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SUREWEL TOOLS

2026 Vol.05



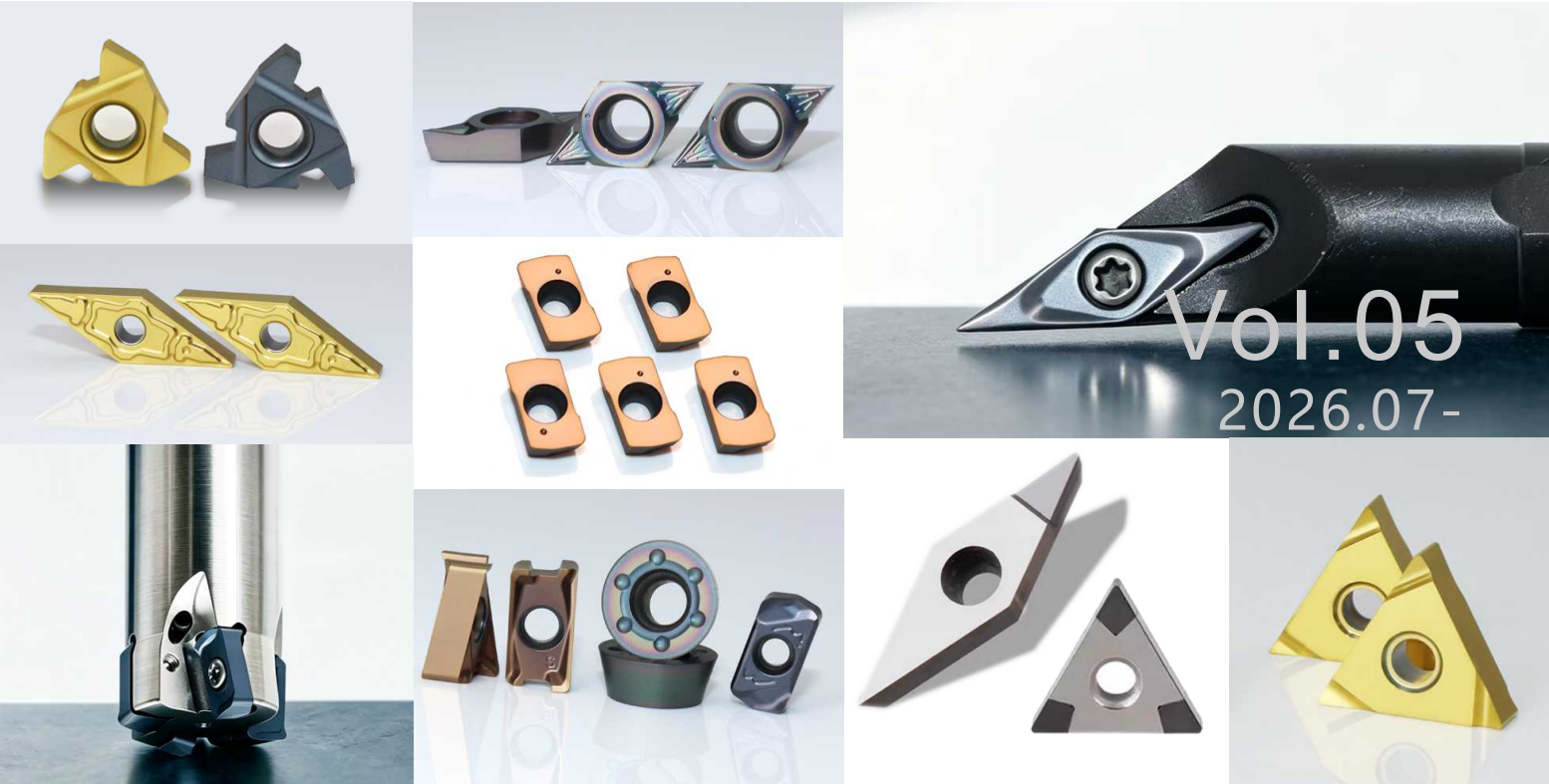
Carbide/Cermet/PCD/CBN insert



希微工具
SUREWEL TOOLS

切削工具样本 -C
Cutting Tools Catalog

CARBIDE/CERMET/PCD/CBN insert
Turning Inserts | Milling Inserts | Threading Inserts



Vol.05
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公司介绍

Company Introduction

SUREWEL Tools 坐落于中国的模具重镇—东莞市长安镇，公司始终以“科技创新，合作共赢，诚信高效，服务一流”为服务理念，以高新技术与品牌打造企业。SUREWEL Tools 秉持“制造一流产品，提供一流服务”的企业理念，为客户提供刀具整体解决方案，助其更好的服务市场以获得全球性的成功企业使用。

公司拥有大量的专业人才和先进的高科技生产和检测设备，在先进管理理念和国际质量体系的引导下，通过公司全体员工和智慧及不断辛勤努力开发的SUREWEL Tools，以其新颖的结构，精湛的工艺，优越的性能达到行业的领先水平。我们深刻认识唯有为客户提供优质的产品服务以及与具有竞争力的价格，才能赢得客户的信赖，而这也就是SUREWEL Tools持续努力的方针。

SUREWEL Tools is located in Chang'an Town, Dongguan City, a key mold town in China. The company always adheres to the service philosophy of "technological innovation, win-win cooperation, integrity and efficiency, and first-class service", and builds an enterprise with high-tech and brand. SUREWEL Tools adheres to the corporate philosophy of "manufacturing first-class products and providing first-class services", providing customers with comprehensive solutions for cutting tools, helping them better serve the market and achieve successful global enterprise use.

The company has a large number of professional talents and advanced high-tech production and testing equipment. Guided by advanced management concepts and international quality systems, SUREWEL Tools, developed through the wisdom and continuous hard work of all employees, has reached the leading level in the industry with its innovative structure, exquisite craftsmanship, and superior performance. We deeply understand that only by providing customers with high-quality product services and competitive prices can we win their trust, and this is the policy that SUREWEL Company continues to strive for..

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技术资料

Technical Information

E01-E06

车削牌号
Turning Grade

分类 Classify	牌 号 Model name	颜 色 Color	涂层 Coating	应用推荐 Model Features
P	YZ1105	黑色 Black	CVD	适用于钢件材料的半精加工及精加工。 It is suitable for semi-finishing and finishing of steel materials.
	YZ1125	黑黄双色 Black and Yellow	CVD	针对一般钢材车削最通用的首选牌号，从精加工到粗加工，从低速到高速都具备很强的综合性能，也能胜任一般的断续车削。 The most common preferred grade for general steel turning, it has strong comprehensive performance from finishing to roughing, from low speed to high speed, and is also capable of general interrupted turning.
	YZ4130	黄色 Yellow	CVD	抗塑性变形的耐磨基体，加厚的高硬度强韧涂层。钢件的高速、高效率车削，精-粗加工。 Wear resistant substrate resistant to plastic deformation, thick high hardness and tough coating.High speed and high-efficiency turning of steel parts, precision rough machining.
	YZ8015	无涂层 Uncoated	金属陶瓷 Cermet	高耐磨性和高切削效率；适用于硬度低于HRC40的碳钢、低合金钢、不锈钢、铝合金等材料的精加工、半精加工，连续车削、铣削和开槽加工；尤其擅长铝合金的高精度和高光洁度表面加工。 High wear resistance and cutting efficiency; Suitable for precision machining, semi precision machining, continuous turning, milling, and slotting of carbon steel, low-alloy steel, stainless steel, aluminum alloy, and other materials with a hardness lower than HRC40; Especially skilled in high-precision and high smoothness surface processing of aluminum alloys.
	YZ8015T	黄色 Yellow	金属陶瓷 Cermet	采用自主创新全新PVD涂层工艺，涂层与基体附着力更强，增加硬度的同时又能提升韧性，大幅提升刀具寿命的同时也能确保被加工工件尺寸的稳定性和光洁度。 Adopting the independently innovated new PVD coating process, the coating has stronger adhesion with the substrate, increasing hardness while improving toughness, significantly improving tool life, and ensuring the stability and smoothness of the machined workpiece size.erature,and good nano hardness.
	YZ8025	无涂层 Uncoated	金属陶瓷 Cermet	优良的耐磨性和韧性；适用于硬度低于HRC40的碳钢、低合金钢、不锈钢、铝合金等材料的精加工、半精加工，连续车削、铣削和开槽加工。 Excellent wear resistance and toughness; Suitable for precision machining, semi precision machining, continuous turning, milling, and slotting of carbon steel, low-alloy steel, stainless steel, aluminum alloy, and other materials with a hardness lower than HRC40.
	YZ8025T	黄色 Yellow	金属陶瓷 Cermet	采用自主创新全新PVD涂层工艺，涂层与基体附着力更强，增加硬度的同时又能提升韧性，大幅提升刀具寿命的同时也能确保被加工工件尺寸的稳定性和光洁度。 Adopting the independently innovated new PVD coating process, the coating has stronger adhesion with the substrate, increasing hardness while improving toughness, significantly improving tool life, and ensuring the stability and smoothness of the machined workpiece size.erature,and good nano hardness.
M	YZ7025	钴铜色 Cobalt copper	PVD	连续工况下不锈钢材料的半精车削加工的第一推荐牌号；对高温合金、钛合金加工有一定的优势。 The first recommended grade for semi-finishing turning of stainless steel materials under continuous working conditions; It has certain advantages for the processing of high-temperature alloys and titanium alloys.
	YZ7115	黑色 Black	PVD	高Co含量细晶粒硬质合金基体, 具有很好的刃口强度, 搭配全新的PVD AlTiN涂层, 具有摩擦系数小, 抗氧化温度高, 纳米硬度高, 突出的耐磨和通用性能等优点。适用于钢、不锈钢的铣削加工。 High Co content and fine Wcgrain substrate,gives wonderful cutting edge strength,combines with new AlTiN coating ,it has very small coefficient of friction,high antioxidant temperature,and good nano hardness. Preferred grade for steel and stainless steel milling and drilling.
	YZ7125	钴铜色 Cobalt copper	PVD	微细颗粒搭配自己研发含Si涂层，使得刀片具有更高耐磨性和抗氧化性，应用于硬料、不锈钢加工，高速加工有着优秀的寿命表现和稳定性。 The combination of fine particles and our designed Si-Coating, can make theinserts with higher wear resistance and oxidation resistance, it is used formachining hard material and stainless steel. it has excellent life performanceand stability during high speed processing.ent conditions.
	YZ7420	钴铜色 Cobalt copper	PVD	通用性好，推荐加工钢件、不锈钢；精密刀具第一推荐牌号。 It has good versatility, and it is recommended to process steel parts and stainless steel; The first recommended grade for precision tools.
	YZ7415	紫黑色 Purple-black	PVD	中等加工；通用不锈钢、难加工材料的车削、铣削；适用于小零件、切槽切断。 Medium processing; Turning and milling of general stainless steel and difficult to machine materials; Suitable for cutting small parts and grooves.

车削牌号
Turning Grade

分类 Classify	牌 号 Model name	颜 色 Color	涂层 Coating	应用推荐 Model Features
M	YZM2013	灰彩色 Gray-colored	PVD	采用耐磨损、润滑性良好的特殊纳米层压膜，在钢及不锈钢加工方面实现稳定、长寿命加工，表面光洁度好。 The use of special nano-laminated film with good wear resistance and good lubrication achieves stable and long-life processing in steel and stainless steel processing, and has a good surface finish.
	YZM2015	黑色 Black	PVD	适用于加工不锈钢，难加工材料，效果极佳。 It is suitable for machining stainless steel, difficult-to-machine materials, and the effect is excellent.
K	YZK3115	黑色 Black	CVD	车削灰铁与球铁最耐磨的材质等级，也可用于高硬度耐磨钢件的干式车削。 The most wear-resistant grade of gray iron and ductile iron for turning; It can also be used for dry turning of high-hardness wear-resistant steel.
	YZK3125	金黄色 Golden	CVD	车削灰铁与球铁的首选牌号，综合性能好，也适合一般的断续加工。可用于淬硬钢与高强度钢的较低速度粗车削场合。 The first choice for turning gray iron and ductile iron, with good overall performance and suitable for general intermittent machining. Can be used for low speed rough turning of hardened and high strength steels.
H	YZH6010	黑色 Black	PVD	高硬度的低Co特殊基体，结合纳米梯度涂层。耐磨损性优良。主要用于耐热合金、高硬度材料的精加工、半精加工。 High hardness low Co special matrix, combined with nano gradient coating. Excellent abrasion resistance.It is mainly used for finishing and semi-finishing of heat-resistant alloys, high-hardness materials.
	YZ7010	钴铜色 Cobalt copper	PVD	高硬度的超微粒硬质合金基材与韧性和耐磨性都很好的特殊纳米涂层相结合，可提供具有锋利的切削刃和机械冲击性，是不锈钢的要求小公差和高表面质量的精加工牌号。 Hich hardness superfine grain cemented carbide substrate, combined with special nano-coating with excellenttoughness and wear resistance, It can provide sharp cutting edge and mechanical impact. Fine finishing gradefor stainless steel cutting which requires small tolerance and high surface quality.
S	YZS5415	紫黑色 Purple-black	PVD	耐热性和强韧性优化的超细晶粒基体，耐磨损性、抗氧化性能良好的纳米多层涂层。耐热合金、钛合金通用加工首选牌号。 Ultra-fine grain matrix with optimized heat resistance and toughness, and nano-multilayer coating with good wear resistance and oxidation resistance. The preferred grade for general processing of heat-resistant alloy and titanium alloy.
N	YZK01	无涂层 Uncoated	PVD	用于铝、铜等有色金属材料、石墨、铸铁的车、铣加工。 It is used for turning and milling of non-ferrous metal materials such as aluminum and copper, graphite and cast iron.

钢件车削槽型特点

Steel turning tool groove characteristics

GT

- 用于精加工、半精加工的断屑槽；
- 负倒棱设计，增强刀片刃口强度和抗冲击性能；
- 双断屑台设计，扩大断屑范围。

Chip breaker for finishing and semi-finishing;
Cnegative chamfer designation gives blade good strength;
Double chipbreaker lands,makes bigger chip control range.



PF

- 用于精加工的断屑槽；
- 独特的槽型能有效控制切屑的卷曲和断屑；
- 刃口锋利，切削轻快;可获得良好的表面质量。

Special designed for steel finishing;
Unique design efficiently controls the form of chip and breaks chip;
Sharp cutting edge, smooth cutting;Excellent surface quality.



PM

- 适用于精加工和半精加工一般的断屑槽；
- 切削性能锋利，切削阻力低，刀尖旁有突起，前角大

It is suitable for finishing and semi-finishing general chip breakers;
The cutting performance is sharp, the cutting resistance is low, there is a protrusion next to the cutting tip, and the rake



PR

- 用于粗加工的断屑槽；
- 特殊的双前角和宽刃带及负倒棱三维断屑槽设计；
- 具有很好的刃口强度，延长切削寿命；
- 适用于钢类材料的粗加工和断续加工。

chip breaker for roughing;
Three-dimension designed with double rake angle,wide margin and negative chamfer;
Wonderful blade intensity gives a longer tool life time;
Suitable for steel roughing machining.



通用车削槽型特点

Characteristics of General Turning Grooves

TF

- 用于精加工的断屑槽；
- 刃口锋利，切削轻快；
- 独特的槽型结构，小切深具有优秀的断屑处理能力。

Chip breaker for finishing;
Special chip breaker structere makes excellent chip breaking even at small cutting depth;
Sharp cutting edge,cutting smoothly and quickly.



TM

- 双面断屑槽，通用型半精加工槽型；
- 平刃设计，有较好的耐磨性和耐破损性；
- 刃倾角组合结构，能很好的控制切屑流向。

Double-sided chip breaker, general-purpose semi-finishing groove;
Flat cutting edge design,good wear-resistance and breakageresistance;
Inclination angle combination structure can control the chip breakingdirection efficiently.



TR

- 用于粗加工的断屑槽；
- 平刃大前角设计，较好的耐磨性；
- 变槽深设计，良好的控屑能力。

Chip breaker for roughing;
Flat cutting edge with big rake angle,gives good wear-resistance.
Varying chip breaker depth design,good performance on chip breakingcontrol.



TH

- 双面断屑槽，通用型加工槽型；
- 刀片刃口锋利，切削能力强，切面光滑。

Double-sided chip breaker, general-purpose processing groove;
The blade has a sharp edge, strong cutting ability, and a smooth cutting surface.



不锈钢车削槽型特点

Features Of Stainless Steel Turning Groove

MF

- 用于不锈钢半精加工；
- 特殊前角和刃倾角设计；
- 刀片刃口锋利，切削阻力小，可获得很好的表面质量。

For semi-finishing of stainless steel;
Special designed rake angle and cutting edge inclination ;
Sharp cutting edge, small cutting force, Good machining surface quality.



MM

- 用于不锈钢半精加工；
- 刃口锋利并兼顾了一定的强度；
- 具有很好的抗冲击能力，切削寿命长。

for semi-finishing of stainless steel;
The edge is sharp and takes into account a certain strength;
It has good impact resistance and long cutting life.



MA

- M类材料粗、半精加工槽型，双面断屑槽，针对不锈钢、钢、铸铁等；
- 材料都有很轻的通用性；刃口强度较好，能胜任一般的冲击场合加工；
- 推荐参数：ap:0.50~4.00，fn:0.20~0.50

Rough and semi-finished geometries of M-type materials, double-sided chipbreakers, for stainless steel, steel, cast iron, etc.;
The materials have very light versatility; the strength of the cutting edge is good, and it is capable of processing in general impact occasions;
Recommended parameters: ap: 0.50~4.00, fn: 0.20~0.50



MS

- M类材料通用槽型，双面断屑槽，通用槽型；
- 针对不锈钢、软钢，难加工材料有很强通用性的全周槽型，
- 刃口锋利，轻削轻快，能胜任较低速度下的粗精加工；
- 推荐参数：ap:0.20~4.00，fn:0.15~0.40

M-type material general geometry, double-sided chipbreaker, general geometry;
For stainless steel, mild steel, difficult to machine materials has a strong general groove of the entire circumference;
Sharp edge, a light cut light, capable of performing rough finishing at a lower speed;
Recommended parameters: ap: 0.20~4.00, fn: 0.15~0.40



不锈钢车削槽型特点

Features Of Stainless Steel Turning Groove

SM

- 用于不锈钢、钛合金加工；
- 有效控制切屑卷曲和排出；
- 刃口锋利, 切削轻快；
- 适宜的刃口强度, 延长切削寿命。

It is used for stainless steel and titanium alloy processing;
Effectively control chip curling and ejection;
The cutting edge is sharp and the cutting edge is brisk;
Appropriate edge strength for extended cutting life.



DM

- 用于中等加工、粗加工；
- 完美结合刃口的锋利性与强度，切削阻力小，可有效减小沟槽磨损；
- 刃口强度高，双前角设计，可有效断屑。

Used for medium machining, rough processing;
Perfectly combine the sharpness and strength of the cutting edge, and the cutting resistance is small, which can effectively reduce the wear of the groove;
High edge strength and double rake angle design can effectively break chips.



铸铁槽型特点

Cast iron groove characteristics

KM

- 铸铁加工专用；
- 切削刃口强度高，一般切削条件下加工表现优越。

Special for cast iron processing;
The cutting edge has high strength and superior machining performance under general cutting conditions.



无代号

- 铸铁加工专用；
- 平板刀片；
- 刀尖强度高、刀片落位稳定，最适用于断续切削等不稳定切削。

Special for cast iron processing;
Flat inserts;
High tip strength and stable blade positioning, most suitable for unstable cutting such as intermittent cutting.



铝用槽型

Groove type for aluminum

TA

- 铝合金切削用；
- 合理的排屑槽设计，结合先进磨削技术，使刀片韧性更好，有效降低切削阻力；
- 能迅速的对铝件进行加工，工件表面光洁度高具有高耐磨性，高光洁度且不易黏刀。

For cutting aluminum alloys;
Reasonable chip flute design, combined with advanced grinding technology, makes the blade tough better and effectively reduces cutting resistance;
It can quickly process aluminum parts, and the surface of the workpiece has high surface finish and high wear resistance, high finish and is not easy to stick to the knife.



AK

- 铝合金切削用；
- 大前角，刀尖锋利。

For cutting aluminum alloys;
Large front angle, sharp tip.



内孔车削槽型特点

Characteristics of internal hole turning grooves

EL

- 用于精加工、半精加工的断屑槽；
- 锋利的切削刃，更小的切削阻力；
- 小切深时也有良好的切屑处理能力；
- 刃口微处理技术，减少了积屑瘤的产生。

Chipbreaker for finishing and semi-finishing;
Sharp cutting edge, smaller cutting resistance;
Good chip handling ability even at small cutting depths;
The cutting edge micro-processing technology reduces the generation of built-up edge.



ES

- 用于半精加工、精加工的断屑槽型；
- 刀尖刃口兼具锋利性和强度，能够适应更宽的加工范围；
- 良好的排屑性能，更低的切削阻力。

Chipbreaker for finishing and semi-finishing;
Both tip edge sharpness and strength to accommodate broader processing;
Good chip removal performance, lower cutting resistance.



内孔车削槽型特点

Characteristics of internal hole turning grooves

EK

- 用于不锈钢精加工；
- 大切深断屑槽，刃口锋利，槽型更宽，断屑效果好；
- 刃口向内凹陷，切削阻力低；

For stainless steel finishing;
Large cut deep chip breaking groove, sharp cutting edge, wider groove type, good chip breaking effect;
The cutting edge is concave inward, and the cutting resistance is low.



FS

- 小零件精密加工；
- 锋利耐磨，断屑流畅，高光洁度。

Precision machining of small parts;
Sharp and wear-resistant, smooth chip breaking, high finish.



SL

- 适用于半精加工、精加工断屑槽；
- 扁平棱边与大前角组合，同时确保刀刃强度
- 与切削锋利性，适合中切削。

It is suitable for semi-finishing and finishing chip breakers;
The combination of flat edges and large rake angles ensures edge strength and cutting sharpness, making it suitable for medium cutting.



MV

- 0.1mm正棱与大前角组合，刃口更锋利，球形断屑台，断屑更好；
- 适合钢、不锈钢等材料的通用车削；
- 推荐参数：ap:0.1~2.0，fn:0.06~2.0

0.1mm large positive rake angle prism combination, sharper edge, spherical breaker units, better breaker;
Suitable for general turning of steel, stainless steel and other materials;
Recommended parameters: ap: 0.1~2.0, fn: 0.06~2.0





车削系列 Turning Inserts



车削刀片 Turning Inserts

硬质合金刀粒牌号说明 Product naming specifications

形状代号 Shape symbol			
A		O	
B		P	
C		R	
D		S	
E		T	
H		V	
K		W	
L		Z	其他
M			

断屑槽及孔型代号 Chip breaking groove and hole type code							
代号 Symbol	孔 Hole	断屑槽 Chip breaker groove	截面示意图 Sectional schematic diagram	代号 Symbol	孔 Hole	断屑槽 Chip breaker groove	截面示意图 Sectional schematic diagram
B	有孔 Perforated	无断屑槽 No chip breaking groove		N	无孔 Unperforated	无断屑槽 No chip breaking groove	
H	有孔 Perforated	单面断屑槽 Single sided chip breaker groove		R	无孔 Unperforated	单面断屑槽 Single sided chip breaker groove	
C	有孔 Perforated	无断屑槽 No chip breaking groove		F	无孔 Unperforated	双面断屑槽 Double sided chip breaker groove	
J	有孔 Perforated	双面断屑槽 Double sided chip breaker groove		A	有孔 Perforated	无断屑槽 No chip breaking groove	
W	有孔 Perforated	无断屑槽 No chip breaking groove		M	有孔 Perforated	单面断屑槽 Single sided chip breaker groove	
T	有孔 Perforated	单面断屑槽 Single sided chip breaker groove		G	有孔 Perforated		
Q	有孔 Perforated	无断屑槽 No chip breaking groove		X			
U	有孔 Perforated	双面断屑槽 Double sided chip breaker groove					

切削刃长度代号 Cutting edge length code									
C	D	S	T	R	V	W	IC d (mm)		
03	04	03	06	03	-	02	3,97		
04	05	04	08	04	08	S3	4,76		
05	06	05	09	05	09	03	5,56		
-	-	-	-	06	-	-	6,00		
06	07	06	11	06	11	04	6,35		
08	09	07	13	07	13	05	7,94		
-	-	-	-	08	-	-	8,00		
09	11	09	16	09	16	06	9,525		
-	-	-	-	10	-	-	10,00		
11	13	11	19	11	19	07	11,11		
-	-	-	-	12	-	-	12,00		
12	15	12	22	12	22	08	12,70		
14	17	14	24	14	24	09	14,29		
16	19	15	27	15	27	10	15,875		
-	-	-	-	16	-	-	16,00		
17	21	17	30	17	30	11	17,46		
19	23	19	33	19	33	13	19,05		
-	-	-	-	20	-	-	20,00		
22	27	22	38	22	38	15	22,225		
-	-	-	-	25	-	-	25,00		
25	31	25	44	25	44	17	25,40		
32	38	31	54	31	54	21	31,75		
-	-	-	-	32	-	-	32,00		

刀片圆弧 Blade tip arc	
代号 Symbol	刀尖 Knife tip
00	
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	
MO	

C N M G 12 04 08 - SF

后角代号 Rear angle symbol			
代号 Symbol	后角 Rear angle	代号 Symbol	后角 Rear angle
A		B	
C		D	
E		F	
G		N	
P		O	其他

公差代号 Tolerance Symbol			
代号 Symbol	刀片高度 Blade tip height(m) 公差 Tolerance (mm)	内切圆 Inscribed circle 公差 Tolerance(φI C)	厚度 Thickness 公差 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
W	±0.13±0.38	±0.08±0.25	±0.13

内切圆 Inscribed circle	正三角形 Equilateral triangle	正方形 Square	80°菱形 80° Diamond	55°菱形 55° Diamond	35°菱形 35° Diamond	
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	±0.13	±0.13	±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	...	...	...	...
内切圆 Inscribed circle	正三角形 Equilateral triangle	正方形 Square	80°菱形 80° Diamond	55°菱形 55° Diamond	35°菱形 35° Diamond	
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	...	±0.58
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

刀片厚度 Thickness	
代号 Symbol	MM
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	5,95
06	6,35
T6	6,75
07	7,94
09	9,52
T9	9,72
11	11,11
12	12,70

断屑槽型
End scrap groove

A
车削刀片
Turning Inserts

车削刀片牌号推荐一览表

List of recommended grades for turning inserts

分类	ISO	CVD	PVD	Cermet	Uncoated
P	01				
	10	YZ1105		YZ8015	
	20		YZ7115	YZ8015T	
	30	YZ1125	YZ7025	YZ8025	
	40	YZ4130	YZ7125	YZ8025T	
	50		YZ7420		
M	01				
	10		YZM2013		
	20		YZ7010		
	30		YZM2015		
	40		YZ7125		
	50		YZ7420		
K	01				
	10	YZK3115			
	20	YZ1125			
	30	YZK3125			
	40				
	50				
N	01				
	10				
	20				YZK01
	30				
	40				
	50				
S	01				
	10		YZ7025		
	20		YZ7125		
	30		YZM2015		
	40		YZS5415		
	50				
H	01				
	10		YZ7010		
	20		YZH6010		
	30			YZH6025	
	40				
	50				

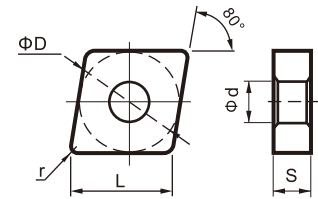
外圆刀粒

External Turning Inserts

CN

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●	●			●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●	●			●						
铸铁 Cast Iron	K		●									●	●				●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●	●		○	●			●						
硬化钢 Hardened Steel	H													●	●				



形状 Shape	规格 Specification	CVD		PVD						CVD		PVD		无涂层 未加工 Material	金属陶瓷 Cermet		尺寸 Size					加工参数 Machining Parameters						
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	d	Re	切深 ap (mm)	进给 feed(mm/rev)
	CNMG120404-TH	●		●															▲	▲	12.9	12.7	6.35	7.94	0.4	0.26-3.20	0.05-0.15	
	CNMG120408-TH	●		●															▲	▲	12.9	12.7	6.35	7.94	0.8	0.52-3.20	0.10-0.30	
	CNMG160608-TH	●		●															▲	▲	19.3	19.05	6.35	7.94	1.6	2.40-9.70	0.40-1.20	
	CNMG120404-TF																		▲	▲	12.9	12.7	6.35	7.94	0.4	0.26-3.20	0.05-0.15	
	CNMG120408-TF																		▲	▲	12.9	12.7	6.35	7.94	0.8	0.52-3.20	0.10-0.30	
	CNMG160608-TF																		▲	▲	19.3	19.05	6.35	7.94	1.6	2.40-9.70	0.40-1.20	
	CNMG120404-MT																		▲	▲	12.9	12.7	6.35	7.94	0.4	0.26-3.20	0.05-0.15	
	CNMG120408-MT																		▲	▲	12.9	12.7	6.35	7.94	0.8	0.52-3.20	0.10-0.30	
	CNMG120404-PF																		▲		12.9	12.7	6.35	7.94	0.4	0.26-3.20	0.05-0.15	
	CNMG120408-PF																		▲		12.9	12.7	6.35	7.94	0.8	0.52-3.20	0.10-0.30	
	CNMG120404-PM	●	▲	●	●	▲															12.9	12.7	6.35	7.94	0.4	0.60-6.40	0.10-0.30	
	CNMG120408-PM	●	▲	●	●	▲															12.9	12.7	6.35	7.94	0.8	1.20-6.40	0.20-0.60	
	CNMG120412-PM	●	▲	●	●	▲															12.9	12.7	6.35	7.94	1.2	1.80-6.40	0.30-0.90	
	CNMG120408-PR	●	▲																		12.9	12.7	4.76	5.16	0.8	1.45-5.20	0.15-0.32	
	CNMG120412-PR	●	▲																		12.9	12.7	4.76	5.16	1.2	2.15-5.20	0.25-0.50	
	CNMG120416-PR	●	▲																		12.9	12.7	4.76	5.16	1.6	2.90-5.20	0.30-0.65	
	CNMG160608-PR	●	▲																		16.1	15.875	6.35	6.35	0.8	1.45-6.40	0.15-0.65	
	CNMG160612-PR	●	▲																		16.1	15.875	6.35	6.35	1.2	2.15-6.40	0.24-0.50	
	CNMG160616-PR	●	▲																		16.1	15.875	6.35	6.35	1.6	2.90-6.40	0.30-0.65	
	CNMG190608-PR	●	▲																		19.3	19.05	6.35	7.94	0.8	1.45-7.70	0.15-0.35	
	CNMG190612-PR	●	▲																		19.3	19.05	6.35	7.94	1.2	2.15-7.70	0.25-0.50	
	CNMG190616-PR	●	▲																		19.3	19.05	6.35	7.94	1.6	2.90-7.70	0.30-0.65	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



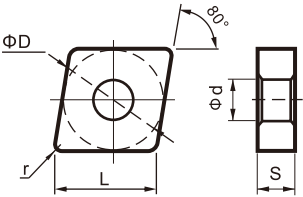
外圆刀粒

External Turning Inserts

CN□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●											●	●			●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)
	CNMG120404-GT	●	▲																		12.9	12.7	4.76	5.16	0.4	0.60-6.40	0.10-0.30	
	CNMG120408-GT	●	▲																		12.9	12.7	4.76	5.16	0.8	1.20-6.40	0.20-0.60	
	CNMG120412-GT	●	▲																		12.9	12.7	4.76	5.16	1.2	1.80-6.40	0.30-0.90	
	CNMG120416-GT	●	▲																		12.9	12.7	4.76	5.16	1.6	2.40-6.40	0.12-0.40	
	CNMG160608-GT	●	▲																		16.1	15.875	6.35	6.35	0.8	1.20-8.10	0.10-0.30	
	CNMG160612-GT	●	▲																		16.1	15.875	6.35	6.35	1.2	1.80-8.10	0.20-0.60	
	CNMG160616-GT	●	▲																		16.1	15.875	6.35	6.35	1.6	2.40-8.10	0.30-0.90	
	CNMG190608-GT	●	▲																		19.3	19.05	6.35	7.94	0.8	1.20-9.70	0.20-0.60	
	CNMG190612-GT	●	▲																		19.3	19.05	6.35	7.94	1.2	1.80-9.70	0.30-0.90	
	CNMG190616-GT	●	▲																		19.3	19.05	6.35	7.94	1.6	2.40-9.70	0.40-1.20	
	CNMG120404-MF				▲	▲															12.9	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15	
	CNMG120408-MF				▲	▲															12.9	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30	
	CNMG120404-MM				▲	▲															19.3	19.05	6.35	7.94	0.8	1.20-9.70	0.20-0.60	
	CNMG120408-MM				▲	▲															19.3	19.05	6.35	7.94	1.2	1.80-9.70	0.30-0.90	
	CNMG160608-MM				▲	▲															19.3	19.05	6.35	7.94	1.6	2.40-9.70	0.40-1.20	
	CNMG120404-MA	●			▲	●	▲														12.9	12.7	6.35	7.94	0.4	0.25-3.20	0.05-0.15	
	CNMG120408-MA	●			▲	●	▲														12.9	12.7	6.35	7.94	0.8	0.50-3.20	0.10-0.30	
	CNMG120404-MS	●			▲	●	▲									▲					12.9	12.7	6.35	7.94	0.4	0.25-3.20	0.05-0.15	
	CNMG120408-MS	●			▲	●	▲														12.9	12.7	6.35	7.94	0.8	0.50-3.20	0.10-0.30	
	CNMG120404-SM					●	▲														12.9	12.7	6.35	7.94	0.4	0.25-3.20	0.05-0.15	
	CNMG120408-SM					●	▲														12.9	12.7	6.35	7.94	0.8	0.50-3.20	0.10-0.30	
	CNMG120412-SM					●	▲														12.9	12.7	6.35	7.94	1.2	0.75-3.20	0.15-0.45	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



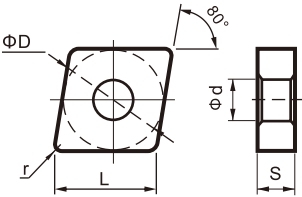
外圆刀粒

External Turning Inserts

CN□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●										●	●				●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet				尺寸 Size					加工参数 Machining Parameters			
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)
	CNMG120404-DM											▲								12.9	12.7	6.35	7.94	0.4	0.40-4.30	0.08-0.25	
	CNMG120408-DM											▲								12.9	12.7	6.35	7.94	0.8	0.80-4.30	0.15-0.45	
	CNMG120412-DM											▲								12.9	12.7	6.35	7.94	1.2	1.20-4.30	0.25-0.65	
	CNMG120416-DM											▲								12.9	12.7	6.35	7.94	1.6	1.60-4.30	0.30-0.90	
	CNMG120404-TA														▲					12.9	12.7	6.35	7.94	0.4	0.80-3.50	0.05-0.20	
	CNMG120408-TA														▲					12.9	12.7	6.35	7.94	0.8	0.80-3.50	0.10-0.40	
	CNMG120404-KM										▲	●								12.9	12.7	4.76	5.16	0.4	0.40-4.30	0.08-0.25	
	CNMG120408-KM										▲	●								12.9	12.7	4.76	5.16	0.8	0.80-4.30	0.15-0.45	
	CNMG120412-KM										▲	●								12.9	12.7	4.76	5.16	1.2	1.20-4.30	0.20-0.65	
	CNMG160612-KM										▲	●								16.1	15.875	6.35	6.35	1.2	1.20-5.30	0.25-0.65	
	CNMG160616-KM										▲	●								16.1	15.875	6.35	6.35	1.6	1.60-5.30	0.30-0.90	
	CNMG190612-KM										▲	●								16.1	15.875	6.35	6.35	1.2	1.20-6.40	0.25-0.65	
	CNMA120404										▲									12.9	12.7	4.76	5.16	0.4	1.00-5.00	0.15-0.60	
	CNMA120408										▲									12.9	12.7	4.76	5.16	0.8	1.00-6.00	0.15-0.60	
	CNMA120412										▲									12.9	12.7	4.76	5.16	1.2	1.50-6.00	0.15-0.70	
	CNMA120416										▲									12.9	12.7	4.76	5.16	1.6	2.00-6.00	0.20-0.80	
	CNMA160608										▲									16.1	15.875	6.35	6.35	0.8	2.00-6.00	0.15-0.70	
	CNMA160612										▲									16.1	15.875	6.35	6.35	1.2	2.00-6.00	0.15-0.70	
	CNMA160616										▲									16.1	15.875	6.35	6.35	1.6	2.00-6.00	0.15-0.70	
	CNMA190612										▲									19.3	19.05	6.35	7.94	1.2	2.00-10.0	0.15-0.70	
	CNMA190616										▲									19.3	19.05	6.35	7.94	1.6	3.00-10.0	0.20-1.00	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



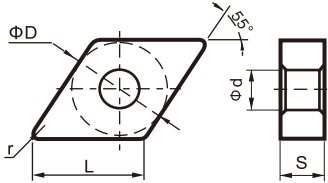
外圆刀粒

External Turning Inserts

DN□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●														○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Unplated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters		
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	L	IC	S	ed	Re	切深 ap (mm)	进给 feed (mm/rev)		
	DNMG150404-TH	●		●													▲	▲	15.5	12.7	4.76	5.16	0.4	0.26-3.10	0.05-0.15
	DNMG150408-TH	●		●													▲	▲	15.5	12.7	4.76	5.16	0.8	0.52-3.10	0.10-0.30
	DNMG150604-TH	●		●													▲	▲	15.5	12.7	6.35	5.16	0.4	0.26-3.10	0.05-0.15
	DNMG150608-TH	●		●													▲	▲	15.5	12.7	6.35	5.16	0.8	0.52-3.10	0.10-0.30
	DNMG150404-MT																▲	▲	15.5	12.7	4.76	5.16	0.4	0.26-3.10	0.05-0.15
	DNMG150408-MT																▲	▲	15.5	12.7	4.76	5.16	0.8	0.52-3.10	0.10-0.30
	DNMG150604-MT																▲	▲	15.5	12.7	6.35	5.16	0.4	0.26-3.10	0.05-0.15
	DNMG150608-MT																▲	▲	15.5	12.7	6.35	5.16	0.8	0.52-3.10	0.10-0.30
	DNMG150404-PM	●	▲	●	●	▲													15.5	12.7	4.76	5.16	0.4	0.60-5.40	0.10-0.30
	DNMG150408-PM	●	▲	●	●	▲													15.5	12.7	4.76	5.16	0.8	1.20-5.40	0.20-0.60
	DNMG150412-PM	●	▲	●	●	▲													15.5	12.7	4.76	5.16	1.2	1.80-5.40	0.30-0.90
	DNMG150604-PM	●	▲	●	●	▲													15.5	12.7	6.35	5.16	0.4	0.60-5.40	0.10-0.30
	DNMG150608-PM	●	▲	●	●	▲													15.5	12.7	6.35	5.16	0.8	1.20-5.40	0.20-0.60
	DNMG150612-PM	●	▲	●	●	▲													15.5	12.7	6.35	5.16	1.2	1.80-5.40	0.30-0.90
	DNMG150408-PR	●	▲																15.5	12.7	4.76	5.16	0.8	0.80-4.00	0.15-0.50
	DNMG150412-PR	●	▲																15.5	12.7	4.76	5.16	1.2	1.20-4.00	0.15-0.65
	DNMG150608-PR	●	▲																15.5	12.7	6.35	5.16	0.8	0.80-4.00	0.15-0.50
	DNMG150612-PR	●	▲																15.5	12.7	6.35	5.16	1.2	1.20-4.00	0.15-0.65
	DNMG150404-GT	●	▲																15.5	12.7	4.76	5.16	0.4	0.60-5.40	0.10-0.30
	DNMG150408-GT	●	▲																15.5	12.7	4.76	5.16	0.8	1.20-5.40	0.20-0.60
	DNMG150412-GT	●	▲																15.5	12.7	4.76	5.16	1.2	1.80-5.40	0.30-0.90
	DNMG150604-GT	●	▲																15.5	12.7	6.35	5.16	0.4	0.60-5.40	0.10-0.30
	DNMG150608-GT	●	▲																15.5	12.7	6.35	5.16	0.8	1.20-5.40	0.20-0.60
	DNMG150612-GT	●	▲																15.5	12.7	6.35	5.16	1.2	1.80-5.40	0.30-0.90

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



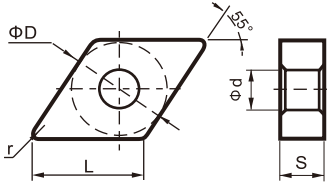
外圆刀粒

External Turning Inserts

DN□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●														○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		涂层 Coating	金属陶瓷 Cermet		尺寸 Size					加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)			
	DNMG150604-MF				▲	▲														15.5	12.7	6.35	5.16	0.4	0.25-2.90	0.05-0.15
	DNMG150608-MF				▲	▲														15.5	12.7	6.35	5.16	0.8	0.50-2.90	0.10-0.30
	DNMG150404-MM				▲	▲														15.5	12.7	4.76	5.16	0.4	0.30-3.90	0.08-0.25
	DNMG150408-MM				▲	▲														15.5	12.7	4.76	5.16	0.8	0.65-3.90	0.15-0.45
	DNMG150604-MM				▲	▲														15.5	12.7	6.35	5.16	0.4	0.30-3.90	0.08-0.20
	DNMG150608-MM				▲	▲														15.5	12.7	6.35	5.16	0.8	0.65-3.90	0.15-0.45
	DNMG150612-MM				▲	▲														15.5	12.7	6.35	5.16	1.2	0.95-3.90	0.25-0.65
	DNMG150404-MA	●			▲	●	▲													15.5	12.7	4.76	5.16	0.4	0.25-2.90	0.05-0.15
	DNMG150408-MA	●			▲	●	▲													15.5	12.7	4.76	5.16	0.8	0.50-2.90	0.10-0.30
	DNMG150604-MA					●	▲													15.5	12.7	6.35	5.16	0.4	0.25-2.90	0.05-0.15
	DNMG150608-MA					●	▲													15.5	12.7	6.35	5.16	0.8	0.50-2.90	0.10-0.30
	DNMG150404-MS	●			▼	●	▼													15.5	12.7	4.76	5.16	0.4	0.50-2.90	0.10-0.30
	DNMG150408-MS	●			▼	●	▼													15.5	12.7	4.76	5.16	0.8	0.25-2.90	0.05-0.15
	DNMG150604-MS					●	▲													15.5	12.7	6.35	5.16	0.4	0.25-2.90	0.05-0.15
	DNMG150608-MS					●	▲													15.5	12.7	6.35	5.16	0.8	0.50-2.90	0.10-0.30
	DNMG150404-SM					●	▲													15.5	12.7	4.76	5.16	0.4	0.25-2.90	0.05-0.15
	DNMG150408-SM					●	▲													15.5	12.7	4.76	5.16	0.8	0.50-2.90	0.10-0.30
	DNMG150604-SM					●	▲													15.5	12.7	6.35	5.16	0.4	0.25-2.90	0.05-0.15
	DNMG150608-SM					●	▲													15.5	12.7	6.35	5.16	0.8	0.50-2.90	0.10-0.30

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



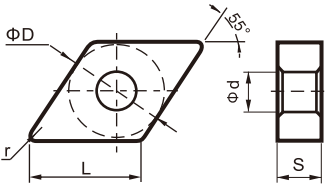
外圆刀粒

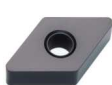
External Turning Inserts

DN□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●		○	●				●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)
	DNMG150404-DM											▲									15.5	12.7	4.76	5.16	0.4	0.40-3.90	0.08-0.25
	DNMG150408-DM											▲									15.5	12.7	4.76	5.16	0.8	0.80-3.90	0.15-0.45
	DNMG150412-DM											▲									15.5	12.7	4.76	5.16	1.2	1.20-3.90	0.25-0.65
	DNMG150604-DM											▲									15.5	12.7	6.35	5.16	0.4	0.40-3.90	0.08-0.20
	DNMG150608-DM											▲									15.5	12.7	6.35	5.16	0.8	0.80-3.90	0.15-0.45
	DNMG150612-DM											▲									15.5	12.7	6.35	5.16	1.2	1.20-3.90	0.25-0.65
	DNMG150404-TA														▲					15.5	12.7	4.76	5.16	0.4	0.80-3.50	0.05-0.30	
	DNMG150408-TA														▲					15.5	12.7	4.76	5.16	0.8	0.80-3.50	0.10-0.40	
	DNMG150404-KM									▲	●									15.5	12.7	4.76	5.16	0.4	0.40-3.90	0.08-0.25	
	DNMG150408-KM									▲	●									15.5	12.7	4.76	5.16	0.8	0.80-3.90	0.15-0.45	
	DNMG150412-KM									▲	●									15.5	12.7	4.76	5.16	1.2	1.20-3.90	0.25-0.65	
	DNMG150604-KM									▲	●									15.5	12.7	6.35	5.16	0.4	0.40-3.90	0.08-0.20	
	DNMG150608-KM									▲	●									15.5	12.7	6.35	5.16	0.8	0.80-3.90	0.15-0.45	
	DNMG150612-KM									▲	●									15.5	12.7	6.35	5.16	1.2	1.20-3.90	0.25-0.65	
	DNMA150404									▲										15.5	12.7	4.76	5.16	0.4	0.40-4.00	0.17-0.55	
	DNMA150408									▲										15.5	12.7	4.76	5.16	0.8	0.80-4.00	0.25-0.55	
	DNMA150604									▲										15.5	12.7	6.35	5.16	0.4	0.40-4.00	0.17-0.55	
	DNMA150608									▲										15.5	12.7	6.35	5.16	0.8	0.80-4.00	0.25-0.55	
	DNMA150612									▲										15.5	12.7	6.35	5.16	1.2	1.20-4.00	0.25-0.65	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



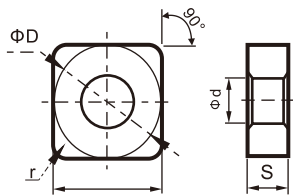
外圆刀粒

External Turning Inserts

SN□□

正方形90° 有孔 Square 90°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●		○	●				●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet				尺寸 Size					加工参数 Machining Parameters		
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re
	SNMG120404-TH	●	●															▲	▲	12.7	12.7	4.76	5.16	0.4	0.26-3.20	0.05-0.15
	SNMG120408-TH	●	●																▲	▲	12.7	12.7	4.76	5.16	0.8	0.52-3.20
	SNMG120404-MT																	▲	▲	12.7	12.7	4.76	5.16	0.4	0.26-3.20	0.05-0.15
	SNMG120408-MT																	▲	▲	12.7	12.7	4.76	5.16	0.8	0.52-3.20	0.10-0.30
	SNMG120404-PM	●	▲	●	●	▲														12.7	12.7	4.76	5.16	0.4	1.00-5.00	0.12-0.40
	SNMG120408-PM	●	▲	●	●	▲														12.7	12.7	4.76	5.16	0.8	1.20-5.00	0.15-0.55
	SNMG120412-PM	●	▲	●	●	▲														12.7	12.7	4.76	5.16	1.2	1.50-5.00	0.20-0.55
	SNMG120408-PR	●	▲																	12.7	12.7	4.76	5.16	0.8	2.50-6.00	0.25-0.70
	SNMG120412-PR	●	▲																	12.7	12.7	4.76	5.16	1.2	2.50-6.00	0.30-0.70
	SNMG120416-PR	●	▲																	12.7	12.7	4.76	5.16	1.6	2.50-6.00	0.40-0.70
	SNMG150612-PR	●	▲																	15.875	15.875	6.35	6.35	1.2	2.15-6.40	0.25-0.50
	SNMG190612-PR	●	▲																	19.05	19.05	6.35	7.94	1.2	2.15-6.40	0.25-0.50
	SNMG190616-PR	●	▲																	19.05	19.05	6.35	7.94	1.6	2.85-7.60	0.30-0.65
	SNMG120404-GT	●	▲																	12.7	12.7	4.76	5.16	0.4	1.00-5.00	0.12-0.40
	SNMG120408-GT	●	▲																	12.7	12.7	4.76	5.16	0.8	1.20-5.00	0.15-0.55
	SNMG120412-GT	●	▲																	12.7	12.7	4.76	5.16	1.2	1.50-5.00	0.20-0.55
	SNMG150608-GT	●	▲																	15.875	15.875	6.35	6.35	0.8	1.80-5.00	0.25-0.60
	SNMG150612-GT	●	▲																	15.875	15.875	6.35	6.35	1.2	2.00-7.00	0.30-0.65
	SNMG120408-MF				▲															15.5	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30
	SNMG120404-MM				▲	▲														12.7	12.7	4.76	5.16	0.4	0.30-4.20	0.08-0.25
	SNMG120408-MM				▲	▲														12.7	12.7	4.76	5.16	0.8	0.65-4.20	0.15-0.45
	SNMG120412-MM				▲	▲														12.7	12.7	4.76	5.16	1.2	0.95-4.20	0.25-0.65
	SNMG150608-MM				▲	▲														15.875	15.875	6.35	6.35	0.8	0.65-5.20	0.15-0.45

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



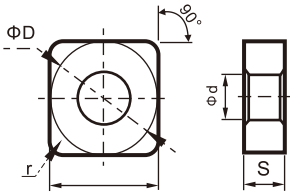
外圆刀粒

External Turning Inserts

SN□□

正方形90° 有孔 Square 90°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●		○	●				●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermets			尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)	进给 feed (mm/rev)
	SNMG120404-MA	●			▲	●	▲														12.7	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15	
	SNMG120408-MA	●			▲	●	▲														12.7	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30	
	SNMG120412-MA	●			▲	●	▲														12.7	12.7	4.76	5.16	1.2	0.75-3.20	0.15-0.45	
	SNMG120404-MS	●			▲	●	▲														12.7	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15	
	SNMG120408-MS	●			▲	●	▲														12.7	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30	
	SNMG120412-MS	●			▲	●	▲														12.7	12.7	4.76	5.16	1.2	0.75-3.20	0.15-0.45	
	SNMG120404-SM					●	▲														12.7	12.7	4.76	5.16	0.4	0.30-4.20	0.08-0.25	
	SNMG120408-SM					●	▲														12.7	12.7	4.76	5.16	0.8	0.65-4.20	0.15-0.45	
	SNMG150608-SM					●	▲														15.875	15.875	6.35	6.35	0.8	0.65-5.20	0.15-0.45	
	SNMG150612-SM					●	▲														15.875	15.875	6.35	6.35	1.2	0.95-5.20	0.25-0.65	
	SNMG120404-DM											▲									12.7	12.7	4.76	5.16	0.4	0.40-3.90	0.08-0.25	
	SNMG120408-DM											▲									12.7	12.7	4.76	5.16	0.8	0.80-3.90	0.15-0.45	
	SNMG120412-DM											▲									12.7	12.7	4.76	5.16	1.2	1.20-3.90	0.25-0.65	
	SNMG120416-DM											▲									12.7	12.7	4.76	5.16	1.6	1.80-3.90	0.30-0.90	
	SNMG150608-DM											▲									15.875	15.875	6.35	6.35	0.8	0.80-3.90	0.15-0.45	
	SNMG150612-DM											▲									15.875	15.875	6.35	6.35	1.2	1.20-3.90	0.25-0.65	
	SNMG150616-DM											▲									15.875	15.875	6.35	6.35	1.6	1.80-3.90	0.30-0.90	
	SNMG120408-TA														▲					12.7	12.7	4.76	5.16	0.8	0.80-3.50	0.10-0.35		
	SNMG120412-TA															▲					12.7	12.7	4.76	5.16	1.2	0.80-3.50	0.10-0.40	
	SNMG120404-KM										▲	●									12.7	12.7	4.76	5.16	0.4	0.40-4.20	0.08-0.25	
	SNMG120408-KM										▲	●									12.7	12.7	4.76	5.16	0.8	0.80-4.20	0.15-0.45	
	SNMG120412-KM										▲	●									12.7	12.7	4.76	5.16	1.2	1.20-4.20	0.25-0.65	
	SNMA120404										▲										12.7	12.7	4.76	5.16	0.4	1.00-5.00	0.15-0.60	
	SNMA120408										▲										12.7	12.7	4.76	5.16	0.8	1.00-6.00	0.15-0.70	
	SNMA120412										▲										12.7	12.7	4.76	5.16	1.2	1.50-6.00	0.20-0.80	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



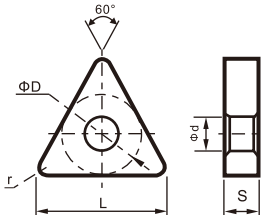
外圆刀粒

External Turning Inserts

TN□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●		○	●				●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		Uncoated 涂层无	金属陶瓷 Cermets				尺寸 Size					加工参数 Machining Parameters		
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)
	TNMG160404-TH	●		▲														▲	▲	16.5	9.525	4.76	3.81	0.4	0.26-3.10	0.05-0.15
	TNMG160408-TH	●		▲														▲	▲	16.5	9.525	4.76	3.81	0.8	0.52-3.10	0.10-0.30
	TNMG160404-MT																	▲	▲	16.5	9.525	4.76	3.81	0.4	0.26-3.10	0.05-0.15
	TNMG160408-MT																	▲	▲	16.5	9.525	4.76	3.81	0.8	0.52-3.10	0.10-0.30
	TNMG160404-PF																	▲	▲	16.5	9.525	4.76	3.81	0.4	0.26-3.10	0.05-0.15
	TNMG160408-PF																	▲	▲	16.5	9.525	4.76	3.81	0.8	0.52-3.10	0.10-0.30
	TNMG160404-PM	●	▲	●	●	▲														16.5	9.525	4.76	3.81	0.4	0.60-5.80	0.10-0.30
	TNMG160408-PM	●	▲	●	●	▲														16.5	9.525	4.76	3.81	0.8	1.20-5.80	0.20-0.60
	TNMG160412-PM	●	▲	●	●	▲														16.5	9.525	4.76	5.16	1.2	1.80-5.80	0.30-0.90
	TNMG160408-PR	●	▲																	16.5	9.525	4.76	3.81	0.8	2.00-5.00	0.25-0.65
	TNMG160412-PR	●	▲																	16.5	9.525	4.76	3.81	1.2	2.00-5.00	0.25-0.65
	TNMG220408-PR	●	▲																	22	12.7	4.76	5.16	0.8	2.50-7.00	0.25-0.65
	TNMG220412-PR	●	▲																	22	12.7	4.76	5.16	1.2	2.50-7.00	0.25-0.65
	TNMG220416-PR	●	▲																	22	12.7	4.76	5.16	1.6	2.50-7.00	0.25-0.65
	TNMG160404-GT	●	▲																	16.5	9.525	4.76	3.81	0.4	0.60-5.80	0.10-0.30
	TNMG160408-GT	●	▲																	16.5	9.525	4.76	3.81	0.8	1.20-5.80	0.20-0.60
	TNMG160412-GT	●	▲																	16.5	9.525	4.76	5.16	1.2	1.80-5.80	0.30-0.90
	TNMG220408-GT	●	▲																	22	12.7	4.76	5.16	0.8	1.20-7.70	0.20-0.60
	TNMG220412-GT	●	▲																	22	12.7	4.76	5.16	1.2	1.80-7.70	0.30-0.90
	TNMG220416-GT	●	▲																	22	12.7	4.76	5.16	1.6	2.40-7.70	0.40-1.20

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

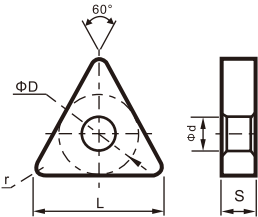


外圆刀粒
External Turning Inserts

TN□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N													●					
耐热钢 Heat-resistant alloy	S				●	●		○	●		●								
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Unplated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)	进给 feed(mm/rev)
	TNMG160404-MF				▲	▲															16.5	9.525	4.76	3.81	0.4	0.25-3.10	0.05-0.15	
	TNMG160408-MF				▲	▲															16.5	9.525	4.76	3.81	0.8	0.50-3.10	0.10-0.30	
	TNMG160404-MM				▲	▲															16.5	9.525	4.76	3.81	0.4	0.30-4.10	0.08-0.25	
	TNMG160408-MM				▲	▲															16.5	9.525	4.76	3.81	0.8	0.65-4.10	0.15-0.45	
	TNMG160412-MM				▲	▲															16.5	9.525	4.76	3.81	1.2	0.95-4.10	0.25-0.65	
	TNMG220408-MM				▲	▲															22	12.7	4.76	5.16	0.8	0.65-4.90	0.15-0.45	
	TNMG220412-MM				▲	▲															22	12.7	4.76	5.16	1.2	0.95-4.90	0.25-0.65	
	TNMG160404-MA	●			▲	●	▲														16.5	9.525	4.76	3.81	0.4	0.25-3.10	0.05-0.15	
	TNMG160408-MA	●			▲	●	▲														16.5	9.525	4.76	3.81	0.8	0.50-3.10	0.10-0.30	
	TNMG160404-MS	●			▲	●	▲														16.5	9.525	4.76	3.81	0.4	0.25-3.10	0.05-0.15	
	TNMG160408-MS	●			▲	●	▲														16.5	9.525	4.76	3.81	0.8	0.50-3.10	0.10-0.30	
	TNMG160404-SM					●	▲														16.5	9.525	4.76	3.81	0.4	0.30-4.10	0.08-0.25	
	TNMG160408-SM					●	▲														16.5	9.525	4.76	3.81	0.8	0.65-4.10	0.15-0.45	
	TNMG220408-SM					●	▲														22	12.7	4.76	5.16	0.8	0.65-4.90	0.15-0.45	
	TNMG220412-SM					●	▲														22	12.7	4.76	5.16	1.2	0.95-4.90	0.25-0.65	
	TNGG160402-EK							▲	▲												16.5	9.525	4.76	3.81	0.2	0.25-3.10	0.05-0.15	
	TNGG160404-EK							▲	▲												16.5	9.525	4.76	3.81	0.4	0.50-3.10	0.10-0.30	
	TNGG160408-EK							▲	▲												16.5	9.525	4.76	3.81	0.8	0.75-3.10	0.10-0.30	
	TNMG160404-TA														▲						16.5	9.525	4.76	3.81	0.4	0.80-3.50	0.05-0.30	
	TNMG160408-TA														▲						16.5	9.525	4.76	3.81	0.8	0.80-3.50	0.10-0.40	
	TNMG160412-TA														▲						16.5	9.525	4.76	3.81	1.2	0.80-3.50	0.13-0.55	
	TNMG220408-TA														▲						22	12.7	4.76	5.16	0.8	0.80-3.50	0.10-0.40	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

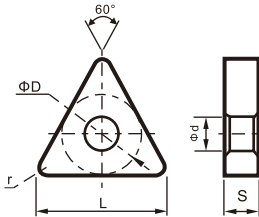


外圆刀粒
External Turning Inserts

TN□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N														●				
耐热钢 Heat-resistant alloy	S				●	●		○	●		●			●					
硬化钢 Hardened Steel	H														●	●			



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		Uncoated 涂层无	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)
	TNMG160404-KM										▲	●								16.5	9.525	4.76	3.81	0.4	0.40-4.10	0.08-0.25	
	TNMG160408-KM										▲	●								16.5	9.525	4.76	3.81	0.8	0.80-4.10	0.15-0.45	
	TNMG160412-KM										▲	●								16.5	9.525	4.76	3.81	1.2	1.20-4.10	0.25-0.65	
	TNMG220412-KM										▲	●								22	12.7	4.76	5.16	1.2	1.20-4.90	0.25-0.65	
	TNMA160404										▲									16.5	9.525	4.76	3.81	0.4	1.00-4.00	0.10-0.30	
	TNMA160408										▲									16.5	9.525	4.76	3.81	0.8	1.00-4.00	0.10-0.40	
	TNMA160412										▲									16.5	9.525	4.76	3.81	1.2	1.50-4.50	0.10-0.50	
	TNMA220408										▲									22	12.7	4.76	5.16	0.8	1.50-5.00	0.15-0.40	
	TNMA220412										▲									22	12.7	4.76	5.16	1.2	1.50-5.00	0.20-0.50	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

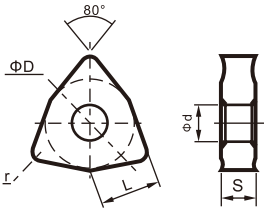


外圆刀粒
External Turning Inserts

WN□□

六边形80° 有孔 Hexagon 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet		尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)
	WNMG080404-TH	●		●															▲	▲	8.7	12.7	4.76	5.16	0.4	0.26-2.20	0.05-0.15
	WNMG080408-TH	●		●															▲	▲	8.7	12.7	4.76	5.16	0.8	0.52-2.20	0.10-0.30
	WNMG080404-TF																		▲	▲	8.7	12.7	4.76	5.16	0.4	0.26-2.20	0.05-0.15
	WNMG080408-TF																		▲	▲	8.7	12.7	4.76	5.16	0.8	0.52-2.20	0.10-0.30
	WNMG080404-MT																		▲	▲	8.7	12.7	4.76	5.16	0.4	0.26-2.20	0.05-0.15
	WNMG080408-MT																		▲	▲	8.7	12.7	4.76	5.16	0.8	0.52-2.20	0.10-0.30
	WNMG080404-PM	●	▲	●	●	▲															8.7	12.7	4.76	5.16	0.4	0.60-4.30	0.10-0.30
	WNMG080408-PM	●	▲	●	●	▲															8.7	12.7	4.76	5.16	0.8	1.20-4.30	0.20-0.60
	WNMG080412-PM	●	▲	●	●	▲															8.7	12.7	4.76	5.16	1.2	1.80-4.30	0.30-0.90
	WNMG080408-PR	●	▲																		8.7	12.7	4.76	5.16	0.8	0.80-4.50	0.15-0.55
	WNMG080412-PR	●	▲																		8.7	12.7	4.76	5.16	1.2	0.80-4.50	0.20-0.55
	WNMG060408-GT	●	▲																		6.5	9.525	4.76	3.81	0.8	0.50-4.30	0.10-0.30
	WNMG080404-GT	●	▲																		8.7	12.7	4.76	5.16	0.4	0.60-4.30	0.10-0.30
	WNMG080408-GT	●	▲																		8.7	12.7	4.76	5.16	0.8	1.20-4.30	0.20-0.60
	WNMG080412-GT	●	▲																		8.7	12.7	4.76	5.16	1.2	1.80-4.30	0.30-0.90
	WNMG060408-MF				▲	▲															6.5	9.525	4.76	3.81	0.8	0.50-2.40	0.10-0.30
	WNMG080404-MF				▲	▲															8.7	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15
	WNMG080408-MF				▲	▲															8.7	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30
	WNMG060408-MM				▲	▲															6.5	9.525	4.76	3.81	0.8	0.65-2.10	0.15-0.45
	WNMG060412-MM				▲	▲															6.5	9.525	4.76	3.81	1.2	0.75-2.90	0.10-0.30
	WNMG080404-MM				▲	▲															8.7	12.7	4.76	5.16	0.4	0.30-2.90	0.10-0.30
	WNMG080408-MM				▲	▲															8.7	12.7	4.76	5.16	0.8	0.65-2.90	0.15-0.45

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

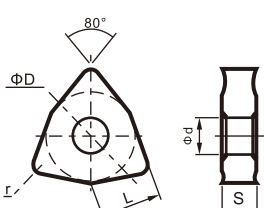


外圆刀粒
External Turning Inserts

WN□□

六边形80° 有孔 Hexagon 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●	●			●							
铸铁 Cast Iron	K	●									●	●					●	●	●	●
有色金属 Non-ferrous metal	N																●			
耐热钢 Heat-resistant alloy	S				●	●			○	●			●							
硬化钢 Hardened Steel	H																●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)
	WNMG080404-MA	●			▲	●	▲														8.7	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15
	WNMG080408-MA	●			▲	●	▲														8.7	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30
	WNMG080412-MA	●			▲	●	▲														8.7	12.7	4.76	5.16	1.2	0.75-3.20	0.15-0.45
	WNMG080404-MS	●			▲	●	▲														8.7	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15
	WNMG080408-MS	●			▲	●	▲														8.7	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30
	WNMG080412-MS	●			▲	●	▲														8.7	12.7	4.76	5.16	1.2	0.75-3.20	0.15-0.45
	WNMG080404-SM					●	▲														8.7	12.7	4.76	5.16	0.4	0.25-3.20	0.05-0.15
	WNMG080408-SM					●	▲														8.7	12.7	4.76	5.16	0.8	0.50-3.20	0.10-0.30
	WNMG080412-SM					●	▲														8.7	12.7	4.76	5.16	1.2	0.75-3.20	0.15-0.45
	WNMG080404-DM											▲									8.7	12.7	4.76	5.16	0.4	0.40-4.30	0.08-0.25
	WNMG080408-DM											▲									8.7	12.7	4.76	5.16	0.8	0.80-4.30	0.15-0.45
	WNMG080412-DM											▲									8.7	12.7	4.76	5.16	1.2	1.20-4.30	0.25-0.66
	WNMG080416-DM											▲									8.7	12.7	4.76	5.16	1.6	1.60-4.30	0.30-0.90
	WNMG080408-MR				●	▲															8.7	12.7	4.76	5.16	0.8	1.00-6.00	0.15-0.60
	WNMG080412-MR				●	▲															8.7	12.7	4.76	5.16	1.2	1.50-6.00	0.15-0.60
	WNMG060404-TA														▲						6.5	9.525	4.76	3.81	0.4	0.10-3.00	0.05-0.30
	WNMG060408-TA														▲						6.5	9.525	4.76	3.81	0.8	0.80-3.50	0.10-0.40
	WNMG080404-TA														▲						8.7	12.7	4.76	5.16	0.4	0.80-3.50	0.05-0.30
	WNMG080408-TA														▲						8.7	12.7	4.76	5.16	0.8	0.80-3.50	0.10-0.40
	WNMG080404-KM									▲	●										8.7	12.7	4.76	5.16	0.4	0.08-0.25	0.40-2.90
	WNMG080408-KM									▲	●										8.7	12.7	4.76	5.16	0.8	0.15-0.45	0.80-2.90
	WNMG080412-KM									▲	●										8.7	12.7	4.76	5.16	1.2	0.25-0.66	1.20-2.90
	WNMA080408									▲											8.7	12.7	4.76	5.16	0.8	1.00-6.00	0.15-0.60
	WNMA080412									▲											8.7	12.7	4.76	5.16	1.2	1.50-6.00	0.15-0.60

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



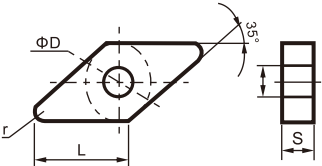
外圆刀粒

External Turning Inserts

VN□□

菱形35° 有孔 Rhombus 35°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Unplated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)
	VNMG160404-TH	●		●														▲	▲	16.6	9.525	4.76	3.81	0.4	0.26-2.10	0.05-0.15		
	VNMG160408-TH	●		●														▲	▲	16.6	9.525	4.76	3.81	0.8	0.52-2.10	0.10-0.30		
	VNMG160404-TF																	▲	▲	16.6	9.525	4.76	3.81	0.4	0.26-2.10	0.05-0.15		
	VNMG160408-TF																	▲	▲	16.6	9.525	4.76	3.81	0.8	0.52-2.10	0.10-0.30		
	VNMG160404-MT																	▲	▲	16.6	9.525	4.76	3.81	0.4	0.26-2.10	0.05-0.15		
	VNMG160408-MT																	▲	▲	16.6	9.525	4.76	3.81	0.8	0.52-2.10	0.10-0.30		
	VNMG160404-PF																	▲	▲	16.6	9.525	4.76	3.81	0.4	0.26-2.10	0.05-0.15		
	VNMG160408-PF																	▲	▲	16.6	9.525	4.76	3.81	0.8	0.52-2.10	0.10-0.30		
	VNMG160404-PM	●	▲	●	●	▲														16.6	9.525	4.76	3.81	0.4	0.80-3.00	0.15-0.36		
	VNMG160408-PM	●	▲	●	●	▲														16.6	9.525	4.76	3.81	0.8	1.00-2.50	0.17-0.36		
	VNMG160412-PM	●	▲	●	●	▲														16.6	9.525	4.76	3.81	1.2	1.20-3.00	0.17-0.36		
	VNMG160408-PR	●	▲																	16.6	9.525	4.76	3.81	0.8	2.00-5.00	0.10-0.50		
	VNMG160412-PR	●	▲																	16.6	9.525	4.76	3.81	1.2	2.00-5.00	0.15-0.55		
	VNMG160404-GT	●	▲																	16.6	9.525	4.76	3.81	0.4	0.80-3.00	0.15-0.36		
	VNMG160408-GT	●	▲																	16.6	9.525	4.76	3.81	0.8	1.00-2.50	0.17-0.36		
	VNMG160412-GT	●	▲																	16.6	9.525	4.76	3.81	1.2	1.00-3.00	0.17-0.36		
	VNMG160404-MM				▲	▲														16.6	9.525	4.76	3.81	0.4	0.25-3.30	0.05-0.15		
	VNMG160408-MM				▲	▲														16.6	9.525	4.76	3.81	0.8	0.55-3.30	0.10-0.30		

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



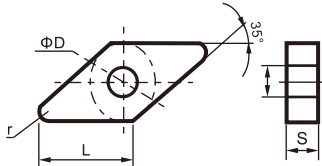
外圆刀粒

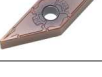
External Turning Inserts

VN□□

菱形35° 有孔 Rhombus 35°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)
	VNMG160404-MA	●			▲	●	▲														16.6	9.525	4.76	3.81	0.4	0.25-3.30	0.05-0.15	
	VNMG160408-MA	●			▲	●	▲														16.6	9.525	4.76	3.81	0.8	0.55-3.30	0.10-0.30	
	VNMG160404-MS	●			▲	●	▲														16.6	9.525	4.76	3.81	0.4	0.25-3.30	0.05-0.15	
	VNMG160408-MS	●			▲	●	▲														16.6	9.525	4.76	3.81	0.8	0.55-3.30	0.10-0.30	
	VNMG160404-SM					●	▲														16.6	9.525	4.76	3.81	0.4	0.25-3.30	0.05-0.15	
	VNMG160408-SM					●	▲														16.6	9.525	4.76	3.81	0.8	0.55-3.30	0.10-0.30	
	VNMG160404-DM											▲									16.6	9.525	4.76	3.81	0.4	0.80-3.00	0.15-0.36	
	VNMG160408-DM											▲									16.6	9.525	4.76	3.81	0.8	1.00-2.50	0.17-0.36	
	VNMG160412-DM											▲									16.6	9.525	4.76	3.81	1.2	1.20-3.00	0.17-0.36	
	VNMG160404-TA														▲						16.6	9.525	4.76	3.81	0.4	0.50-3.00	0.08-0.35	
	VNMG160408-TA														▲						16.6	9.525	4.76	3.81	0.8	0.80-3.50	0.10-0.40	
	VNMG160404-KM										▲	●									16.6	9.525	4.76	3.81	0.4	0.40-3.30	0.08-0.25	
	VNMG160408-KM										▲	●									16.6	9.525	4.76	3.81	0.8	0.80-3.30	0.15-0.45	
	VNMG160412-KM										▲	●									16.6	9.525	4.76	3.81	1.2	1.20-3.30	0.25-0.65	
	VNMA160408										▲										16.6	9.525	4.76	3.81	0.8	0.80-3.30	0.15-0.45	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

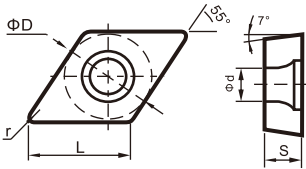


内孔刀粒 Internal Bore Turning Inserts

DC□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●														○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD		PVD				CVD	PVD	金属陶瓷 Cermet	尺寸 Size					加工参数 Machining Parameters	
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	切深 ap (mm)	进给 feed (mm/rev)
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010	YZH6010		
	DCMT11T304-TH	●	●													▲	▲
	DCMT11T308-TH	●	●													▲	▲
	DCMT11T302-TF	●			●	▲											
	DCMT11T304-TF	●			●	▲											
	DCMT070204-TM		▲		●	▲										7.8	0.05-0.20
	DCMT070208-TM		▲		●	▲										7.8	0.10-0.35
	DCMT11T304-TM		▲		●	▲										11.6	0.05-0.20
	DCMT11T308-TM		▲		●	▲										11.6	0.20-0.35
	DCMT11T304-TR		▲		●	▲										11.6	0.05-0.20
	DCMT11T308-TR		▲		●	▲										11.6	0.20-0.35
	DCMT11T304-TG															▲	▲
	DCMT11T308-TG															▲	▲
	DCMT070204-PF												▲			7.8	0.05-0.15
	DCMT070208-PF												▲			7.8	0.05-0.20
	DCMT11T304-PF												▲			11.6	0.02-0.10
	DCMT11T308-PF												▲			11.6	0.05-0.26
	DCMT070202-MV				▲	●										7.8	0.05-0.20
	DCMT070204-MV				▲	●										7.8	0.05-0.20
	DCMT11T302-MV				▲	●										11.6	0.05-0.20
	DCMT11T304-MV				▲	●										11.6	0.05-0.20
	DCMT11T308-MV				▲	●										11.6	0.20-0.35
	DCMT070204-SL					▲										7.8	0.05-0.15
	DCMT070208-SL					▲										7.8	0.05-0.20
	DCMT11T304-SL					▲										▲	▲
	DCMT11T308-SL					▲										▲	▲

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

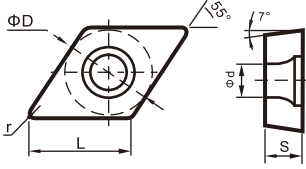


内孔刀粒 Internal Bore Turning Inserts

DC□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●											○	○	○	○			
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD		PVD				CVD	PVD	金属陶瓷 Cermet	尺寸 Size					加工参数 Machining Parameters	
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	切深 ap (mm)	进给 feed (mm/rev)
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010	YZH6010		
	DCGT11T301-FS								▲							7.8	0.02-0.06
	DCGT11T302-FS								▲							7.8	0.05-0.12
	DCGT11T304-FS								▲							7.8	0.08-0.25
	DCGT11T308-FS								▲							7.8	0.10-0.30
	DCGT070202-EK								●	▲						7.8	0.03-0.20
	DCGT070204-EK								●	▲						7.8	0.03-0.20
	DCGT11T302-EK								●	▲						11.6	0.03-0.20
	DCGT11T304-EK								●	▲						11.6	0.03-0.20
	DCGT070201-EL				●					▲						7.8	0.03-0.20
	DCGT070202-EL				●					▲						7.8	0.03-0.20
	DCGT070204-EL				●					▲						7.8	0.03-0.20
	DCGT11T301-EL				●					▲						11.6	0.03-0.20
	DCGT11T302-EL				●					▲						11.6	0.03-0.20
	DCGT11T304-EL				●					▲						11.6	0.03-0.20
	DCGT070201-ES									▲						7.8	0.03-0.20
	DCGT070202-ES									▲						7.8	0.03-0.20
	DCGT070204-ES									▲						7.8	0.03-0.20
	DCGT11T301-ES									▲						11.6	0.03-0.20
	DCGT11T302-ES									▲						11.6	0.03-0.20
	DCGT11T304-ES									▲						11.6	0.03-0.20
	DCGT070202-AK													▲		7.8	0.01-0.20
	DCGT070204-AK													▲		7.8	0.02-0.30
	DCGT11T302-AK													▲		11.6	0.02-0.30
	DCGT11T304-AK													▲		11.6	0.03-0.50

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

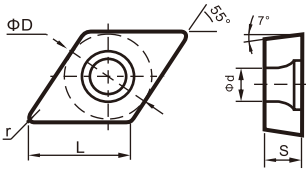


内孔刀粒
Internal Bore Turning Inserts

DC□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermets			尺寸 Size					加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)
	DCGT070202R/L-SF																▲	▲			7.8	6.35	2.38	2.8	0.2	0.30-1.50	0.05-0.15
	DCGT070204R/L-SF																▲	▲			7.8	6.35	2.38	2.8	0.4	0.60-1.50	0.05-0.20
	DCGT11T302R/L-SF							▲	▲								▲	▲			11.6	9.525	3.97	4.4	0.2	0.30-2.30	0.02-0.10
	DCGT11T304R/L-SF								▲	▲							▲	▲			11.6	9.525	3.97	4.4	0.4	0.60-2.30	0.05-0.26
	DCGT070202R/L-SU																▲	▲			7.8	6.35	2.38	2.8	0.2	0.30-1.50	0.05-0.15
	DCGT070204R/L-SU																▲	▲			7.8	6.35	2.38	2.8	0.4	0.60-1.50	0.05-0.20
	DCGT11T302R/L-SU							▲	▲								▲	▲			11.6	9.525	3.97	4.4	0.2	0.30-2.30	0.02-0.10
	DCGT11T304R/L-SU							▲	▲								▲	▲			11.6	9.525	3.97	4.4	0.4	0.60-2.30	0.05-0.26

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

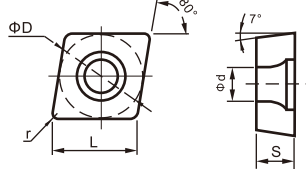


内孔刀粒
Internal Bore Turning Inserts

CC□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●					○	○	○	○
有色金属 Non-ferrous metal	N																●			
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●							
硬化钢 Hardened Steel	H																●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermets				尺寸 Size					加工参数 Machining Parameters			
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)
	CCMT060204-TH	●		●													▲				6.4	6.35	2.38	2.8	0.4	0.40-2.10	0.05-0.18
	CCMT09T304-TH	●		●													▲				9.7	9.525	3.97	4.4	0.4	0.40-3.80	0.05-0.18
	CCMT09T308-TH	●		●													▲				9.7	9.525	3.97	4.4	0.8	0.80-3.20	0.10-0.35
	CCMT060202-TF	●			●	▲															6.4	6.35	2.38	2.8	0.2	0.40-2.10	0.05-0.18
	CCMT060204-TF	●			●	▲															6.4	6.35	2.38	2.8	0.4	0.40-2.10	0.05-0.18
	CCMT09T304-TF	●			●	▲															9.7	9.525	3.97	4.4	0.4	0.40-3.80	0.05-0.18
	CCMT09T308-TF	●			●	▲															9.7	9.525	3.97	4.4	0.8	0.80-3.20	0.10-0.35
	CCMT120404-TF	●			●	▲															12.9	12.7	4.76	5.5	0.4	0.40-4.30	0.05-0.18
	CCMT120408-TF	●			●	▲															12.9	12.7	4.76	5.5	0.8	0.80-4.30	0.10-0.35
	CCMT060204-TM		▲		●	▲															6.4	6.35	2.38	2.8	0.4	0.40-2.10	0.05-0.18
	CCMT060208-TM		▲		●	▲															6.4	6.35	2.38	2.8	0.8	0.80-2.10	0.10-0.35
	CCMT09T304-TM		▲		●	▲															9.7	9.525	3.97	4.4	0.4	0.40-3.80	0.05-0.18
	CCMT09T308-TM		▲		●	▲															9.7	9.525	3.97	4.4	0.8	0.80-3.20	0.10-0.35
	CCMT120404-TM		▲		●	▲															12.9	12.7	4.76	5.5	0.4	0.40-4.30	0.05-0.18
	CCMT120408-TM		▲		●	▲															12.9	12.7	4.76	5.5	0.8	0.80-4.30	0.10-0.35
	CCMT060208-TR		▲		●	▲															6.4	6.35	2.38	2.8	0.8	0.80-2.10	0.10-0.35
	CCMT09T304-TR		▲		●	▲															9.7	9.525	3.97	4.4	0.4	0.40-3.80	0.05-0.18
	CCMT09T308-TR		▲		●	▲															9.7	9.525	3.97	4.4	0.8	0.80-3.20	0.10-0.35
	CCMT120408-TR		▲		●	▲															12.9	12.7	4.76	5.5	0.8	0.80-4.30	0.10-0.35
	CCMT120412-TR		▲		●	▲															12.9	12.7	4.76	5.5	1.2	1.20-4.30	0.15-0.55

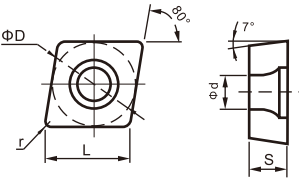


内孔刀粒
Internal Bore Turning Inserts

CC□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet				尺寸 Size					加工参数 Machining Parameters		
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re
	CCMT060202-TG																	▲	▲	6.4	6.35	2.38	2.8	0.2	0.30-1.60	0.05-0.15
	CCMT060204-TG																	▲	▲	6.4	6.35	2.38	2.8	0.4	0.30-1.60	0.05-0.15
	CCMT060204-PF												▲							6.4	6.35	2.38	2.8	0.4	0.40-2.10	0.05-0.18
	CCMT060208-PF												▲							6.4	6.35	2.38	2.8	0.8	0.80-2.10	0.10-0.35
	CCMT09T304-PF												▲							9.7	9.525	3.97	4.4	0.4	0.40-3.80	0.05-0.18
	CCMT09T308-PF												▲							9.7	9.525	3.97	4.4	0.8	0.80-3.20	0.10-0.35
	CCMT120404-PF												▲							12.9	12.7	4.76	5.5	0.4	0.40-4.30	0.05-0.18
	CCMT120408-PF												▲							12.9	12.7	4.76	5.5	0.8	0.80-4.30	0.10-0.35
	CCMT060204-SL					▲														6.4	6.35	2.38	2.8	0.4	0.40-2.10	0.05-0.18
	CCMT060208-SL					▲														6.4	6.35	2.38	2.8	0.8	0.80-2.10	0.10-0.35
	CCMT09T304-SL					▲														9.7	9.525	3.97	4.4	0.4	0.40-3.80	0.05-0.18
	CCMT09T308-SL					▲														9.7	9.525	3.97	4.4	0.8	0.80-3.20	0.10-0.35
	CCMT120404-SL					▲														12.9	12.7	4.76	5.5	0.4	0.40-4.30	0.05-0.18
	CCMT120408-SL					▲														12.9	12.7	4.76	5.5	0.8	0.80-4.30	0.10-0.35

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

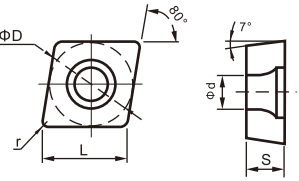


内孔刀粒
Internal Bore Turning Inserts

CC□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet				尺寸 Size					加工参数 Machining Parameters			
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)
	CCGT030101R/L-SF							▲	▲												6.4	6.35	2.38	2.8	0.1	0.10-2.40	0.03-0.20
	CCGT030102R/L-SF							▲	▲												6.4	6.35	2.38	2.8	0.1	0.10-2.40	0.03-0.20
	CCGT030104R/L-SF							▲	▲												6.4	6.35	2.38	2.8	0.2	0.10-2.40	0.03-0.20
	CCGT040101R/L-SF							▲	▲												6.4	6.35	2.38	2.8	0.4	0.10-2.40	0.03-0.20
	CCGT040102R/L-SF							▲	▲												9.7	9.525	3.97	4.4	0.2	0.10-2.40	0.03-0.20
	CCGT040104R/L-SF							▲	▲												9.7	9.525	3.97	4.4	0.4	0.10-2.40	0.03-0.20
	CCGT060201R/L-SF							▲	▲												6.4	6.35	2.38	2.8	0.1	0.10-2.40	0.03-0.20
	CCGT060202R/L-SF							▲	▲							▲	▲				6.4	6.35	2.38	2.8	0.2	0.10-2.40	0.03-0.20
	CCGT060204R/L-SF							▲	▲							▲	▲				6.4	6.35	2.38	2.8	0.4	0.10-2.40	0.03-0.20
	CCGT09T302R/L-SF							▲	▲							▲	▲				9.7	9.525	3.97	4.4	0.2	0.10-2.40	0.03-0.20
	CCGT09T304R/L-SF							▲	▲							▲	▲				9.7	9.525	3.97	4.4	0.4	0.10-2.40	0.03-0.20
	CCGT060201R/L-SU							▲	▲												6.4	6.35	2.38	2.8	0.1	0.10-2.40	0.03-0.20
	CCGT060202R/L-SU							▲	▲							▲	▲				6.4	6.35	2.38	2.8	0.2	0.10-2.40	0.03-0.20
	CCGT060204R/L-SU							▲	▲							▲	▲				6.4	6.35	2.38	2.8	0.4	0.10-2.40	0.03-0.20
	CCGT09T302R/L-SU							▲	▲							▲	▲				9.7	9.525	3.97	4.4	0.2	0.10-2.40	0.03-0.20
	CCGT09T304R/L-SU							▲	▲							▲	▲				9.7	9.525	3.97	4.4	0.4	0.10-2.40	0.03-0.20

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

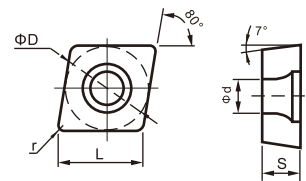
内孔刀粒

Internal Bore Turning Inserts

CC ☐ ☐

菱形80° 有孔 Rhombus 80°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●	●			●						
铸铁 Cast Iron	K		●								●	●					●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●	●		○	●			●						
硬化钢 Hardened Steel	H													●	●				



形状 Shape	规格 Specification	陶瓷刀片												尺寸					加工参数	
		CVD			PVD				CVD	PVD	开槽 Uncoated	金属陶瓷 Cermet	尺寸 Size					加工参数 Machining Parameters		
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015		YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	L	IC	S	d

	CCGT060202-EK						● ▲											6.4	6.35	2.38	2.8	0.2	0.20-1.50	0.02-0.15
	CCGT060204-EK						● ▲											6.4	6.35	2.38	2.8	0.4	0.20-1.50	0.15-0.45
	CCGT09T302-EK						● ▲											9.7	9.525	3.97	4.4	0.2	0.20-1.50	0.15-0.45
	CCGT09T304-EK						● ▲											9.7	9.525	3.97	4.4	0.4	0.20-1.50	0.15-0.45
	CCGT060201-EL				●			▲										6.4	6.35	2.38	2.8	0.1	0.10-2.40	0.03-0.20
	CCGT060202-EL				●			▲										6.4	6.35	2.38	2.8	0.2	0.10-2.40	0.03-0.20
	CCGT060204-EL				●			▲										6.4	6.35	2.38	2.8	0.4	0.10-2.40	0.03-0.20
	CCGT09T301-EL				●			▲										9.7	9.525	3.97	4.4	0.1	0.10-2.40	0.03-0.20
	CCGT09T302-EL				●			▲										9.7	9.525	3.97	4.4	0.2	0.10-2.40	0.03-0.20
	CCGT09T304-EL				●			▲										9.7	9.525	3.97	4.4	0.4	0.10-2.40	0.03-0.20
	CCGT060201-ES							▲										6.4	6.35	2.38	2.8	0.1	0.10-2.40	0.03-0.20
	CCGT060202-ES							▲										6.4	6.35	2.38	2.8	0.2	0.10-2.40	0.03-0.20
	CCGT060204-ES							▲										6.4	6.35	2.38	2.8	0.4	0.10-2.40	0.03-0.20
	CCGT09T301-ES							▲										9.7	9.525	3.97	4.4	0.1	0.10-2.40	0.03-0.20
	CCGT09T302-ES							▲										9.7	9.525	3.97	4.4	0.2	0.10-2.40	0.03-0.20
	CCGT09T304-ES							▲										9.7	9.525	3.97	4.4	0.4	0.10-2.40	0.03-0.20
	CCGT060202-AK												▲					6.4	6.35	2.38	2.8	0.2	0.05-3.00	0.01-0.12
	CCGT060204-AK												▲					6.4	6.35	2.38	2.8	0.4	0.10-3.00	0.02-0.15
	CCGT09T302-AK												▲					9.7	9.525	3.97	4.4	0.2	0.05-3.00	0.02-0.20
	CCGT09T304-AK												▲					9.7	9.525	3.97	4.4	0.4	0.10-5.00	0.02-0.30
	CCGT120404-AK												▲					12.9	12.7	4.76	5.5	0.4	0.10-5.00	0.03-0.50
	CCGT120408-AK												▲					12.9	12.7	4.76	5.5	0.8	0.10-5.50	0.04-0.80

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

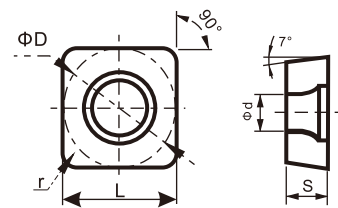
内孔刀粒

Internal Bore Turning Inserts

SC ☐ ☐

正方形90° 有孔 Square 90°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●			●							
铸铁 Cast Iron	K		●								●	●					●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●	●		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD		PVD			CVD		PVD		涂层 Coating	金属陶瓷 Cermets	尺寸 Size					加工参数 Machining Parameters											
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015			YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)

	SCMT09T304-TH	●		●														▲	▲	9.525	9.525	3.97	4.4	0.4	0.30-2.80	0.05-0.25
	SCMT09T308-TH	●		●														▲	▲	9.525	9.525	3.97	4.4	0.8	0.50-2.80	0.10-0.30
	SCMT09T304-TF	●			●	▲														9.525	9.525	3.97	4.4	0.4	0.10-1.00	0.05-0.10
	SCMT09T308-TF	●			●	▲														9.525	9.525	3.97	4.4	0.8	0.10-1.00	0.08-0.15
	SCMT120404-TF	●			●	▲														12.7	12.7	4.76	5.5	0.4	0.10-1.00	0.10-0.30
	SCMT09T304-TM		▲		●	▲														9.525	9.525	3.97	4.4	0.4	0.30-2.80	0.05-0.25
	SCMT09T308-TM		▲		●	▲														9.525	9.525	3.97	4.4	0.8	0.50-2.80	0.10-0.30
	SCMT120404-TM		▲		●	▲														12.7	12.7	4.76	5.5	0.4	0.50-2.80	0.10-0.30
	SCMT120408-TM		▲		●	▲														12.7	12.7	4.76	5.5	0.8	0.80-3.50	0.15-0.35
	SCMT120412-TM		▲		●	▲														12.7	12.7	4.76	5.5	1.2	1.00-3.50	0.25-0.40
	SCMT09T304-TR		▲		●	▲														9.525	9.525	3.97	4.4	0.4	0.60-3.00	0.08-0.25
	SCMT09T308-TR		▲		●	▲														9.525	9.525	3.97	4.4	0.8	1.00-3.00	0.10-0.30
	SCMT120404-TR		▲		●	▲														12.7	12.7	4.76	5.5	0.4	0.80-3.80	0.10-0.30
	SCMT120408-TR		▲		●	▲														12.7	12.7	4.76	5.5	0.8	1.20-3.80	0.12-0.38
	SCMT120412-TR		▲		●	▲														12.7	12.7	4.76	5.5	1.2	1.20-3.80	0.12-0.38
	SCMT09T304-TG																	▲	▲	9.525	9.525	3.97	4.4	0.4	0.30-2.80	0.05-0.25
	SCMT09T308-TG																	▲	▲	9.525	9.525	3.97	4.4	0.8	0.50-2.80	0.10-0.30
	SCMT09T304-MT																	▲	▲	9.525	9.525	3.97	4.4	0.4	0.30-2.80	0.05-0.25
	SCMT09T308-MT																	▲	▲	9.525	9.525	3.97	4.4	0.8	0.50-2.80	0.10-0.30
	SCMT120404-SL						▲													12.7	12.7	4.76	5.5	0.4	0.50-2.80	0.10-0.30
	SCMT120408-SL						▲													12.7	12.7	4.76	5.5	0.8	0.80-3.50	0.15-0.35
	SCGT09T304-AK															▲				9.525	9.525	3.97	4.4	0.4	0.10-5.00	0.04-0.40
	SCGT09T308-AK															▲				9.525	9.525	3.97	4.4	0.8	0.10-5.00	0.03-0.40
	SCGT120404-AK															▲				12.7	12.7	4.76	5.5	0.4	0.10-5.00	0.03-0.50
	SCGT120408-AK															▲				12.7	12.7	4.76	5.5	0.8	0.15-5.50	0.04-0.60

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



内孔刀粒 Internal Bore Turning Inserts

VB□□

菱形35° 有孔 Rhombus 35°With holes

钢 Steel	P	●	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●					●	●	●	●
有色金属 Non-ferrous metal	N															●				
耐热钢 Heat-resistant alloy	S				●	●	●		○	●			●							
硬化钢 Hardened Steel	H												●	●						

形状 Shape	规格 Specification	CVD		PVD				CVD	PVD		无涂层 Uncoated	金属陶瓷 Cermets				尺寸 Size					加工参数 Machining Parameters						
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015		YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	s	ed	Re	切深 ap (mm)
	VBMT110304-TH																▲				11.0	6.35	3.18	2.8	0.4	0.20-1.20	0.04-0.20
	VBMT110308-TH																▲				11.0	6.35	3.18	2.8	0.8	0.20-1.20	0.08-0.20
	VBMT160404-TH																▲				16.5	9.525	4.76	4.4	0.4	0.30-1.50	0.05-0.20
	VBMT160408-TH																▲				16.5	9.525	4.76	4.4	0.8	0.30-1.50	0.10-0.20
	VBMT160404-TF	●			●	▲															16.5	9.525	4.76	4.4	0.4	0.18-1.80	0.05-0.20
	VBMT160408-TF	●			●	▲															16.5	9.525	4.76	4.4	0.8	0.20-1.80	0.06-0.20
	VBMT110304-TM		▲		●	▲															11.0	6.35	3.18	2.8	0.4	0.20-1.20	0.04-0.20
	VBMT160404-TM		▲		●	▲															16.5	9.525	4.76	4.4	0.4	0.30-1.50	0.05-0.20
	VBMT160408-TM		▲		●	▲															16.5	9.525	4.76	4.4	0.8	0.30-1.50	0.10-0.20
	VBMT160412-TM		▲		●	▲															16.5	9.525	4.76	4.4	1.2	0.30-1.50	0.10-0.25
	VBMT160404-TR		▲		●	▲															16.5	9.525	4.76	4.4	0.4	0.30-2.00	0.08-0.20
	VBMT160408-TR		▲		●	▲															16.5	9.525	4.76	4.4	0.8	0.50-2.30	0.10-0.25
	VBMT160404-TG																	▲	▲		16.5	9.525	4.76	4.4	0.4	0.30-2.00	0.08-0.20
	VBMT160408-TG																	▲	▲		16.5	9.525	4.76	4.4	0.8	0.50-2.30	0.10-0.25
	VBMT110304-MV	●			▲																11.0	6.35	3.18	2.8	0.4	0.20-1.20	0.04-0.20
	VBMT110308-MV	●			▲																11.0	6.35	3.18	2.8	0.8	0.20-1.20	0.08-0.20
	VBMT160404-MV	●			▲																16.5	9.525	4.76	4.4	0.4	0.30-1.50	0.05-0.20
	VBMT160408-MV	●			▲																16.5	9.525	4.76	4.4	0.8	0.30-1.50	0.10-0.20
	VBMT160412-MV	●			▲																16.5	9.525	4.76	4.4	1.2	0.30-1.50	0.10-0.25
	VBMT110304-SL						▲														11.0	6.35	3.18	2.8	0.4	0.20-1.20	0.04-0.20
	VBMT110308-SL						▲														11.0	6.35	3.18	2.8	0.8	0.20-1.20	0.08-0.20
	VBMT160404-SL						▲											▲	▲		16.5	9.525	4.76	4.4	0.4	0.30-1.50	0.05-0.20
	VBMT160408-SL						▲											▲	▲		16.5	9.525	4.76	4.4	0.8	0.30-1.50	0.10-0.20

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade



内孔刀粒 Internal Bore Turning Inserts

VB□□

菱形35° 有孔 Rhombus 35°With holes

钢 Steel	P	●	●	●	●	●	●	●	●	●				●	●	●	●		
不锈钢 Stainless Steel	M				●	●	●	●	●	●			●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N														●				
耐热钢 Heat-resistant alloy	S				●	●	●		○	●			●						
硬化钢 Hardened Steel	H													●	●				

Technical drawing of a rhombus-shaped insert. The main view shows a rhombus with a 35° angle, a central hole with diameter ΦD , and dimensions L (horizontal width) and S (vertical height). A fillet radius r is indicated at the corners. The side view shows the thickness a and the width S of the insert.

形状 Shape	规格 Specification	CVD		PVD				CVD		PVD		金属陶瓷 Cermets	尺寸 Size					加工参数 Machining Parameters									
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115		YZK3125	YZS5415	YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ϕd	Re	切深 ap (mm)
	VBGT110301-FS								▲												11.0	6.35	3.18	2.8	0.1	0.10-1.50	0.02-0.06
	VBGT110302-FS								▲												11.0	6.35	3.18	2.8	0.2	0.20-2.00	0.05-0.12
	VBGT110304-FS								▲												11.0	6.35	3.18	2.8	0.4	0.20-2.50	0.08-0.25
	VBGT110302R/L-SY								▲	▲								▲	▲		11.0	6.35	3.18	2.8	0.2	0.20-2.00	0.05-0.12
	VBGT110304R/L-SY								▲	▲								▲	▲		11.0	6.35	3.18	2.8	0.4	0.20-2.50	0.08-0.25
	VBGT160402R/L-SY								▲	▲											16.5	9.525	4.76	4.4	0.2	0.30-1.50	0.05-0.20
	VBGT160404R/L-SY								▲	▲											16.5	9.525	4.76	4.4	0.4	0.30-1.50	0.10-0.20
	VBGT110302R/L-SF								▲	▲								▲	▲		11.0	6.35	3.18	2.8	0.2	0.20-2.00	0.05-0.12
	VBGT110304R/L-SF								▲	▲								▲	▲		11.0	6.35	3.18	2.8	0.4	0.20-2.50	0.08-0.25
	VBGT160402R/L-SF								▲	▲											16.5	9.525	4.76	4.4	0.2	0.30-1.50	0.05-0.20
	VBGT160404R/L-SF								▲	▲											16.5	9.525	4.76	4.4	0.4	0.30-1.50	0.10-0.20
	VBGT160402-AK															▲					16.5	9.525	4.76	4.4	0.2	0.05-4.00	0.03-0.30
	VBGT160404-AK															▲					16.5	9.525	4.76	4.4	0.4	0.10-5.00	0.03-0.40
	VBGT160408-AK															▲					16.5	9.525	4.76	4.4	0.8	0.10-5.00	0.03-0.50

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

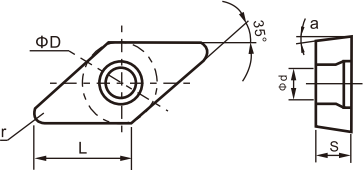


内孔刀粒 Internal Bore Turning Inserts

VC□□

菱形35° 有孔 Rhombus 35°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermet				尺寸 Size					加工参数 Machining Parameters			
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)
	VCMT110302-TF	●			●	▲															11.0	6.35	3.18	2.8	0.2	0.20-1.80	0.06-0.18
	VCMT110304-TF	●			●	▲															16.5	9.525	4.76	4.4	0.4	0.20-1.80	0.06-0.18
	VCMT160404-TF	●			●	▲															16.5	9.525	4.76	4.4	0.4	0.30-2.00	0.08-0.18
	VCMT160404-TM		▲		●	▲															16.5	9.525	4.76	4.4	0.4	0.30-2.60	0.10-0.25
	VCMT160408-TM		▲		●	▲															16.5	9.525	4.76	4.4	0.8	0.60-2.60	0.13-0.33
	VCGT110301-FS							▲													11.0	6.35	3.18	2.8	0.1	0.10-1.50	0.02-0.06
	VCGT110302-FS							▲													11.0	6.35	3.18	2.8	0.2	0.20-2.00	0.05-0.12
	VCGT110304-FS							▲													11.0	6.35	3.18	2.8	0.4	0.20-2.50	0.08-0.25
	VCGT110301-EK							●	▲												11.0	6.35	3.18	2.8	0.1	0.10-1.50	0.02-0.06
	VCGT110302-EK							●	▲												11.0	6.35	3.18	2.8	0.2	0.20-1.50	0.02-0.15
	VCGT110304-EK							●	▲												11.0	6.35	3.18	2.8	0.4	0.20-1.50	0.02-0.15

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

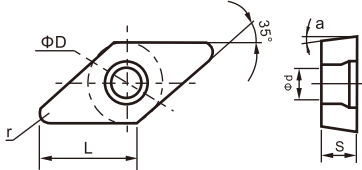


内孔刀粒 Internal Bore Turning Inserts

VC□□

菱形35° 有孔 Rhombus 35°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				○	○	○	○
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	○	○		○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD					CVD		PVD			无涂层 Uncoated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters			
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010		YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)
	VCGT110301-EL				●					▲											11.0	6.35	3.18	2.8	0.1	0.10-2.40	0.03-0.20
	VCGT110302-EL				●					▲											11.0	6.35	3.18	2.8	0.2	0.10-2.40	0.03-0.20
	VCGT110304-EL				●					▲											11.0	6.35	3.18	2.8	0.4	0.10-2.40	0.03-0.20
	VCGT160401-EL				●					▲											16.5	9.525	4.76	4.4	0.1	0.10-2.40	0.03-0.20
	VCGT160402-EL				●					▲											16.5	9.525	4.76	4.4	0.2	0.10-2.40	0.03-0.20
	VCGT160404-EL				●					▲											16.5	9.525	4.76	4.4	0.4	0.10-2.40	0.03-0.20
	VCGT110301-ES									▲											11.0	6.35	3.18	2.8	0.1	0.10-2.40	0.03-0.20
	VCGT110302-ES									▲											11.0	6.35	3.18	2.8	0.2	0.10-2.40	0.03-0.20
	VCGT110304-ES									▲											11.0	6.35	3.18	2.8	0.4	0.10-2.40	0.03-0.20
	VCGT160401-ES									▲											16.5	9.525	4.76	4.4	0.1	0.10-2.40	0.03-0.20
	VCGT160402-ES									▲											16.5	9.525	4.76	4.4	0.2	0.10-2.40	0.03-0.20
	VCGT160404-ES									▲											16.5	9.525	4.76	4.4	0.4	0.10-2.40	0.03-0.20
	VCGT110302-AK															▲					11.0	6.35	3.18	2.8	0.2	0.05-3.00	0.02-0.20
	VCGT110304-AK															▲					11.0	6.35	3.18	2.8	0.4	0.10-4.00	0.02-0.25
	VCGT160402-AK															▲					16.5	9.525	4.76	4.4	0.8	0.05-5.00	0.02-0.30
	VCGT160404-AK															▲					11.0	6.35	4.76	4.4	0.4	0.10-5.00	0.03-0.40
	VCGT160408-AK															▲					11.0	6.35	4.76	4.4	0.8	0.10-5.00	0.03-0.50

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

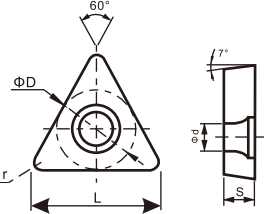


内孔刀粒 Internal Bore Turning Inserts

TC□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●											●	●					
有色金属 Non-ferrous metal	N																		
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD						CVD		PVD		无涂层 Unplated	金属陶瓷 Cermet			尺寸 Size					加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010		YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	ed	Re	切深 ap (mm)	进给 feed (mm/rev)
	TCMT110204-TH	●		●															▲	▲	11.0	6.35	2.38	2.8	0.4	0.40-3.30	0.05-0.20	
	TCMT110208-TH	●		●															▲	▲	11.0	6.35	2.38	2.8	0.8	0.80-3.30	0.10-0.35	
	TCMT16T304-TH	●		●															▲	▲	16.5	9.525	3.97	4.4	0.4	0.40-4.90	0.05-0.20	
	TCMT16T308-TH	●		●															▲	▲	16.5	9.525	3.97	4.4	0.8	0.80-4.90	0.10-0.35	
	TCMT110202-TF	●			●	▲															11.0	6.35	2.38	2.8	0.2	0.30-2.20	0.05-0.15	
	TCMT110204-TF	●			●	▲															11.0	6.35	2.38	2.8	0.4	0.30-2.20	0.05-0.15	
	TCMT16T304-TF	●			●	▲															16.5	9.525	3.97	4.4	0.4	0.30-3.30	0.05-0.15	
	TCMT16T308-TF	●			●	▲															16.5	9.525	3.97	4.4	0.8	0.60-3.30	0.10-0.30	
	TCMT090204-TM		▲		●	▲															9.6	5.56	2.38	2.5	0.4	0.40-2.90	0.05-0.20	
	TCMT090208-TM		▲		●	▲															9.6	5.56	2.38	5.5	0.8	0.80-2.90	0.10-0.35	
	TCMT110204-TM		▲		●	▲															11.0	6.35	2.38	2.8	0.4	0.40-3.30	0.05-0.20	
	TCMT110208-TM		▲		●	▲															11.0	6.35	2.38	2.8	0.8	0.80-3.30	0.10-0.35	
	TCMT16T304-TM		▲		●	▲															16.5	9.525	3.97	4.4	0.4	1.20-3.30	0.15-0.55	
	TCMT16T308-TM		▲		●	▲															16.5	9.525	3.97	4.4	0.8	0.80-4.90	0.10-0.35	
	TCMT16T312-TM		▲		●	▲															16.5	9.525	3.97	4.4	1.2	1.20-4.90	0.15-0.55	
	TCMT090204-TG																	▲	▲	9.6	5.56	2.38	2.5	0.4	0.40-2.90	0.05-0.20		
	TCMT090208-TG																	▲	▲	9.6	5.56	2.38	5.5	0.8	0.80-2.90	0.10-0.35		
	TCMT110204-TG																	▲	▲	11.0	6.35	2.38	2.8	0.4	0.40-3.30	0.05-0.20		
	TCMT110208-TG																	▲	▲	11.0	6.35	2.38	2.8	0.8	0.80-3.30	0.10-0.35		

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

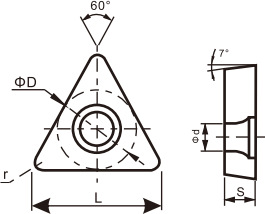


内孔刀粒 Internal Bore Turning Inserts

TC□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●											●	●					
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H															●	●		



形状 Shape	规格 Specification	CVD			PVD						CVD		PVD		涂层 Coating	金属陶瓷 Cermet		尺寸 Size					加工参数 Machining Parameters					
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010		YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/rev)
	TCMT090204-PF													▲							9.6	5.56	2.38	2.5	0.4	0.30-1.80	0.05-0.15	
	TCMT090208-PF													▲							9.6	5.56	2.38	5.5	0.8	0.60-2.20	0.10-0.30	
	TCMT110204-PF													▲							11.0	6.35	2.38	2.8	0.4	0.30-2.20	0.05-0.15	
	TCMT110208-PF													▲							11.0	6.35	2.38	2.8	0.8	0.60-3.30	0.10-0.30	
	TCMT16T304-PF													▲							16.5	9.525	3.97	4.4	0.4	0.30-3.30	0.05-0.15	
	TCMT16T308-PF													▲							16.5	9.525	3.97	4.4	0.8	0.60-3.30	0.10-0.30	
	TCMT090204-SL				●	▲												▲	▲	9.6	5.56	2.38	2.5	0.4	0.30-1.80	0.05-0.15		
	TCMT090208-SL				●	▲												▲	▲	9.6	5.56	2.38	5.5	0.8	0.60-2.20	0.10-0.30		
	TCMT110204-SL				●	▲												▲	▲	11.0	6.35	2.38	2.8	0.4	0.30-2.20	0.05-0.15		
	TCMT110208-SL				●	▲												▲	▲	11.0	6.35	2.38	2.8	0.8	0.60-3.30	0.10-0.30		
	TCMT16T304-SL				●	▲												▲	▲	16.5	9.525	3.97	4.4	0.4	0.30-3.30	0.05-0.15		
	TCMT16T308-SL				●	▲												▲	▲	16.5	9.525	3.97	4.4	0.8	0.60-3.30	0.10-0.30		
	TCGT090204-AK														▲					9.6	5.56	2.38	5.5	0.8	0.10-4.00	0.02-0.15		
	TCGT110204-AK														▲					11.0	6.35	2.38	2.8	0.4	0.10-4.00	0.03-0.30		
	TCGT16T304-AK														▲					16.5	9.525	3.97	4.4	0.4	0.10-5.50	0.03-0.40		

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

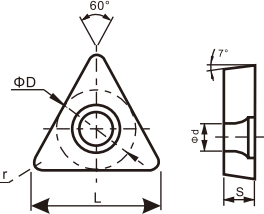


内孔刀粒 Internal Bore Turning Inserts

TN□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N														●				
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H												●	●					



形状 Shape	规格 Specification	CVD			PVD				CVD	PVD	无涂层 Uncoated	金属陶瓷 Cermets			尺寸 Size					加工参数 Machining Parameters							
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015		YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re	切深 ap (mm)
	TNGG160401-FS							▲	▲												16.5	9.525	4.76	3.81	0.1	0.4-1.5	0.02-0.06
	TNGG160402-FS							▲	▲												16.5	9.525	4.76	3.81	0.2	0.6-2.0	0.04-0.08
	TNGG160404-FS							▲	▲												16.5	9.525	4.76	3.81	0.4	0.8-2.5	0.06-0.10
	TNGG160401-SK							▲	▲												16.5	9.525	4.76	3.81	0.1	0.2-1.5	0.04-0.20
	TNGG160402-SK							▲	▲												16.5	9.525	4.76	3.81	0.2	0.2-1.5	0.04-0.20
	TNGG160404-SK							▲	▲												16.5	9.525	4.76	3.81	0.4	0.3-2.5	0.05-0.20
	TNGG160402R/L-S																	▲	▲	16.5	9.525	4.76	3.81	0.2	0.3-1.5	0.05-0.20	
	TNGG160404R/L-S																	▲	▲	16.5	9.525	4.76	3.81	0.4	0.3-2.5	0.05-0.20	

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

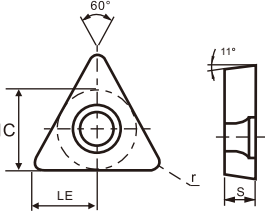


内孔刀粒 Internal Bore Turning Inserts

TP□□

三角形60° 有孔 Triangle 60°With holes

钢 Steel	P	●	●	●	●	●	●	●	●				●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●				●						
铸铁 Cast Iron	K	●									●	●				●	●	●	●
有色金属 Non-ferrous metal	N															●			
耐热钢 Heat-resistant alloy	S				●	●			○	●			●						
硬化钢 Hardened Steel	H															●	●		



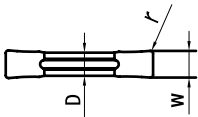
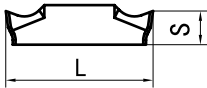
形状 Shape	规格 Specification	CVD			PVD					CVD		PVD		无涂层 Uncoated	金属陶瓷 Cermets			尺寸 Size				加工参数 Machining Parameters				
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415		YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	Re	切深 ap (mm)
	TPGH060202							▲	▲												3.2	3.97	2.38	0.2	0.1-0.3	0.03-0.10
	TPGH060204							▲	▲												3.2	3.97	2.38	0.4	0.2-0.5	0.05-0.15
	TPGH080202							▲	▲									▲	▲		3.2	4.76	2.38	0.2	0.1-0.3	0.03-0.10
	TPGH080204							▲	▲												3.2	4.76	2.38	0.4	0.2-0.5	0.05-0.15
	TPGH090202							▲	▲									▲	▲		5.0	5.56	2.38	0.2	0.1-0.3	0.03-0.10
	TPGH090204							▲	▲												5.0	5.56	2.38	0.4	0.2-0.5	0.05-0.15
	TPGH110302							▲	▲												5.4	6.35	3.18	0.2	0.1-0.4	0.03-0.12
	TPGH110304							▲	▲												5.4	6.35	3.18	0.4	0.2-0.8	0.05-0.20
	TPGT080202L-W																▲	▲			3.2	4.76	2.38	0.2	0.1-0.3	0.03-0.10
	TPGT080204L-W																▲	▲			3.2	4.76	2.38	0.4	0.2-0.5	0.05-0.15
	TPGT090202L-W																▲	▲			5.0	5.56	2.38	0.2	0.1-0.3	0.03-0.10
	TPGT090204L-W																▲	▲			5.0	5.56	2.38	0.4	0.2-0.5	0.05-0.15
	TPGT110302L-W																▲	▲			5.4	6.35	3.18	0.2	0.1-0.4	0.03-0.12
	TPGT110304L-W																▲	▲			5.4	6.35	3.18	0.4	0.2-0.8	0.05-0.20
	TPMT090204-TH																	▲	▲		5.0	5.56	2.38	0.4	0.2-0.5	0.05-0.15
	TPMT110304-TH																	▲	▲		5.4	6.35	3.18	0.4	0.2-0.8	0.05-0.20

▲ 主推牌号 Featured grade ● 可选牌号 Optional grade

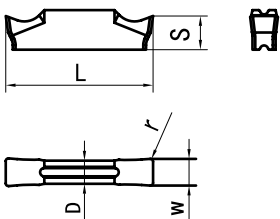
切槽切断刀片
Parting and Grooving Insert

S□□

钢 Steel	P	●	●	●	●	●	●	●	●	●					●	●		●	●	●	●
不锈钢 Stainless Steel	M				●	●	●	●	●	●			●								
铸铁 Cast Iron	K	●									●	●					●	●	●	●	
有色金属 Non-ferrous metal	N															●					
耐热钢 Heat-resistant alloy	S				●	●	●		○	●			●								
硬化钢 Hardened Steel	H													●	●						

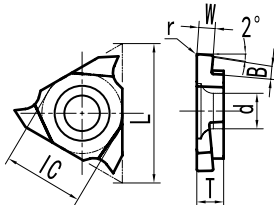


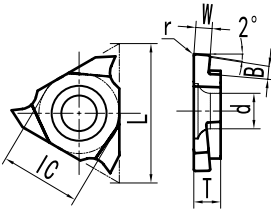
形状 Shape	规格 Specification	CVD		PVD				CVD	PVD		无涂层 Uncoated	金属陶瓷 Cermets				尺寸 Size									
		YZ1105	YZ1125	YZ4130	YZ7025	YZ7115	YZ7125	YZ7420	YZM2013	YZM2015	YZK3115	YZK3125	YZS5415	YZ7010	YZH6010	YZK01	YZT8015	YZT8015T	YZT8025	YZT8025T	L	IC	S	φd	Re
	SGMN150-G			●	▲	▲															16.0	3.5	1.2	1.5	0.15
	SGMN200-G			●	▲	▲															16.0	3.5	1.6	2.0	0.2
	SGMN250-G			●	▲	▲															18.5	3.85	2.0	2.5	0.2
	SGMN300-G			●	▲	▲															21.0	4.8	2.35	4.0	0.4
	SGMN400-G			●	▲	▲															21.0	4.8	3.3	4.0	0.4
	SGMN200-M			●	▲	▲															16.0	3.5	1.6	2.0	0.2
	SGMN250-M			●	▲	▲															18.5	3.85	2.0	2.5	0.2
	SGMN300-M			●	▲	▲															21.0	4.8	2.35	3.0	0.4
	SGMN400-M			●	▲	▲															21.0	4.8	3.3	4.0	0.4
	SGMN500-M			●	▲	▲															26.0	5.8	4.12	5.0	0.8
	SGMN200-T			●	▲	▲															16.0	3.5	1.6	2.0	0.2
	SGMN300-T			●	▲	▲															21.0	4.8	2.35	3.0	0.4
	SGMN400-T			●	▲	▲															21.0	4.8	3.3	4.0	0.4
	SGMN500-T			●	▲	▲															26.0	5.8	4.12	5.0	0.8
	SGMN200-C			●	▲	▲															16.0	3.5	1.6	2.0	0.2
	SGMN250-C			●	▲	▲															18.5	3.85	2.0	2.5	0.2
	SGMN300-C			●	▲	▲															21.0	4.8	2.35	3.0	0.4
	SGMN400-C			●	▲	▲															21.0	4.8	3.3	4.0	0.4
	SGMN500-C			●	▲	▲															26.0	5.8	4.12	5.0	0.8
	SRMN200-M			●	▲	▲															16.0	3.5	1.6	2.0	1.0
	SRMN300-M			●	▲	▲															21.0	4.8	2.35	3.0	1.5
	SRMN400-M			●	▲	▲															21.0	4.8	3.3	4.0	2.0
	SRMN500-M			●	▲	▲															26.0	5.8	4.12	5.0	2.5



切槽切断刀片
Parting and Grooving Insert

SGF32 标准型刀片
SGF32 Grooving Insert

钢 Steel			P			●									
不锈钢 Stainless Steel			M	●		●									
铸铁 Cast Iron			K			●									
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H												
									尺寸 Size						
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGF32R030	SGF32L030	○	○	●	●	○	○	0.30	0.8	0.03	16	9.525	3.18	4.4
	SGF32R033	SGF32L033	○	○	●	●	○	○	0.33	0.8	0.03				
	SGF32R045	SGF32L045	○	○	●	●	○	○	0.45	0.8	0.03				
	SGF32R050	SGF32L050	●	●	●	●	○	○	0.50	1.0	0.05				
	SGF32R060	SGF32L060	●	●	●	●	○	○	0.60	1.0	0.05				
	SGF32R065	SGF32L065	○	○	●	●	○	○	0.65	1.4	0.05				
	SGF32R070	SGF32L070	●	●	●	●	○	○	0.70	1.4	0.05				
	SGF32R075	SGF32L075	●	●	●	●	○	○	0.75	2.2	0.10				
	SGF32R080	SGF32L080	●	●	●	●	○	○	0.80	2.2	0.10				
	SGF32R085	SGF32L085	●	●	●	●	○	○	0.85	2.2	0.10				
	SGF32R090	SGF32L090	●	●	●	●	○	○	0.90	2.2	0.10				
	SGF32R095	SGF32L095	●	●	●	●	○	○	0.95	2.2	0.10				
	SGF32R100	SGF32L100	●	●	●	●	○	○	1.00	2.2	0.10				
	SGF32R110	SGF32L110	●	●	●	●	○	○	1.10	2.2	0.10				
	SGF32R115	SGF32L115	●	●	●	●	○	○	1.15	2.2	0.10				
	SGF32R120	SGF32L120	●	●	●	●	○	○	1.20	2.2	0.10				
	SGF32R125	SGF32L125	●	●	●	●	○	○	1.25	2.2	0.10				
	SGF32R130	SGF32L130	●	●	●	●	○	○	1.30	2.2	0.10				
	SGF32R135	SGF32L135	●	●	●	●	○	○	1.35	2.2	0.10				
	SGF32R140	SGF32L140	●	●	●	●	○	○	1.40	2.2	0.10				
	SGF32R145	SGF32L145	●	●	●	●	○	○	1.45	2.2	0.10				
	SGF32R150	SGF32L150	●	●	●	●	○	○	1.50	2.2	0.10				
	SGF32R155	SGF32L155	●	●	●	●	○	○	1.55	2.4	0.10				
	SGF32R160	SGF32L160	●	●	●	●	○	○	1.60	2.4	0.10				
	SGF32R165	SGF32L165	●	●	●	●	○	○	1.65	2.4	0.10				



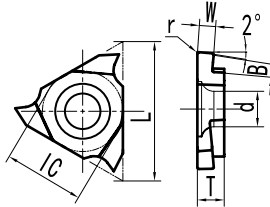
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

切槽切断刀片

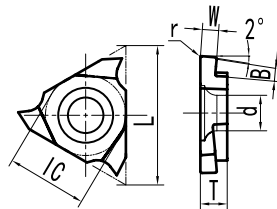
Parting and Grooving Insert

SGF32 标准型刀片

SGF32 Grooving Insert

钢 Steel			P		●										
不锈钢 Stainless Steel			Y	●	●										
铸铁 Cast Iron			K		●										
有色金属 Non-ferrous metal			N				●								
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H						尺寸 Size						
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGF32R170	SGF32L170	●	●	●	●	○	○	1.70	2.4	0.10	16	9.525	3.18	4.4
	SGF32R175	SGF32L175	●	●	●	●	○	○	1.75	2.4	0.10				
	SGF32R180	SGF32L180	●	●	●	●	○	○	1.80	2.4	0.10				
	SGF32R185	SGF32L185	●	●	●	●	○	○	1.85	2.4	0.10				
	SGF32R190	SGF32L190	●	●	●	●	○	○	1.90	2.4	0.10				
	SGF32R200	SGF32L200	○	○	●	●	○	○	2.00	3.0	0.15				
	SGF32R210	SGF32L210	○	○	●	●	○	○	2.10	3.0	0.15				
	SGF32R215	SGF32L215	○	○	●	●	○	○	2.15	3.0	0.15				
	SGF32R220	SGF32L220	○	○	●	●	○	○	2.20	3.0	0.15				
	SGF32R225	SGF32L225	○	○	●	●	○	○	2.25	3.0	0.15				
	SGF32R230	SGF32L230	○	○	●	●	○	○	2.30	3.0	0.15				
	SGF32R240	SGF32L240	○	○	●	●	○	○	2.40	3.0	0.15				
	SGF32R250	SGF32L250	○	○	●	●	○	○	2.50	3.0	0.15				
	SGF32R260	SGF32L260	○	○	●	●	○	○	2.60	3.0	0.15				
	SGF32R265	SGF32L265	○	○	●	●	○	○	2.65	3.0	0.15				
	SGF32R270	SGF32L270	○	○	●	●	○	○	2.70	3.0	0.15				
	SGF32R275	SGF32L275	○	○	●	●	○	○	2.75	3.0	0.15				
	SGF32R280	SGF32L280	○	○	●	●	○	○	2.80	3.0	0.15				
	SGF32R300	SGF32L300	○	○	●	●	○	○	3.00	3.0	0.20				
	SGF32R320	SGF32L320	○	○	●	●	○	○	3.20	3.0	0.20			3.2	

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

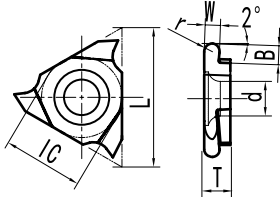


切槽切断刀片

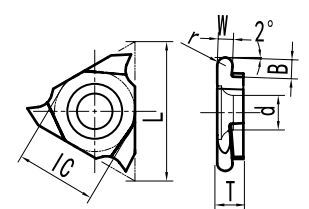
Parting and Grooving Insert

SGF32 球头型刀片

SGF32 Ball Type Insert

钢 Steel			P		●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K		●										
有色金属 Non-ferrous metal			N				●								
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H						尺寸 Size						
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGF32R050-R0.25	SGF32L050-R0.25	○	○	●	●	○	○	0.5	1.0	0.25	16	9.525	3.18	4.4
	SGF32R060-R0.30	SGF32L060-R0.30	○	○	●	●	○	○	0.6	2.3	0.30				
	SGF32R070-R0.35	SGF32L070-R0.35	○	○	●	●	○	○	0.7	2.3	0.35				
	SGF32R080-R0.40	SGF32L080-R0.40	○	○	●	●	○	○	0.8	2.3	0.40				
	SGF32R090-R0.45	SGF32L090-R0.45	○	○	●	●	○	○	0.9	2.3	0.45				
	SGF32R100-R0.50	SGF32L100-R0.50	○	○	●	●	○	○	1.0	3.0	0.50				
	SGF32R110-R0.55	SGF32L110-R0.55	○	○	●	●	○	○	1.1	3.0	0.55				
	SGF32R120-R0.60	SGF32L120-R0.60	○	○	●	●	○	○	1.2	3.0	0.60				
	SGF32R130-R0.65	SGF32L130-R0.65	○	○	●	●	○	○	1.3	3.0	0.65				
	SGF32R140-R0.70	SGF32L140-R0.70	○	○	●	●	○	○	1.4	3.0	0.70				
	SGF32R150-R0.75	SGF32L150-R0.75	○	○	●	●	○	○	1.5	3.6	0.75				
	SGF32R160-R0.80	SGF32L160-R0.80	○	○	●	●	○	○	1.6	3.6	0.80				
	SGF32R170-R0.85	SGF32L170-R0.85	○	○	●	●	○	○	1.7	3.6	0.85				
	SGF32R180-R0.90	SGF32L180-R0.90	○	○	●	●	○	○	1.8	3.6	0.90				
	SGF32R190-R0.95	SGF32L190-R0.95	○	○	●	●	○	○	1.9	3.6	0.95				
	SGF32R200-R1.00	SGF32L200-R1.00	○	○	●	●	○	○	2.0	3.6	1.00				
	SGF32R210-R1.05	SGF32L210-R1.05	○	○	●	●	○	○	2.1	3.6	1.05				
	SGF32R220-R1.10	SGF32L220-R1.10	○	○	●	●	○	○	2.2	3.6	1.10				
	SGF32R230-R1.15	SGF32L230-R1.15	○	○	●	●	○	○	2.3	3.6	1.15				
	SGF32R240-R1.20	SGF32L240-R1.20	○	○	●	●	○	○	2.4	3.6	1.2				
	SGF32R250-R1.25	SGF32L250-R1.25	○	○	●	●	○	○	2.5	3.6	1.25				
	SGF32R260-R1.30	SGF32L260-R1.30	○	○	●	●	○	○	2.6	3.6	1.3				
	SGF32R270-R1.35	SGF32L270-R1.35	○	○	●	●	○	○	2.7	3.6	1.35				
	SGF32R280-R1.40	SGF32L280-R1.40	○	○	●	●	○	○	2.8	3.6	1.4				
	SGF32R290-R1.45	SGF32L280-R1.45	○	○	●	●	○	○	2.9	3.6	1.45				
	SGF32R300-R1.50	SGF32L300-R1.50	○	○	●	●	○	○	3.0	3.6	1.5				

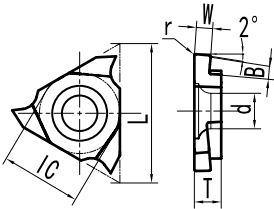
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



切槽切断刀片
Parting and Grooving Insert

SGF32 斜刃型刀片
SGF32 Parting-off Type Insert

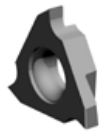
钢 Steel		P			●										
不锈钢 Stainless Steel		M		●		●									
铸铁 Cast Iron		K				●									
有色金属 Non-ferrous metal		N												●	
耐热钢 Heat-resistant alloy		S		●											
硬化钢 Hardened Steel		H													
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGF32R050-S15R	SGF32L050-S15R	○	○	●	●	○	○	0.50	1.2	0.05	16	9.525	3.18	4.4
	SGF32R075-S15R	SGF32L075-S15R	○	○	●	●	○	○	0.75	2.3	0.1				
	SGF32R080-S15R	SGF32L080-S15R	○	○	●	●	○	○	0.80	2.3	0.1				
	SGF32R100-S15R	SGF32L100-S15R	○	○	●	●	○	○	1.00	3.0	0.1				
	SGF32R110-S15R	SGF32L110-S15R	○	○	●	●	○	○	1.10	3.0	0.1				
	SGF32R125-S15R	SGF32L125-S15R	○	○	●	●	○	○	1.25	3.0	0.1				
	SGF32R135-S15R	SGF32L135-S15R	○	○	●	●	○	○	1.35	3.0	0.1				
	SGF32R150-S15R	SGF32L150-S15R	○	○	●	●	○	○	1.50	3.7	0.1				
	SGF32R160-S15R	SGF32L160-S15R	○	○	●	●	○	○	1.60	3.7	0.1				
	SGF32R180-S15R	SGF32L180-S15R	○	○	●	●	○	○	1.80	3.7	0.1				
	SGF32R200-S15R	SGF32L200-S15R	○	○	●	●	○	○	2.00	3.7	0.1				
	SGF32R220-S15R	SGF32L220-S15R	○	○	●	●	○	○	2.20	3.7	0.1				
	SGF32R230-S15R	SGF32L230-S15R	○	○	●	●	○	○	2.30	3.7	0.1				
	SGF32R240-S15R	SGF32L240-S15R	○	○	●	●	○	○	2.40	3.7	0.1				
	SGF32R250-S15R	SGF32L250-S15R	○	○	●	●	○	○	2.50	3.7	0.1				
	SGF32R260-S15R	SGF32L260-S15R	○	○	●	●	○	○	2.60	3.7	0.1				
	SGF32R270-S15R	SGF32L270-S15R	○	○	●	●	○	○	2.70	3.7	0.1				
	SGF32R280-S15R	SGF32L280-S15R	○	○	●	●	○	○	2.80	3.7	0.1				
	SGF32R290-S15R	SGF32L290-S15R	○	○	●	●	○	○	2.90	3.7	0.1				
	SGF32R300-S15R	SGF32L300-S15R	○	○	●	●	○	○	3.00	3.7	0.1				

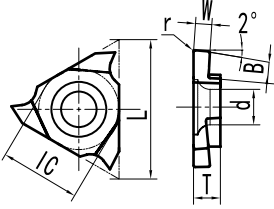


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

切槽切断刀片
Parting and Grooving Insert

SGF32 大切深型刀片
SGF32 Large Cutting Depth Insert

钢 Steel		P			●										
不锈钢 Stainless Steel		M		●		●									
铸铁 Cast Iron		K				●									
有色金属 Non-ferrous metal		N												●	
耐热钢 Heat-resistant alloy		S		●											
硬化钢 Hardened Steel		H													
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGF32R050-L1.20	SGF32L050-L1.20	○	○	●	●	○	○	0.5	1.2	0.05	16	9.525	3.18	4.4
	SGF32R060-L1.60	SGF32L060-L1.60	○	○	●	●	○	○	0.6	1.6	0.05				
	SGF32R070-L2.20	SGF32L070-L2.20	○	○	●	●	○	○	0.7	2.2	0.05				
	SGF32R080-L2.20	SGF32L080-L2.20	○	○	●	●	○	○	0.8	2.2	0.05				
	SGF32R090-L2.20	SGF32L090-L2.20	○	○	●	●	○	○	0.9	2.2	0.05				
	SGF32R100-L3.00	SGF32L100-L3.00	○	○	●	●	○	○	1.0	3.0	0.1				
	SGF32R110-L3.00	SGF32L110-L3.00	○	○	●	●	○	○	1.1	3.0	0.1				
	SGF32R120-L3.00	SGF32L120-L3.00	○	○	●	●	○	○	1.2	3.0	0.1				
	SGF32R130-L3.00	SGF32L130-L3.00	○	○	●	●	○	○	1.3	3.0	0.1				
	SGF32R140-L3.00	SGF32L140-L3.00	○	○	●	●	○	○	1.4	3.0	0.1				
	SGF32R150-L3.70	SGF32L150-L3.70	○	○	●	●	○	○	1.5	3.7	0.1				
	SGF32R160-L3.70	SGF32L160-L3.70	○	○	●	●	○	○	1.6	3.7	0.1				
	SGF32R170-L3.70	SGF32L170-L3.70	○	○	●	●	○	○	1.7	3.7	0.1				
	SGF32R180-L3.70	SGF32L180-L3.70	○	○	●	●	○	○	1.8	3.7	0.1				
	SGF32R190-L3.70	SGF32L190-L3.70	○	○	●	●	○	○	1.9	3.7	0.1				
	SGF32R200-L3.70	SGF32L200-L3.70	○	○	●	●	○	○	2.0	3.7	0.1				
	SGF32R210-L3.70	SGF32L210-L3.70	○	○	●	●	○	○	2.1	3.7	0.1				
	SGF32R220-L3.70	SGF32L220-L3.70	○	○	●	●	○	○	2.2	3.7	0.1				
	SGF32R230-L3.70	SGF32L230-L3.70	○	○	●	●	○	○	2.3	3.7	0.1				
	SGF32R240-L3.70	SGF32L240-L3.70	○	○	●	●	○	○	2.4	3.7	0.1				
	SGF32R250-L3.70	SGF32L250-L3.70	○	○	●	●	○	○	2.5	3.7	0.1				

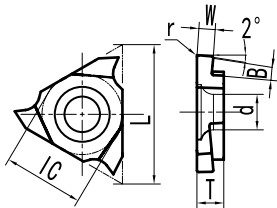


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

切槽切断刀片
Parting and Grooving Insert

SBA43 系列标准型刀片
SDBA43 Standard Type Grooving Insert

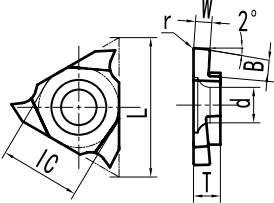
钢 Steel		P			●										
不锈钢 Stainless Steel		M		●		●									
铸铁 Cast Iron		K				●									
有色金属 Non-ferrous metal		N												●	
耐热钢 Heat-resistant alloy		S		●											
硬化钢 Hardened Steel		H													
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SBA43R075	SBA43L075	○	○	●	●	○	○	0.75	2.5	0.1	22	12.7	4.76	5.4
	SBA43R100	SBA43L100	○	○	●	●	○	○	1.0	2.5	0.1				
	SBA43R120	SBA43L120	○	○	●	●	○	○	1.2	2.5	0.1				
	SBA43R130	SBA43L130	○	○	●	●	○	○	1.3	2.7	0.1				
	SBA43R140	SBA43L140	○	○	●	●	○	○	1.4	2.7	0.1				
	SBA43R145	SBA43L145	○	○	●	●	○	○	1.45	3.0	0.1				
	SBA43R150	SBA43L150	○	○	●	●	○	○	1.5	3.0	0.1				
	SBA43R160	SBA43L160	○	○	●	●	○	○	1.6	3.0	0.1				
	SBA43R170	SBA43L170	●	●	●	●	○	○	1.7	3.3	0.2				
	SBA43R175	SBA43L175	●	●	●	●	○	○	1.75	3.3	0.2				
	SBA43R180	SBA43L180	●	●	●	●	○	○	1.8	3.3	0.2				
	SBA43R185	SBA43L185	●	●	●	●	○	○	1.85	3.3	0.2				
	SBA43R200	SBA43L200	●	●	●	●	○	○	2.0	3.5	0.2				
	SBA43R210	SBA43L210	●	●	●	●	○	○	2.1	3.5	0.2				
	SBA43R220	SBA43L220	●	●	●	●	○	○	2.2	3.5	0.2				
	SBA43R225	SBA43L225	●	●	●	●	○	○	2.25	3.5	0.2				
	SBA43R230	SBA43L230	●	●	●	●	○	○	2.3	3.5	0.2				
	SBA43R240	SBA43L240	●	●	●	●	○	○	2.4	3.5	0.2				
	SBA43R250	SBA43L250	●	●	●	●	○	○	2.5	4.2	0.2				
	SBA43R270	SBA43L270	●	●	●	●	○	○	2.7	4.2	0.2				
	SBA43R280	SBA43L280	●	●	●	●	○	○	2.8	4.6	0.3				

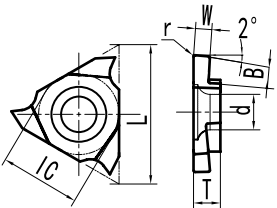


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

切槽切断刀片
Parting and Grooving Insert

SBA43 系列标准型刀片
SDBA43 Standard Type Grooving Insert

钢 Steel			P			●										
不锈钢 Stainless Steel			M		●		●									
铸铁 Cast Iron			K				●									
有色金属 Non-ferrous metal			N													●
耐热钢 Heat-resistant alloy			S		●											
硬化钢 Hardened Steel			H						尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d	
			R	L	R	L	R	L								
	SBA43R300	SBA43L300	●	●	●	●	○	○	3.0	4.6	0.3	22	12.7	4.76	5.4	
	SBA43R320	SBA43L320	○	○	●	●	○	○	3.2	4.6	0.3					
	SBA43R325	SBA43L325	○	○	●	●	○	○	3.25	4.6	0.3					
	SBA43R330	SBA43L330	●	●	●	●	○	○	3.3	4.8	0.3					
	SBA43R350	SBA43L350	●	●	●	●	○	○	3.5	4.8	0.3					
	SBA43R360	SBA43L360	○	○	●	●	○	○	3.6	4.8	0.3					
	SBA43R380	SBA43L380	○	○	●	●	○	○	3.8	4.8	0.3					
	SBA43R400	SBA43L400	●	●	●	●	○	○	4.0	5.0	0.3					
	SBA43R420	SBA43L420	○	○	●	●	○	○	4.2	5.0	0.3					
	SBA43R450	SBA43L450	●	●	●	●	○	○	4.5	5.0	0.3					
	SBA43R460	SBA43L460	○	○	●	●	○	○	4.6	5.0	0.3					
	SBA43R470	SBA43L470	○	○	●	●	○	○	4.7	5.0	0.3					
	SBA43R480	SBA43L480	○	○	●	●	○	○	4.8	5.0	0.3					
	SBA43R500	SBA43L500	○	○	●	●	○	○	5.0	5.0	0.3					
	SBA43R510	SBA43L510	○	○	●	●	○	○	5.1	5.0	0.3					
	SBA43R520	SBA43L520	○	○	●	●	○	○	5.2	5.0	0.3					

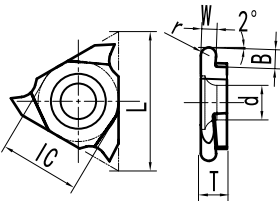


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

切槽切断刀片
Parting and Grooving Insert

SBA43 系列标准型刀片
SDBA43 Standard Type Grooving Insert

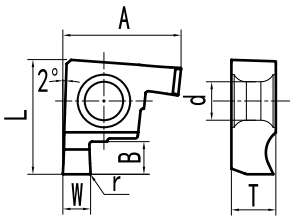
钢 Steel			P			●									
不锈钢 Stainless Steel			M		●	●									
铸铁 Cast Iron			K			●									
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H						尺寸 Size						
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SBA43R100-R0.50	SBA43L100-R0.50	○	○	●	●	○	○	1.0	3.5	0.50	22	12.7	4.76	5.4
	SBA43R110-R0.55	SBA43L110-R0.55	○	○	●	●	○	○	1.1	3.5	0.55				
	SBA43R120-R0.60	SBA43L120-R0.60	○	○	●	●	○	○	1.2	3.5	0.60				
	SBA43R140-R0.70	SBA43L140-R0.70	○	○	●	●	○	○	1.4	3.5	0.70				
	SBA43R150-R0.75	SBA43L150-R0.75	○	○	●	●	○	○	1.5	3.5	0.75				
	SBA43R160-R0.80	SBA43L160-R0.80	○	○	●	●	○	○	1.6	3.5	0.80				
	SBA43R170-R0.85	SBA43L170-R0.85	○	○	●	●	○	○	1.7	3.5	0.85				
	SBA43R180-R0.90	SBA43L180-R0.90	○	○	●	●	○	○	1.8	3.5	0.90				
	SBA43R200-R1.00	SBA43L200-R1.00	○	○	●	●	○	○	2.0	5.0	1.00				
	SBA43R220-R1.10	SBA43L220-R1.10	○	○	●	●	○	○	2.2	5.0	1.10				
	SBA43R230-R1.15	SBA43L230-R1.15	○	○	●	●	○	○	2.3	5.0	1.15				
	SBA43R240-R1.20	SBA43L240-R1.20	○	○	●	●	○	○	2.4	5.0	1.20				
	SBA43R250-R1.25	SBA43L250-R1.25	○	○	●	●	○	○	2.5	5.0	1.25				
	SBA43R260-R1.30	SBA43L260-R1.30	○	○	●	●	○	○	2.6	5.0	1.30				
	SBA43R270-R1.35	SBA43L270-R1.35	○	○	●	●	○	○	2.7	5.0	1.35				
	SBA43R280-R1.40	SBA43L280-R1.40	○	○	●	●	○	○	2.8	5.0	1.40				
	SBA43R300-R1.50	SBA43L300-R1.50	○	○	●	●	○	○	3.0	5.0	1.50				
	SBA43R320-R1.60	SBA43L320-R1.60	○	○	●	●	○	○	3.2	5.0	1.60				
	SBA43R340-R1.70	SBA43L340-R1.70	○	○	●	●	○	○	3.4	5.0	1.70				
	SBA43R350-R1.75	SBA43L350-R1.75	○	○	●	●	○	○	3.5	5.0	1.75				
	SBA43R360-R1.80	SBA43L360-R1.80	○	○	●	●	○	○	3.6	5.0	1.80				
	SBA43R400-R2.00	SBA43L400-R2.00	○	○	●	●	○	○	4.0	5.0	2.00				
	SBA43R420-R2.10	SBA43L420-R2.10	○	○	●	●	○	○	4.2	5.0	2.10				
	SBA43R450-R2.25	SBA43L450-R2.25	○	○	●	●	○	○	4.5	5.0	2.25				
	SBA43R500-R2.50	SBA43L500-R2.50	○	○	●	●	○	○	5.0	5.0	2.50			5.2	



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

SGR系列内孔切槽刀片
SGR Internal grooving insert

钢 Steel			P			●									
不锈钢 Stainless Steel			M		●	●									
铸铁 Cast Iron			K			●									
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H						尺寸 Size						
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGR050-A	SGL050-A	○	○	●	○	○	○	0.5	1.2	0.05	6.5	6.69	2.5	2.58
	SGR060-A	SGL060-A	○	○	●	○	○	○	0.6	1.2	0.05				
	SGR070-A	SGL070-A	○	○	●	○	○	○	0.7	1.2	0.05				
	SGR080-A	SGL080-A	○	○	●	○	○	○	0.8	1.2	0.05				
	SGR100-A	SGL100-A	○	○	●	○	○	○	1.0	1.7	0.05				
	SGR120-A	SGL120-A	○	○	●	○	○	○	1.2	1.7	0.05				
	SGR125-A	SGL125-A	○	○	●	○	○	○	1.25	1.7	0.05				
	SGR140-A	SGL140-A	○	○	●	○	○	○	1.4	1.7	0.1				
	SGR150-A	SGL150-A	○	○	●	○	○	○	1.5	1.7	0.1				
	SGR180-A	SGL180-A	○	○	●	○	○	○	1.8	1.7	0.1				
	SGR200-A	SGL200-A	○	○	●	○	○	○	2.0	1.7	0.1				
	SGR080-B	SGL080-B	○	○	●	○	○	○	0.8	1.7	0.05	8.2	8.46	2.7	3.18
	SGR100-B	SGL100-B	○	○	●	○	○	○	1.0	1.8	0.05				
	SGR120-B	SGL120-B	○	○	●	○	○	○	1.2	2.4	0.05				
	SGR125-B	SGL125-B	○	○	●	○	○	○	1.25	2.4	0.05				
	SGR130-B	SGL130-B	○	○	●	○	○	○	1.3	2.4	0.1				
	SGR145-B	SGL145-B	○	○	●	○	○	○	1.45	2.4	0.1				
	SGR150-B	SGL150-B	○	○	●	○	○	○	1.5	2.4	0.1				
	SGR180-B	SGL180-B	○	○	●	○	○	○	1.8	2.4	0.1				
	SGR200-B	SGL200-B	○	○	●	○	○	○	2.0	2.4	0.2				
	SGR225-B	SGL225-B	○	○	●	○	○	○	2.25	2.4	0.2				
	SGR250-B	SGL250-B	○	○	●	○	○	○	2.5	2.4	0.2				
	SGR280-B	SGL280-B	○	○	●	○	○	○	2.8	2.4	0.2				
	SGR300-B	SGL300-B	○	○	●	○	○	○	3.0	2.4	0.2				

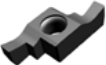


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

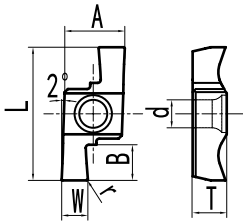


SGR系列内孔切槽刀片

SGR Internal grooving insert

钢 Steel			P			●										
不锈钢 Stainless Steel			M		●		●									
铸铁 Cast Iron			K				●									
有色金属 Non-ferrous metal			N												●	
耐热钢 Heat-resistant alloy			S		●											
硬化钢 Hardened Steel			H													
			尺寸 Size													
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d	
			R	L	R	L	R	L								
	SGR100-C	SGL100-C	○	○	●	○	○	○	1.0	2.5	0.05	11.5	5.8	3.0	4.0	
	SGR120-C	SGL120-C	○	○	●	○	○	○	1.2	2.5	0.05					
	SGR125-C	SGL125-C	○	○	●	○	○	○	1.25	2.5	0.05					
	SGR140-C	SGL140-C	○	○	●	○	○	○	1.4	2.5	0.1					
	SGR145-C	SGL145-C	○	○	●	○	○	○	1.45	2.5	0.1					
	SGR150-C	SGL150-C	○	○	●	○	○	○	1.5	2.5	0.1					
	SGR160-C	SGL160-C	○	○	●	○	○	○	1.6	2.5	0.1					
	SGR170-C	SGL170-C	○	○	●	○	○	○	1.7	2.5	0.1					
	SGR185-C	SGL185-C	○	○	●	○	○	○	1.85	2.5	0.1					
	SGR195-C	SGL195-C	○	○	●	○	○	○	1.95	2.5	0.1					
	SGR200-C	SGL200-C	○	○	●	○	○	○	2.0	2.5	0.1					
	SGR225-C	SGL225-C	○	○	●	○	○	○	2.25	2.5	0.1					
	SGR250-C	SGL250-C	○	○	●	○	○	○	2.5	2.5	0.2					
	SGR275-C	SGL275-C	○	○	●	○	○	○	2.75	2.5	0.2					
	SGR280-C	SGL280-C	○	○	●	○	○	○	2.8	2.5	0.2					
	SGR300-C	SGL300-C	○	○	●	○	○	○	3.0	2.5	0.2					
	SGR320-C	SGL320-C	○	○	●	○	○	○	3.2	2.5	0.2					
	SGR350-C	SGL350-C	○	○	●	○	○	○	3.5	2.5	0.2					

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

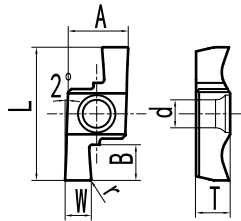


SGR系列内孔切槽刀片

SGR Internal grooving insert

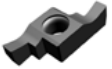
钢 Steel			P			●										
不锈钢 Stainless Steel			M		●		●									
铸铁 Cast Iron			K				●									
有色金属 Non-ferrous metal			N												●	
耐热钢 Heat-resistant alloy			S		●											
硬化钢 Hardened Steel			H													
			尺寸 Size													
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d	
			R	L	R	L	R	L								
	SGR100-D	SGL100-D	○	○	●	○	○	○	1.0	2.5	0.05	16.5	6.8	3.4	5.0	
	SGR120-D	SGL120-D	○	○	●	○	○	○	1.2	2.5	0.05					
	SGR125-D	SGL125-D	○	○	●	○	○	○	1.25	2.5	0.05					
	SGR140-D	SGL140-D	○	○	●	○	○	○	1.4	2.5	0.05					
	SGR145-D	SGL145-D	○	○	●	○	○	○	1.45	2.5	0.1					
	SGR150-D	SGL150-D	○	○	●	○	○	○	1.5	4.5	0.1					
	SGR170-D	SGL170-D	○	○	●	○	○	○	1.7	4.5	0.1					
	SGR185-D	SGL185-D	○	○	●	○	○	○	1.85	4.5	0.1					
	SGR195-D	SGL195-D	○	○	●	○	○	○	1.95	4.5	0.1					
	SGR200-D	SGL200-D	○	○	●	○	○	○	2.0	4.5	0.1					
	SGR225-D	SGL225-D	○	○	●	○	○	○	2.25	4.5	0.1					
	SGR230-D	SGL230-D	○	○	●	○	○	○	2.3	4.5	0.2					
	SGR250-D	SGL250-D	○	○	●	○	○	○	2.5	4.5	0.2					
	SGR275-D	SGL275-D	○	○	●	○	○	○	2.75	4.5	0.2					
	SGR280-D	SGL280-D	○	○	●	○	○	○	2.8	4.5	0.2					
	SGR300-D	SGL300-D	○	○	●	○	○	○	3.0	4.5	0.2					
	SGR320-D	SGL320-D	○	○	●	○	○	○	3.2	4.5	0.2					
	SGR350-D	SGL350-D	○	○	●	○	○	○	3.5	4.5	0.2					
	SGR400-D	SGL400-D	○	○	●	○	○	○	4.0	4.5	0.2					

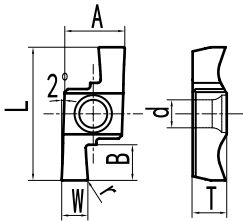
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



SGR系列内孔切槽刀片

SGR Internal grooving insert

钢 Steel			P			●									
不锈钢 Stainless Steel			M		●		●								
铸铁 Cast Iron			K				●								
有色金属 Non-ferrous metal			N											●	
耐热钢 Heat-resistant alloy			S		●										
硬化钢 Hardened Steel			H												
			尺寸 Size												
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGR100-E	SGL100-E	○	○	●	○	○	○	1.0	3.5	0.05	21.6	9.54	4.4	5.5
	SGR150-E	SGL150-E	○	○	●	○	○	○	1.5	3.5	0.1				
	SGR170-E	SGL170-E	○	○	●	○	○	○	1.7	3.5	0.1				
	SGR185-E	SGL185-E	○	○	●	○	○	○	1.85	3.5	0.1				
	SGR195-E	SGL195-E	○	○	●	○	○	○	1.95	3.5	0.1				
	SGR200-E	SGL200-E	○	○	●	○	○	○	2.0	5.0	0.1				
	SGR225-E	SGL225-E	○	○	●	○	○	○	2.25	5.0	0.2				
	SGR245-E	SGL245-E	○	○	●	○	○	○	2.45	5.0	0.2				
	SGR250-E	SGL250-E	○	○	●	○	○	○	2.5	6.5	0.2				
	SGR275-E	SGL275-E	○	○	●	○	○	○	2.75	6.5	0.2				
	SGR280-E	SGL280-E	○	○	●	○	○	○	2.8	6.5	0.2				
	SGR300-E	SGL300-E	○	○	●	○	○	○	3.0	6.5	0.2				
	SGR330-E	SGL330-E	○	○	●	○	○	○	3.3	6.5	0.2				
	SGR350-E	SGL350-E	○	○	●	○	○	○	3.5	6.5	0.2				
	SGR400-E	SGL400-E	○	○	●	○	○	○	4.0	6.5	0.2				
	SGR430-E	SGL430-E	○	○	●	○	○	○	4.3	6.5	0.2				
	SGR450-E	SGL450-E	○	○	●	○	○	○	4.5	6.5	0.2				
	SGR460-E	SGL460-E	○	○	●	○	○	○	4.6	6.5	0.2				
	SGR500-E	SGL500-E	○	○	●	○	○	○	5.0	6.5	0.2				

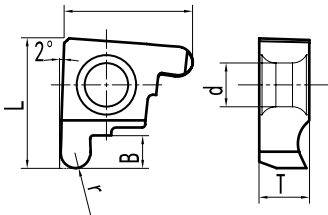


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

SGR 圆弧系列内孔切槽刀片

SGR Arc type Internal grooving insert

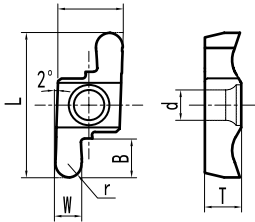
钢 Steel			P			●									
不锈钢 Stainless Steel			M		●		●								
铸铁 Cast Iron			K				●								
有色金属 Non-ferrous metal			N											●	
耐热钢 Heat-resistant alloy			S		●										
硬化钢 Hardened Steel			H												
			尺寸 Size												
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGR100-050AR	SGL100-050AR	○	○	●	○	○	○	1.0	1.7	0.5				
	SGR150-075AR	SGL150-075AR	○	○	●	○	○	○	1.5	1.7	0.75				
	SGR200-100AR	SGL200-100AR	○	○	●	○	○	○	2.0	1.7	1				
	SGR100-050BR	SGL100-050BR	○	○	●	○	○	○	1.0	2.4	0.5				
	SGR150-075BR	SGL150-075BR	○	○	●	○	○	○	1.5	2.4	0.75				
	SGR200-100BR	SGL200-100BR	○	○	●	○	○	○	2.0	2.4	1				
	SGR250-125BR	SGL250-125BR	○	○	●	○	○	○	2.5	2.4	1.25				
	SGR300-150BR	SGL300-150BR	○	○	●	○	○	○	3.0	2.4	1.5				

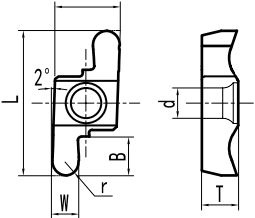


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

SGR 圆弧系列内孔切槽刀片

SGR Arc type Internal grooving insert

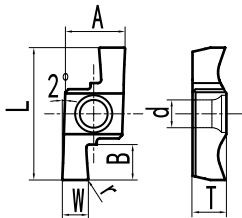
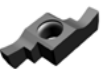
钢 Steel			P			●									
不锈钢 Stainless Steel			M	●		●									
铸铁 Cast Iron			K			●									
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H						尺寸 Size						
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGR100-050CR	SGL100-050CR	○	○	●	○	○	○	1.0	2.5	0.5	11.5	5.8	2.8	4.0
	SGR150-075CR	SGL150-075CR	○	○	●	○	○	○	1.5	2.5	0.75				
	SGR200-100CR	SGL200-100CR	○	○	●	○	○	○	2.0	2.5	1				
	SGR250-125CR	SGL250-125CR	○	○	●	○	○	○	2.5	2.5	1.25				
	SGR300-150CR	SGL300-150CR	○	○	●	○	○	○	3.0	2.5	1.5				
	SGR150-075DR	SGL150-075DR	○	○	●	○	○	○	1.5	4.5	0.75	16.5	6.8	3.4	5.0
	SGR200-100DR	SGL200-100DR	○	○	●	○	○	○	2.0	4.5	1				
	SGR250-125DR	SGL250-125DR	○	○	●	○	○	○	2.5	4.5	1.25				
	SGR300-150DR	SGL300-150DR	○	○	●	○	○	○	3.0	4.5	1.5				
	SGR250-125ER	SGL250-125ER	○	○	●	○	○	○	2.5	6.5	1.25	21.6	9.5	4.4	5.5
	SGR300-150ER	SGL300-150ER	○	○	●	○	○	○	3.0	6.5	1.5				
	SGR350-175ER	SGL350-175ER	○	○	●	○	○	○	3.5	6.5	1.75				
	SGR400-200ER	SGL400-200ER	○	○	●	○	○	○	4.0	6.5	2				
	SGR450-225ER	SGL450-225ER	○	○	●	○	○	○	4.5	6.5	2.25				
	SGR500-250ER	SGL500-250ER	○	○	●	○	○	○	5.0	6.5	2.5				

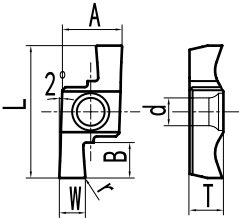


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

SGR 端面切槽刀片

SGR Face Grooving Insert

钢 Steel			P			●									
不锈钢 Stainless Steel			M	●		●									
铸铁 Cast Iron			K			●									
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S	●											
硬化钢 Hardened Steel			H						尺寸 Size						
形状 Shape	右手刀片 Right Hand	端面圆直径范围 Face circle diameter range	YZ7415		YZ7015		YZK01		W	B	r	L	IC	T	d
			R	L	R	L	R	L							
	SGR100DM06-D	>6mm	○	○	●	○	○	○	1.0	2.5	0.05	16.5	6.8	3.4	5.0
	SGR150DM10-D	>10mm	○	○	●	○	○	○	1.5	2.8	0.2				
	SGR200DM10-D	>10mm	○	○	●	○	○	○	2.0	3.5	0.2				
	SGR250DM15-D	>15mm	○	○	●	○	○	○	2.5	4.5	0.2				
	SGR300DM15-D	>15mm	○	○	●	○	○	○	3.0	4.5	0.2				
	SGR400DM15-D	>15mm	○	○	●	○	○	○	4.0	4.5	0.2				
	SGR150DM10-E	>10mm	○	○	●	○	○	○	1.5	3.6	0.1	21.6	9.5	4.4	5.5
	SGR200DM10-E	>10mm	○	○	●	○	○	○	2.0	4.8	0.2				
	SGR250DM15-E	>15mm	○	○	●	○	○	○	2.5	6.0	0.2				
	SGR300DM15-E	>15mm	○	○	●	○	○	○	3.0	6.5	0.2				
	SGR350DM15-E	>15mm	○	○	●	○	○	○	3.5	6.5	0.2				
	SGR400DM15-E	>15mm	○	○	●	○	○	○	4.0	6.5	0.2				
	SGR450DM15-E	>15mm	○	○	●	○	○	○	4.5	6.5	0.2				
	SGR500DM15-E	>15mm	○	○	●	○	○	○	5.0	6.5	0.2				

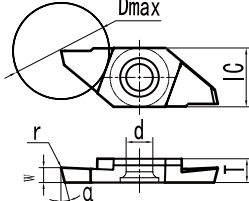


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

SKF12 系列切断切槽刀片

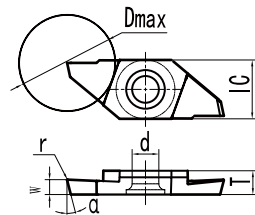
SKF12 Parting-off Insert

钢 Steel	P		●	
不锈钢 Stainless Steel	M	●	●	
铸铁 Cast Iron	K		●	
有色金属 Non-ferrous metal	N			●
耐热钢 Heat-resistant alloy	S	●		
硬化钢 Hardened Steel	H			



形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		Dmax	W	a	r	IC	d	T
			R	L	R	L	R	L							
	SKF12R050-S	SKF12L050-S	●	●	●	○	○	○	5	0.5	0	0.05	8.7	5	3
	SKF12R070-S	SKF12L070-S	●	●	●	○	○	○	8	0.7	0	0.05			
	SKF12R100-S	SKF12L100-S	●	●	●	○	○	○	12	1.0	0	0.08			
	SKF12R150-S	SKF12L150-S	●	●	●	○	○	○	12	1.5	0	0.08			
	SKF12R200-S	SKF12L200-S	●	●	●	○	○	○	12	2.0	0	0.08			
	SKF12R050-S16R	SKF12L050-S16R	●	●	●	○	○	○	5	0.5	16	0.05			
	SKF12R070-S16R	SKF12L070-S16R	●	●	●	○	○	○	8	0.7	16	0.05			
	SKF12R100-S16R	SKF12L100-S16R	●	●	●	○	○	○	12	1.0	16	0.08			
	SKF12R150-S16R	SKF12L150-S16R	●	●	●	○	○	○	12	1.5	16	0.08			
	SKF12R200-S16R	SKF12L200-S16R	●	●	●	○	○	○	12	2.0	16	0.08			

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

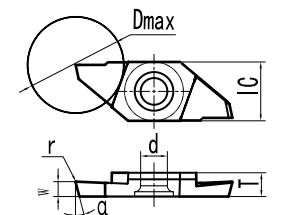


SKF16系列切断切槽刀片

SKF16 Parting-off Insert

[illegible]

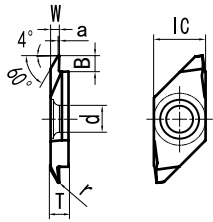
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



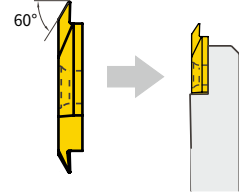
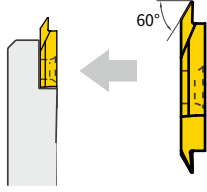
SKFB 后扫刀片

SKFB Back Turning Insert

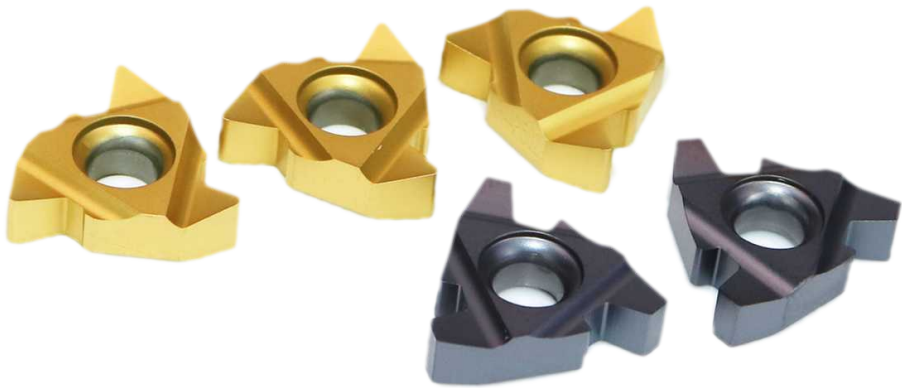
钢 Steel		P			●							
不锈钢 Stainless Steel		M		●		●						
铸铁 Cast Iron		K				●						
有色金属 Non-ferrous metal		N										●
耐热钢 Heat-resistant alloy		S		●								
硬化钢 Hardened Steel		H										
形状 Shape	右手刀片 Right Hand	左手刀片 Left Hand	YZ7415		YZ7015		YZK01		W	d	B	r
			R	L	R	L	R	L				
	SKFB12R15005M	SKFB12L15005M			●	○	○	○	1.5	0.25	2.6	<0.05
	SKFB12R28005M	SKFB12L28005MR			●	○	○	○	2.8	0.3	4.6	<0.05
	SKFB12R28010M	SKFB12L28010MR			●	○	○	○	2.8	0.3	4.6	<0.1
	SKFB16R38005M	SKFB16L38005MR			●	○	○	○	3.8	0.3	6.3	<0.05
	SKFB16R38010M	SKFB16L38010MR			●	○	○	○	3.8	0.3	6.3	<0.1



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

SKFB 系列左手和右手示例 TKFB series left and right hand examples			
右手刀杆配右手刀片 Right-hand holder with right-hand insert		左手刀杆配左手刀片 Left-hand holder with left-hand insert	
刀片导程角方向 Insert Lead Angular Direction	R	刀片导程角方向 Insert Lead Angular Direction	R
刀片型号示例 Example of insert model	SKFB12R28010M	刀片型号示例 Example of insert model	SKFB12L28010MR
			

螺纹系列
Threading Inserts

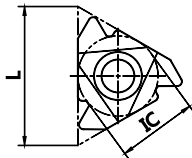


螺纹车刀片型号介绍

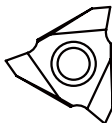
Introduction to thread turning insert models

1. 刀片尺寸 Insert size

L(mm)	IC
06	5/32"
08	3/16"
11	1/4"
16	3/8"
22	1/2"
27	5/8"

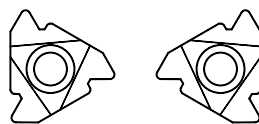


2. 刀片形式 Insert style

无标记 -	
U 型 -	
V 型 -	

3. 刀片类型 Type of insert

E 外螺纹 External
N 内螺纹 Internal

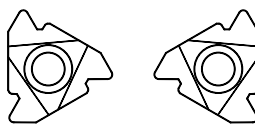


E N

图片为右手刀片
Right insert(see picture)

4. 螺纹导向 RH/LH insert

R 右手刀片 Right hand
L 左手刀片 Left hand



R L

图片为外螺纹刀片
External insert (see picture)

5. 螺距 Pitch

全牙型 (定螺距)		
Full profile pitch range		
mm	tpi	
0.6-6.0	48-4	
通用牙距 (泛用型)		
Partial profile pitch range		
	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
V	6.0-10.0	4-2.5

6. 螺纹标准 Standard

60-60°通用型螺纹 Partial profile 60°
55-55°通用型螺纹 Partial profile 55°
ISO-ISO 标准型螺纹 ISO metric
UN-60°美制统一标准型螺纹 American UN
W-55°英国惠氏螺纹 Whitworth for BSW BSP
NPT-60°美国标准锥管螺纹 NPT
NPTF-60°美制干密封螺纹 NPTF
BSPT-55°英制标准锥管螺纹 British standard pipe thread
TR-30°标准梯形螺纹 Trapeze DIN103
ACME-29° 美制梯形螺纹 American ACME
STACME-29°美制短齿梯形螺纹刀片 American STUB ACME
RD-30°消防食品机械圆螺纹 Round DIN403
SAGE- 德标锯齿形螺纹 DIN513

7. 槽型 Groove type

M- 压制槽型、断屑槽
chip breaker
无 - 精磨槽型
polished groove type

8. 材质 material code

YZ7015- 通用材质，不锈钢首选 general materiel,stainless steel preferred
YZ7025- 不锈钢首选 stainless steel preferred
YZ7035- 铸件，铸铁 steel,cast iron

16

1

2

2

E

3

R

4

1.50

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ISO

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-M

7

YZ7015

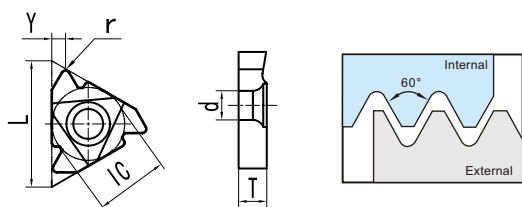
8

螺纹车削刀具 - 60°泛用型

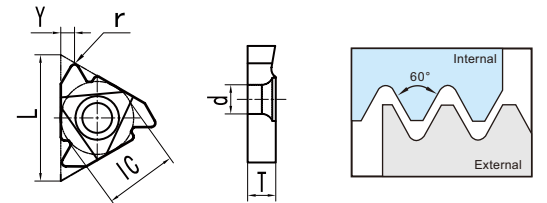
Threading Turning Tools - Partial Profile 60°

60°外螺纹刀粒

External Partial Profile 60° Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N			●									
耐热钢 Heat-resistant steel			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ERAG60-M		●		●				0.5-3.0	8.00	9.525	4.00	0.07	1.7	3.65
	16ERG60-M		●		●				1.75-3.0	16.00	9.525	4.00	0.25	1.7	3.65
	22ERN60-M		●		●				3.5-5.0	22.00	12.70	5.10	0.4	1.7	3.65
	11ERA60	11ELA60	●	○	●		●		0.5-1.5	11.00	6.35	3.00	0.07	0.9	3.18
	16ERA60	16ELA60	●	○	●		●		0.5-1.5	16.00	9.525	4.00	0.07	0.9	3.65
	16ERAG60	16ELAG60	●	○	●		●		0.5-3.0	16.00	9.525	4.00	0.07	1.7	3.65
	16ERG60	16ELG60	●	○	●		●		1.75-3.0	16.00	9.525	4.00	0.25	1.7	3.65
	22ERN60	22ELN60	●	○	●		●		3.5-5.0	22.00	12.70	5.10	0.4	2.5	4.9
	27ERQ60	27ELQ60	○	○	○		○		5.5-6.0	27.00	15.875	6.35	0.79		6.4
	16VERAG60	16VELAG60	●	○	○		○		0.5-3.0	16.00	9.525	4.00	0.07		3.65
	27VERV60	27VELV60	○	○	○		○		6.0-9.0	27.00	15.875	6.35	0.87		8.7

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

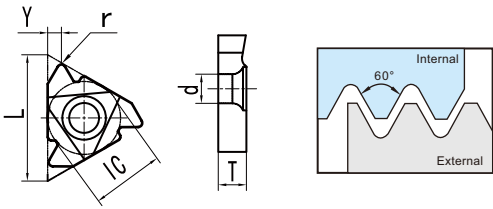


螺纹车削刀具 - 60°泛用型

Threading Turning Tools - Partial Profile 60°

60°内螺纹刀粒

Internal Partial Profile 60° Threading Insert

钢 Steel		P	●	●											
不锈钢 Stainless Steel		M	●	●											
铸铁 Cast Iron		K	●												
有色金属 Non-ferrous metal		N													
耐热钢 Heat-resistant alloy		S													
硬化钢 Hardened Steel		H				尺寸 Size									
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11NRA60-M		●		●				0.5-1.5	11.00	6.35	3.00	0.07	0.9	3.18
	16NRA60-M		●		●				0.5-3.0	16.00	9.525	4.00	0.07	1.7	3.65
	16NRG60-M		●		●				175-3.0	16.00	9.525	4.00	0.13	1.7	3.65
	22NRN60-M		●		●				4.0-5.0	22.00	12.70	5.10	0.4	1.7	3.65
	08NRA60	08NLA60	●	○	●		●		0.5-1.5	8.00	4.76	2.10	0.07	0.9	2.38
	11NRA60	11NLA60	●	○	●		●		0.5-1.5	11.00	6.35	3.00	0.07	0.9	3.18
	16NRA60	16NLA60	●	○	●		●		0.5-1.5	16.00	9.525	4.00	0.07	0.9	3.65
	16NRA60	16NLA60	●	○	●		●		0.5-1.5	16.00	9.525	4.00	0.07	0.9	3.65
	16NRAG60	16NLAG60	●	○	●		●		0.5-3.0	16.00	9.525	4.00	0.07	1.7	3.65
	16NRG60	16NLG60	●	○	●		●		175-3.0	16.00	9.525	4.00	0.13	1.7	3.65
	22NRN60	22NLN60	●	○	○		○		4.0-5.0	22.00	12.70	5.10	0.4	2.5	4.9
	27NRQ60	27NLQ60	○	○	○		○		5.5-6.0	27.00	15.875	6.35	0.4		6.4
	16VNRAG60	16VNLAG60	●	○	○		○		0.5-3.0	16.00	9.525	4.00	0.07		3.65
	27VNRV60	27VNLV60	○	○	○		○		6.0-9.0	27.00	15.875	6.35	0.43		8.7

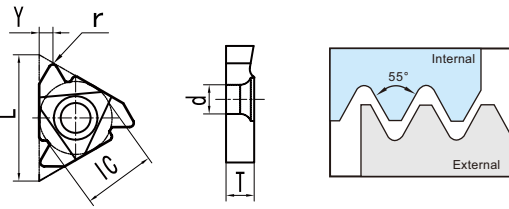
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - 55°泛用型

Threading Turning Tools - Partial Profile 55°

55°外螺纹刀粒

External Partial Profile 55° Threading Insert

钢 Steel		P	●	●											
不锈钢 Stainless Steel		M	●	●											
铸铁 Cast Iron		K	●												
有色金属 Non-ferrous metal		N													
耐热钢 Heat-resistant alloy		S													
硬化钢 Hardened Steel		H				尺寸 Size									
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ERAG55-M		●		●				48-8	16.00	9.525	4.00	0.07	1.5	3.65
	11ERA55	11ELA55	●	○	●		●		48-16	11.00	6.35	3.00	0.07	0.9	3.18
	16ERA55	16ELA55	●	○	●		●		48-16	16.00	9.525	4.00	0.07	0.9	3.65
	16ERAG55	16ELAG55	●	○	●		●		48-8	16.00	9.525	4.00	0.07	1.5	3.65
	16ERG55	16ELG55	●	○	●		●		14-8	16.00	9.525	4.00	0.25	1.5	3.65
	22ERN55	22ELN55	●	○	●		●		9-5	22.00	12.70	5.10	0.4	2.5	4.9
	27ERQ55	27ELQ55	○	○	○		○		4.5-4	27.00	15.875	6.35	0.78		6.4
	16VERAG55	16VELAG55	○	○	○		○		48-8	16.00	9.525	4.00	0.07		3.65
	27VERV55	27VELV55	○	○	○		○		4-2.5	27.00	15.875	6.35	0.88		8.7

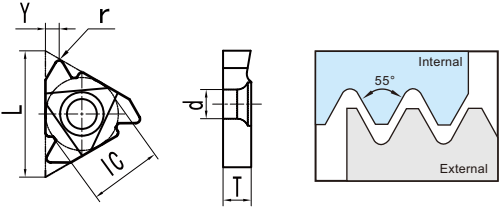
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - 55°泛用型

Threading Turning Tools - Partial Profile 55°

55°内螺纹刀粒

Internal Partial Profile 55° Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16NRAG55-M		●		●				48-8	16.00	9.525	4.00	0.07	1.5	3.65
	08NRA55	08NLA55	●	○	●		●		48-16	8.00	4.76	2.10	0.07	0.9	2.38
	11NRA55	11NLA55	●	○	●		●		48-16	11.00	6.35	3.00	0.07	0.9	3.18
	16NRA55	16NLA55	●	○	●		●		48-16	16.00	9.525	4.00	0.07	0.9	3.65
	16NRAG55	16NLAG55	●	○	●		●		48-8	16.00	9.525	4.00	0.07	1.5	3.65
	16NRG55	16NLG55	●	○	●		●		14-8	16.00	9.525	4.00	0.25	1.5	3.65
	22NRN55	22NLN55	●	○	●		●		9-5	22.00	12.70	5.10	0.4	2.5	4.9
	27NRQ55	27NLQ55	○	○	○		○		4.5-4	27.00	15.875	6.35	0.78		6.4
	16VNRAG55	16VELAG55	○	○	○		○		48-8	16.00	9.525	4.00	0.07		3.65
	27VNRV55	27VNLV55							4-2.5	27.00	15.875	6.35	0.88		8.7

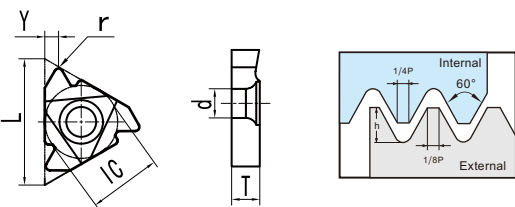
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - ISO 60°标准型

Threading Turning Tools - ISO 60° Metric

ISO-60°外螺纹刀粒

ISO-60° Metric External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ER1.00ISO-M		●		●				1.0	16.00	9.525	4.00	0.14	0.7	3.65
	16ER1.50ISO-M		●		●				1.5	16.00	9.525	4.00	0.22	1.0	3.65
	16ER2.00ISO-M		●		●				2.0	16.00	9.525	4.00	0.29	1.3	3.65
	16ER2.50ISO-M		●		●				2.5	16.00	9.525	4.00	0.36	1.5	3.65
	16ER3.00ISO-M		●		●				3.0	16.00	9.525	4.00	0.43	1.6	3.65
	22ER3.50ISO-M		●		●				3.5	22.00	12.70	5.10	0.51	2.0	4.9
	22ER4.00ISO-M		●		●				4.0	22.00	12.70	5.10	0.58	2.0	4.9
	22ER5.00ISO-M		●		●				5.0	22.00	12.70	5.10	0.72	2.4	4.9
	22ER6.00ISO-M		●		●				6.0	22.00	12.70	5.10	0.87	2.7	4.9
	11ER0.50ISO	11EL0.50ISO	●	○	○		●		0.5	11.00	6.35	3.00	0.07	0.6	3.18
	11ER0.75ISO	11EL0.75ISO	●	○	○		●		0.75	11.00	6.35	3.00	0.11	0.6	3.18
	11ER1.00ISO	11EL1.00ISO	●	○	○		●		1.0	11.00	6.35	3.00	0.14	0.7	3.18
	11ER1.25ISO	11EL1.25ISO	●	○	○		●		1.25	11.00	6.35	3.00	0.18	0.9	3.18
	11ER1.50ISO	11EL1.50ISO	●	○	○		●		1.5	11.00	6.35	3.00	0.22	1.0	3.18
	11ER1.75ISO	11EL1.75ISO	●	○	○		●		1.75	11.00	6.35	3.00	0.25	1.1	3.18
	11ER2.00ISO	11EL2.00ISO	●	○	○		●		2.0	11.00	6.35	3.00	0.29	1.0	3.18
	16ER0.50ISO	16EL0.50ISO	●	○	○		●		0.5	16.00	9.525	4.00	0.07	0.6	3.65
	16ER0.75ISO	16EL0.75ISO	●	○	○		●		0.75	16.00	9.525	4.00	0.11	0.6	3.65
	16ER1.00ISO	16EL1.00ISO	●	○	○		●		1.0	16.00	9.525	4.00	0.14	0.7	3.65
	16ER1.25ISO	16EL1.25ISO	●	○	○		●		1.25	16.00	9.525	4.00	0.18	0.9	3.65
	16ER1.50ISO	16EL1.50ISO	●	○	○		●		1.5	16.00	9.525	4.00	0.22	1.0	3.65
	16ER1.75ISO	16EL1.75ISO	●	○	○		●		1.75	16.00	9.525	4.00	0.25	1.2	3.65
	16ER2.00ISO	16EL2.00ISO	●	○	○		●		2	16.00	9.525	4.00	0.29	1.3	3.65
	16ER2.50ISO	16EL2.50ISO	●	○	○		●		2.5	22.00	12.70	5.10	0.36	1.5	3.65
	16ER3.00ISO	16EL3.00ISO	●	○	○		●		3.0	22.00	12.70	5.10	0.43	1.6	3.65
	16ER3.50ISO	16EL3.50ISO	●	○	○		●		3.5	22.00	12.70	5.10	0.51	1.6	3.65

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

Threading Turning Tools - ISO 60° Metric

ISO-60° Metric External Threading Insert

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

Threading Turning Tools - ISO 60° Metric

ISO-60° Internal External Threading Insert

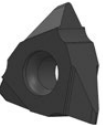
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

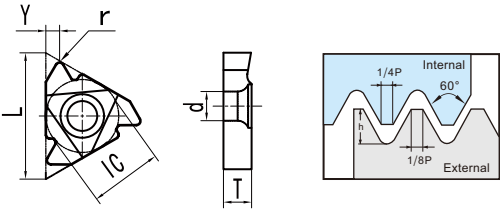
螺纹车削刀具 - ISO 60°标准型

Threading Turning Tools - ISO 60° Metric

ISO-60°内螺纹刀粒

ISO-60° Internal External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	22NR3.00ISO	22NL3.00ISO	●	○					3.0	22.00	12.70	5.10	0.43	2.0	4.9
	22NR3.50ISO	22NL3.50ISO	●	○					3.5	22.00	12.70	5.10	0.51	2.0	4.9
	22NR4.00ISO	22NL4.00ISO	●	○					4.0	22.00	12.70	5.10	0.58	2.0	4.9
	22NR4.50ISO	22NL4.50ISO	●	○					4.5	22.00	12.70	5.10	0.65	2.2	4.9
	22NR5.00ISO	22NL5.00ISO	●	○					5.0	22.00	12.70	5.10	0.72	2.4	4.9
	22NR5.50ISO	22NL5.50ISO	●	○	○				5.5	22.00	12.70	5.10	0.79	2.5	4.9
	22NR6.00ISO	22NL6.00ISO	●	○	○				6.0	22.00	12.70	5.10	0.87	2.7	4.9
	27NR5.50ISO	27NL5.50ISO	○	○	○				5.5	27.00	15.875	6.35	0.79		6.4
	27NR6.00ISO	27NL6.00ISO	○	○	○				6.0	27.00	15.875	6.35	0.87		6.4
	27NR6.00ISO	27NL6.00ISO	○	○	○				6.0	27.00	15.875	6.35	0.87		6.4
	16VNR1.00ISO		●	○	○				1.0	16.00	9.525	4.00	0.07	0.7	3.65
	16VNR1.50ISO		●	○	○				1.5	16.00	9.525	4.00	0.11	1.0	3.65
	16VNR2.00ISO		●	○	○				2.0	16.00	9.525	4.00	0.14	1.3	3.65
	16VNR2.50ISO		●	○	○				2.5	16.00	9.525	4.00	0.18	1.5	3.65
	16VNR3.00ISO		●	○	○				3.0	16.00	9.525	4.00	0.22	1.6	3.65
	22VNR4.00ISO		●	○	○				4.0	22.00	12.70	5.10	0.29	2.0	4.76
	22VNR5.00ISO		●	○	○				5.0	22.00	12.70	5.10	0.36	2.4	4.76
	27VNR6.00ISO		●	○	○				6.0	27.00	15.875	6.35	0.43	2.7	6.4
	27VNR8.00ISO								8.0	27.00	15.875	6.35			8.7
	27VNR10.0ISO								10.0	27.00	15.875	6.35			10.0



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

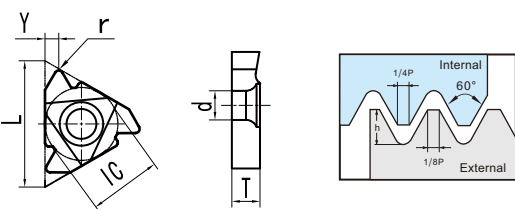
螺纹车削刀具 - UN 60°标准型

Threading Turning Tools - UN 60° Metric

UN-60°外螺纹刀粒

UN-60° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ER32UN	16EL32UN							32.0	16.00	9.525	4.00	0.11	0.8	3.65
	16ER28UN	16EL28UN							28.0	16.00	9.525	4.00	0.13	0.8	3.65
	16ER24UN	16EL24UN	●	○	○		○		24.0	16.00	9.525	4.00	0.16	0.8	3.65
	16ER20UN	16EL20UN	●	○	○		○		20.0	16.00	9.525	4.00	0.18	0.8	3.65
	16ER18UN	16EL18UN	●	○	○		○		18.0	16.00	9.525	4.00	0.2	0.8	3.65
	16ER16UN	16EL16UN	●	○	○		○		16.0	16.00	9.525	4.00	0.23	1.0	3.65
	16ER14UN	16EL14UN	●	○	○		○		14.0	16.00	9.525	4.00	0.26	1.2	3.65
	16ER12UN	16EL12UN	●	○	○		○		12.0	16.00	9.525	4.00	0.3	1.2	3.65
	16ER11UN	16EL11UN							11.0	16.00	9.525	4.00	0.33	1.4	3.65
	16ER10UN	16EL10UN	●	○	○		○		10.0	16.00	9.525	4.00	0.36	1.4	3.65
	16ER9UN	16EL9UN							9.0	16.00	9.525	4.00	0.41	1.6	3.65
	16ER8UN	16EL8UN	●	○	○		○		8.0	16.00	9.525	4.00	0.46	1.6	3.65
	22ER7UN	22EL7UN							7.0	22.00	12.70	5.10	0.52	2.3	4.9
	22ER6UN	22EL6UN	○	○					6.0	22.00	12.70	5.10	0.61	2.3	4.9
	22ER5UN	22EL5UN							5.0	22.00	12.70	5.10	0.75	2.5	4.9
	22ER4.5UN	22EL4.5UN							4.5	22.00	12.70	5.10	0.83	2.6	4.9
	22ER4UN	22EL4UN	○	○					4.0	22.00	12.70	5.10	0.93	2.9	4.9
	27ER4.5UN	27EL4.5UN							4.5	27.00	15.875	6.35		2.6	6.4
	27ER4UN	27EL4UN							4.0	27.00	15.875	6.35		2.9	6.4
	27VER4UN	27VEL4UN							4.0	27.00	15.875	6.35		4.35	8.7
	27VER3UN	27VEL3UN							3.0	27.00	15.875	6.35		5.0	10.0



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

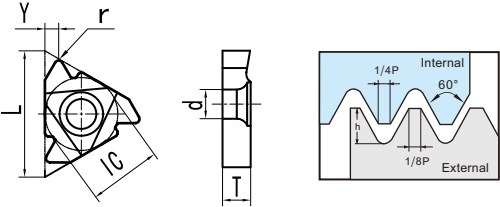
螺纹车削刀具 - UN 60°标准型

Threading Turning Tools - UN 60° Metric

UN-60°内螺纹刀粒

UN-60° Internal Threading Insert

钢 Steel			P												
不锈钢 Stainless Steel			M												
铸铁 Cast Iron			K												
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		尺寸 Size						
			R	L	R	L	R	L	螺距 Pitch	L	I.C	d	r	Y	T
	11NR32UN	11NL32UN	○		○		○		32.0	11.00	6.35	3.00	0.05	0.8	3.18
	11NR28UN	11NL28UN	○		○		○		28.0	11.00	6.35	3.00	0.07	0.8	3.18
	11NR24UN	11NL24UN	●		○		○		24.0	11.00	6.35	3.00	0.08	0.8	3.18
	11NR20UN	11NL20UN	●		○		○		20.0	11.00	6.35	3.00	0.09	0.8	3.18
	11NR18UN	11NL18UN	●		○		○		18.0	11.00	6.35	3.00	0.1	0.8	3.18
	11NR16UN	11NL16UN	●		○		○		16.0	11.00	6.35	3.00	0.11	1.0	3.18
	11NR14UN	11NL14UN	●		○		○		14.0	11.00	6.35	3.00	0.13	1.0	3.18
	11NR12UN	11NL12UN	●		○		○		12.0	11.00	6.35	3.00	0.15	1.1	3.18
	16NR32UN	16NL32UN							32.0	16.00	9.525	4.00	0.11	0.8	3.65
	16NR28UN	16NL28UN							28.0	16.00	9.525	4.00	0.13	0.8	3.65
	16NR24UN	16NL24UN	●		○		○		24.0	16.00	9.525	4.00	0.16	0.8	3.65
	16NR20UN	16NL20UN	●		○		○		20.0	16.00	9.525	4.00	0.18	0.8	3.65
	16NR18UN	16NL18UN	●		○		○		18.0	16.00	9.525	4.00	0.2	0.8	3.65
	16NR16UN	16NL16UN	●		○		○		16.0	16.00	9.525	4.00	0.23	1.0	3.65
	16NR14UN	16NL14UN	●		○		○		14.0	16.00	9.525	4.00	0.26	1.2	3.65
	16NR12UN	16NL12UN	●		○		○		12.0	16.00	9.525	4.00	0.3	1.2	3.65
	16NR11UN	16NL11UN							11.0	16.00	9.525	4.00	0.33	1.4	3.65
	16NR10UN	16NL10UN	●		○		○		10.0	16.00	9.525	4.00	0.36	1.4	3.65
	16NR9UN	16NL9UN							9.0	16.00	9.525	4.00	0.41	1.6	3.65
	16NR8UN	16NL8UN	●		○		○		8.0	16.00	9.525	4.00	0.46	1.6	3.65
	22NR7UN	22NL7UN							7.0	22.00	12.70	5.10	0.52	2.3	4.9
	22NR6UN	22NL6UN							6.0	22.00	12.70	5.10	0.61	2.3	4.9
	22NR5UN	22NL5UN							5.0	22.00	12.70	5.10	0.75	2.5	4.9
	22NR4.5UN	22NL4.5UN							4.5	22.00	12.70	5.10	0.83	2.6	4.9
	22NR4UN	22NL4UN							4.0	22.00	12.70	5.10	0.93	2.9	4.9



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

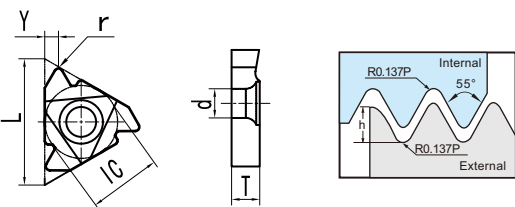
螺纹车削刀具 - W 55° 英国惠氏

Threading Turning Tools - W 55° Whitworth Full Profile

W-55° 外螺纹刀粒

W-55° External Threading Insert

钢 Steel			P												
不锈钢 Stainless Steel			M												
铸铁 Cast Iron			K												
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		尺寸 Size						
			R	L	R	L	R	L	螺距 Pitch	L	I.C	d	r	Y	T
	16ER14W-M		●		●				14.0	16.00	9.525	4.00	0.18	0.9	3.65
	16ER11W-M		●		●				11.0	16.00	9.525	4.00	0.25	1.1	3.65
	16ER28W	16EL28W	●		○				28.0	16.00	9.525	4.00	0.13	0.9	3.65
	16ER26W	16EL26W							26.0	16.00	9.525	4.00	0.14	0.9	3.65
	16ER24W	16EL24W	●		○		○		24.0	16.00	9.525	4.00	0.15	0.9	3.65
	16ER20W	16EL20W	●		○		○		20.0	16.00	9.525	4.00	0.18	0.9	3.65
	16ER19W	16EL19W	●		○		○		19.0	16.00	9.525	4.00	0.19	0.9	3.65
	16ER18W	16EL18W	●		○		○		18.0	16.00	9.525	4.00	0.2	0.9	3.65
	16ER16W	16EL16W	●		○		○		16.0	16.00	9.525	4.00	0.22	0.9	3.65
	16ER14W	16EL14W	●		○		○		14.0	16.00	9.525	4.00	0.25	1.1	3.65
	16ER12W	16EL12W	●		○		○		12.0	16.00	9.525	4.00	0.29	1.4	3.65
	16ER11W	16EL11W	●		○		○		11.0	16.00	9.525	4.00	0.32	1.4	3.65
	16ER10W	16EL10W	●		○		○		10.0	16.00	9.525	4.00	0.35	1.4	3.65
	16ER9W	16EL9W	●		○		○		9.0	16.00	9.525	4.00	0.39	1.7	3.65
	16ER8W	16EL8W	●		○		○		8.0	16.00	9.525	4.00	0.44	1.7	3.65
	16ER7W	16EL7W							7.0	16.00	9.525	4.00	0.5	1.7	3.65
	22ER7W	22EL7W							7.0	22.00	12.70	5.10	0.5	2.4	3.65
	22ER6W	22EL6W	●		○		○		6.0	22.00	12.70	5.10	0.59	2.4	4.9
	22ER5W	22EL5W	●		○		○		5.0	22.00	12.70	5.10	0.7	2.6	4.9
	22ER4.5W	22EL4.5W							4.5	22.00	12.70	5.10	0.79	2.7	4.9
	22ER4W	22EL4W	●		○		○		4.0	22.00	12.70	5.10	0.89	2.7	4.9
	27ER4.5W	27EL4.5W							4.5	27.00	15.875	6.35	0.79		6.4
	27ER4W	27EL4W							4.0	27.00	15.875	6.35	0.89		6.4



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

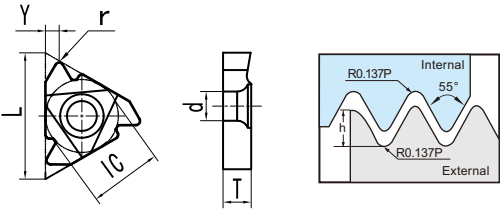
螺纹车削刀具 - W 55° 英国惠氏

Threading Turning Tools - W 55° Whitworth Full Profile

W-55° 内螺纹刀粒

W-55° External Threading Insert

钢 Steel			P												
不锈钢 Stainless Steel			M												
铸铁 Cast Iron			K												
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16NR14W-M		●		●		○		14.0	16.00	9.525	4.00	0.25	0.9	3.65
	16NR11W-M		●		●		○		11.0	16.00	9.525	4.00	0.32	1.1	3.65
	11NR28W	11NL28W	○		○		○		28	11.00	6.35	3.00	0.13	0.8	3.18
	11NR26W	11NL26W	○		○		○		26	11.00	6.35	3.00	0.14	0.8	3.18
	11NR24W	11NL24W	○		○		○		24	11.00	6.35	3.00	0.15	0.8	3.18
	11NR20W	11NL20W	○		○		○		20	11.00	6.35	3.00	0.18	1.0	3.18
	11NR19W	11NL19W	●		○		○		19	11.00	6.35	3.00	0.19	1.0	3.18
	11NR18W	11NL18W	○		○		○		18	11.00	6.35	3.00	0.2	1.0	3.18
	11NR16W	11NL16W	○		○		○		16	11.00	6.35	3.00	0.22	1.0	3.18
	11NR14W	11NL14W	●		○		○		14	11.00	6.35	3.00	0.25	1.0	3.18
	16NR28W	16NL28W	●		○		○		28.0	16.00	9.525	4.00	0.13	0.9	3.65
	16NR26W	16NL26W			○		○		26.0	16.00	9.525	4.00	0.14	0.9	3.65
	16NR24W	16NL24W	●		○		○		24.0	16.00	9.525	4.00	0.15	0.9	3.65
	16NR20W	16NL20W	●		○		○		20.0	16.00	9.525	4.00	0.18	0.9	3.65
	16NR19W	16NL19W	●		○		○		19.0	16.00	9.525	4.00	0.19	0.9	3.65
	16NR18W	16NL18W	●		○		○		18.0	16.00	9.525	4.00	0.2	0.9	3.65
	16NR16W	16NL16W	●		○		○		16.0	16.00	9.525	4.00	0.22	0.9	3.65
	16NR14W	16NL14W	●		○		○		14.0	16.00	9.525	4.00	0.25	1.1	3.65
	16NR12W	16NL12W	●		○		○		12.0	16.00	9.525	4.00	0.29	1.4	3.65
	16NR11W	16NL11W	●		○		○		11.0	16.00	9.525	4.00	0.32	1.4	3.65
	16NR10W	16NL10W	●		○		○		10.0	16.00	9.525	4.00	0.35	1.4	3.65
	16NR9W	16NL9W	●		○		○		9.0	16.00	9.525	4.00	0.39	1.7	3.65
	16NR8W	16NL8W	●		○		○		8.0	16.00	9.525	4.00	0.44	1.7	3.65
	16NR7W	16NL7W							7.0	16.00	9.525	4.00	0.5	1.7	3.65
	22NR7W	22NL7W							7.0	22.00	12.70	5.10	0.5	2.4	3.65
	22NR6W	22NL6W	●		○		○		6.0	22.00	12.70	5.10	0.59	2.4	4.9
	22NR5W	22NL5W	●		○		○		5.0	22.00	12.70	5.10	0.7	2.6	4.9
	22NR4.5W	22NL4.5W							4.5	22.00	12.70	5.10	0.79	2.7	4.9
	22NR4W	22NL4W	●		○		○		4.0	22.00	12.70	5.10	0.89	2.7	4.9



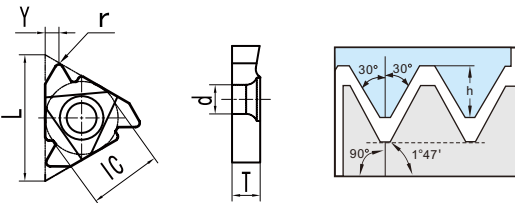
螺纹车削刀具 - NPT 60° 美国标准锥管螺纹

Threading Turning Tools - NPT 60° Standard taper threads

NPT-60° 外螺纹刀粒

NPT-60° External Threading Insert

钢 Steel			P												
不锈钢 Stainless Steel			M												
铸铁 Cast Iron			K												
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11ER27NPT	11EL27NPT	●	○	○		○		27.0	11.00	1/4"	3.00		1.0	3.18
	11ER18NPT	11EL18NPT	●	○	○		○		18.0	11.00	1/4"	3.00	0.03	1.0	3.18
	11ER14NPT	11EL14NPT	●	○	○		○		14.0	11.00	1/4"	3.00	0.04	1.1	3.18
	16ER27NPT	16EL27NPT	●	○	○		○		27.0	16.00	3/8"	4.00		1.0	3.65
	16ER18NPT	16EL18NPT	●	○	○		○		18.0	16.00	3/8"	4.00	0.03	1.0	3.65
	16ER14NPT	16EL14NPT	●	○	○		○		14.0	16.00	3/8"	4.00	0.04	1.3	3.65
	16ER11.5NPT	16EL11.5NPT	●	○	○		○		11.5	16.00	3/8"	4.00	0.05	1.5	4.9
	16ER8NPT	16EL8NPT	●	○	○		○		8.0	16.00	3/8"	4.00	0.07	1.8	4.9



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - NPT 60° 美国标准锥管螺纹

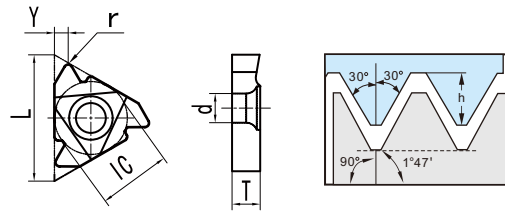
Threading Turning Tools - NPT 60° Standard taper threads

NPT-60° 内螺纹刀粒

NPT-60° Internal Threading Insert

[illegible]

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

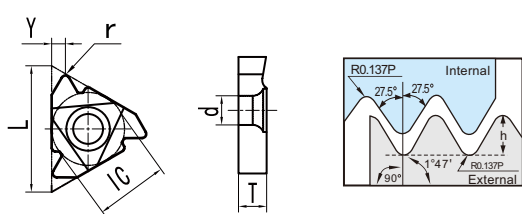


螺纹车削刀具 - BSPT 55° 英国标准锥管螺纹

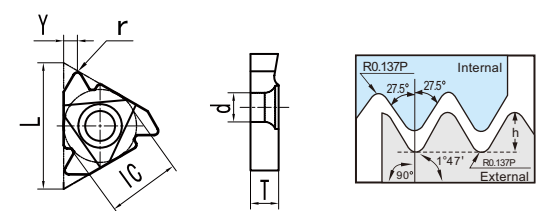
Threading Turning Tools - BSPT 55° Standard taper threads

BSPT-55° 外螺纹刀粒

BSPT-55° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N			●									
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11ER28BSPT	11EL28BSPT	●		○		○		28.00	11.00	1/4"	3.00	0.1	0.8	3.18
	11ER19BSPT	11EL19BSPT	●	○	○		○		19.00	11.00	1/4"	3.00	0.16	1.0	3.18
	11ER14BSPT	11EL14BSPT	●	○	○		○		14.00	11.00	1/4"	3.00	0.22	1.0	3.18
	16ER28BSPT	16EL28BSPT	●	○	○		○		28.00	16.00	3/8"	4.00	0.1	1.0	3.65
	16ER19BSPT	16EL19BSPT	●	○	○		○		19.00	16.00	3/8"	4.00	0.16	1.0	3.65
	16ER14BSPT	16EL14BSPT	●	○	○		○		14.00	16.00	3/8"	4.00	0.22	1.0	3.65
	16ER11BSPT	16EL11BSPT	●	○	○		○		11.00	16.00	3/8"	4.00	0.29	1.0	3.65

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



螺纹车削刀具 - BSPT 55° 英国标准锥管螺纹

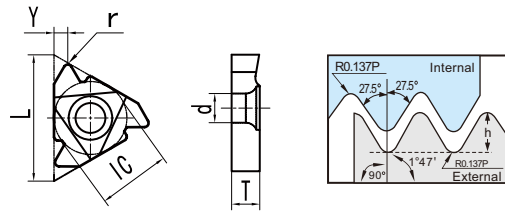
Threading Turning Tools - BSPT 55° Standard taper threads

BSPT-55° 内螺纹刀粒

BSPT-55° Interanal Threading Insert

[illegible]

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

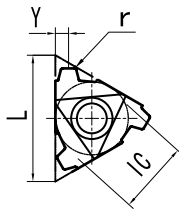
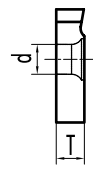
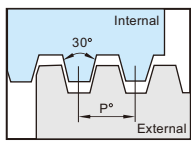


螺纹车削刀具 - TR 30° 梯形螺纹

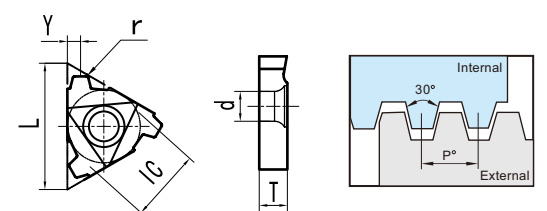
Threading Turning Tools - TR 30° Trapez Threading

TR-30° 外螺纹刀粒

TR-30° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N			●									
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
			  												
			尺寸 Size												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ER1.5TR	16EL1.5TR	●		○		○		1.50	16.00	3/8"	4.0	0.1	1.1	3.65
	16ER2.0TR	16EL2.0TR	●		○		○		2.00	16.00	3/8"	4.0	0.1	1.3	3.65
	16ER3.0TR	16EL3.0TR	●		○		○		3.00	16.00	3/8"	4.0	0.1	1.5	3.65
	22ER4.0TR	22EL4.0TR	●		○				4.00	22.00	1/2"	5.1	0.1	1.9	4.9
	22ER5.0TR	22EL5.0TR	●		○				5.00	22.00	1/2"	5.1	0.1	2.2	4.9
	22ER6.0TR	22EL6.0TR	●		○				6.00	22.00	1/2"	5.1	0.25	2.3	4.9
	27ER6.0TR	27EL6.0TR	●		○				6.00	27.00	5/8"	6.35	0.25	2.5	6.4
	27ER7.0TR	27EL7.0TR	●		○				7.00	27.00	5/8"	6.35	0.3	2.7	6.4
	22VER4.0TR	22VEL4.0TR	●		○				4.00	22.00	1/2"	5.1	0.1		4.76
	22VER5.0TR	22VEL5.0TR	●		○				5.00	22.00	1/2"	5.1	0.1		4.76
	22VER6.0TR	22VEL6.0TR	●		○				6.00	22.00	1/2"	5.1	0.25		4.76
	27VER6.0TR	27VEL6.0TR	●		○				6.00	27.00	5/8"	6.35	0.25		6.4
	27VER7.0TR	27VEL7.0TR	●		○				7.00	27.00	5/8"	6.35	0.25		6.4
	27VER8.0TR	27VEL8.0TR	●		○				8.00	27.00	5/8"	6.35	0.25		6.4
	27VER9.0TR	27VEL9.0TR	●		○				9.00	27.00	5/8"	6.35	0.25		6.4
	27VER10TR	27VEL10TR	●		○				10.00	27.00	5/8"	6.35	0.3		8.7
	27VER12TR	27VEL12TR	●						12.00	27.00	5/8"	6.35	0.5		8.7
	22UER7.0TR	22UEL7.0TR	○						7.00	22.00	1/2"	5.1	0.3		4.9
	27UER8.0TR		●						8.0	27.00	5/8"	6.35	0.25		6.4
	27UER10TR								10.0	27.00	5/8"	6.35	0.3		6.4

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

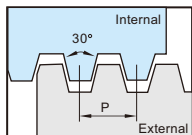
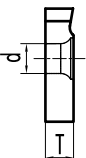
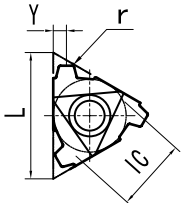
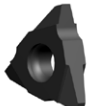


螺纹车削刀具 - TR 30° 梯形螺纹

Threading Turning Tools - TR 30° Trapez Threading

TR-30° 内螺纹刀粒

TR-30° Internal Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11NR1.5TR	11NL1.5TR	●		○		○		1.5	11.00	1/4"	3.0	0.1		3.65
	11NR2.0TR	11NL2.0TR	●		○		○		2.0	11.00	1/4"	3.0	0.1		3.65
	16NR1.5TR	16NL1.5TR	●		○		○		1.50	16.00	3/8"	4.0	0.1	1.1	3.65
	16NR2.0TR	16NL2.0TR	●		○		○		2.00	16.00	3/8"	4.0	0.1	1.3	3.65
	16NR3.0TR	16NL3.0TR	●		○		○		3.00	16.00	3/8"	4.0	0.1	1.5	3.65
	22NR4.0TR	22NL4.0TR	●		○		○		4.00	22.00	1/2"	5.1	0.1	1.9	4.9
	22NR5.0TR	22NL5.0TR	●		○		○		5.00	22.00	1/2"	5.1	0.1	2.2	4.9
	22NR6.0TR	22NL6.0TR	●		○		○		6.00	22.00	1/2"	5.1	0.25	2.3	4.9
	27NR6.0TR	27NL6.0TR	●		○		○		6.00	27.00	5/8"	6.35	0.25	2.5	6.4
	27NR7.0TR	27NL7.0TR	●		○		○		7.00	27.00	5/8"	6.35	0.3	2.7	6.4
	22VNR4.0TR	22VNL4.0TR	●		○		○		4.00	22.00	1/2"	5.1	0.1		4.76
	22VNR5.0TR	22VNL5.0TR	●		○		○		5.00	22.00	1/2"	5.1	0.1		4.76
	22VNR6.0TR	22VNL6.0TR	●		○		○		6.00	22.00	1/2"	5.1	0.25		4.76
	27VNR6.0TR	27VNL6.0TR	●		○		○		6.00	27.00	5/8"	6.35	0.25		6.4
	27VNR7.0TR	27VNL7.0TR	●		○		○		7.00	27.00	5/8"	6.35	0.25		6.4
	27VNR8.0TR	27VNL8.0TR	●		○		○		8.00	27.00	5/8"	6.35	0.25		6.4
	27VNR9.0TR	27VNL9.0TR	●		○		○		9.00	27.00	5/8"	6.35	0.25		6.4
	27VNR10TR	27VNL10TR	●						10.00	27.00	5/8"	6.35	0.3		8.7
	27VNR12TR	27VNL12TR	●						12.00	27.00	5/8"	6.35	0.5		8.7
	22UNR7.0TR	22UNL7.0TR	○						7.00	22.00	1/2"	5.1	0.3		4.9
	27UNR8.0TR								8.0	27.00	5/8"	6.35	0.25		6.4
	27UNR10TR								10.0	27.00	5/8"	6.35	0.3		6.4

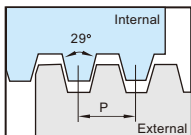
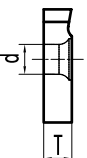
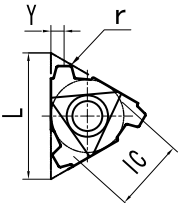
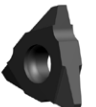
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - ACME 29° 美制梯形螺纹

Threading Turning Tools - ACME 29° American Trapez Threading

ACME-29° 外螺纹刀粒

ACME-29° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ER16ACME	16EL16ACME	●	○	○		○		16.0	16.00	3/8"	4.0	0.08	1.1	3.65
	16ER14ACME	16EL14ACME	●	○	○		○		14.0	16.00	3/8"	4.0	0.08	1.2	3.65
	16ER12ACME	16EL12ACME	●	○	○		○		12.0	16.00	3/8"	4.0	0.1	1.2	3.65
	16ER10ACME	16EL10ACME	●	○	○		○		10.0	16.00	3/8"	4.0	0.12	1.4	3.65
	16ER8ACME	16EL8ACME	●	○	○		○		8.0	16.00	3/8"	4.0	0.12	1.5	3.65
	16ER6ACME	16EL6ACME	●	○	○		○		6.0	16.00	3/8"	4.0	0.2	1.5	3.65
	22ER6ACME	22EL6ACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.2	2.1	4.9
	22ER5ACME	22EL5ACME	●	○	○		○		5.0	22.00	1/2"	5.1	0.25	2.1	4.9
	22ER4ACME	22EL4ACME	●	○	○		○		4.0	22.00	1/2"	5.1	0.3	2.3	4.9
	27ER4ACME	27EL4ACME	●	○	○		○		4.0	27.00	5/8"	6.35	0.3	2.1	6.4
	22VER6ACME	22VEL6ACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.2		4.76
	22VER5ACME	22VEL5ACME	●						5.00	22.00	1/2"	5.1	0.25		4.76
	22VER4ACME	22VEL4ACME	●						4.0	22.00	1/2"	5.1	0.3		4.76
	27VER3.5ACME	27VEL3.5ACME							3.5	27.00	5/8"	6.35	0.3	2.4	6.4
	27VER3ACME	27VEL3ACME	●						3.0	27.00	5/8"	6.35	0.3	2.4	6.4

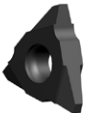
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - ACME 29° 美制梯形螺纹

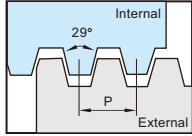
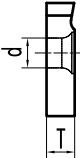
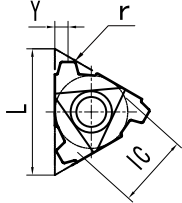
Threading Turning Tools - ACME 29° American Trapez Threading

ACME-29° 内螺纹刀粒

ACME-29° Internal Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11NR16ACME	11NL16ACME	●	○	○		○		16.0	11.00	1/4"	3.0	0.06	1.1	3.18
	11NR14ACME	11NL14ACME	●	○	○		○		14.0	11.00	1/4"	3.0	0.08	1.2	3.18
	16NR16ACME	16NL16ACME	●	○	○		○		16.0	16.00	3/8"	4.0	0.08	1.1	3.65
	16NR14ACME	16NL14ACME	●	○	○		○		14.0	16.00	3/8"	4.0	0.08	1.2	3.65
	16NR12ACME	16NL12ACME	●	○	○		○		12.0	16.00	3/8"	4.0	0.1	1.2	3.65
	16NR10ACME	16NL10ACME	●	○	○		○		10.0	16.00	3/8"	4.0	0.12	1.4	3.65
	16NR8ACME	16NL8ACME	●	○	○		○		8.0	16.00	3/8"	4.0	0.12	1.5	3.65
	16NR6ACME	16NL6ACME	●	○	○		○		6.0	16.00	3/8"	4.0	0.2	1.5	3.65
	22NR6ACME	22NL6ACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.2	2.1	4.9
	22NR5ACME	22NL5ACME	●	○	○		○		5.0	22.00	1/2"	5.1	0.25	2.1	4.9
	22NR4ACME	22NL4ACME	●	○	○		○		4.0	22.00	1/2"	5.1	0.3	2.3	4.9
	27NR4ACME	27NL4ACME	●	○	○		○		4.0	27.00	5/8"	6.35	0.3	2.1	6.4
	22VNR6ACME	22VNL6ACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.2		4.76
	22VNR5ACME	22VNL5ACME	●						5.00	22.00	1/2"	5.1	0.25		4.76
	22VNR4ACME	22VNL4ACME	●						4.0	22.00	1/2"	5.1	0.3		4.76
	27VNR3.5ACME	27VNL3.5ACME							3.5	27.00	5/8"	6.35	0.3	2.4	6.4
	27VNR3ACME	27VNL3ACME	●						3.0	27.00	5/8"	6.35	0.3	2.4	6.4

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



螺纹车削刀具 - STACME 29° 美制短齿梯形螺纹

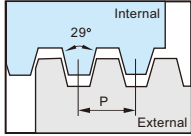
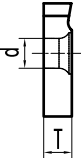
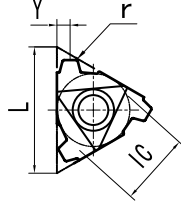
Threading Turning Tools - STACME 29° American Trapez Threading

STACME-29° 外螺纹刀粒

STACME-29° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N					●							
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ER16STACME	16EL16STACME	●	○	○		○		16.0	16.00	3/8"	4.0	0.08	1.0	3.65
	16ER14STACME	16EL14STACME	●	○	○		○		14.0	16.00	3/8"	4.0	0.08	1.1	3.65
	16ER12STACME	16EL12STACME	●	○	○		○		16.0	16.00	3/8"	4.0	0.1	1.2	3.65
	16ER10STACME	16EL10STACME	●	○	○		○		14.0	16.00	3/8"	4.0	0.1	1.3	3.65
	16ER8STACME	16EL8STACME	●	○	○		○		12.0	16.00	3/8"	4.0	0.16	1.5	3.65
	16ER6STACME	16EL6STACME	●	○	○		○		10.0	16.00	3/8"	4.0	0.2	1.5	3.65
	22ER6STACME	22EL6STACME	●	○	○		○		8.0	22.00	1/2"	5.1	0.2	1.8	4.9
	22ER5STACME	22EL5STACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.25	2.3	4.9
	22ER4STACME	22EL4STACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.3	2.3	4.9
	27ER4STACME	27EL4STACME	●	○	○		○		6.0	27.00	5/8"	5.1	0.3	2.5	6.4

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

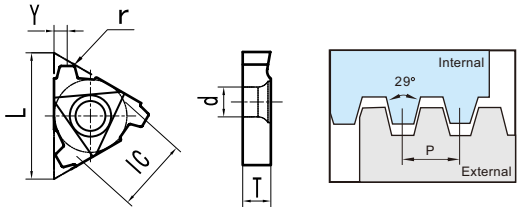


螺纹车削刀具 - STACME 29° 美制短齿梯形螺纹

Threading Turning Tools - STACME 29° American Trapez Threading

STACME-29° 内螺纹刀粒

STACME-29° Internal Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11NR16STACME	11NL16STACME	●	○	○		○		16.0	11.00	1/4"	3.0	0.06		3.18
	11NR14STACME	11NL14STACME	●	○	○		○		14.0	11.00	1/4"	3.0	0.08		3.18
	16NR16STACME	16NL16STACME	●	○	○		○		16.0	16.00	3/8"	4.0	0.06	1.0	3.65
	16NR14STACME	16NL14STACME	●	○	○		○		14.0	16.00	3/8"	4.0	0.08	1.1	3.65
	16NR12STACME	16NL12STACME	●	○	○		○		12.0	16.00	3/8"	4.0	0.1	1.2	3.65
	16NR10STACME	16NL10STACME	●	○	○		○		10.0	16.00	3/8"	4.0	0.1	1.3	3.65
	16NR8STACME	16NL8STACME	●	○	○		○		8.0	16.00	3/8"	4.0	0.16	1.5	3.65
	16NR6STACME	16NL6STACME	●	○	○		○		6.0	16.00	3/8"	4.0	0.2	1.5	3.65
	22NR6STACME	22NL6STACME	●	○	○		○		6.0	22.00	1/2"	5.1	0.2	1.8	4.9
	22NR5STACME	22NL5STACME	●	○	○		○		5.0	27.00	1/2"	5.1	0.25	2.3	4.9
	22NR4STACME	22NL4STACME	●	○	○		○		4.0	22.00	1/2"	5.1	0.3	2.3	4.9
	27NR4STACME	27NL4STACME	●	○	○		○		4.0	27.00	5/8"	6.35	0.3	2.5	6.4

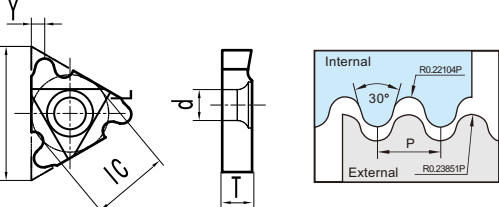
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - RD- 30° 圆螺纹刀片

Threading Turning Tools - RD-30° Rotundity Threading

RD-30° 外螺纹刀粒

RD-30° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16ER10RD	16EL10RD	●						10.0	16.00	3/8"	4.0	0.61	1.2	3.65
	16ER8RD	16EL8RD	●						8.0	16.00	3/8"	4.0	0.76	1.3	3.65
	16ER6RD	16EL6RD	●						6.0	16.00	3/8"	4.0	1.01	1.7	3.65
	22ER6RD	22EL6RD	●						6.0	22.00	1/2"	5.1	1.01	2.0	4.9
	22ER5RD	22EL5RD	●						5.0	22.00	1/2"	5.1	1.21	2.0	4.9
	22ER4RD	22EL4RD	●						4.0	22.00	1/2"	5.1	1.51	2.3	4.9

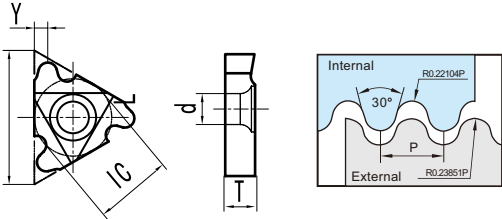
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - RD- 30° 圆螺纹刀片

Threading Turning Tools - RD-30° Rotundity Threading

RD-30° 内螺纹刀粒

RD-30° Internal Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	16NR10RD	16NL10RD	●						10.0	16.00	3/8"	4.0	0.56	1.2	3.65
	16NR8RD	16NL8RD	●						8.0	16.00	3/8"	4.0	0.7	1.3	3.65
	16NR6RD	16NL6RD	●						6.0	16.00	3/8"	4.0	0.94	1.7	3.65
	22NR6RD	22NL6RD	●						6.0	22.00	1/2"	5.1	0.94	2.0	4.9
	22NR5RD	22NL5RD	●						5.0	22.00	1/2"	5.1	1.12	2.0	4.9
	22NR4RD	22NL4RD	●						4.0	22.00	1/2"	5.1	1.4	2.3	4.9

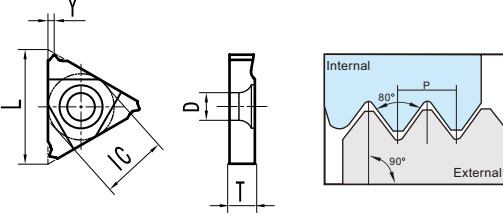
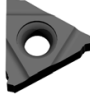
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - Pg-80° 钢导管螺纹刀片

Threading Turning Tools - RD-30° Steel Conduit Threading

Pg-80° 外螺纹刀粒

Pg-80° External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N												
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H												
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11ER20Pg	11EL20Pg	○		○				20.0	16.00	1/4"	3.0	-	0.9	3.18
	11ER18Pg	11EL18Pg	○		○				18.0	16.00	1/4"	3.0	-	1.0	3.18
	11ER16Pg	11EL16Pg	●		○				16.0	16.00	1/4"	3.0	-	1.1	3.18
	16ER20Pg	16EL20Pg	○		○				20.0	22.00	3/8"	4.0	-	0.9	3.65
	16ER18Pg	16EL18Pg	●		○				18.0	22.00	3/8"	4.0	-	1.0	3.65
	16ER16Pg	16EL16Pg	●		○				16.0	22.00	3/8"	4.0	-	1.1	3.65

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

螺纹车削刀具 - Pg-80° 钢导管螺纹刀片

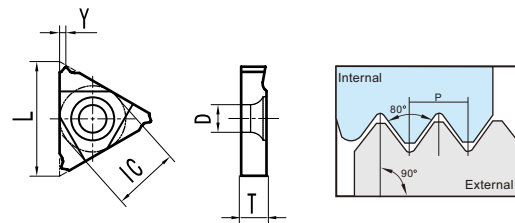
Threading Turning Tools - RD-30° Steel Conduit Threading

Pg-80° 内螺纹刀粒

Pg-80° Internal Threading Insert

[illegible]

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

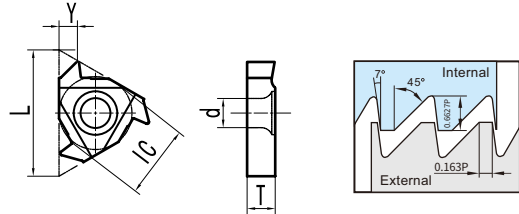


螺纹车削刀具 -ABUT 美制锯齿螺纹刀片

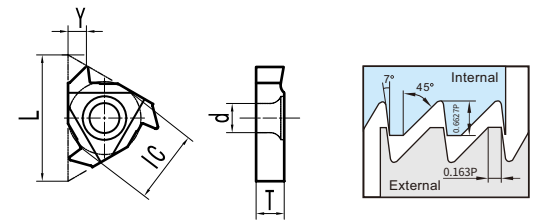
Threading Turning Tools - ABUT American-made Sawtooth Threading

ABUT 外螺纹刀粒

ABUT External Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N			●									
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H			尺寸 Size									
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	I.C	d	r	Y	T
			R	L	R	L	R	L							
	11ER20ABUT	11EL20ABUT	○		○				20.0	11.00	1/4"	3.0	-	0.9	3.18
	11ER16ABUT	11EL16ABUT	○		○				16.0	11.00	1/4"	3.0	-	0.9	3.18
	16ER20ABUT	16EL20ABUT	○		○				20.0	16.00	3/8"	4.0	-	0.9	3.65
	16ER16ABUT	16EL16ABUT	●		○				16.0	16.00	3/8"	4.0	-	0.9	3.65
	16ER12ABUT	16EL12ABUT	●		○				12.0	16.00	3/8"	4.0	-	1.0	3.65
	16ER10ABUT	16EL10ABUT	●		○				10.0	16.00	3/8"	4.0	-	1.2	3.65
	22ER8ABUT	22EL8ABUT	○		○				8.0	22.00	1/2"	5.1	-	1.3	4.9
	22ER6ABUT	22EL6ABUT	○		○				6.0	22.00	1/2"	5.1	-	1.5	4.9

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

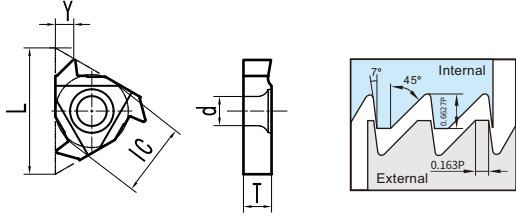
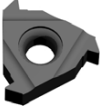


螺纹车削刀具 -ABUT 美制锯齿螺纹刀片

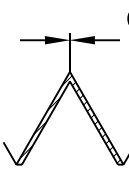
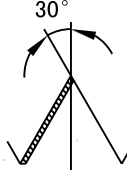
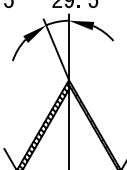
Threading Turning Tools - ABUT American-made Sawtooth Threading

ABUT 内螺纹刀粒

ABUT Internal Threading Insert

钢 Steel			P	●	●										
不锈钢 Stainless Steel			M	●	●										
铸铁 Cast Iron			K	●											
有色金属 Non-ferrous metal			N				●								
耐热钢 Heat-resistant alloy			S												
硬化钢 Hardened Steel			H					尺寸 Size							
形状 Shape	右手刀片 Right Hand	左手刀片 Right Hand	YZ7015		YZ7035		YZK01		螺距 Pitch	L	IC	d	r	Y	T
			R	L	R	L	R	L							
	11NR20ABUT	11NL20ABUT	○		○				20.0	11.00	1/4"	3.0	-	0.9	3.18
	11NR16ABUT	11NL16ABUT	○		○				16.0	11.00	1/4"	3.0	-	0.9	3.18
	16NR20ABUT	16NL20ABUT	○		○				20.0	16.00	3/8"	4.0	-	0.9	3.65
	16NR16ABUT	16NL16ABUT	●		○				16.0	16.00	3/8"	4.0	-	0.9	3.65
	16NR12ABUT	16NL12ABUT	●		○				12.0	16.00	3/8"	4.0	-	1.0	3.65
	16NR10ABUT	16NL10ABUT	●		○				10.0	16.00	3/8"	4.0	-	1.2	3.65
	22NR8ABUT	22NL8ABUT	○		○				8.0	22.00	1/2"	5.1	-	1.3	4.9
	22NR6ABUT	22NL6ABUT	○		○				6.0	22.00	1/2"	5.1	-	1.5	4.9

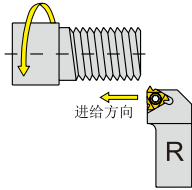
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

常见的几种进刀方式 Common feeding methods			
一般推荐修正齿侧进刀和齿侧交替进刀 It is generally recommended to correct the tooth side feed and alternate tooth side feed.			
修正齿侧进刀 Correct the tooth side feed	齿侧交替进刀 Alternate tooth side cutting	径向对中 (0°) 进刀 Radial centering (0 °) feed	齿侧30°进刀 Tooth side 30 ° feed
对于60°牙型角的螺纹切削，轴向进刀量可以简单地按0.15*径向进刀量来计算。对于55°的牙型角，则应以0.42*径向进刀量来计算。这便可得到一个比螺纹的牙型角小5°的进刀角。 For thread cutting with a 60 ° profile angle, the axial feed can be simply calculated as 0.5 ° radial feed. For a tooth profile angle of 55 °, it should be calculated as 0.42 ° radial feed. This results in a feed angle that is 5 ° smaller than the profile angle of the thread.	主要是用于切削大牙形时，此方法可获得均匀的刀片磨损和长刀具寿命，需要在CNC机床上进行特定编程。实际上，由机床、工件材料、刀片槽型和螺距共同决定了进刀方式的选择。 Mainly used for cutting large tooth shapes, this method can achieve uniform blade wear and long tool life, requiring specific programming on CNC machines. In fact, the choice of feed method is determined by the machine tool, workpiece material, blade groove type, and pitch.	许多机床上常用也只能使用的方法。可获得软的断屑和使刀片磨损更均匀。适合于小螺距。当用于疏齿距时具有振动风险和较差的切屑控制。加工硬化材料（例如奥氏体不锈钢）的首选推荐使用表中给定的径向进给。 Many commonly used and only applicable methods on machine tools. It can obtain soft chips and make blade wear more uniform. Suitable for small pitch. When used for sparse tooth spacing, there is a risk of vibration and poor chip control. The preferred recommendation for work hardening materials (such as austenitic stainless steel) is to use the radial feed given in the table.	
			
优点：刀片同时切削螺纹牙型两侧，防止像0°进刀时容易发生的崩刃。虽然也会形成排屑沟槽，但是由于切削厚度不均匀有利于排屑，犹如齿侧进刀，这是比较好的进刀方法，尤其是使用有断屑槽的刀片。 Advantages: The blade simultaneously cuts both sides of the thread profile to prevent edge breakage that is prone to occur during 0 ° cutting. Although chip removal grooves may also form, uneven cutting thickness is beneficial for chip removal, similar to tooth side cutting, which is a better cutting method, especially when using blades with chip breaking grooves.	优点：由于两侧切削刃平均使用，提高了刀片的寿命。注：采用这种进刀方法对一些机床可能需要特殊的编程技术。 MAdvantages:Due to the average use of cutting edges on both sides, the lifespan of the blade has been extended. Note: Using this cutting method may require special programming techniques for some machine tools.	优点：刀片全部刀刃对螺纹牙型两侧同时切削，防止刀刃崩刃。 Advantages:All blades cut simultaneously on both sides of the thread profile to prevent blade breakage.	优点：利用刀片侧刃进给切削，使切屑容易排出切削区域，这就减少刀片后沿形成毛刺的问题，为了避免由于刀刃后沿摩擦而降低表面光洁度、崩刃或齿侧面过度的磨损，横向进刀的角度应小于螺纹齿形角3°~5°。这是一种齿侧面修正类型。 Advantages:By using blade side feed cutting, chips are easily discharged from the cutting area, which reduces the problem of burrs forming on the trailing edge of the blade. In order to avoid reducing surface smoothness, chipping, or excessive wear on the tooth flank due to friction on the trailing edge of the blade, the lateral feed angle should be less than the thread tooth profile angle by 3 °-5 °. This is a type of tooth flank correction.
缺点：和径向对进刀的缺点相同，但是在降低切削力方面比较明显，同时排屑的问题也得到解决。 Disadvantages:The disadvantages of radial centering feed are the same, but it is more obvious in reducing cutting force, and the problem of chip removal is also solved.	缺点：在传统机床上加工困难 Disadvantages:Difficult to process on traditional machine tools	缺点：排屑困难，在切削高强度材料时容易崩刃。产生毛刺的可能性增大。由于在精车螺纹时整个切削刃全部切入，荣誉引起振动。 Disadvantages:Difficulty in chip removal and easy tool breakage when cutting high-strength materials. The possibility of producing burrs increases. Due to the fact that the entire cutting edge was completely cut in during the precision threading process, honor caused the tool to vibrate.	缺点：刀片可能有拖拽或者摩擦的现象而使刃口崩刃。在切削软而粘性的金属，如低碳钢、铝和不锈钢时，会破坏表面光洁度。 Disadvantages:The blade may experience dragging or friction, causing the edge to break. When cutting soft and viscous metals such as low-carbon steel, aluminum, and stainless steel, the surface smoothness will be compromised.
如何控制铁屑： 当排屑通畅时，可获得良好的表面质量。当排屑不畅通和发生振动时，适合于粗牙螺纹和内螺纹。为避免表面粗糙度或由于后缘的摩擦而导致过度的后刀面磨损，应使进刀角保持为3°~5°，且比螺旋角要小。 How to control iron fillings: When the chip removal is smooth, good surface quality can be obtained. When chip removal is not smooth and vibration occurs, it is suitable for coarse thread and internal thread. To avoid excessive wear on the rear cutting surface due to surface roughness or friction at the trailing edge, the feed angle should be kept at 3 °-5 ° and smaller than the helix angle.			

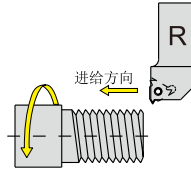
螺纹车削加工方案对照表
Comparison table of threading cutting machining

外螺纹（右旋螺纹） External(Right Hand)

铁屑向上排 - 刀杆正向安装;
主轴正转 (M03);
进给方向- 向卡盘方向进给.
Scrap iron displaced upward - tool holders installed forward
Spindle turned forward-M03
Feed direction-Feed direction-feed to the chuck

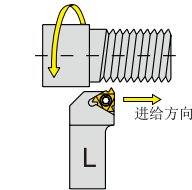


铁屑向下排 - 刀杆反向安装;
主轴正转 (M03);
进给方向- 向卡盘方向进给.
Scrap iron displaced downward - tool holders installed backward
Spindle turned forward-M03
Feed direction-Feed direction-feed to the chuck.

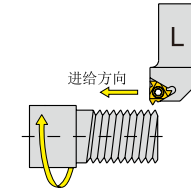


外螺纹（左旋螺纹） External(Left Hand)

铁屑向上排 - 刀杆正向安装;
主轴正转 (M03);
进给方向- 向尾座方向进给.
Scrap iron displaced upward - tool holders installed forward
Spindle turned forward-M03
Feed direction-Feed direction- tail seat direction feed.

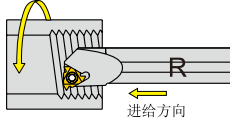


铁屑向下排 - 刀杆正向安装;
主轴正转 (M04);
进给方向- 向尾座方向进给.
Scrap iron displaced downward - tool holders installed forward
Spindle turned forward-M04
Feed direction-Feed direction- tail seat direction feed.

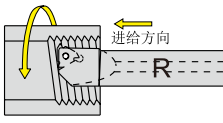


内螺纹（右旋螺纹） Internal(Right Hand)

铁屑向上排 - 刀杆正向安装;
主轴正转 (M03);
进给方向- 向卡盘方向进给.
Scrap iron displaced upward - tool holders installed forward
Spindle turned forward-M03
Feed direction-Feed direction-feed to the chuck

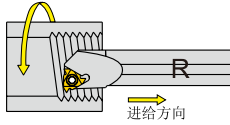


铁屑向下排 - 刀杆反向安装;
主轴正转 (M03);
进给方向- 向卡盘方向进给.
Scrap iron displaced downward - tool holders installed backward
Spindle turned forward-M03
Feed direction-Feed direction-feed to the chuck

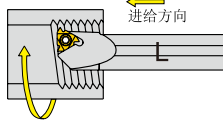


内螺纹（左旋螺纹） Internal(Left Hand)

铁屑向上排 - 刀杆正向安装;
主轴正转 (M03);
进给方向- 向尾座方向进给.
Scrap iron displaced upward - tool holders installed forward
Spindle turned forward-M03
Feed direction-Feed direction- tail seat direction feed.



铁屑向上排 - 刀杆正向安装;
主轴正转 (M04);
进给方向- 向尾座方向进给.
Scrap iron displaced upward - tool holders installed forward
Spindle turned forward-M04
Feed direction-Feed direction- tail seat direction feed.



进刀量计算公式

按公式以连续递减方式计算每次走刀量

$$\Delta apx = \frac{h}{\sqrt{nap-1}} \times \sqrt{n}$$

Δapx 径向进给
x 实际走刀 (从 1 到 nap 的系列值)

ap 螺纹总深度
nap 走刀次数
n 第一次走刀 =0.3
第二次走刀 =1
第三次走刀 =x-1

示例:

工况: 外螺纹切削:
螺距: 1.5mm
ap: 0.94mm
nap: 6次走刀

计算:

结果:

$$\Delta ap1 = \frac{0.94}{\sqrt{5}} \times \sqrt{0.3} = 0.23$$

第一次走刀, 进刀量 =0.23mm

$$\Delta ap2 = \frac{0.94}{\sqrt{5}} \times \sqrt{1} = 0.42$$

第二次走刀, 进刀量 0.42-0.23=0.19mm

$$\Delta ap1 = \frac{0.94}{\sqrt{5}} \times \sqrt{2} = 0.59$$

第三次走刀, 进刀量 0.59-0.42=0.17mm

$$\Delta ap1 = \frac{0.94}{\sqrt{5}} \times \sqrt{3} = 0.73$$

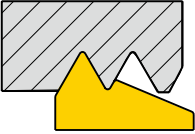
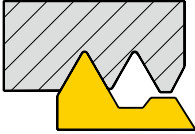
第四次走刀, 进刀量 0.73-0.59=0.14mm

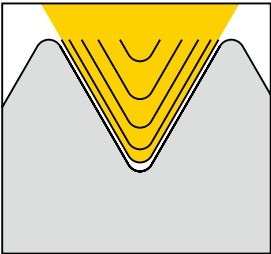
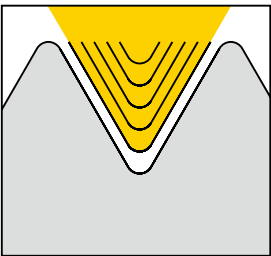
$$\Delta ap1 = \frac{0.94}{\sqrt{5}} \times \sqrt{4} = 0.84$$

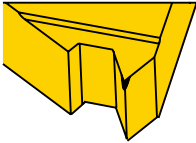
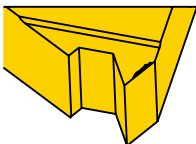
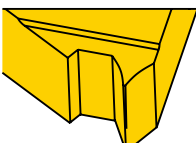
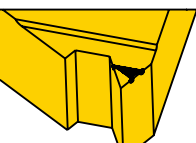
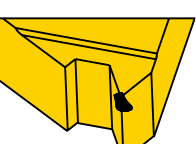
第五次走刀, 进刀量 0.84-0.73=0.11mm

$$\Delta ap1 = \frac{0.94}{\sqrt{5}} \times \sqrt{\quad}$$

第六次走刀, 进刀量 0.94-0.84=0.1mm

定螺距刀片牙形与泛螺距刀片牙形比较 Comparison of tooth profile between fixed pitch blade and pan pitch blade	
	
定螺距刀片: 螺纹尺寸是按照已制定的螺纹标准确定, 由于螺纹外径和底径同时加工, 因此可以得到同心度的螺纹。由最后一刀加工出准确的螺纹牙型, 减少额外的操作或者去毛刺操作, 因此降低加工成本。 Fixed pitch blade:The thread size is determined according to the established thread standards, and since the outer diameter and base diameter of the thread are processed simultaneously, concentric threads can be obtained. Accurately machining the thread profile with the last cut reduces additional operations or deburring, thus lowering processing costs.	泛螺距刀片同一刀片可以加工规定范围内的不同螺距的螺纹, 对非标螺纹的加工有较大的柔性。 Pan pitch blade: The same blade can process threads with different pitches within the specified range, and has greater flexibility in processing non-standard threads.

走刀次数和进刀量 Number of blade passes and feed rate	
走刀次数和进刀量对于螺纹切削工序具有决定性影响。在大多数现代机床上, 应在螺纹切削周期中给定总螺纹深度和第一次或者最后一次切深。为了提高螺纹切削质量, 应使用下面推荐的进刀量。对于多齿刀片, 坚持使用进刀量推荐值是极为重要的, 可作为初始值的推荐值。合适的走刀次数必须通过实验来决定。为优化刀具寿命, 工件直径应不超过螺纹的最大直径0.14mm。应避免进刀量低于0.05mm。对于奥氏体不锈钢, 进刀量应避免低于0.08mm The number of cutting cycles and feed rate have a decisive impact on the thread cutting process. On most modern machine tools, the total thread depth and the first or last cutting depth should be given during the thread cutting cycle. To improve the quality of thread cutting, the following recommended feed rates should be used. For multi tooth blades, it is extremely important to adhere to the recommended feed rate, which can serve as a recommended initial value. The appropriate number of knife cuts must be determined through experimentation. To optimize tool life, the diameter of the workpiece should not exceed the maximum diameter of the thread by 0.14mm. The feed rate should be avoided below 0.05mm. For austenitic stainless steel, the feed rate should be avoided below 0.08mm.	
①连续递减- 可获得不变的切屑面积。 这包括相对较大的初始值 (0.2~0.35mm) , 并且与螺纹牙型的具体深度有关。此值会逐渐降低且以0.02~0.09mm 的进给进行精加工。最后一次走刀可以是不进刀的空走刀, 这是用于消除切削过程中的反弹。这种走刀方式是现代CNC 机床上常用的方法。 ① Continuously decreasing - can obtain a constant chip area, This includes relatively large initial values (0.2-0.35mm) and is dependent on the specific depth of the thread profile. This value will gradually decrease and precision machining will be carried out with a feed rate of 0.02-0.09mm. The last cutting can be an empty cutting without cutting, which is used to eliminate rebound during the cutting process. This cutting method is commonly used on modern CNC machine tools.	 切屑面积 + 跳跃走刀
②恒定的进刀量- 可获得最佳的切屑控制和长的刀具寿命。在新型机床上正变得越来越通用的加工方法。通过固定螺纹切削周期中的某一个参数, 而使切屑厚度恒定, 进而可以形成最佳切屑。初始值大约为0.18~0.12mm, 实际值应由上一次走刀 (至少应为0.08mm) 的具体值确定。 ② Constant feed rate - can achieve optimal chip control and long tool life. The machining methods are becoming increasingly common on new machine tools. By fixing a certain parameter in the thread cutting cycle to maintain a constant chip thickness, optimal chips can be formed. The initial value is approximately 0.18-0.12mm, and the actual value should be determined by the specific value of the previous cutting (at least 0.08mm).	 恒定的走刀量
用于部分牙型刀片 (V形55° 和60°) 的切削参数使用部分牙形刀片进行螺纹切削时, 可使用推荐的走刀次数。但是, 当使用小螺距的刀片时, 每次走刀量不能超过最大推荐值。 注意! 当螺纹要去小公差时, 最后一次走刀可不进刀 (空走刀)。对于硬材料, 则需要相应的增加走刀次数。当螺纹切削加工淬硬材料 (例如奥氏体不锈钢) 时, 进刀量应不得超过0.08mm。 Cutting parameters for some tooth shaped blades (V-shaped 55° and 60°) When using a partially toothed blade for thread cutting, the recommended number of times the blade can be used. However, when using blades with small pitch, the amount of cutting should not exceed the maximum recommended value each time. Attention! When the thread needs to have a small tolerance, the last cutting can be done without cutting (empty cutting). For hard materials, it is necessary to increase the number of cutting times accordingly. When threading hardened materials (such as austenitic stainless steel), the feed rate should not exceed 0.08mm	

问题 Questions	原因 Reasons	措施 Solutions
 后刀面磨损过快 Quick-wearing flank	切削速度太高 横切深度太小 材料不耐磨 冷却液供给不足 错误的倾斜刀垫 错误的车削直径 刀片在中心线以上 Cutting speed is fast Transverse cutting depth is too small material is not wear-resistant Coolant is not enough for demand The slope of anvil is wrong The cutting diameter is wrong The insert is above the center line	减小主轴转速 增大横切深度 改进侧向进给 应用涂层类 增加冷却液供给 重新选择刀垫 调整车削直径 调整中心高度 To decrease spindle speed To enlarge transverse cutting depth To change the lateral feeding To make applicable coating To increase the supply of coolant To choose a new anvil To adjust cutting diameter To adjust center height
 刃边剥落 Cutting edge peeling off	切削速度太高 横切深度太小 牌号选择错误 切屑控制不良 冷却液供给不足 中心高度不正确 Cutting speed is fast Transverse cutting depth is too small Coating grade is wrong control of cutting is not good coolant is not enough for demand The center height is not correct	减小主轴转速 减小切削深度 应用涂层类牌号 应用高韧性牌号 更改侧向进给 增加冷却液供给 调整中心高度 To decrease spindle speed To decrease cutting depth To choose applicable coating grade To use high-roughness coating grade To change the lateral feeding To increase the supply of coolant To adjust center height
 塑性变形 Plastic deformation	塑性变切削区温度过高 牌号选择错误 冷却液供给不足 The temperature in plastic variation cutting area is too high Coating grade is wrong coolant is not enough for demand	减小主轴转速 减小切削深度 调整车削直径 应用涂层类牌号 增加冷却液供给 To decrease spindle speed To decrease cutting depth To adjust cutting diameter To choose applicable coating grade To increase the supply of coolant
 积屑瘤 Cutting tumor	切削温度过低 牌号选择错误 冷却液供给不足 Cutting temperature is too low Coating grade is wrong Coolant is not enough for demand	增加主轴转速 增加切削深度 应用涂层类牌号 增加冷却液供给 To increase pindle speed To increase cutting depth To choose applicable coating grade To increase the supply of coolant
 刀片破损 Insert broken	切削刀温度过低 切深太大 牌号选择错误 错误的车削直径 中心高度不正确 横切深度太小 错误的倾斜刀垫 刀具悬伸太长 Cutting temperature is too low Cutting depth is too large Coating grade is wrong The cutting diameter is wrong The center height is not correct Transverse cutting depth is too small The slope of anvil is wrong The overhang of cutter is too long	增加主轴转速 降低切深 增加进刀次数 应用韧性牌号 调整车削直径 调整中心高度 减小切削深度 重新选择刀垫 减少刀具悬伸 To increase pindle speed To decrease cutting depth To increase feed time To choose roughness coating grade To adjust cutting diameter To adjust center height To decrease cutting depth To choose a new anvil To shorten overhang of cutter
 表面质量差 Bad quality of surface	错误的切削速度 切削区温度过高 冷却液供给不足 错误的倾斜刀垫 刀具悬伸太长 中心高度不正确 Cutting speed is wrong Cutting temperature is too high Coolant is not enough for demand The slope of anvil is wrong The overhang of cutter is too long The center height is not correct	增加主轴速度 降低切削速度 降低切削速度 增加冷却液供给 重新选择刀垫 减少刀具悬伸 调整中心高度 To increase spindle speed To decrease cutting depth To decrease cutting speed To increase the supply of coolant To choose a new anvil To shorten overhang of cutter To adjust center height
 切屑控制不良 Bad control of cutting	切削区温度过高 牌号选择错误 冷却液供给不足 错误的车削直径 Cutting temperature is too high Coating grade is wrong Coolant is not enough for demand The cutting diameter is wrong	减小主轴转速 降低切削速度 调整车削直径 应用涂层类牌号 调整车削直径 应用M型刀片 增加冷却液供给 调整车削直径 To decrease spindle speed To decrease cutting speed To adjust cutting diameter To choose applicable coating grade To adjust cutting diameter To use M-style inserts To increase the supply of coolant To adjust cutting diameter

螺距以及底孔直径对照表

Threading insert cutting times within definite depth for reference

公制细螺纹			
规格 Specification	标准径	底孔直径 Basic Hole	
		最大 Max	最小 Min
M12 1.5	10.5	10.676	10.376
M12 1.25	10.8	10.912	10.647
M12 1.0	11.0	11.153	10.917
M12 0.5	11.5	11.520	11.400
M14 1.5	12.5	12.676	12.376
M14 1.0	13.0	13.153	12.917
M15 1.5	13.5	13.676	13.376
M15 1.0	14.0	14.153	13.917
M16 1.5	14.5	14.676	14.376
M16 1.0	15.0	15.153	14.917
M17 1.5	15.5	15.676	15.376
M17 1.0	16.0	16.153	15.917
M18 2.0	16.1	16.210	15.835
M18 1.5	16.5	16.676	16.376
M18 1.0	17.0	17.153	16.917
M20 2.0	18.0	18.210	17.835
M20 1.5	18.5	18.676	18.376
M20 1.0	19.0	19.153	18.917
M22 2.0	20.0	20.210	19.835
M22 1.5	20.5	20.676	20.376
M22 1.0	21.0	21.153	20.917
M24 2.0	22.0	22.210	21.835
M24 1.5	22.5	22.676	22.376
M24 1.0	23.0	23.153	22.917
M25 2.0	23.0	23.210	22.835
M25 1.5	23.5	23.676	23.376
M25 1.0	24.0	24.153	23.917
M26 1.5	24.5	24.676	24.376
M27 2.0	25.0	25.210	24.835
M27 1.5	25.5	25.676	25.376
M27 1.0	26.0	26.153	25.917
M28 2.0	26.0	26.210	25.835
M28 1.5	26.5	26.676	26.376
M28 1.0	27.0	27.153	26.917
M30 3.0	27.0	27.252	26.752
M30 2.0	28.0	28.210	27.835
M30 1.5	28.5	28.676	28.376
M30 1.0	29.0	29.153	28.917
M32 2.0	30.0	30.210	29.835
M32 1.5	30.5	30.676	30.376
M33 3.0	30.0	30.252	29.752
M33 2.0	31.0	31.210	30.835
M33 1.5	31.5	31.676	31.376
M35 1.5	33.5	33.676	33.376
M36 3.0	33.0	33.252	32.752
M36 2.0	34.0	34.210	33.835
M36 1.5	34.5	34.676	34.376

公制粗螺纹			
规格 Specification	标准径	底孔直径 Basic Hole	
		最大 Max	最小 Min
M10 1.5	8.5	8.676	8.376
M11 1.5	9.5	9.676	9.376
M12 1.75	10.3	10.411	10.106
M14 2.0	12.0	12.210	11.835
M16 2.0	14.0	14.210	13.835
M18 2.5	15.5	15.744	15.294
M20 2.5	17.5	17.744	17.294
M22 2.5	19.5	19.744	19.294
M24 3.0	21.0	21.252	20.752
M27 3.0	24.0	24.252	23.752
M30 3.5	26.5	26.771	26.211
M33 3.5	29.5	29.771	29.211
M36 4.0	32.0	32.270	31.670
M39 4.0	35.0	35.270	34.670
M42 4.5	37.5	37.799	37.129
M45 4.5	40.5	40.799	40.129
M48 5.0	43.0	43.297	42.587
M56 5.5	50.5	50.796	50.046
M64 6.0	58.0	58.305	57.505

英制管螺纹			
规格 (Rp) Specification	标准径	底孔直径 Basic Hole	
		最大Max	最小 Min
1/16	-28	6.5	6.632
1/8	-28	8.5	8.637
1/4	-19	11.4	11.549
3/8	-19	14.9	15.054
1/2	-14	18.6	18.773
3/4	-14	24.0	24.259
1	-11	30.2	30.472
1-1/4	-11	38.8	39.133
1-1/2	-11	44.7	45.026
2	-11	56.5	56.837

德标钢导管螺纹 DIN40430			
规格 (Pg) Specification	标准径		
Pg7	-20	11.40	
Pg9	-18	14.00	
Pg11	-18	17.25	
Pg13.5	-18	19.00	
Pg16	-18	21.25	
Pg21	-16	26.75	
Pg29	-16	35.50	
Pg36	-16		

螺距以及底孔直径对照表

Threading insert cutting times within definite depth for reference

美制粗螺纹			
规格 (UNC) Specification	标准径	底孔直径 Basic Hole	
		最大Max	最小 Min
1/4	-20	5.1	5.257
5/16	-18	6.6	6.731
3/8	-16	8.0	8.153
7/16	-14	9.4	9.550
1/2	-13	10.9	11.023
9/16	-12	12.2	12.446
5/8	-11	13.6	13.868
3/4	-10	16.6	16.840
7/8	-9	19.6	19.761
1	-8	22.3	22.606
1-1/8	-7	25.0	25.349
1-1/4	-7	28.2	28.524
1-3/8	-6	30.8	31.115
1-1/2	-6	34.0	34.290
1-3/4	-5	39.5	39.827
2	-4.5	45.2	45.593

美制管螺纹				
规格 (NPT) Specification		NPT		NPSC
		使用铰刀时 When using reamer	不使用铰刀时 When the reamer is not in use	
1/16	-27	5.94	6.15	6.35
1/8	-27	8.33	8.43	8.74
1/4	-18	10.72	11.13	11.13
3/8	-18	14.27	14.27	14.68
1/2	-14	17.48	17.86	18.26
3/4	-14	22.63	23.01	23.42
1	-11.5	28.58	28.98	29.36
1-1/4	-11.5	37.31	37.69	38.10
1-1/2	-11.5	43.26	43.66	44.45
2	-11.5	55.17	55.58	56.36
2-1/2	-8	65.48	66.27	

美制细螺纹			
规格 (UNF) Specification	标准径	底孔直径 Basic Hole	
		最大 Max	最小 Min
1/4	-28	5.5	5.588
5/16	-24	6.9	7.035
3/8	-24	8.5	8.636
7/16	-20	9.9	10.033
1/2	-20	11.5	11.607
9/16	-18	12.9	13.081
5/8	-18	14.5	14.681
3/4	-16	17.5	17.678
7/8	-14	20.5	20.675
1	-12	23.3	23.571
1-1/8	-12	26.5	26.746
1-1/4	-12	29.6	29.921
1-3/8	-12	32.8	33.096
1-1/2	-12	36.0	36.271

55°英制密封圆锥内螺纹					
ZG(国标) Rc(英制) PT(日韩)		底孔直径 Basic Hole		有效螺纹长度 Effective thread length	标准长度 Standard length
		使用铰刀时 When using reamer	不使用铰刀时 When the reamer is not in use		
1/16	-28	6.1	6.2	6.244	6.384
1/8	-28	8.1	8.2	8.249	8.388
1/4	-19	10.7	11.0	10.962	11.174
3/8	-19	14.2	14.5	14.448	14.658
1/2	-14	17.6	18.0	17.979	18.263
3/4	-14	23.0	23.5	23.378	23.663
1	-11	29.0	29.5	29.459	29.822
1-1/4	-11	37.5	38.0	37.976	38.339
1-1/2	-11	43.4	44.0	43.869	44.232
2	-11	54.9	55.5	55.412	55.844

美制特细牙螺纹				
规格 (UNEF) Specification	标准径		底孔直径 Basic Hole	
			最大 Max	最小 Min
NO.12	-32	4.70	4.826	4.623
1/4	-32	5.60	5.689	5.487
5/16	-32	7.10	7.264	7.087
3/8	-32	8.70	8.864	8.662
7/16	-28	10.20	10.337	10.135
1/2	-28	11.80	11.938	11.710
9/16	-24	13.2	13.385	13.132
5/8	-24	14.80	14.968	14.732
3/4	-20	17.80	17.957	17.679
7/8	-20	21.00	21.132	20.854
1	-20	24.10	24.307	24.029

55°英制非密封管螺纹				
G (英制) PF(日韩)		标准径	底孔直径 Basic Hole	
			最大 Max	最小 Min
1/16	-28	6.7	6.843	6.561
1/8	-28	8.7	8.848	8.566
1/4	-19	11.7	11.890	11.445
3/8	-19	15.2	15.395	14.950
1/2	-14	19.0	19.172	18.631
5/8	-14	21.0	21.128	20.587
3/4	-14	24.5	24.658	24.117
7/8	-14	28.2	28.418	27.877
1	-11	30.6	30.931	30.291
1-1/8	-11	35.2	35.579	34.939
1-1/4	-11	39.2	39.592	38.952
1-1/2	-11	45.0	45.485	44.845
1-3/4	-11	51.0	51.428	50.788
2	-11	57.0	57.296	56.656

常见螺纹代号 Common thread codes	常见螺纹标注对应的刀片型号 Common threads indicate the corresponding blade model
包含 Rp:英制密封圆柱内螺纹 Rc:英制密封圆锥内螺纹 R1、R2:英制密封圆锥外螺纹 英制密封螺纹的配合方式: ① Rp/R1:柱 / 锥 配合 ② Rc/R2:锥 / 锥 配合	Rp:British sealed cylindrical internal thread. Rc:British sealing cone internal thread. R1/R2:British sealed cone external thread. The fitting method of British sealing thread: ①RP/R1: Column/cone fit ②Rc/R2: Cone/Cone Fit Rp 3/4"=PS 3/4" 推荐选用 16NR14W 的刀片 Rp 3/4"=PS 3/4" It is recommended to use a 16NR14W inserts. Rc 3/4"=PT 3/4" 推荐选用 16NR14BSPT 的刀片 Rc 3/4"=PT 3/4" 16NR14BSPT inserts are recommended. R1 和 R2 都选择 BSPT 系列刀片 Both R1 and R2 choose BSPT series inserts. PF 1"=G 1" 推荐选用 16ER11W(外) PF 1"=G 1" Recommended 16ER11W (Outside). 16NR11W(内) 的刀片 16NR11W (inner) inserts.
PF: 日本和韩国的旧英制非密封圆柱管螺纹 PF: Old imperial unsealed cylindrical pipe threads from Japan and Korea. PT: 日本和韩国的旧英制密封圆锥管螺纹 PT: Old imperial sealed conical pipe threads in Japan and Korea. PS: 日本和韩国的旧英制密封圆柱内螺纹 PS: Old imperial sealed cylindrical female threads in Japan and Korea. 日制密封螺纹的配合方式: ① PS/PT:柱 / 锥 配合 ② PT/PT:锥 / 锥 配合 How to fit the Japanese sealing thread: ①PS/PT: Column/cone fit ②PT/PT: Cone/Cone Fit	
G:英制非密封管螺纹 G: Imperial non-sealed pipe thread	
UN:美制统一螺纹 包含: UNC: 美制粗牙螺纹 UNF: 美制细牙螺纹 UNEF:美制超细牙螺纹 American unified thread Embody: UNC: American coarse thread UNF: American fine thread UNEF: American ultra-fine threads	UNC UNF UNEF 都使用 11、16ER/NR**UN 系列的刀片 UNC UNF UNEF use inserts from the 11 and 16ER/NR**UN series. UNC 1" 推荐选用 16ER8UN(外) 16NR9UN(内) 的刀片 UNC 1" recommended inserts of 16ER8UN (outer) and 16NR9UN (inner). UNF 1" 推荐选用 16ER12UN(外) 16NR12UN(内) 的刀片 UNF 1" recommends 16ER12UN (outer) and 16NR12UN (inner) inserts. UNEF 1" 推荐选用 16ER20UN(外) 16NR20UN(内) 的刀片 UNEF 1" recommended inserts with 16ER20UN (outer) and 16NR20UN (inner).
NPT:美制一般密封圆锥螺纹 NPSC:美制一般密封圆柱内螺纹 美制密封螺纹的配合方式: NPT/NPT: 锥 / 锥 配合 NPSC/NPT: 柱 / 锥配合 NPT: American general sealing tapered thread NPSC: American general seal cylindrical female thread How to fit the American seal thread: NPT/NPT: Cone/Cone Fit NPSC/NPT: Column/cone Fit	NPT 3/4" 推荐选用16ER14NPT(外) 16NR14NPT(内)的刀片 NPT 3/4" recommended blades with 16ER14NPT (outer) and 16NR14NPT (inner) inserts

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

ISO-60° 公制螺纹 - 外螺纹		ISO-60° Metric full profile-external																		
螺 距 (mm) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	全牙型刀片			
0.5	0.31	0.1	0.08	0.07	0.06													16ER0.50ISO		
0.75	0.46	0.16	0.14	0.1	0.06													16ER0.75ISO		
1.0	0.61	0.18	0.15	0.12	0.10	0.06												16ER1.00ISO		
1.25	0.77	0.19	0.17	0.14	0.11	0.1	0.06											16ER1.25ISO		
1.5	0.92	0.22	0.21	0.17	0.14	0.12	0.06											16ER1.50ISO		
1.75	1.07	0.22	0.21	0.16	0.13	0.11	0.09	0.09	0.06									16ER1.75ISO		
2.0	1.23	0.24	0.23	0.17	0.16	0.14	0.12	0.11	0.06									16ER2.00ISO		
2.5	1.53	0.26	0.23	0.19	0.17	0.15	0.13	0.12	0.11	0.11	0.06							16ER2.50ISO		
3.0	1.84	0.27	0.25	0.2	0.18	0.16	0.14	0.13	0.12	0.12	0.11	0.1	0.06					16ER3.00ISO		
3.5	2.15	0.33	0.3	0.24	0.21	0.18	0.17	0.15	0.14	0.14	0.12	0.11	0.06					16ER3.50ISO		
4.0	2.45	0.34	0.31	0.24	0.22	0.16	0.17	0.16	0.14	0.14	0.13	0.12	0.12	0.11	0.06			22ER4.00ISO		
4.5	2.76	0.38	0.34	0.28	0.24	0.22	0.2	0.18	0.16	0.16	0.15	0.14	0.13	0.12	0.06			22ER4.50ISO		
5.0	3.07	0.42	0.38	0.32	0.27	0.24	0.22	0.2	0.18	0.18	0.17	0.16	0.15	0.12	0.06			22ER5.00ISO		
5.5	3.37	0.44	0.40	0.34	0.30	0.25	0.2	0.22	0.19	0.18	0.17	0.16	0.16	0.14	0.08	...		22ER5.50ISO		
6.0	3.68	0.46	0.42	0.36	0.31	0.27	0.25	0.23	0.2	0.18	0.17	0.16	0.16	0.14	0.08	...		22ER6.00ISO		
8.0	4.91	0.48	0.45	0.41	0.38	0.36	0.30	0.30	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...		27VER8.00ISO		
10.0	6.13	0.48	0.45	0.41	0.38	0.36	0.33	0.30	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...				

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

ISO-60° 公制螺纹 - 内螺纹ISO-60° Metric full profile-internal																
螺距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.5	0.29	0.09	0.07	0.07	0.06											
0.75	0.43	0.15	0.13	0.09	0.06											
1.0	0.58	0.17	0.15	0.11	0.09	0.06										
1.25	0.72	0.18	0.16	0.12	0.11	0.09	0.06									
1.5	0.87	0.21	0.2	0.16	0.13	0.11	0.06									
1.75	1.01	0.21	0.2	0.15	0.12	0.1	0.09	0.08	0.06							
2.0	1.15	0.24	0.22	0.18	0.14	0.12	0.1	0.09	0.06							
2.5	1.44	0.25	0.24	0.21	0.15	0.13	0.12	0.1	0.09	0.09	0.06					
3.0	1.73	0.26	0.25	0.22	0.17	0.14	0.13	0.12	0.11	0.1	0.09	0.08	0.06			
3.5	2.02	0.32	0.3	0.23	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.1	0.06			
4.0	2.31	0.33	0.31	0.24	0.22	0.18	0.15	0.14	0.13	0.12	0.12	0.11	0.1	0.1	0.06	
4.5	2.60	0.36	0.33	0.28	0.24	0.21	0.19	0.16	0.15	0.14	0.13	0.13	0.12	0.11	0.06	
5.0	2.89	0.4	0.38	0.32	0.27	0.24	0.21	0.18	0.16	0.15	0.14	0.13	0.13	0.12	0.1	...
5.5	3.18	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.13	0.12	0.1	...
6.0	3.46	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.13	0.12	0.1	...
8.0	4.62	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...
10.0	5.77	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

UN-60° 美制螺纹 - 外螺纹UN-60° Full profile-external																
螺距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
32	0.49	0.17	1.15	0.11	0.06											
28	0.56	0.17	0.14	0.1	0.09	0.06										
24	0.65	0.18	0.16	0.14	0.11	0.06										
20	0.78	0.2	0.18	0.13	0.11	0.1	0.06									
18	0.87	0.22	0.2	0.15	0.13	0.11	0.06									
16	0.97	0.22	0.2	0.15	0.12	0.11	0.11	0.06								
14	1.11	0.23	0.21	0.16	0.13	0.11	0.11	0.10	0.06							
13	1.20	0.25	0.22	0.17	0.14	0.13	0.12	0.11	0.06							
12	1.30	0.28	0.23	0.18	0.16	0.14	0.13	0.12	0.06							
11	1.42	0.28	0.23	0.19	0.16	0.14	0.13	0.12	0.11	0.06						
10	1.56	0.28	0.24	0.19	0.16	0.14	0.13	0.13	0.12	0.11	0.06					
9	1.73	0.34	0.29	0.22	0.17	0.15	0.14	0.13	0.12	0.11	0.06					
8	1.95	0.35	0.3	0.24	0.19	0.16	0.15	0.14	0.13	0.12	0.11	0.06				
7	2.22	0.37	0.33	0.28	0.24	0.2	0.17	0.16	0.15	0.14	0.12	0.06				
6	2.60	0.42	0.35	0.29	0.25	0.21	0.18	0.17	0.16	0.15	0.12	0.11	0.06			
5	3.12	0.43	0.39	0.31	0.27	0.24	0.22	0.2	0.19	0.19	0.17	0.15	0.12	0.06		
4.5	3.46	0.46	0.39	0.35	0.33	0.30	0.27	0.24	0.2	0.19	0.17	0.15	0.12	0.11	0.1	...
4	3.9	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	0.10	...
3	5.19	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

UN-60° 美制螺纹 - 内螺纹 UN-60° Full profile-internal																	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
32	0.46	0.16	0.14	0.1	0.06												11NR32UN 16NR32UN
28	0.52	0.16	0.13	0.09	0.08	0.06											11NR28UN 16NR28UN
24	0.61	0.17	0.15	0.13	0.1	0.06											11NR24UN 16NR24UN
20	0.73	0.18	0.15	0.13	0.11	0.1	0.06										11NR20UN 16NR20UN
18	0.81	0.2	0.18	0.14	0.12	0.11	0.06										11NR18UN 16NR18UN
16	0.92	0.2	0.18	0.15	0.12	0.11	0.1	0.06									11NR16UN 16NR16UN
14	1.05	0.21	0.18	0.15	0.13	0.11	0.11	0.1	0.06								11NR14UN 16NR14UN
13	1.13	0.22	0.19	0.16	0.14	0.13	0.12	0.11	0.06								16NR13UN
12	1.22	0.24	0.22	0.18	0.16	0.13	0.12	0.11	0.06								16NR12UN
11	1.33	0.24	0.22	0.2	0.15	0.12	0.12	0.11	0.11	0.06							16NR11UN
10	1.47	0.25	0.22	0.21	0.14	0.13	0.12	0.12	0.11	0.11	0.06						16NR10UN
9	1.63	0.31	0.23	0.21	0.17	0.15	0.14	0.13	0.12	0.11	0.06						16NR9UN
8	1.83	0.31	0.26	0.21	0.18	0.16	0.15	0.14	0.13	0.12	0.11	0.06					16NR8UN
7	2.09	0.36	0.3	0.24	0.21	0.18	0.17	0.16	0.15	0.14	0.12	0.06					22NR7UN
6	2.44	0.4	0.33	0.25	0.23	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.11	0.06			22NR6UN
5	2.93	0.41	0.35	0.31	0.26	0.23	0.21	0.2	0.19	0.17	0.15	0.14	0.13	0.12	0.06		22NR5UN
4.5	3.26	0.43	0.39	0.35	0.33	0.3	0.27	0.24	0.2	0.19	0.17	0.15	0.12	0.11	0.1	...	22NR4.5UN
4	3.67	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	0.1	...	22NR4UN
3	4.89	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...	27VNR3UN

NPT-60°美制管螺纹 - 外螺纹和内螺纹 NPT-60° External & internal																	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
27	0.753	0.15	0.13	0.1	0.1	0.09	0.06										16ER27NPT 16NR27NPT
18	1.129	0.25	0.19	0.16	0.13	0.12	0.11	0.1	0.06								16ER18NPT 16NR18NPT
14	1.451	0.28	0.22	0.18	0.16	0.13	0.12	0.11	0.1	0.09	0.06						16ER14NPT 16NR14NPT
11.5	1.767	0.29	0.22	0.19	0.17	0.15	0.13	0.13	0.12	0.11	0.1	0.09	0.06				16ER11.5NPT 16NR11.5NPT
8	2.54	0.38	0.31	0.25	0.21	0.19	0.16	0.15	0.14	0.13	0.12	0.12	0.11	0.11	0.1	0.06	16ER8NPT 16NR8NPT

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

W-55°惠氏螺纹 - 外和內螺纹 W-55° Full profile-external & internal																	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
28	0.58	0.17	0.14	0.11	0.1	0.06											16ER28W 16NR28W
26	0.63	0.18	0.15	0.13	0.11	0.06											16ER26W 16NR26W
24	0.68	0.19	0.16	0.14	0.13	0.06											16ER24W 16NR24W
20	0.81	0.2	0.18	0.14	0.12	0.11	0.06										16ER20W 16NR20W
19	0.86	0.21	0.19	0.15	0.13	0.12	0.06										16ER19W 16NR19W
18	0.9	0.25	0.19	0.15	0.13	0.12	0.06										16ER18W 16NR18W
16	1.02	0.21	0.18	0.15	0.13	0.11	0.09	0.09	0.06								16ER16W 16NR16W
14	1.16	0.23	0.21	0.17	0.14	0.12	0.12	0.11	0.06								16ER14W 16NR14W
12	1.36	0.27	0.25	0.2	0.16	0.15	0.14	0.13	0.06								16ER12W 16NR12W
11	1.48	0.27	0.24	0.2	0.17	0.15	0.14	0.13	0.12	0.06							16ER11W 16NR11W
10	1.63	0.27	0.25	0.2	0.17	0.15	0.15	0.13	0.13	0.12	0.06						16ER10W 16NR10W
9	1.81	0.28	0.26	0.21	0.18	0.16	0.15	0.14	0.13	0.12	0.12	0.06					16ER9W 16NR9W
8	2.03	0.3	0.27	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.06				16ER8W 16NR8W
7	2.32	0.34	0.32	0.26	0.22	0.2	0.18	0.17	0.16	0.15	0.14	0.12	0.06				22ER7W 22NR7W
6	2.71	0.35	0.33	0.27	0.23	0.21	0.2	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.06		22ER6W 22NR6W
5	3.25	0.42	0.4	0.35	0.29	0.26	0.24	0.22	0.2	0.19	0.18	0.17	0.15	0.12	0.06		22ER5W 22NR5W
4.5	3.61	0.43	0.39	0.35	0.33	0.30	0.27	0.24	0.2	0.19	0.17	0.15	0.12	0.11	0.1	...	22ER4.5W 22NR4.5W
4	4.07	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	0.1	...	22ER4W 22NR4W
3	5.42	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...	22ER3W 22NR3W
2.5	6.51	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...	22ER2.5W 22NR2.5W

BSPT-55°英制管螺纹 - 外和內螺纹 BSPT-55° External & Internal																	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
28	0.58	0.17	0.14	0.11	0.1	0.06											16ER28BSPT 16NR28BSPT
19	0.86	0.22	0.19	0.15	0.12	0.12	0.06										16ER19BSPT 16NR19BSPT
14	1.16	0.24	0.2	0.17	0.14	0.12	0.12	0.11	0.06								16ER14BSPT 16NR14BSPT
11	1.48	0.25	0.23	0.21	0.18	0.16	0.14	0.13	0.12	0.06							16ER11BSPT 16NR11BSPT

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

TR-30° 梯形螺纹 - 外和内螺纹																	TR-30° External & internal	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	全牙型刀片	
1.0	0.73	0.2	0.17	0.13	0.1	0.07	0.06										16ER1.0TR	16NR1.0TR
1.5	0.98	0.24	0.21	0.18	0.16	0.13	0.06										16ER1.5TR	16NR1.5TR
2	1.38	0.28	0.25	0.21	0.17	0.14	0.12	0.12	0.06								16ER2.0TR	16NR2.0TR
2.5	1.63	0.29	0.26	0.22	0.18	0.15	0.13	0.12	0.12	0.1	0.06						16ER2.5TR	16NR2.5TR
3	1.88	0.32	0.31	0.24	0.19	0.18	0.17	0.15	0.13	0.13	0.06						16ER3.0TR	16NR3.0TR
4	2.38	0.33	0.32	0.24	0.22	0.21	0.18	0.16	0.15	0.14	0.13	0.12	0.12	0.06			22ER4.0TR	22NR4.0TR
5	2.88	0.36	0.33	0.28	0.25	0.23	0.21	0.19	0.19	0.17	0.15	0.14	0.13	0.11	0.08	0.06	22ER5.0TR	22NR5.0TR
6	3.75	0.43	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	0.11	0.08	...	22ER6.0TR	22NR6.0TR
7	4.25	0.43	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	0.11	0.08	...	27VER7.0TR	27VNR7.0TR
8	4.75	0.45	0.42	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	0.1	...	27VER8.0TR	27VNR8.0TR
9	5.25	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...	27VER9.0TR	27VNR9.0TR
10	5.75	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...	27VER10.0TR	27VNR10.0TR
12	6.75	0.48	0.45	0.41	0.38	0.36	0.33	0.3	0.27	0.24	0.21	0.19	0.17	0.15	0.12	...	27VER12.0TR	27VNR12.0TR

AMCE-29°美制梯形螺纹 - 外和内螺纹																	ACME-29° External & internal	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	全牙型刀片	
16	1.05	0.25	0.23	0.17	0.14	0.12	0.09	0.06									11ER16ACME	11NR16ACME
14	1.16	0.26	0.23	0.19	0.16	0.14	0.12	0.06									11ER14ACME	11NR14ACME
12	1.31	0.27	0.23	0.2	0.17	0.14	0.12	0.12	0.06								16ER12ACME	16NR12ACME
10	1.78	0.29	0.25	0.22	0.19	0.16	0.14	0.13	0.12	0.11	0.11	0.06					16ER10ACME	16NR10ACME
8	2.10	0.31	0.27	0.25	0.23	0.19	0.16	0.14	0.13	0.13	0.12	0.11	0.06				16ER8ACME	16NR8ACME
6	2.62	0.34	0.3	0.28	0.26	0.23	0.19	0.17	0.15	0.14	0.13	0.13	0.12	.011	0.06		22ER6ACME	22NR6ACME
5	3.05	0.38	0.35	0.32	0.29	0.25	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.06	22ER5ACME	22NR5ACME
4	3.68	0.4	0.36	0.33	0.3	0.26	0.23	0.2	0.18	0.17	0.16	0.15	0.14	0.13	0.12	...	22ER4ACME	22NR4ACME
3.5	4.14	0.4	0.36	0.33	0.3	0.26	0.23	0.2	0.18	0.17	0.16	0.15	0.14	0.13	0.12	...	27VER3.5ACME	27VNR3.5ACME
3	4.74	0.4	0.36	0.33	0.3	0.26	0.23	0.2	0.18	0.17	0.16	0.15	0.14	0.13	0.12	...	27VER3ACME	27VNR3ACME

螺纹刀片进刀量推荐值

Threading insert cutting times within definite depth for reference

STACME-29°美制梯形螺纹 - 外螺纹和内螺纹																	STACME-29° External & internal	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	全牙型刀片	
16	0.73	0.17	0.14	0.11	0.1	0.08	0.07	0.06									16ER16STACME	16NR16STACME
14	0.80	0.18	0.16	0.14	0.11	0.08	0.07	0.06									16ER14STACME	16NR14STACME
12	0.89	0.19	0.17	0.15	0.13	0.1	0.09	0.06									16ER12STACME	16NR12STACME
10	1.27	0.24	0.20	0.17	0.15	0.12	0.12	0.11	0.1	0.06							16ER10STACME	16NR10STACME
8	1.46	0.26	0.24	0.18	0.15	0.13	0.12	0.11	0.11	0.1	0.06						16ER8STACME	16NR8STACME
6	1.78	0.31	0.26	0.23	0.19	0.15	0.13	0.12	0.12	0.11	0.11	0.06					22ER6STACME	22NR6STACME
5	2.03	0.34	0.28	0.25	0.2	0.17	0.14	0.13	0.12	0.12	0.11	0.11	0.06				22ER5STACME	22NR5STACME
4	2.41	0.37	0.34	0.28	0.22	0.21	0.16	0.15	0.14	0.13	0.12	0.12	0.11	0.06			22ER4STACME	22NR4STACME
3	3.05	0.38	0.35	0.32	0.29	0.25	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.06	27VER3STACME	27VNR3STACME

RD-30°德标 DIN405 圆螺纹 - 外螺纹																	Round DIN405 -30° External	
螺 距 (TPI) Pitch	总切削深度 Cutting depth	加工步数 Cutting steps															适用刀片示例	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	全牙型刀片	
10	1.27	0.23	0.21	0.2	0.19	0.16	0.12	0.1	0.06								16ER10RD	
8	1.59	0.23	0.21	0.2	0.19	0.18	0.16	0.14	0.12	0.1	0.06						16ER8RD	
6	2.12	0.26	0.25	0.24	0.22	0.21	0.19	0.17	0.16	0.14	0.12	0.1	0.06				16ER6RD	
4	3.18	0.34	0.33	0.32	0.3	0.28	0.26	0.24	0.22	0.2	0.19	0.17	0.15	0.12	0.06		22ER4RD	



铣削系列

Milling Inserts



刀粒牌号说明

Inserts Grade Description

分类 Classify	牌 号 Model name	颜 色 Color	涂层 Coating	应用推荐 Model Features
P	YZ7015	灰黑色 Gray-black	PVD	钢件\铸件\不锈钢软硬通用款，对S136H, 718, NAK80, 难加工料耐磨，HRC50以内通用。 Steel parts, castings, stainless steel soft and hard universal models, wear-resistant to S136H, 718, NAK80, difficult-to-machine materials, and universal within HRC50.
	YZ7023	七彩 Colorful	PVD	适合加工钢、不锈钢、铸铁等材质，HRC42 以下，45 钢、A3 等软钢加工表现突出。 Suitable for processing steel, stainless steel, cast iron and other materials, HRC42 below, 45 steel, A3 and other mild steel processing performance is outstanding.
M	YZ7025	钴铜色 Cobalt copper	PVD	连续工况下不锈钢材料的半精车削加工的第一推荐牌号；对高温合金、钛合金加工有一定的优势。 The first recommended grade for semi-finishing turning of stainless steel materials under continuous working conditions; It has certain advantages for the processing of high-temperature alloys and titanium alloys.
	YZ7035	金黄色 Golden	PVD	主要适用于钢件、不锈钢材料的铣削加工。 Suitable for general steel, and stainless steel milling.
	YZ7125	钴铜色 Cobalt copper	PVD	微细颗粒搭配自己研发含Si涂层，使得刀片具有更高耐磨性和抗氧化性，应用于硬料、不锈钢加工，高速加工有着优秀的寿命表现和稳定性。 The combination of fine particles and our designed Si-Coating, can make the inserts with higher wear resistance and oxidation resistance, it is used for machining hard material and stainless steel. It has excellent life performance and stability during high speed processing. ent conditions.
	YZ7415	紫黑色 Purple-black	PVD	实现钢和不锈钢的稳定、长寿命铣削加工。 Stable and long-life milling of steel and stainless steel is realized.
H	YZH6010	黑色 Black	PVD	高硬度的低Co特殊基体，结合纳米梯度涂层。耐磨损性优良。主要用于耐热合金、高硬度材料、不锈钢的精加工、半精加工。 High hardness low Co special matrix, combined with nano gradient coating. Excellent abrasion resistance. It is mainly used for finishing and semi-finishing of heat-resistant alloys, high-hardness materials and stainless steel.
	YZH6025	钴铜色 Cobalt copper	PVD	低钴、细晶粒耐磨耐热基体。高能脉冲磁控溅射沉积的高硬涂层，更高的涂层附着力，并具有良好的耐磨、耐热性。适合高温合金钛合金车削、连续、稳定工况加工。 Low cobalt, fine grain wear-resistant and heat-resistant matrix. The high-hard coating deposited by high-energy pulsed magnetron sputtering has higher coating adhesion and good wear and heat resistance. It is suitable for high-temperature alloy titanium alloy turning, continuous and stable working conditions.
S	YZS5415	紫黑色 Purple-black	PVD	耐热性和强韧性优化的超细晶粒基体，耐磨损性、抗氧化性能良好的纳米多层涂层。耐热合金、钛合金通用加工首选牌号。 Ultra-fine grain matrix with optimized heat resistance and toughness, and nano-multilayer coating with good wear resistance and oxidation resistance. The preferred grade for general processing of heat-resistant alloy and titanium alloy.
N	YZK01	无涂层 Uncoated	PVD	用于铝、铜等有色金属材料、石墨、铸铁的车、铣加工。 It is used for turning and milling of non-ferrous metal materials such as aluminum and copper, graphite and cast iron.

硬质合金刀粒牌号说明
Product naming specifications

形状代号 Shape symbol		
A		O 
B		P 
C		R 
D		S 
E		T 
H		V 
K		W 
L		Z 其他
M		

后角代号 Rear angle symbol			
代号 Symbol	后角 Rear angle	代号 Symbol	后角 Rear angle
A		B	
C		D	
E		F	
G		N	
P		O	其他

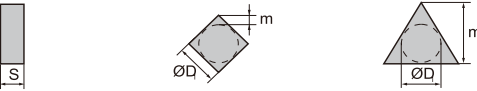
断屑槽及孔型代号							
代号 Symbol	孔 Hole	断屑槽 Chip breaker groove	截面示意图 Sectional schematic diagram	代号 Symbol	孔 Hole	断屑槽 Chip breaker groove	截面示意图 Sectional schematic diagram
B	有孔 Perforated	无断屑槽 No chip breaking groove		N	无孔 Unperforated	无断屑槽 No chip breaking groove	
H	有孔 Perforated	单面断屑槽 Single sided chip breaker groove		R	无孔 Unperforated	单面断屑槽 Single sided chip breaker groove	
C	有孔 Perforated	无断屑槽 No chip breaking groove		F	无孔 Unperforated	双面断屑槽 Double sided chip breaker groove	
J	有孔 Perforated	双面断屑槽 Double sided chip breaker groove		A	有孔 Perforated	无断屑槽 No chip breaking groove	
W	有孔 Perforated	无断屑槽 No chip breaking groove		M	有孔 Perforated	单面断屑槽 Single sided chip breaker groove	
T	有孔 Perforated	单面断屑槽 Single sided chip breaker groove		G	有孔 Perforated	双面断屑槽 Double sided chip breaker groove	
Q	有孔 Perforated	无断屑槽 No chip breaking groove		X			
U	有孔 Perforated	双面断屑槽 Double sided chip breaker groove					

A

P

M

T

公差代号 Tolerance Symbol									
									
代号 Symbol	刀尖高度 Blade tip height(m) 公差 Tolerance (mm)	内切圆 Inscribed circle 公差 Tolerance(µl.C)	厚度 Thickness 公差 Tolerance(mm)	内切圆 Inscribed circle	正三角形 Equilateral triangle	正方形 Square	80°菱形 80° Diamond	55°菱形 55° Diamond	35°菱形 35° Diamond
A	±0.005	±0.025	±0.025	6,35	±0.08	±0.08	±0.08	±0.11	±0.16
F	±0.005	±0.013	±0.025	9,525	±0.08	±0.08	±0.08	±0.11	±0.16
C	±0.013	±0.025	±0.025	12,7	±0.13	±0.13	±0.13	±0.15	...
H	±0.013	±0.013	±0.025	15,875	±0.15	±0.15	±0.15	±0.18	...
E	±0.025	±0.025	±0.025	19,05	±0.15	±0.15	±0.15	±0.18	...
G	±0.025	±0.025	±0.13	25,4	...	±0.18	...	...	...
J	±0.005	±0.05±0.13	±0.025	内切圆 Inscribed circle	正三角形 Equilateral triangle	正方形 Square	80°菱形 80° Diamond	55°菱形 55° Diamond	35°菱形 35° Diamond
K	±0.013	±0.05±0.13	±0.025	6,35	±0.05	±0.05	±0.05	±0.05	±0.05
L	±0.025	±0.05±0.13	±0.025	9,525	±0.05	±0.05	±0.05	±0.05	±0.05
M	±0.08±0.18	±0.05±0.13	±0.13	12,7	±0.08	±0.08	±0.08	±0.08	...
N	±0.08±0.18	±0.05±0.13	±0.025	15,875	±0.10	±0.10	±0.10	±0.10	...
и	±0.13±0.38	±0.08±0.25	±0.13	19,05	±0.10	±0.10	±0.10	±0.10	...
				25,4	...	±0.13	...	...	±0.13

切削刀长度代号
Cutting edge length code

C	D	S	T	R	V	W	IC d (MM)
03	04	03	06	03	-	02	3,97
04	05	04	08	04	08	S3	4,76
05	06	05	09	05	09	03	5,56
-	-	-	-	06	-	-	6,00
06	07	06	11	06	11	04	6,35
08	09	07	13	07	13	05	7,94
-	-	-	-	08	-	-	8,00
09	11	09	16	09	16	06	9,525
-	-	-	-	10	-	-	10,00
11	13	11	19	11	19	07	11,11
-	-	-	-	12	-	-	12,00
12	15	12	22	12	22	08	12,70
14	17	14	24	14	24	09	14,29
16	19	15	27	15	27	10	15,875
-	-	-	-	16	-	-	16,00
17	21	17	30	17	30	11	17,46
19	23	19	33	19	33	13	19,05
-	-	-	-	20	-	-	20,00
22	27	22	38	22	38	15	22,225
-	-	-	-	25	-	-	25,00
25	31	25	44	25	44	17	25,40
32	38	31	54	31	54	21	31,75
-	-	-	-	32	-	-	32,00

刀尖圆弧
Blade tip arc

A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	其他	F	25°
		G	30°
		N	0°
		P	11°
		Z	其他

断屑槽型
End scrap groove

16

04

PD

E

R

SF

刀片厚度 Thickness	
代号 Symbol	MM
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	5,95
06	6,35
T6	6,75
07	7,94
09	9,52
T9	9,72
11	11,11
12	12,70

刃口类型代号			
 F			 K (或无标记)
	0-5°	0-0.10	
	1-10°	1-0.15	
	2-15°	2-0.20	
	3-20°	3-0.25	
 E	4-25°	4-0.30	 P
	5-30°	5-0.35	
	1-10°	6-0.40	
 T	1-10°	7-0.45	 W
 S			 Q

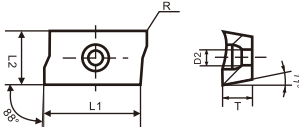
切削方向代号	
代号 Symbol	切削方向
R	右向
L	左向
N	双向

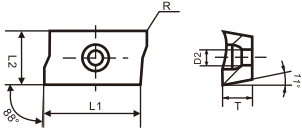
铣削刀片牌号推荐一览表
List of recommended grades for milling inserts

分类	ISO	CVD	PVD	Uncoated
P	01			
	10		YZ7015	
	20		YZ7023	
	30		YZ7025	
	40		YZ7035	
M	50		YZ7125	
	01			
	10		YZ7015	
	20		YZ7023	
	30		YZ7025	
K	40		YZ7035	
	50		YZ7125	
	01		YZ7415	
	10			
	20			
N	30			
	40			
	50			
	01			YZK01
	10			
S	20			
	30			
	40			
	50			
H	01			
	10			
	20		YZH6010	
	30		YZH6025	
	40			
	50			

方肩铣削刀片
Shoulder Milling Inserts

AP□□

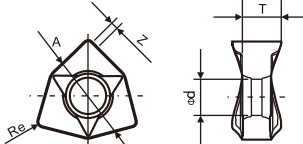
钢 Steel	P	●	●	●	●	●	●			●	●							
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●										
铸铁 Cast Iron	K	●	○															
有色金属 Non-ferrous metal	N								●									
耐热钢 Heat-resistant alloy	S			●		●	●	●										
硬化钢 Hardened Steel	H									●	●	尺寸 Size					加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	L1	L2	T	φd	Re	切深 ap (mm)	进给 feed (mm/齿)
	APMT1135PDER-GM	●		●								11.35	6.2	3.5	2.8	0.8	2.50-7.50	0.05-0.25
	APMT1604PDER-GM	●		●								17.35	9.2	4.76	4.4	0.8	3.50-10.0	0.07-0.50
	APMT1135PDER-H	●		●			●					11.35	6.2	3.5	2.8	0.8	2.50-7.50	0.05-0.25
	APMT1604PDER-H	●		●			●					17.35	9.2	4.76	4.4	0.8	3.50-10.0	0.07-0.50
	APMT1135PDER-H	●	●	●		●	●					11.35	6.2	3.5	2.8	0.8	2.50-7.50	0.05-0.25
	APMT1604PDER-H	●	●	●		●	●					17.35	9.2	4.76	4.4	0.8	3.50-10.0	0.07-0.50
	APMT1135PDER-SF							●				11.35	6.2	3.5	2.8	0.8	2.50-7.50	0.05-0.25
	APMT1604PDER-SF							●				17.35	9.2	4.76	4.4	0.8	3.50-10.0	0.07-0.50
	APMT1135PDER-XY				●	●						11.35	6.2	3.5	2.8	0.8	2.50-7.50	0.05-0.25
	APMT1604PDER-XY				●	●						17.35	9.2	4.76	4.4	0.8	3.50-10.0	0.07-0.50
	APGT1135PDFR-G								●			11.35	6.2	3.5	2.8	0.8	2.50-7.50	0.05-0.25
	APGT1604PDFR-G								●			17.35	9.2	4.76	4.4	0.8	3.50-10.0	0.07-0.50

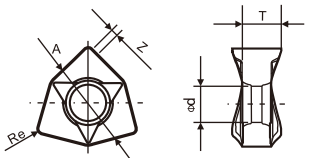


方肩铣削刀片
Shoulder Milling Inserts

WN□□

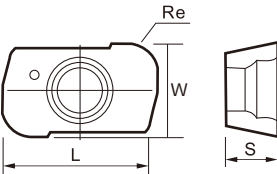
钢 Steel	P	●	●	●	●	●	●			●	●							
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●										
铸铁 Cast Iron	K	●	○															
有色金属 Non-ferrous metal	N								●									
耐热钢 Heat-resistant alloy	S			●		●	●	●										
硬化钢 Hardened Steel	H									●	●							
												尺寸 Size					加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	A	T	ad	Z	Re	切深 ap (mm)	进给 feed (mm/齿)
	WNMU040304EN-R	●		●								6.75	3.18	3.18	0.6	0.4	0.50-5.00	0.05-0.50
	WNMU080608EN-R	●		●								14.02	6.65	6.2	1.3	0.8	0.80-8.00	0.10-0.70
	WNMU050408EN-GM	●		●			●					6.75	4.20	3.18	0.6	0.8	0.50-5.00	0.05-0.45
	WNMU080608EN-GM	●		●			●					14.02	6.65	6.2	1.3	0.8	0.80-8.00	0.10-0.70

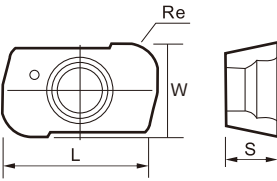




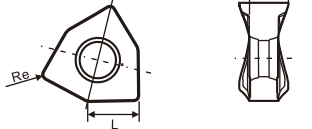
方肩铣削刀片
Shoulder Milling Inserts

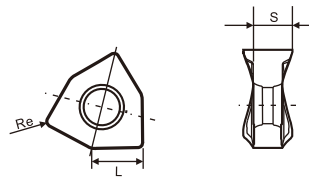
LP□□

钢 Steel	P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●									
铸铁 Cast Iron	K	●	○														
有色金属 Non-ferrous metal	N								●								
耐热钢 Heat-resistant alloy	S			●		●	●	●									
硬化钢 Hardened Steel	H									●	●						
		尺寸 Size										加工参数 Machining Parameters					
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	W	S	L	Re	切深 ap (mm)	进给 feed (mm/齿)
	LPHW060304ZER	●	●	●								6.35	3.18	10.0	0.4	0.50-4.00	0.05-0.50
	LPHW060308ZER	●	●	●		●						6.35	3.18	10.0	0.8	0.50-4.00	0.05-0.50
	YPHW100308ZER-15	●		●						●		6.0	3.35	10.0	0.8	1.00-3.00	0.20-1.20

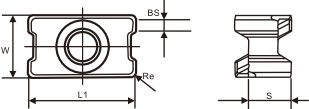


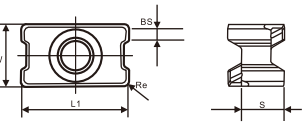
WN□□

钢 Steel		P	●	●	●	●	●	●			●	●					
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●								
铸铁 Cast Iron		K	●	○													
有色金属 Non-ferrous metal		N								●							
耐热钢 Heat-resistant alloy		S			●		●	●	●								
硬化钢 Hardened Steel		H									●	●	尺寸 Size				
													加工参数 Machining Parameters				
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	W	L	S	Re	切深 ap(mm)	进给 feed (mm/齿)
	WNEX080608TR-GL	●		●			●					8.00	7.50	6.45	0.8	0.80-4.00	0.10-0.30
	WNEX080612TR-GL	●		●			●					8.00	7.50	6.45	1.2	0.80-4.00	0.10-0.30
	WNEX080608TR-GM	●		●			●					8.00	7.50	6.45	0.8	0.80-4.00	0.10-0.30



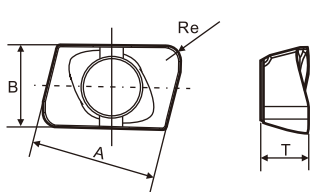
LN□□

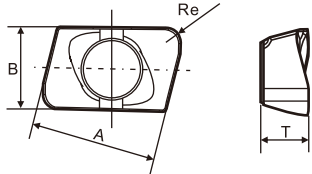
钢 Steel	P	●	●	●	●	●	●			●	●							
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●										
铸铁 Cast Iron	K	●	○															
有色金属 Non-ferrous metal	N								●									
耐热钢 Heat-resistant alloy	S			●		●	●	●										
硬化钢 Hardened Steel	H									●	●	尺寸 Size					加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	L1	S	W	Bs	Re	切深 ap(mm)	进给 feed (mm/齿)
	LNGX110408ERGE-GM	●	●	●			●					12.16	4.83	6.60	1.00	0.8	apmax=10	0.50-1.50
	LNGX110412ERGE-GM	●	●	●			●					12.16	4.83	6.60	1.00	1.2	apmax=10	0.50-1.50



方肩铣削刀片
Shoulder Milling Inserts

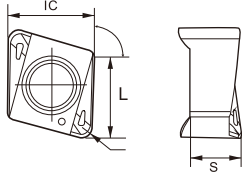
YD □ □

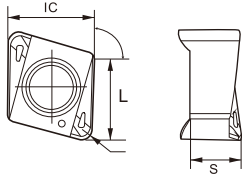
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不锈钢 Stainless Steel		M	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○													
有色金属 Non-ferrous metal		N							●								
耐热钢 Heat-resistant alloy		S			●		●	●	●								
硬化钢 Hardened Steel		H								●	●	尺寸 Size				加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	A	B	Re	T	切深 ap (mm)	进给 feed (mm/齿)
	YDMT070204R	●		●		●						6.4	4.30	0.40	2.45	0.50-4.00	0.05-1.30
	YDMT070208R	●		●		●						6.4	4.30	0.80	2.45	0.50-4.00	0.05-1.30
	YDMT100304R	●		●								11	6.10	0.40	3.50	0.50-4.00	0.05-1.30
	YDMT100308R	●		●								11	6.10	0.80	3.50	0.50-4.00	0.05-1.30
	YDMT100320R	●		●								11	6.10	2.00	3.50	0.50-4.00	0.05-1.30
	YDMT150504R	●		●								16	9.12	0.40	5.00	1.00-4.00	0.05-1.30
	YDMT150508R	●		●								16	9.12	0.80	5.00	1.00-4.00	0.05-1.30
	YDMT150520R	●		●								16	9.12	2.00	5.00	1.00-4.00	0.05-1.30



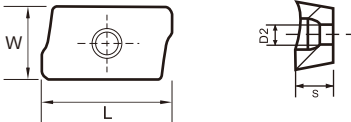
方肩铣削刀片
Shoulder Milling Inserts

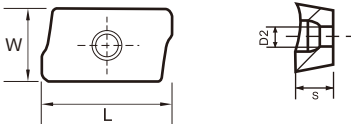
AN □ □

钢 Steel		P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○														
有色金属 Non-ferrous metal		N								●								
耐热钢 Heat-resistant alloy		S			●		●	●	●									
硬化钢 Hardened Steel		H									●	●						
		尺寸 Size											加工参数 Machining Parameters					
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	IC	S	L	ed	Re	切深 ap (mm)	进给 feed (mm/齿)
	ANKT060304R-M	●		●								6.60	4.20	5.80	1.3	0.4	0.50-5.00	0.07-0.15
	ANKT060308R-M	●		●								6.60	4.20	5.80	0.6	0.8	1.00-5.00	0.07-0.15
	ANKT060312R-M	●		●								6.60	4.20	5.80	1.3	1.2	1.00-5.00	0.07-0.15
	ANKT060316R-M	●		●								6.60	4.20	5.80	0.6	1.6	2.00-4.50	0.07-0.15
	ANKT060320R-M	●		●								6.60	4.20	5.80	1.3	2.0	2.00-4.50	0.07-0.15
	ANKT090408R-M	●		●								8.60	5.70	8.00	0.6	0.8	2.50-7.00	0.07-0.15
	ANKT090416R-M	●		●								8.60	5.70	8.00	1.3	1.6	2.50-7.00	0.07-0.15



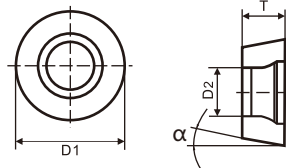
LD □ □

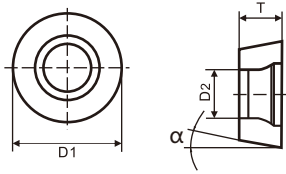
钢 Steel		P	●	●	●	●	●	●		●	●						
不锈钢 Stainless Steel		M	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○													
有色金属 Non-ferrous metal		N							●								
耐热钢 Heat-resistant alloy		S			●		●	●	●								
硬化钢 Hardened Steel		H								●	●	尺寸 Size				加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	W	L	S	Re	切深 ap (mm)	进给 feed (mm/齿)
	LDMT11T304R-M	●		●								6.7	11.0	3.80	0.4	0.60-9.00	0.10-0.20
	LDMT11T308R-M	●		●								6.7	11.0	3.80	0.8	1.20-9.00	0.10-0.20
	LDMT11T312R-M	●		●								6.7	11.0	3.80	1.2	1.60-9.00	0.13-0.25
	LDMT11T316R-M	●		●								6.7	11.0	3.80	1.6	2.00-9.00	0.13-0.25
	LDMT11T320R-M	●		●								6.7	11.0	3.80	2.0	2.40-9.00	0.15-0.30



仿形铣削刀片
Profiling Milling Inserts

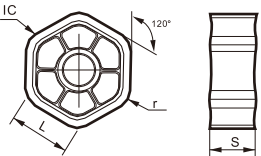
RD□□ RP□□

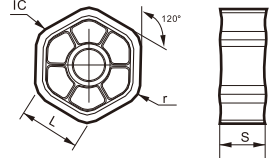
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不锈钢 Stainless Steel		M	●	●	●	●	●	●	●												
铸铁 Cast Iron		K	●	○																	
有色金属 Non-ferrous metal		N								●											
耐热钢 Heat-resistant alloy		S			●		●	●	●												
硬化钢 Hardened Steel		H								●	●	尺寸 Size				加工参数 Machining Parameters					
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	D1	T	D2	α	切深 aP (mm)	进给 feed (mm/齿)				
	RDMT0802MO-TN	●		●		●						8.00	2.58	3.4	15	1.00-3.00	0.05-0.25				
	RDMT10T3MO-TN	●		●		●				●		10.00	3.97	4.4	15	1.50-4.00	0.05-0.30				
	RDMT1204MO-TN	●		●		●				●		12.00	4.76	4.4	15	1.50-5.00	0.05-0.35				
	RDMT1604MO-TN	●		●								16.00	4.76	5.5	15	2.00-6.50	0.10-0.40				
	RPMW08T2MO	●		●		●						8.00	2.78	3.4	11	1.00-3.00	0.05-0.25				
	RPMW1003MO	●		●		●						10.00	3.18	4.4	11	1.50-4.00	0.05-0.30				
	RPMW1204MO	●		●		●						12.00	4.76	4.4	11	1.50-5.00	0.05-0.35				
	RDMW10T3MO	●		●								10.00	4.76	4.4	15	1.50-4.00	0.05-0.30				
	RDMW1204MO	●		●								10.00	4.76	4.4	15	1.50-5.00	0.05-0.35				
	RPMT08T2MOE-JS	●	●	●		●	●					8.00	2.58	3.4	11	1.00-1.30	0.05-0.25				
	RPMT10T3MOE-JS	●	●	●		●	●					10.00	3.97	4.4	11	1.50-4.00	0.05-0.30				
	RPMT1204MOE-JS	●	●	●		●	●					12.00	4.76	4.4	11	1.50-5.00	0.05-0.35				
	RDMT10T3MOE	●		●						●		10.00	3.97	4.4	15	1.50-4.00	0.05-0.30				
	RDMT1204MOE	●		●						●		12.00	4.76	4.4	15	1.50-5.00	0.05-0.35				
	RDMT1604MOE	●		●								16.00	4.76	5.5	15	2.00-6.50	0.10-0.40				
	RPMW1003MO-T	●		●	●	●						10.00	3.18	4.4	11	1.50-4.00	0.05-0.30				
	RPMT1204MO-T	●		●	●	●						12.00	4.76	4.4	11	1.50-5.00	0.05-0.35				
	RPHX10T3-SM							●				10.00	3.97	4.4	11	1.50-4.00	0.05-0.30				
	RPHX1204-SM							●				12.00	4.76	4.4	11	1.50-5.00	0.05-0.35				
	RPGT08T2MO-AK								●			8.00	2.58	3.4	11	1.00-3.00	0.05-0.25				
	RPGT1003MO-AK								●			10.00	3.97	4.4	11	1.50-4.00	0.05-0.30				
	RPGT1204MO-AK								●			12.00	4.76	4.4	11	1.50-5.00	0.05-0.35				



平面铣削刀片
Face Milling Inserts

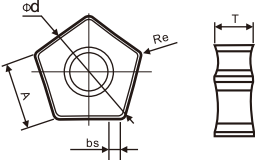
ON□□

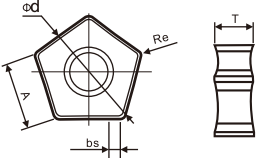
钢 Steel		P	●	●	●	●	●	●	●	●	●								
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●	●	●								
铸铁 Cast Iron		K	●	○															
有色金属 Non-ferrous metal		N								●									
耐热钢 Heat-resistant alloy		S			●		●	●	●										
硬化钢 Hardened Steel		H								●	●	尺寸 Size				加工参数 Machining Parameters			
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	L	IC	S	Re	切深 ap (mm)	进给 feed (mm/齿)		
	ONMG0907ANSN-R	●		●								9.00	15.875	5.56	1.2	1.50-4.00	0.20-0.70		



平面铣削刀片
Face Milling Inserts

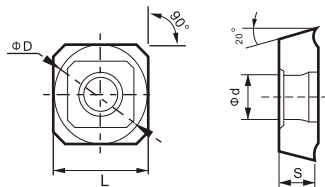
ON□□

钢 Steel		P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○														
有色金属 Non-ferrous metal		N								●								
耐热钢 Heat-resistant alloy		S			●		●	●	●									
硬化钢 Hardened Steel		H								●	●	尺寸 Size					加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	A	T	ød	bs	Re	切深 ap (mm)	进给 feed (mm/齿)
	PNMX090508ENER-GM	●		●		●	●					8.90	6.00	12.20	1.4	0.8	0.50-3.00	0.20-0.60
	PNKU0905GNEN-SM	●		●								8.90	6.00	12.20	2.0	0.8	0.50-3.00	0.20-0.60



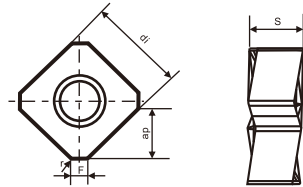
平面铣削刀片
Face Milling Inserts

SE□□

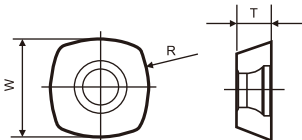
钢 Steel	P	●	●	●	●	●	●			●	●							
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●										
铸铁 Cast Iron	K	●	○															
有色金属 Non-ferrous metal	N								●									
耐热钢 Heat-resistant alloy	S			●		●	●	●										
硬化钢 Hardened Steel	H									●	●	尺寸 Size				加工参数 Machining Parameters		
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	L	IC	S	φd	Re	切深 ap (mm)	进给 feed (mm/齿)
	SEMT13T3AGSN-GM	●		●								13.40	13.40	3.97	4.30	2.45	0.10-2.40	0.03-0.20
	SEKT1204AFTN	●		●		●						12.70	12.70	4.76	5.16	2.00	0.10-2.40	0.03-0.20

平面铣削刀片
Face Milling Inserts

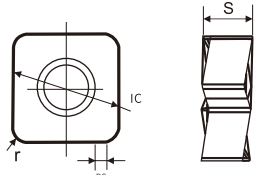
SN□□

钢 Steel	P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●									
铸铁 Cast Iron	K	●	○														
有色金属 Non-ferrous metal	N								●								
耐热钢 Heat-resistant alloy	S			●		●	●	●									
硬化钢 Hardened Steel	H									●	●	尺寸 Size				加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	di	S	F	Re	切深 ap (mm)	进给 feed (mm/齿)
	SNMU1305ANR-MT	●	●	●								13.00	6.5	3.0	0.8	0.10-2.40	0.03-0.20
	SNMX1205ANN-GM	●		●								12.00	6.4	1.5	0.8	1.00-6.00	0.15-0.50
	SNMX1606ANN-GM	●		●								16.00	7.7	1.8	0.8	1.00-6.00	0.15-0.50

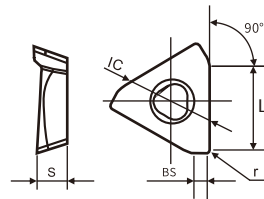
SD□□

钢 Steel		P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○														
有色金属 Non-ferrous metal		N								●								
耐热钢 Heat-resistant alloy		S			●		●	●	●									
硬化钢 Hardened Steel		H									●	●	尺寸 Size			加工参数 Machining Parameters		
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	R	T	W	φd	Re	切深 ap (mm)	进给 feed (mm/齿)
	SDMT120412-GM	●		●		●						15.00	5.56	12.7	4.40	1.20	0.10-2.40	0.03-0.20
	SDMT150520-GM	●		●		●						15.00	5.56	15.875	5.50	2.00	0.10-2.40	0.03-0.20

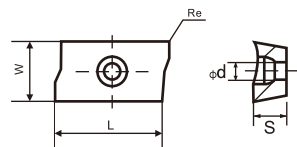
SN□□

钢 Steel	P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●									
铸铁 Cast Iron	K	●	○														
有色金属 Non-ferrous metal	N									●							
耐热钢 Heat-resistant alloy	S			●		●	●	●									
硬化钢 Hardened Steel	H									●	●	尺寸 Size				加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	L	IC	S	Re	切深 ap (mm)	进给 feed (mm/齿)
	SNMU130508EN-GM	●		●								9.00	9.525	5.5	0.8	2.50-7.50	0.08-0.15

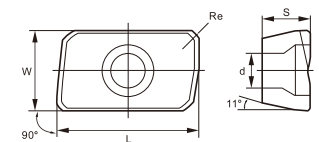
平面铣削刀片

TP ☐ ☐[illegible]

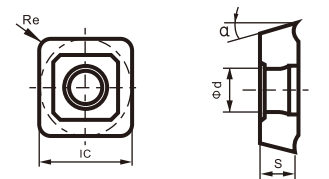
快进给铣削刀片

AP ☐ ☐[illegible]

快进给铣削刀片

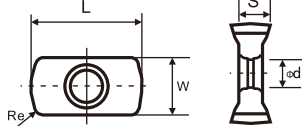
R390 ☐ ☐[illegible]

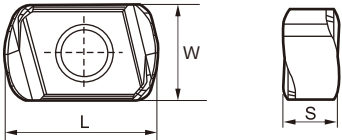
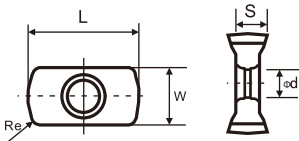
so ☐ ☐

[illegible]

快进给铣削刀片
Hi-feed to Milling Inserts

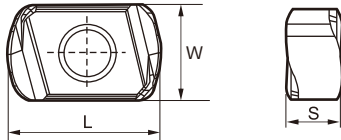
YN□□

钢 Steel		P	●	●	●	●	●	●	●	●	●										
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●	●	●										
铸铁 Cast Iron		K	●	○																	
有色金属 Non-ferrous metal		N								●											
耐热钢 Heat-resistant alloy		S			●		●	●	●												
硬化钢 Hardened Steel		H								●	●	尺寸 Size					加工参数 Machining Parameters				
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	W	S	φd	L	Re	切深 ap (mm)	进给 feed (mm/齿)			
	YNMU0303ZER-GM	●		●			●					6.00	3.75	2.85	11.90	1.20	0.20-2.00	0.20-1.20			
	YNMU0303ZER-MZ	●		●		●						6.00	3.75	2.85	11.90	1.20	0.20-2.00	0.20-1.20			
	YNMU0303ZER-MS							●				6.00	3.75	2.85	11.90	1.20	0.20-2.00	0.20-1.20			



快进给铣削刀片
Hi-feed to Milling Inserts

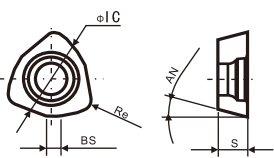
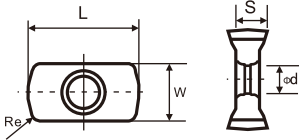
YN□□

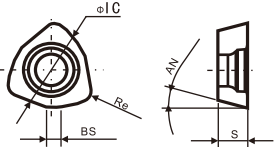
钢 Steel		P	●	●	●	●	●	●		●	●						
不锈钢 Stainless Steel		M	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○													
有色金属 Non-ferrous metal		N							●								
耐热钢 Heat-resistant alloy		S			●		●	●	●								
硬化钢 Hardened Steel		H								●	●						
												尺寸 Size				加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	L	W	S	Re	切深 ap (mm)	进给 feed (mm/齿)
	YNMU100412ZER-PM	●		●								10.0	6.0	4.0	1.2	0.20-1.00	0.20-1.20
	YNMU100412ZER-SM	●										10.0	6.0	4.0	1.2	0.20-1.00	0.20-1.20

快进给铣削刀片
Hi-feed to Milling Inserts

WD□□

钢 Steel	P	●	●	●	●	●	●			●	●							
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●										
铸铁 Cast Iron	K	●	○															
有色金属 Non-ferrous metal	N								●									
耐热钢 Heat-resistant alloy	S			●		●	●	●										
硬化钢 Hardened Steel	H									●	●	尺寸 Size				加工参数 Machining Parameters		
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	W	S	ϕd	L	Re	切深 ap(mm)	进给 feed (mm/齿)
	YNGU0303ZER-GM	●		●			●					6.20	3.96	3.45	11.90	1.00	0.20-3.5	0.20-1.20



钢 Steel		P	●	●	●	●	●	●			●	●						
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●									
铸铁 Cast Iron		K	●	○														
有色金属 Non-ferrous metal		N								●								
耐热钢 Heat-resistant alloy		S			●		●	●	●									
硬化钢 Hardened Steel		H									●	●	尺寸 Size				加工参数 Machining Parameters	
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	φIC	S	BS	Re	切深 ap (mm)	进给 feed (mm/齿)	
	WDMW06T320ZTR	●		●								10.00	3.97	1.20	2.00	1.00-2.50	0.05-0.20	
	WDMW080520ZTR	●		●								13.00	5.50	1.50	2.00	1.00-2.50	0.05-0.20	
	WDMW10x620ZTR	●		●								16.00	6.00	2.00	2.00	1.00-2.50	0.05-0.20	

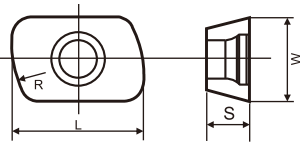


快进给铣削刀片

Hi-feed to Milling Inserts

LP □ □

钢 Steel	P	●	●	●	●	●	●			●	●
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●			
铸铁 Cast Iron	K	●	○								
有色金属 Non-ferrous metal	N								●		
耐热钢 Heat-resistant alloy	S			●		●	●	●			
硬化钢 Hardened Steel	H									●	●
		尺寸 Size									
		加工参数 Machining Parameters									
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025
		W	L	S	φd	Re	切深 ap (mm)	进给 feed (mm/齿)			
	LPMT0603TN	●		●							
		6.28	9.79	3.18	2.8	1.6	1.00-4.00	0.15-0.50			
	LPNW0603TN-8	●		●							
		6.28	9.79	3.18	2.8	1.6	1.00-4.00	0.15-0.50			

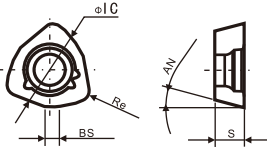


快进给铣削刀片

Hi-feed to Milling Inserts

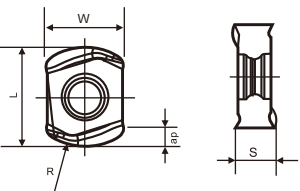
QD □ □

钢 Steel	P	●	●	●	●	●	●			●	●
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●			
铸铁 Cast Iron	K	●	○								
有色金属 Non-ferrous metal	N								●		
耐热钢 Heat-resistant alloy	S			●		●	●	●			
硬化钢 Hardened Steel	H									●	●
		尺寸 Size									
		加工参数 Machining Parameters									
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025
		IC	S	Bs	Re	AN	切深 ap (mm)	进给 feed (mm/齿)			
	QDMW09T320SR-FT	●		●							
		9.53	3.97	1.80	2.00	15	1.00-4.00	0.20-0.50			
	QDMW120420SR-FT	●		●							
		12.00	4.76	2.50	2.00	15	1.00-4.00	0.20-0.50			
	QDMW140520SR-FT	●		●							
		14.00	5.56	2.80	2.00	15	1.00-4.00	0.20-0.50			



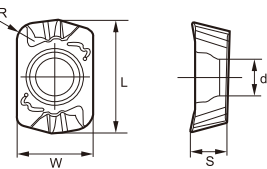
AN □ □

钢 Steel	P	●	●	●	●	●	●			●	●
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●			
铸铁 Cast Iron	K	●	○								
有色金属 Non-ferrous metal	N								●		
耐热钢 Heat-resistant alloy	S			●		●	●	●			
硬化钢 Hardened Steel	H									●	●
		尺寸 Size									
		加工参数 Machining Parameters									
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025
		L	W	S	Re	切深 ap (mm)	进给 feed (mm/齿)				
	ANMP0603R-M	●		●		●	●				
		9.00	6.39	3.73	1.00	0.10-1.00	0.30-2.50				
	ANMP0904R-M	●		●		●	●				
		11.90	9.18	4.80	1.50	0.10-1.50	0.30-3.50				



YP □ □

钢 Steel	P	●	●	●	●	●	●			●	●
不锈钢 Stainless Steel	M	●	●	●	●	●	●	●			
铸铁 Cast Iron	K	●	○								
有色金属 Non-ferrous metal	N								●		
耐热钢 Heat-resistant alloy	S			●		●	●	●			
硬化钢 Hardened Steel	H									●	●
		尺寸 Size									
		加工参数 Machining Parameters									
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025
		W	S	φd	L	Re	切深 ap (mm)	进给 feed (mm/齿)			
	YPGT010210ER-GM	●		●			●				
		4.19	2.19	2.10	6.26	1.0	0.01-0.15	0.01-0.03			



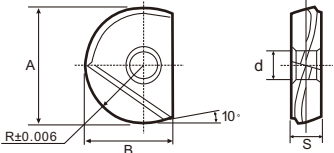


球头精铣刀片

Semicircular finishing milling insert

BNM□□□

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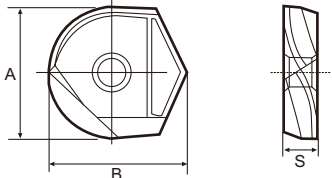


球头精铣刀片

Semicircular finishing milling insert

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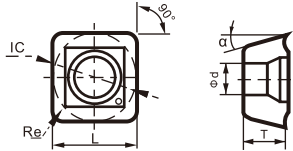




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U Drill Inserts

SP□□

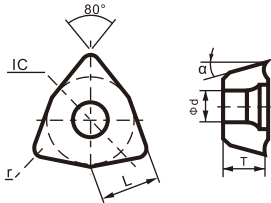
钢 Steel		P	●	●	●	●	●	●			●	●
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●			
铸铁 Cast Iron		K	●	○								
有色金属 Non-ferrous metal		N								●		
耐热钢 Heat-resistant alloy		S			●		●	●	●			
硬化钢 Hardened Steel		H									●	●
		尺寸 Size										加工参数 Machining Parameters
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	加工孔径范围 Machining aperture range (mm)
		L	IC	T	φd	Re						
	SPMG050204-M	●		●								5.00 5.00 2.38 2.25 0.4 12.5-15.0
	SPMG060204-M	●		●								6.00 6.00 2.38 2.61 0.4 15.5-21.5
	SPMG07T308-M	●		●								7.94 7.94 3.97 2.85 0.8 22.0-27.5
	SPMG090408-M	●		●								9.80 9.80 4.3 4.05 0.8 28.0-33.0
	SPMG110408-M	●		●								11.5 11.5 4.8 4.45 0.8 34.0-41.0
	SPMG050204-GM	●		●			●					5.00 5.00 2.38 2.25 0.4 12.5-15.0
	SPMG060204-GM	●		●			●					6.00 6.00 2.38 2.61 0.4 15.5-21.5
	SPMG07T308-GM	●		●			●					7.94 7.94 3.97 2.85 0.8 22.0-27.5
	SPMG090408-GM	●		●			●					9.80 9.80 4.3 4.05 0.8 28.0-33.0
	SPMG110408-GM	●		●			●					11.5 11.5 4.8 4.45 0.8 34.0-41.0



U钻刀片
U Drill Inserts

WC□□

钢 Steel		P	●	●	●	●	●	●			●	●
不锈钢 Stainless Steel		M	●	●	●	●	●	●	●			
铸铁 Cast Iron		K	●	○								
有色金属 Non-ferrous metal		N								●		
耐热钢 Heat-resistant alloy		S			●		●	●	●			
硬化钢 Hardened Steel		H									●	●
		尺寸 Size										加工参数 Machining Parameters
形状 Shape	规格 Specification	YZ7015	YZ7023	YZ7025	YZ7035	YZ7125	YZ7415	YZS5415	YZK01	YZH6010	YZH6025	加工孔径范围 Machining aperture range (mm)
		L	IC	T	φd	Re						
	WCMX030204	●		●								5.56 2.38 3.8 2.8 0.4 16.0-20.0
	WCMX030208	●		●								5.56 2.38 3.8 2.8 0.8 16.0-20.0
	WCMX040204	●		●								6.35 2.38 4.3 3 0.4 21.0-25.0
	WCMX040208	●		●								6.35 2.38 4.3 3 0.8 21.0-25.0
	WCMX050308	●		●								7.94 3.18 5.4 3.4 0.8 26.0-30.0
	WCMX06T308	●		●								9.525 3.97 6.5 3.8 0.8 31.0-41.0
	WCMX080412	●		●								12.7 4.76 8.7 4.4 1.2 42.0-58.0
	WCMX030204-GM	●		●			●					5.56 2.38 3.8 2.8 0.4 16.0-20.0
	WCMX030208-GM	●		●			●					5.56 2.38 3.8 2.8 0.8 16.0-20.0
	WCMX040204-GM	●		●			●					6.35 2.38 4.3 3 0.4 21.0-25.0
	WCMX040208-GM	●		●			●					6.35 2.38 4.3 3 0.8 21.0-25.0
	WCMX050308-GM	●		●			●					7.94 3.18 5.4 3.4 0.8 26.0-30.0
	WCMX06T308-GM	●		●			●					9.525 3.97 6.5 3.8 0.8 31.0-41.0
	WCMX080412-GM	●		●			●					12.7 4.76 8.7 4.4 1.2 42.0-58.0

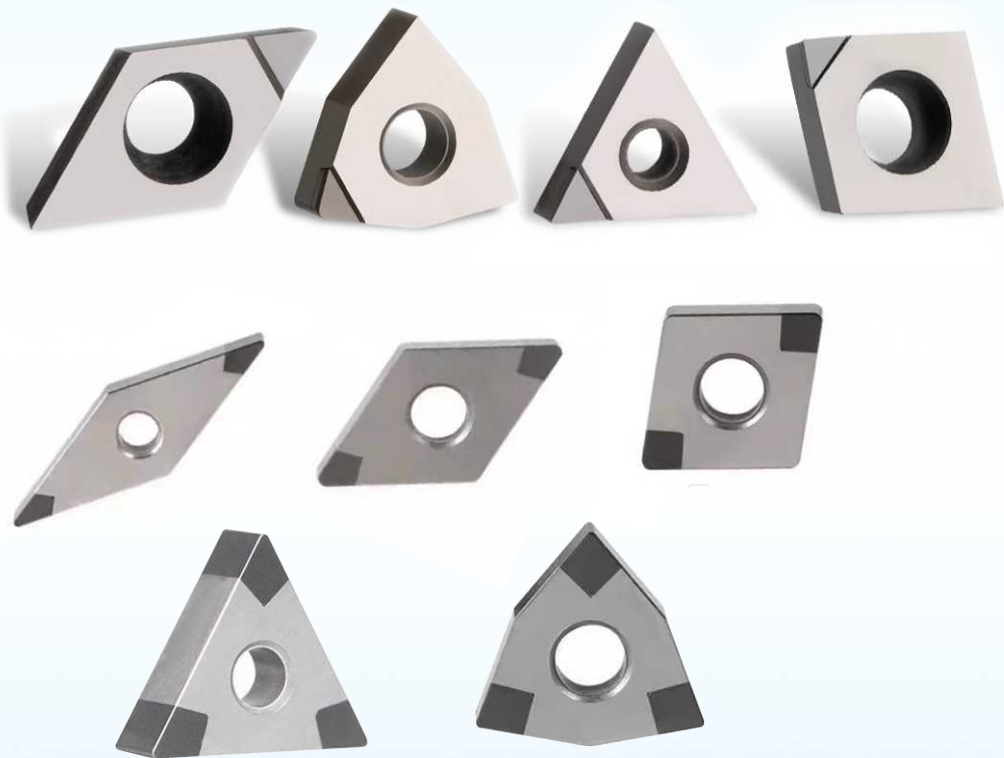


C 钻削刀片
Drilling Inserts

C 钻削刀片
Drilling Inserts



PCD CBN
Inserts



PCD CBN Inserts

PCD/PCBN刀具加工公式和加工参数推荐

车削

计算公式

- ▶ 切削速度: m/分钟
- ▶ 主轴转速: rpm
- ▶ $V_c = \frac{\pi \times D_c \times n}{1000}$
- ▶ $n = \frac{V_c \times 1000}{\pi \times D_c}$
- ▶ V_c = 切削速度
- ▶ n = 主轴转速, 转/分
- ▶ V_c = 直径mm
- ▶ V_c = 切削速度, m/分
- ▶ n = 转/分
- ▶ D_c = 直径mm

铣削

切削速度的计算法

- ▶ $V_c = \frac{\pi \times D_c \times n}{1000}$
- ▶ $n = \frac{1000 \times V_c}{\pi \times D_c}$

进给计算法

- ▶ $V_i = f_z \times z \times n$
- ▶ $f_z = \frac{V_i}{z \times n}$

V_c : 切削速度 (m/min) n : 转数 (min^{-1}) z : 刃数
 π : 圆周率=3.14 V_i : 每分钟的进给速度 (mm/min) f : 进给量 (mm/rev)
 D_c : 铣刀公称直径 (mm) f_z : 每刃进给量 (mm/t)

牌号 Grade	工件材料 Work-piece material	硬度 Hardness	切削速度 V(m/min)	进给量 f(mm/rev)	切削深度 Ap(mm)
PCBN	灰口铸铁 Gray cast iron	HB170-300	500-1500	0.1~0.4	0.1~1.5
	球墨铸铁 Nodular cast iron	HB240-300	200-400	0.1~0.4	0.1~0.5
	合金铸铁 Alloyed cast iron	HB240-300	150-300	0.05~0.4	0.1~0.5
	铁基合金 Fe-based P/M	HRC45-50	50-150	0.05~0.4	0.05~0.5
PCBN	淬硬钢 Hardened steels	HRC55-65	80-200	0.1-0.15	0.05~0.2
	耐热合金 Heat-resistant alloys		50-200	0.05~0.2	0.05~0.2
PCD	铝及铝合金 Al and Ai alloys		200-3000	0.05~0.5	0.05~1.0
	非金属 Non-mentals Cemented		100-500	0.05~0.5	0.05~1.0
	硬质合金 Carblde		20-30	0.05~0.2	0.05~0.2

国际标准刀片型号介绍

(公制) ISO

D	C	M	W	11	T3	04
1	2	3	4	5	6	7

(英制) ANSI

D	C	M	W	3	(2.5)	1
1	2	3	4	5	6	7

1	N	S	010	20	05	CB
8	9	10	11	12	13	14

1	N	S	010	20	05	CB
8	9	10	11	12	13	14

1	刀片形状
	H 正六边形 120°
	O 正八边形 135°
	P 正五边形 108°
	R 圆形 90°
	S 正方形 90°
	T 正三角形 60°

3	公差 ISO	Tolerance-ANSI
	代号 公差mm 级 刀尖高m 厚度s 内切圆IC C ±0.013 ±0.025 ±0.025 H ±0.013 ±0.025 ±0.013 E ±0.013 ±0.025 ±0.025 G ±0.013 ±0.13 ±0.025 K ±0.013 ±0.025 ±0.05~±0.13 M ±0.08~±0.18 ±0.13 ±0.05~±0.13 U ±0.13~±0.38 ±0.13 ±0.08~±0.25	Code inch m ic s C ±.0005 ±.001 ±.001 H ±.0005 ±.0005 ±.001 E ±.001 ±.001 ±.001 G ±.001 ±.001 ±.005 K ±.0005 ±.002-.005 ±.001 M ±.002-.005 ±.002-.005 ±.005 U ±.005-.012 ±.005-.010 ±.005

2 刀片后角 Clearance Angle	
	A 
	B 
	C 
	D 
	E 
	F 
	G 
	H
	I
	J
	K
	L
	M
	N
	O
	P
	Q
	R
	S
	T
	U
	V
	W
	X
	Y
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	AA
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	AD
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	DV
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	DX
	DY
	DZ
	EA
	EB
	EC
	ED
	EF
	EG
	EH
	EI
	EJ
	EK
	EL

聚晶金刚石刀具材料PCD

Polycrystalline diamond tool material PCD

金刚石作为一种超硬刀具材料应用于切削加工已有数百年。在刀具发展历史中,从十九世纪末到二十世纪中期,刀具材料以高速钢为主要代表;1927年德国首先研制出硬质合金刀具材料并获得广泛应用,二十世纪五十年代,瑞士和美国分别合成出人造金刚石,切削刀具从步入以超硬材料为代表的时期,二十世纪七十年代人们利用高压合成技术合成了聚晶金刚石,解决了天然金刚石数量稀有,价格昂贵的问题。

聚晶金刚石PCD具有以下优势：

- 一、人工研制压制而成，晶体呈无规则排序，各向同性，无解理面，跟单晶比较内部脆性较小。
- 二、强度高，特别PCD材料带有合金基体的支撑具有较大的支撑，对于铣削车削加工中大冲击时只会产生小晶颗粒破碎，不会大面积崩刀，因而PCD刀具可以精密切削还可以普通半精车，大大扩充了应用范围。
- 三、PCD有细和粗颗粒，赋予产品更好得刀口和耐磨性，为以后设计PCD刀具，给予了刀具设计工程师更大的发挥空间。
- 四、PCD材料耐磨性是合金刀具的理论值的十几倍，实际应用工况不同大约在十倍左右，为4.0自动化工业理想刀具，精度高加工时间长，光洁度高，尺寸稳定，等特点。

As a kind of super hard tool material, diamond has been used in cutting processing for hundreds of years. In the history of tool development, from the end of the nineteenth century to the middle of the twentieth century, the tool materials were mainly represented by high speed steel. 1927 Germany first developed the cemented carbide cutting tool material, and being widely applied in the 1950 s, the synthesis of Switzerland and the United States out of synthetic diamond, cutting tool from entering represented by superhard materials, people use high-pressure synthesis technology in the 1970 s the synthetic polycrystalline diamond, solved the natural diamond rare, expensive problems.

Polycrystalline diamond PCD has the following advantages:

1. The artificial development and suppression, the crystal has no rules ordering, each isotropic, no cleavage surface, and the single crystal comparison internal brittleness is small.
2. High strength, especially of PCD material with alloy substrate support has great support, for milling and turning processing large shocks will only produce small crystal grain breakage, not large area collapse knife, PCD cutting tools can be precision cutting ordinary half fine cars, greatly expands the application range.
3. PCD has fine and coarse particles, which gives the product better edge and wear resistance, and designs PCD cutter for future design, giving more space to the tool design engineers.
4. PCD material abrasion resistance is the theoretical tools for more than a dozen times, the actual application condition of different around ten times, an ideal tool for 4.0 automation industry, high precision machining time is long, smooth finish high, dimension stability, etc.



材质 Material	颗粒度 Grain size	耐磨性 Abrasiveness	韧性 Tenacity	特点及应用 Characteristics and Applications
YD150	超小 Extreme small	低 Low  高 High	高 High  低 Low	超高的光洁度，刃口锋利，极好可加工性。 应用范围:软铝、铜、木材等。 1.Ultra high smoothness, sharp cutting edge, and excellent machinability. 2.Application scope: Soft aluminum, copper, wood, etc.
YD120	中 Middle			光洁度、抗冲击韧性及耐磨性中 应用范围广，铜、铝、木材、橡胶等。 1.In terms of smoothness, impact toughness, and wear resistance. 2.Widely applicable, including copper, aluminum, wood, rubber, etc.
YD130	大 Big			耐磨性好、硬度高，但冲击性及光洁度较差。 应用范围广，有机材料、陶瓷、强化地板、塑料等。 1.Good wear resistance and high hardness, but poor impact resistance and smoothness. 2.It has a wide range of applications, including organic materials, ceramics, laminate flooring, plastics, etc.

聚晶立方氮化硼 (PCBN)

Polycrystalline cubic boron nitride (PCBN)

立体氮化硼是加工铁族金属及合金的优异的刀具材料，立体氮化硼（PCBN）是底部带合金衬底的聚晶复合片。

立方氮化硼烧结体的硬度一般在3500~4000Hv, 陶瓷; 2400 Hv, 硬质合金1800 Hv左右。高硬度带来了相当好的耐磨性, 一般讲, 立方氮化硼的耐磨性是涂层合金的30倍, 是无涂层硬质合金的50倍, 是陶瓷刀片的15~20倍。

立方氮化硼在1000℃的高温下切削，其表面不会产生氧化，高温下硬度降低程度也比硬质合金和陶瓷刀片小的多，这就为高速切削创造了条件。立方氮化硼化学惰性特别大，在中性空气介质中，对酸碱都是稳定的，与碳在2000°不起反应，与铁族材料在1200℃~1300℃时也不起反应适应于切削黑色金属材料。

Boron nitride is an excellent tool material for processing iron metal and alloy, and boron nitride (PCBN) is a polycrystalline composite substrate with alloy substrate at the bottom.

The hardness of the cubic boron nitride sintered is generally 3500 ~ 4000Hv, ceramic. 2400 Hv, hard alloy 1800 Hv. High hardness brings good abrasion resistance. In general, the wear resistance of cubic boron nitride is 30 times as high as coating alloy, 50 times as much as non-coated carbide, and 15 ~ 20 times of ceramic blade.

Cubic boron nitride cutting under the high temperature of 1000 DHS C, its surface will not produce oxidation, extent of the high temperature hardness is much smaller than cemented carbide and ceramic blade, this will create conditions for high speed cutting.

Cubic boron nitride chemical inertness, particularly large in neutral medium, the air is stable to acid and alkali, in 2000 DHS doesn't react with carbon and with iron clan materials in 1200 DHS C ~ 1300 DHS C doesn't response for cutting ferrous metal materials.

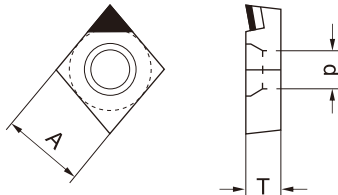


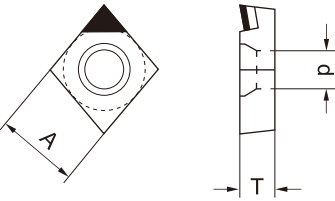
材质 Material	结合剂 Binders	颗粒度 Granularity	特点及应用 Characteristics and Applications
YN750	TIC	高 High	主要加工灰铁（HT200 HT250 Ht300） Main processing gray iron (HT200, HT250, Ht300)
YN570	TIN		主要用于软硬铸铁高精度切削铸铁、粗精、粉末冶金、 精加工淬火钢,50°以下 1.It is mainly used for high-precision cutting of soft and hard cast iron, rough and fine, powder metallurgy, 2.Finishing hardened steel, up to 50°.
YN560	TIN		主要用于高硬度材料，58~60°以上。 Mainly used for high hardness materials, above 58~60°.
YN220	TINC		淬火钢高速连续切削 High-speed continuous cutting of quenched steel
YN510	TIN	低 Low	超细颗粒度，切割刃坚硬锋利，严苛断续加工淬火钢 Ultra-fine grain, hard and sharp cutting edge, strict intermittent processing of quenched steel

PCD 刀片
PCD Inserts

C□□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel			P				●			●						
不锈钢 Stainless Steel			M													
铸铁 Cast Iron			K				●	●								
有色金属 Non-ferrous metal			N	●	●	●										
耐热钢 Heat-resistant alloy			S					●	●							
硬化钢 Hardened Steel			H				●			●	●					
												尺寸 Size				
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R
	CNMG090301	CNMG32(0.2)	●	○	●						1	N	9.525	3.81	3.18	0.1
	CNMG090302	CNMG32(0.5)	●	○	●						1	N	9.525	3.81	3.18	0.2
	CNMG090304	CNMG321	●	○	●						1	N	9.525	3.81	3.18	0.4
	CNMG090308	CNMG322	●	○	●						1	N	9.525	3.81	3.18	0.8
	CNMG120402	CNMG43(0.5)	●	○	●						1	N	12.7	5.16	4.76	0.2
	CNMG120404	CNMG431	●	○	●						1	N	12.7	5.16	4.76	0.4
	CNMG120408	CNMG432	●	○	●						1	N	12.7	5.16	4.76	0.8
	CNMG120412	CNMG433	●	○	●						1	N	12.7	5.16	4.76	1.2
	CNMG160602	CNMG54(0.5)	●	○	●						1	N	15.875	6.35	6.35	0.2
	CNMG160604	CNMG541	●	○	●						1	N	15.875	6.35	6.35	0.4
	CNMG160608	CNMG542	●	○	●						1	N	15.875	6.35	6.35	0.8
	CNMG160612	CNMG543	●	○	●						1	N	15.875	6.35	6.35	1.2
	CNMG190608	CNMG642	●	○	●						1	N	19.05	7.94	6.35	0.8
	CNMG190612	CNMG643	●	○	●						1	N	19.05	7.94	6.35	1.2

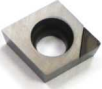


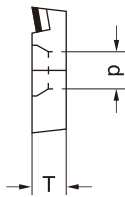
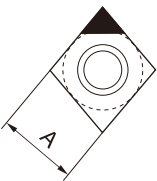
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

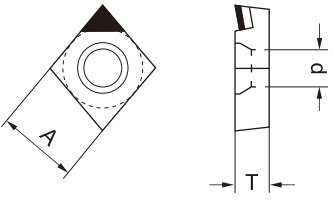
PCD 刀片
PCD Inserts

C□□□

菱形80° 有孔 Rhombus 80°With holes

钢 Steel			P				●			●						
不锈钢 Stainless Steel			M													
铸铁 Cast Iron			K					●	●							
有色金属 Non-ferrous metal			N	●	●	●										
耐热钢 Heat-resistant alloy			S						●	●						
硬化钢 Hardened Steel			H				●			●	●					
												尺寸 Size				
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R
	CCMW030101	CCMW(-)1(0.2)	●	○	●						1	N	3.50	1.9	1.4	0.1
	CCMW030102	CCMW(-)1(0.5)	●	○	●						1	N	3.50	1.9	1.4	0.2
	CCMW040102	CCMW(1.5)1(0.5)	●	○	●						1	N	4.3	2.3	1.8	0.2
	CCMW040104	CCMW(1.5)11	●	○	●						1	N	4.3	2.3	1.8	0.4
	CCMW060202	CCMW2(1.5)(0.5)	●	○	●						1	N	6.35	2.8	2.38	0.2
	CCMW060204	CCMW2(1.5)1	●	○	●						1	N	6.35	2.8	2.38	0.4
	CCMW09T301	CCMW3(2.5)(0.2)	●	○	●						1	N	9.525	4.4	3.97	0.1
	CCMW09T302	CCMW3(2.5)(0.5)	●	○	●						1	N	9.525	4.4	3.97	0.2
	CCMW09T304	CCMW3(2.5)1	●	○	●						1	N	9.525	4.4	3.97	0.4
	CCMW09T308	CCMW3(2.5)2	●	○	●						1	N	9.525	4.4	3.97	0.8
	CCMW120402	CCMW 43(0.5)	●	○	●						1	N	12.7	5.5	4.76	0.2
	CCMW120404	CCMW431	●	○	●						1	N	12.7	5.5	4.76	0.4
	CCMW120408	CCMW432	●	○	●						1	N	12.7	5.5	4.76	0.8
	CCMW120412	CCMW433	●	○	●						1	N	12.7	5.5	4.76	1.2





● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

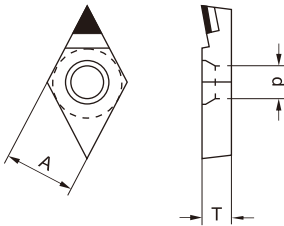
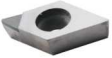


PCD CBN Inserts

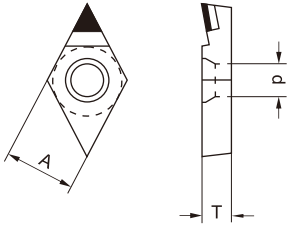
PCD 刀片
PCD Inserts



菱形55° 有孔 Rhombus 55°With holes

钢 Steel			P				●			●						
不锈钢 Stainless Steel			M													
铸铁 Cast Iron			K				●	●								
有色金属 Non-ferrous metal			N	●	●	●										
耐热钢 Heat-resistant alloy			S					●	●							
硬化钢 Hardened Steel			H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 Φd	厚度 T	刀尖半径 R
	DCMT070201	DCMT2(1.5)(0.2)	●	○	●						1	N	6.35	2.8	2.38	0.1
	DCMT070202	DCMT2(1.5)(0.5)	●	○	●						1	N	6.35	2.8	2.38	0.2
	DCMT070204	DCMT2(1.5)1	●	○	●						1	N	6.35	2.8	2.38	0.4
	DCMT070208	DCMT2(1.5)2	●	○	●						1	N	6.35	2.8	2.38	0.8
	DCMT110302	DCMT32(0.5)	●	○	●						1	N	9.525	4.4	3.18	0.2
	DCMT110304	DCMT321	●	○	●						1	N	9.525	4.4	3.18	0.4
	DCMT11T301	DCMT3(2.5)(0.2)	●	○	●						1	N	9.525	4.4	3.97	0.1
	DCMT11T302	DCMT3(2.5)(0.5)	●	○	●						1	N	9.525	4.4	3.97	0.2
	DCMT11T304	DCMT3(2.5)1	●	○	●						1	N	9.525	4.4	3.97	0.4
	DCMT11T308	DCMT3(2.5)2	●	○	●						1	N	9.525	4.4	3.97	0.8
	DNMG110402	DNMG33(0.5)	●	○	●						1	N	9.525	3.81	4.76	0.2
	DNMG110404	DNMG331	●	○	●						1	N	9.525	3.81	4.76	0.4
	DNMG150402	DNMG43(0.5)	●	○	●						1	N	12.7	5.16	4.76	0.2
	DNMG150404	DNMG431	●	○	●						1	N	12.7	5.16	4.76	0.4
	DNMG150602	DNMG43(0.5)	●	○	●						1	N	12.7	5.16	4.76	0.2
DNMG150604	DNMG431	●	○	●						1	N	12.7	5.16	4.76	0.4	

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

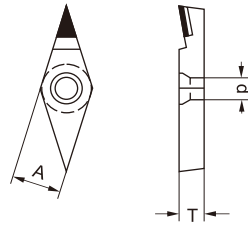


PCD CBN Inserts

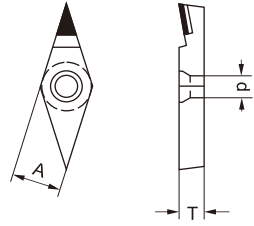
PCD 刀片
PCD Inserts



菱形35° 有孔 Rhombus 35°With holes

钢 Steel			P				●			●						
不锈钢 Stainless Steel			M													
铸铁 Cast Iron			K				●	●								
有色金属 Non-ferrous metal			N	●	●	●										
耐热钢 Heat-resistant alloy			S					●	●							
硬化钢 Hardened Steel			H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R
	VCGW070201	VCMT(1.2)1.5(0.2)	●	○	●						1	N	3.97	2.3	2.38	0.1
	VCGW070202	VCMT(1.2)1.5)(0.5)	●	○	●						1	N	3.97	2.3	2.38	0.2
	VCMT080202	VCMT(1.5)1.5)(0.5)	●	○	●						1	N	4.76	2.3	2.38	0.2
	VCMT080204	VCMT(1.5)1.5)1	●	○	●						1	N	4.76	2.3	2.38	0.4
	VBMT110302	VBMT22(0.5)	●	○	●						1	N	6.35	2.8	3.18	0.2
	VBMT110304	VBMT221	●	○	●						1	N	6.35	2.8	3.18	0.4
	VCMT110302	VCMT22(0.5)	●	○	●						1	N	6.35	2.8	3.18	0.2
	VCMT110304	VCMT221	●	○	●						1	N	6.35	2.8	3.18	0.4
	VCMT160402	VCMT33(0.5)	●	○	●						1	N	9.525	4.4	4.76	0.2
	VCMT160404	VCMT331	●	○	●						1	N	9.525	4.4	4.76	0.4
	VCMT160408	VCMT332	●	○	●						1	N	9.525	4.4	4.76	0.8
	VCMT160412	VCMT333	●	○	●						1	N	9.525	4.4	4.76	1.2
	VNMG160402	VNMG33(0.5)	●	○	●						1	N	9.525	3.81	4.76	0.2
	VNMG160404	VNMG331	●	○	●						1	N	9.525	3.81	4.76	0.4
	VBGT160402	VBGT33(0.5)	●	○	●						1	N	9.525	3.81	4.76	0.2
VBGT160404	VBGT331	●	○	●						1	N	9.525	3.81	4.76	0.4	

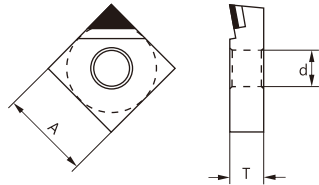
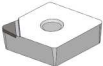
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

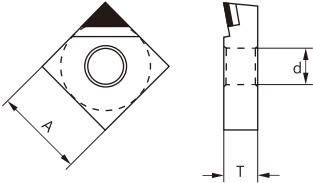


PCD 刀片
PCD Inserts

S□□□

正方形90° 有孔 Square 90° With holes

钢 Steel			P				●			●							
不锈钢 Stainless Steel			M														
铸铁 Cast Iron			K					●		●							
有色金属 Non-ferrous metal			N	●		●		●									
耐热钢 Heat-resistant alloy			S							●		●					
硬化钢 Hardened Steel			H				●				●		●				尺寸 Size
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R	
	SPMN090302	SPMN32(0.5)	●	○	●						1	N	9.525	-	3.18	0.2	
	SPMN090304	SPMN321	●	○	●						1	N	9.525	-	3.18	0.4	
	SPMN120408	SPMN432	●	○	●						1	N	12.7	-	4.76	0.8	
	SPMN120412	SPMN433	●	○	●						1	N	12.7	-	4.76	1.2	
	SPMN150608	SPMN542	●	○	●						1	N	15.875	-	6.35	0.8	
	SPMN150612	SPMN543	●	○	●						1	N	15.875	-	6.35	1.2	
	SPMN190612	SNMN643	●	○	●						1	N	19.05	-	6.35	1.2	
	SPMN190616	SNMN644	●	○	●						1	N	19.05	-	6.35	1.6	
	SCMG090302	SCMG32(0.5)	●	○	●						1	N	9.525	4.4	3.18	0.2	
	SCMG090304	SCMG321	●	○	●						1	N	9.525	4.4	3.18	0.4	
	SNMG120408	SNMG432	●	○	●						1	N	12.7	5.16	4.76	0.8	
	SNMG120412	SNMG433	●	○	●						1	N	12.7	5.16	4.76	1.2	
	SNMG150608	SNMG542	●	○	●						1	N	15.875	6.35	6.35	0.8	
	SNMG150612	SNMG543	●	○	●						1	N	15.875	6.35	6.35	1.2	

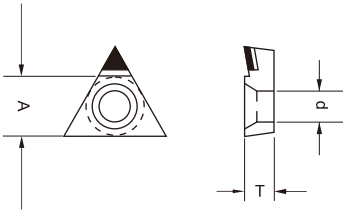


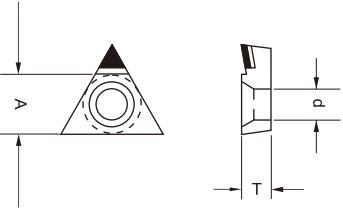
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

PCD 刀片
PCD Inserts

T□□□

三角形60° 有孔 Triangle 60° With holes

钢 Steel			P				●			●							
不锈钢 Stainless Steel			M														
铸铁 Cast Iron			K					●		●							
有色金属 Non-ferrous metal			N	●		●		●									
耐热钢 Heat-resistant alloy			S							●		●					
硬化钢 Hardened Steel			H				●				●		●				尺寸 Size
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R	
	TBGW060102	TBGW(1.2)1(0.5)	●	○	●						1	N	3.97	2.3	1.59	0.2	
	TBGW060104	TBGW(1.2)11	●	○	●						1	N	3.97	2.3	1.59	0.4	
	TCGW060102	TCGW(1.2)1(0.5)	●	○	●						1	N	3.97	2.3	1.59	0.2	
	TCGW060104	TCGW(1.2)11	●	○	●						1	N	3.97	2.3	1.59	0.4	
	TCGW080202	TCGW(1.5)(1.5)(0.5)	●	○	●						1	N	4.76	2.3	2.38	0.2	
	TCGW080204	TCGW(1.5)(1.5)1	●	○	●						1	N	4.76	2.3	2.38	0.4	
	TCGW090202	TCGW(1.8)(1.5)(0.5)	●	○	●						1	N	5.56	2.5	2.38	0.2	
	TCGW090204	TCGW(1.8)(1.5)1	●	○	●						1	N	5.56	2.5	2.38	0.4	
	TCGW110202	TCGW2(1.5)(0.5)	●	○	●						1	N	6.35	2.8	2.38	0.2	
	TCGW110304	TCGW221	●	○	●						1	N	6.35	2.8	3.18	0.4	
	TCGW16T302	TCGW32(0.5)	●	○	●						1	N	9.525	4.4	3.18	0.2	
	TCGW16T304	TCGW3(2.5)1	●	○	●						1	N	9.525	4.4	3.97	0.4	
	TEGW16T302	TEGW3(2.5)(0.5)	●	○	●						1	N	9.525	4.4	3.97	0.2	
	TEGW16T304	TEGW3(2.5)(1)	●	○	●						1	N	9.525	4.4	3.97	0.4	



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

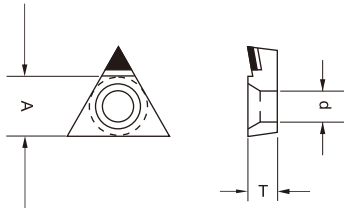


PCD CBN Inserts

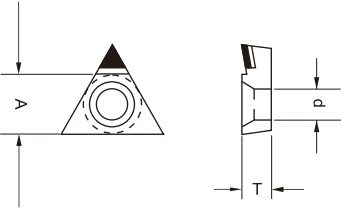
PCD 刀片
PCD Inserts



三角形60° 有孔 Triangle 60° With holes

钢 Steel			P				●			●							
不锈钢 Stainless Steel			M														
铸铁 Cast Iron			K					●	●								
有色金属 Non-ferrous metal			N	●	●	●											
耐热钢 Heat-resistant alloy			S							●	●						
硬化钢 Hardened Steel			H				●				●	●					尺寸 Size
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R	
	TPGW080202	TPGW(1.5)(1.5)(0.5)	●	○	●						1	N	4.76	2.3	2.38	0.2	
	TPGW080204	TPGW(1.5)(1.5)1	●	○	●						1	N	4.76	2.3	2.38	0.4	
	TPGW090202	TPGW(1.8)(1.5)(0.5)	●	○	●						1	N	5.56	2.5	2.38	0.2	
	TPGW090204	TPGW(1.8)(1.5)1	●	○	●						1	N	5.56	2.5	2.38	0.4	
	TPGW090208	TPGW(1.8)(1.5)2	●	○	●						1	N	5.56	2.5	2.38	0.8	
	TPGW110202	TPGW2(1.5)(0.5)	●	○	●						1	N	6.35	2.8	2.38	0.2	
	TPGW110204	TPGW2(1.5)1	●	○	●						1	N	6.35	2.8	2.38	0.4	
	TPGW110208	TPGW2(1.5)2	●	○	●						1	N	6.35	2.8	2.38	0.8	
	TPGW160302	TPGW32(0.5)	●	○	●						1	N	9.525	4.4	3.18	0.2	
	TPGW160304	TPGW321	●	○	●						1	N	9.525	4.4	3.18	0.4	
	TPGW160308	TPGW322	●	○	●						1	N	9.525	4.4	3.18	0.8	
	TPGW160402	TPGW33(0.5)	●	○	●						1	N	9.525	4.4	4.76	0.2	
	TPGW160404	TPGW331	●	○	●						1	N	9.525	4.4	4.76	0.4	
	TPGW160408	TPGW332	●	○	●						1	N	9.525	4.4	4.76	0.8	

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

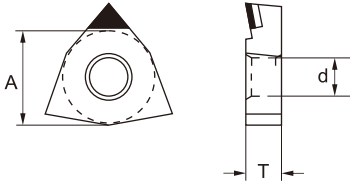


PCD CBN Inserts

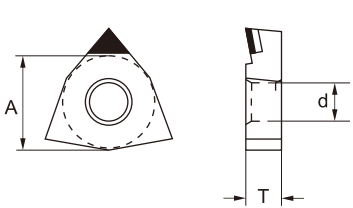
PCD 刀片
PCD Inserts



六边形80° 有孔 Hexagon 80° With holes

钢 Steel			P				●			●							
不锈钢 Stainless Steel			M														
铸铁 Cast Iron			K					●	●								
有色金属 Non-ferrous metal			N	●	●	●											
耐热钢 Heat-resistant alloy			S						●	●							
硬化钢 Hardened Steel			H				●			●	●	尺寸 Size					
形状 Shape	规格 Specification (ISO)	规格 Specification (ANSI)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	切削刃数 F	切削方向 Cutting Direction	内切圆 A	孔径 φd	厚度 T	刀尖半径 R	
	WCGT020101	WCGT(1.2)1(0.2)	●	○	●						1	N	3.97	2.3	1.59	0.1	
	WCGT020102	WCGT(1.2)1(0.5)	●	○	●						1	N	3.97	2.3	1.59	0.2	
	WCGT040202	WCGT2(1.5)(0.5)	●	○	●						1	N	6.35	2.8	2.38	0.2	
	WCGT040204	WCGT2(1.5)1	●	○	●						1	N	6.35	2.8	2.38	0.4	
	WBGT060102	WCGT(1.2)1(0.5)	●	○	●						1	N	3.97	2.3	1.59	0.2	
	WBGT060104	WCGT(1.2)11	●	○	●						1	N	3.97	2.3	1.59	0.4	
	WCGT06T302	WCGT3(2.5)(0.5)	●	○	●						1	N	9.525	4.4	3.97	0.2	
	WCGT06T304	WCGT3(2.5)1	●	○	●						1	N	9.525	4.4	3.97	0.4	
	WBGT080202	WCGT(1.5)(1.5)(0.5)	●	○	●						1	N	4.76	2.3	2.38	0.2	
	WBGT080204	WCGT(1.5)(1.5)1	●	○	●						1	N	4.76	2.3	2.38	0.4	
	WNMG080402	WNMG43(0.5)	●	○	●						1	N	12.70	5.16	4.76	0.2	
	WNMG080404	WNMG431	●	○	●						1	N	12.70	5.16	4.76	0.4	
	WNMG080408	WNMG432	●	○	●						1	N	12.70	5.16	4.76	0.8	
	WNMG080412	WNMG433	●	○	●						1	N	12.70	5.16	4.76	1.2	

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

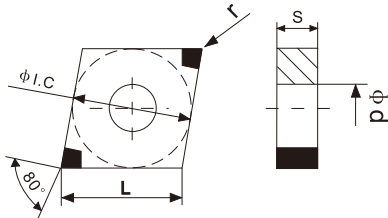


CBN 刀片
CBN Inserts

C□□□

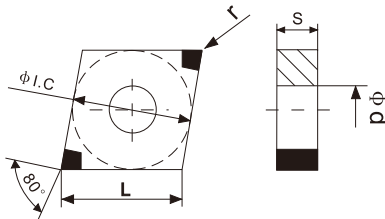
菱形80° 有孔 Rhombus 80°With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	CNGA120404-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.16	0.4
	CNGA120408-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.16	0.8
	CNGA120412-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.16	1.2
	CNGA120416-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.16	1.6



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	CNGA120404-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	0.4
	CNGA120408-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	0.8
	CNGA120412-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	1.2
	CNGA120416-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	1.6



● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts

C□□□

菱形80° 有孔 Rhombus 80°With holes

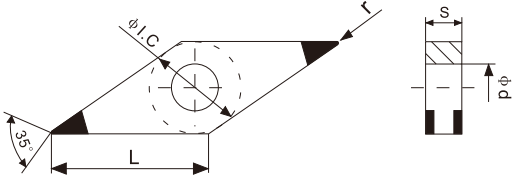
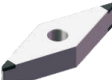
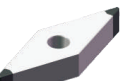
钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	ϕ I.C	S	ϕ d	r
	CNGA120404-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	0.4
	CNGA120408-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	0.8
	CNGA120412-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	1.2
	CNGA120416-4N				●	○	○	○	○	4	12.9	12.7	4.76	5.16	1.6
	CNGA160404-4N				●	○	○	○	○	4	16.1	15.875	4.76	6.35	0.4
	CNGA160408-4N				●	○	○	○	○	4	16.1	15.875	4.76	6.35	0.8
CNGA160412-4N				●	○	○	○	○	4	16.1	15.875	4.76	6.35	1.2	
	CCGW09T304-2N				●	●	●	●	○	2	9.7	9.525	3.97	4.4	0.4
	CCGW09T308-2N				●	●	●	●	○	2	9.7	9.525	3.97	4.4	0.8
	CCGW09T312-2N				●	●	●	●	○	2	9.7	9.525	3.97	4.4	1.2
	CCGW120404-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.5	0.4
	CCGW120408-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.5	0.8
	CCGW120412-2N				●	●	●	●	○	2	12.9	12.7	4.76	5.5	1.2

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts



菱形35° 有孔 Rhombus 35°With holes

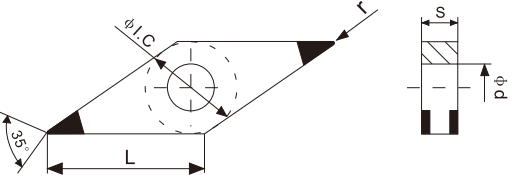
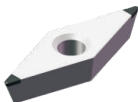
钢 Steel		P				●			●							
不锈钢 Stainless Steel		M														
铸铁 Cast Iron		K					●	●								
有色金属 Non-ferrous metal		N	●	●	●											
耐热钢 Heat-resistant alloy		S						●	●							
硬化钢 Hardened Steel		H				●			●	●						
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φd	r	
	VNGA160402-2N				●	○	○	○	○	2	16.6	9.525	4.76	3.81	0.2	
	VNGA160404-2N				●	○	○	○	○	2	16.6	9.525	4.76	3.81	0.4	
	VNGA160408-2N				●	○	○	○	○	2	16.6	9.525	4.76	3.81	0.8	
	VNGA160412-2N				●	○	○	○	○	2	16.6	9.525	4.76	3.81	1.2	
	VNGA160402-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	0.2	
	VNGA160404-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	0.4	
	VNGA160408-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	0.8	
	VNGA160412-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	1.2	
	VNGA160404-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	0.4	
	VNGA160408-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	0.8	
	VNGA160412-4N				●	○	○	○	○	4	16.6	9.525	4.76	3.81	1.2	

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts



菱形35° 有孔 Rhombus 35°With holes

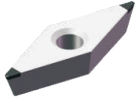
钢 Steel		P				●			●							
不锈钢 Stainless Steel		M														
铸铁 Cast Iron		K					●	●								
有色金属 Non-ferrous metal		N	●	●	●											
耐热钢 Heat-resistant alloy		S						●	●							
硬化钢 Hardened Steel		H				●			●	●						
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φd	r	
	VBGW110302-2N				●	●	●	●	○	2	11.1	6.35	3.18	2.8	0.2	
	VBGW110304-2N				●	●	●	●	○	2	11.1	6.35	3.18	2.8	0.4	
	VBGW110308-2N				●	●	●	●	○	2	11.1	6.35	3.18	2.8	0.8	
	VBGW160402-2N				●	●	●	●	○	2	16.6	9.525	4.76	4.4	0.2	
	VBGW160404-2N				●	●	●	●	○	2	16.6	9.525	4.76	4.4	0.4	
	VBGW160408-2N				●	●	●	●	○	2	16.6	9.525	4.76	4.4	0.8	

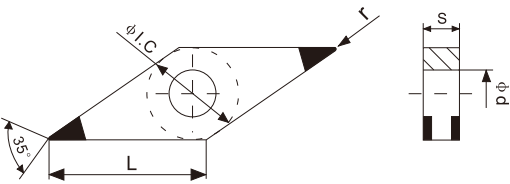
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts



菱形35° 有孔 Rhombus 35°With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	VCGW080202-2N				●	●	●	●	○	2	8.3	4.76	2.38	2.3	0.2
	VCGW080204-2N				●	●	●	●	○	2	8.3	4.76	2.38	2.3	0.4
	VCGW080208-2N				●	●	●	●	○	2	8.3	4.76	2.38	2.3	0.8
	VCGW110302-2N				●	●	●	●	○	2	11.1	6.35	3.18	2.8	0.2
	VCGW110304-2N				●	●	●	●	○	2	11.1	6.35	3.18	2.8	0.4
	VCGW110308-2N				●	●	●	●	○	2	11.1	6.35	3.18	2.8	0.8
	VCGW160404-2N				●	●	●	●	○	2	16.6	9.525	4.76	4.4	0.4
	VCGW160408-2N				●	●	●	●	○	2	16.6	9.525	4.76	4.4	0.8
	VCGW160412-2N				●	●	●	●	○	2	16.6	9.525	4.76	4.4	1.2

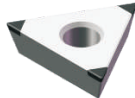


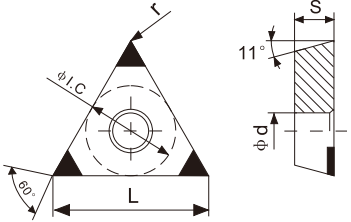
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts



三角形60° 有孔 Triangle 60° With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	TPGW080202-3N				●	●	●	○	○	3	8.2	4.76	2.38	2.4	0.2
	TPGW080204-3N				●	●	●	○	○	3	8.2	4.76	2.38	2.4	0.4
	TPGW080208-3N				●	●	●	○	○	3	8.2	4.76	2.38	2.4	0.8
	TPGW090202-3N				●	●	●	○	○	3	9.6	5.56	2.38	2.5/2.8	0.2
	TPGW090204-3N				●	●	●	○	○	3	9.6	5.56	2.38	2.5/2.8	0.4
	TPGW090208-3N				●	●	●	○	○	3	9.6	5.56	2.38	2.5/2.8	0.8
	TPGW110202-3N				●	●	●	○	○	3	11	6.35	2.38	2.8	0.2
	TPGW110204-3N				●	●	●	○	○	3	11	6.35	2.38	2.8	0.4
	TPGW110208-3N				●	●	●	○	○	3	11	6.35	2.38	2.8	0.8
	TPGW110302-3N				●	●	●	○	○	3	11	6.35	3.18	3.4	0.2
	TPGW110304-3N				●	●	●	○	○	3	11	6.35	3.18	3.4	0.4
	TPGW110308-3N				●	●	●	○	○	3	11	6.35	3.18	3.4	0.8
	TPGW160302-3N				●	●	●	○	○	3	16.5	9.525	3.18	4.4	0.2
	TPGW160304-3N				●	●	●	○	○	3	16.5	9.525	3.18	4.4	0.4
	TPGW160308-3N				●	●	●	○	○	3	16.5	9.525	3.18	4.4	0.8
	TPGW160402-3N				●	●	●	○	○	3	16.5	9.525	4.76	4.4	0.2
	TPGW160404-3N				●	●	●	○	○	3	16.5	9.525	4.76	4.4	0.4
	TPGW160408-3N				●	●	●	○	○	3	16.5	9.525	4.76	4.4	0.8

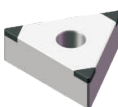
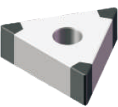
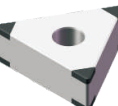


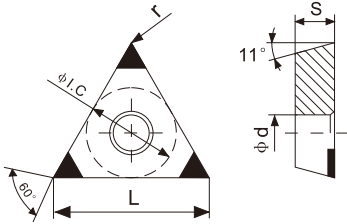
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts

T□□□

三角形60° 有孔 Triangle 60° With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	TNGA160402-3N				●	○	○	○	○	3	16.5	9.525	4.76	3.81	0.2
	TNGA160404-3N				●	○	○	○	○	3	16.5	9.525	4.76	3.81	0.4
	TNGA160408-3N				●	○	○	○	○	3	16.5	9.525	4.76	3.81	0.8
	TNGA160412-3N				●	○	○	○	○	3	16.5	9.525	4.76	3.81	1.2
	TNGA160404-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	0.4
	TNGA160408-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	0.8
	TNGA160412-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	1.2
	TNGA160402-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	0.2
	TNGA160404-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	0.4
	TNGA160408-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	0.8
	TNGA160412-6N				●	○	○	○	○	6	16.5	9.525	4.76	3.81	1.2

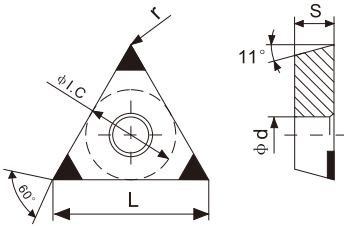
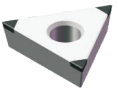
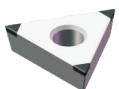


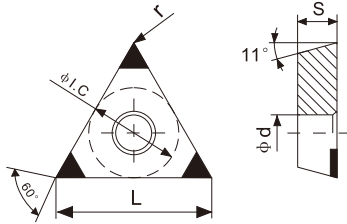
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts

T□□□

三角形60° 有孔 Triangle 60° With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	TCGW110304-3N				●	●	●	●	○	3	11	6.35	3.18	2.8	0.4
	TCGW110308-3N				●	●	●	●	○	3	11	6.35	3.18	2.8	0.8
	TCGW110312-3N				●	●	●	●	○	3	11	6.35	3.18	2.8	1.2
	TCGW090204-3 N				●	●	●	●	○	3	9.6	5.56	2.38	2.5	0.4
	TCGW090208-3 N				●	●	●	●	○	3	9.6	5.56	2.38	2.5	0.8
	TCGW110202-3 N				●	●	●	●	○	3	11	6.35	2.38	2.8	0.2
	TCGW110204-3 N				●	●	●	●	○	3	11	6.35	2.38	2.8	0.4
	TCGW110208-3 N				●	●	●	●	○	3	11	6.35	2.38	2.8	0.8
	TCGW16T304-3N				●	●	●	●	○	3	16.5	9.525	3.97	4.4	0.4
TCGW16T308-3N				●	●	●	●	○	3	16.5	9.525	3.97	4.4	0.8	

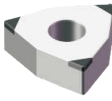
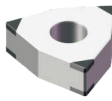
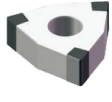


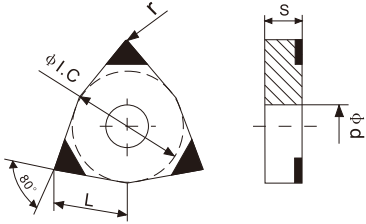
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts

W□□□

六边形80° 有孔 Hexagon 80° With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φd	r
	WNGA080404-3N				●	○	○	○	○	3	8.7	12.7	4.76	5.16	0.4
	WNGA080408-3N				●	○	○	○	○	3	8.7	12.7	4.76	5.16	0.8
	WNGA080412-3N				●	○	○	○	○	3	8.7	12.7	4.76	5.16	1.2
	WNGA080404-6N				●	○	○	○	○	6	8.7	12.7	4.76	5.16	0.4
	WNGA080408-6N				●	○	○	○	○	6	8.7	12.7	4.76	5.16	0.8
	WNGA080412-6N				●	○	○	○	○	6	8.7	12.7	4.76	5.16	1.2
	WNGA080404-6N				●	○	○	○	○	6	8.7	12.7	4.76	5.16	0.4
	WNGA080408-6N				●	○	○	○	○	6	8.7	12.7	4.76	5.16	0.8
	WNGA080412-6N				●	○	○	○	○	6	8.7	12.7	4.76	5.16	1.2

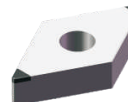
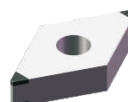
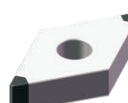


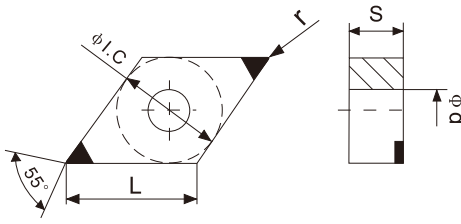
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

CBN 刀片
CBN Inserts

D□□□

菱形55° 有孔 Rhombus 55° With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φd	r
	DNGA150404-2N				●	●	●	○	○	2	15.5	12.7	4.76	5.16	0.4
	DNGA150408-2N				●	●	●	○	○	2	15.5	12.7	4.76	5.16	0.8
	DNGA150412-2N				●	●	●	○	○	2	15.5	12.7	4.76	5.16	1.2
	DNGA150604-2N				●	●	●	○	○	2	15.5	12.7	6.35	5.16	0.4
	DNGA150608-2N				●	●	●	○	○	2	15.5	12.7	6.35	5.16	0.8
	DNGA150612-2N				●	●	●	○	○	2	15.5	12.7	6.35	5.16	1.2
	DNGA150404-4N				●	○	○	○	○	4	15.5	12.7	4.76	5.16	0.4
	DNGA150408-4N				●	○	○	○	○	4	15.5	12.7	4.76	5.16	0.8
	DNGA150412-4N				●	○	○	○	○	4	15.5	12.7	4.76	5.16	1.2
	DNGA150604-4N				●	○	○	○	○	4	15.5	12.7	6.35	5.16	0.4
	DNGA150608-4N				●	○	○	○	○	4	15.5	12.7	6.35	5.16	0.8
	DNGA150612-4N				●	○	○	○	○	4	15.5	12.7	6.35	5.16	1.2
	DNGA150404-4N				●	○	○	○	○	4	15.5	12.7	4.76	5.16	0.4
	DNGA150408-4N				●	○	○	○	○	4	15.5	12.7	4.76	5.16	0.8
	DNGA150412-4N				●	○	○	○	○	4	15.5	12.7	4.76	5.16	1.2
	DNGA150604-4N				●	○	○	○	○	4	15.5	12.7	6.35	5.16	0.4
	DNGA150608-4N				●	○	○	○	○	4	15.5	12.7	6.35	5.16	0.8
	DNGA150612-4N				●	○	○	○	○	4	15.5	12.7	6.35	5.16	1.2

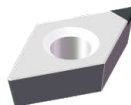
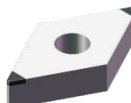


● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory

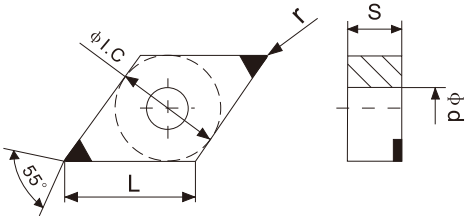
CBN 刀片
CBN Inserts

D□□□

菱形55° 有孔 Rhombus 55°With holes

钢 Steel		P				●			●						
不锈钢 Stainless Steel		M													
铸铁 Cast Iron		K					●	●							
有色金属 Non-ferrous metal		N	●	●	●										
耐热钢 Heat-resistant alloy		S						●	●						
硬化钢 Hardened Steel		H				●			●	●	尺寸 Size				
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φI.C	S	φ d	r
	DCGW070202-1N				●	●	●	●	○	1	7.7	6.35	2.38	2.8	0.2
	DCGW070204-1N				●	●	●	●	○	1	7.7	6.35	2.38	2.8	0.4
	DCGW070208-1N				●	●	●	●	○	1	7.7	6.35	2.38	2.8	0.8
	DCGW11T302-1N				●	●	●	●	○	1	11.6	9.525	3.97	4.4	0.2
	DCGW11T304-1N				●	●	●	●	○	1	11.6	9.525	3.97	4.4	0.4
	DCGW11T308-1N				●	●	●	●	○	1	11.6	9.525	3.97	4.4	0.8
	DCGW070202-2N				●	●	○	○	○	2	7.7	6.35	2.38	2.8	0.2
	DCGW070204-2N				●	●	○	○	○	2	7.7	6.35	2.38	2.8	0.4
	DCGW070208-2N				●	●	○	○	○	2	7.7	6.35	2.38	2.8	0.8
	DCGW11T302-2N				●	●	○	○	○	2	11.6	9.525	3.97	4.4	0.2
	DCGW11T304-2N				●	●	○	○	○	2	11.6	9.525	3.97	4.4	0.4
	DCGW11T308-2N				●	●	○	○	○	2	11.6	9.525	3.97	4.4	0.8

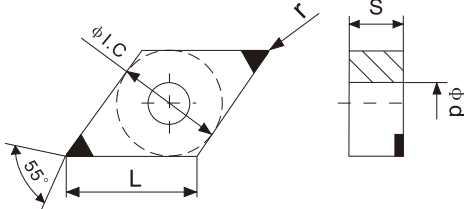
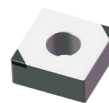
● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



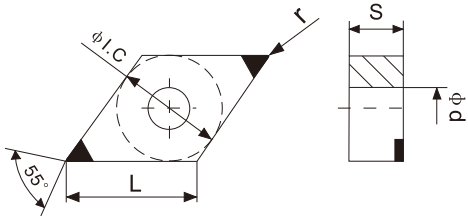
CBN 刀片
CBN Inserts

S□□□

正方形90° 有孔 Square 90°With holes

钢 Steel		P				●			●							
不锈钢 Stainless Steel		M														
铸铁 Cast Iron		K				●	●									
有色金属 Non-ferrous metal		N	●	●	●											
耐热钢 Heat-resistant alloy		S						●	●							
硬化钢 Hardened Steel		H				●			●	●						
尺寸 Size																
形状 Shape	规格 Specification (ISO)	YD120	YD130	YD150	YN220	YN750	YN570	YN560	YN510	F	L	φ I.C	S	φ d	r	
	SNGA120404-2N				●	●	●	●	○	2	12.7	12.7	4.76	5.16	0.4	
	SNGA120408-2N				●	●	●	●	○	2	12.7	12.7	4.76	5.16	0.8	
	SNGA120412-2N				●	●	●	●	○	2	12.7	12.7	4.76	5.16	1.2	
	SNGA120404-4N				●	○	○	○	○	4	12.7	12.7	4.76	5.16	0.4	
	SNGA120408-4N				●	○	○	○	○	4	12.7	12.7	4.76	5.16	0.8	
	SNGA120412-4N				●	○	○	○	○	4	12.7	12.7	4.76	5.16	1.2	
	SNGA120404-8N				●	○	○	○	○	8	12.7	12.7	4.76	5.16	0.4	
	SNGA120408-8N				●	○	○	○	○	8	12.7	12.7	4.76	5.16	0.8	
	SNGA120412-8N				●	○	○	○	○	8	12.7	12.7	4.76	5.16	1.2	

● 标准库存 Standard Inventory ○ 非标准库存 Non-Standard Inventory



刀具规格选用办法

Selection Method of Cutting Tool

普通车削刀具规格选用办法： 一、首先要了解您所需加工的材料状况，机床型号及状态； 二、选择合适的刀片形状，切削主偏角及刀片压紧方式； 三、依据以上因素及您的机床型号来确定刀杆的左右方向及尺寸等明细； 四、最后确定与以上各因素相应的刀片规格、槽型、牌号。		Selection method of general turning tools: 1.Understand the processed material condition,machine model and condition; 2.Select the suitable insert shape,setting angle and clamoin designation; 3.According to above conditions select details of tools as L/R,demension,etc. 4.Select the type,chip break and grade of insert according to all conditions.	
切断切槽刀具规格选用办法： 一、首先要了解您所需加工的材料状况，机床型号及状态； 二、根据加工方式（外圆、内孔、端面槽）确定切刀的基本类型； 三、依据以上因素及您的机床型号来确定刀杆的左右方向及尺寸等明细； 四、最后确定与以上各因素相应的刀片规格、槽型、牌号。		Selection Method of Parting and Grooving Tools: 1.Understand the processed material condition,machine model and condition; 2.Select the insert type according to processing methods(external,internal,face,grooving); 3.According to above conditions select details of tools as L/R,demension,etc. 4.Select the type,clamping designation,chip break and grade of insert according to all conditions.	
螺纹切削刀具规格选用办法： 一、首先要了解您所需加工的材料状况，机床型号及状态； 二、根据螺纹的制式、类型、加工方式初步确定刀具的类型； 三、依据以上因素及您的机床型号来确定刀杆的左右方向及尺寸等明细； 四、最后确定与以上各因素相应的刀片规格、槽型、牌号。		Selection method of Threading Tools: 1.Understand the processed material condition,machine model and condition; 2.Select the tool type according to thread's type,processing methods,etc. 3.According to above conditions select details of cutting tools as L/R,demension,etc. 4.Select the type,chip break and grade of insert according to all conditions.	
铣削刀具规格选用办法： 一、首先要了解您所需加工的材料状况，机床型号及状态； 二、根据加工方式来确定铣削刀具的基本类型（平面铣削、方肩铣、仿形铣、铣槽、倒角铣等）； 三、根据加工精度及加工面形状与尺寸等因素确定采用整体铣刀或可转位铣刀； 四、依据以上因素及您的机床型号来确定刀具的接口、尺寸等明细； 五、最后确定与以上各因素相应的刀片规格、槽型、牌号。		Selection method of Milling Tools Specifications: 1.Understand the processed material condition,machine model and condition; 2.Determine the basic type of milling tool according to the processing method(plane milling,square shoulder milling,imitation milling,milling slot,corner milling,etc.). 3.According to the machining precision and the shape and size of the machining surface and other factors to determine the use of the overall milling cutter or transposable milling cutter. 4.According to the above factors and your machine model to determine the interface, dimensions and other details of the tool. 5.Select the type,chip break and grade of insert according to all conditions.	
孔加工刀具规格选用办法： 一、首先要了解您所需加工的材料状况，机床型号及状态； 二、根据加工工艺来确定孔加工工具的基本类型（钻削、镗削、铰削、螺纹加工等方式； 三、根据加工精度及加工孔的尺寸等因素确定采用整体刀具或可转位孔加工工具； 四、依据以上因素及您的机床型号来确定刀具的接口、尺寸等明细； 五、最后确定与以上各因素相应的刀片规格、槽型、牌号。		Selection method of hole processing tool specifications: 1.Understand the processed material condition,machine model and condition; 2.Determine the basic type of hole cutting tools(drilling,boring,hinge,thread processing, etc.)according to the processing process. 3.According to the machining accuracy and the dimension of the machining hole,it is determined that the whole tool or the fork-turning tool is used. 4.According to the above factors and your machine model to determine the interface, dimensions and other details of the tool. 5.Select the type,chip break and grade of insert according to all conditions.	

车削加工常见问题及解决方案

Common Problems And Solutions For Turning

常见问题 FAQ		原因 Reason		解决方法 Solutions		刀具材料 Insert Grade		切削条件 Cutting Conditions				刀具形状 Insert Shape						机床装夹 Setting/Machine			
						硬度 更高的材料 Harder Grade	韧性 更好的材料 Tougher Grade	切削速度 VC	进给 Fn	切深 Ap	切削液 Coolant	改变刀片槽型 Chip Breaker Setting	前角 Rake angle	刀尖圆弧半径 Corner Radius	主偏角 Setting Angle	切削刃强度 Edge Strength	提高刀片精度 Change to Higher Tolerance	提高刀柄刚性 Toolholder Rigidity	工件刀柄装夹 Workpiece/Tool installation	刀柄悬伸 Overhang length	动力、机床间隙 Power/Rigidity
刀具切削刃损伤	后刀面前刀面磨损增大 wear increase at relief face	后刀面磨损 flank wear		↓		○		↓				○	↑	↑		↓					
		前刀面磨损 rake face wear		↓		○		↓	↓	↓		○	↑		↓						
	微崩 chipping	振动、冲击 vibration,shock				○			↓	↓		○			↓	↑		○	○	○	○
	积屑瘤 built-up egde	工件硬度与刀具切削条件不适合 unsuitable workpiece hardness and cutting conditions						↑	↑		○	○	↑			↓	○				
	热龟裂 comp cracks	工件材料的硬度与刀具材料和切削条件不适应 unsuited tool's material and cutting condition to workpiece material						↓	↓	↓	○	○	↑			↓					
	切削刀刀尖部分变形 edge nose deformation	在断续切削大进给时发生 interrupted cutting				○		↑	↓	↓	○	○	↑	↑	↓	↓					
切屑控制	长切屑缠绕 long tangling chips	切削条件不适合 unsuitable cutting conditions						↑	↓	↓	○										
		刀刃几何形状不合适 unsuitable material and cutting conditions										○		↓	↑						
	切削太短、导致飞溅 chips scattering	切削条件不适合 unsuitable cutting conditions							↓	↑	○										
		刀刃几何形状不合适 unsuitable material and cutting conditions										○		↑	↓						
毛刺塌边	钢、铝产生毛刺 steel,aluminum-burr	切削条件不适合 unsuitable cutting conditions						↑	↓		○										
		刀具磨损、几何形状不合适 insert wear,unsuitable geometry				○						○	↑	↓	↑	↓					
	铸铁、塌边 Iron cast,turned-down edge	切削条件不适合 unsuitable cutting conditions						↓	↑		○										
		刀具磨损、几何形状不合适 insert wear,unsuitable geometry				○						○	○	↓	↓	↓					
	软钢、毛边 soft steel,turned-down edge	切削条件不适合 unsuitable cutting conditions							↓	↓											
		刀具磨损、几何形状不合适 insert wear,unsuitable geometry				○						○	↑	↑		↑		○	○	○	○

车削加工常见问题及解决方案

Common Problems And Solutions For Turning

常见问题 FAQ			原因 Reason		解决方法 Solutions		刀具材料 Insert Grade		切削条件 Cutting Conditions				刀具形状 Insert Shape						机床装夹 Setting/Machine			
							硬度 更高的材料 Harder Grade	韧性 更好的材料 Tougher Grade	切削速度 Vc	进给 Fm	切深 Ap	切削液 Coolant	改变刀片槽型 Chip Breaker Review	前角 Rake Angle	刀尖圆弧半径 Corner Radius	主偏角 Setting Angle	切削刃强度 Edges Strength	提高刀片精度 Change to Higher tolerance	提高刀柄刚性 Toolholder Rigidity	工件刀柄装夹 Workpiece/Tool installation	刀柄悬伸 Overhang Length	动力、机床间隙 Power/Rigidity
刀尖磨损过	加工中精度超标 accuracy out tolerance	后刀面磨损增大 wear increase at flank wear	⊙											↑								
		切削条件不适合 unsuitable cutting conditions			↓	↑																
表面精度恶化	表面质量差 poor roughness of surface	刀具磨损增大, 刀刃不够锋利 tool weariness increasing, cutting edge not sharp	⊙		↓			⊙		↑	↑		↓	⊙								
		切削刃缺损 cutting edge chipping		⊙		↓	↓		⊙		↑		↑				⊙	⊙	⊙			
		切削刃几何形状不合适 unsuitable geometry							⊙		↑		↓	⊙								
		切削条件不适合 unsuitable cutting conditions			↑	↓	↓	⊙														
		振动, 发颤 vibration, chattering		⊙	↑↓	↓	↓	⊙	⊙	↑	↓	↑	↓		⊙	⊙	⊙	⊙	⊙			
		积屑瘤 built-up edge			↑	↑		⊙	⊙	↑			↓	⊙								
发热	切削热的影响 cutting heat factors	切削条件不适合 unsuitable cutting conditions			↓	↓	↓															
		切削刃几何形状不合适 unsuitable geometry	⊙						⊙	↑			↓									
尺寸精度差	加工中尺寸波动 variation of dimension	刀片精度不适合 unsuitable insert accuracy											⊙									
		工件, 刀具位置偏移 position offset of workpiece and tool							⊙	↑	↓	↑				⊙	⊙	⊙	⊙			

车削加工参数计算方法

Method for calculating turning machining parameters

切削速度的计算 Calculation of cutting speed	进给量的计算 Calculation of feeds
$V_c = \frac{\pi \times D \times n}{1000} \quad (m/min)$ 式中: Vc: 切削速度 (m/min) n: 主轴转速 (rev/min) D: 工件直径 (mm) 例如: 主轴转速为500rev/min, 切削直径为80mm的工件, 其切削速度为: For example, if the spindle speed is 500 rev/min and the cutting diameter is 80 mm, the cutting speed is: $V_c = \frac{\pi \times D \times n}{1000} = \frac{3.14 \times 80 \times 500}{1000} = 125.6 \quad (m/min)$	$f = \frac{l}{n} \quad (mm/rev)$ 式中: f: 每转进给量 (mm/rev) l: 每分钟切削长度 (mm/min) n: 主轴转速 (rev/min) 例如: 主轴转速为600rev/min, 每分钟切削长度为150mm/min, 其每转进给量为: For example, if the spindle speed is 600rev/min and the cutting length per minute is 150mm/min, the feed per revolution is: $f = \frac{l}{n} = \frac{150}{600} = 0.25 \quad (mm/rev)$
外圆、内孔切削时间计算 Calculation of cutting time for outer and inner holes	端面切削时间的计算 (恒线速) Calculation of face cutting time (constant line speed)
$T = \frac{l}{f \times n} \quad (min)$ 式中: T: 切削时间 (m/min) l: 被切削部分长度 (mm) f: 进给量 (mm/rev) n: 主轴转速 (rev/min) 例如: 求主轴转速为300rev/min, 进给量为0.15mm/rev, 切削长度为180mm的工件所用时间: For example, find the time taken for a workpiece with a spindle speed of 300 rev/min, a feed of 0.15 mm/rev and a cutting length of 180 mm: $T = \frac{l}{f \times n} = \frac{180}{0.15 \times 300} = 4 \quad (min)$	$T = \frac{\pi \times (a^2 - b^2)}{4000 \times V_c \times f} \quad (min)$ 式中: T: 切削时间 (m/min) Vc: 切削速度 (m/min) f: 进给量 (mm/rev) 当所切削的端面无内孔时, b=0, 公式亦适用。 When there is no inner hole on the cut end face, b=0, the formula is also applicable.

车削三要素对加工的影响

Turning Parameters Wear And Solution

我们在切削加工中，通常都希望获得短的加工时间，长的刀具寿命和高的加工精度。因此，必须充分考虑工个材料的材质、硬度、形状状况及机床的性能，选择合适的刀具并使用高效率的切削条件，即我们所说的三要素。

In machining, we usually want short machining times, long tool life and high machining accuracy. Therefore, it is necessary to fully consider the material, hardness, shape condition of the material and the performance of the machine tool, select the appropriate tool and use the high-efficiency cutting conditions, that is, the three elements we call the three elements.

切削速度（V_c）

(1) 切削速度的定义：工件在车床上旋转，我们将其每分钟的转数定义为主轴转速（n）。由于工件旋转，在其直径的切削点处产生切削速度，称为线速度，单位米/分钟。通常用线速度来考虑切削速度对加工的影响。

(2) 切削速度的影响：切削速度对刀具寿命有非常大的影响。提高切削速度时，切削温度就上升，而使刀具寿命大大缩短。加工不同种类、硬度的工件，切削速度会有相应的变化。通过大量的切削实验得出：

- 在通常情况下，切削速度提高20%，刀具耐用度降低1/2；切削速度提高50%，刀具耐用度将降至原来的1/5.
- 低速（20-40m/min）切削易产生振动，使刀具寿命缩短。

(1) Definition of cutting speed: The workpiece rotates on the lathe, and we define its revolutions per minute as the spindle speed (n). As the workpiece rotates, a cutting velocity is produced at the cutting point of its diameter, known as linear velocity, in meters per minute. Linear speed is usually used to consider the effect of cutting speed on machining.

(2) Effect of cutting speed: Cutting speed has a very large impact on tool life. When the cutting speed is increased, the cutting temperature rises, and the tool life is greatly reduced. When machining different types of workpieces and hardnesses, the cutting speed will change accordingly. Through a large number of cutting experiments, it is concluded that:

- Under normal circumstances, a 20% increase in cutting speed reduces tool durability by 1/2, and a 50% increase in cutting speed reduces tool durability to 1/5 of the original tool.
- Low-speed (20-40m/min) cutting is prone to vibration, which shortens the tool life.

进给量（f_n）

(1) 进给量的定义：进给量是指工件每旋转一周，刀具的移动量，单位为毫米/转。

(2) 进给量的影响：进给量是决定被加工表面质量的关键因素，同时也影响加工时切屑形成的范围和切屑的厚度。

在对刀具寿命影响方面，进给量过小，后刀面磨损大，刀具寿命大幅降低；进给量过大，切削温度升高，后刀面磨损也增大，但较之切削速度对刀具寿命的影响要小。

(1) Definition of feed: Feed refers to the amount of movement of the tool for each rotation of the workpiece, in millimeters / revolution.

(2) Influence of feed: Feed is the key factor that determines the quality of the surface to be processed, and also affects the range of chip formation and the thickness of the chip during processing.

In terms of the impact on the tool life, the feed is too small, the flank face wear is large, and the tool life is greatly reduced; If the feed is too large, the cutting temperature increases, and the flank wear also increases, but the effect on the tool life is less than that of the cutting speed.

切削深度（a_p）

(1) 切削深度的定义：切削深度指未加工表面与已加工表面之间的差值，单位毫米。它是工件未加工直径与已加工直径差值的一半。

(2) 切削深度的影响：切削深度应根据工件的加工余量、形状、机床功率、刚性及刀具的刚性来确定。切削深度变化对刀具寿命影响不大。切削深度过小时，会造成刮擦，只切削工件表面的硬化层，缩短刀具寿命。当工件表面具有硬化的氧化层时，应在机床功率允许范围内选择尽可能大的切削深度，以避免刀尖只切削工件的表面硬化层，造成刀尖的异常磨损甚至破损。

(1) Definition of depth of cut: Depth of cut refers to the difference between the unmachined surface and the machined surface, in millimeters. It is half of the difference between the unmachined diameter of the workpiece and the machined diameter.

(2) The influence of depth of cut: The depth of cut should be determined according to the machining allowance, shape, machine power, rigidity and rigidity of the tool. Variations in depth of cut have little effect on tool life. If the depth of cut is too small, it will cause scratching, and only the hardened layer on the surface of the workpiece will be cut, shortening the tool life. When the surface of the workpiece has a hardened oxide layer, the maximum cutting depth should be selected within the allowable range of the machine tool power, so as to avoid the cutting edge only cutting the surface hardening layer of the workpiece, resulting in abnormal wear and even damage of the cutting tip.

铣削加工参数计算方法

Method for calculating milling machining parameters

通用公式

General formula

V _c ：切削速度（m/min）	V _f ：工作台进给量（进给速度）（mm/min）
D _c ：铣刀公称直径（mm）	f _z ：每齿进给量（mm/z）
n：主轴转速（rev/min）	π：圆周率=3.14
Z _n ：刃数	T _c ：加工时间（min）
Q：金属去除率（cm ³ /min）	f _n ：每转进给量（mm/rev）
L：实际走刀距离（mm）	
切削速度	$V_c = \frac{\pi \times D_c \times n}{1000} \quad (m/min)$
主轴转速	$n = \frac{1000 \times V_c}{\pi \times D_c} \quad (rev/min)$
工作台进给量（进给速度）	$V_f = f_z \times n \times Z_n \quad (mm/min)$
每齿进给量	$f_z = \frac{V_f}{n \times Z_n} \quad (mm/z)$
每转进给量	$f_n = \frac{V_f}{n} \quad (mm/rev)$
加工时间	$T_c = \frac{L}{V_f} \quad (min)$
金属去除率	$Q = \frac{a_p \times a_e \times V_f}{1000} \quad (cm^3/min)$



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