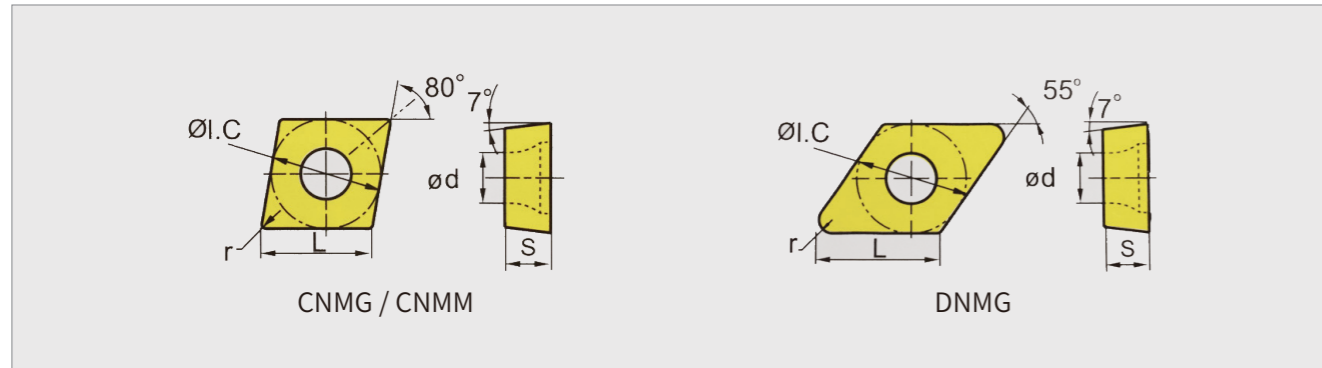
型号 Model	CNMG12 0402-LH	CNMG12 0404-JM	CNMG12 0404-43	CNMG120404-MA			CNMG12 0404-FG	CNMG12 0404-MT
图片 Picture								
牌号 Grade	RD3225	RD6235-D155	RD5555	RD6235-F66	RD820-J	RD6235-J68	RD666	RD666

型号 Model	CNMG120404-MS				CNMG120404-MSK			
图片 Picture								
牌号 Grade	RD820-JY	RD6235-DY66	RD6235-JY68	DSS-YZ	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ

型号 Model	CNMG12 0404-PF	CNMG12 0404-PM	CNMG12 0404-SJ	CNMG12 0404-TM	CNMG12 0404-LH	CNMG12 0408-JM	CNMG12 0408-43	CNMG12 0408-FG
图片 Picture								
牌号 Grade	RD5215H	RD5555	RDZ5255	RD5555	RD3225	RD6235-D155	RD5555	RD666

型号 Model	CNMG120408-MA				CNMG120408-MS			CNMG12 0408-LH
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD6235-JY68	RD820-JY	RD6235-DY66	DSS-YZ	RD3225

型号 Model	CNMG120408-MSK				CNMG12 0408-PF	CNMG12 0408-PM	CNMG12 0408-SJ	CNMG12 0408-TM
图片 Picture								
牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD5215H	RD5555	RDZ5255	RD5555



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	ød	r
CNMG120412-43	12.9	12.7	4.76	5.16	1.2
CNMG120412-MA	12.9	12.7	4.76	5.16	1.2
CNMG120412-MS	12.9	12.7	4.76	5.16	1.2
CNMG120412-PF	12.9	12.7	4.76	5.16	1.2
CNMG120412-PM	12.9	12.7	4.76	5.16	1.2
CNMG120412-SJ	12.9	12.7	4.76	5.16	1.2
CNMG120412-TM	12.9	12.7	4.76	5.16	1.2
CNMG160604-PM	16.1	15.87	6.35	6.35	0.4
CNMG160608-PM	16.1	15.87	6.35	6.35	0.8
CNMG160612-PM	16.1	15.87	6.35	6.35	1.2
CNMG190604-PM	19.3	19.05	6.35	7.94	0.4
CNMG190608-PM	19.3	19.05	6.35	7.94	0.8
CNMG190612-PM	19.3	19.05	6.35	7.94	1.2
CNMG190612-PR	19.3	19.05	6.35	7.94	1.2
CNMG190616-PM	19.3	19.05	6.35	7.94	1.6
CNMG190616-PR	19.3	19.05	6.35	7.94	1.6
CNMG190624-PR	19.3	19.05	6.35	7.94	2.4
CNMM190612-PR	19.3	19.05	6.35	7.94	1.2
CNMM190624-PR	19.3	19.05	6.35	7.94	2.4
CNMM250924-PR	25.792	25.4	9.525	9.119	2.4
DNMG150404-MA	15.5	12.7	4.76	5.16	0.4
DNMG150404-PF	15.5	12.7	4.76	5.16	0.4
DNMG150404-MT	15.5	12.7	4.76	5.16	0.4
DNMG150408-MA	15.5	12.7	4.76	5.16	0.8
DNMG150408-PF	15.5	12.7	4.76	5.16	0.8
DNMG150408-MT	15.5	12.7	4.76	5.16	0.8
DNMG150412-MA	15.5	12.7	4.76	5.16	1.2
DNMG150412-PF	15.5	12.7	4.76	5.16	1.2

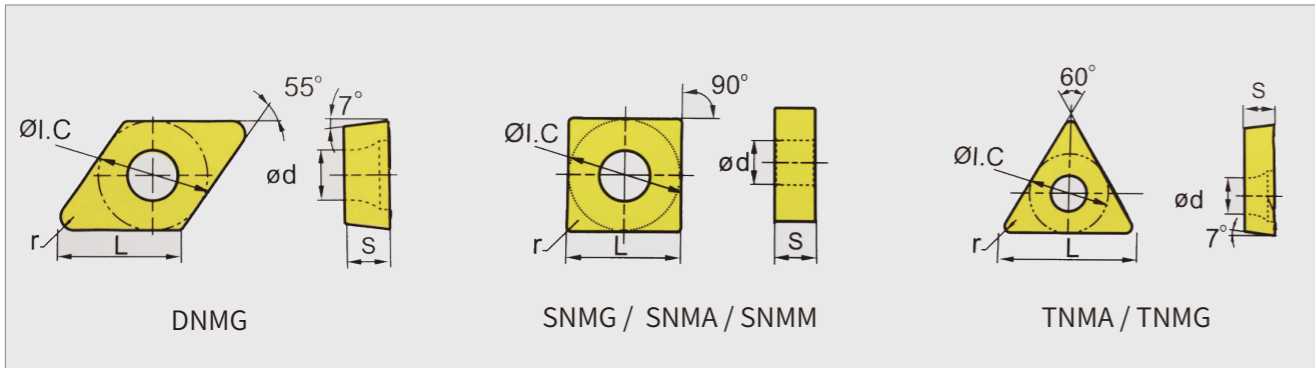
型号 Model	CNMG12 0412-43	CNMG120412-MA				CNMG120412-MS		CNMG12 0412-PF	CNMG12 0412-TM
图片 Picture									
牌号 Grade	RD5555	RD6235-F66	RD820-J	RD6235-J68	RD820-JY	RD6235-JY68	RD5215H	RD5555	

型号 Model	CNMG120412-SJ	CNMG12 0412-PM	CNMG16 0604-PM	CNMG16 0608-PM	CNMG16 0612-PM	CNMG19 0604-PM	CNMG19 0608-PM
图片 Picture							
牌号 Grade	RDZ5255	RDHKZ5255	RD5555	RD5555	RD5555	RD5555	RD5555

型号 Model	CNMG19 0612-PM	CNMG19 0616-PM	CNMG19 0612-PR	CNMG19 0616-PR	CNMG19 0624-PR	CNMM19 0612-PR	CNMM19 0624-PR	CNMM25 0924-PR
图片 Picture								
牌号 Grade	RD5555	RD5555	RD5555	RD5555	RD5555	RD5555	RD5555	RD5555

型号 Model	DNMG150404-MA			DNMG15 0404-PF	DNMG15 0404-MT	DNMG150408-MA		
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD5215H	RD6255	RD6235-F66	RD820-J	RD6235-J68

型号 Model	DNMG15 0408-PF	DNMG15 0408-MT	DNMG150412-MA			DNMG15 0412-PF
图片 Picture						
牌号 Grade	RD5215H	RD6255	RD6235-F66	RD820-J	RD6235-J68	RD5215H



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	ød	r
DNMG150604-MA	15.5	12.7	6.35	5.16	0.4
DNMG150604-PM	15.5	12.7	6.35	5.16	0.4
DNMG150608-MA	15.5	12.7	6.35	5.16	0.8
DNMG150608-PM	15.5	12.7	6.35	5.16	0.8
DNMG150612-PM	15.5	12.7	6.35	5.16	1.2
SNMG120404-HA	12.7	12.7	4.76	5.16	0.4
SNMG120404-MA	12.7	12.7	4.76	5.16	0.4
SNMG120404-PF	12.7	12.7	4.76	5.16	0.4
SNMA120408	12.7	12.7	4.76	5.16	0.8
SNMG120408-MA	12.7	12.7	4.76	5.16	0.8
SNMG120408-PF	12.7	12.7	4.76	5.16	0.8
SNMG120408-SJ	12.7	12.7	4.76	5.16	0.8
SNMG120412-MA	12.7	12.7	4.76	5.16	1.2
SNMG120412-SJ	12.7	12.7	4.76	5.16	1.2
SNMG150608-PM	15.875	15.875	6.35	6.35	0.8
SNMG150612-PM	15.875	15.875	6.35	6.35	1.2
SNMG190612-PR	19.05	19.05	6.35	7.925	1.2
SNMG190616-PM	19.05	19.05	6.35	7.925	1.6
SNMG190624-PR	19.05	19.05	6.35	7.925	2.4
SNMG250724-PR	25.4	25.4	7.938	9.119	2.4
SNMM250724-PR	25.4	25.4	7.938	9.119	2.4
SNMM250924-PR	25.4	25.4	9.525	9.119	2.4
TNMA160404	16.5	9.525	4.76	3.81	0.4
TNMA160408	16.5	9.525	4.76	3.81	0.8
TNMA160412	16.5	9.525	4.76	3.81	1.2
TNMG160402-MSK	16.5	9.525	4.76	3.81	0.2
TNMG160402-LH	16.5	9.525	4.76	3.81	0.2
TNMG160404-JM	16.5	9.525	4.76	3.81	0.4
TNMG160404-43	16.5	9.525	4.76	3.81	0.4

型号 Model	DNMG150604-MA			DNMG150604-PF	DNMG150604-PM	DNMG150608-MA		
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD5215H	RD5555	RD6235-F66	RD820-J	RD6235-J68

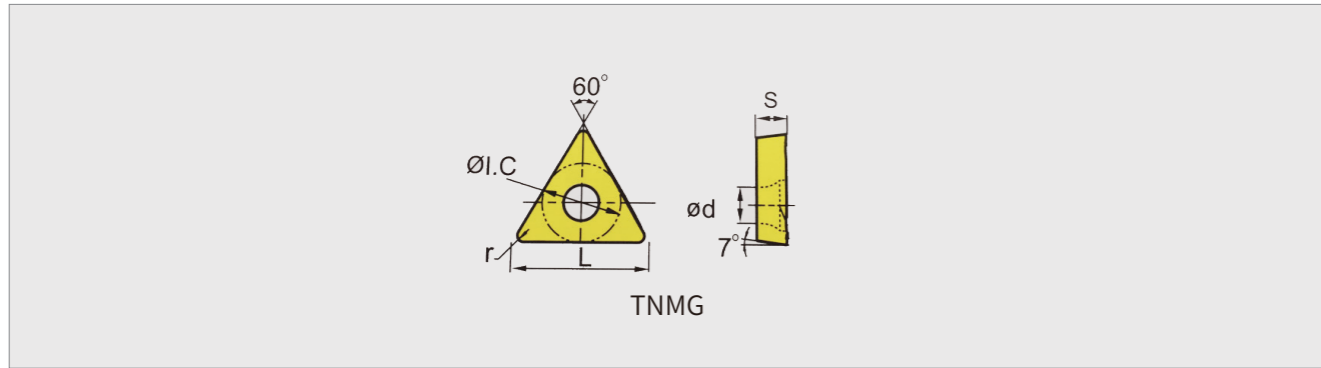
型号 Model	DNMG150608-PF	DNMG150608-PM	DNMG150612-PM	SNMG120404-HA		SNMG120404-MA		
图片 Picture								
牌号 Grade	RD5215H	RD5555	RD5555	RD6235-J68	RD820-J	RD6235-F66	RD820-J	RD6235-J68

型号 Model	SNMG120404-PF	SNMA120408	SNMG120408-MA			SNMG120408-PF	SNMG120408-SJ	
图片 Picture								
牌号 Grade	RD5215H	RDHKZ5255	RD6235-F66	RD820-J	RD6235-J68	RD5215H	RDZ5255	RDHKZ5255

型号 Model	SNMG120412-MA		SNMG120412-SJ		SNMG150608-PM	SNMG150612-PM	SNMG190616-PM	SNMG190612-PR
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RDZ5255	RDHKZ5255	RD5555	RD5555	RD5555	RD5555

型号 Model	SNMG190616-PR	SNMG250724-PR	SNMM250724-PR	SNMM250924-PR	TNMA160404		TNMA160408	
图片 Picture								
牌号 Grade	RD5555	RD5555	RD5555	RD5555	RDZ5255	RD6235-D155	RDZ5255	RD6235-D155

型号 Model	TNMA160404	TNMG160402-MSK				TNMG160402-LH	TNMG160404-JM	TNMG160404-43
图片 Picture								
牌号 Grade	RDZ5255	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD5555	RD6235-D155	RD5555



型号 Model	尺寸 Size (mm)				
	L	øl.C	S	ød	r
TNMG160404-FG	16.5	9.525	4.76	3.81	0.4
TNMG160404R-GC	16.5	9.525	4.76	3.81	0.4
TNMG160404R-VF	16.5	9.525	4.76	3.81	0.4
TNMG160404L-GC	16.5	9.525	4.76	3.81	0.4
TNMG160404-MA	16.5	9.525	4.76	3.81	0.4
TNMG160404-MS	16.5	9.525	4.76	3.81	0.4
TNMG160404-MT	16.5	9.525	4.76	3.81	0.4
TNMG160404-MSK	16.5	9.525	4.76	3.81	0.4
TNMG160404-PF	16.5	9.525	4.76	3.81	0.4
TNMG160404-TM	16.5	9.525	4.76	3.81	0.4
TNMG160404-PM	16.5	9.525	4.76	3.81	0.4
TNMG160404-TS	16.5	9.525	4.76	3.81	0.4
TNMG160404R-LR	16.5	9.525	4.76	3.81	0.4
TNMG160404L-LR	16.5	9.525	4.76	3.81	0.4
TNMG160404R-S	16.5	9.525	4.76	3.81	0.4
TNMG160404L-S	16.5	9.525	4.76	3.81	0.4
TNMG160404L-VF	16.5	9.525	4.76	3.81	0.4
TNMG160404-SJ	16.5	9.525	4.76	3.81	0.4
TNMG160404-LH	16.5	9.525	4.76	3.81	0.4
TNMG160408-43	16.5	9.525	4.76	3.81	0.8
TNMG160408R-GC	16.5	9.525	4.76	3.81	0.8
TNMG160408L-GC	16.5	9.525	4.76	3.81	0.8
TNMG160408-JM	16.5	9.525	4.76	3.81	0.8
TNMG160408-MA	16.5	9.525	4.76	3.81	0.8
TNMG160408-MS	16.5	9.525	4.76	3.81	0.8

型号 Model	TNMG16 0404-FG	TNMG160404R-GC				TNMG16 0404R-VF	TNMG160404L-GC		
图片 Picture									
牌号 Grade	RD6255	RD5215H	RD6235-J66	RD6235-J68	RD6235-J68	RD5215H	RD6235-J66	RD6235-J68	

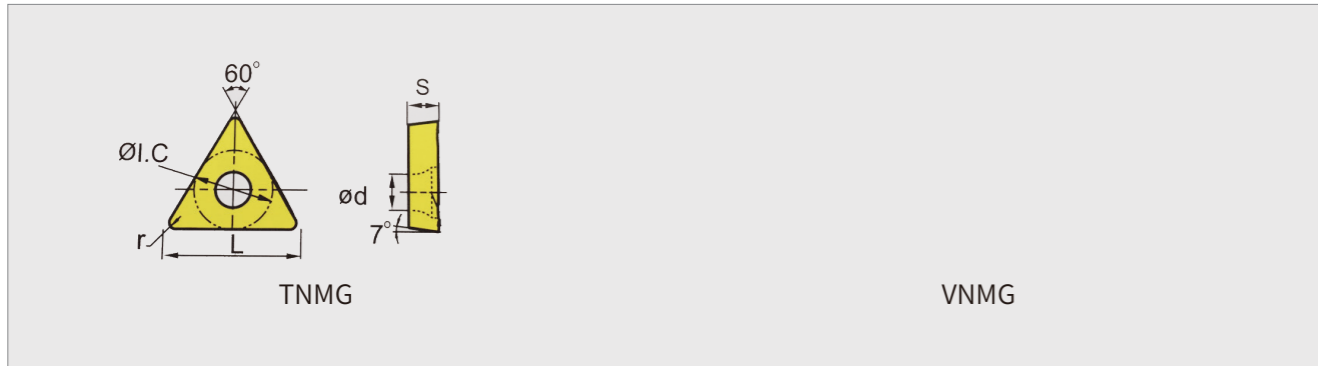
型号 Model	TNMG160404-MA				TNMG160404-MS			TNMG16 0404-MT
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD820-JY	RD6235-JY68	RD6235-DY66	DSS-YZ	RD666

型号 Model	TNMG160404-MSK				TNMG16 0404-PF	TNMG16 0404-TM	TNMG16 0404-PM	TNMG16 0404-TS
图片 Picture								
牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD5215H	RD5555	RD5555	RD666

型号 Model	TNMG16 0404R-LR	TNMG16 0404L-LR	TNMG16 0404R-S	TNMG16 0404L-S	TNMG16 0404R-VF	TNMG16 0404L-VF	TNMG160404-SJ	
图片 Picture								
牌号 Grade	RD666	RD666	RD666	RD666	RD666	RD666	RDZ5255	RDHKZ5255

型号 Model	TNMG16 0404-LH	TNMG16 0408-43	TNMG160408R-GC				TNMG160408L-GC		
图片 Picture									
牌号 Grade	RD3225	RD5555	RD5215H	RD6235-J66	RD6235-J68	RD5215H	RD6235-J66	RD6235-J68	

型号 Model	TNMG16 0408-JM	TNMG160408-MA				TNMG160408-MS			
图片 Picture									
牌号 Grade	RD6235-D155	RD820-J	RD6235-F66	RD6235-J68	RD820-JY	RD6235-JY68	DSS-YZ	RD6235-DY66	



型号 Model	尺寸 Size (mm)				
	L	Ø1.C	S	Ød	r
TNMG160408-MSK	16.5	9.525	4.76	3.81	0.8
TNMG160408-PF	16.5	9.525	4.76	3.81	0.8
TNMG160408-TM	16.5	9.525	4.76	3.81	0.8
TNMG160408-PM	16.5	9.525	4.76	3.81	0.8
TNMG160408-TS	16.5	9.525	4.76	3.81	0.8
TNMG160408R-S	16.5	9.525	4.76	3.81	0.8
TNMG160408L-S	16.5	9.525	4.76	3.81	0.8
TNMG160408R-VF	16.5	9.525	4.76	3.81	0.8
TNMG160408L-VF	16.5	9.525	4.76	3.81	0.8
TNMG160408-SJ	16.5	9.525	4.76	3.81	0.8
TNMG160408-LH	16.5	9.525	4.76	3.81	0.8
TNMG160412-43	16.5	9.525	4.76	3.81	1.2
TNMG160412-MA	16.5	9.525	4.76	3.81	1.2
TNMG160412-MS	16.5	9.525	4.76	3.81	1.2
TNMG160412-PF	16.5	9.525	4.76	3.81	1.2
TNMG160412-TM	16.5	9.525	4.76	3.81	1.2
TNMG160412-PM	16.5	9.525	4.76	3.81	1.2
TNMG160412-SJ	16.5	9.525	4.76	3.81	1.2
TNMG220404-PM	22	12.7	4.76	5.16	1.2
TNMG220408-PM	22	12.7	4.76	5.16	1.2
TNMG220412-PM	22	12.7	4.76	5.16	1.2
VNMG160402-LH	16.6	9.525	4.76	3.81	0.2
VNMG160402-MSK	16.6	9.525	4.76	3.81	0.2
VNMG160404-JM	16.6	9.525	4.76	3.81	0.4
VNMG160404-43	16.6	9.525	4.76	3.81	0.4
VNMG160404-PF	16.6	9.525	4.76	3.81	0.4
VNMG160404-TM	16.6	9.525	4.76	3.81	0.4
VNMG160404-PM	16.6	9.525	4.76	3.81	0.4
VNMG160404-MA	16.6	9.525	4.76	3.81	0.4
VNMG160404-MS	16.6	9.525	4.76	3.81	0.4

型号 Model	TNMG160408-MSK				TNMG16 0408-PF	TNMG16 0408-TM	TNMG16 0408-PM	TNMG16 0408-TS
图片 Picture								
牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD5215H	RD5555	RD5555	RD666

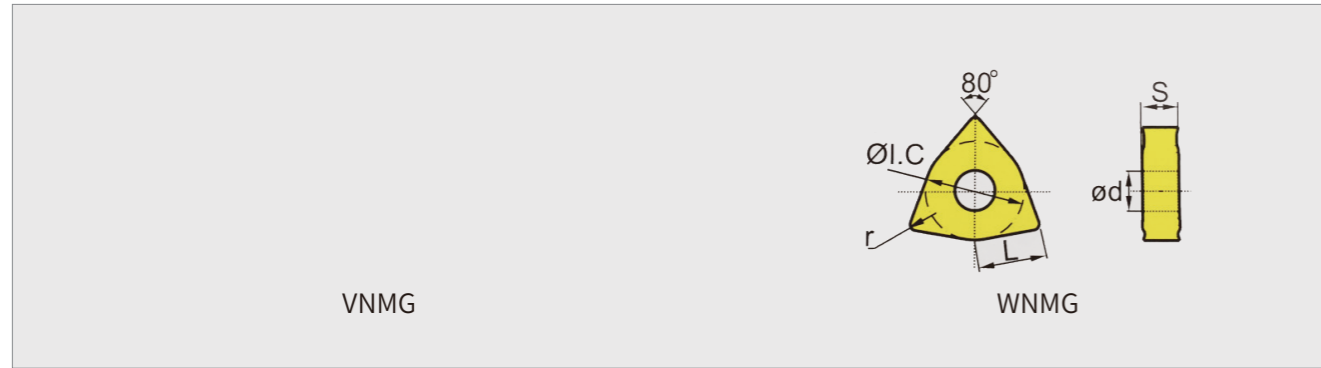
型号 Model	TNMG16 0408R-S	TNMG16 0408L-S	TNMG16 0408R-VF	TNMG16 0408L-VF	TNMG160408-SJ		TNMG16 0408-LH	TNMG16 0412-43
图片 Picture								
牌号 Grade	RD666	RD666	RD666	RD666	RDZ5255	RDHKZ5255	RD3225	RD5555

型号 Model	TNMG160412-MA			TNMG160412-MS		TNMG16 0412-PF	TNMG16 0412-TM	TNMG16 0412-PM
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD820-JY	RD6235-JY68	RD5215H	RD5555	RD5555

型号 Model	TNMG160412-SJ	TNMG22 0404-PM	TNMG22 0408-PM	TNMG22 0412-PM	VNMA 160404	VNMA 160408	VNMG16 0402-LH	
图片 Picture								
牌号 Grade	RDZ5255	RDHKZ5255	RD5555	RD5555	RD5555	RD6235-D155	RD6235-D155	RD3225

型号 Model	VNMG160402-MSK				VNMG16 0404-JM	VNMG16 0404-43	VNMG16 0404-PF	VNMG16 0404-TM
图片 Picture								
牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD6235-D155	RD5555	RD5215H	RD5555

型号 Model	VNMG16 0404-PM	VNMG160404-MA			VNMG160404-MS			
图片 Picture								
牌号 Grade	RD5555	RD6235-F66	RD820-J	RD6235-J68	RD820-JY	RD6235-JY68	RD6235-DY66	DSS-YZ



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	ød	r
VNMG160404-MSK	16.6	9.525	4.76	3.81	0.4
VNMG160404-SJ	16.6	9.525	4.76	3.81	0.4
VNMG160404-MT	16.6	9.525	4.76	3.81	0.4
VNMG160404-FG	16.6	9.525	4.76	3.81	0.4
VNMG160404-LH	16.6	9.525	4.76	3.81	0.8
VNMG160408-JM	16.6	9.525	4.76	3.81	0.8
VNMG160408-43	16.6	9.525	4.76	3.81	0.8
VNMG160408-PF	16.6	9.525	4.76	3.81	0.8
VNMG160408-TM	16.6	9.525	4.76	3.81	0.8
VNMG160408-PM	16.6	9.525	4.76	3.81	0.8
VNMG160408-SJ	16.6	9.525	4.76	3.81	0.8
VNMG160408-MT	16.6	9.525	4.76	3.81	0.8
VNMG160408-MA	16.6	9.525	4.76	3.81	0.8
VNMG160408-MS	16.6	9.525	4.76	3.81	0.8
VNMG160408-LH	16.6	9.525	4.76	3.81	0.8
VNMG160408-MSK	16.6	9.525	4.76	3.81	0.8
VNMG160412-43	16.6	9.525	4.76	3.81	1.2
VNMG160412-PM	8.7	12.7	4.75	5.16	1.2
WNMA080404	8.7	12.7	4.75	5.16	0.4
WNMA080408	8.7	12.7	4.75	5.16	0.8
WNMA080412	8.7	12.7	4.76	5.16	1.2
WNMG080402-MSK	8.7	12.7	4.76	5.16	0.2
WNMG080402-LH	8.7	12.7	4.76	5.16	0.2
WNMG080404-JM	8.7	12.7	4.76	5.16	0.4
WNMG080404-43	8.7	12.7	4.76	5.16	0.4
WNMG080404R-GC	8.7	12.7	4.76	5.16	0.4
WNMG080404L-GC	8.7	12.7	4.76	5.16	0.4

型号 Model	VNMG160404-MSK				VNMG160404-SJ		VNMG16 0404-MT	VNMG16 0404-FG
图片 Picture								
牌号 Grade	DSS-YZ	RD820JX-1	RD6235-D88	RD6235-J68	RDZ5255	RDZHK5255	RD666	RD666

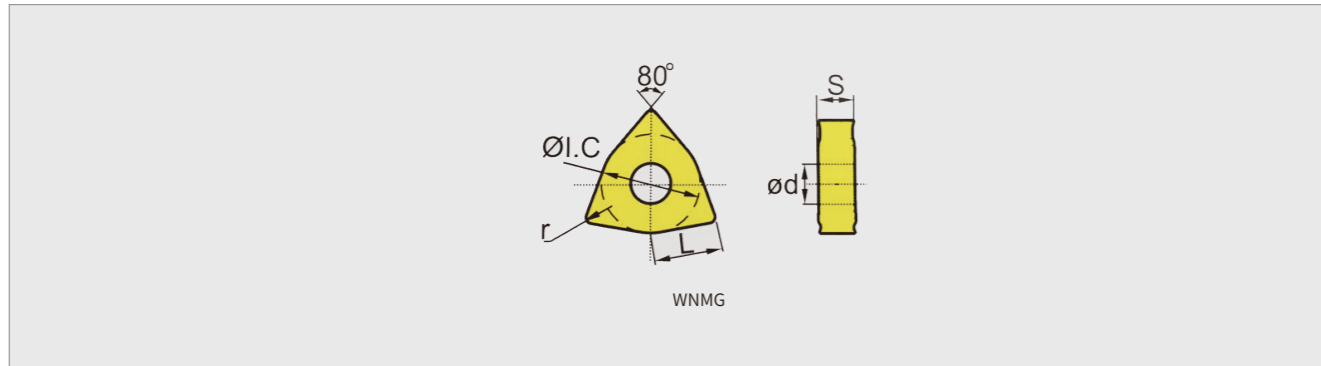
型号 Model	VNMG16 0404-LH	VNMG16 0408-JM	VNMG16 0408-43	VNMG16 0408-PF	VNMG16 0408-TM	VNMG16 0408-PM	VNMG16 0408-SJ	VNMG16 0408-MT
图片 Picture								
牌号 Grade	RD3225	RD6235-D155	RD5555	RD5215H	RD5555	RD5555	RDZ5255	RD666

型号 Model	VNMG160408-MA				VNMG160408-MS			VNMG16 0408-LH
图片 Picture								
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD820-JY	RD6235-JY68	RD6235-DY66	DSS-YZ	RD3225

型号 Model	VNMG160408-MSK				VNMG16 0412-43	VNMG16 0412-PM	WNMA080404	
图片 Picture								
牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD5555	RD5555	RDZ5255	RD6235-D155

型号 Model	WNMA080408	WNMA 080412	WNMG080402-MSK				WNMG08 0402-LH	
图片 Picture								
牌号 Grade	RDZ5255	RD6235-D155	RDZ5255	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD3225

型号 Model	WNMG08 0404-JM	WNMG08 0404-43	WNMG080404R-GC			WNMG080404L-GC		
图片 Picture								
牌号 Grade	RD6235-D155	RD5555	RD5215H	RD6235-J66	RD6235-J68	RD5215H	RD6235-J66	RD6235-J68



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	ød	r
WNMG080404-MA	8.7	12.7	4.76	5.16	0.4
WNMG080404-MS	8.7	12.7	4.76	5.16	0.4
WNMG080404-MT	8.7	12.7	4.76	5.16	0.4
WNMG080404-MSK	8.7	12.7	4.76	5.16	0.4
WNMG080404-PF	8.7	12.7	4.76	5.16	0.4
WNMG080404-TM	8.7	12.7	4.76	5.16	0.4
WNMG080404-PM	8.7	12.7	4.76	5.16	0.4
WNMG080404-LH	8.7	12.7	4.76	5.16	0.4
WNMG080404-SJ	8.7	12.7	4.76	5.16	0.4
WNMG080408-JM	8.7	12.7	4.76	5.16	0.8
WNMG080408-43	8.7	12.7	4.76	5.16	0.8
WNMG080408-MT	8.7	12.7	4.76	5.16	0.8
WNMG080408R-GC	8.7	12.7	4.76	5.16	0.8
WNMG080408L-GC	8.7	12.7	4.76	5.16	0.8
WNMG080408-MA	8.7	12.7	4.76	5.16	0.8
WNMG080408-PF	8.7	12.7	4.76	5.16	0.8
WNMG080408-TM	8.7	12.7	4.76	5.16	0.8
WNMG080408-MS	8.7	12.7	4.76	5.16	0.8
WNMG080408-MSK	8.7	12.7	4.76	5.16	0.8
WNMG080408-PM	8.7	12.7	4.76	5.16	0.8
WNMG080408-SJ	8.7	12.7	4.76	5.16	0.8
WNMG080408-LH	8.7	12.7	4.76	5.16	0.8
WNMG080412-43	8.7	12.7	4.76	5.16	1.2
WNMG080412-MA	8.7	12.7	4.76	5.16	1.2

型号 Model	WNMG080404-MA			WNMG080404-MS			WNMG080404-MT
图片 Picture							
牌号 Grade	RD6235-F66	RD820-J	RD6235-J68	RD820-JY	RD6235-JY68	RD6235-DY66	DSS-YZ

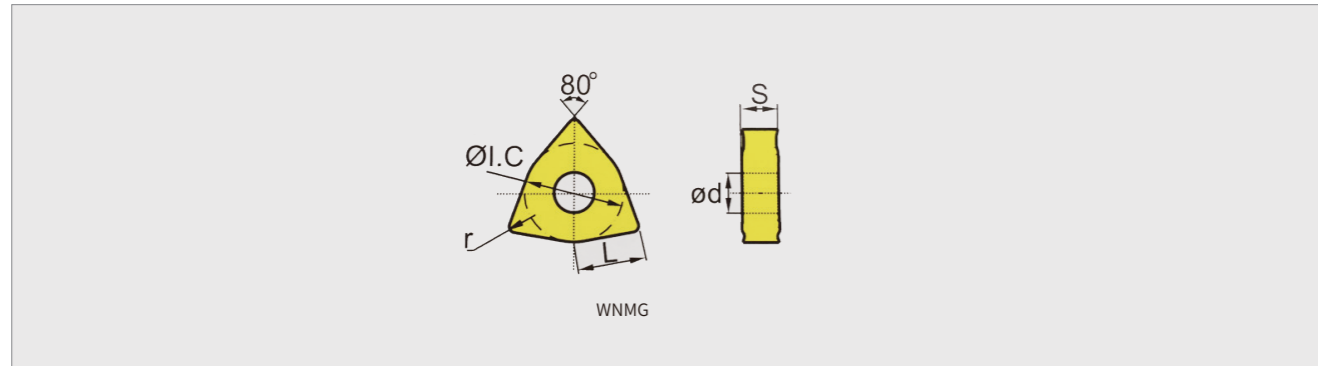
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牌号 Grade	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ	RD5215H	RD5555	RD5555	RD3225

型号 Model	WNMG080404-SJ	WNMG080408-JM	WNMG080408-43	WNMG080408-MT	WNMG080408R-GC		
图片 Picture							
牌号 Grade	RDZ5255	RDHKZ5255	RD6235-D155	RD5555	RD666	RD5215H	RD6235-J66

型号 Model	WNMG080408L-GC			WNMG080408-MA			WNMG080408-PF	WNMG080408-TM
图片 Picture								
牌号 Grade	RD5215H	RD6235-J66	RD6235-J68	RD820-J	RD6235-F66	RD6235-J68	RD5215H	RD5555

型号 Model	WNMG080408-MS				WNMG080408-MSK			
图片 Picture								
牌号 Grade	RD6235-JY68	RD6235-JY68	RD6235-DY66	DSS-YZ	RD820JX-1	RD6235-D88	RD6235-J68	DSS-YZ

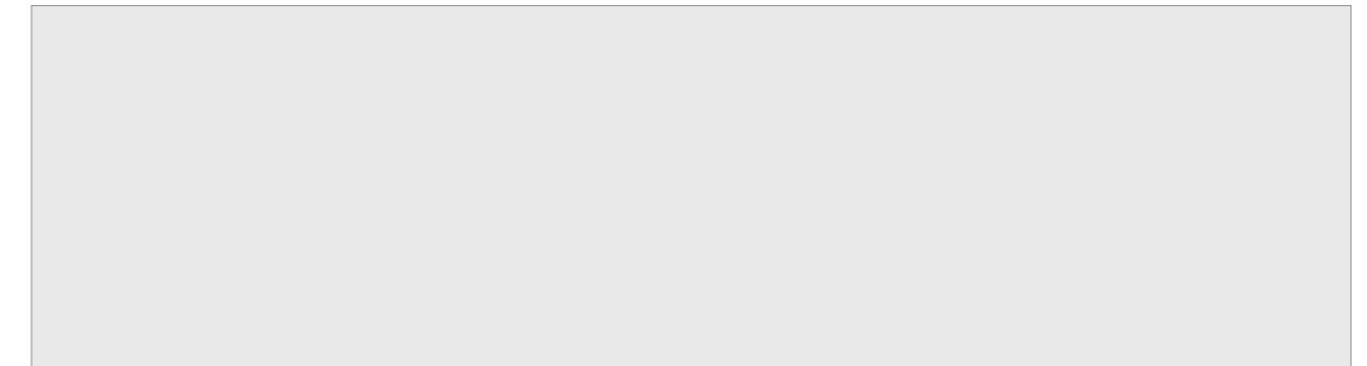
型号 Model	WNMG080408-PM	WNMG080408-SJ		WNMG080408-LH	WNMG080412-43	WNMG080412-MA		
图片 Picture								
牌号 Grade	RD5555	RDZ5255	RDHKZ5255	RD3225	RD5555	RD6235-F66	RD820-J	RD6235-J68



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	ød	r
WNMG080412-MS	8.7	12.7	4.76	5.16	1.2
WNMG080412-PF	8.7	12.7	4.76	5.16	1.2
WNMG080412-TM	8.7	12.7	4.76	5.16	1.2
WNMG080412-PM	8.7	12.7	4.76	5.16	1.2
WNMG080412-SJ	8.7	12.7	4.76	5.16	1.2

型号 Model	WNMG080412-MS		WNMG080412-PF	WNMG080412-TM	WNMG080412-PM	WNMG080412-SJ	
图片 Picture							
牌号 Grade	RD820-JY	RD6235-JY68	DSS-YZ	RD5215H	RD5555	RD5555	RDZ5255 RDHKZ5255

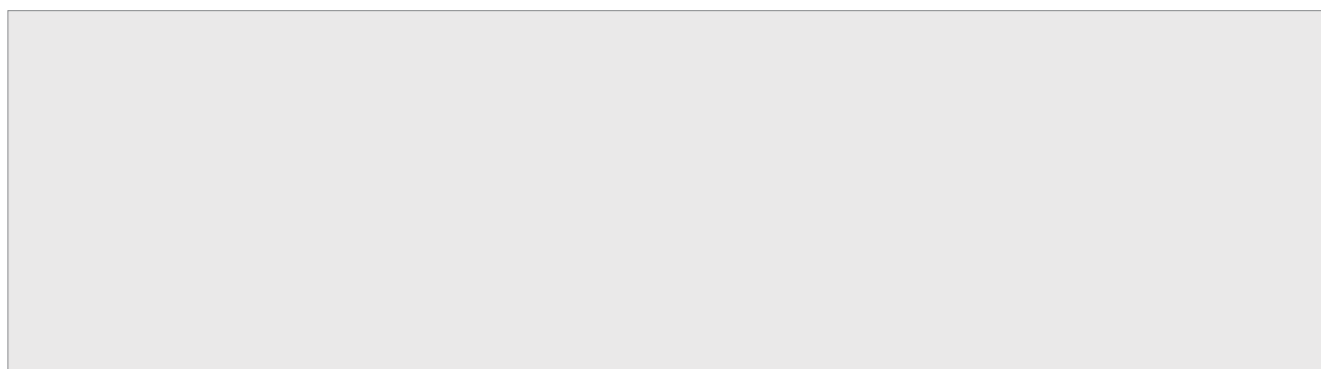
粗镗
Rough Boring





型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	D1	RE
TBMT060102-DP	6.87	3.97	1.59	2.3	0.2
TBMT060104-DP	6.87	3.97	1.59	2.3	0.4
WBMT060102-DP	6.87	3.97	1.59	2.3	0.2
WBMT060104-DP	6.87	3.97	1.59	2.3	0.4

型号 Model	TBMT060102-DP		TBMT060104-DP		WBMT060102-DP		WBMT060104-DP	
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68

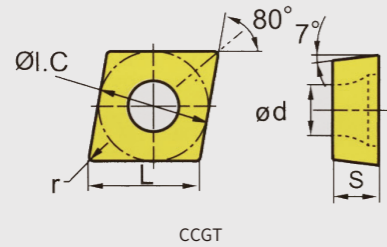
»» 倒角
Chamfering



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
SPGW090304	9.5	9.5	3.2	4.25	0.4
SPGW120408	12.7	12.7	4.76	5.5	0.8

型号 Model	SPGW 090304	SPGW 120408						
图片 Picture								
牌号 Grade	RD6255	RD6255						

精车内圆
Finish Turning Internal



型号 Model	尺寸 Size(mm)				
	L	øl.C	S	D1	RE
CCGT030101-L	3.5	3.5	1.4	2.8	0.1
CCGT030102-L	3.5	3.5	1.4	2.8	0.2
CCGT030104-L	3.5	3.5	1.4	2.8	0.4
CCGT040101-L	4.3	4.3	1.8	3.3	0.1
CCGT040102-L	4.3	4.3	1.8	3.3	0.2
CCGT040104-L	4.3	4.3	1.8	3.3	0.4
CCGT060201-1L	6.4	6.35	2.38	2.8	0.1
CCGT060201-CL	6.4	6.35	2.38	2.8	0.1
CCGT060201-V	6.4	6.35	2.38	2.8	0.1
CCGT060202-1L	6.4	6.35	2.38	2.8	0.2
CCGT060202-CL	6.4	6.35	2.38	2.8	0.2
CCGT060202-LH	6.4	6.35	2.38	2.8	0.2
CCGT060202-V	6.4	6.35	2.38	2.8	0.2
CCGT060204-CL	6.4	6.35	2.38	2.8	0.4
CCGT060204-LH	6.4	6.35	2.38	2.8	0.4
CCGT060208-LH	6.4	6.35	2.38	2.8	0.8
CCGT09T3005-CL	9.7	9.525	3.97	4.4	0.05
CCGT09T301-1L	9.7	9.525	3.97	4.4	0.1
CCGT09T301-CL	9.7	9.525	3.97	4.4	0.1
CCGT09T301-V	9.7	9.525	3.97	4.4	0.1
CCGT09T302-1L	9.7	9.525	3.97	4.4	0.2
CCGT09T302-CL	9.7	9.525	3.97	4.4	0.2
CCGT09T302-LH	9.7	9.525	3.97	4.4	0.2
CCGT09T302-V	9.7	9.525	3.97	4.4	0.2

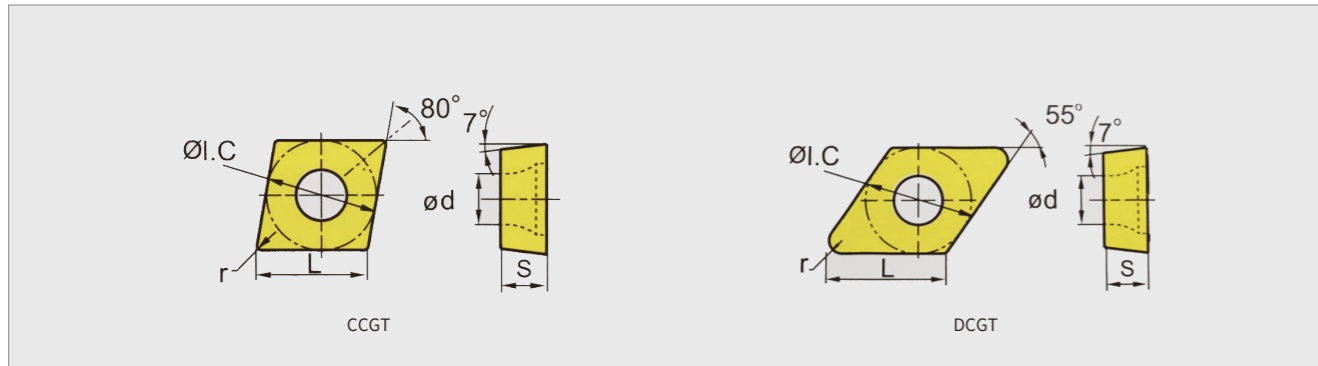
型号 Model	CCGT0 30101-L	CCGT0 30102-L	CCGT0 30104-L	CCGT0 40101-L	CCGT0 40102-L	CCGT0 40104-L	CCGT06 0201-1L	CCGT06 0201-CL
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-J68	RD6235-J68	RD6235-J68	RD6235-J68	RD6235-J68	RD6235-D88	RD6235-D88

型号 Model	CCGT06 0201-CL	CCGT06 0201-V	CCGT06 0202-1L	CCGT060202-CL	CCGT06 0202-LH	CCGT060202-V		
图片 Picture								
牌号 Grade	RD6235-J68	RD820-J	RD6235-D88	RD6235-D88	RD6235-J68	RD3225	RD6235-D56	RD6235-D88

型号 Model	CCGT06 0202-V	CCGT060204-CL	CCGT06 0204-LH	CCGT06 0208-LH	DCGT11 T3005-CL	CCGT09 T301-1L	CCGT09 T301-CL	
图片 Picture								
牌号 Grade	RD820-J	RD6235-D88	RD6235-J68	RD3225	RD3225	RD6235-J68	RD6235-D88	RD6235-D88

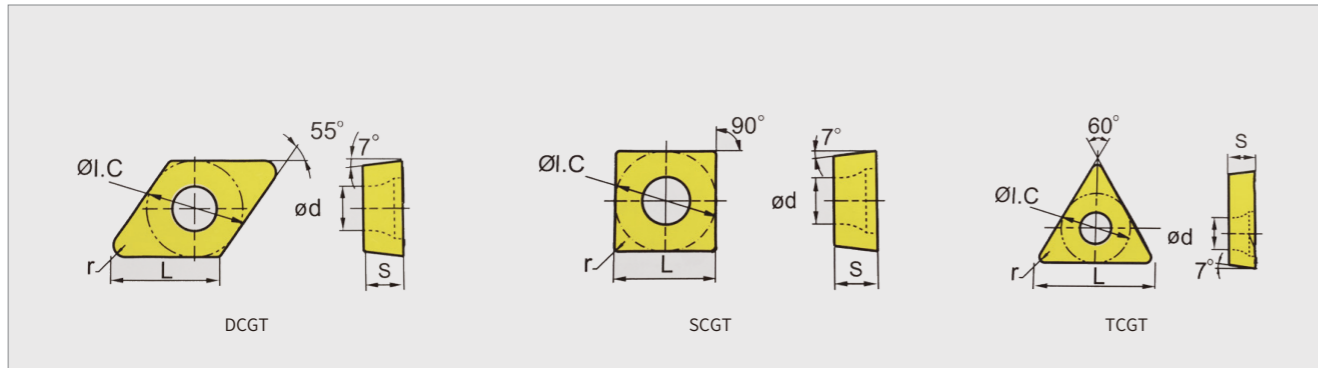
型号 Model	CCGT09 T301-CL	CCGT09T301-V	CCGT09 T302-1L	CCGT09 T302-CL	CCGT09 T302-CL	CCGT09 T302-LH		
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-D56	RD6235-D88	RD820-J	RD6235-D88	RD6235-D88	RD6235-J68	RD3225

型号 Model	CCGT09T302-V		
图片 Picture			
牌号 Grade	RD6235-D56	RD6235-D88	RD820-J



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
CCGT09T304-1L	9.7	9.525	3.97	4.4	0.4
CCGT09T304-CL	9.7	9.525	3.97	4.4	0.4
CCGT09T304-LH	9.7	9.525	3.97	4.4	0.4
CCGT09T308-LH	9.7	9.525	3.97	4.4	0.8
CCGT120402-LH	12.9	12.7	4.76	5.56	0.2
CCGT120404-LH	12.9	12.7	4.76	5.56	0.4
CCGT120408-LH	12.9	12.7	4.76	5.56	0.8
DCGT0702005-CL	7.8	6.35	2.38	2.8	0.05
DCGT070201-CL	7.8	6.35	2.38	2.8	0.1
DCGT070201-L-U	7.8	6.35	2.38	2.8	0.1
DCGT070201-R-U	7.8	6.35	2.38	2.8	0.1
DCGT070201-V	7.8	6.35	2.38	2.8	0.1
DCGT070202-CL	7.8	6.35	2.38	2.8	0.2
DCGT070202-LH	7.8	6.35	2.38	2.8	0.2
DCGT070202-L-U	7.8	6.35	2.38	2.8	0.2
DCGT070202-R-U	7.8	6.35	2.38	2.8	0.2
DCGT070202-V	7.8	6.35	2.38	2.8	0.2
DCGT070204-CL	7.8	6.35	2.38	2.8	0.4
DCGT070204-L-U	7.8	6.35	2.38	2.8	0.4
DCGT070204-R-U	7.8	6.35	2.38	2.8	0.4
DCGT070204-V	7.8	6.35	2.38	2.8	0.4
DCGT070208-LH	7.8	6.35	2.38	2.8	0.8
DCGT11T3005-CL	11.6	9.525	3.97	4.4	0.05
DCGT11T301-1L	11.6	9.525	3.97	4.4	0.1
DCGT11T301-CL	11.6	9.525	3.97	4.4	0.1
DCGT11T301-L-U	11.6	9.525	3.97	4.4	0.1
DCGT11T301-R-U	11.6	9.525	3.97	4.4	0.1
DCGT11T301-V	11.6	9.525	3.97	4.4	0.1

型号 Model	CCGT09 T304-1L	CCGT09T304-CL		CCGT09 T304-LH	CCGT09 T308-LH	CCGT12 0402-LH	CCGT12 0404-LH	CCGT12 0408-LH
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-D88	RD6235-J68	RD3225	RD3225	RD3225	RD3225	RD3225
型号 Model	DCGT070 2005-CL	DCGT070201-CL		DCGT070201-L-U		DCGT070201-R-U		DCGT07 0201-V
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-D88	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-D56
型号 Model	DCGT070201-V		DCGT070202-CL		DCGT07 0202-LH	DCGT070202-L-U		DCGT07 0202-R-U
图片 Picture								
牌号 Grade	RD6235-D88	RD820-J	RD6235-D88	RD6235-J68	RD3225	RD6235-DZ66	RD6235-J68	RD6235-DZ66
型号 Model	DCGT07 0202-R-U	DCGT070202-V			DCGT070204-CL		DCGT070204-L-U	
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-D56	RD6235-D88	RD820-J	RD6235-D88	RD6235-J68	RD6235-DZ66	RD6235-J68
型号 Model	DCGT070204-R-U		DCGT07 0204-V	DCGT07 0208-LH	DCGT11 T3005-CL	DCGT11 T301-1L	DCGT11T301-CL	
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD820-J	RD3225	RD6235-J68	RD6235-D88	RD6235-D88	RD6235-J68
型号 Model	DCGT11 T301-L-U	DCGT11T301-R-U		DCGT11T301-V				
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-DZ66	RD6235-J68	RD6235-D56	RD6235-D88	RD820-J		



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	D1	RE
DCGT11T302-1L	11.6	9.525	3.97	4.4	0.2
DCGT11T302-CL	11.6	9.525	3.97	4.4	0.2
DCGT11T302-L-U	11.6	9.525	3.97	4.4	0.2
DCGT11T302-R-U	11.6	9.525	3.97	4.4	0.2
DCGT11T302-V	11.6	9.525	3.97	4.4	0.2
DCGT11T304-1L	11.6	9.525	3.97	4.4	0.4
DCGT11T304-CL	11.6	9.525	3.97	4.4	0.4
DCGT11T304-LH	11.6	9.525	3.97	4.4	0.4
DCGT11T304-L-U	11.6	9.525	3.97	4.4	0.4
DCGT11T304-R-U	11.6	9.525	3.97	4.4	0.4
DCGT11T304-V	11.6	9.525	3.97	4.4	0.4
DCGT11T308-LH	11.6	9.525	3.97	4.4	0.8
SCGT09T301-V	9.525	9.525	3.97	4.4	0.1
SCGT09T302-LH	9.525	9.525	3.97	4.4	0.2
SCGT09T302-V	9.525	9.525	3.97	4.4	0.2
SCGT09T308-LH	9.525	9.525	3.97	4.4	0.8
SCGT120402-LH	12.7	12.7	4.76	5.56	0.2
SCGT120404-LH	12.7	12.7	4.76	5.56	0.4
SCGT120408-LH	12.7	12.7	4.76	5.56	0.8
TCGT090202-LH	9.6	9.525	2.38	2.5	0.2
TCGT090204-LH	9.6	9.525	2.38	2.5	0.4
TCGT090208-LH	9.6	9.525	2.38	2.5	0.8
TCGT110201-V	11	6.35	2.38	2.8	0.1
TCGT110202-LH	11	6.36	2.38	2.8	0.2
TCGT110202-V	11	6.36	2.38	2.8	0.2
TCGT110204-LH	11	6.36	2.38	2.8	0.4
TCGT110204-V	11	6.36	2.38	2.8	0.4
TCGT110208-LH	11	6.35	2.38	2.8	0.8

型号 Model	DCGT11 T302-1L	DCGT11T302-CL		DCGT11T 302-L-U	DCGT11T302-R-U		DCGT11T302-V	
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-D88	RD6235-J68	RD6235-DZ66	RD6235-DZ66	RD6235-J68	RD6235-D56	RD6235-D88

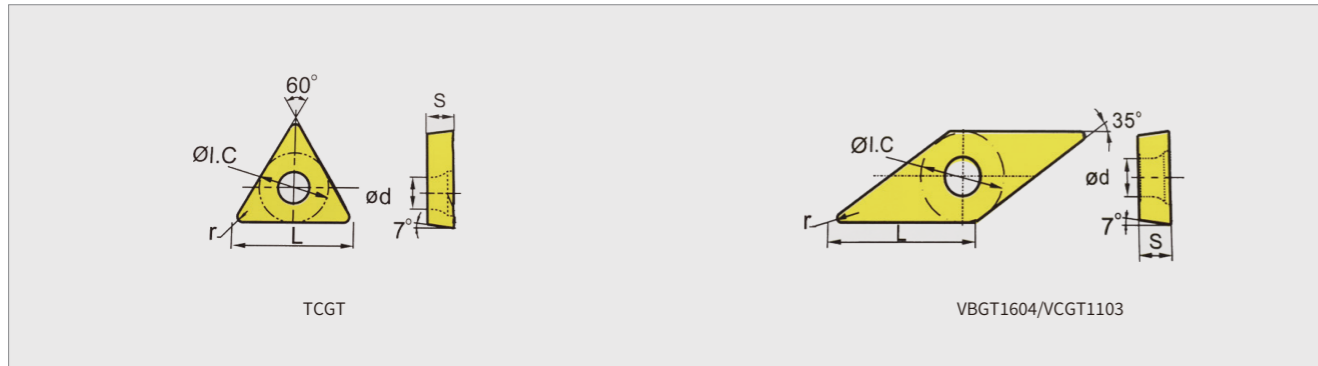
型号 Model	DCGT11 T302-V	DCGT11 T304-1L	DCGT11T304-CL		DCGT11 T304-LH	DCGT11 T304-L-U	DCGT11T304-R-U	
图片 Picture								
牌号 Grade	RD820-J	RD6235-D88	RD6235-D88	RD6235-J68	RD3225	RD6235-DZ66	RD6235-DZ66	RD6235-J68

型号 Model	DCGT11T304-V		DCGT11 T308-LH	SCGT09T301-V		SCGT09 T302-LH	SCGT09T302-V	
图片 Picture								
牌号 Grade	RD820-J	RD6235-D56	RD3225	RD6235-D88	RD820-J	RD3225	RD6235-D56	RD6235-D88

型号 Model	SCGT09 T302-V	SCGT09 T308-LH	SCGT12 0402-LH	SCGT12 0404-LH	SCGT12 0408-LH	TCGT09 0202-LH	TCGT09 0204-LH	TCGT09 0208-LH
图片 Picture								
牌号 Grade	RD820-J	RD3225	RD3225	RD3225	RD3225	RD3225	RD3225	RD3225

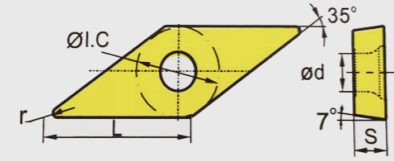
型号 Model	TCGT110202-V			TCGT11 0202-LH	TCGT110202-V		TCGT11 0202-V	TCGT11 0204-LH
图片 Picture								
牌号 Grade	RD6235-D56	RD6235-D88	RD820-J	RD3225	RD820-J	RD6235-D56	RD6235-D88	RD3225

型号 Model	TCGT11 0204-V	TCGT11 0208-LH						
图片 Picture								
牌号 Grade	RD820-J	RD3225						



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	D1	RE
TCGT110302-LH	11	6.35	2.38	2.8	0.2
TCGT110304-LH	11	6.35	2.38	2.8	0.4
TCGT110308-LH	11	6.35	2.38	2.8	0.8
TCGT16T302-LH	16.5	9.525	4.76	4.4	0.2
TCGT16T304-LH	16.5	9.525	4.76	4.4	0.4
TCGT16T308-LH	16.5	9.525	4.76	4.4	0.8
VBGT110301-L-Y	11	6.35	3.18	2.8	0.1
VBGT110301-R-Y	11	6.35	3.18	2.8	0.1
VBGT110302-1L	11	6.35	3.18	2.8	0.2
VBGT110302-L-Y	11	6.35	3.18	2.8	0.2
VBGT110302-R-Y	11	6.35	3.18	2.8	0.2
VBGT110304-L-Y	11	6.35	3.18	2.8	0.4
VBGT110304-R-Y	11	6.35	3.18	2.8	0.4
VBGT11T201-1L	11	6.35	0	2.8	0.1
VBGT11T202-1L	11	6.35	0	2.8	0.2
VBGT160401-L-Y	16.6	9.525	4.76	3.81	0.1
VBGT160401-R-Y	16.6	9.525	4.76	3.81	0.1
VBGT160402-L-Y	16.6	9.525	4.76	3.81	0.2
VBGT160402-R-Y	16.6	9.525	4.76	3.81	0.2
VBGT160404-L-Y	16.6	9.525	4.76	3.81	0.4
VBGT160404-R-Y	16.6	9.525	4.76	3.81	0.4
VCGT1103005-CL	11	6.35	3.18	2.8	0.05
VCGT110301-CL	11	6.35	3.18	2.8	0.1
VCGT110301-V	11	6.35	3.18	2.8	0.1
VCGT110302-CL	11	6.35	3.18	2.8	0.2
VCGT110302-LH	11	6.35	3.18	2.8	0.2
VCGT110302-V	11	6.35	3.18	2.8	0.2

型号 Model	VCGT11 0302-LH	VCGT11 0304-LH	VCGT11 0308-LH	TCGT16 T302-LH	TCGT16 T304-LH	TCGT16 T308-LH	VBGT110301-L-Y	
图片 Picture								
牌号 Grade	RD3225	RD3225	RD3225	RD3225	RD3225	RD3225	RD6235-DZ66	RD6235-J68
型号 Model	VBGT110301-R-Y		VBGT11 0302-1L	VBGT110302-L-Y		VBGT110302-R-Y		VBGT11 0304-L-Y
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6235-D88	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-J68
型号 Model	VBGT11 0304-L-Y	VBGT110304-R-Y		VBGT11 T201-1L	VBGT11 T202-1L	VBGT160401-L-Y		VBGT16 0401-R-Y
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-D88	RD6235-D88	RD6235-DZ66	RD6235-J68	RD6235-DZ66
型号 Model	VBGT16 0404-R-Y	VBGT160402-L-Y		VBGT160402-R-Y		VBGT160404-L-Y		VBGT16 0404-R-Y
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-DZ66
型号 Model	VBGT16 0404-R-Y	VCGT11 03005-CL	VCGT110301-CL		VCGT110301-V		VCGT11 0302-CL	
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-J68	RD6235-D88	RD6235-J68	RD6235-D56	RD6235-D88	RD820-J	RD6235-D88
型号 Model	VCGT11 0302-CL	VCGT11 0302-LH	VCGT110302-V					
图片 Picture								
牌号 Grade	RD6235-J68	RD3225	RD6235-D56	RD6235-D88	RD820-J			

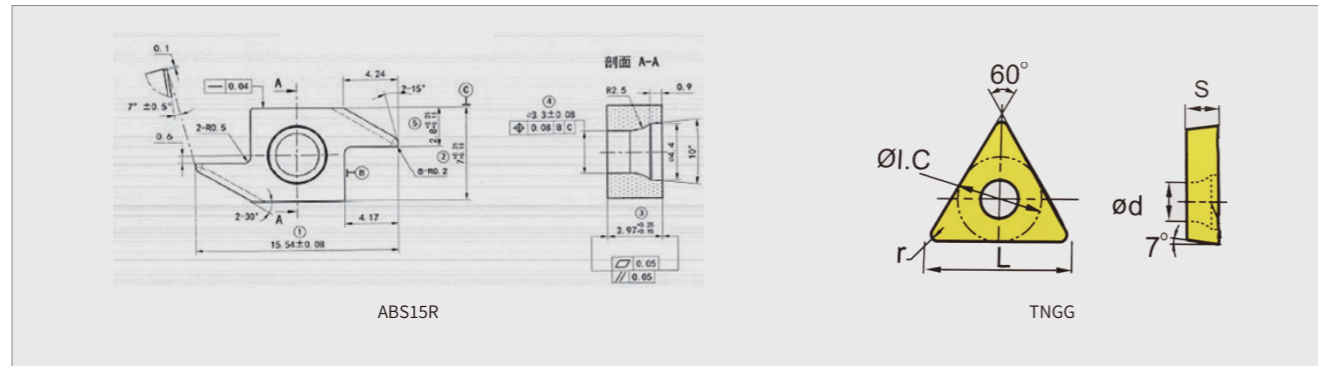


VCGT-LH

型号 Model	尺寸 Size (mm)				
	L	$\phi 1.C$	S	D1	RE
VCGT110304-CL	11	6.35	3.18	2.8	0.4
VCGT110304-LH	11	6.35	3.18	2.8	0.4
VCGT110308-LH	11	6.35	2.38	2.8	0.8
VCGT160402-LH	16.5	9.525	4.76	4.4	0.2
VCGT160404-LH	16.5	9.525	4.76	4.4	0.4
VCGT160408-LH	16.5	9.525	4.76	4.4	0.8

型号 Model	VCGT110304-CL	VCGT110304-LH	VCGT110308-LH	VCGT160402-LH	VCGT160404-LH	VCGT160408-LH	
图片 Picture							
牌号 Grade	RD6235-D88	RD6235-J68	RD3225	RD3225	RD3225	RD3225	RD3225

精车外圆
Finish Turning External



型号 Model	尺寸 Size (mm)				
	L	Ø1.C	S	D1	RE
ABS15R4005	15.54	7	3.97	3.3	0.05
ABS15R4015	15.54	7	3.97	3.3	0.15
TNGG160401-L-S	16.5	9.525	4.76	3.81	0.1
TNGG160401-R-S	16.5	9.525	4.76	3.81	0.1
TNGG160401-YZ	16.5	9.525	4.76	3.81	0.1
TNGG160402-L-S	16.5	9.525	4.76	3.81	0.2
TNGG160402RL-C	16.5	9.525	4.76	3.81	0.2
TNGG160402RL-S	16.5	9.525	4.76	3.81	0.2
TNGG160402-R-S	16.5	9.525	4.76	3.81	0.2
TNGG160402-YZ	16.5	9.525	4.76	3.81	0.2
TNGG160404-L-S	16.5	9.525	4.76	3.81	0.4
TNGG160404RL-C	16.5	9.525	4.76	3.81	0.4
TNGG160404-R-S	16.5	9.525	4.76	3.81	0.4
TNGG160404-YZ	16.5	9.525	4.76	3.81	0.4

型号 Model	ABS15R4005			ABS15R4015			TNGG160401-L-S	
图片 Picture								
牌号 Grade	RD6235-D88	RD6235-J68	RD820-J	RD6235-D88	RD6235-J68	RD820-J	RD6235-D88	RD6235-DZ66

型号 Model	TNGG160401-L-S	TNGG160401-R-S			SCGT09T401-YZ		TNGG160402-L-S	
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-D88	RD6235-DZ66	RD6235-J68	RD6235-D88	RD6235-J68	RD6235-D88	RD6235-DZ66

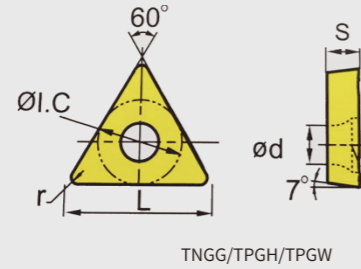
型号 Model	TNGG160402-L-S	TNGG160402RL-C		TNGG160402RL-S	TNGG160402-R-S		TNGG160402-YZ
图片 Picture							
牌号 Grade	RD6235-J68	RD6255	RD666	RD6255	RD6235-DZ66	RD6235-J68	RD6235-D88

型号 Model	TNGG160402-YZ	TNGG160404-L-S			TNGG160404RL-C	TNGG160404-R-S		
图片 Picture								
牌号 Grade	RD6235-J68	RD6235-D88	RD6235-DZ66	RD6235-J68	RD6255	RD6235-D88	RD6235-DZ66	RD6235-J68

型号 Model	TNGG160404-YZ		TNGG160408RL-S				
图片 Picture							
牌号 Grade	RD6235-D88	RD6235-J68	RD6255				

型号 Model							
图片 Picture							
牌号 Grade							

精镗
Finish Boring



型号 Model	尺寸 Size (mm)				
	L	Ø1.C	S	D1	RE
TBGT060102-L	6.87	3.97	1.59	2.3	0.2
TBGT060104-L	6.87	3.97	1.59	2.3	0.4
TBGW060102	6.87	3.97	1.59	2.3	0.2
TBGW060104	6.87	3.97	1.59	2.3	0.4
TCGT110202-L	11	6.36	2.38	2.8	0.2
TCGT110204-L	11	6.36	2.38	2.8	0.4
TCGW110202	11	6.36	2.38	2.8	0.2
TCGW110204	11	6.36	2.38	2.8	0.4
TPGH060102-L	6	3.97	1.59	2.3	0.2
TPGH060104-L	6	3.97	1.59	2.3	0.4
TPGH080202-L	8	4.76	2.38	2.3	0.2
TPGH080204-L	8	4.76	2.38	2.3	0.4
TPGH090202-L	9	5.56	2.38	3.2	0.2
TPGH090204-L	9	5.56	2.38	3.2	0.4
TPGH110302-L	11	6.35	3.18	3.4	0.2
TPGH110304-L	11	6.35	3.18	3.4	0.4
TPGW080202	8	4.76	2.38	2.3	0.2
TPGW080204	8	4.76	2.38	2.3	0.4
TPGW090202	9	5.56	2.38	3.2	0.2
TPGW090204	9	5.56	2.38	3.2	0.4
TPGW110302	11	6.35	3.18	3.4	0.2
TPGW110304	11	6.35	3.18	3.4	0.4

型号 Model	TBGT060102-L		TBGT060104-L		TBGW060102		TBGW060104	
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-D88	RD5215H	RD6235-D88	RD5215H

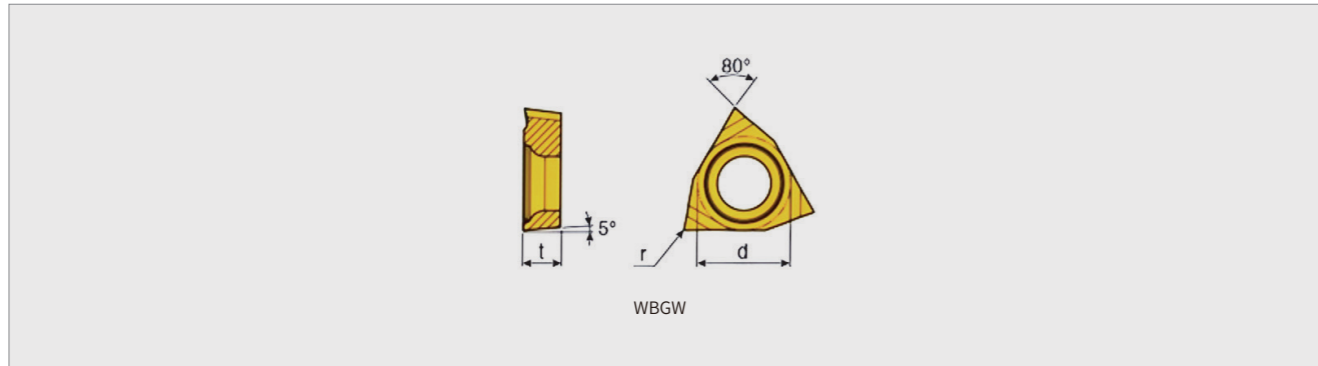
型号 Model	TCGT110202-L		TCGT110204-L		TCGW110202		TCGW110204	
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-D88	RD5215H	RD5215H	RD6235-D88

型号 Model	TPGH060102-L	TPGH060104-L	TPGH080202-L			TPGH080204-L		
图片 Picture								
牌号 Grade	RD6255	RD6255	RD6235-DZ66	RD6235-J68	RD6255	RD6235-DZ66	RD6235-J68	RD6255

型号 Model	TPGH090202-L			TPGH090204-L			TPGH110302-L	
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6255	RD6235-DZ66	RD6235-J68	RD6255	RD6235-DZ66	RD6235-J68

型号 Model	TPGH110302-L	TPGH110304-L			TPGW080202		TPGW080204	
图片 Picture								
牌号 Grade	RD6255	RD6235-DZ66	RD6235-J68	RD6255	RD6235-D88	RD5215H	RD6235-D88	RD5215H

型号 Model	TPGW090202		TPGW090204		TPGW110302		TPGW110304	
图片 Picture								
牌号 Grade	RD6235-D88	RD5215H	RD6235-D88	RDF5255	RD6235-D88	RD5215H	RD6235-D88	RD5215H



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
WBGW060102-L	2.18	3.97	1.59	2.3	0.2
WBGW060104-L	2.18	3.97	1.59	2.3	0.2
WBGW060102	2.18	3.97	1.59	2.3	0.4
WBGW060104	2.18	3.97	1.59	2.3	0.4

型号 Model	WBGW060102-L		WBGW060104-L		WBGW060102		WBGW060104	
图片 Picture								
牌号 Grade	RD6235-DZ66	RD6235-J68	RD6235-DZ66	RD6235-J68	RD6235-D88	RD5215H	RD6235-D88	RD5215H



扫码了解更多

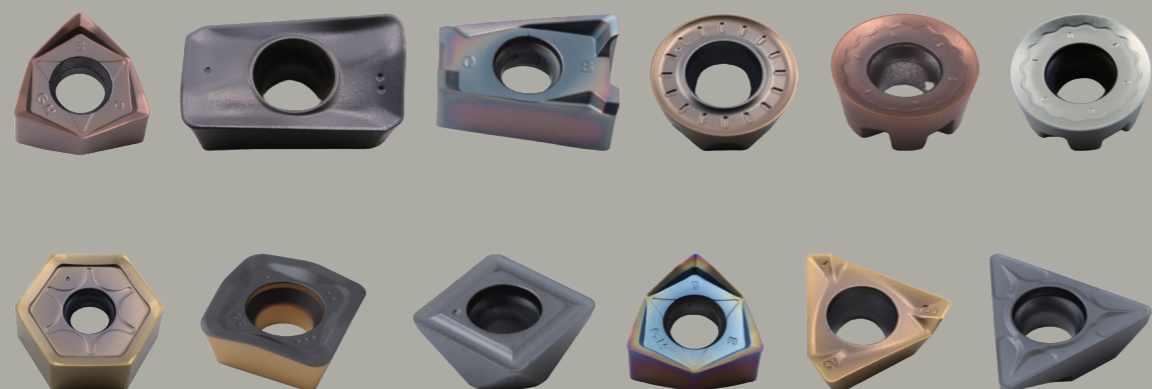


MILLING

铣削系列



常规铣削 - Normal Milling	189
倒角 - Chamfering	197
玉米铣 - Helical Milling	198
快进给 - High-F eed Milling	199
快速钻 - Rapid Drilling	205
面铣 - Face Milling	209



铣削刀片型号编制说明

NAMING RULES FOR INDEXABLE MILLING

T	N	M	G	22	04	08	DM	4	3	2
1	2	3	4	5	6	7	(ISO) 8	9	10	(inch) 11

1 刀片形状/代号 Insert Shape/Code

85° A, 82° B, 80° C, 55° D, 75° E, H, 55° K, L, 86° M, O, P, R, S, T, 75° T, 35° V, 80° W, 其他 Other Z

2 主切削刃后角 Main Cutting Edge Clearance Angle

代号 Code	后角 Clearance Angle	代号 Code	后角 Clearance Angle
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	其他的后角 Other Clearance Angle

3 公差 Tolerance

代号 Code	刀尖高度 m 公差 mm Tip Height m Tolerance (mm)	内接圆 φ.I.C. 公差 mm Inscribed Circle Tolerance (mm)	厚度 S 公差 mm Thickness S Tolerance (mm)
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
m	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-0.38	±0.08-±0.25	±0.13

(参考) M级精度详细情况 (按形状, 大小分) (Reference) M level accuracy details (by size, shape)
刀尖高度公差 (mm) Tip height tolerance (mm)

内接圆 Inscribed Circle	正三角形 Triangle	正方形 Square	80°菱形 80°Diamond	55°菱形 55°Diamond	35°菱形 35°Diamond	圆形 Circle
6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
12.7	±0.013	±0.013	±0.13	±0.15	---	---
15.875	±0.15	±0.15	±0.15	±0.18	---	---
19.05	±0.15	±0.15	±0.15	±0.18	---	---
25.4	---	±0.18	---	---	---	---

内接圆 φ.I.C. 公差 (mm) Inscribed Circle Tolerance (mm)

内接圆 Inscribed Circle	正三角形 Triangle	正方形 Square	80°菱形 80°Diamond	55°菱形 55°Diamond	35°菱形 35°Diamond	圆形 Circle
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
25.4	---	±0.13	---	---	---	±0.13

4 断屑槽及夹固形式 Chipbreaker and Clamping form

代号 Code	有无孔 Hole	有无断屑槽 Chipbreaker	刀片剖面 Insert Profile	代号 Code	有无孔 Hole	有无断屑槽 Chipbreaker	刀片剖面 Insert Profile
B	✓	X		N	X	X	
H	✓	单面 One-sided		R	X	单面 One-sided	
C	✓	X		F	X	双面 Duplex	
J	✓	双面 Duplex		A	✓	X	
W	✓	X		M	✓	单面 One-sided	
T	✓	单面 One-sided		G	✓	双面 Duplex	
Q	✓	X		X	----	----	特殊 Special
U	✓	双面 Duplex					

5 切削刃长度 Cutting Edge Length

内切圆直径 I.C. (mm)	刀片形状 Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5.0			05					
5.56					09			
6.0			06					
6.35	06	07			11	11		
8.0			08					
9.525	09	11	09	09	16	16	06	16
10.0			10					
12.0			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16.0		19	16					
19.05	19		19	19	33			
20.0			20					
25.0	25	25	25					
25.4			25	25				
31.75			31					
32			32					

6 刀片厚度 Insert Thickness

厚度指刀片底面与切削刃最高部分之间的高度
Thickness refers to the height between the bottom of insert and the top of cutting edge.

代号 Code	刀片厚度 (mm) Insert Thickness
00	0.79
T0	0.99
01	1.59
t1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.56
t5	5.96
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.10
12	12.70

T	N	M	G	22	04	08	DM	4	3	2	
1	2	3	4	5	6	7	(ISO)	8	9	10	11
										(inch)	

7 刀尖圆弧代号 Corner Radius Code	
代号 Code	刀尖圆弧半径(mm) Corner Radius (mm)
00	无圆角 No Round Angle
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
x	其他 other

刀尖直径尺寸MO (公制) Tip Coner Diameter MO (Metric)	圆形刀片 Circular Insert
--	----------------------

8 断屑槽型代号 Chipbreaker Code		
MA	MSK	MS
EA	PF	PM
SJ	GC	V
1L	CL	YZ
HM	TS	MV

9 内切圆 Inscribed Circle	
代号 Code	内切圆直径(mm) Inscribed Circle Diameter(mm)
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

10 厚度 Thickness	
代号 Code	厚度 Thickness
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

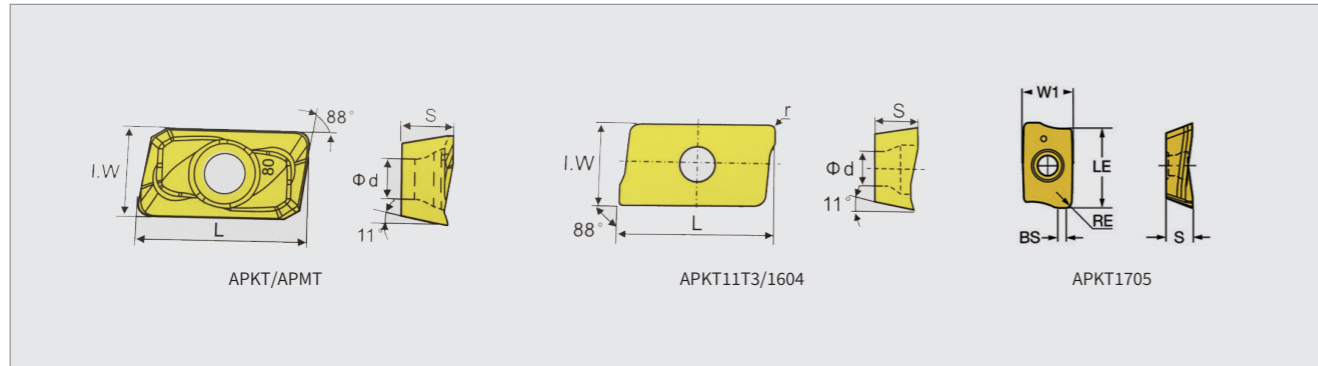
11 刀尖圆弧半径 Corner Radius	
代号 Code	刀尖圆弧半径(mm) Corner Radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

牌号一览表 Grades for Insert Application

牌号 Grade	颜色 Color	涂层厚度 Thickness(um)	推荐加用途 Application
EG9335-G1	古铜色 Bronze	1-5	HRC50°模具钢, 王牌钢、45#钢、718、P20 For steel below HRC45, mould steel, yellow label steel, 45# steel, 718, P20
EG9335-V88	黑色 Black	2-3	钢件、不锈钢、铸铁 For steel, stainless steel, ductile iron
EG9335-V1	纳米蓝 Nano Blue	2-3	HRC50°钢件、不锈钢 For steel below HRC50, stainless steel
EG9335-J66	古铜色 Bronze	2-4	高硅涂层, 主要加工调质钢件、不锈钢、高温合金通用, 中端产品 High silicon coating, for tempered steel, stainless steel, superalloy, mid-level products
EG9335-J68	七彩色 Colorful	2-4	不锈钢、粘性材料, 高温合金、钛合金通用, 高端产品 For stainless steel, sticky materials, superalloy, titanium alloy, high-level products
EG820-J	金黄色 Gold	2-4	巴尔查斯涂层, 主要加工不锈钢、高温合金、钛合金通用, 高端产品 Oerlikon Balzers coating, for stainless steel, superalloy, steel, titanium alloy, high-level products
EG9335-DY88	黑灰色 Grey Black	2-3	HRC60 度以下钢件, 不锈钢、镍基合金、NK80等难加工材料 For steel below HRC60°, stainless steel, nickel-based alloy, NK80, difficult-to-machining materials
EG9335-DY66	银色 Silver	2-3	钛合金 高温合金 Titanium alloy, High temperature alloys
EG820-JYH	黑色 Black	2-4	58°硬料 For hardened materials, steel below HRC58°
EG820JX-1	古铜色 Bronze	2-4	62度以下加硬材料、316L不锈钢、SS410 马氏体不锈钢 For hardened materials, steel below HRC62°, 316L, SS410, Inconel, Gas cutting
EG9335-F66	紫红色 Purple	1-2.5	钢件、不锈钢 For steel, stainless steel
EG820J-A	古铜黄 Bronze	2-3	钛合金、高温合金 Titanium alloy, High temperature alloys
EG820JX-A	古铜色 Bronze	2-3	钛合金、高温合金 Titanium alloy, High temperature alloys
EGZ5255	深黑 Dark Black	8-10	球墨铸铁、灰口铸铁、铸钢件 CVD coating, for ductile iron, grey cast iron, cast steel, specialty products
RD3225	镜面银色 Mirror Polished	-	铜铝加工 For aluminum, copper and non-metallic materials
RD6255	银色 Cermet Silver	-	金属陶瓷刀片, 加工钢件, 高光洁度 Uncoated, for steel, processing with good surface finish



常规铣削
rml Milling



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
APKT1003PDER	10.9	6.2	3.5	2.85	0.54
APKT1135PDER-G2	11.25	6.2	3.5	2.8	0.4
APKT1135PDER-LH	11.25	6.2	3.5	2.8	0.4
APKT11T308-GM	11.25	6.2	3.5	2.8	0.8
APKT160408-GM	17.25	9.25	4.76	4.4	0.8
APKT1604PDER-G2	17.25	9.25	4.76	4.4	0.4
APKT1604PDER-LH	17.25	9.25	4.76	4.4	0.4
APKT170508R-R	18.43	10.74	5.56	4.5	0.8
APKT170516R-R	18.43	10.74	5.56	4.5	1.6
APKT170524R-R	18.43	10.74	5.56	4.5	2.4
APKT170530R-R	18.43	10.74	5.56	4.5	3
APMT113512PDER-H2	11.25	6.2	3.5	2.8	1.2
APMT113516PDER-H2	11.25	6.2	3.5	2.8	1.6
APMT113520PDER-H2	11.25	6.2	3.5	2.8	2
APMT113540PDER-HF	11.25	6.2	3.5	2.8	4
APMT1135PDER-DL	11.25	6.2	3.5	2.8	0.8
APMT1135PDER-H2	11.25	6.2	3.5	2.8	0.8

型号 Model	APKT1003PDER		APKT113 5PDER-G2	APKT113 5PDER-LH	APKT11T308-GM		APKT160408-GM	
图片 Picture								
牌号 Grade	EG820-J	EG9335-V88	RD3225	RD3225	EG820-J	EG9335-V88	EG820-J	EG9335-V88

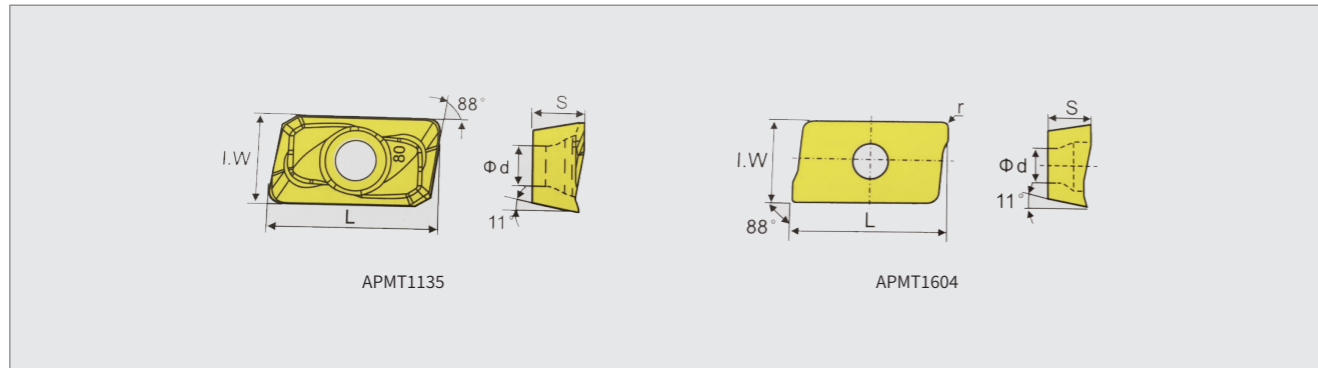
型号 Model	APKT160 4PDER-G2	APKT160 4PDER-LH	APKT170508R-R		APKT170516R-R		APKT170524R-R	
图片 Picture								
牌号 Grade	RD3225	RD3225	EG820-J	EG820-JH	EG820-J	EG820-JH	EG820-J	EG820-JH

型号 Model	APKT170530R-R	APMT113512PDER-H2		APMT113516PDER-H2			APMT1135 20PDER-H2	
图片 Picture								
牌号 Grade	EG820-JH	EG820-JH	EG820-J	EG9335-V88	EG820-J	EG9335-V1	EG9335-V88	EG820-J

型号 Model	APMT1135 20PDER-H2	APMT113540PDER-HF			APMT1135PDER-DL			
图片 Picture								
牌号 Grade	EG9335-V88	EG820-J	EG9335-V88	EG820-J	EG820JX-1	EG820-JYH	EG9335-DY88	EG9335-DY66

型号 Model	APMT1135PDER-DL				APMT1135PDER-H2			
图片 Picture								
牌号 Grade	EG9335-G1	EG9335J	EG9335-J66	EG9335-V88	EG820-JYH	EG820-J	EG9335-DY88	EG9335-F66

型号 Model	APMT1135PDER-H2						
图片 Picture							
牌号 Grade	EG9335-G1	EG9335J	EG9335-J66	EG9335-J68	EG9335-V1	EG9335-V88	EGZ5255



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
APMT1135PDER-JC	11.25	6.2	3.5	2.8	0.8
APMT1135PDER-M2	11.25	6.2	3.5	2.8	0.8
APMT160416PDER-C	17.25	9.25	4.76	4.4	1.6
APMT160416PDER-DR	17.25	9.25	4.76	4.4	1.6
APMT160416PDER-F	17.25	9.25	4.76	4.4	1.6
APMT160420PDER-F	17.25	9.25	4.76	4.4	2
APMT160420PDER-HH	17.25	9.25	4.76	4.4	2
APMT160430PDER-DR	17.25	9.25	4.76	4.4	3
APMT160430PDER-F	17.25	9.25	4.76	4.4	3
APMT1604PDER-DL	17.25	9.25	4.76	4.4	0.8
APMT1604PDER-H2	17.25	9.25	4.76	4.4	0.8
APMT1604PDER-JC	17.25	9.25	4.76	4.4	0.8
APMT1604PDER-M2	17.25	9.25	4.76	4.4	0.8
PRMT10T3MO-JS-JS	10	10	3.97	5.56	5
RCGT1003MO	10	10	3.18	4.4	5

型号 Model	APMT1135 PDER-JC	APMT1135PDER-M2						
图片 Picture								
牌号 Grade	EG9335-J68P	DSS-YZ	EG820-J	EG9335-F66	EG9335-G1	EG9335-J66	EG9335-J68	EG9335-V1

型号 Model	APMT1135PDER-M2	APMT1604 16PDER-C	APMT160416PDER-DR		APMT160416PDER-F		APMT1604 20PDER-F
图片 Picture							
牌号 Grade	EG9335-V88	EG9335J	EG820-J	EG820-J	EG9335-V88	EG820-J	EG9335-V88

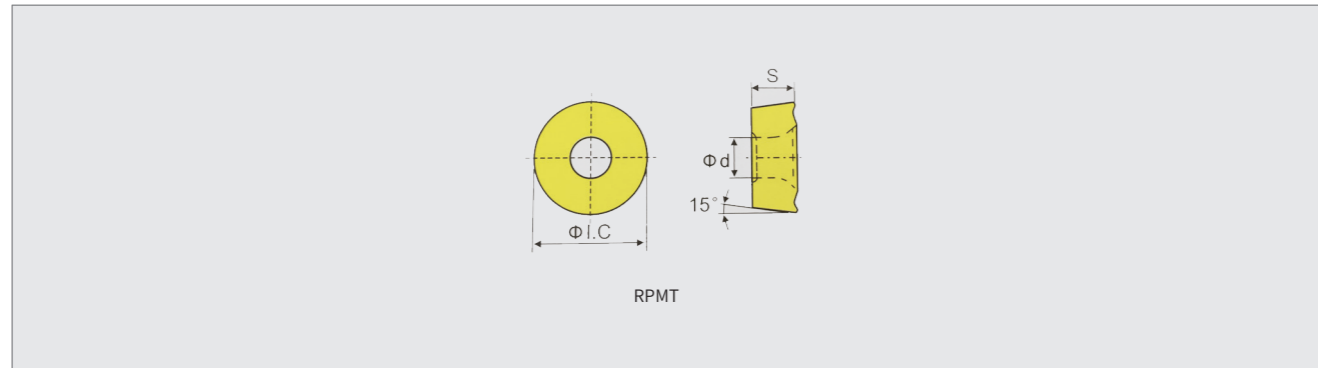
型号 Model	APMT1604 20PDER-F	APMT160420PDER-HH	APMT160430PDER-DR	APMT160430PDER-F		APMT160 4PDER-DL
图片 Picture						
牌号 Grade	EG9335-V88	EG820-J	EG9335-V88	EG820-J	EG9335-V88	EG9335-V88

型号 Model	APMT1604PDER-DL							
图片 Picture								
牌号 Grade	EG820-J	EG820JX-1	EG820-JYH	EG9335-DY66	EG9335-DY88	EG9335-G1	EG9335J	EG9335-J66

型号 Model	APMT160 4PDER-DL	APMT1604PDER-H2						
图片 Picture								
牌号 Grade	EG9335-J68	EG820-J	EG820-JYH	EG9335-DY88	EG9335-F66	EG9335-G1	EG9335J	EG9335-J66

型号 Model	APMT1604PDER-H2				APMT1604 PDER-JC	APMT1604PDER-M2		
图片 Picture								
牌号 Grade	EG9335-J68	EG9335-V1	EG9335-V88	EGZ5255	EG9335-J68P	DSS-YZ	EG820-J	EG9335-F66

型号 Model	APMT1604PDER-M2						PRMT10T 3MO-JS-JS	RCGT1 003MO
图片 Picture								
牌号 Grade	EG9335-G1	EG9335-J66	EG9335-J68	EG9335-V1	EG9335-V88	EG9335J	EG9335-J68	RD3225



型号 Model	尺寸 Size (mm)				
	L	φI.C	S	D1	RE
RCGT1204MO	12	12	4.76	4	6
RCMT0602MOTN	6	6	2.41	2.8	3
RCMT10T3MO	10	10	3.97	5.56	5
RCMT1204MO	12	12	4.76	4	6
RCMT1606MO	16	16	5.56	5.4	8
RDMT10T3MOTN-TT	10	10	3.97	5.56	5
RDMT1204MOTN-TT	12	12	4.76	4	6
RDMW0501MO	5	5	1.7	2.4	2.5
RDMW1204MO	12	12	4.76	4	6
RDMW1605MOT	16	16	5.56	5.4	8
RPGT0803MO	8	8	3.18	3.3	4
RPGT1003MO	10	10	3.18	4.4	5
RPGT10T3MO	10	10	3.97	5.56	5
RPGT1204MO	12	12	4.76	4	6
RPHX1204M6EN-M31	12	12	4.76	4.4	6

型号 Model	RCGT1204MO	RCMT0602MOTN	RCMT10T3MO	RCMT1204MO
图片 Picture				
牌号 Grade	RD3225	EG9335-G1	EG9335-J66	RD666

型号 Model	RCMT1204MO	RCMT1606MO				RDMT10T3MOTN-TT		
图片 Picture								
牌号 Grade	EG9335-V1	RD666	EG5555	EG820-J	EG9335-J66	EG9335-V88	EG820-JYH	EG820JX-1

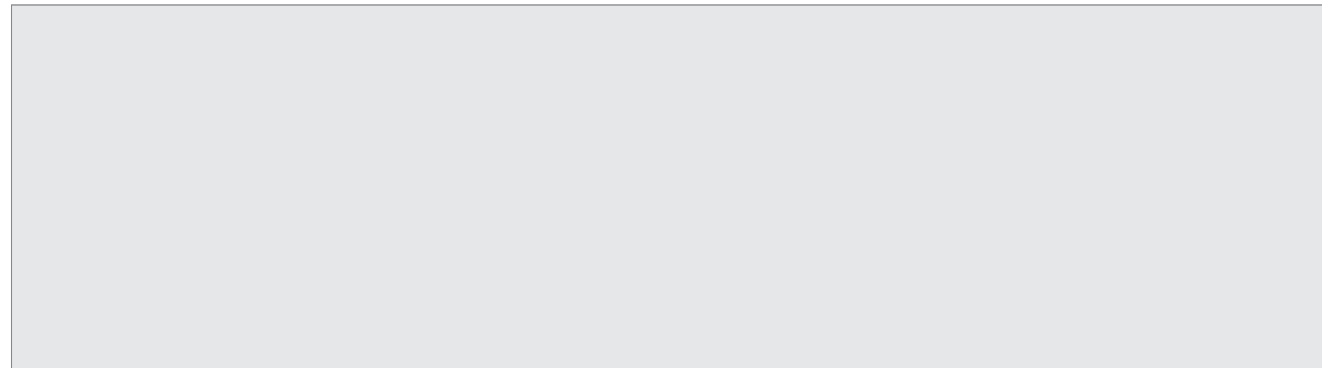
型号 Model	RDMT10T3MOTN-TT							RDMT1204MOTN-TT
图片 Picture								
牌号 Grade	EG820-J	EG9335-G1	EG9335J	EG9335-J66	EG9335-V1	EG9335-V88	EGZ5255	EG820-J

型号 Model	RDMW0501MO	RDMW1204MO						
图片 Picture								
牌号 Grade	EG9335-G1	EG820JX-1	EG820-JYH	EG9335-DY66	EG9335-DY88	EG9335-G1	EG9335J	EG9335-J66

型号 Model	RDMW1204MO				RDMW1605MOT			
图片 Picture								
牌号 Grade	EG9335-V1	EG9335-V88	EGZ5255	EG820-J	EG9335-G1	EG9335-J66	EG9335-V1	EG9335J

型号 Model	RDMW1605MOT	RPGT0803MO	RPGT1003MO	RPGT10T3MO	RPGT1204MO	RPHX1204M6EN-M31	
图片 Picture							
牌号 Grade	EG9335-V88	EG820-J	RD3225	RD3225	RD3225	RD3225	DSS-YZ

型号 Model	RPHX1204M6EN-M31					
图片 Picture						
牌号 Grade	EG820J-A	EG820JX-A	EG820JX-M	EG820JY-M	EG9335-JY88	EG9335-DY66



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
RPMT08T2MO-JS	8	8	2.58	2.94	4
RPMT1003MO-HR	10	10	3.18	4.4	5
RPMT10T3MOE-JS	10	10	3.97	5.56	5
RPMT10T3MO-JS	10	10	3.97	5.56	5
RPMT1204MO-DL	12	12	4.76	4	6
RPMT1204MO-HR	12	12	4.76	4	6
RPMT1204MO-JS	12	12	4.76	4	6
RPMW0802MO	8	8	2.33	2.94	4
RPMW1003MO	10	10	3.18	4.4	5
RPMW1204MO-DL	12	12	4.76	4	6

型号 Model	RPMT08T2MO-JS	RPMT1003MO-HR	RPMT10T3MOE-JS	RPMT10T3MO-JS				
图片 Picture								
牌号 Grade	EG820-J	EG9335-F66	EG820-JH	EG9335-J66	DSS-YZ	EG820-J	EG9335-F66	EG9335-V88

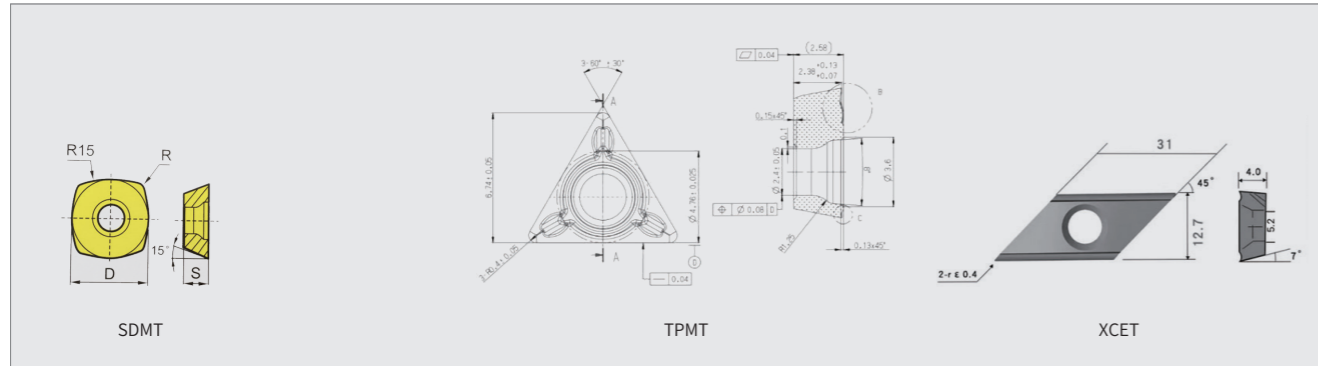
型号 Model	RPMT1204MO-DL	RPMT1204MO-HR	RPMT1204MO-JS					
图片 Picture								
牌号 Grade	EG820JX-1	EG9335-V88	DSS-YZ	EG820-J	EG9335-F66	EG9335-G1	EG9335-J66	EG9335-V1

型号 Model	RPMT1204MO-JS	RPMW0802MO			RPMW1003MO			
图片 Picture								
牌号 Grade	EG9335-V88	EG9335-G1	EG9335-HV1	EG820-J	EG820JY-1	EG820-JYH	EG9335-DY88	EG9335-DY66

型号 Model	RPMW1003MO							RPMW1204MO-DL
图片 Picture								
牌号 Grade	EG9335-G1	EG9335J	EG9335-J66	EG9335-J68	EG9335-V1	EG9335-V88	EGZ5255	EG9335J

型号 Model								
图片 Picture								
牌号 Grade								

»» 倒角
Chamfering

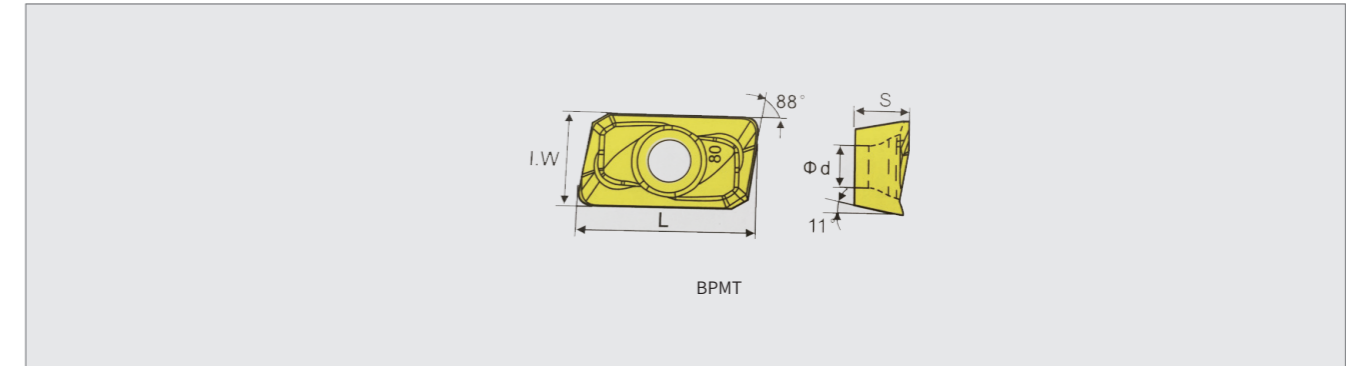


型号 Model	尺寸 Size (mm)				
	L	∅I.C	S	D1	RE
SDMT09T308-CM	9.525	9.525	4.02	3.8	0.8
SPMX050204-DG	5	5	2.38	2.25	0.4
SPMX060204-DG	6	6	2.38	2.61	0.4
SPMX07T308-DG	7	7	3.97	2.85	0.8
SPMX090408-DG	9	9	4.3	4.05	0.8
SPMX110408-DG	11	11	4.8	4.45	0.8
SPMX140512-DG	14	14	5.2	5.75	1.2
TCEX16T304E-RD	16.5	9.525	4.76	3.81	0.4
TCEX16T308E-RD	16.5	9.525	4.76	3.81	0.8
TPMT080204N-SU	6.74	4.76	2.58	2.4	0.4
XCET310404	31	12.7	4	5.2	0.4

型号 Model	SDMT09T308-CM		SPMX05 0204-DG	SPMX06 0204-DG	SPMX07 T308-DG	SPMX09 0408-DG	SPMX11 0408-DG
图片 Picture							
牌号 Grade	DSS-YZ	EG820-J	EG9335-J68	EG9335-V88	EG9335-V88	EG9335-V88	EG9335-V88

型号 Model	SPMX14 0512-DG	TCEX16T 304E-RD	TCEX16T 308E-RD	XCET310404	
图片 Picture					
牌号 Grade	EG9335-V88	EG9335-V88	EG9335-V88	EG9335-V88	EG9335J

»» 端铣
Helical Milling

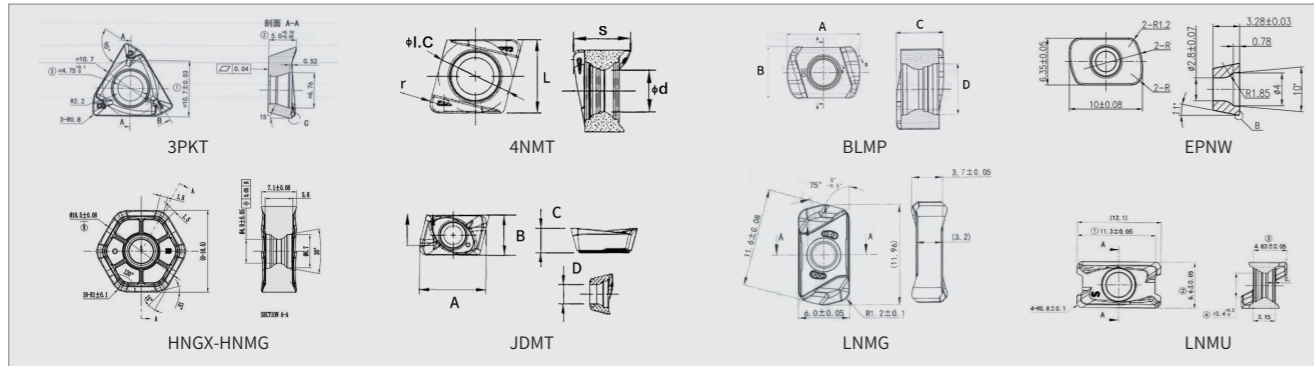


型号 Model	尺寸 Size (mm)				
	L	∅I.C	S	D1	RE
APKT150412-PM	16.33	12.7	4.76	5.4	1.2
BPMT1135PDER-JC	11.25	6.2	3.5	2.8	0.8
BPMT160408PDER-JC	17.2	9.31	4.76	4.4	0.8
SPMT120408-PM	12.7	12.7	4.76	5.5	0.8

型号 Model	APKT150412-PM	BPMT1135PDER-JC	BPMT160408PDER-JC	SPMT120408-PM			
图片 Picture							
牌号 Grade	EG820-J	EG820-JH	EG820-JH	EGZ5255	EG820-JH	EGZ5255	EG820-JH

型号 Model	SPMT12 0408-PM
图片 Picture	
牌号 Grade	EGZ5255

快进给
High-Feed Milling



型号 Model	尺寸 Size (mm)				
	L	∅I.C	S	D1	RE
3PKT100408R-M	-	6.9	4	-	0.8
3PKT150508R-M	13.7	10.7	5	4.75	0.8
4NMT060308R	6.6	6.35	4.6	3.34	0.8
BLMP0904R-T	11.9	9.15	4.61	4.15	4.15
ENMU100412-F	10	6	4	3	1.2
EPNW0603TN-8	10	6.35	3.28	2.8	1.2
HNGX090608	-	16.8	6.35	5.25	0.8
HNMG060408	-	12.7	5.56	4.4	0.8
HNMG090612	-	16.8	6.35	5.25	1.2
JDMT070204R	7.07	4.26	2.56	2	0.4
JDMT070208R	7.07	4.26	2.56	2	0.8
LNMG020209ZNER-DZ	-	4	3.1	-	0.8
LNMG0303R-LG	11.96	6	3.7	2.8	1.2
LNMG0303R-RD	11.96	6	3.7	2.8	1.2
LNMU110408SRGE	12.1	6.6	4.83	3.15	0.8
LNMU15T608SGE	16.9	10	6.95	4.85	0.8

型号 Model	3PKT100408R-M	3PKT150508R-M	4NMT060308R
图片 Picture			
牌号 Grade	EG820-J	EG820-J	EG9335-D88

型号 Model	BLMP0904R-T	ENMU100412-F			EPNW0603TN-8		
图片 Picture							
牌号 Grade	EG820-J	EG9335-D88	EG9335-G1	EG9335-J66	EG9335-V1	EG820JX-1	EG9335-YZV88

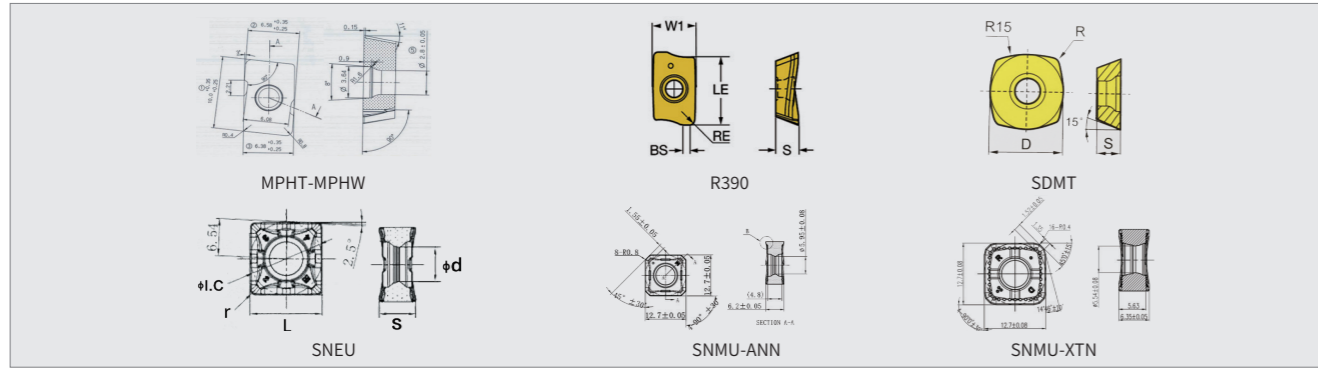
型号 Model	EPNW0603TN-8	HNGX090608		HNMG060408	HNMG090612	JDMT070204R	
图片 Picture							
牌号 Grade	EG820-JH	EG9335-D88	EG820-J	EG9335-D88	EG820-J	EG9335-D88	EG820JX-1

型号 Model	JDMT070204R	JDMT070208R				LNMG020209ZNER-DZ	LNMG0303R-LG	
图片 Picture								
牌号 Grade	EG9335-J66	EG820-J	EG820JX-1	EG9335-D88	EG9335-J66	EG820-J	EG820-J	EG820-JY

型号 Model	LNMG0303R-LG							LNMG0303R-RD
图片 Picture								
牌号 Grade	EG820-JYH	EG820JX-1	EG9335-G1	EG9335-J66	EG9335-J68	EGZ5255	EG9335-V88	EG820-J

型号 Model	LNMG0303R-RD						LNMU110408SRGE	
图片 Picture								
牌号 Grade	EG9335-D66	EG9335-G1	EG9335-J68	EG9335-V88	EGZ5255	EG9335-J66	EG820JX-1	EG9335-D88

型号 Model	LNMU110408SRGE	LNMU15T608SGE	
图片 Picture			
牌号 Grade	EG9335-J68	EGZ5255	EG9335-D88



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
LOGU030310ER-GM	11.98	6.2	3.94	3.45	1
MPHT060304	6.35	6.35	3.18	2.8	0.4
MPHT080305	8.3	8.3	3.18	3.4	0.5
MPHT120408	12.7	12.7	4.76	5.5	0.8
MPHW060304-ZEL	6.35	6.35	3.18	2.8	0.4
MPHW060308-ZEL	6.35	6.35	3.18	2.8	0.8
R39011T308-PM	11.6	6.8	3.59	2.8	0.8
SDMT09T307-BPS	9	9	3.5	3.5	0.7
SDMT120512-GM	12.7	12.7	5.56	4.4	1.2
SDMT120512-RD	12.7	12.7	5.56	4.4	1.2
SDMT150512-GM	15.875	15.875	5.56	5.5	1.2
SDMT150512-RD	15.875	15.875	5.56	5.5	1.2
SNEU1206ANEN-GM	12.7	12.7	6.35	5.9	0.8
SNMU1206ANN-8	12.7	12.7	6.2	5.95	0.8
SNMU1206ANN-M	12.7	12.7	6.2	5.95	0.8
SNMU1206XTN	12.7	12.7	6.35	5.54	0.4

型号 Model	LOGU030310ER-GM				MPHT060304		MPHT080305	
图片 Picture								
牌号 Grade	EG820-J	EG820JX-1	EG9335-J68	EG9335-V88	EG820-JH	EG820-J	EG820-JH	EG820-J

型号 Model	MPHT 120408	MPHW060304-ZEL		MPHW060308-ZEL		R39011T308-PM		
图片 Picture								
牌号 Grade	EG820-J	EG820-J	EG820-JH	EG820-J	EG820-JH	EG820-J	EG820-JH	EG9335-G1

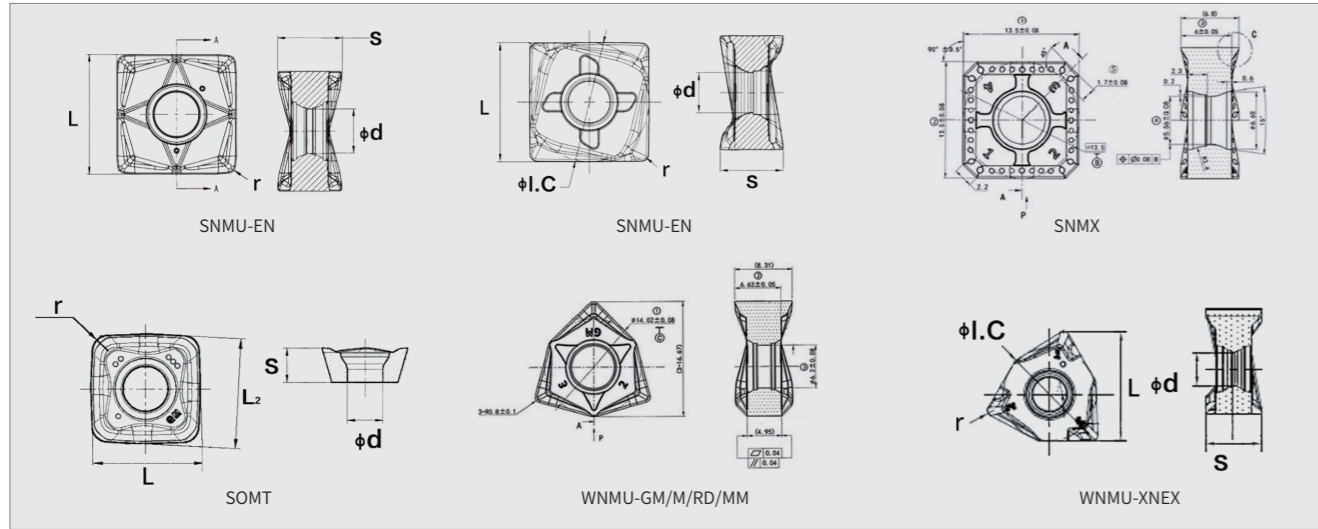
型号 Model	R39011T308-PM				SDMT09T 307-BPS	SDMT120512-GM		
图片 Picture								
牌号 Grade	EG9335J	EG9335-J66	EG9335-TC	EG9335-V88	EG820-J	EG820-J	EG820JX-1	EG9335-G1

型号 Model	SDMT120512-GM				SDMT120512-RD			
图片 Picture								
牌号 Grade	EG9335-J66	EG9335-V88	EGZ5255	EG820-J	EG820-JH	EG9335-G1	EG9335-V88	EGZ5255

型号 Model	SDMT150512-GM						SDMT150512-RD	
图片 Picture								
牌号 Grade	EG820-J	EG820JX-1	EG9335-G1	EG9335-J66	EG9335-V88	EGZ5255	EG820-J	EG820-JH

型号 Model	SDMT150512-RD			SNEU1206ANEN-GM		SNMU12 06ANN-8	SNMU1206ANN-M	
图片 Picture								
牌号 Grade	EG9335-G1	EG9335-V88	EGZ5255	EG820-J	EG9335-D88	EG820-J	EG820-J	EGZ5255

型号 Model	SNMU1206XTN							
图片 Picture								
牌号 Grade	EG5555	EG820-J	EG9335-J66	EG9335-V88				



型号 Model	尺寸 Size (mm)				
	L	φI.C	S	D1	RE
SNMU130508EN	13	13	6.9	4.8	0.8
SNMU130708ZNER	13.65	13.65	7.5	4.79	0.8
SNMX1306ANEN-M	13.5	13.5	6.8	5.56	-
SOMT100420ER-GM	10.3	10.3	4.68	4.7	2
SOMT140520ER-GM	14.14	14.14	5.66	5.85	2
SOMT140520ER-LD	14.14	14.14	5.66	5.85	2
WNMU040304-GM	-	6.7	3.06	3.2	0.4
WNMU060408R-M	-	10.15	4.36	4.2	0.8
WNMU080608EN-GM	-	14.02	6.63	6.2	0.8
WNMU080608EN-RD	-	14.02	6.63	6.2	0.8
WNMU080608EN-XNEX	-	14.02	6.63	6.2	0.8
WNMX060312-MM					
WNMX09T316-MM					
XOMX060204TR-TR	6.9	4.06	2.45	1.95	0.4
XOMX060208TR-TR	6.9	4.06	2.45	1.95	0.8
XOMX120420TR-TR	13.7	8.2	5.07	3.9	2
XOMX120440TR-TR	13.7	8.2	5.07	3.9	4

型号 Model	SNMU130508EN			SNMU130708ZNER			SNMX1306ANEN-M		
图片 Picture									
牌号 Grade	EG820-JH	EG9335-J68	EG820-JH	EG820-J	EGZ5255	EG9335-G1	EG9335-J66	EG9335-V88	

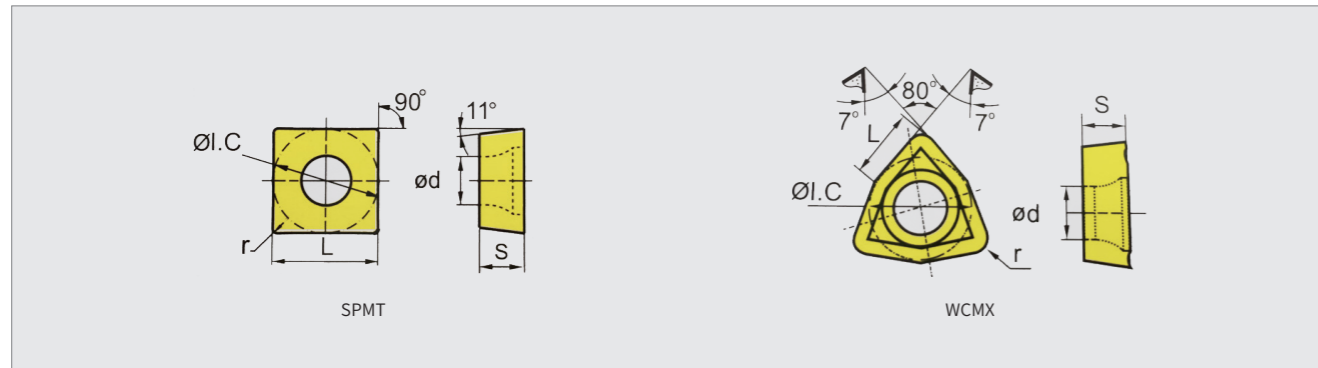
型号 Model	SOMT100420ER-GM				SOMT140520ER-GM			SOMT140520ER-LD	WNMU040304-GM
图片 Picture									
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型号 Model	WNMU040304-GM	WNMU060408R-M			WNMU080608EN-GM			
图片 Picture								
牌号 Grade	EG9335-V88	EG9335-G1	EG9335-V88	EG820-J	RD820-JYH	EG9335-D66	EG9335-G1	EG9335-J66

型号 Model	WNMU080608EN-GM				WNMU080608EN-RD			
图片 Picture								
牌号 Grade	EG9335-J68	EG9335-V88	EGZ5255	EG9335-V88	EG820-J	EG9335-D88	EG9335-G1	EG9335-J68

型号 Model	WNMU080608EN-RD	WNMU080608EN-XNEX		WNMX060312-MM	WNMX09T316-MM	XOMX060204TR-TR	
图片 Picture							
牌号 Grade	EGZ5255	EG820-J	EG9335-V88	EG9335-G1	EG9335-V88	EG9820-J	EG9335-V88

型号 Model	XOMX060204TR-TR	XOMX060208TR-TR		XOMX120420TR-TR		XOMX120440TR-TR	
图片 Picture							
牌号 Grade	EG820-JH	EG820-JH	EG820-J	EG820-JH	EG820-J	EG820-JH	EG820-J



型号 Model	尺寸 Size (mm)				
	L	ØI.C	S	D1	RE
SPMT07T308-DG	7	7	3.97	2.85	0.8
SPMT090408-DG	9	9	4.3	4.05	0.8
SPMT110408-DG	11	11	4.8	4.45	0.8
SPMT140512-DG	14	14	5.2	5.75	1.2
WCMT030208-DG	3.8	5.56	2.38	2.8	0.8
WCMT030208-FN	3.8	5.56	2.38	2.8	0.8
WCMT040208-DG	4.3	6.35	2.38	3.1	0.8
WCMT040208-FN	4.3	6.35	2.38	3.1	0.8
WCMT050308-DG	5.4	7.94	3.18	3.2	0.8
WCMT050308-FN	5.4	7.94	3.18	3.2	0.8
WCMT06T308-DG	6.5	9.525	3.97	3.7	0.8
WCMT06T308-FN	6.5	9.525	3.97	3.7	0.8
WCMT080412-DG	8.7	12.7	4.76	4.3	1.2
WCMT080412-FN	8.7	12.7	4.76	4.3	1.2
XCMT040104-TC	6.4	4.4	1.7	-	0.4

型号 Model	SPMT07T308-DG		SPMT07T308-DG		SPMT090408-DG			
图片 Picture								
牌号 Grade	RD3225	EG820JX-1	EGZ5255	EG6688-D88	EG6688-J66	EG820JX-1	EGZ5255	EG6688-D88

型号 Model	SPMT090408-DG		SPMT110408-DG				SPMT140512-DG	
图片 Picture								
牌号 Grade	EG6688-J66	RD3225	EG820JX-1	EG5255	EG6688-D88	EG6688-J66	RD3225	EG820JX-1

型号 Model	SPMT140512-DG				WCMT030208-DG			WCMT030208-FN
图片 Picture								
牌号 Grade	EGZ5255	EG6688-D88	EG6688-J66	RD3225	RD3225	EG6688-J66	EG6688-V1	EGZ5255

型号 Model	WCMT030208-FN				WCMT040208-DG			WCMT040208-FN
图片 Picture								
牌号 Grade	EG6698-G1	EG6698-J68	EG820-J	EG820JX-1	RD3225	EG6688-J66	EG6688-V1	EGZ5255

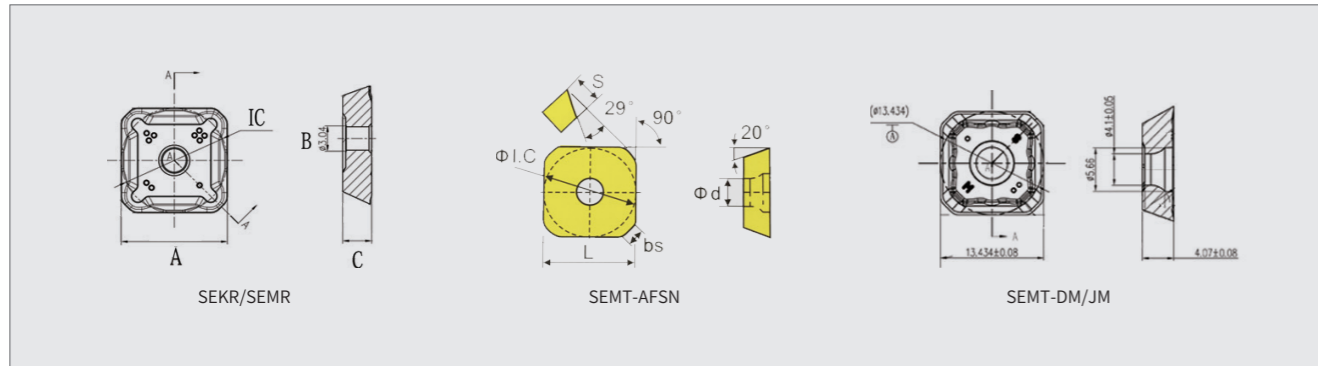
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图片 Picture								
牌号 Grade	EG6698-G1	EG6698-J68	EG820-J	EG820JX-1	RD3225	EG6688-J66	EG6688-V1	EGZ5255

型号 Model	WCMT050308-FN				WCMT06T308-DG			WCMT06T308-FN
图片 Picture								
牌号 Grade	EG6698-G1	EG6698-J68	EG820-J	EG820JX-1	RD3225	EG6688-J66	EG6688-V1	EG6698-G1

型号 Model	WCMT06T308-FN				WCMT080412-DG			WCMT080412-FN
图片 Picture								
牌号 Grade	EG6698-J68	EG820-J	EG820JX-1	EGZ5255	RD3225	EG6688-J66	EG6688-V1	EGZ5255

型号 Model	WCMT080412-FN				XCMT040104-TC			
图片 Picture								
牌号 Grade	EG6698-G1	EG6698-J68	EG820-J	EG820JX-1	EG820-J			

面铣
Face Milling



型号 Model	尺寸 Size (mm)				
	L	øI.C	S	D1	RE
SEKR1203JM-RD	12.5	12.5	3.41	2.3	-
SEMR1203AFTN-RD	12.5	12.5	3.41	2.3	-
SEMR1504AFTN-RD	15.8	15.76	5	3.2	-
SEMT1204AFSN	12.6	12.6	4.76	5.5	0.8
SEMT13T3AG-DM	13.37	13.37	3.97	4.4	1.5
SEMT13T3AGSN-JM	13.37	13.37	3.97	4.4	1.5

型号 Model	SEKR1203JM-RD	SEMR1203AFTN-RD	SEMR1504AFTN-RD	SEMT1204AFSN				SEMT13T3AG-DM
图片 Picture								
牌号 Grade	EG9335-D88	EG820-J	EG820-J	EG9335-G1	EG9335-J66	EG9335-V1	EG9335-V88	EG9335-J66

型号 Model	SEMT13T3AGSN-JM							
图片 Picture								
牌号 Grade	EG9335-F66							



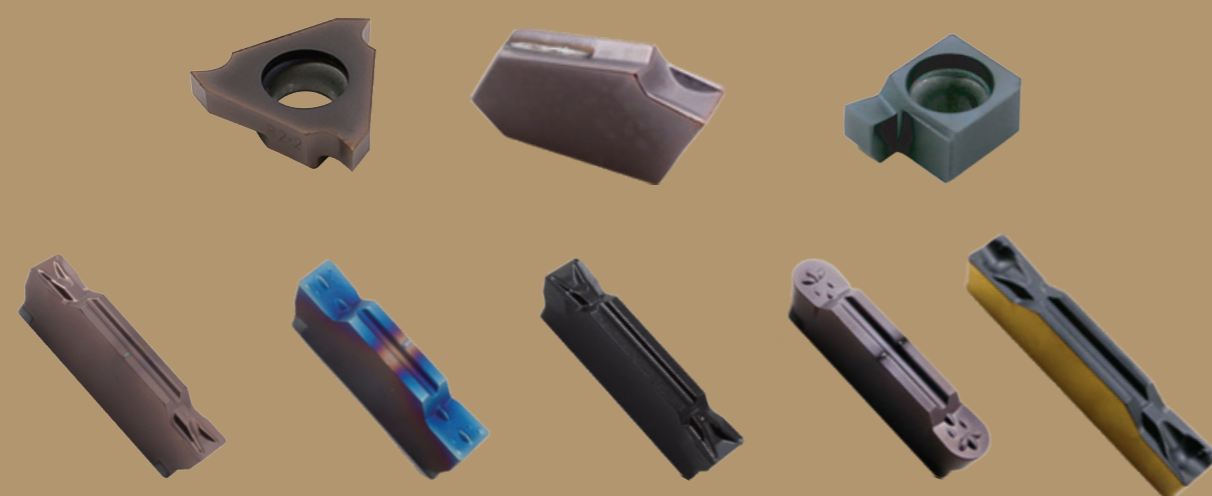
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PARTING OFF & GROOVING

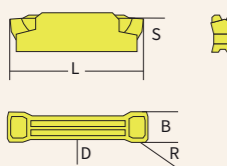
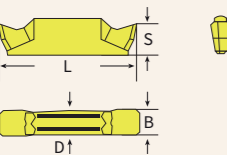
切断切槽系列



切断系列 - Parting Off	213
小内孔切槽系列 - GR Grooving	215
卡簧槽系列 - Circlip Grooving	216
五角星霸王槽刀片 - PENTA Grooving	218
难加工材质铣刀系列 - Tungsten Carbide End Mill	219

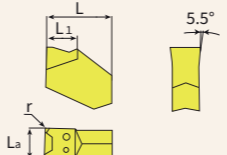


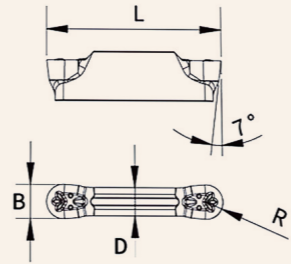
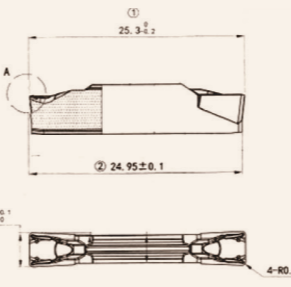
》》 切断系列
Parting Off

刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)				
		B	R	L	S	K
	MGMN150	1.5	0.15	16	1.2	3.5
	MGMN200	2	0.2	16	1.6	3.5
	MGMN250	2.5	0.2	18.5	2	3.85
	MGMN300	3	0.4	21	2.35	4.8
	MGMN400	4	0.4	21	3.3	4.8
	MGMN500	5	0.8	26	4.1	5.8
	MGMN600	6	0.8	26	4.2	5.8
	MGGN150	1.5	0.15	16	1.2	3.5
	MGGN200	2.0	0.2	16	1.6	3.5
	MGGN250	2.5	0.2	18.5	2.0	3.85
MGGN300	3.0	0.4	21	2.35	4.8	
MGGN400	4.0	0.4	21	3.3	4.8	
MGGN500	5.0	0.4	26	4.1	5.8	
	TD-200-C	2	0.2	20	4	-
	TD-300-C	3	0.2	20	5	-
	TD-400-C	4	0.3	20	5	-
	TD-200-J	2	0.2	20	4	-
	TD-300-J	3	0.2	20	5	-
	TD-400-J	4	0.3	20	5	-

型号 Model	MGMN-G/M				MGMN-GC		MGMN-T	MGGN 300-Q	MGGN 300-Q-15		
图片 Picture											
牌号 Grade	RD5235-88	RD5235-V1	RD5235-J66	RD5215H	RD3225	RD5235	RD5235-D66	DSS-YZ	RD5235-J68	RD5235-DSS	RD5235

型号 Model	MGGN-Q		MGGN-Q-8			TD-C		TD-J		MGGL 300-Q-15	
图片 Picture											
牌号 Grade	RD5235	RD5235-J68	RD3225	RD5235	RD5235-J68	RD3225	RD5235-D88	RD5235-J68	RD5235-D88	RD5235-J68	RD5235

刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)			
		L ₁	La	r	L
	ZQ1402	3.9	2.2	0.2	9.3
	ZQ1403	4.4	3.1	0.2	11.3
	ZQ1404	4.95	4.1	0.3	11.3
	ZQ1405	5	5.1	0.3	11.4
	ZQ1406		6		

刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)				
		b	r	l	d	t
	MRMN150-M	1.5	0.75			
	MRMN200-M	2	1	21	1.5	3.5
	MRMN250-M	2.5	1.25	21		
	MRMN300-M	3	1.5	21	2.35	4.8
	MRMN400-M	4	2	21	3.3	4.8
	MRMN500-M	5	2.5	25.86	4.12	5.8
	MRGN200-R	2	1	21	1.5	3.5
	MRGN300-R	3	1.5	21	2.35	4.8
	MRGN400-R	4	2	21	3.3	4.8
	MRGN500-R	5	2.5	25.86	4.12	5.8
	N123H2-0400-4000	4	0.4	24.95	3.25	5.8

型号 Model	ZQ	MRMN	MRGN-R	N123	GMM 200-TMR	MRMN 300-M		
图片 Picture								
牌号 Grade	RD5235	RD5235	RD5235-J68	RD5235-J68	RD5235-J66	RD5555	RD5235	RD5235

小内孔切槽系列
GR Grooving

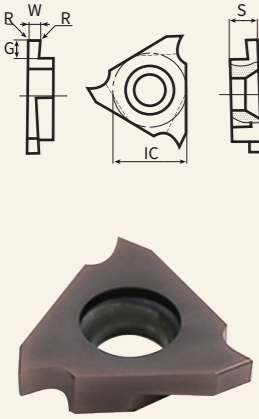
刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)						槽宽width w±0.02 (mm)
		A	B	T	D	L	Re	
	7GR-100	5.56	7.36	3.08	2.58	5.56	0.2	1
	7GR-150	5.56	7.36	3.08	2.58	5.56	0.2	1.5
	7GR-200	5.56	7.36	3.08	2.8	5.56	0.2	2
	8GR-100	5.56	10.16	3.87	2.58	6.18	0.2	1
	8GR-150	5.56	10.16	3.87	2.58	6.18	0.2	1.5
	8GR-200	5.56	10.16	3.87	2.58	6.18	0.2	2
	8GR-250	5.56	10.16	3.87	2.58	6.18	0.2	2.5
	8GR-300	5.56	10.16	3.87	2.58	6.18	0.2	3
	9GR-100	5.56	10.16	3.87	2.58	6.18	0.2	1
	9GR-150	5.56	10.16	3.87	2.58	6.18	0.2	1.5
	9GR-200	5.56	10.16	3.87	2.58	6.18	0.2	2
	9GR-250	5.56	10.16	3.87	2.58	6.18	0.2	2.5
	9GR-300	5.56	10.16	3.87	2.58	6.18	0.2	3

型号 Model	7GR	8GR	9GR					
图片 Picture								
牌号 Grade	RD5235	RD5235	RD5235					

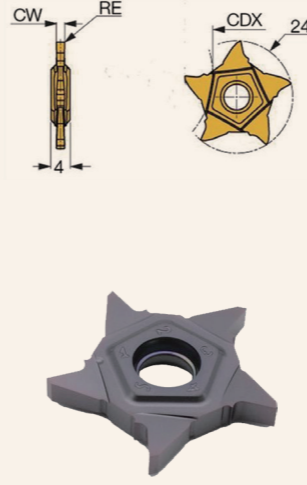
卡簧槽系列
Circlip Grooving

刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)					
		W	G	刃宽公差 Width Tolerance	IC	R	S
	TGF32R/L-050	0.50	1.2	0.05	3/8	0.05	3.18
	TGF32R/L-075	0.75	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-080	0.80	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-090	0.90	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-095	0.95	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-100	1.00	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-110	1.10	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-120	1.20	2.0	0.05	3/8	0.05	3.18
	TGF32R/L-125	1.25	2.0	0.20	3/8	0.2	3.18
	TGF32R/L-130	1.30	2.0	0.20	3/8	0.2	3.18
	TGF32R/L-140	1.40	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-150	1.50	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-160	1.60	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-175	1.75	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-190	1.90	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-200	2.00	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-220	2.20	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-225	2.25	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-230	2.30	2.5	0.20	3/8	0.2	3.18
	TGF32R/L-250	2.50	2.5	0.20	3/8	0.2	3.18
TGF32R/L-260	2.60	2.5	0.20	3/8	0.2	3.18	
TGF32R/L-300	3.00	2.5	0.20	3/8	0.2	3.18	

卡簧槽系列
Circlip Grooving

刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)					
		W	G	刃宽公差 Width Tolerance	IC	R	S
	GBA43R125	1.25	2.0	0.2	1/2	0.2	4.76
	GBA43R145	1.45	2.0	0.2	1/2	0.2	4.76
	GBA43R150	1.50	3.5	0.2	1/2	0.2	4.76
	GBA43R175	1.75	3.5	0.2	1/2	0.2	4.76
	GBA43R185	1.85	3.5	0.2	1/2	0.2	4.76
	GBA43R200	2.00	3.5	0.2	1/2	0.2	4.76
	GBA43R230	2.30	3.5	0.2	1/2	0.2	4.76
	GBA43R250	2.50	5.0	0.3	1/2	0.3	4.76
	GBA43R265	2.65	5.0	0.3	1/2	0.3	4.76
	GBA43R280	2.80	5.0	0.3	1/2	0.3	4.76
	GBA43R300	3.00	5.0	0.3	1/2	0.3	4.76
	GBA43R330	3.30	5.0	0.3	1/2	0.3	4.76
	GBA43R350	3.50	5.0	0.3	1/2	0.3	4.76
	GBA43R400	4.00	5.0	0.4	1/2	0.4	4.76
	GBA43R430	4.30	5.0	0.4	1/2	0.4	4.76
	GBA43R450	4.50	5.0	0.4	1/2	0.4	4.76

五角星槽刀片系列
Penta Grooving Insert Series

刀片外形 Insert Shape	型号 Model	尺寸 Size (mm)				
		刃宽 CW	最大切深 CDX	外接圆 E.C.	刀片厚度 S	刀尖圆弧 RE
	PENTA24C050	0.5	2.9	24	4.0	0.1
	PENTA24C080	0.8	2.9	24	4.0	0.1
	PENTA24C100	1.0	4.9	24	4.0	0.1
	PENTA24C120	1.2	4.9	24	4.0	0.1
	PENTA24C125	1.25	4.9	24	4.0	0.1
	PENTA24C140	1.4	4.9	24	4.0	0.1
	PENTA24C150	1.5	4.9	24	4.0	0.1
	PENTA24C175	1.75	4.9	24	4.0	0.1
	PENTA24C180	1.8	4.9	24	4.0	0.1
	PENTA24C200	2.0	4.9	24	4.0	0.2
	pPENTA24C230	2.3	4.9	24	4.0	0.2
	PENTA24C250	2.5	4.9	24	4.0	0.2
	PENTA24C280	2.8	4.9	24	4.0	0.2
	PENTA24C300	3.0	4.9	24	4.0	0.2
	PENTA24C320	3.2	6.4	24	5.0	0.2
	PENTA24C330	3.3	6.4	24	5.0	0.2
	PENTA24C350	3.5	6.4	24	5.0	0.2
	PENTA24C400	4.0	6.4	24	5.0	0.2

难加工材质铣刀系列
Tungsten Carbide End Mill

铣刀外形End Mill Shape	型号 Model	类别 Type	尺寸 Size (mm)					
			直径 D Diameter	刃长L1 Flute Length	柄径d Shank Dia	全长L O. A. L.	刃数F Flute	
	1*3*4d*50L*4f	平刀 Square	1	3	4	50	4	
	1.5*4*4d*50L*4F		1.5	4	4	50	4	
	2*6*4d*50L*4F		2	6	4	50	4	
	3*8*4d*50L*4f		3	8	4	50	4	
	4*11*4d*50L*4F		4	11	4	50	4	
	5*13*6d*50L*4f		5	13	6	50	4	
	6*16*6d*50L*4f		6	16	6	50	4	
	20*8d*60L*4F		7	20	8	60	4	
	8*20*8d*60L*4f		8	20	8	60	4	
	10*25*10d*75L*4F		10	25	10	75	4	
	12*30*12d*75L*4F		12	30	12	75	4	
	16*45*16d*100L*4F		16	45	16	100	4	
	18*45*18d*100L*4F		18	45	18	100	4	
	4*15*4d*75L*4F		4	15	4	75	4	
	4*15*6d*75L*4F		4	15	6	75	4	
	6*20*6d*75L*4F		6	20	6	75	4	
	8*25*8d*100L*4F		8	25	8	100	4	
	10*30*10d*100L*4F		10	30	10	100	4	
	12*35*12d*100L*4F	12	35	12	100	4		
	16*50*16d*150L*4F	16	50	16	150	4		
	1*R1.0*4*4D*50L*2F	球刀 Ball Nose	1	1.0	4	4	50	2
	2.5*R1.25*5*4D*50L*2F		2.5	1.25	5	4	50	2
	3*R1.5*6*4D*50L*2F		3	1.5	6	4	50	2
	4*R2.0*8*4D*50L*2F		4	2.0	8	4	50	2
	2*R1.0*4*6D*50L*2F		2	1.0	4	6	50	2
	3*R1.5*6*6D*50L*2F		3	1.5	6	6	50	2
	4*R2.0*8*6D*50L*2F		4	2.0	8	6	50	2
	6*R3.0*12*6D*50L*2F		6	3.0	12	6	50	2
	8*R4.0*16*8D*60L*2F		8	4.0	16	8	60	2
	10*R5.0*20*10D*75L*2F		10	5.0	20	10	75	2
	12*R6.0*24*12D*75L*2F		12	6.0	24	12	75	2

铣刀外形End Mill Shape	型号 Model	类别 Type	尺寸 Size (mm)					
			直径 D Diameter	半径R Radius	刃长L1 Flute Length	柄径d Shank Dia	全长L O. A. L.	刃数F Flute
	2*R1.0*4*6d*75L*2F	加长 球刀 Extended	2	1.0	4	6	75	2
	2.5*R1.25*5*6d*75L*2F		2.5	1.25	5	6	75	2
	3*r1.5*6*6d*75L*2F		3	1.5	6	6	75	2
	4*R2.0*8*6d*75L*2F		4	2.0	8	6	75	2
	6*R3.0*12*6d*75L*2F		6	3.0	12	6	75	2
	8*R4.0*16*8d*100L*2F		8	4.0	16	8	100	2
	10*R5.0*20*10d*100L*2F		10	5.0	20	10	100	2
	12*R6.0*24*12d*100L*2F		12	6.0	24	12	100	2
	3*R0.5*8*4d*50L*4F	圆鼻刀 Corner Radius	3	0.5	8	4	50	4
	4*R0.5*10*4d*50L*4f		4	0.5	10	4	50	4
	5*R0.5*13*6d*50L*4F		5	0.5	13	6	50	4
	6*r0.3*16*6d*50L*4F		6	0.3	16	6	50	4
	6*R0.5*16*6d*50L*4F		6	0.5	16	6	50	4
	8*R0.5*20*8d*60L*4F		8	0.5	20	8	60	4
	10*R0.5*25*10d*75L*4F		10	0.5	25	10	75	4
	12*R0.5*30*12d*75L*4F		12	0.5	30	12	75	4
	6*R0.5*16*6d*75L*4F		6	0.5	16	6	75	4
	8*R0.5*20*8d*100L*4F		8	0.5	20	8	100	4
	10*R0.5*25*10d*100L*4F		10	0.5	25	10	100	4
	12*R0.5*30*12d*100L*4F		12	0.5	30	12	100	4
	3*R0.2*8*4d*50L*4f	加长 圆鼻刀 Extended	3	0.2	8	4	50	4
	4*R0.2*10*4d*50L*4F		4	0.2	10	4	50	4
	4*R1.0*10*4d*50L*4F		4	1.0	10	4	50	4
	5*R1.0*13*6d*50L*4F		5	1.0	13	6	50	4
	6*R1.0*16*6d*50L*4F		6	1.0	16	6	50	4
	8*R1.0*20*8d*60L*4F		8	1.0	20	8	60	4
	10*r1.0*25*10d*75L*4F		10	1.0	25	10	75	4
	10*R2.0*25*10d*75L*4F		10	2.0	25	10	75	4
	12*R1.0*30*12d*75L*4F		12	1.0	30	12	75	4
	12*R2.0*30*12d*75L*4F		12	2.0	30	12	75	4
	6*R1.0*16*6d*75L*4F		6	1.0	16	6	75	4
	8*r1.0*20*8d*100L*4F		8	1.0	20	8	100	4
10*R1.0*25*10d*100L*4F	10	1.0	25	10	100	4		
10*R2.0*25*10d*100L*4F	10	2.0	25	0	100	4		
12*R1.0*30*12d*100L*4F	12	1.0	30	12	100	4		
12*R2.0*30*12d*100L*4F	12	2.0	30	12	100	4		