

# CUTTING TOOLS CATALOG

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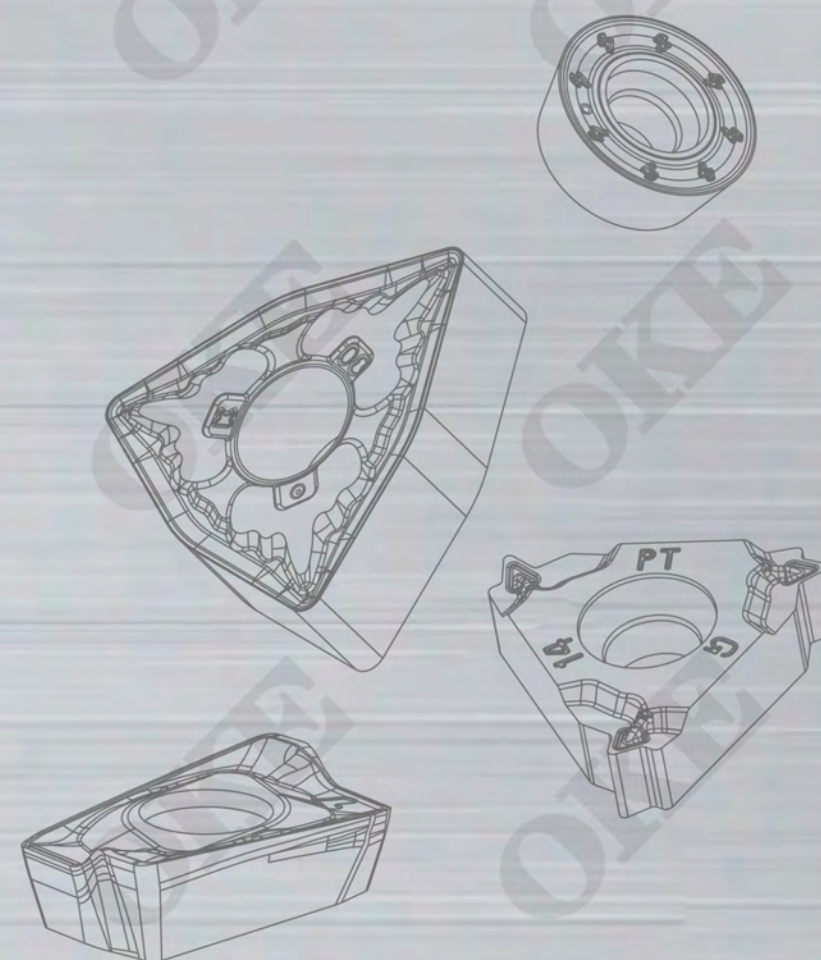
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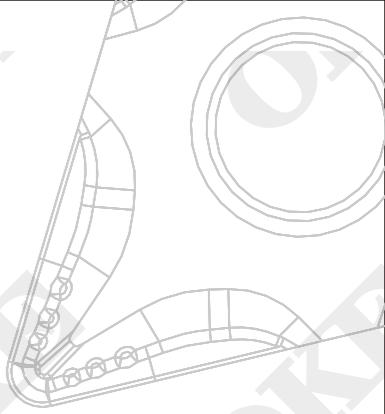
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# 2023



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Cutting Tools

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技术信息 General Technical Guide



**BXKT\_**

**小清风系列多功能方肩铣刀**

**NEW**

- √ 适用多种铣削加工方式；
- √ 带鼓形修形的切削刃微观形状设计；
- √ 采用大螺旋角主切削刃结构；
- √ 高垂直精度和表面光洁度；
- √ 高精度可换头与合金刀杆的牢固连接解决长悬深切削振动。

鼓形修形



大螺旋主切削刃



高精度可换头

**整体硬质合金刀具**



OMPQ通用铣刀系列



OMPX高性能通用铣刀系列



OMH淬火钢加工铣刀系列



OMHH高硬度钢加工铣刀系列

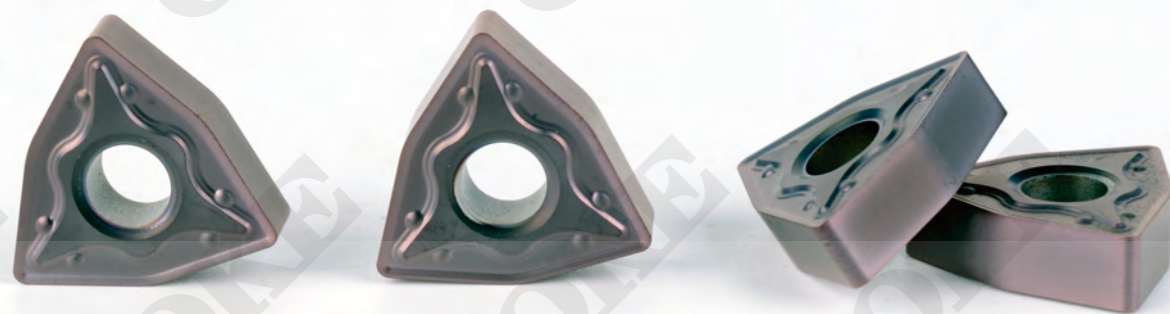


# 小零件加工刀具

**PVD不锈钢车削  
加工新牌号  
OP1415**

**NEW**

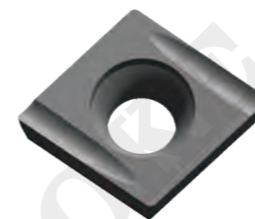
**性能提升30%**



## 前扫刀具

### JF槽型

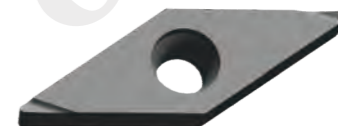
切屑处理能力更好, 适用于小切深, 进给偏大的加工工况  
切削效果优异获得良好的工件表面质量



**NEW**

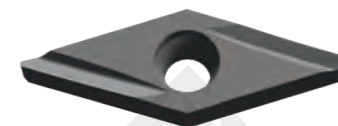
### JU槽型

刃口锋利切削阻力小可用于细长轴加工  
切削刃长, 最大切深4mm, 加工效率高, 可以满足“一刀切”的需求

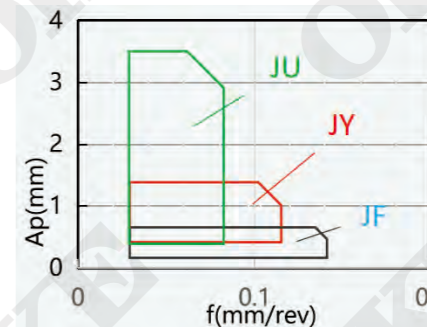


### JY槽型

宽的断屑槽可以保证切削流畅排除  
优秀的切屑处理能力可以提高刀具寿命以及切屑性能



### 推荐加工参数



# 钢

## Steel

### 精加工 Finishing

#### -OPF

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.



#### -OTF

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。

Special chip breaker structure makes excellent chip breaking even at small cutting depth.  
Sharp cutting edge, cutting smoothly and quickly.

### 半精加工 Semi-Finishing

#### -OPM

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。

Negative chamfer designation gives blade good strength;  
Double chipbreaker lands, makes bigger chip control range.



#### -OTM

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。

Flat cutting edge design, good wear-resistance and breakage resistance.  
Inclination angle combination structure can control the chip breaking direction efficiently.

### 粗加工 Roughing

#### -OPR

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。

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.



#### -OTR

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。

Flat cutting edge with big rake angle, gives good wear-resistance.  
Varying chip breaker depth design, good performance on chip breaking control.

# 不锈钢

## Stainless Steel

### 精加工 Finishing

#### -OMF

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。

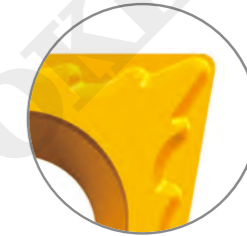
Special designed rake angle and cutting edge inclination;  
Sharp cutting edge, small cutting force;  
Good machining surface quality.



#### -MSF

双前角三维槽型设计；  
刃口锋利，切削力低；  
有效解决了积屑瘤和加工硬化等加工难点；  
刃倾角的设计，很好地控制了切屑流向，获得高质量的加工表面。

Three-dimension designed with double rake angle;  
Sharp cutting edge and lower cutting resistance;  
Efficiently solved build up edge, work hardening and other machining problems.  
Cutting edge inclination designation is good to control chip flow direction and obtains excellent Surface quality.



#### -OTF

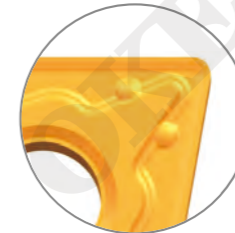
刃口锋利，切削轻快；  
独特的槽型结构，小切深具有优秀的断屑处理能力。  
Special chip breaker structure makes excellent chip breaking even at small cutting depth.  
Sharp cutting edge, cutting smoothly and quickly.

### 半精加工 Semi-Finishing

#### -OMM

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。

Special chipbreaker design to keep cutting edge sharp and safe;  
Good anti impact resistance;  
Excellent tool life time;



#### -MF

独特的槽型设计；兼顾了刀片刃口的锋利性和强度；  
有效解决了不锈钢加工中断屑、切削温度高、粘刀、  
加工硬化等加工难点，可以获得更高的加工效率。

Special chipbreaker design to keep both sharp cutting edge and increased blade intensity;  
Efficiently solved break chip, high cutting temperature, sticking, work hardening and other machining problems.  
It has very excellent efficiency



#### -OTM

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。

Flat cutting edge design, good wear-resistance and breakage resistance.  
Inclination angle combination structure can control the chip breaking direction efficiently.

# 铸铁

Iron

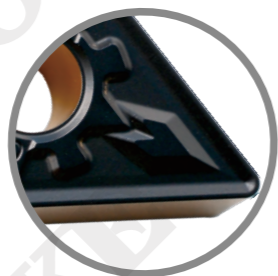
## 精-半精加工 Finishing To Semi-Finishing

### -OKM

宽的支撑面，夹持稳定，防止切削崩刃  
锋利的刃口，提升工件表面质量；  
连续加工中抗崩刃性能优异；  
高质量的表面粗糙度。

Wide support surface for stable clamping and preventing chipping

Sharp cutting edge, improve workpiece surface quality  
Excellent chipping resistance in continuous machining  
High quality surface roughness



## 粗加工 Roughing



### -OKR

宽的支撑面，夹持稳定，防止切削崩刃；  
优化刃宽可用于高速、大进给加工；  
断续加工中抗崩刃性能优异；  
提升加工稳定性，延长刀具寿命。

Wide support surface for stable clamping and preventing chipping  
Optimized edge width for high-speed, high-feed machining  
Excellent chipping resistance in interrupted machining  
Improve machining stability and extend tool life

# 高温合金加工

High Temperature Alloy

## 半精加工 Semi-Finishing

### -SMM

大前角三维槽型设计；  
刃口锋利，切削力低；  
有效加工温度高和加工硬化等加工难点；  
Three-dimensional groove design with large rake angle;  
Sharp cutting edge and low cutting force;  
Processing difficulties such as high temperature processing and work hardening;  
Suitable for finishing of super-alloy materials.



### -OSM

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。

Effectively control chip curling and flow;  
Sharp cutting edge, smooth quick cutting;  
Proper edge strength gives a longer service life

# 铝合金

Aluminum Alloy

-NL

精加工-粗加工  
Finishing To Roughing

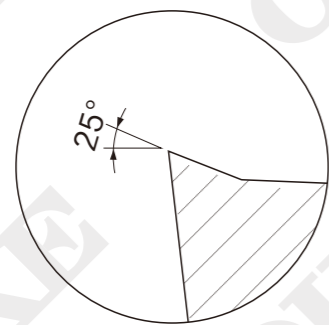


大前角及后角使刀片刃口更加锋利，切削更加轻快  
Large rake angle and clearance angle form sharper cutting edge, it's optimized quick cutting and lower cutting loading;

独一无二的三维断屑槽及大的容屑槽设计  
Unique 3D chip breaker and sufficient chip pocket design;

刃倾角的设计有效控制了切屑的流向  
Special design in cutting edge inclination efficiently controls chipping flow direction.

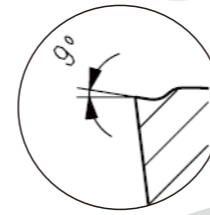
刀片前刀面的镜面效果，可获得高的表面质量及刀片寿命  
Mirror effect on rake face obtains good surface quality and long insert life.



# 切断切槽

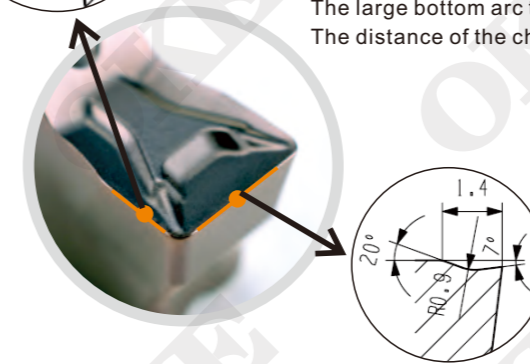
Parting and Grooving

-OC



锋利刃口加7度前角，保证刃口锋利性的同时兼顾刃口的强度；大的底部圆弧过渡，保证了切屑的圆滑卷曲；断屑台的距离有效保证了切屑的折断。

The sharp edge is added with a 7-degree rake angle to ensure the sharpness and strength of the edge;  
The large bottom arc transition ensures the smooth curling of the chips;  
The distance of the chip breaker effectively ensures the breaking of the chips.



-MG

顶部凸点设计减小切屑宽度，更有利于切屑的卷曲和折断；  
Convex design on the top reduces the chip width, it has a better effect on the chip curling and chip breaking.



用于车削和切槽加工；  
For turning and grooving

侧面小凸起的设计在车削加工中可以很好地断屑。  
Small convex design on the sides contributes well to chip breaking in turning process.

# CVD

牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature
OC2115	1530	CVD	黑色 Black	<p>低Co高立方相含量硬质合金基体搭配较厚TiCN和较厚Al<sub>2</sub>O<sub>3</sub>涂层,经特殊后处理工艺,具有极好的耐磨性能。</p> <p>钢类零件精加工及连续工况半精加工首选牌号; ●</p> <p>Low Cobalt content, and high cubic content carbide substrate combine with thick TiCN and Al<sub>2</sub>O<sub>3</sub>, treated by special after coating treatment, which gives insert wonderful wearing resistance.</p> <p>Preferred grade for semifinishing to finishing steel machining.</p>
OC2125	1480	CVD	黑色 Black	<p>中Co高立方相含量硬质合金基体搭配较厚TiCN和较厚Al<sub>2</sub>O<sub>3</sub>涂层,经特殊后处理工艺,具有较好的耐磨性能。</p> <p>钢件材料半精加工及粗加工的首选牌号; ●</p> <p>Low Cobalt content, and high cubic content carbide substrate combine with thick TiCN and Al<sub>2</sub>O<sub>3</sub>, treated by special after coating treatment, which gives insert wonderful wearing resistance.</p> <p>Preferred grade for semifinishing to finishing steel machining.</p>
OC2325	1480	CVD	黄色 Yellow	<p>中Co高立方相含量硬质合金基体搭配强组织结构的TiCN和Al<sub>2</sub>O<sub>3</sub>涂层,经特殊后处理工艺,具有突出的耐磨性能。</p> <p>钢件材料连续车削加工 ●</p> <p>Medium cobalt content, and high cubic content carbide substrate combine with strong texture TiCN and Al<sub>2</sub>O<sub>3</sub> coating. After special treatment, it has wonderful abrasion resistance.</p>
OC2325S	1480	CVD	双色 Double color	<p>富立方相含量的梯度硬质合金基体,具有更好的高温性能、抗塑性变形能力;均匀致密细晶涂层,具有优异的耐磨性,特殊的过渡层结构,保证涂层抗剥落性能;独特的后处理技术,实现了双色标识层及均匀的压应力分布,确保更高的耐磨性和稳定性;适用于各种钢材的车削加工,注重耐磨性的首选牌号。●</p> <p>Gradient hard alloy substrate with rich cubic phase content has better high temperature performance and plastic deformation resistance.</p> <p>The uniform dense and fine-grained coating has excellent wear resistance, and the special transition layer structure ensures the anti-peeling performance of the coating; The unique post-processing technology realizes a two-color marking layer and uniform compressive stress distribution, ensuring higher wear resistance and stability. It is suitable for turning of various steels and is the first choice for wear resistance.</p>

# CVD

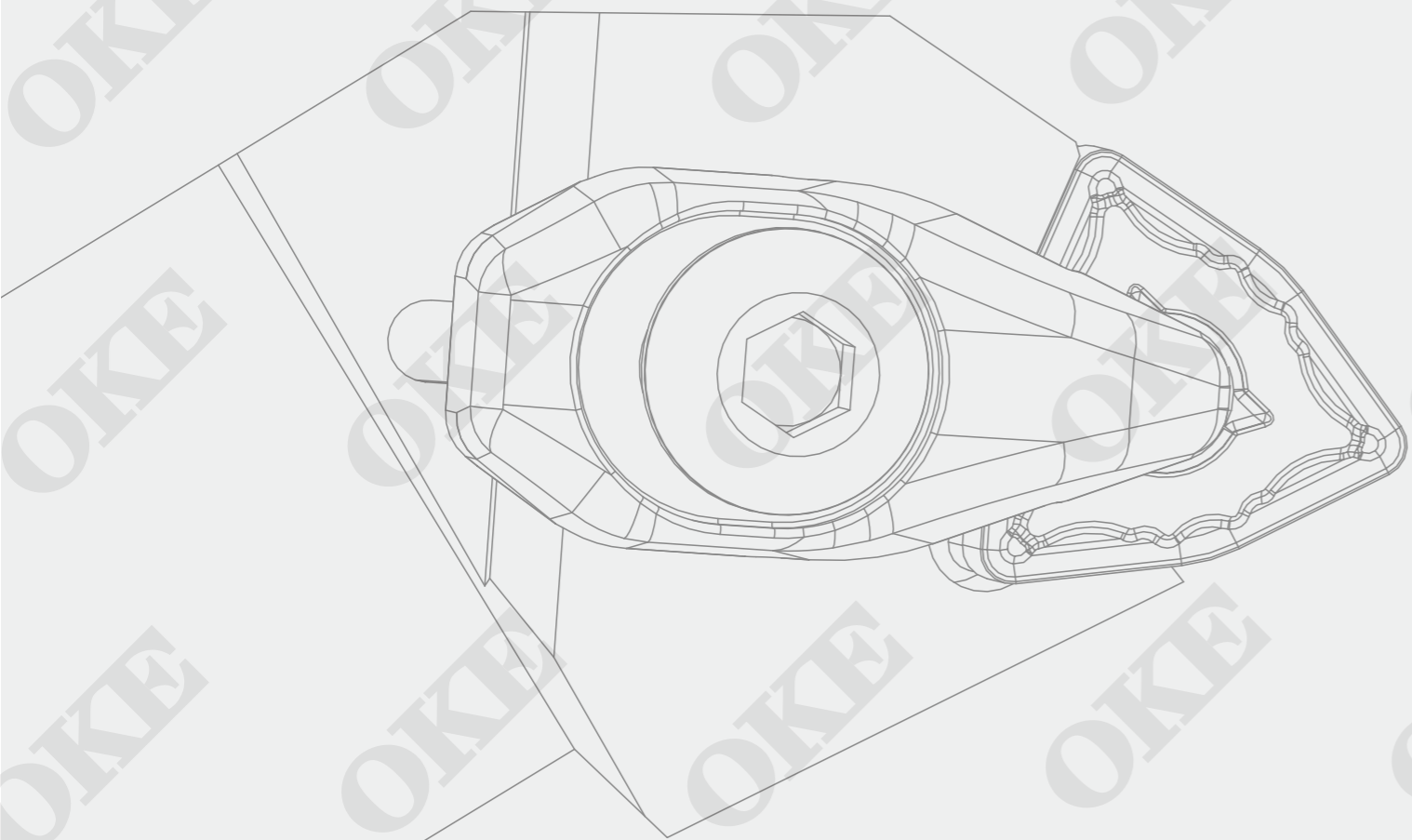
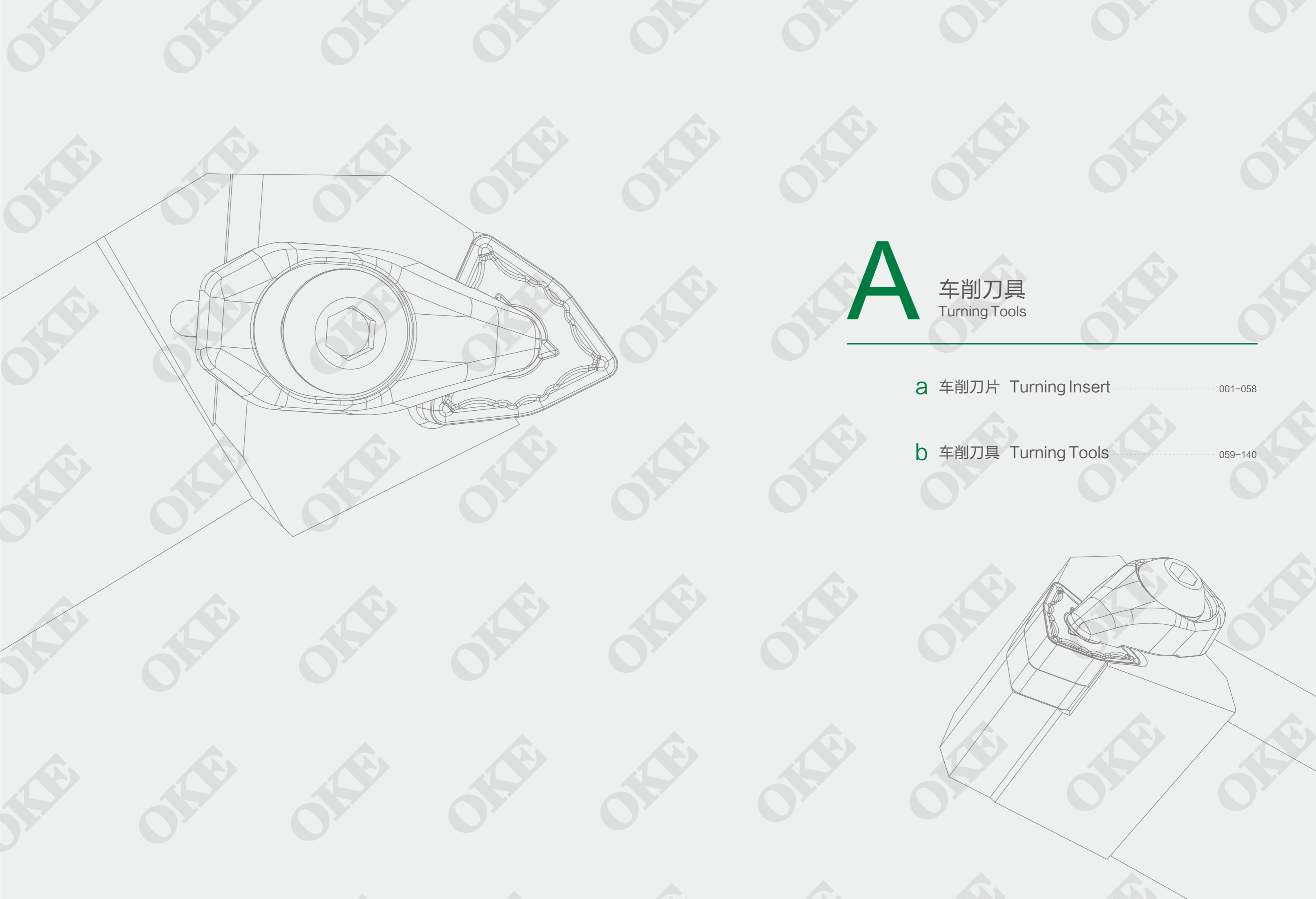
牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature
OC2425	1470	CVD	双色 Double color	<p>富含立方相的硬质合金基体,保证良好的高温性能、抗塑性变形能力;致密均匀超细晶涂层,提供优异的耐磨性,特有的过渡层结构,保证涂层抗剥落性能;独特的后处理技术,实现双色标识层及有益的压应力分布,达到更高的耐磨性和稳定性;基体刃口部分采用独特的“骨架”结构,实现了优异的切削性能及良好的刃口安全性;通过优化调整固溶体内原料配比及原料粒度,进一步提高基体的红硬性;适用于P10-P20(中高碳钢、低合金钢)高效率、轻断续加工,拥有更宽的应用范围和更佳稳定性。●</p> <p>High cubic content gradient carbide substrate, gives good anti-deformation resistance and excellent high temperature performance.</p> <p>Dense and uniform ultra-fine-grained coating, providing excellent wear resistance, unique transition layer structure, to ensure the anti-peeling performance of the coating; unique post-processing technology, realizing two-color and beneficial compressive stress distribution, to achieve higher resistance Abrasiveness and stability.</p> <p>The substrate edge part adopts a unique "skeleton" structure, which achieves excellent cutting performance and good safety.</p> <p>The red hardness of the substrate is further improved by optimizing and adjusting the ratio of raw materials in the solid solution and the particle size of the raw materials. It is suitable for high-efficiency, light-interrupted machining of P10-P20 (medium and high carbon steel, low alloy steel), with a wider application range and better stability.</p>
OC3210	1650	CVD	双色 Double color	<p>细晶和高硬化度的化学涂层,基体具有很好的耐磨性,在广阔的加工领域实现了稳定和长寿命。</p> <p>灰口铸铁、球墨铸铁加工(连续、轻断续工况)。</p> <p>灰口铸铁、球墨铸铁加工(小零件开粗) ●</p> <p>Fine-grained and high-hardened chemical coating, the substrate has good wear resistance, and achieves stability and long life in a wide range of processing fields.</p> <p>Gray cast iron, ductile iron machining (continuous, light interrupted conditions)</p> <p>Gray cast iron, ductile iron machining (small parts roughing)</p>
OC3215	1580	CVD	黑色 Black	<p>中等颗粒的WC晶粒的硬质合金基体搭配厚TiCN和厚的结构化Al<sub>2</sub>O<sub>3</sub>涂层,经特殊后处理工艺,具有突出的耐磨性能。</p> <p>适用于高线速度下铸铁材料的半精加工; ●</p> <p>The medium-coarse substrate combine with thick TiCN and textured Al<sub>2</sub>O<sub>3</sub>, after special after coating treatment, it has outstanding wearing resistance.</p> <p>Suitable for high speed semi-finishng cast iron cutting under stable work condition.</p>
OC3220	1600	CVD	双色 Double color	<p>采用细晶α-Al<sub>2</sub>O<sub>3</sub>膜强化的MTCVD TiCN-Al<sub>2</sub>O<sub>3</sub>涂层,基体为一种韧性很好的硬质合金。</p> <p>灰口铸铁、球墨铸铁加工(强断续工况)。</p> <p>灰口铸铁、球墨铸铁加工(开粗、黑皮工况) ●</p> <p>MTCVD TiCN-Al<sub>2</sub>O<sub>3</sub> coating strengthened by fine-grained α-Al<sub>2</sub>O<sub>3</sub> film, the substrate is a kind of hard alloy with good toughness</p> <p>Gray cast iron, ductile iron machining (strong interrupted conditions)</p> <p>Gray cast iron, ductile iron machining (roughing, black skin conditions)</p>
OC4315	1480	CVD	金色 Gold	<p>中Co高立方相含量硬质合金基体搭配薄的MT-TiCN和薄的Al<sub>2</sub>O<sub>3</sub>涂层,经特殊后处理工艺,具有较好的耐磨性能和特殊的外观,大大降低的摩擦阻力,并易于加工识别。</p> <p>适用于不锈钢材料的高速连续车削加工; ●</p> <p>Medium Cobalt content, and high cubic content carbide substrate combine with thin TiCN and Al<sub>2</sub>O<sub>3</sub>, treated by special after coating treatment, which gives insert wonderful wearing resistance.</p> <p>Preferred grade for stainless steel turning at high speed.</p>



# PVD

牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature
OP1030	1500	PVD	灰色 Gray	高Co含量细晶粒硬质合金基体，具有很好的强韧性，搭配PVD通用性好的AlTiN涂层，具有很好的韧性和通用性能。 钢、不锈钢材料的铣削及钻削加工； ● ●  High Co content and ultra fine WC grain substrate, gives wonderful toughness, combines with PVD AlTiN coating, it has good strength and versatility. Suitable for steel and stainless steel milling and drilling.
OP1205	1650	PVD	紫红 Dark Purple	高Co含量的超细硬质合金基体，具有很好的刃口强度，搭配热稳定性好的PVD含硅涂层，具有摩擦系数小，纳米硬度高等特点。 钢、不锈钢材料的螺纹车削加工； ● ●  High Co content and ultra fine WC grain substrate, gives wonderful cutting edge strength, combines with good thermal stability silicon coating, it has very small coefficient of friction, and good nano hardness. Suitable for steel and stainless steel continue turning and threading.
OP1215	1560	PVD	紫红 Dark Purple	高Co含量细晶粒的硬质合金基体，具有很好的刃口强度，搭配热稳定性好的PVD含硅涂层，具有摩擦系数小，纳米硬度高等特点。 连续工况下不锈钢材料的半精车削加工及切槽加工；钢、不锈钢材料的铣削及钻削加工； ● ●  High Co content and fine WC grain substrate, gives wonderful cutting edge strength, combines with good thermal stability silicon coating, it has very small coefficient of friction, and good nano hardness. Good at stainless steel semi-finishing turning, parting and grooving processing. preferred grade for steel and stainless steel milling and drilling.
OP1315	1560	PVD	灰色 Gray	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。 钢、不锈钢材料的铣削加工； ● ●  High Co content and fine WC grain 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.

牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature
OP1415	1550	PVD	紫红 Dark Purple	涂层柱状晶致密，晶体间间隙小，有效提高抗氧化能力和抗塑性变形能力； 涂层表面的粗糙度越低，能够有效降低切削时产生的阻力与热量； 膜层与基体的结合力强，减弱产品出现不正常的破裂，提高刀具使用寿命。 ●  The coating has dense columnar crystals and small gaps between crystals, which can effectively improve the oxidation resistance and plastic deformation resistance; The lower the roughness of the coating surface, the lower the resistance and heat generated during cutting can be effectively reduced; The bonding force between the film layer and the substrate is strong, which reduces the abnormal cracking of the product and improves the service life of the tool.
OP1325	1580	PVD	金黄色 Yellow	全新的硬质合金基体，具有优异的耐磨损性以及抗冲击性能，搭配复合多层结构的AlTiN涂层，具有超强的膜基结合力和极低的摩擦系数，使用寿命大大提高。 钢/不锈钢材料的铣削加工； ● ●  New material substrate has good anti wear resistance and anti impact resistance. Combining with multiple layers AlTiN coating, it has excellent adhesion between coating and substrate which improves tool life significantly. Suitable for general steel, and stainless steel milling.
OP1630	1520	PVD	金黄色 Yellow	全新升级涂层技术，P类铣削新王者； 增强刀尖设计，抗冲击性能优异； 改良性侧面，贴合稳定； 搭配配套开发钢制品，性能更优。 ●  Newly upgraded coating technology, the new king of steel milling; Enhanced tip design, excellent impact resistance; Improved side, stable fit; With supporting development of steel products, the performance is better;
OP2202	1640	PVD	灰色 Gray	高Co含量超细硬质合金基体，具有高的刃口强度，搭配PVD的AlTiN涂层，具有突出的耐磨性能； 钢件及铸铁材料的轻型铣削加工。 ● ●  High Co content and ultra fine WC grain substrate, gives wonderful cutting edge strength, combines with PVD AlTiN coating, it has outstanding wearing resistance. Suitable for steel and cast iron slight milling.

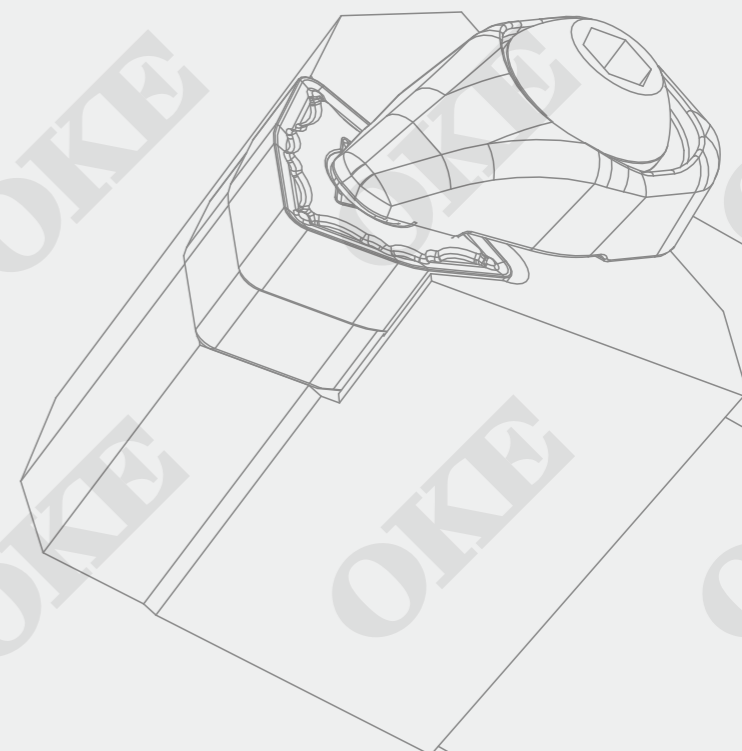


# A

车削刀具  
Turning Tools

a 车削刀片 Turning Insert ..... 001-058

b 车削刀具 Turning Tools ..... 059-140



# 普通车削刀片命名规则 ISO Turning Insert Naming Rules

## 形状代号 Shape

C N M G 12 04 08 — OPM

<b>A</b>	<b>B</b>	<b>C</b>
<b>D</b>	<b>E</b>	<b>H</b>
<b>K</b>	<b>L</b>	<b>M</b>
<b>O</b>	<b>P</b>	<b>R</b>
<b>S</b>	<b>T</b>	<b>T</b>
<b>V</b>	<b>W</b>	<b>Z</b>
		其它

## 断屑槽及夹固形式代号 Chip Breaker and Hole

C N M G 12 04 08 — OPM

代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile	代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile
<b>B</b>	有(Y)	无(N)		<b>N</b>	无(N)	无(N)	
<b>H</b>	有(Y)	单面(S)		<b>R</b>	无(N)	单面(S)	
<b>C</b>	有(Y)	无(N)		<b>F</b>	无(N)	双面(D)	
<b>J</b>	有(Y)	双面(D)		<b>A</b>	有(Y)	无(N)	
<b>W</b>	有(Y)	无(N)		<b>M</b>	有(Y)	单面(S)	
<b>T</b>	有(Y)	单面(S)		<b>G</b>	有(Y)	双面(D)	
<b>Q</b>	有(Y)	无(N)		<b>X</b>			
<b>U</b>	有(Y)	双面(D)					

## 后角代号 Clearance Angle

C N M G 12 04 08 — OPM

<b>A</b>	<b>B</b>
<b>C</b>	<b>D</b>
<b>E</b>	<b>F</b>
<b>G</b>	<b>N</b>
<b>P</b>	<b>O</b>
	其它后角 Others

## 精度代号 Tolerance

C N M G 12 04 08 — OPM

代号 Symbol	刀尖高度m 公差 (mm) m(mm)	内接圆φI.C 公差 (mm) d-I.C. (mm)	厚度S 公差 (mm) s (mm)	(参考) M级精度详细情况 (按形状、大小分) ●刀尖高度公差(mm) (reference) M grade tolerance detail (according to shape, size.) Tolerance of insert nose height							
				内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 Rhombus	55° 菱形 Rhombus	35° 菱形 Rhombus	圆形 Round	
				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	...	...	
<b>A</b>	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	...	...	
<b>F</b>	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	...	...	
<b>C</b>	±0.013	±0.025	±0.025	25.4	...	±0.18	...	...	...	...	
<b>H</b>	±0.013	±0.013	±0.013	●内接圆φI.C公差 (mm) ●Tolerance of Inscribed Circle							
<b>E</b>	±0.025	±0.025	±0.025	内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 Rhombus	55° 菱形 Rhombus	35° 菱形 Rhombus	圆形 Round	
<b>G</b>	±0.025	±0.025	±0.13	6.35	±0.05	±0.05	±0.05	±0.05	±0.05		
<b>J</b>	±0.005	±0.05~±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05		
<b>K</b>	±0.013	±0.05~±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	
<b>L</b>	±0.025	±0.05~±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	...	±0.08	
<b>M</b>	±0.08~±0.18	±0.05~±0.13	±0.13	15.875	±0.1	±0.1	±0.10	±0.10	...	±0.1	
<b>N</b>	±0.08~±0.18	±0.05~±0.13	±0.025	19.05	±0.1	±0.1	±0.10	±0.10	...	±0.1	
<b>U</b>	±0.13~±0.38	±0.08~±0.25	±0.13	25.4	...	...	±0.13	...	...	±0.13	

# 普通车削刀片命名规则 ISO Turning Insert Naming Rules

## 切削刃长度代号 Cutting Edge Length

C N M G 12 04 08 — OPM

内切圆直径 Inscribed Circle diameter(mm)	刀片外形 Insert Shape							
	<b>C</b>	<b>D</b>	<b>R</b>	<b>S</b>	<b>T</b>	<b>V</b>	<b>W</b>	<b>K</b>
3.97					06			
5			05					
5.56					09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			19	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

## 刀片厚度代号 Thickness

C N M G 12 04 08 — OPM

代号 Symbol	刀片厚度 Thickness(mm)
<b>00</b>	0.79
<b>T0</b>	0.99
<b>01</b>	1.59
<b>T1</b>	1.98
<b>02</b>	2.38
<b>T2</b>	2.58
<b>03</b>	3.18
<b>T3</b>	3.97
<b>04</b>	4.76
<b>T4</b>	4.96
<b>05</b>	5.56
<b>T5</b>	5.95
<b>06</b>	6.35
<b>T6</b>	6.75
<b>07</b>	7.94
<b>09</b>	9.52
<b>T9</b>	9.72
<b>11</b>	11.11
<b>12</b>	12.7

厚度指刀片底面与切削刃最高部分之间的高度  
The Height Between Insert Bottom And Nose

## 刀尖圆弧代号 Corner Radius

C N M G 12 04 08 — OPM

代号 Symbol	刀尖圆弧半径 (mm) Corner Radius (mm)
<b>00</b>	无圆角
<b>02</b>	0.2
<b>04</b>	0.4
<b>08</b>	0.8
<b>12</b>	1.2
<b>16</b>	1.6
<b>20</b>	2
<b>24</b>	2.4
<b>32</b>	3.2
<b>X</b>	其它 Special

## 断屑槽型代号 Chip Beaker

C N M G 12 04 08 — OPM

<b>OPF</b>	<b>OPM</b>	<b>OPR</b>	<b>OMF</b>	<b>OMM</b>
<b>MF</b>	<b>MSF</b>	<b>OTF</b>	<b>OTM</b>	<b>OTR</b>
<b>OKM</b>	<b>OKR</b>	<b>OSM</b>	<b>SMM</b>	<b>NL</b>

# 车削刀片一览表 Inserts Overview

<b>CNMG-OPF</b>	<b>CNMG-OMF</b>	<b>CNMG-MSF</b>	<b>CNMG-OPM</b>	<b>CNMG-OMM</b>	<b>CNMG-MF</b>
					
刃长 EdgeLength	12.9	刃长 EdgeLength	12.9	刃长 EdgeLength	9.7 12.9
刃长 EdgeLength	12.9	刃长 EdgeLength	12.9	刃长 EdgeLength	12.9 16.1 19.3
刃长 EdgeLength	12.9	刃长 EdgeLength	12.9	刃长 EdgeLength	12.9 16.1
<b>CNMG-OKM</b>	<b>CNMG-OSM</b>	<b>CNMG-SMM</b>	<b>CNMG-OPR</b>	<b>CNMG-OMR</b>	<b>CNMG-OKR</b>
					
刃长 EdgeLength	12.9	刃长 EdgeLength	12.9	刃长 EdgeLength	12.9 16.1 19.3
刃长 EdgeLength	12.9	刃长 EdgeLength	12.9	刃长 EdgeLength	12.9
刃长 EdgeLength	12.9	刃长 EdgeLength	12.9	刃长 EdgeLength	12.9 16.1
<b>CNMM-PR</b>	<b>CNMM-PR</b>	<b>CNMG</b>	<b>CNMA</b>	<b>DNMG-OPF</b>	<b>DNMG-OMF</b>
					
刃长 EdgeLength	19.3	刃长 EdgeLength	25.8	刃长 EdgeLength	11.6 15.5
刃长 EdgeLength	19.3	刃长 EdgeLength	12.7 16.1 19.3	刃长 EdgeLength	12.7 16.1 19.3
刃长 EdgeLength	19.3	刃长 EdgeLength	12.7 16.1 19.3	刃长 EdgeLength	15.5
刃长 EdgeLength	15.5	刃长 EdgeLength	15.5	刃长 EdgeLength	15.5
<b>DNMG-MSF</b>	<b>DNMG-OPM</b>	<b>DNMG-OMM</b>	<b>DNMG-MF</b>	<b>DNMG-OKM</b>	<b>DNMG-OSM</b>
					
刃长 EdgeLength	11.6 15.5	刃长 EdgeLength	11.6 15.5	刃长 EdgeLength	11.6 15.5
刃长 EdgeLength	11.6 15.5	刃长 EdgeLength	11.6 15.5	刃长 EdgeLength	15.5
刃长 EdgeLength	15.5	刃长 EdgeLength	15.5	刃长 EdgeLength	15.5
<b>DNMG-OPR</b>	<b>DNMG-OKR</b>	<b>DNMG</b>	<b>DNMA</b>	<b>SNMG-OPF</b>	<b>SNMG-OMF</b>
					
刃长 EdgeLength	15.5	刃长 EdgeLength	15.5	刃长 EdgeLength	11.6 15.5
刃长 EdgeLength	15.5	刃长 EdgeLength	15.5	刃长 EdgeLength	15.5
刃长 EdgeLength	12.7	刃长 EdgeLength	12.7	刃长 EdgeLength	12.7
<b>SNMG-OPM</b>	<b>SNMG-OMM</b>	<b>SNMG-MF</b>	<b>SNMG-OKM</b>	<b>SNMG-OSM</b>	<b>SNMG-SMM</b>
					
刃长 EdgeLength	12.7 15.875 19.05	刃长 EdgeLength	12.7 15.875	刃长 EdgeLength	12.7
刃长 EdgeLength	12.7	刃长 EdgeLength	12.7	刃长 EdgeLength	12.7
刃长 EdgeLength	12.7	刃长 EdgeLength	12.7	刃长 EdgeLength	12.7

# 车削刀片一览表 Inserts Overview

<b>SNMG-OPR</b>	<b>SNMM-OPR</b>	<b>SNMG-OKR</b>	<b>SNMM-PR</b>	<b>SNMG</b>	<b>SNMA</b>
					
刃长 EdgeLength	12.7 15.875 19.05	刃长 EdgeLength	19.05	刃长 EdgeLength	12.7 15.875 19.05 25.4
刃长 EdgeLength	19.05	刃长 EdgeLength	12.7 15.875 19.05	刃长 EdgeLength	25.4
刃长 EdgeLength	12.7 15.875 19.05	刃长 EdgeLength	12.7 15.875 19.05	刃长 EdgeLength	12.7
<b>TNMG-OPF</b>	<b>TNMG-OMF</b>	<b>TNMG-MSF</b>	<b>TNMG-OPM</b>	<b>TNMG-OMM</b>	<b>TNMG-MF</b>
					
刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5 22
刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5 22
刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5 22
<b>TNMG8-OKM</b>	<b>TNMG-SMM</b>	<b>TNMG-OPR</b>	<b>TNMG-OMR</b>	<b>TNMG-OKR</b>	<b>TNMG</b>
					
刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5 22 27.5
刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5
刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5 22
<b>TNMA</b>	<b>VNMG-OPF</b>	<b>VNMG-MSF</b>	<b>VNMG-OPM</b>	<b>VNMG-OMM</b>	<b>VNMG-MF</b>
					
刃长 EdgeLength	16.5 22	刃长 EdgeLength	16.6	刃长 EdgeLength	16.6
刃长 EdgeLength	16.6	刃长 EdgeLength	16.6	刃长 EdgeLength	16.6
刃长 EdgeLength	16.6	刃长 EdgeLength	16.6	刃长 EdgeLength	16.6
<b>VNMG-OKM</b>	<b>VNMG-SMM</b>	<b>VNMG-OPR</b>	<b>VNMG-OKR</b>	<b>VNMG</b>	<b>VNMA</b>
					
刃长 EdgeLength	16.6	刃长 EdgeLength	16.6	刃长 EdgeLength	16.6
刃长 EdgeLength	16.6	刃长 EdgeLength	16.6	刃长 EdgeLength	16.6
刃长 EdgeLength	16.6	刃长 EdgeLength	16.6	刃长 EdgeLength	16.6
<b>WNMG-OPF</b>	<b>WNMG-OMF</b>	<b>WNMG-MSF</b>	<b>WNMG-OPM</b>	<b>WNMG-OMM</b>	<b>WNMG8-MF</b>
					
刃长 EdgeLength	6.5	刃长 EdgeLength	6.5 8.7	刃长 EdgeLength	6.5 8.7
刃长 EdgeLength	6.5 8.7	刃长 EdgeLength	6.5 8.7	刃长 EdgeLength	6.5 8.7
刃长 EdgeLength	6.5 8.7	刃长 EdgeLength	6.5 8.7	刃长 EdgeLength	6.5 8.7

# 车削刀片一览表 Inserts Overview

<b>WNMG-OKM</b>	<b>WNMG-SMM</b>	<b>WNMG-OPR</b>	<b>WNMG-OMR</b>	<b>WNMG-OKR</b>	<b>WNMG</b>	
						
刃长 EdgeLength	8.7	刃长 EdgeLength	8.7	刃长 EdgeLength	8.7	
<b>WNMA</b>	<b>CCMT-OTF</b>	<b>CCMT-MSF</b>	<b>CCMT-OTM</b>	<b>CCMT-OTR</b>	<b>DCMT-OTF</b>	
						
刃长 EdgeLength	8.7	刃长 EdgeLength	6.4 9.7 12.9	刃长 EdgeLength	6.4 9.7 12.9	
<b>DCMT-MSF</b>	<b>DCMT-OTM</b>	<b>DCMT-OTR</b>	<b>RCMXMO</b>	<b>RCMXMO-Q</b>	<b>RCMTMO</b>	
						
刃长 EdgeLength	7.8 11.6	刃长 EdgeLength	7.8 11.6	刃长 EdgeLength	11.6	
<b>RCMTMO-Q</b>	<b>SCMT-OTF</b>	<b>SCMT-OTM</b>	<b>SCMT-OTR</b>	<b>TCMT-OTF</b>	<b>TCMT-OTM</b>	
						
刃长 EdgeLength	16	刃长 EdgeLength	9.525 12.7	刃长 EdgeLength	9.525 12.7	
<b>TCMT-OTR</b>	<b>VBMT-OTF</b>	<b>VBMT-OTM</b>	<b>VBMT-OMM</b>	<b>VBMT-OSM</b>	<b>VBMT-OTR</b>	
						
刃长 EdgeLength	16.5 22	刃长 EdgeLength	16.5	刃长 EdgeLength	11 16.5	
<b>VCMT-OTF</b>	<b>VCMT-OTM</b>	<b>VCMT-OSM</b>	<b>TPGH</b>	<b>KNUX</b>	<b>175.32</b>	
						
刃长 EdgeLength	11 16.5	刃长 EdgeLength	16.5	刃长 EdgeLength	16.5	
			刃长 EdgeLength	6.4 8.2 9.6 11	刃长 EdgeLength	16.2
					刃长 EdgeLength	19.1




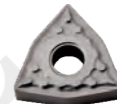
# 车削刀片一览表 Inserts Overview

<b>175.32</b>	
	
刃长 EdgeLength	19.1

## 铝加工刀片一览表 Insert for Aluminum

<b>CCGX-NL</b>	<b>DCGX-NL</b>	<b>RCGT-NL</b>	<b>SCGX-NL</b>	<b>TCGX-NL</b>	<b>VCGX-NL</b>
					
刃长 EdgeLength	6.4 9.7 12.9	刃长 EdgeLength	7.8 11.6	刃长 EdgeLength	6.5 8.7
		刃长 EdgeLength	9.525 12.7	刃长 EdgeLength	9.6 11 16.5
				刃长 EdgeLength	11 16.5 22

## 金属陶瓷刀片 Cermet Inserts

<b>CNMG-SAL</b>	<b>TNMG-SAL</b>	<b>VNMG-SAL</b>	<b>WNM-SAL</b>	
				
刃长 EdgeLength	12.9	刃长 EdgeLength	16.5	
		刃长 EdgeLength	16.6	
			刃长 EdgeLength	8.7

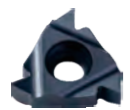

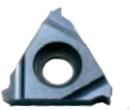


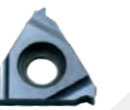
## 切断切槽刀片一览表 Parting and Grooving Inserts

<b>Q□□D-MG</b>	<b>Q□□W-OC</b>	
		
刃长 EdgeLength	2.5 3 4 5 6	
	刃长 EdgeLength	2 2.5 3 4 5

# 车削刀片一览表 Inserts Overview

## 螺纹刀片一览表

Threading Insert

60° V牙形螺纹刀片 60° general pitch threads	55° V牙形螺纹刀片 55° general pitch threads	ISO 米制螺纹刀片 ISO metric threads	Un美制螺纹刀片 Unified thread (American standard thread)	W惠氏螺纹刀片 Whitworth threads	BSPT英制锥管螺纹刀片 British standard taper pipe threads
 P47	 P48	 P49	 P50	 P51	 P52

NPT 英制锥管螺纹刀片 NPT American standard taper pipe threads	UNJ 美制航空螺纹刀片 UNJ American standard aerospace and aviation threads	RD DIN405圆管30° 螺纹刀片 30° DIN405 round threads	APIRD 石油管螺纹刀片 Petroleum pipeline threads	TR 公制30° 梯形螺纹刀片 30° ISO metric threading insert	ACME 美制29° 梯形螺纹刀片 29° American standard ACME threads
 P53	 P54	 P55	 P56	 P56	 P57

STACME 矮牙美制29° 梯形螺纹刀片  
29° American standard STACME threads



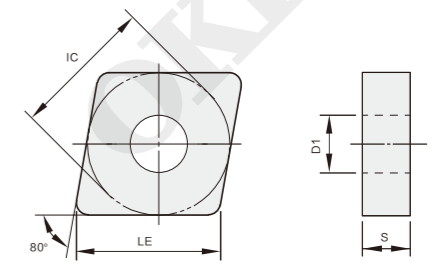
# 槽型说明一览表 Chipbreaker Introduction Chart

ISO Code	P	P/M	M	K	N	S
精加工 Finishing	<b>OPF</b> 适用于钢类材料的精加工槽型。 OPF Chip Breaker: Suitable for finishing ISO P material.	<b>OTF</b> 适用于钢或者不锈钢精加工通用槽型。 OTF Chip Breaker: Suitable for finishing ISO P and M material.	<b>OMF</b> 适用于不锈钢类材料的精加工槽型。 OMF Chip Breaker: Suitable for finishing ISO M material.			
			<b>MSF</b> 适用于不锈钢类材料的精加工槽型。 MSF Chip Breaker: Suitable for finishing ISO M material.			
半精加工 Semi Finishing	<b>OPM</b> 适用于钢类材料的半精加工槽型。 OPM Chip Breaker: Suitable for semi-finishing ISO P material.	<b>OTM</b> 适用于钢或不锈钢半精加工通用槽型。 OTM Chip Breaker: Suitable for semi-finishing ISO P and M material.	<b>MF</b> 适用于不锈钢类材料的半精加工槽型。 MF Chip Breaker: Suitable for semi-finishing ISO M material.	<b>OKM</b> 适用于灰口铸铁、球墨铸铁的连续/轻断续加工。 Suitable for gray cast iron, nodular cast iron continuous/slight interrupt cutting.	<b>NL</b> 适用于铝、铝合金材料加工槽型。 NL Chip Breaker: Suitable for aluminum and aluminum alloy material.	<b>SMM</b> 适用长时间连续切削场合的半精加工槽型。 Suitable for long time continuous semi-finishing to finishing cutting.
			<b>OMM</b> 适用于不锈钢类材料的半精加工槽型。 OMM Chip Breaker: Suitable for semi-finishing ISO M material.	<b>通槽 General Chipbreaker:</b> 适用于铸铁材料的半精加工槽型 General Chip Breaker: Suitable for cast iron semi-finishing cutting.	<b>OSM</b> 适用于高温合金的半精加工槽型。 OSM Chip Breaker: Suitable for hi-temp alloy semi-finishing machining	
粗加工 Roughing	<b>OPR</b> 适用于钢类材料的粗加工槽型。 OPR Chip Breaker: Suitable for roughing ISO P material.	<b>OTR</b> 适用于钢或不锈钢的粗加工通用槽型。 OTR Chip Breaker: Suitable for finishing ISO M material.		<b>OKR</b> 适用于灰口铸铁、球墨铸铁的高速、高进给加工及开粗/强断续加工。 Suitable for gray cast iron, nodular cast iron interrupt and roughing cutting at high feed, and high speed.		
				<b>平板 Flat:</b> 适用于铸铁材料的粗加工槽型 Flat Chip Breaker: Suitable for cast iron roughing cutting		

# 牌号一览表 Grade Overview

ISO使用 ISO Usage	普通车削 ISO Turning			螺纹 Threading	切断切槽 Parting and Grooving			铣削 Milling			钻削 Drilling	
	涂层 Coating			涂层 Coating	涂层 Coating			涂层 Coating			涂层 Coating	
	CVD	PVD	硬质合金 Uncoated Carbide	PVD	CVD	PVD	硬质合金 Uncoated Carbide	CVD	PVD	硬质合金 Uncoated Carbide	CVD	PVD
P 钢 Steel	01			OP1210								
	10	OC2115		OP1215				OP1215	OP1315	OP1325	OP1630	OP2202
	20	OC2125	OC2325	OC2325S	OC2425							
	30											
	40											
M 不锈钢 Stainless Steel	01	OC4315		OP1210								
	10		OP1215	OP1315	OP1415						OP1215	OP1030
	20											
	30											
	40											
K 铸铁 Cast Iron	01											
	10		OC3210	OC3215	OC3220				OC4020			OP1215
	20											
	30											
	40											
N 有色金属 Aluminum Alloy	01											
	10			OK434								
	20											
	30											
	40											
S 钛合金 Hi-Temp Alloy	01											
	10			OP1105	OP6115	OP6215						
	20											
	30											

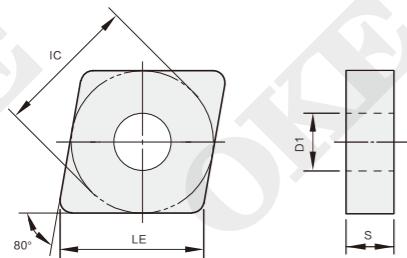
# 车削用刀片 / 负型 Turning Insert (Negative) CN□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P		M		K		S										
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215		
	CNMG120404-OPF	12.9	12.7	4.76	5.16	0.4	●	●	▲														
	CNMG120408-OPF	12.9	12.7	4.76	5.16	0.8	●	●	▲														
	CNMG120404-OMF	12.9	12.7	4.76	5.16	0.4					●	●	▲										
	CNMG120408-OMF	12.9	12.7	4.76	5.16	0.8					●	●	▲										
	CNMG090304-MSF	9.7	9.525	3.18	3.81	0.4					●	●	▲										
	CNMG120404-MSF	12.9	12.7	4.76	5.16	0.4					●	●	▲										
	CNMG120404-OPM	12.9	12.7	4.76	5.16	0.4	●	●	▲														
	CNMG120408-OPM	12.9	12.7	4.76	5.16	0.8	●	●	▲														
	CNMG120412-OPM	12.9	12.7	4.76	5.16	1.2	●	●	▲														
	CNMG120416-OPM	12.9	12.7	4.76	5.16	1.6	●	●	▲														
	CNMG160608-OPM	16.1	15.875	6.35	6.35	0.8	●	●	▲														
	CNMG160612-OPM	16.1	15.875	6.35	6.35	1.2	●	●	▲														
	CNMG160616-OPM	16.1	15.875	6.35	6.35	1.6	●	●	▲														
	CNMG190608-OPM	19.3	19.05	6.35	7.94	0.8	●	●	▲	▲													
CNMG190612-OPM	19.3	19.05	6.35	7.94	1.2	●	●	▲	▲														
CNMG190616-OPM	19.3	19.05	6.35	7.94	1.6	●	●	▲	▲														

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

# 车削用刀片 / 负型 Turning Insert (Negative) CN□□



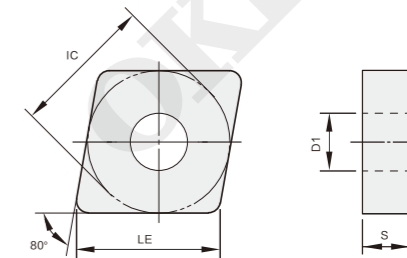
B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P				M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	CNMG120404-OMM	12.9	12.7	4.76	5.16	0.4					●	▲	●									
	CNMG120408-OMM	12.9	12.7	4.76	5.16	0.8					●	▲	●									
	CNMG160608-OMM	16.1	15.875	6.35	6.35	0.8					●	▲	●									
	CNMG090308-MF	9.7	9.525	3.18	3.81	0.8					●	▲	●									
	CNMG120404-MF	12.9	12.7	4.76	5.16	0.4					●	▲	●									
	CNMG120408-MF	12.9	12.7	4.76	5.16	0.8					●	▲	●									
	CNMG120412-MF	12.9	12.7	4.76	5.16	1.2					●	▲	●									
	CNMG160612-MF	16.1	15.875	6.35	6.35	1.6					●	▲	●									
	CNMG120404-OKM	12.9	12.7	4.76	5.16	0.4									▲		▲					
	CNMG120408-OKM	12.9	12.7	4.76	5.16	0.8									▲		▲					
	CNMG120412-OKM	12.9	12.7	4.76	5.16	1.2									▲		▲					
	CNMG120408-OSM	12.9	12.7	4.76	5.16	0.8															●	
	CNMG120412-OSM	12.9	12.7	4.76	5.16	1.2															●	
	CNMG120408-SMM	12.9	12.7	4.76	5.16	0.8															▲	▲
	CNMG120404-SMM	12.9	12.7	4.76	5.16	0.4															▲	▲

半精加工  
Semi Finishing

D

# 车削用刀片 / 负型 Turning Insert (Negative) CN□□



A/a

B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P				M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	CNMG120408-OPR	12.9	12.7	4.76	5.16	0.8	●	●	▲													
	CNMG120412-OPR	12.9	12.7	4.76	5.16	1.2	●	●	▲													
	CNMG120416-OPR	12.9	12.7	4.76	5.16	1.6	●	●	▲													
	CNMG160608-OPR	16.1	15.875	6.35	6.35	0.8	●	●	▲													
	CNMG160612-OPR	16.1	15.875	6.35	6.35	1.2	●	●	▲													
	CNMG160616-OPR	16.1	15.875	6.35	6.35	1.6	●	●	▲													
	CNMG190608-OPR	19.3	19.05	6.35	7.94	0.8	●	●	▲	▲												
	CNMG190612-OPR	19.3	19.05	6.35	7.94	1.2	●	●	▲	▲												
	CNMG190616-OPR	19.3	19.05	6.35	7.94	1.6	●	●	▲	▲												
		CNMG120408-OMR	12.9	12.7	4.76	5.16	0.8					●	▲	●								
CNMG120412-OMR		12.9	12.7	4.76	5.16	1.2					●	▲	●									
	CNMG120408-OKR	12.9	12.7	4.76	5.16	0.8												▲		▲		
	CNMG120412-OKR	12.9	12.7	4.76	5.16	1.2												▲		▲		
	CNMG120416-OKR	12.9	12.7	4.76	5.16	1.6												▲		▲		
	CNMG160612-OKR	16.1	15.8	6.35	6.35	1.2												▲		▲		
	CNMM190616-PR	19.3	19.05	6.35	7.94	1.6	●	●	▲													
	CNMM250924-PR	25.8	25.4	9.72	9.12	2.4							▲									
	CNMM250724-PR	25.8	25.4	7.94	9.12	2.4							▲									

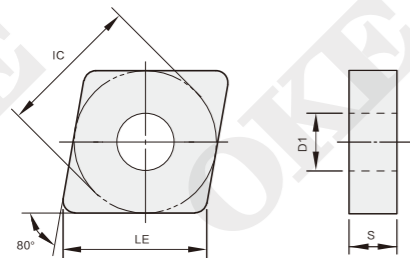
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

C

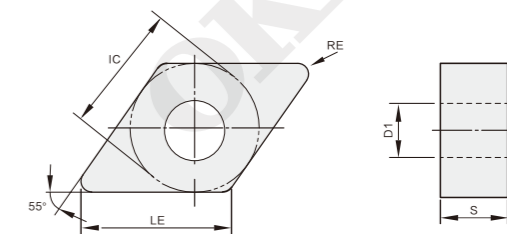
D



# 车削用刀片 / 负型 Turning Insert (Negative) CN□□



# 车削用刀片 / 负型 Turning Insert (Negative) DN□□



B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P				M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
半精加工 Semi Finishing	CNMG120404	12.9	12.7	4.76	5.16	0.4	●	●	▲						▲							
	CNMG120408	12.9	12.7	4.76	5.16	0.8	●	●	▲						▲							
	CNMG120412	12.9	12.7	4.76	5.16	1.2	●	●	▲						▲							
	CNMG160608	16.1	15.875	6.35	6.35	0.8	●	●	▲						▲							
	CNMG160612	16.1	15.875	6.35	6.35	1.2	●	●	▲						▲							
	CNMG160616	16.1	15.875	6.35	6.35	1.6	●	●	▲						▲							
	CNMG190608	19.3	19.05	6.35	7.94	0.8	●	●	▲						▲							
	CNMG190612	19.3	19.05	6.35	7.94	1.2	●	●	▲						▲							
	CNMG190616	19.3	19.05	6.35	7.94	1.6	●	●	▲						▲							
粗加工 Roughing	CNMA120404	12.9	12.7	4.76	5.16	0.4									▲							
	CNMA120408	12.9	12.7	4.76	5.16	0.8									▲							
	CNMA120412	12.9	12.7	4.76	5.16	1.2									▲							
	CNMA120416	12.9	12.7	4.76	5.16	1.6									▲							
	CNMA160608	16.1	15.875	6.35	6.35	0.8									▲							
	CNMA160612	16.1	15.875	6.35	6.35	1.2									▲							
	CNMA160616	16.1	15.875	6.35	6.35	1.6									▲							
	CNMA190612	19.3	19.05	6.35	7.94	1.2									▲							
	CNMA190616	19.3	19.05	6.35	7.94	1.6									▲							

D

A/a

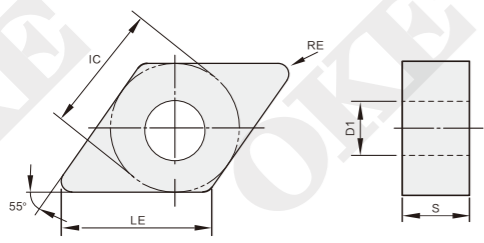
B

C

D

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P				M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
精加工 Finishing	DNMG110404-OPF	11.6	9.525	4.76	3.81	0.4	●	●	▲													
	DNMG110408-OPF	11.6	9.525	4.76	3.81	0.8	●	●	▲													
	DNMG150404-OPF	15.5	12.7	4.76	5.16	0.4	●	●	▲													
	DNMG150408-OPF	15.5	12.7	4.76	5.16	0.8	●	●	▲													
	DNMG150604-OPF	15.5	12.7	6.35	5.16	0.4	●	●	▲													
	DNMG150608-OPF	15.5	12.7	6.35	5.16	0.8	●	●	▲													
	DNMG150604-OMF	15.5	12.7	6.35	5.16	0.4						●	▲	●								
	DNMG150608-OMF	15.5	12.7	6.35	5.16	0.8						●	▲	●								
	DNMG110404-MSF	11.6	9.525	4.76	3.81	0.4						●	▲	●								
DNMG150404-MSF	15.5	12.7	4.76	5.16	0.4						●	▲	●									
半精加工 Semi Finishing	DNMG110404-OPM	11.6	9.525	4.76	3.81	0.4	●		▲													
	DNMG110408-OPM	11.6	9.525	4.76	3.81	0.8	●		▲													
	DNMG110412-OPM	11.6	9.525	4.76	3.81	1.2	●		▲													
	DNMG150404-OPM	15.5	12.7	4.76	5.16	0.4	●		▲													
	DNMG150408-OPM	15.5	12.7	4.76	5.16	0.8	●		▲													
	DNMG150412-OPM	15.5	12.7	4.76	5.16	1.2	●		▲													
	DNMG150604-OPM	15.5	12.7	6.35	5.16	0.4	●		▲													
	DNMG150608-OPM	15.5	12.7	6.35	5.16	0.8	●		▲													
	DNMG150612-OPM	15.5	12.7	6.35	5.16	1.2	●		▲													
半精加工 Semi Finishing	DNMG110404-OMM	11.6	9.525	4.76	3.81	0.4					●	▲	●									
	DNMG110408-OMM	11.6	9.525	4.76	3.81	0.8					●	▲	●									
	DNMG150404-OMM	15.5	12.7	4.76	5.16	0.4					●	▲	●									
	DNMG150408-OMM	15.5	12.7	4.76	5.16	0.8					●	▲	●									
	DNMG150604-OMM	15.5	12.7	6.35	5.16	0.4					●	▲	●									
	DNMG150608-OMM	15.5	12.7	6.35	5.16	0.8					●	▲	●									
	DNMG150612-OMM	15.5	12.7	6.35	5.16	1.2					●	▲	●									
	DNMG110408-MF	11.6	9.525	4.76	3.81	0.8						●	▲	●								
	DNMG150408-MF	15.5	12.7	4.76	5.16	0.8						●	▲	●								
DNMG150608-MF	15.5	12.7	6.35	5.16	0.8						●	▲	●									

# 车削用刀片 / 负型 Turning Insert (Negative) DN□□

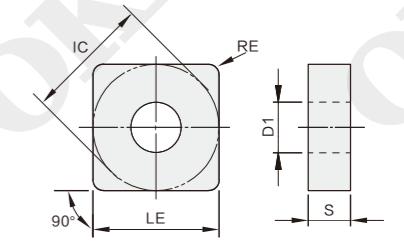


B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K			S				
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	DNMG150404-OKM	15.5	12.7	4.76	5.16	0.4																
	DNMG150408-OKM	15.5	12.7	4.76	5.16	0.8																
	DNMG150604-OKM	15.5	12.7	6.35	5.16	0.4																
	DNMG150608-OKM	15.5	12.7	6.35	5.16	0.8																
	DNMG150612-OKM	15.5	12.7	6.35	5.16	1.2																
	DNMG150608-OSM	15.5	12.7	6.35	5.16	0.8																
	DNMG150408-OPR	15.5	12.7	4.76	5.16	0.8	●	●	▲													
	DNMG150412-OPR	15.5	12.7	4.76	5.16	1.2	●	●	▲													
	DNMG150608-OPR	15.5	12.7	6.35	5.16	0.8	●	●	▲													
	DNMG150612-OPR	15.5	12.7	6.35	5.16	1.2	●	●	▲													
	DNMG150616-OPR	15.5	12.7	6.35	5.16	1.6	●	●	▲													
	DNMG150408-OKR	15.5	12.7	4.76	5.16	0.8									▲		▲					
	DNMG150412-OKR	15.5	12.7	4.76	5.16	1.2									▲		▲					
	DNMG150608-OKR	15.5	12.7	6.35	5.16	0.8									▲		▲					
	DNMG150612-OKR	15.5	12.7	6.35	5.16	1.2									▲		▲					
	DNMG110408	11.6	9.525	4.76	3.81	0.8	●	●	▲						▲							
	DNMG150404	15.5	12.7	4.76	5.16	0.4	●	●	▲						▲							
	DNMG150408	15.5	12.7	6.35	5.16	0.8	●	●	▲						▲							
	DNMG150412	15.5	12.7	6.35	5.16	1.2	●	●	▲						▲							
	DNMG150608	15.5	12.7	6.35	5.16	0.8	●	●	▲						▲							
	DNMG150612	15.5	12.7	6.35	5.16	1.2	●	●	▲						▲							
	DNMA150404	15.5	12.7	4.76	5.16	0.4									▲							
	DNMA150408	15.5	12.7	4.76	5.16	0.8									▲							
	DNMA150604	15.5	12.7	6.35	5.16	0.4									▲							
	DNMA150608	15.5	12.7	6.35	5.16	0.8									▲							
	DNMA150612	15.5	12.7	6.35	5.16	1.2									▲							

D

# 车削用刀片 / 负型 Turning Insert (Negative) SN□□



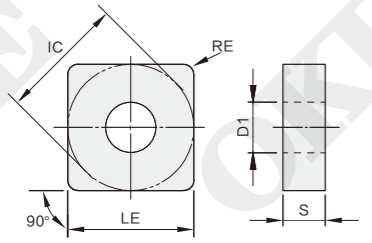
B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K			S				
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	SNMG120404-OPF	12.7	12.7	4.76	5.16	0.4	●	●	▲													
	SNMG120408-OPF	12.7	12.7	4.76	5.16	0.8	●	●	▲													
	SNMG120408-OMF	12.7	12.7	4.76	5.16	0.8							●	▲	●							
	SNMG120404-OPM	12.7	12.7	4.76	5.16	0.4	●		▲													
	SNMG120408-OPM	12.7	12.7	4.76	5.16	0.8	●		▲													
	SNMG120412-OPM	12.7	12.7	4.76	5.16	1.2	●		▲													
	SNMG150608-OPM	15.875	15.875	6.35	6.35	0.8	●		▲													
	SNMG150612-OPM	15.875	15.875	6.35	6.35	1.2	●		▲													
	SNMG190612-OPM	19.05	19.05	6.35	7.94	1.2	●		▲													
	SNMG120404-OMM	12.7	12.7	4.76	5.16	0.4							●	▲	●							
	SNMG120408-OMM	12.7	12.7	4.76	5.16	0.8							●	▲	●							
	SNMG120412-OMM	12.7	12.7	4.76	5.16	1.2							●	▲	●							
	SNMG150608-OMM	15.875	15.875	6.35	6.35	0.8							●	▲	●							
	SNMG120408-MF	12.7	12.7	4.76	5.16	0.8							●	▲	●							

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

D

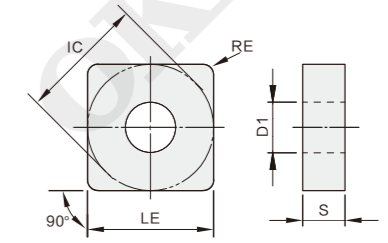
# 车削用刀片 / 负型 Turning Insert (Negative) SN□□



B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	SNMG120404-OKM	12.7	12.7	4.76	5.16	0.4									▲	▲						
	SNMG120408-OKM	12.7	12.7	4.76	5.16	0.8									▲	▲						
	SNMG120412-OKM	12.7	12.7	4.76	5.16	1.2									▲	▲						
	SNMG120408-OSM	12.7	12.7	4.76	5.16	0.8															●	
	SNMG120408-SMM	12.7	12.7	4.76	5.16	0.8									▲	▲						
	SNMG120408-OPR	12.7	12.7	4.76	5.16	0.8	●	●	▲													
	SNMG120412-OPR	12.7	12.7	4.76	5.16	1.2	●	●	▲													
	SNMG150608-OPR	15.875	15.875	6.35	6.35	0.8	●	●	▲													
	SNMG150612-OPR	15.875	15.875	6.35	6.35	1.2	●	●	▲													
	SNMG150616-OPR	15.875	15.875	6.35	6.35	1.6	●	●	▲													
	SNMG190612-OPR	19.05	19.05	6.35	7.94	1.2	●	●	▲													
	SNMG190616-OPR	19.05	19.05	6.35	7.94	1.6	●	●	▲													
	SNMM190624-OPR	19.05	19.05	6.35	7.94	2.4	●	●	▲													
	SNMG120408-OKR	12.7	12.7	4.76	5.16	0.8									▲	▲						
	SNMG120412-OKR	12.7	12.7	4.76	5.16	1.2									▲	▲						
	SNMG120416-OKR	12.7	12.7	4.76	5.16	1.6									▲	▲						
	SNMG150616-OKR	15.875	15.875	6.35	6.35	1.6									▲	▲						
	SNMG190612-OKR	19.05	19.05	6.35	7.94	1.2									▲	▲						
	SNMG190616-OKR	19.05	19.05	6.35	7.94	1.6									▲	▲						

# 车削用刀片 / 负型 Turning Insert (Negative) SN□□



B

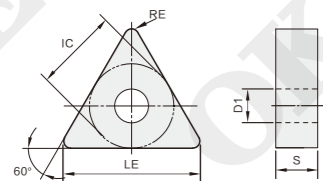
刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	SNMM250724-PR	25.4	25.4	9.525	9.12	2.4					▲											
	SNMM250924-PR	25.4	25.4	9.525	9.12	2.4					▲											
	SNMG120404	12.7	12.7	4.76	5.16	0.4	●	●	▲													▲
	SNMG120408	12.7	12.7	4.76	5.16	0.8	●	●	▲													▲
	SNMG120412	12.7	12.7	4.76	5.16	1.2	●	●	▲													▲
	SNMG120416	12.7	12.7	4.76	5.16	1.6	●	●	▲													▲
	SNMG150608	15.875	15.875	6.35	6.35	0.8	●	●	▲													▲
	SNMG150612	15.875	15.875	6.35	6.35	1.2	●	●	▲													▲
	SNMG190612	19.05	19.05	6.35	7.94	1.2	●	●	▲													▲
	SNMG190616	19.05	19.05	6.35	7.94	1.6	●	●	▲													▲
SNMG250724	25.4	25.4	7.94	9.12	2.4	●	●	▲													▲	
SNMG250924	25.4	25.4	9.525	9.12	2.4	●	●	▲													▲	
	SNMA120408	12.7	12.7	4.76	5.16	0.8																▲
	SNMA120412	12.7	12.7	4.76	5.16	1.2																▲
	SNMA120416	12.7	12.7	4.76	5.16	1.6																▲

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

D

# 车削用刀片 / 负型

Turning Insert (Negative) TN□□



B

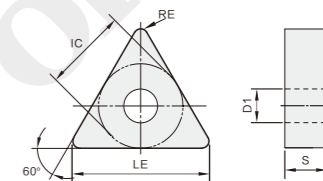
刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	TNMG160404-OPF	16.5	9.525	4.76	3.81	0.4	●	●	▲													
	TNMG160408-OPF	16.5	9.525	4.76	3.81	0.8	●	●	▲													
	TNMG160404-OMF	16.5	9.525	4.76	3.81	0.4					●	▲	●									
	TNMG160408-OMF	16.5	9.525	4.76	3.81	0.8					●	▲	●									
	TNMG160404-MSF	16.5	9.525	4.76	3.81	0.4					●	▲	●									
	TNMG160408-MSF	16.5	9.525	4.76	3.81	0.8					●	▲	●									

精加工  
Finishing

D

# 车削用刀片 / 负型

Turning Insert (Negative) TN□□



A/a

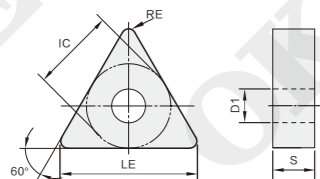
B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	TNMG160404-OPM	16.5	9.525	4.76	3.81	0.4	●		▲													
	TNMG160408-OPM	16.5	9.525	4.76	3.81	0.8	●		▲													
	TNMG160412-OPM	16.5	9.525	4.76	3.81	1.2	●		▲													
	TNMG220404-OPM	22	12.7	4.76	5.16	0.4	●		▲													
	TNMG220408-OPM	22	12.7	4.76	5.16	0.8	●		▲													
	TNMG220412-OPM	22	12.7	4.76	5.16	1.2	●		▲													
	TNMG220416-OPM	22	12.7	4.76	5.16	1.6	●		▲													
	TNMG160404-OMM	16.5	9.525	4.76	3.81	0.4					●	▲	●									
	TNMG160408-OMM	16.5	9.525	4.76	3.81	0.8					●	▲	●									
	TNMG220404-OMM	22	12.7	4.76	5.16	0.4					●	▲	●									
	TNMG220408-OMM	22	12.7	4.76	5.16	0.8					●	▲	●									
	TNMG220412-OMM	22	12.7	4.76	5.16	1.2					●	▲	●									
	TNMG160404-MF	16.5	9.525	4.76	3.81	0.4					●	▲	●									
	TNMG160408-MF	16.5	9.525	4.76	3.81	0.8					●	▲	●									
	TNMG220404-MF	22	12.7	4.76	5.16	0.4					●	▲	●									
	TNMG220408-MF	22	12.7	4.76	5.16	0.8					●	▲	●									
	TNMG160404-OKM	16.5	9.525	4.76	3.81	0.4												▲	▲			
	TNMG160408-OKM	16.5	9.525	4.76	3.81	0.8												▲	▲			
	TNMG160412-OKM	16.5	9.525	4.76	3.81	1.2												▲	▲			
	TNMG160408-SMM	16.5	9.525	4.76	3.81	0.8														▲	▲	

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

D

# 车削用刀片 / 负型 Turning Insert (Negative) TN□□



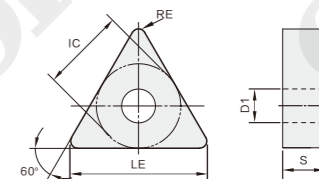
B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	TNMG160408-OPR	16.5	9.525	4.76	3.81	0.8	●	●	▲													
	TNMG160412-OPR	16.5	9.525	4.76	3.81	1.2	●	●	▲													
	TNMG220408-OPR	22	12.7	4.76	5.16	0.8	●	●	▲													
	TNMG220412-OPR	22	12.7	4.76	5.16	1.2	●	●	▲													
	TNMG220416-OPR	22	12.7	4.76	5.16	1.6	●	●	▲													
	TNMG270612-OPR	27.5	15.875	6.35	6.35	1.2	●	●	▲													
	TNMG160408-OMR	16.5	9.525	4.76	3.81	0.8					●	▲	●									
	TNMG160408-OKR	16.5	9.525	4.76	3.81	0.8									▲	▲						
	TNMG160412-OKR	16.5	9.525	4.76	3.81	1.2									▲	▲						

粗加工  
Roughing

D

# 车削用刀片 / 负型 Turning Insert (Negative) TN□□



A/a

B

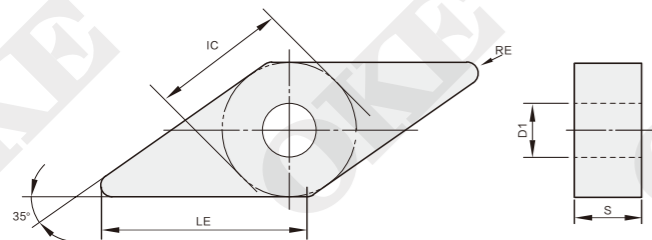
刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	TNMG160404	16.5	9.525	4.76	3.81	0.8	●	●	▲									▲				
	TNMG160408	16.5	9.525	4.76	3.81	1.2	●	●	▲									▲				
	TNMG160412	22	12.7	4.76	5.16	0.4	●	●	▲									▲				
	TNMG220408	22	12.7	4.76	5.16	0.8	●	●	▲									▲				
	TNMG220412	22	12.7	4.76	5.16	1.2	●	●	▲									▲				
	TNMG220416	22	12.7	4.76	5.16	1.6	●	●	▲									▲				
	TNMA160404	16.5	9.525	4.76	3.81	0.4												▲				
	TNMA160408	16.5	9.525	4.76	3.81	0.8												▲				
	TNMA160412	16.5	9.525	4.76	3.81	1.2												▲				
	TNMA220408	22	12.7	4.76	5.16	0.8												▲				
	TNMA220412	22	12.7	4.76	5.16	1.2												▲				

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

C

D

# 车削用刀片 / 负型 Turning Insert (Negative) VN□□

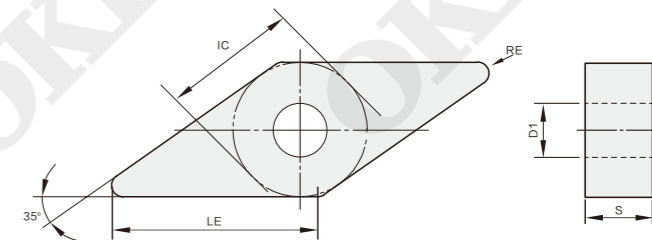


B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P				M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	VNMG160404-OPF	16.6	9.525	4.76	3.81	0.4	●	●	▲													
	VNMG160408-OPF	16.6	9.525	4.76	3.81	0.8	●	●	▲													
	VNMG160404-MSF	16.6	9.525	4.76	3.81	0.4					●	▲	●									
	VNMG160404-OPM	16.6	9.525	4.76	3.81	0.4	●		▲													
	VNMG160408-OPM	16.6	9.525	4.76	3.81	0.8	●		▲													
	VNMG160412-OPM	16.6	9.525	4.76	3.81	1.2	●		▲													
	VNMG160404-OMM	16.6	9.525	4.76	3.81	0.4					●	▲	●									
	VNMG160408-OMM	16.6	9.525	4.76	3.81	0.8					●	▲	●									
	VNMG160408-MF	16.6	9.525	4.76	3.81	0.8					●	▲	●									

D

# 车削用刀片 / 负型 Turning Insert (Negative) VN□□



A/a

B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P				M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	VNMG160404-OKM	16.6	9.525	4.76	3.81	0.4																
	VNMG160408-OKM																					
	VNMG160408-SMM	16.6	9.525	4.76	3.81	0.8																

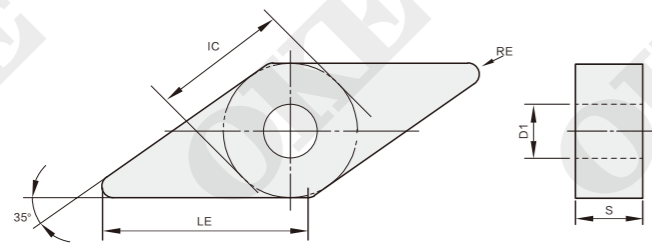
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

C

D

# 车削用刀片 / 负型

Turning Insert (Negative) VN□□



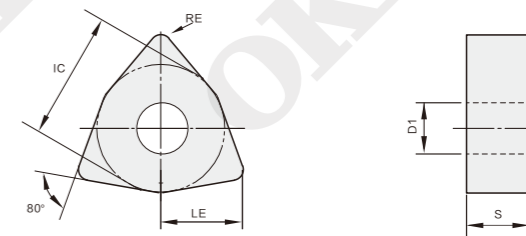
B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	VNMG160408-OPR	16.6	9.525	4.76	3.81	0.4	●	●	▲													
	VNMG160412-OPR	16.6	9.525	4.76	3.81	0.8	●	●	▲													
	VNMG160408-OKR	16.6	9.525	4.76	3.81	0.4									▲		▲					
	VNMG160412-OKR	16.6	9.525	4.76	3.81	0.8									▲		▲					
	VNMG160404	16.6	9.525	4.76	3.81	0.4	●	●	▲							▲						
	VNMG160408	16.6	9.525	4.76	3.81	0.8	●	●	▲						▲							
	VNMG160412	16.6	9.525	4.76	3.81	1.2	●	●	▲						▲							
	VNMA160408	16.6	9.525	4.76	3.81	0.8									▲							

D

# 车削用刀片 / 负型

Turning Insert (Negative) WN□□



A/a

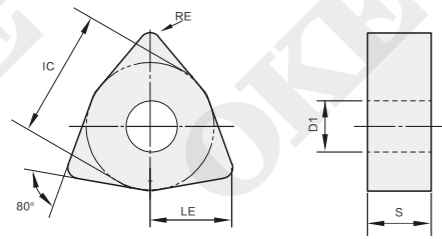
B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	WNMG060404-OPF	6.5	9.525	4.76	3.81	0.4	●	●	▲													
	WNMG060408-OPF	6.5	9.525	4.76	3.81	0.8	●	●	▲													
	WNMG060408-OMF	6.5	9.525	4.76	3.81	0.8						●	▲	●								
	WNMG080404-OMF	8.7	12.7	4.76	5.16	0.4						●	▲	●								
	WNMG080408-OMF	8.7	12.7	4.76	5.16	0.8						●	▲	●								
	WNMG060304-MSF	6.5	9.525	3.18	3.81	0.4						●	▲	●								
	WNMG060404-MSF	6.5	9.525	4.76	3.81	0.4						●	▲	●								
	WNMG080404-MSF	8.7	12.7	4.76	5.16	0.4						●	▲	●								
	WNMG060408-OPM	6.5	9.525	4.76	3.81	0.8	●		▲													
	WNMG080404-OPM	8.7	12.7	4.76	5.16	0.4	●		▲													
	WNMG080408-OPM	8.7	12.7	4.76	5.16	0.8	●		▲													
	WNMG080412-OPM	8.7	12.7	4.76	5.16	1.2	●		▲													
	WNMG060408-OMM	6.5	9.525	4.76	3.81	0.8						●	▲	●								
	WNMG060412-OMM	6.5	9.525	4.76	3.81	1.2						●	▲	●								
	WNMG080404-OMM	8.7	12.7	4.76	5.16	0.4						●	▲	●								
	WNMG080408-OMM	8.7	12.7	4.76	5.16	0.8						●	▲	●								
	WNMG060408-MF	6.5	9.525	4.76	3.81	0.8						●	▲	●								
	WNMG080408-MF	8.7	12.7	4.76	5.16	0.8						●	▲	●								
	WNMG080412-MF	8.7	12.7	4.76	5.16	1.2						●	▲	●								

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

D

# 车削用刀片 / 负型 Turning Insert (Negative) WN□□

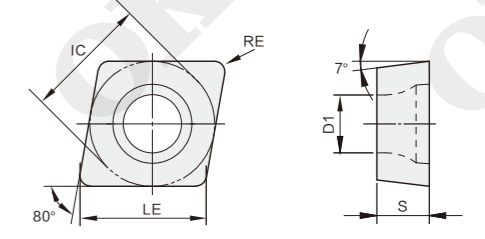


B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	WNMG080404-OKM	8.7	12.7	4.76	5.16	0.4										▲	▲					
	WNMG080408-OKM	8.7	12.7	4.76	5.16	0.8										▲	▲					
	WNMG080412-OKM	8.7	12.7	4.76	5.16	1.2										▲	▲					
	WNMG080408-SMM	8.7	12.7	4.76	5.16	0.8													▲		▲	
	WNMG080408-OPR	8.7	12.7	4.76	5.16	0.8	●	●	▲													
	WNMG080412-OPR	8.7	12.7	4.76	5.16	1.2	●	●	▲													
	WNMG080408-OMR	8.7	12.7	4.76	5.16	0.8					●	▲	●									
	WNMG080412-OMR	8.7	12.7	4.76	5.16	1.2					●	▲	●									
	WNMG080408-OKR	8.7	12.7	4.76	5.16	0.8										▲	▲					
	WNMG080412-OKR	8.7	12.7	4.76	5.16	1.2										▲	▲					
	WNMG080404	8.7	12.7	4.76	5.16	0.4	●	●	▲							▲						
	WNMG080408	8.7	12.7	4.76	5.16	0.8	●	●	▲							▲						
	WNMG080412	8.7	12.7	4.76	5.16	1.2	●	●	▲							▲						
	WNMA080408	8.7	12.7	4.76	5.16	0.8										▲						
	WNMA080412	8.7	12.7	4.76	5.16	1.2										▲						

D

# 车削用刀片 / 正型 Turning Insert (Positive) CC□□



B

刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	CCMT060202-OTF	6.4	6.35	2.38	2.8	0.2	▲					●	▲	●								
	CCMT060204-OTF	6.4	6.35	2.38	2.8	0.4	▲					●	▲	●								
	CCMT09T304-OTF	9.7	9.525	3.97	4.4	0.4	▲					●	▲	●								
	CCMT09T308-OTF	9.7	9.525	3.97	4.4	0.8	▲					●	▲	●								
	CCMT120404-OTF	12.9	12.7	4.76	5.5	0.4	▲					●	▲	●								
	CCMT120408-OTF	12.9	12.7	4.76	5.5	0.8	▲					●	▲	●								
	CCMT060202-MSF	6.4	6.35	2.38	2.8	0.2						●	▲	●								
	CCMT060204-MSF	6.4	6.35	2.38	2.8	0.4						●	▲	●								
	CCMT09T302-MSF	9.7	9.525	3.97	4.4	0.2						●	▲	●								
	CCMT09T304-MSF	9.7	9.525	3.97	4.4	0.4						●	▲	●								
	CCMT09T308-MSF	12.9	12.7	4.76	5.5	0.8						●	▲	●								
	CCMT120404-MSF	12.9	12.7	4.76	5.5	0.4						●	▲	●								
	CCMT060204-OTM	6.4	6.35	2.38	2.8	0.4	●	●	▲			●	▲	●								
	CCMT060208-OTM	6.4	6.35	2.38	2.8	0.8	●	●	▲			●	▲	●								
	CCMT09T304-OTM	9.7	9.525	3.97	4.4	0.4	●	●	▲			●	▲	●								
	CCMT09T308-OTM	9.7	9.525	3.97	4.4	0.8	●	●	▲			●	▲	●								
	CCMT120404-OTM	12.9	12.7	4.76	5.5	0.4	●	●	▲			●	▲	●								
	CCMT120408-OTM	12.9	12.7	4.76	5.5	0.8	●	●	▲			●	▲	●								
	CCMT060208-OTR	6.4	6.35	2.38	2.8	0.8	●	●	▲											▲		
	CCMT09T304-OTR	9.7	9.525	3.97	4.4	0.4	●	●	▲											▲		
	CCMT09T308-OTR	9.7	9.525	3.97	4.4	0.8	●	●	▲											▲		
	CCMT120408-OTR	12.9	12.7	4.76	5.5	0.8	●	●	▲											▲		
	CCMT120412-OTR	12.9	12.7	4.76	5.5	1.2	●	●	▲											▲		

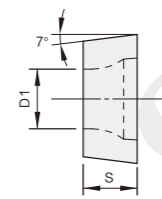
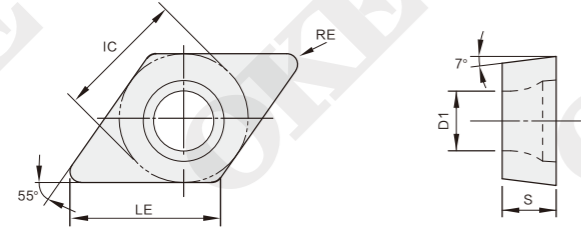
C

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

D

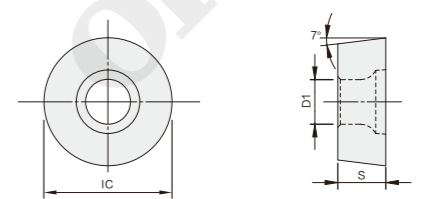


# 车削用刀片 / 正型 Turning Insert (Positive) DC□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	DCMT070204-OTF	7.8	6.35	2.38	2.8	0.4	▲					●	▲	●								
	DCMT11T302-OTF	11.6	9.525	3.97	4.4	0.2	▲					●	▲	●								
	DCMT11T304-OTF	11.6	9.525	3.97	4.4	0.4	▲					●	▲	●								
	DCMT070204-MSF	7.8	6.35	2.38	2.8	0.4						●	▲	●								
	DCMT11T304-MSF	11.6	9.525	3.97	4.4	0.4						●	▲	●								
	DCMT070204-OTM	7.8	6.35	2.38	2.8	0.4	●	●	●	▲		●	▲	●								
	DCMT070208-OTM	7.8	6.35	2.38	2.8	0.8	●	●	●	▲		●	▲	●								
	DCMT11T304-OTM	11.6	9.525	3.97	4.4	0.4	●	●	●	▲		●	▲	●								
	DCMT11T308-OTM	11.6	9.525	3.97	4.4	0.8	●	●	●			●	▲	●								
	DCMT11T304-OTR	11.6	9.525	3.97	4.4	0.4	●	●	●	▲		●	▲	●								
	DCMT11T308-OTR	11.6	9.525	3.97	4.4	0.8	●	●	●	▲		●	▲	●								

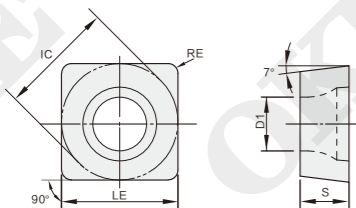
# 车削用刀片 / 正型 Turning Insert (Positive) RC□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S					
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215	
	RCMX0803MO	8.0	8.0	3.18	3.4		▲	●														
	RCMX1003MO	10	10	3.18	3.6		▲	●														
	RCMX1204MO-Q	12	12	4.76	4.4		▲	●														
	RCMX1606MO-Q	16	16	6.35	5.5		▲	●														
	RCMX2006MO-Q	20	20	6.35	6.5		▲	●														
	RCMX2507MO-Q	25	25	7.94	7.2		▲	●														
	RCMX3209MO-Q	32	32	9.52	9.5		▲	●														
	RCMT0803MO	8.0	8.0	3.18	3.4		▲	●														
	RCMT1606MO-Q	16	16	6.35	5.5		▲	●														

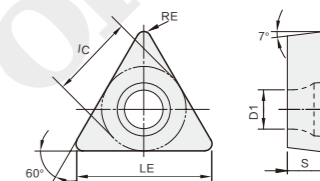
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

# 车削用刀片 / 正型 Turning Insert (Positive) SC□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215		
	精加工 Finishing	SCMT09T304-OTF	9.525	9.525	3.97	4.4	0.4	●					●	▲	●								
		SCMT09T308-OTF	9.525	9.525	3.97	4.4	0.8	●					●	▲	●								
		SCMT120404-OTF	12.7	12.7	4.76	5.5	0.4	●					●	▲	●								
	半精加工 Semi Finishing	SCMT09T304-OTM	9.525	9.525	3.97	4.4	0.4	●	●	●	▲		●	▲	●								
		SCMT09T308-OTM	9.525	9.525	3.97	4.4	0.8	●	●	●	▲		●	▲	●								
		SCMT120404-OTM	12.7	12.7	4.76	5.5	0.4	●	●	●	▲		●	▲	●								
		SCMT120408-OTM	12.7	12.7	4.76	5.5	0.8	●	●	●	▲		●	▲	●								
		SCMT120412-OTM	12.7	12.7	4.76	5.5	1.2	●	●	●	▲		●	▲	●								
	粗加工 Roughing	SCMT09T304-OTR	9.525	9.525	3.97	4.4	0.4	●	●	●	▲						▲						
		SCMT09T308-OTR	9.525	9.525	3.97	4.4	0.8	●	●	●	▲						▲						
		SCMT120404-OTR	12.7	12.7	4.76	5.5	0.4	●	●	●	▲						▲						
		SCMT120408-OTR	12.7	12.7	4.76	5.5	0.8	●	●	●	▲						▲						
		SCMT120412-OTR	12.7	12.7	4.76	5.5	1.2	●	●	●	▲						▲						

# 车削用刀片 / 正型 Turning Insert (Positive) TC□□



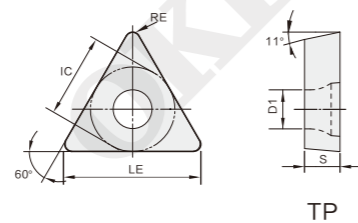
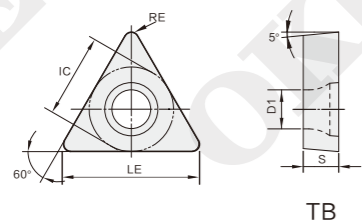
刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S						
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215		
	精加工 Finishing	TCMT110202-OTF	11	6.35	2.38	2.8	0.2	▲					●	▲	●								
		TCMT110204-OTF	11	6.35	2.38	2.8	0.4	▲					●	▲	●								
		TCMT16T304-OTF	16.5	9.525	3.97	4.4	0.4	▲					●	▲	●								
		TCMT16T308-OTF	16.5	9.525	3.97	4.4	0.8	▲					●	▲	●								
	半精加工 Semi Finishing	TCMT090204-OTM	9.6	5.56	2.38	2.5	0.4	●	●	●	▲		●	▲	●								
		TCMT090208-OTM	9.6	5.56	2.38	2.5	0.8	●	●	●	▲		●	▲	●								
		TCMT110204-OTM	11	6.35	2.38	2.8	0.4	●	●	●	▲		●	▲	●								
		TCMT110208-OTM	11	6.35	2.38	2.8	0.8	●	●	●	▲		●	▲	●								
		TCMT16T304-OTM	16.5	9.525	3.97	4.4	0.4	●	●	●	▲		●	▲	●								
	粗加工 Roughing	TCMT16T308-OTM	16.5	9.525	3.97	4.4	0.8	●	●	●	▲		●	▲	●								
		TCMT16T312-OTM	16.5	9.525	3.97	4.4	1.2	●	●	●	▲		●	▲	●								
		TCMT16T308-OTR	16.5	9.525	3.97	4.4	0.8	●	●	●	▲						▲						
	TCMT220408-OTR	22	12.7	4.76	5.5	0.8	●	●	●	▲						▲							

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



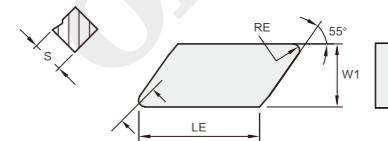
# 车削用刀片 / 正型

Turning Insert (Positive) TB□□ TP□□




# 车削用刀片 / 正型

Turning Insert (Positive) KN□□



B


刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S							
		LE	IC	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1205H	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215		
	TBGH060202L	6.4	3.97	2.38	2.3	0.2						▲												
	TPGH080202L	8.2	4.76	2.38	2.4	0.2						▲												
	TPGH080204L	8.2	4.76	2.38	2.4	0.4						▲												
	TPGH090202L	9.6	5.56	2.38	2.8	0.2						▲												
	TPGH090204L	9.6	5.56	2.38	2.8	0.4						▲												
	TPGH110302L	11	6.35	3.18	3.18	0.2						▲												
	TPGH110304L	11	6.35	3.18	3.18	0.4						▲												

精加工  
Finishing

C

D

B

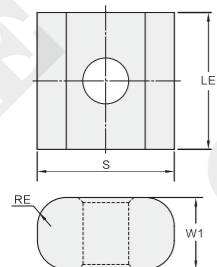
刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M			K		S						
		LE	W1	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220	OP1105	OP6115	OP6215		
	KNUX160405L11	16.2	9.525	4.76	2.2	0.5	▲	●															
	KNUX160405R11	16.2	9.525	4.76	2.2	0.5	▲	●															

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

C

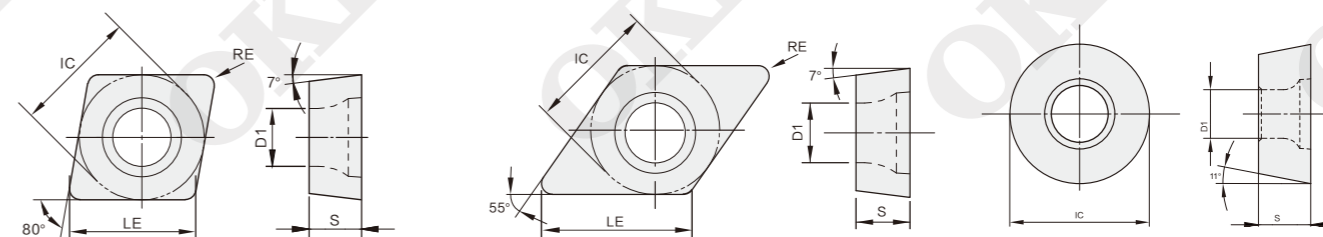
D

# 轮毂加工 Heavy Duty Machining



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					P					M				K		
		LE	W1	S	D1	RE	OC2115	OC2125	OC2325	OC2325S	OC2425	OP1215	OP1315	OP1415	OC4315	OC3210	OC3215	OC3220
	175.32-191940-22	19.1	10	19.1	6.35	4.0				▲								
	175.32-191940-28	19.1	10	19.1	6.35	4.0				▲								

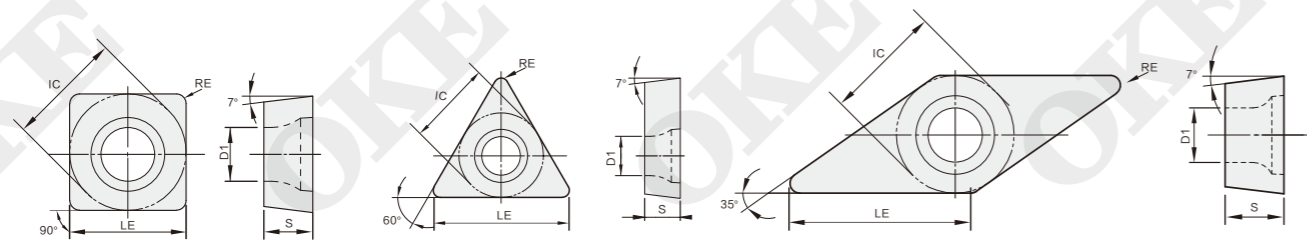
# 铝加工刀片 Insert for Aluminum Cutting CC□□ DC□□ RC□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					N OK434
		LE	IC	S	D1	RE	
	CCGX060202-NL	6.4	6.35	2.38	2.8	0.2	▲
	CCGX060204-NL	6.4	6.35	2.38	2.8	0.4	▲
	CCGX09T302-NL	9.7	9.525	3.97	4.4	0.2	▲
	CCGX09T304-NL	9.7	9.525	3.97	4.4	0.4	▲
	CCGX09T308-NL	9.7	9.525	3.97	4.4	0.8	▲
	CCGX120404-NL	12.9	12.7	4.76	5.5	0.4	▲
	CCGX120408-NL	12.9	12.7	4.76	5.5	0.8	▲
	DCGX070202-NL	7.8	6.35	2.38	2.8	0.2	▲
	DCGX070204-NL	7.8	6.35	2.38	2.8	0.4	▲
	DCGX11T302-NL	11.6	9.525	3.97	4.4	0.2	▲
	DCGX11T304-NL	11.6	9.525	3.97	4.4	0.4	▲
	DCGX11T308-NL	11.6	9.525	3.97	4.4	0.8	▲
	RCGT1204MO-NL	12	12	4.76	4.4	/	▲

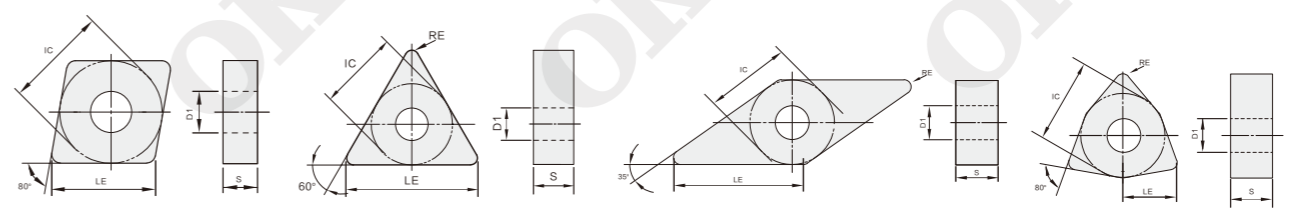
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

# 铝加工刀片 Insert for Aluminum Cutting SC□□ TC□□ VC□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					N OK434
		LE	IC	S	D1	RE	
	SCGX09T304-NL	9.525	9.525	3.97	4.4	0.4	▲
	SCGX09T308-NL	9.525	9.525	3.97	4.4	0.8	▲
	SCGX120408-NL	12.7	12.7	4.76	5.5	0.8	▲
	TCGX090204-NL	9.6	5.56	2.38	2.5	0.4	▲
	TCGX110202-NL	11	6.35	2.38	2.8	0.2	▲
	TCGX110204-NL	11	6.35	2.38	2.8	0.4	▲
	TCGX16T304-NL	16.5	9.525	3.97	4.4	0.4	▲
	TCGX16T308-NL	16.5	9.525	3.97	4.4	0.8	▲
	VCGX110302-NL	11	6.35	3.18	2.8	0.2	▲
	VCGX110304-NL	11	6.35	3.18	2.8	0.4	▲
	VCGX160402-NL	16.5	9.525	4.76	4.4	0.2	▲
	VCGX160404-NL	16.5	9.525	4.76	4.4	0.4	▲
	VCGX160408-NL	16.5	9.525	4.76	4.4	0.8	▲
	VCGX160412-NL	16.5	9.525	4.76	4.4	1.2	▲
	VCGX220530-NL	22	12.7	5.56	5.5	3	▲

# 金属陶瓷刀片 Cermet Inserts



刀片外形 Insert Shape	型号 Type	尺寸 Dimension					牌号 Grade	
		LE	IC	S	D1	RE	OKE6220	OKE6210
	CNMG120408-SAL	12.9	12.9	4.76	5.16	0.8	▲	▲
	TNMG160404-SAL	16.5	9.525	4.76	3.81	0.4	▲	▲
	TNMG160408-SAL	16.5	9.525	4.76	3.81	0.8	▲	▲
	VNMG160408-SAL	16.6	9.525	4.76	3.81	0.8	▲	▲
	WNMG080404-SAL	8.7	12.7	4.76	5.16	0.4	▲	▲
	WNMG080408-SAL	8.7	12.7	4.76	5.16	0.8	▲	▲

# 切断切槽刀片命名规则 Parting and Grooving Insert Naming Rule

## 系列总称代号 Application Code

QC H V 03 02 R 05 —MP

代号 Symbol	系列总称 Application Code
QC	切槽 Grooving
QD	切断 Part off
QR	仿形 Profile
QT	切断切槽 Parting & Grooving

## 刀片座型号 Tools Holder Type

QC H V 03 02 R 05 —MP

代号 Symbol	宽度 (mm) Width	刀柄 Handle.
E	2	E
F	2.5	F E
G	3	G F E
H	4	H
J	5	J H
K	6	K J H
L	8	L

## 刀尖圆弧半径代号 Corner Radius

QC H V 03 02 R 05 —MP

代号 Symbol	圆角 Corner Radius
02	R0.2
03	R0.3
04	R0.4
05	R0.5
08	R0.8

## 切削方向代号 Cutting Direction

QC H V 03 02 R 05 —MP

代号 Symbol	宽度 (mm) Width
R	右 Right
L	左 Left
N	双向 Neutral

# 切断切槽刀片命名规则 Parting and Grooving Insert Naming Rule

## 刃口数量代号 Edge Number

QC H V 03 02 R 05 —MP

代号 Symbol	刃口数量 Edge Number
W/D	2
V/S	1

## 刃宽代号 Cutting Edge Width

QT H D 05 04 N —MG

代号 Symbol	宽度 (mm) Width
05	5
06	6

## 刀片角度 Insert Angle

QC H V 03 02 R 05 —MP

代号 Symbol	角度 Angle
05	5°
07	7°

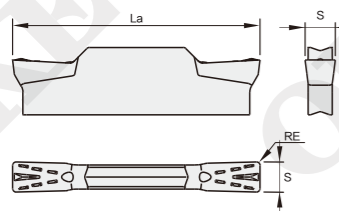
## 断屑槽型代号 Chip Breaker

QC H V 03 02 R 05 —MG

MG	OC
	

# 切断切槽刀片

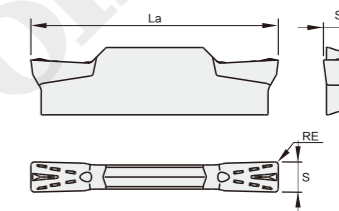
Parting and Grooving Insert QT□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension			涂层牌号 Grade	
		S <sub>0</sub> <sup>+0.1</sup>	RE	最大切深 La <sub>MAX</sub>	OC4020	OP1215
	QTED02503N-MG	2.5	0.3	20.5	●	●
	QTFD0303N-MG	3	0.3	20.5	●	●
	QTGD0404N-MG	4	0.4	25.5	●	●
	QTHD0504N-MG	5	0.4	25.5	●	●
	QTKD0608N-MG	6	0.8	25.5	●	●

# 切断切槽刀片

Parting and Grooving Insert QT□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension			涂层牌号 Grade	
		S <sub>0</sub> <sup>+0.1</sup>	RE	最大切深 La <sub>MAX</sub>	OC4020	OP1215
	QCFW0202N-OC	2	0.2	16	●	●
	QCFW02502N-OC	2.5	0.2	18.5	●	●
	QCGW0304N-OC	3	0.4	21	●	●
	QCHW0404N-OC	4	0.4	21	●	●
	QCJW0508N-OC	5	0.8	26	●	●

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



## 螺纹刀片命名规则 Threading Turning Insert Naming Rules

### 左右 Cutting Direction

R/LT 16 01 G A 60 M

RT	LT
右刀 right hand	左刀 left hand

### 齿数 Number of Teeth

R/LT 16 01 G A 60 M

01	N
单齿 Single-teeth	N齿 N-teeth

### 螺距代号 Pitch Width

R/LT 16 01 G A 60 M

	A	AG	G	N	Q		
mm	0.5-1.5	1.0-3.0	1.75-3.0	3.5-5.0	5.5-6.0		
TPI	48-16	26-10	14-8	7-5	4.5-4		

### 刀片尺寸 Insert Size

R/LT 16 01 G A 60 M

L(mm)	IC(mm)	L(mm)	IC(mm)
6	3.97	16	9.525
8	4.76	22	12.7
11	6.35	27	15.875

### 刀片类型 Insert Type

R/LT 16 01 G A 60 M

代号 Symbol	类型 Type
G	外螺纹 External threading
L	内螺纹 Internal threading

## 螺纹刀片命名规则 Threading Turning insert Naming Rules

### 刀片牙形代号 Thread Profile

R/LT 16 01 G A 60 M

代号 Symbol	刀片牙形 Thread Profile
55	55° V牙形 55° general pitch thread
60	60° V牙形 60° general pitch thread
ISO	ISO米制全牙形 ISO metric thread
UN	美制全牙形 Unified thread (American standard thread)
W	惠氏全牙形 Whitworth thread
BSPT	BSPT全牙形 British standard taper pipe thread
NPT	NPT全牙形 NPT American standard taper pipe thread
UNJ	UNJ全牙形 UNJ American standard aerospace and aviation thread
RD	DIN405圆牙形 30° DIN405 round thread
APIRD	石油管螺纹刀片 Petroleum pipeline thread
TR	Trapeze30° 103 30° ISO metric thread
ACME	ACME梯形 29° American standard ACME thread
STACME	矮牙ACME梯形 29° American standard STACME thread

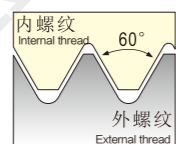
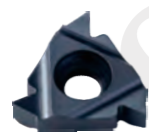
### 制作方式 Production Method

R/LT 16 01 G A 60 M

A	M
全压制 Full pressing	全磨制 Full ground

# 螺纹车刀片 Threading Insert

## 60° V牙形螺纹刀片 60° General Pitch Thread



刀片用途 Application for insert

用于所有机械加工的一般用途螺纹  
it is suitable for all machining

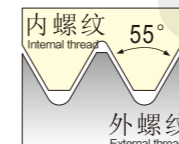
标准 Standard

公差等级 Tolerance grade

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
R/LT0601G-A60M	0.5-1.25	48-16	R/LT0601L-A60M	0.5-1.25	48-20
R/LT1601G-A60M	0.5-1.5	48-16	R/LT0801L-A60M	0.5-1.5	48-16
R/LT1601G-AG60M	0.5-1.5	26-8	R/LT1101L-A60M	0.5-1.5	48-16
R/LT1601G-G60M	0.5-3.0	14-8	R/LT1101L-AG60M	1.0-2.5	26-9
R/LT2201G-N60M	0.5-1.5	7-5	R/LT1601L-A60M	0.5-1.5	48-16
R/LT2701G-Q60M	0.5-3.0	4.5-4	R/LT1601L-AG60M	1.0-3.0	26-8
			R/LT1601L-G60M	1.75-3.0	14-8
			R/LT2201L-N60M	3.5-5.0	7-5
			R/LT2701L-Q60-M	5.5-6.0	4.5-4

# 螺纹车刀片 Threading Insert

## 55° V牙形螺纹刀片 55° General Pitch Thread



刀片用途 Application for insert

用于所有机械加工的一般用途螺纹  
it is suitable for all machining

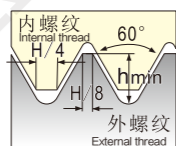
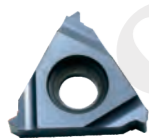
标准 Standard

公差等级 Tolerance grade

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
			R/LT0601L-A55M	0.5-1.25	48-20
			R/LT0801L-A55M	0.5-1.5	48-16
R/LT1101G-A55M	0.5-1.5	48-16	R/LT1101L-A55M	0.5-1.5	48-16
			R/LT1101L-AG55M	1.0-2.5	26-9
R/LT1601G-A55M	0.5-1.5	48-16	R/LT1601L-A55M	0.5-1.5	48-16
R/LT1601G-AG55M	1.0-3.0	26-8	R/LT1601L-AG55M	1.0-3.0	26-8
R/LT1601G-G55M	1.75-3.0	14-8	R/LT1601L-G55M	1.75-3.0	14-8
R/LT2201G-N55M	3.5-5.0	7-5	R/LT2201L-N55M	3.5-5.0	7-5
R/LT2701G-Q55M	5.5-6.0	4.5-4	R/LT2701L-Q55M	5.5-6.0	4.5-4

# 螺纹车刀片 Threading Insert

ISO 米制螺纹刀片 ISO Metric Thread



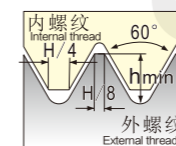
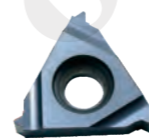
刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

标准 Standard  
MR262(DIN13)  
公差等级 Tolerance grade  
6g/6H

外螺纹 External thread				内螺纹 Internal thread			
全磨制型号 Ground type	A 型号 A type	适用螺距 Applicative pitch		全磨制型号 Ground type	A 型号 A type	适用螺距 Applicative pitch	
		mm	TPI			mm	TPI
				R/LT0601L-050ISOM		0.5	0.29
				R/LT0601L-075ISOM		0.75	0.43
				R/LT0601L-100ISOM		1.00	0.58
				R/LT0601L-125ISOM		1.25	0.72
				R/LT0801L-050ISOM		0.5	0.29
				R/LT0801L-075ISOM		0.75	0.43
				R/LT0801L-100ISOM		1.00	0.58
				R/LT0801L-125ISOM		1.25	0.72
				R/LT0801L-150ISOM		1.50	0.87
				R/LT0801L-175ISOM		1.75	1.01
R/LT1101G-050ISOM		0.50	0.31	R/LT1101L-050ISOM		0.50	0.29
R/LT1101G-075ISOM		0.75	0.46	R/LT1101L-075ISOM		0.75	0.43
R/LT1101G-080ISOM		0.8	0.49	R/LT1101L-080ISOM		0.8	0.46
R/LT1101G-100ISOM		1.00	0.61	R/LT1101L-100ISOM		1.00	0.58
R/LT1101G-125ISOM		1.25	0.77	R/LT1101L-125ISOM		1.25	0.72
R/LT1101G-150ISOM		1.50	0.92	R/LT1101L-150ISOM		1.50	0.87
R/LT1101G-175ISOM		1.75	1.07	R/LT1101L-175ISOM		1.75	1.01
R/LT1101G-200ISOM		2.00	1.23	R/LT1101L-200ISOM		2.00	1.15
R/LT1601G-050ISOM		0.50	0.31	R/LT1601L-050ISOM		0.50	0.29
R/LT1601G-075ISOM		0.75	0.46	R/LT1601L-075ISOM		0.75	0.43
R/LT1601G-080ISOM		0.80	0.49	R/LT1601L-080ISOM		0.80	0.46
R/LT1601G-100ISOM		1.00	0.61	R/LT1601L-100ISOM		1.00	0.58
R/LT1601G-125ISOM		1.25	0.77	R/LT1601L-125ISOM		1.25	0.72
R/LT1601G-150ISOM	RT1601G-150ISOA	1.50	0.92	R/LT1601L-150ISOM	RT1601L-150ISOA	1.50	0.87
R/LT1601G-175ISOM		1.75	1.07	R/LT1601L-175ISOM		1.75	1.01
R/LT1601G-200ISOM	RT1601G-200ISOA	2.00	1.23	R/LT1601L-200ISOM	RT1601L-200ISOA	2.00	1.15
R/LT1601G-250ISOM	RT1601G-250ISOA	2.50	1.53	R/LT1601L-250ISOM	RT1601L-250ISOA	2.50	1.44
R/LT1601G-300ISOM	RT1601G-300ISOA	3.00	1.84	R/LT1601L-300ISOM	RT1601L-300ISOA	3.00	1.73
R/LT1601G-350ISOM		3.50	2.15	R/LT1601L-350ISOM		3.50	2.02
R/LT2201G-350ISOM		3.50	2.15	R/LT2201L-350ISOM		3.50	2.02
R/LT2201G-400ISOM		4.00	2.45	R/LT2201L-400ISOM		4.00	2.31
R/LT2201G-450ISOM		4.5	2.76	R/LT2201L-450ISOM		4.5	2.60
R/LT2201G-500ISOM		5.00	3.07	R/LT2201L-500ISOM		5.00	2.89
R/LT2701G-550ISOM		5.50	3.37	R/LT2701L-550ISOM		5.50	3.17
R/LT2701G-600ISOM		6.00	3.68	R/LT2701L-600ISOM		6.00	3.46

# 螺纹车刀片 Threading Insert

Un美制螺纹刀片 Unified Thread (American Standard Thread)



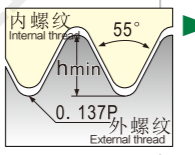
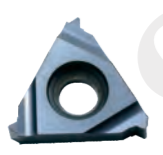
刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

标准 Standard  
ANSI B1.1:74  
公差等级 Tolerance grade  
2A/2B

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
			R/LT0601L-28UNM	28	0.52
			R/LT0601L-24UNM	24	0.61
			R/LT0601L-20UNM	20	0.73
			R/LT0601L-18UNM	18	0.81
			R/LT0801L-28UNM	28	0.52
			R/LT0801L-24UNM	24	0.61
			R/LT0801L-20UNM	20	0.73
			R/LT0801L-18UNM	18	0.81
			R/LT0801L-16UNM	16	0.92
R/LT1101G-28UNM	28	0.56	R/LT1101L-28UNM	28	0.52
R/LT1101G-24UNM	24	0.65	R/LT1101L-24UNM	24	0.61
R/LT1101G-20UNM	20	0.78	R/LT1101L-20UNM	20	0.73
R/LT1101G-18UNM	18	0.87	R/LT1101L-18UNM	18	0.81
R/LT1101G-16UNM	16	0.97	R/LT1101L-16UNM	16	0.92
R/LT1101G-14UNM	14	1.11	R/LT1101L-14UNM	14	1.05
R/LT1101G-12UNM	12	1.30	R/LT1101L-12UNM	12	1.22
R/LT1601G-48UNM	48	0.30	R/LT1601L-48UNM	48	0.31
R/LT1601G-40UNM	40	0.39	R/LT1601L-40UNM	40	0.37
R/LT1601G-32UNM	32	0.49	R/LT1601L-32UNM	32	0.46
R/LT1601G-28UNM	28	0.56	R/LT1601L-28UNM	28	0.52
R/LT1601G-24UNM	24	0.65	R/LT1601L-24UNM	24	0.61
R/LT1601G-20UNM	20	0.78	R/LT1601L-20UNM	20	0.73
R/LT1601G-18UNM	18	0.87	R/LT1601L-18UNM	18	0.81
R/LT1601G-16UNM	16	0.97	R/LT1601L-16UNM	16	0.92
R/LT1601G-14UNM	14	1.11	R/LT1601L-14UNM	14	1.05
R/LT1601G-12UNM	12	1.30	R/LT1601L-12UNM	12	1.22
R/LT1601G-11UNM	11	1.42	R/LT1601L-11UNM	11	1.28
R/LT1601G-10UNM	10	1.56	R/LT1601L-10UNM	10	1.47
R/LT1601G-9UNM	9	1.73	R/LT1601L-9UNM	9	1.63
R/LT1601G-8UNM	8	1.95	R/LT1601L-8UNM	8	1.83
R/LT2201G-7UNM	7	2.22	R/LT2201L-7UNM	7	2.09
R/LT2201G-6UNM	6	2.60	R/LT2201L-6UNM	6	2.44
R/LT2201G-5UNM	5	3.12	R/LT2201L-5UNM	5	2.93
R/LT2701G-4.5UNM	4.5	3.46	R/LT2701L-4.5UNM	4.5	3.26
R/LT2701G-4UNM	4	3.89	R/LT2701L-4UNM	4	3.67

# 螺纹车刀片 Threading Insert

## W惠氏螺纹刀片 Whitworth Thread



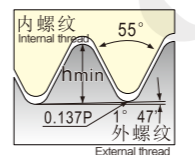
刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

- 标准 Standard  
B.S.84:1956,  
DIN259,ISO228/1:1982
- 公差等级 Tolerance grade  
中级A Medium class A

外螺纹 External thread				内螺纹 Internal thread			
全磨制型号 Ground type	A 型号 A type	适用螺距 Applicative pitch		全磨制型号 Ground type	A 型号 A type	适用螺距 Applicative pitch	
		mm	TPI			mm	TPI
				R/LT0601L-28WM		28	0.58
				R/LT0601L-24WM		24	0.68
				R/LT0601L-20WM		20	0.51
				R/LT0601L-19WM		19	0.90
				R/LT0801L-28WM		28	0.58
				R/LT0801L-24WM		24	0.68
				R/LT0801L-20WM		20	0.81
				R/LT0801L-19WM		19	0.90
				R/LT0801L-16WM		16	1.02
R/LT1101G-28WM		28	0.58	R/LT1101L-28WM		28	0.58
R/LT1101G-24WM		24	0.68	R/LT1101L-24WM		24	0.68
R/LT1101G-20WM		20	0.81	R/LT1101L-20WM		20	0.81
R/LT1101G-19WM		19	0.90	R/LT1101L-19WM		19	0.90
R/LT1101G-16WM		16	1.02	R/LT1101L-16WM		16	1.02
R/LT1101G-14WM		14	1.16	R/LT1101L-14WM		14	1.16
R/LT1101G-11WM		11	1.48	R/LT1101L-11WM		11	1.48
R/LT1601G-48WM		48	0.34	R/LT1601L-48WM		48	0.34
R/LT1601G-40WM		40	0.41	R/LT1601L-40WM		40	0.41
R/LT1601G-32WM		32	0.51	R/LT1601L-32WM		32	0.51
R/LT1601G-28WM		28	0.58	R/LT1601L-28WM		28	0.58
R/LT1601G-26WM		26	0.63	R/LT1601L-26WM		26	0.63
R/LT1601G-24WM		24	0.68	R/LT1601L-24WM		24	0.68
R/LT1601G-20WM		20	0.81	R/LT1601L-20WM		20	0.81
R/LT1601G-19WM		19	0.90	R/LT1601L-19WM		19	0.90
R/LT1601G-16WM		16	1.02	R/LT1601L-16WM		16	1.02
R/LT1601G-14WM	RT1601G-14WA	14	1.16	R/LT1601L-14WM	RT1601L-14WA	14	1.16
R/LT1601G-12WM		12	1.36	R/LT1601L-12WM		12	1.36
R/LT1601G-11WM	RT1601G-11WA	11	1.48	R/LT1601L-11WM	RT1601L-11WA	11	1.48
R/LT1601G-10WM		10	1.63	R/LT1601L-10WM		10	1.63
R/LT1601G-9WM		9	1.81	R/LT1601L-9WM		9	1.81
R/LT1601G-8WM		8	2.03	R/LT1601L-8WM		8	2.03
R/LT2201G-7WM		7	2.41	R/LT2201L-7WM		7	2.41
R/LT2201G-6WM		6	2.71	R/LT2201L-6WM		6	2.71
R/LT2201G-5WM		5	3.25	R/LT2201L-5WM		5	3.25
R/LT2701G-4.5WM		4.5	3.61	R/LT2701L-4.5WM		4.5	3.61
R/LT2701G-4WM		4	4.07	R/LT2701L-4WM		4	4.07

# 螺纹车刀片 Threading Insert

## BSPT英制锥管螺纹刀片 British Standard Taper Pipe Thread



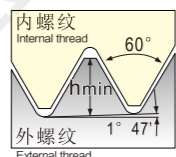
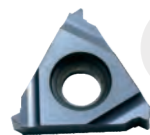
刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

- 标准 Standard  
B.S.21:1985
- 公差等级 Tolerance grade

外螺纹 External thread				内螺纹 Internal thread			
全磨制型号 Ground type	全压制型号 Full pressed	适用螺距 Applicative pitch		全磨制型号 Ground type	全压制型号 Full pressed	适用螺距 Applicative pitch	
		mm	TPI			mm	TPI
				R/LT0601L-28BSPTM		28	0.58
				R/LT0801L-28BSPTM		28	0.58
				R/LT0801L-19BSPTM		19	0.86
				R/LT1101L-19BSPTM		19	0.86
				R/LT1101L-14BSPTM		14	1.16
				R/LT1101L-11BSPTM		11	1.48
R/LT1601G-28BSPTM		28	0.58	R/LT1601L-28BSPTM		28	0.58
R/LT1601G-19BSPTM		19	0.86	R/LT1601L-19BSPTM		19	0.86
R/LT1601G-14BSPTM	RT1601G-14BSPTA	14	1.16	R/LT1601L-14BSPTM	RT1601L-14BSPTA	14	1.16
R/LT1601G-11BSPTM	RT1601G-11BSPTA	11	1.48	R/LT1601L-11BSPTM	RT1601L-11BSPTA	11	1.48

# 螺纹车刀片 Threading Insert

## NPT 英制锥管螺纹刀片 NPT American Standard Taper Pipe Thread



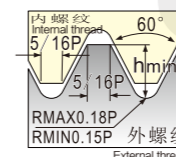
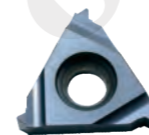
▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
USAS B2. 1:1968  
▶ 公差等级 Tolerance grade

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
			R/LT0601L-27NPTM	27	0.66
			R/LT0801L-27NPTM	27	0.66
			R/LT0801L-18NPTM	18	1.01
			R/LT1101L-18NPTM	18	1.01
			R/LT1101L-14NPTM	14	1.33
R/LT1601G-27NPTM	27	0.66			
R/LT1601G-18NPTM	18	1.01	R/LT1601L-18NPTM	18	1.01
R/LT1601G-14NPTM	14	1.33	R/LT1601L-14NPTM	14	1.33
R/LT1601G-11.5NPTM	11.5	1.64	R/LT1601L-11.5NPTM	11.5	1.64
R/LT1601G-8NPTM	8	2.42	R/LT1601L-8NPTM	8	2.42

# 螺纹车刀片 Threading Insert

## UNJ 美制航空螺纹刀片 UNJ American Standard Aerospace and Aviation Thread



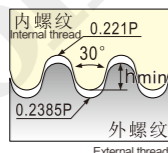
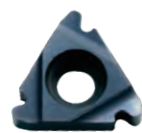
▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
MIL-D-8879C  
▶ 公差等级 Tolerance grade  
3A/3B

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
			R/LT0601L-18UNJM	18	0.74
			R/LT0801L-16UNJM	16	0.83
			R/LT0801L-14UNJM	14	0.95
			R/LT1101L-12UNJM	12	1.11
R/LT1601G-40UNJM	40	0.37			
R/LT1601G-36UNJM	36	0.41			
R/LT1601G-32UNJM	32	0.46			
R/LT1601G-28UNJM	28	0.52			
R/LT1601G-24UNJM	24	0.61			
R/LT1601G-20UNJM	20	0.73			
R/LT1601G-18UNJM	18	0.81			
R/LT1601G-16UNJM	16	0.92			
R/LT1601G-14UNJM	14	1.05			
R/LT1601G-12UNJM	12	1.22			
R/LT1601G-10UNJM	10	1.47	R/LT1601L-10UNJM	10	1.33
R/LT1601G-8UNJM	8	1.83	R/LT1601L-8UNJM	8	1.66
R/LT2201G-7UNJM	7	2.09	R/LT2201L-7UNJM	7	1.90
R/LT2201G-6UNJM	6	2.44	R/LT2201L-6UNJM	6	2.21
R/LT2201G-5UNJM	5	2.93	R/LT2201L-5UNJM	5	2.66
R/LT2701G-4.5UNJM	4.5	3.26	R/LT2701L-4.5UNJM	4.5	2.95
R/LT2701G-4UNJM	4	3.67	R/LT2701L-4UNJM	4	3.32

# 螺纹车刀片 Threading Insert

## RD DIN405圆管30° 螺纹刀片 30° DIN405 Round Thread



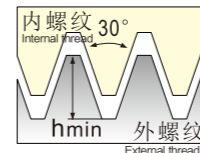
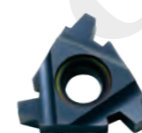
▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
DIN405  
▶ 公差等级 Tolerance grade  
7h/7H

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
R/LT1601G-10RDM	10	1.27	R/LT1601L-10RDM	10	1.27
R/LT1601G-8RDM	8	1.59	R/LT1601L-8RDM	8	1.59
R/LT1601G-6RDM	6	2.12	R/LT1601L-6RDM	6	2.12
R/LT2201G-6RDM	6	2.12	R/LT2201L-6RDM	6	2.12
R/LT2201G-4RDM	4	3.18	R/LT2201L-4RDM	4	3.18

# 螺纹车刀片 Threading Insert

## TR 公制30° 梯形螺纹刀片 30° ISO Metric Thread

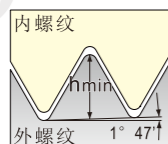
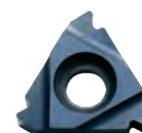


▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
DIN103  
▶ 公差等级 Tolerance grade  
7e/7H

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
R/LT1601G-1.5TRM	1.5	0.90	R/LT1601L-1.5TRM	1.5	0.90
R/LT1601G-2TRM	2	1.25	R/LT1601L-2TRM	2	1.25
R/LT1601G-3TRM	3	1.75	R/LT1601L-3TRM	3	1.75
R/LT2201G-4TRM	4	2.25	R/LT2201L-4TRM	4	2.25
R/LT2201G-5TRM	5	2.75	R/LT2201L-5TRM	5	2.75
R/LT2701G-6TRM	6	3.50	R/LT2701L-6TRM	6	3.50
R/LT2701G-7TRM	7	4.00	R/LT2701L-7TRM	7	4.00

## APIRD 石油管螺纹刀片 Petroleum Pipeline Threading insert



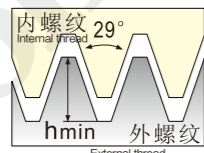
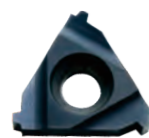
▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
STD.5B.1979  
▶ 公差等级 Tolerance grade

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch		全磨制型号 ground type	适用螺距 applicative pitch	
	mm	TPI		mm	TPI
R/LT1601G-10APIRDM	10	1.41	R/LT1601L-10APIRDM	10	1.41
R/LT1601G-8APIRDM	8	1.81	R/LT1601L-8APIRDM	8	1.81

# 螺纹车刀片 Threading Insert

## ACME 美制29° 梯形螺纹刀片 29° American ACME Thread



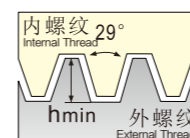
▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
ANSI B1.5:1988  
▶ 公差等级 Tolerance grade  
3G

外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
R/LT1601G-12ACMEM	12	1.19			
R/LT1601G-10ACMEM	10	1.52			
R/LT1601G-8ACMEM	8	1.84	R/LT1601L-8ACMEM	8	1.84
R/LT2201G-6ACMEM	6	2.37	R/LT2201L-6ACMEM	6	2.37
R/LT2201G-5ACMEM	5	2.79	R/LT2201L-5ACMEM	5	2.79
R/LT2701G-4ACMEM	4	3.43	R/LT2701L-4ACMEM	4	3.43

# 螺纹车刀片 Threading Insert

## STACME 矮牙美制29° 梯形螺纹刀片 29° American STACME Thread





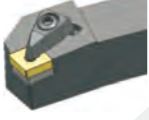



▶ 刀片用途 Application for insert  
用于所有机械加工的一般用途螺纹  
It is suitable for all machining

▶ 标准 Standard  
ANSI B1.8:1988  
▶ 公差等级 Tolerance grade  
2G


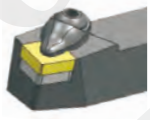


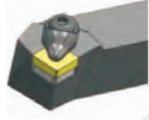
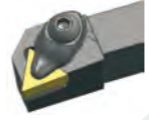
外螺纹 External thread			内螺纹 Internal thread		
全磨制型号 Ground type	适用螺距 Applicative pitch		全磨制型号 Ground type	适用螺距 Applicative pitch	
	mm	TPI		mm	TPI
R/LT1601G-12STACMEM	12	0.76			
R/LT1601G-10STACMEM	10	1.02			
R/LT1601G-8STACMEM	8	1.21			
R/LT2201G-6STACMEM	6	1.52			
R/LT2201G-5STACMEM	5	1.78	R/LT2201L-5STACMEM	5	1.78
R/LT2701G-4STACMEM	4	2.16	R/LT2701L-4STACMEM	4	2.16
R/LT2701G-3STACMEM	3	2.79	R/LT2701L-3STACMEM	3	2.79

# 车削刀具一览表(外圆) External Turning Tools List

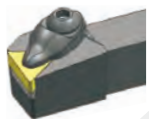
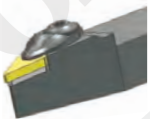


## D类 夹紧方式 Wedge Clamping

DCLNR/L	DCBNR/L	DCKNR/L	DCMNN	DDJNR/L	DDPNN
					
P69	P69	P70	P70	P71	P71

DDQNR/L	DSBNR/L	DSDNN	DSSNR/L	DSKNR/L	DTGNR/L
					
P72	P72	P73	P73	P74	P74

DTFNR/L	DVVNN	DVJNR/L	DWLNR/L
			
P75	P75	P76	P76

B

C

D

# 车削刀具一览表(外圆) External Turning Tools List

## M类 夹紧方式 Top and Hole Clamping

MCLNR/L	MCBNR/L	MCKNR/L	MDJNR/L	MDQNR/L	MSBNR/L
					
P77	P77	P78	P78	P79	P80

MSRNR/L	MSKNR/L	MSDNN	MSSNR/L	MTGNR/L	MTJNR/L
					
P80	P81	P81	P82	P82	P83

MTJNR/L(B)	MTFNR/L	MTQNR/L	MTENN	MVJNR/L	MVVNN
					
P83	P84	P84	P85	P85	P86

MVUNR/L	MVQNR/L	MWLNR/L	MRGNR/L	MRDNN
				
P86	P87	P87	P88	P88

B

C

D



# 车削刀具一览表(外圆) External Turning Tools List

P类 夹紧方式 Hole Clamping

PCBNR/L	PCLNR/L	PDJNR/L	PDNNR/L	PSBNR/L	PSDNN
 P89	 P89	 P90	 P90	 P91	 P91

PSKNR/L	PSSNR/L	PRDCN	PRGCR/L	PTGNR/L	PTFNR/L
 P92	 P92	 P93	 P93	 P94	 P95

PTTNR/L	PWLNRL/L
 P95	 P96

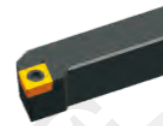
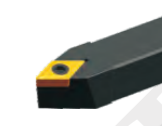
B

C

D

# 车削刀具一览表(外圆) External Turning Tools List

S类 夹紧方式 Screw On

SCACR/L	SCLCR/L	SDACR/L	SDJCR/L	SDNCN	SVJCR/L
 P97	 P97	 P98	 P98	 P99	 P99

SVJBR/L	SVABR/L	SVACR/L	SVVBN	SVVCN	SSBCR/L
 P100	 P100	 P101	 P101	 P102	 P102

SSDCN	SSKCR/L	SSSCR/L	STACR/L	STFCR/L	STGCR/L
 P103	 P103	 P104	 P104	 P105	 P105

STTCR/L	SWACR/L	SRDCN	SRGCR/L	SRACR/L
 P106	 P106	 P107	 P107	 P108

B

C

D

# 车削刀具一览表(内孔) Internal Turning Tools List

## M类 夹紧方式 Top and Hole Clamping

MCKNR/L	MCLNR/L	MDQNR/L	MDUNR/L	MDZNR/L	MSKNR/L
					
P111	P111	P112	P112	P113	P113

MVQNR/L	MVUNR/L	MVWNR/L	MVXNR/L	MWLNLR/L	MTFNR/L
					
P114	P114	P115	P115	P116	P116

MTQNR/L	MTJNR/L	MTUNR/L	MTWNR/L
			
P117	P117	P118	P118

## P类 夹紧方式 Hole Clamping

PCLNR/L	PDSNR/L	PDUNR/L	PSKNR/L	PTFNR/L	PWLNLR/L
					
P119	P119	P120	P120	P121	P121

# 车削刀具一览表(内孔) Internal Turning Tools List

## S类 夹紧方式 Screw On

SCLCR/L	SCLCR/L-H	SCKCR/L	SDQCR/L	SDXCR/L	SDWCR/L
					
P122	P122	P123	P123	P124	P124

SDUCR/L	SDZCR/L	SSKCR/L	SSSCR/L	STFCR/L	STWCR/L
					
P125	P125	P126	P126	P127	P127

STFPR/L	STUCR/L	SVQCR/L	SVQBR/L	SVUCR/L	SVWCR/L
					
P128	P128	P129	P129	P130	P130

SVXCR/L	SVZCR/L
	
P131	P132

# 车削刀具一览表 External Turning Tools List

## 外圆切断、切槽刀具 External Parting and Grooving Tools

QEED1616R/L10

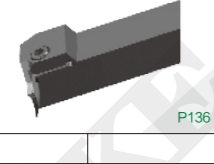


B

## 端面切槽、车削刀具 Turning and Face Grooving Tools

QFFD2525R/L10-48H

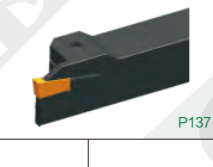
QFFD2525R/L10-48L



C

## ZQ Part Off Cutting Tools

ZQ1616R03



D

# 车削刀具一览表 External Turning Tools List

## 外圆切断的刀板 External Parting Blade

SPB326-S



B

## 外螺纹刀具 External Threading Turning Tools

SWR/L1010H11



C

## 内螺纹刀具 Internal Threading Turning Tools

SNR/L1010K11








D

# 外圆车刀命名规则 External Turning Tools Naming Rule








## 压紧方式 Clamping System

M C L N R 25 25 M 12

<b>P</b>  杠杆压紧式 hole clamping	<b>S</b>  螺钉压紧式 Screw on
<b>M</b>  复合压紧式 Top and hole clamping	<b>C</b>  压板压紧式 Top clamping
<b>D</b>  双重压紧式 Top clamping	



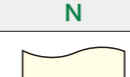
## 刀片形状 Insert Shape

M C L N R 25 25 M 12

<b>C</b>  80°	<b>D</b>  55°	<b>R</b> 
<b>S</b>  90°	<b>T</b>  60°	<b>V</b>  35°
<b>W</b>  80°		

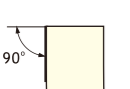

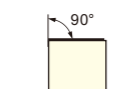
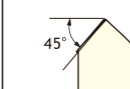
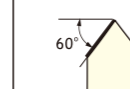
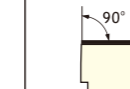

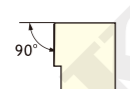
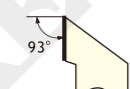

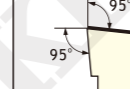
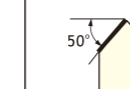
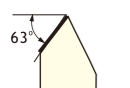
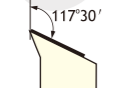
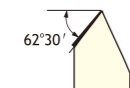

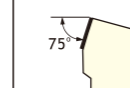
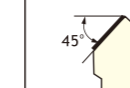
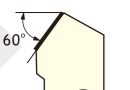
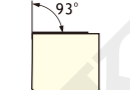
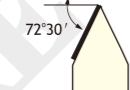
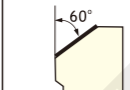

## 切削方向 Cutting Direction

M C L N R 25 25 M 12

<b>R</b> 
<b>L</b> 
<b>N</b> 

## 刀具形式与主偏角 Holder Style and Leading Angle

M C L N R 25 25 M 12

<b>A</b> 	<b>B</b> 	<b>C</b> 	<b>D</b> 	<b>E</b> 	<b>F</b> 
<b>H</b> 	<b>G</b> 	<b>J</b> 	<b>K</b> 	<b>L</b> 	<b>M</b> 
<b>N</b> 	<b>O</b> 	<b>P</b> 	<b>Q</b> 	<b>R</b> 	<b>S</b> 
<b>T</b> 	<b>U</b> 	<b>V</b> 	<b>W</b> 	<b>X</b> 	

## 刀片后角 Insert Clearance Angle

M C L N R 25 25 M 12

<b>N</b>	0°
<b>B</b>	5°
<b>C</b>	7°
<b>P</b>	11°
<b>D</b>	15°
<b>E</b>	20°

# 外圆车刀命名规则 External Turning Tools Naming Rule

## 刀尖高度 Tools-tip Height

M C L N R 25 25 M 12

	代号	12	16	20	25	32	40	50
只标注到整数 例:h=8mm,标为08 Integers to be preceded by 0 eg:h=8 indicated by 08	高度 HF	12	16	20	25	32	40	50

## 刀体宽度 Shank Width

M C L N R 25 25 M 12

	代号	12	16	20	25	32	40	50
只标注到整数 例:h=8mm,标为08 Integers to be preceded by 0 eg:h=8 indicated by 08	宽度 B	12	16	20	25	32	40	50








## 刀具长度 Tool Length

M C L N R 25 25 M 12

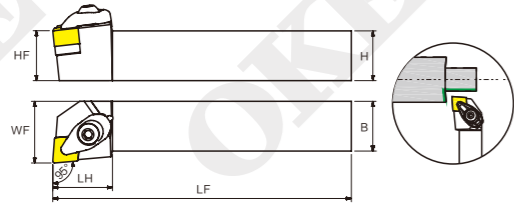
代号 Code	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>K</b>	<b>M</b>	<b>P</b>
长度 Length	60	70	80	90	100	125	150	170
代号 Code	<b>Q</b>	<b>R</b>	<b>S</b>	<b>T</b>	<b>U</b>	<b>V</b>	<b>W</b>	
长度 Length	180	200	250	300	350	400	450	

## 切削刃长度代号 Cutting Edge Length


M C L N R 25 25 M 12

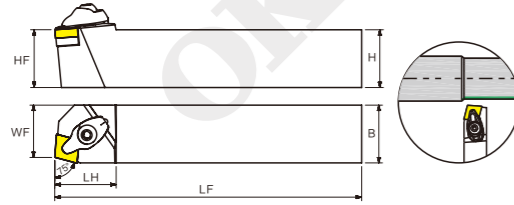
刀片外形 Cutting Tool Shape	<b>C</b> 	<b>D</b> 	<b>R</b> 	<b>S</b> 	<b>T</b> 	<b>V</b> 	<b>W</b> 
	内接圆 Inscribed Circle						
5.556					09		
6.350	06	07			11		
9.525	09	11	09	09	16	16	06
12.700	12	15	12	12	22	22	08
15.875	16	19	15	15	27		
19.050	19		19	19	33		
25.400	25		25	25	44		

## D类夹紧方式(外圆) D Type External Turning Tool Holder




B

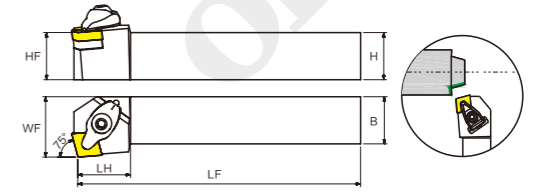
DCLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DCLNR/L 2020K12	20	20	125	20	27	32	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCLNR/L 2525M12	25	25	150	25	32	30						
	DCLNR/L 3232P12	32	32	170	32	39	30						



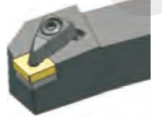
D

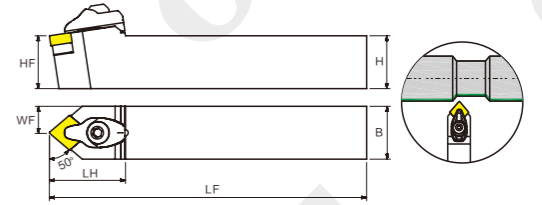
DCBNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DCBNR/L 2020K12	20	20	125	20	17	34	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCBNR/L 2525M12	25	25	150	25	22	36						
	DCBNR/L 3232P12	32	32	170	32	29	34						

## D类夹紧方式(外圆) D Type External Turning Tool Holder




B

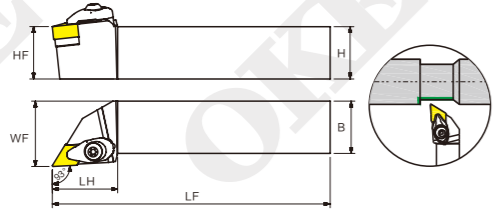
DCKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DCKNR/L 2020K12	20	20	125	20	26	28	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCKNR/L 2525M12	25	25	150	25	32	28						
	DCKNR/L 3232P12	32	32	170	32	39	28						



D

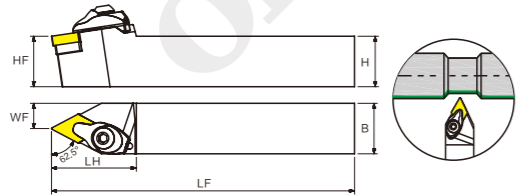
DCMNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DCMNN 2020K12	20	20	125	20	10	36	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCMNN 2525M12	25	25	150	25	12.5	36						
	DCMNN 3232P12	32	32	170	32	16	36						

## D类夹紧方式(外圆) D Type External Turning Tool Holder



B

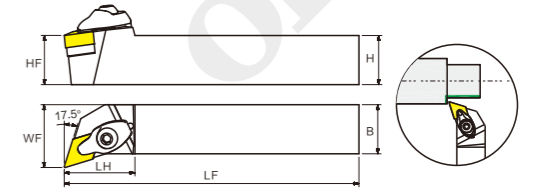
DDJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	93°	DDJNR/L2020K11	20	20	125	20	25	32	DN□□1104□□	MD1103	S3	DCL2211	DM0520	DSP0510
		DDJNR/L2525M11	25	25	150	25	30	32	DN□□1104□□	MD1103	S3	DCL2211	DM0520	DSP0510
		DDJNR/L2020K1504	20	20	125	20	25	40	DN□□1504□□	MD1504	S4 S3	DCL2612	DM0625	DSP0612
		DDJNR/L2525M1504	25	25	150	25	31	40	DN□□1504□□					
		DDJNR/L3232P1504	32	32	170	32	39	40	DN□□1504□□					
		DDJNR/L2020K1506	20	20	125	20	25	40	DN□□1506□□					
		DDJNR/L2525M1506	25	25	150	25	31	40	DN□□1506□□					
		DDJNR/L3232P1506	32	32	170	32	39	40	DN□□1506□□					



D

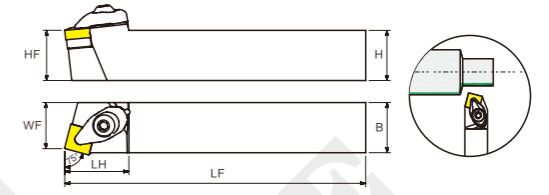
DDPNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	62.5°	DDPNN2020K11	20	20	125	20	10	32	DN□□1104□□	MD1103	S3	DCL2211	DM0520	DSP0510
		DDPNN2525M11	25	25	150	25	12.5	36	DN□□1104□□	MD1103	S3	DCL2211	DM0520	DSP0510
		DDPNN2020K1504	20	20	125	20	10	36	DN□□1504□□	MD1504	S4 S3	DCL2612	DM0625	DSP0612
		DDPNN2525M1504	25	25	150	25	12.5	36	DN□□1504□□					
		DDPNN3232P1504	32	32	170	32	16	36	DN□□1504□□					
		DDPNN2020K1506	20	20	125	20	10	36	DN□□1506□□					
		DDPNN2525M1506	25	25	150	25	12.5	36	DN□□1506□□					
		DDPNN3232P1506	32	32	170	32	16	36	DN□□1506□□					

## D类夹紧方式(外圆) D Type External Turning Tool Holder



B

DDQNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	107.5°	DDQNR/L2020K11	20	20	125	20	25	28	DN□□1104□□	MD1103	S4 S3	DCL2211	DM0520	DSP0510
		DDQNR/L2525M11	25	25	150	25	31	28	DN□□1104□□	MD1103	S4 S3	DCL2211	DM0520	DSP0510
		DDQNR/L2020K1504	20	20	125	20	26	36	DN□□1504□□	MD1504	S4 S3	DCL2612	DM0625	DSP0612
		DDQNR/L2525M1504	25	25	150	25	32	36	DN□□1504□□					
		DDQNR/L3232P1504	32	32	170	32	38	36	DN□□1504□□					
		DDQNR/L2020K1506	20	20	125	20	26	36	DN□□1506□□					
		DDQNR/L2525M1506	25	25	150	25	32	36	DN□□1506□□					
		DDQNR/L3232P1506	32	32	170	32	38	36	DN□□1506□□					

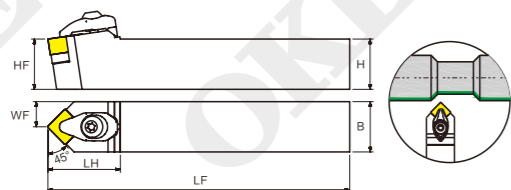


C

DSBNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	75°	DSBNR/L 2020K12	20	20	125	20	18	34	DN□□1104□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
		DSBNR/L 2525M12	25	25	150	25	23	32	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
		DSBNR/L 3232P12	32	32	170	32	30	33	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
		DSBNR/L 2020K12	20	20	125	20	18	34	DN□□1104□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612

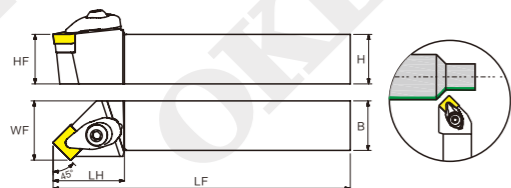
D

## D类夹紧方式(外圆) D Type External Turning Tool Holder



B

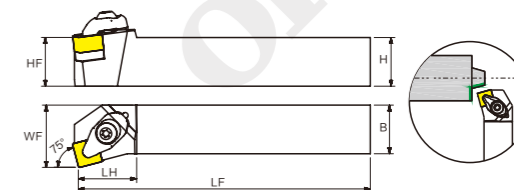
DSDNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DSDNN 2020K12	20	20	125	20	10	36	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSDNN 2525M12	25	25	150	25	12.5	36						
	DSDNN 3232P12	32	32	170	32	12.5	36						



D

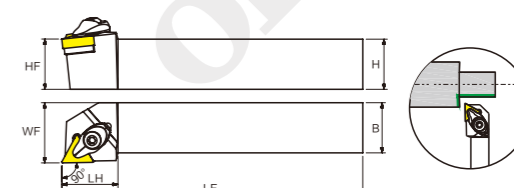
DSSNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DSSNR/L 2020K12	20	20	125	20	25	36	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSSNR/L 2525M12	25	25	150	25	30	36						
	DSSNR/L 3232P12	32	32	170	32	38	36						

## D类夹紧方式(外圆) D Type External Turning Tool Holder



B

DSKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DSKNR/L 2020K12	20	20	125	20	26	28	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSKNR/L 2525M12	25	25	150	25	36	28						
	DSKNR/L 3232P12	32	32	170	32	38	32						



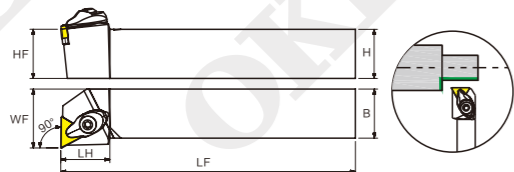
C

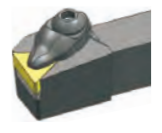





DTGNR	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DTGNR 2020K16	20	20	125	20	24	28	TN□□1604□□	MT1603	S3	DCL2211	DM0520	DSP0510
	DTGNR 2525M16	25	25	150	25	30	28						
	DTGNR 3225P16	32	25	170	32	30	28						
	DTGNR 3232P16	32	32	170	32	38	32						

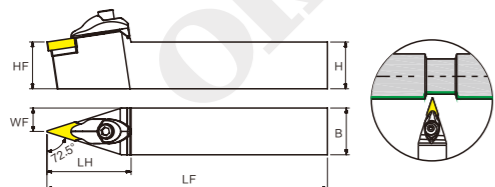
D

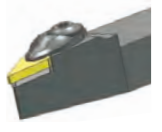






# D类夹紧方式(外圆)

D Type External Turning Tool Holder



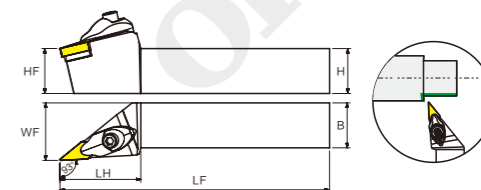
DTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DTFNR/L 2020K16	20	20	125	20	25	28						
	DTFNR/L 2525M16	25	25	150	25	30	26						
	DTFNR/L 3225P16	32	25	170	32	30	26						
	DTFNR/L 3232P16	32	32	170	32	38	26						



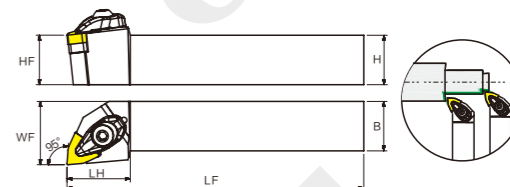
DVVNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DVVNN2020K16	20	20	125	20	10	45						
	DVVNN2525M16	25	25	150	25	12.5	45						
	DVVNN3225P16	32	25	170	32	12.5	45						
	DVVNN3232P16	32	32	170	32	16	45						








# D类夹紧方式(外圆)

D Type External Turning Tool Holder



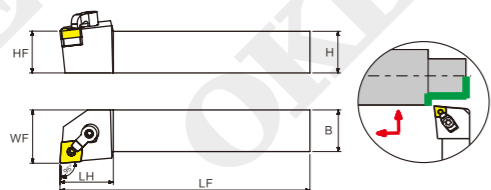
DVJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DVJNR/L 2020K16	20	20	125	20	26	45						
	DVJNR/L 2525M16	25	25	150	25	32	45						
	DVJNR/L 3225P16	32	25	170	32	32	45						
	DVJNR/L 3232P16	32	32	170	32	40	45						



DWLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
	DWLNR/L 2020K08	20	20	125	20	25	32						
	DWLNR/L 2525M08	25	25	150	25	32	31						
	DWLNR/L 3225P08	32	25	170	32	32	31						
	DWLNR/L 3232P08	32	32	170	32	39	31						
	DWLNR/L 2020K06	20	20	125	20	25	25						
	DWLNR/L 2525M06	25	25	150	25	30	25						

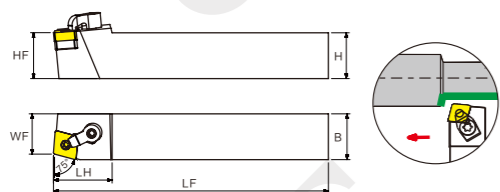


## M类夹紧方式(外圆) M Type External Turning Tool Holder



B

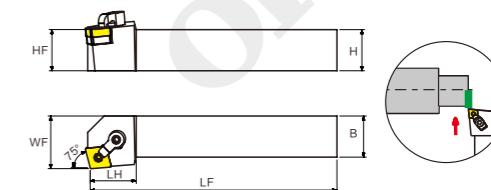
MCLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
95°	MCLNR/L1616H12	16	16	100	16	21	30	CN□□1204□□	WS061025	MC1204	S3	MCL1814	MSP617
	MCLNR/L2020K12	20	20	125	20	25	28						
	MCLNR/L2525M12	25	25	150	25	32	32	WS081030	MC1604	S3	MCL2114	MSP821	
	MCLNR/L3225P12	32	25	170	32	32	32						
	MCLNR/L3232P12	32	32	170	32	39	32	CN□□1606□□	WS061030	MC1604	S3	MCL2114	MSP821
	MCLNR/L2525M16	25	25	150	25	32	38						
	MCLNR/L3225P16	32	25	170	32	33	38	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1021
	MCLNR/L3232P16	32	32	170	32	40	38						
	MCLNR/L3232P19	32	32	170	32	40	43	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1021
	MCLNR/L4040R19	40	40	200	40	50	43						



D

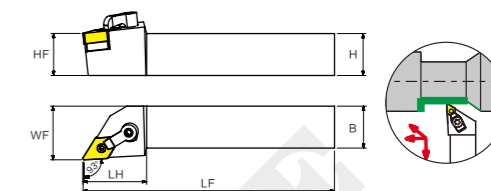
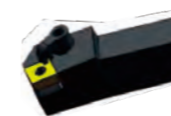
MCBNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
75°	MCBNR/L2020K12	20	20	125	20	17	32	CN□□1204□□	WS061025	MC1204	S3	MCL1814	MSP617
	MCBNR/L2525M12	25	25	150	25	22	32						
	MCBNR/L3225P12	32	25	170	32	22	32	WS061030	MC1604	S3	MCL2114	MSP822	
	MCBNR/L2525M16	25	25	150	25	22	36						
	MCBNR/L3225P16	32	25	170	32	22	35	CN□□1606□□	WS061030	MC1604	S3	MCL2114	MSP822
	MCBNR/L3232P16	32	32	170	32	27	35						
	MCBNR/L3232P19	32	32	170	32	27	40	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1022
	MCBNR/L4040R19	40	40	200	40	35	40						

## M类夹紧方式(外圆) M Type External Turning Tool Holder



A/b

MCKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
75°	MCKNR/L2020K12	20	20	125	20	25	28	CN□□1204□□	WS061025	MC1204	S3	MCL1814	MSP617
	MCKNR/L2525M12	25	25	150	25	32	28						
	MCKNR/L3225P12	32	25	170	32	32	28	WS061030	MC1604	S3	MCL2114	MSP821	
	MCKNR/L2525M16	25	25	150	25	32	30						
	MCKNR/L3225P16	32	25	170	32	32	30	CN□□1606□□	WS061030	MC1604	S3	MCL2114	MSP821
	MCKNR/L3232P16	32	32	170	32	38	30						
	MCKNR/L3232P19	32	32	170	32	40	36	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1021
	MCKNR/L4040R19	40	40	200	40	48	36						

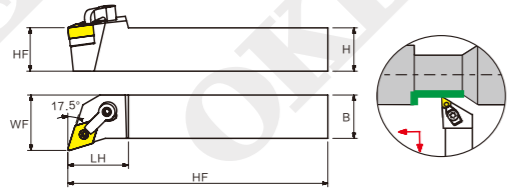


C

MDJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
93°	MDJNR/L1616H11	16	16	100	16	20	30	DN□□1104□□	WS061025	MD1103	S2	MCL1814	MSP513
	MDJNR/L2020K11	20	20	125	20	25	32						
	MDJNR/L2525M11	25	25	150	25	32	32	WS061030	MD1504	S3	MCL2114	04:MSP617 06:MSP619	
	MDJNR/L3225P11	32	25	170	32	32	32						
	MDJNR/L2020K1504/06	20	20	125	20	25	36	DN□□1504□□ DN□□1506□□	WS061025	MD1504	S3	MCL2114	04:MSP617 06:MSP619
	MDJNR/L2525M1504/06	25	25	150	25	32	38						
	MDJNR/L3225P1504/06	32	25	170	32	32	38	WS061030	MD1504	S3	MCL2114	04:MSP617 06:MSP619	
	MDJNR/L3232P1504/06	32	32	170	32	40	38						
	MDJNR/L4040R15	40	40	200	40	48	40	DN□□1506□□	WS061030	MD1504	S3	MCL2114	04:MSP617 06:MSP619



## M类夹紧方式(外圆) M Type External Turning Tool Holder

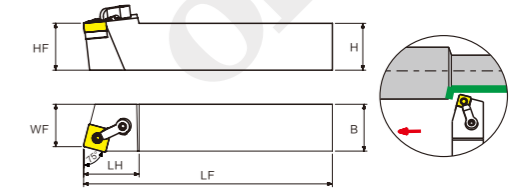



B

MDQNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw					
		H	B	LF	HF	WF	LH											
	107.5°	MDQNR/L1616H11	16	16	100	16	21	30										
	MDQNR/L2020K11	20	20	125	20	25	32	WS061025							MD1103	S2 S3	MCL1814	MSP513
	MDQNR/L2525M11	25	25	150	25	30	30	WS061030										
	MDQNR/L3225P11	32	25	170	32	30	30	WS061025										
	MDQNR/L2020K1504/06	20	20	125	20	27	36	WS061025										
	MDQNR/L2525M1504/06	25	25	150	25	32	35	WS061030							MD1504	S3	MCL2114	04:MSP617
	MDQNR/L3225P1504/06	32	25	170	32	32	35	WS061030							06:MSP619			
	MDQNR/L3232P1504/06	32	32	170	32	40	35											

D

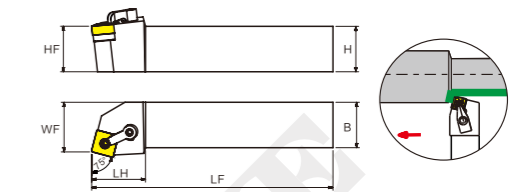
## M类夹紧方式(外圆) M Type External Turning Tool Holder




MSBNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	75°	MSBNR/L2020K12	20	20	125	20	17	34						
	MSBNR/L2525M12	25	25	150	25	22	32	SN□□1204□□						
	MSBNR/L3225P12	32	25	170	32	22	32	WS061030						
	MSBNR/L2525M15	25	25	150	25	22	38	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821	
	MSBNR/L3232P15	32	32	170	32	29	38	WS081030						
	MSBNR/L3232P19	32	32	170	32	27	45	SN□□1906□□	WS101035	MS1904	S4	MCL2217	MSP1021	
	MSBNR/L4040R19	40	40	200	40	35	45	WS081030						
	MSBNR/L4040S25	40	40	250	40	34	60	SN□□2509□□	MS2508	S4 S5	MCL3220	MSP1229		

B

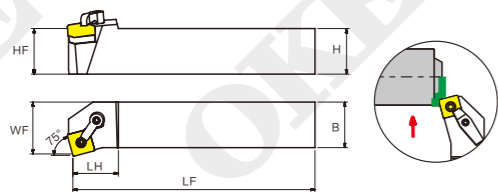
C




MSNRN/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	75°	MSNRN/L2020K12	20	20	125	20	22	32						
	MSNRN/L2525M12	25	25	150	25	27	32	SN□□1204□□						
	MSNRN/L3225P12	32	25	170	32	27	32	WS061030						
	MSNRN/L2525M15	25	25	150	25	27	38	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821	
	MSNRN/L3232P15	32	32	170	32	35	38	WS081030						
	MSNRN/L3232P19	32	32	170	32	35	45	SN□□1906□□	WS101035	MS1904	S4	MCL2217	MSP1021	
	MSNRN/L4040R19	40	40	200	40	43	45	WS081030						
	MSNRN/L4040S25	40	40	250	40	43	55	SN□□2509□□	MS2508	S4 S5	MCL3220	MSP1229		

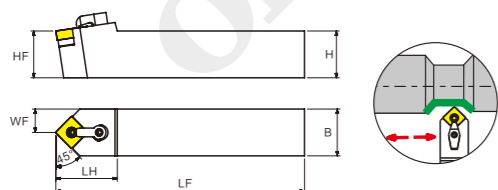
D

## M类夹紧方式(外圆) M Type External Turning Tool Holder




B

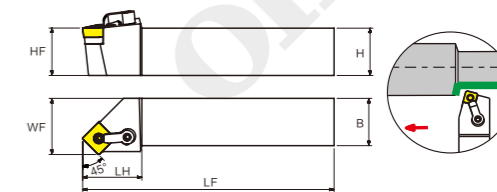
MSKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	75°	MSKNR/L2020K12	20	20	125	20	25	28	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSKNR/L2525M12	25	25	150	25	32	27	WS061030						
	MSKNR/L3225P12	32	25	170	32	32	27	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821	
	MSKNR/L2525M15	25	25	150	25	32	32							
	MSKNR/L3232P15	32	32	170	32	38	32	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021	
	MSKNR/L3232P19	32	32	170	32	38	36							
	MSKNR/L4040R19	40	40	200	40	50	40	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229	
	MSKNR/L4040S25	40	40	250	40	50	45							



D

MSDNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	45°	MSDNN2020K12	20	20	125	20	10	34	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSDNN2525M12	25	25	150	25	12.5	34	WS061030						
	MSDNN3225P12	32	25	170	32	12.5	34	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821	
	MSDNN2525M15	25	25	150	25	12.5	42							
	MSDNN3225P15	32	32	170	32	16	42	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021	
	MSDNN3232P19	32	32	170	32	16	45							
	MSDNN4040R19	40	40	200	40	20	50	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229	
	MSDNN4040S25	40	40	250	40	20	60							

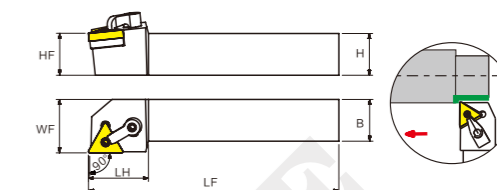
## M类夹紧方式(外圆) M Type External Turning Tool Holder




A/b

B

MSSNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	45°	MSSNR/L2020K12	20	20	125	20	25	36	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSSNR/L2525M12	25	25	150	25	30	36	WS061030						
	MSSNR/L3225P12	32	25	170	32	30	33	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821	
	MSSNR/L3232P12	32	32	170	32	38	35							
	MSSNR/L2525M15	25	25	150	25	30	40	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021	
	MSSNR/L3232P15	32	32	170	32	38	40							
	MSSNR/L3232P19	32	32	170	32	38	45	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229	
	MSSNR/L4040R19	40	40	200	40	46	45							
MSSNR/L4040S25	40	40	250	40	50	60								

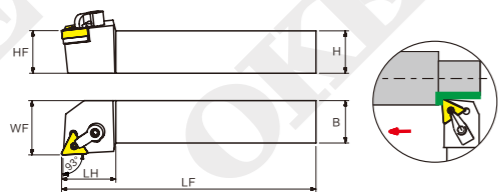


C


















MTGNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	90°	MTGNR/L2020K16	20	20	125	20	25	32	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
	MTGNR/L2525M16	25	25	150	25	32	30	WS061030						
	MTGNR/L3225P16	32	25	170	32	32	30	TN□□2204□□	WS061030	MT2204	S3	MCL2114	MSP617	
	MTGNR/L2525M22	25	25	150	25	32	36							
	MTGNR/L3225P22	32	25	170	32	32	36	WS061030	MT2204	S3	MCL2114	MSP617		
	MTGNR/L3232P22	32	32	170	32	38	36							

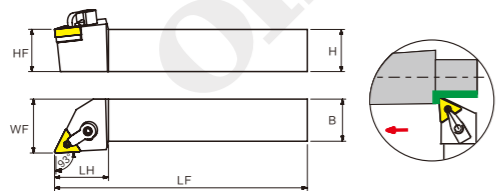
D

## M类夹紧方式(外圆) M Type External Turning Tool Holder














B

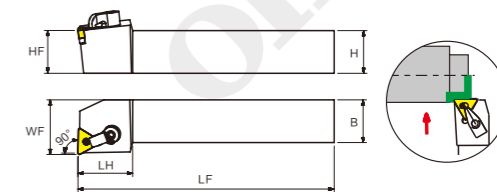
MTJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw		
		H	B	LF	HF	WF	LH								
	93°	MTJNR/L1616H16	16	16	100	16	20	28							
	MTJNR/L2020K16	20	20	125	20	25	32								
	MTJNR/L2525M16	25	25	150	25	32	32								
	MTJNR/L3225P16	32	25	170	32	32	32								
	MTJNR/L3232P16	32	32	170	32	32	32								
	MTJNR/L2525M22	25	25	150	25	32	36								
	MTJNR/L3225P22	32	25	170	32	32	36								
	MTJNR/L3232P22	32	32	170	32	38	36								



D


















MTJNR/L(B)	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw		
		H	B	LF	HF	WF	LH								
	93°	MTJNR/L1616H16(B)	16	16	100	16	20	28							
	MTJNR/L2020K16(B)	20	20	125	20	25	32								
	MTJNR/L2525M16(B)	25	25	150	25	32	32								
	MTJNR/L3225P16(B)	32	25	170	32	32	32								
	MTJNR/L3232P16(B)	32	32	170	32	32	32								
	MTJNR/L2525M22(B)	25	25	150	25	32	36								
	MTJNR/L3225P22(B)	32	25	170	32	32	36								
	MTJNR/L3232P22(B)	32	32	170	32	38	36								

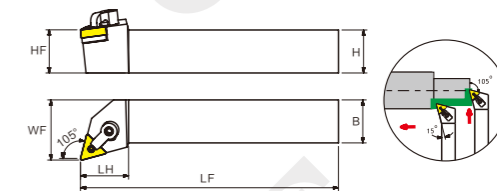
## M类夹紧方式(外圆) M Type External Turning Tool Holder















A/b

B

MTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw		
		H	B	LF	HF	WF	LH								
	90°	MTFNR/L1616H16	16	16	100	16	21	28							
	MTFNR/L2020K16	20	20	125	20	25	30								
	MTFNR/L2525M16	25	25	150	25	32	32								
	MTFNR/L3225P16	32	25	170	32	32	32								
	MTFNR/L3232P16	32	32	170	32	38	32								
	MTFNR/L2525M22	25	25	150	25	32	36								
	MTFNR/L3225P22	32	25	170	32	32	36								
	MTFNR/L3232P22	32	32	170	32	38	36								

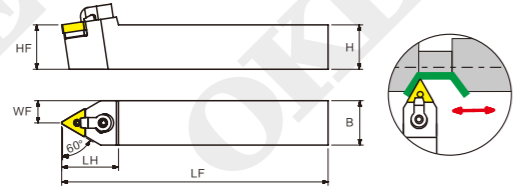


C

MTQNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw	
		H	B	LF	HF	WF	LH							
	105°	MTQNR/L2020K16	20	20	125	20	29	25						
	MTQNR/L2525M16	25	25	150	25	35	28							
	MTQNR/L3225P16	32	25	170	32	35	25							
	MTQNR/L2525M22	25	25	150	25	38	36							
	MTQNR/L3232P22	32	32	170	32	46	36							

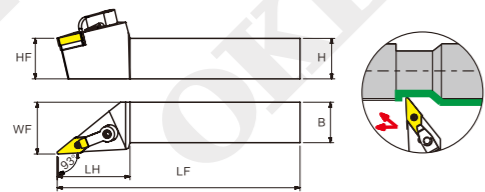
D

## M类夹紧方式(外圆) M Type External Turning Tool Holder



B

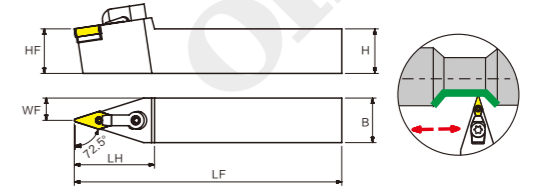
MTENN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
	MTENN1616H16	16	16	100	16	8	32	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
	MTENN2020K16	20	20	125	20	10	34						
	MTENN2525M16	25	25	150	25	12.5	32						
	MTENN3232P16	32	32	170	32	16	32						



D

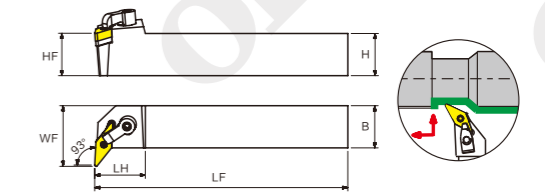
MVJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
	MVJNR/L1616H16	16	16	100	16	22	43	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2414	MSP513
	MVJNR/L2020K16	20	20	125	20	26	45						
	MVJNR/L2525M16	25	25	150	25	32	45						
	MVJNR/L3225P16	32	25	170	32	32	45						
	MVJNR/L3232P16	32	32	170	32	40	45						

## M类夹紧方式(外圆) M Type External Turning Tool Holder



B

MVVNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
	MVVNN2020K16	20	20	125	20	10	45	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2414	MSP513
	MVVNN2525M16	25	25	150	25	12.5	45						
	MVVNN3225P16	32	25	170	32	12.5	45						
	MVVNN3232P16	32	32	170	32	16	45						

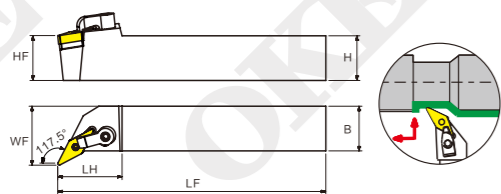


C

MVUNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
	MVUNR/L1616H16	16	16	100	16	20	45	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2414	MSP513
	MVUNR/L2020K16	20	20	125	20	25	45						
	MVUNR/L2525M16	25	25	150	25	32	45						
	MVUNR/L3225P16	32	25	170	32	32	45						
	MVUNR/L3232P16	32	32	170	32	40	45						

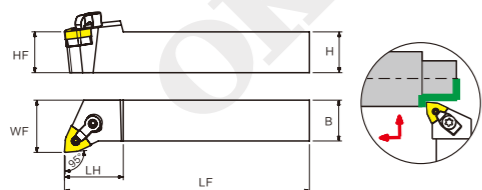
D

## M类夹紧方式(外圆) M Type External Turning Tool Holder



B

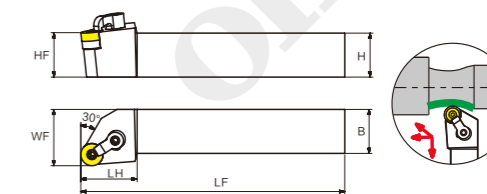
型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
	H	B	LF	HF	WF	LH							
MVQNR/L													
117.5°	MVQNR/L1616H16	16	16	100	16	24	36	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2114	MSP513
	MVQNR/L2020K16	20	20	125	20	27	36						
	MVQNR/L2525M16	25	25	150	25	33	36						
	MVQNR/L3225P16	32	25	170	32	33	36						
	MVQNR/L3232P16	32	32	170	32	40	36						



D

型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
	H	B	LF	HF	WF	LH							
MWLNR/L													
95°	MWLNR/L2020K06	20	20	125	20	25	28	WN□□0604□□	WS061025	MW0603	S2 S3		MSP513
	MWLNR/L2525M06	25	25	150	25	32	30		WS061030				
	MWLNR/L2020K08	20	20	125	20	26	28	WN□□0804□□	WS061025	MW0804	S3	MCL1814	MSP617
	MWLNR/L2525M08	25	25	150	25	32	35						
	MWLNR/L3225P08	32	25	170	32	32	35		WS061030				
	MWLNR/L3232P08	32	32	170	32	40	35						

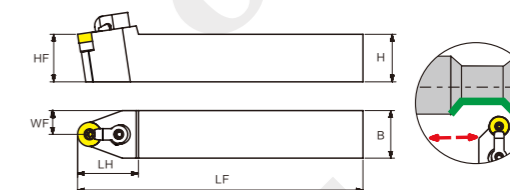
## M类夹紧方式(外圆) M Type External Turning Tool Holder



A/b

B

型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
	H	B	LF	HF	WF	LH							
MRGNR/L													
	MRGNR/L2020K12	20	20	125	20	25	28	RN□□1204□□	WS061025	MR1204	S3	MCL1814	MSP617
	MRGNR/L2525M12	25	25	150	25	32	32						
	MRGNR/L3225P12	32	25	170	32	32	32		WS061030				
	MRGNR/L3232P12	32	32	170	32	39	32						

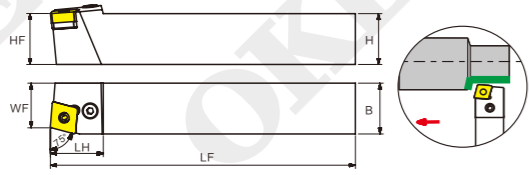


C

D

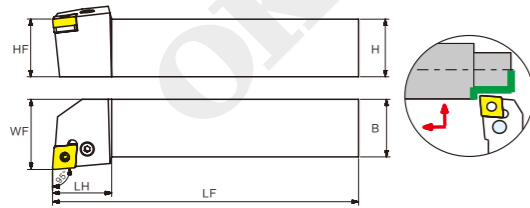
型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
	H	B	LF	HF	WF	LH							
MRDNN													
	MRDNN2020K12	20	20	125	20	1 0	30	RN□□1204□□	WS061025	MR1204	S3	MCL1814	MSP617
	MRDNN2525M12	25	25	150	25	12.5	32						
	MRDNN3225P12	32	25	170	32	12.5	30		WS061030				
	MRDNN3232P12	32	32	170	32	1 6	30						

## P类夹紧方式(外圆) P Type External Turning Tool Holder



B

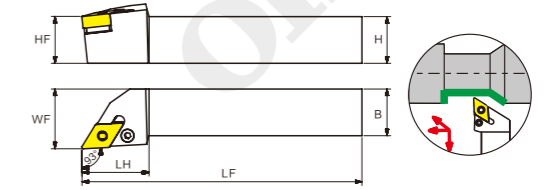
PCBNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
75°	PCBNR/L2020K12	20	20	125	20	17	30												
	PCBNR/L2525M12	25	25	150	25	22	26							CN□□1204□□	VHX0821	PC12318	S3	LV4	SP4
	PCBNR/L3232P12	32	32	170	32	29	27												
	PCBNR/L2525M16	25	25	150	25	22	32							CN□□1606□□	VHX0825	PC16476	S3	LV5	SP5
	PCBNR/L3232P16	32	32	170	32	27	33												
	PCBNR/L3232P19	32	32	170	32	27	38							CN□□1906□□	VHX1027	PC19476	S4	LV6	SP6
	PCBNR/L4040S19	40	40	250	40	35	38												
	PCBNR/L4040S2507	40	40	250	40	37	50							CN□□2507□□	VHX1236	PC25	S5	LV8	SP8
PCBNR/L4040S2509	40	40	250	40	37	50	CN□□2509□□												



D

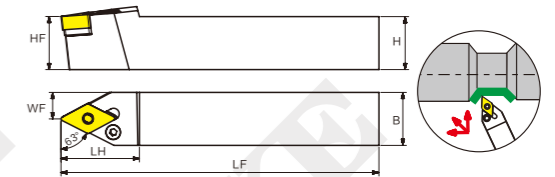
PCLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
95°	PCLNR/L1616H09	16	16	100	16	20	20												
	PCLNR/L2020K09	20	20	125	20	25	22							CN□□0903□□	VHX0613	PC09318	S2.5	LV3	SP3
	PCLNR/L2525M09	25	25	150	25	32	22												
	PCLNR/L2020K12	20	20	125	20	26	28												
	PCLNR/L2525M12	25	25	150	25	32	28							CN□□1204□□	VHX0821	PC12318	S3	LV4	SP4
	PCLNR/L3232P12	32	32	170	32	39	32												
	PCLNR/L2525M16	25	25	150	25	32	36							CN□□1606□□	VHX0825	PC16476	S3	LV5	SP5
	PCLNR/L3232P16	32	32	170	32	39	36												
	PCLNR/L3232P19	32	32	170	32	40	40							CN□□1906□□	VHX1027	PC19476	S4	LV6	SP6
	PCLNR/L4040S19	40	40	250	40	49	40												
PCLNR/L4040S2507	40	40	250	40	50	47	CN□□2507□□	VHX1236	PC25	S5	LV8	SP8							
PCLNR/L4040S2509	40	40	250	40	50	47	CN□□2509□□												

## P类夹紧方式(外圆) P Type External Turning Tool Holder



B

PDJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
93°	PDJNR/L1616H11	16	16	100	16	20	25												
	PDJNR/L2020K11	20	20	125	20	25	25							DN□□1104□□	VHX0613	PD11270	S2.5	LV3	SP3
	PDJNR/L2525M11	25	25	150	25	30	30												
	PDJNR/L2020K15	20	20	125	20	25	32												
	PDJNR/L2525M15	25	25	150	25	32	35							DN□□1506□□	VHX0825	PD15318	S3	LV4B	SP4
	PDJNR/L3232P15	32	32	170	32	38	35												
	PDJNR/L2020K15-3	20	20	125	20	25	35												
	PDJNR/L2020M15-3	25	25	150	25	32	35							DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4
PDJNR/L3232P15-3	32	32	170	32	38	35													



C

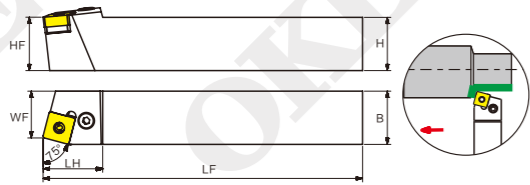
PDNNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
63°	PDNNR/L2020K15	20	20	125	20	8	37												
	PDNNR/L2525M15	25	25	150	25	12.5	37							DN□□1506□□	VHX0825	PD15318	S3	LV4B	SP4
	PDNNR/L3225P15	32	25	170	32	12.5	37												
	PDNNR/L3232P15	32	32	170	32	16	37												
	PDNNR/L2020K15-3	20	20	125	20	8	37												
	PDNNR/L2525M15-3	25	25	150	25	12.5	37							DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4
PDNNR/L3232P15-3	32	32	170	32	16	37													



D

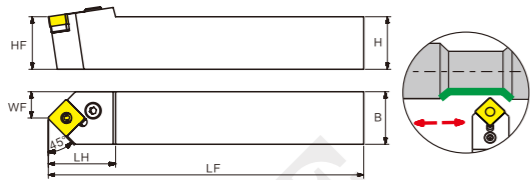
# P类夹紧方式(外圆)

P Type External Turning Tool Holder



B

PSBNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		H	B	LF	HF	WF	LH						
75°	PSBNR/L1616H09	16	16	100	16	13	21	SN□□0903□□	VHX0613	PS09318	S2.5	LV3	SP3
	PSBNR/L2020K09	20	20	125	20	17	23						
	PSBNR/L2020K12	20	20	125	20	17	28	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSBNR/L2525M12	25	25	150	25	22	28						
	PSBNR/L3225P12	32	25	170	32	22	28	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSBNR/L3232P12	32	32	170	32	29	28						
	PSBNR/L2525M15	25	25	150	25	22	32	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSBNR/L3232P15	32	32	170	32	28	32						
	PSBNR/L3232P19	32	32	170	32	36	45	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSBNR/L4040S19	40	40	250	40	35	45						
	PSBNR/L4040S2507	40	40	250	40	35	50	SN□□2509□□	VHX1236	PS25476	S5	LV8	SP8
	PSBNR/L4040S2509	40	40	250	40	35	50						

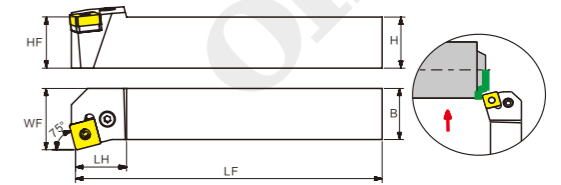


D

PSDNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		H	B	LF	HF	WF	LH						
45°	PSDNN2020K12	20	20	125	20	10	30	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSDNN2525M12	25	25	150	25	12.5	32						
	PSDNN3232P12	32	32	170	32	16	30	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSDNN2525M15	25	25	150	25	12.5	40						
	PSDNN3232P15	32	32	170	32	16	40	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSDNN3232P19	32	32	170	32	16	40						
	PSDNN4040S19	40	40	250	40	20	40	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSDNN4040S2507	40	40	250	40	20	50						
	PSDNN4040S2509	40	40	250	40	20	50	SN□□2509□□	VHX1236	PS25476	S5	LV8	SP8

# P类夹紧方式(外圆)

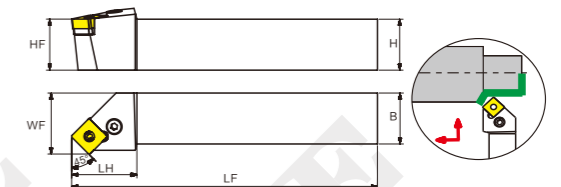
P Type External Turning Tool Holder



A/b

B

PSKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		H	B	LF	HF	WF	LH						
75°	PSKNR/L1616H09	16	16	100	16	20	17	SN□□0903□□	VHX0613	PS09318	S2.5	LV3	SP3
	PSKNR/L2020K09	20	20	125	20	25	20						
	PSKNR/L2020K12	20	20	125	20	25	26	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSKNR/L2525M12	25	25	150	25	30	26						
	PSKNR/L3232P12	32	32	170	32	38	26	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSKNR/L2525M15	25	25	150	25	32	32						
	PSKNR/L3232P15	32	32	170	32	38	32	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSKNR/L3232P19	32	32	170	32	38	36						
	PSKNR/L4040S19	40	40	250	40	48	32	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSKNR/L4040S2507	40	40	250	40	50	40						
	PSKNR/L4040S2509	40	40	250	40	50	40	SN□□2509□□	VHX1236	PS25476	S5	LV8	SP8



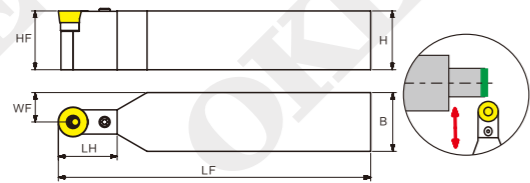
C

PSSNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		H	B	LF	HF	WF	LH						
45°	PSSNR/L1616H09	16	16	100	16	18	25	SN□□0903□□	VHX0613	PS09318	S2.5	LV3	SP3
	PSSNR/L2020K12	20	20	125	20	25	28						
	PSSNR/L2525M12	25	25	150	25	30	32	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSSNR/L3232P12	32	32	170	32	38	32						
	PSSNR/L2525M15	25	25	150	25	30	35	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSSNR/L3232P15	32	32	170	32	38	35						
	PSSNR/L3232P19	32	32	170	32	38	40	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSSNR/L4040S19	40	40	250	40	48	50						
	PSSNR/L4040S2507	40	40	250	40	48	50	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSSNR/L4040S2509	40	40	250	40	48	50						
								SN□□2509□□	VHX1236	PS25476	S5	LV8	SP8

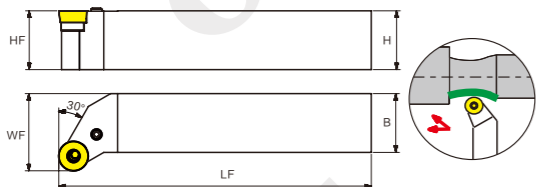


# P类夹紧方式(外圆)

P Type External Turning Tool Holder



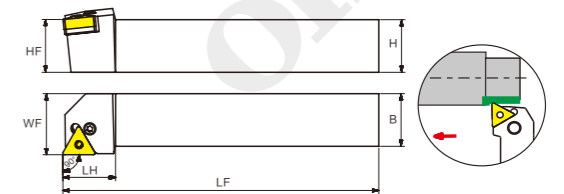
PRDCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
	PRDCN2020K12	20	20	125	20	10	25												
	PRDCN2525M12	25	25	150	25	12.5	25							RCTX1204□□	VHX0613	PR1204	S2.5	LCL12C	SP3
	PRDCN2525M16	25	25	150	25	10	35							RCTX1606□□	VHX0621	PR1604	S2.5	LCL16C	SP4
	PRDCN3232P16	32	32	170	32	16	32							RCTX2006□□	VHX0825	PR2004	S3	LCL20C	SP5
	PRDCN3232P20	32	32	170	32	16	40												
	PRDCN4040T20	40	40	300	40	20	45							RCTX2507□□	VHX1030	PR2506	S4	LCL25C	SP6
	PRDCN3232P25	32	32	170	32	16	45							RCTX2507□□	VHX1030	PR2506	S4	LCL25C	SP6
	PRDCN4040T25	40	40	300	40	20	50												



PRGCR/L	型号 Type	尺寸 Dimension					适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF												
	PRGCR/L2020K12	20	20	125	20	25												
	PRGCR/L2525M12	25	25	150	25	32							RCTX1204□□	VHX0613	PR1204	S2.5	LCL12C	SP3
	PRGCR/L2525M16	25	25	150	25	35							RCTX1606□□	VHX0621	PR1604	S2.5	LCL16C	SP4
	PRGCR/L3232P16	32	32	170	32	42							RCTX2006□□	VHX0825	PR2004	S3	LCL20C	SP5
	PRGCR/L3232P20	32	32	170	32	40												
	PRGCR/L4040T20	40	40	300	40	50							RCTX2507□□	VHX1030	PR2506	S4	LCL25C	SP6
	PRGCR/L3232P25	32	32	170	32	45							RCTX2507□□	VHX1030	PR2506	S4	LCL25C	SP6
	PRGCR/L4040T25	40	40	300	40	56												

# P类夹紧方式(外圆)

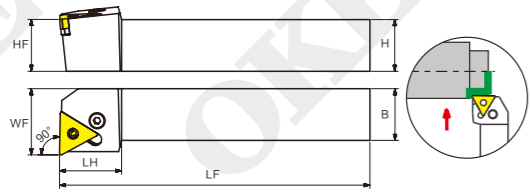
P Type External Turning Tool Holder






















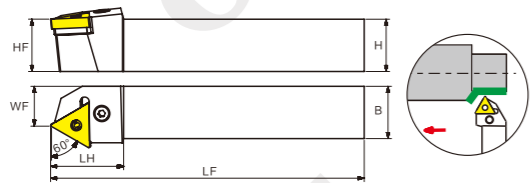
PTGNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
	90°	PTGNR/L1616H11	16	16	100	16	19	18											
	PTGNR/L2020K11	20	20	125	20	24	20	TN□□1103□□							VHX059B	—	S2	LV2	—
	PTGNR/L2525M11	25	25	150	25	29	20	TN□□1604□□							VHX0617	PT16	S2.5	LV3	SP3
	PTGNR/L1616H16	16	16	100	16	19	22												
	PTGNR/L2020K16	20	20	125	20	23	25	TN□□2204□□							VHX0821	PT22	S3	LV4	SP4
	PTGNR/L2525M16	25	25	150	25	29	25												
	PTGNR/L3232P16	32	32	170	32	37	32	TN□□2706□□							VHX0825	PT27	S3	LV5	SP5
	PTGNR/L2525M22	25	25	150	25	30	30												
	PTGNR/L3232P22	32	32	170	32	37	32	PTGNR/L4040S27							VHX0825	PT27	S3	LV5	SP5
	PTGNR/L3232P27	32	32	170	32	37	38												
	PTGNR/L4040S27	40	40	250	40	47	38												








# P类夹紧方式(外圆)

P Type External Turning Tool Holder



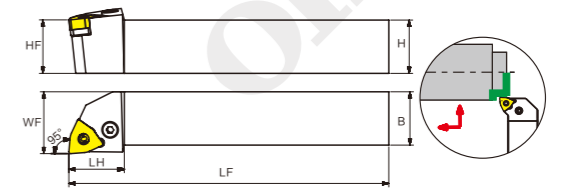
PTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin												
		H	B	LF	HF	WF	LH																		
	90°	PTFNR/L1616H16	16	16	100	16	20	20																	
	PTFNR/L2020K16	20	20	125	20	25	20	TN□□1604□□							VHX0617	PT16	S2.5	LV3	SP3						
	PTFNR/L2525M16	25	25	150	25	30	25																		
	PTFNR/L2525M22	25	25	150	25	32	30							TN□□2204□□	VHX0821	PT22	S3	LV4	SP4						
	PTFNR/L3232P22	32	32	170	32	38	30																		
	PTFNR/L3232P27	32	32	170	32	38	35													TN□□2706□□	VHX0825	PT27	S3	LV5	SP5
	PTFNR/L4040S27	40	40	250	40	50	34																		






















PTTNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin						
		H	B	LF	HF	WF	LH												
	60°	PTTNR/L1616H16	16	16	100	16	13	25											
	PTTNR/L2020K16	20	20	125	20	17	25	TN□□1604□□							VHX0617	PT16	S2.5	LV3	SP3
	PTTNR/L2525M25	25	25	150	25	22	32	TN□□2204□□							VHX0821	PT22	S3	LV4	SP4

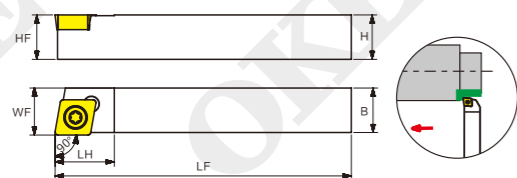
# P类夹紧方式(外圆)

P Type External Turning Tool Holder

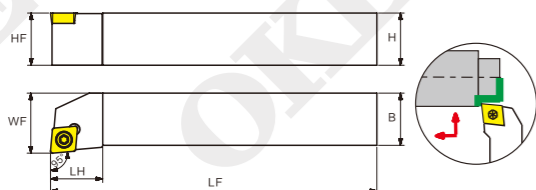


PWLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin												
		H	B	LF	HF	WF	LH																		
	95°	PWLNR/L1616H06	16	16	100	16	19	22																	
	PWLNR/L2020K06	20	20	125	20	23	25	WN□□0604□□							VHX0617	PW06270	S2.5	LV3	SP3						
	PWLNR/L2525M06	25	25	150	25	28	25																		
	PWLNR/L2020K08	20	20	125	20	25	26																		
	PWLNR/L2525M08	25	25	150	25	29	26													WN□□0804□□	VHX0821	PW08318	S3	LV4	SP4
	PWLNR/L3232P08	32	32	170	32	37	26																		

## S类夹紧方式(外圆) S Type External Turning Tool Holder

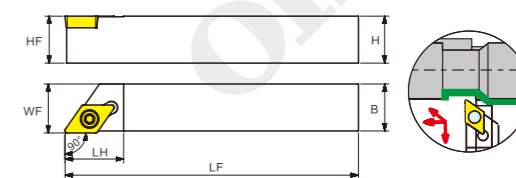


SCACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SCACR/L1010E06	10	10	70	10	10.5	10	CC□T0602□□	L60M2.5×5	T08
	SCACR/L1212F09	12	12	80	12	12.7	16	CC□T09T3□□	L60M4×8	T15

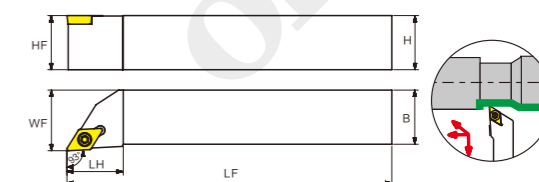


SCLCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SCLCR/L1212F09	12	12	80	12	15	16	CC□T09T3□□	L60M4×8	T15
	SCLCR/L1616H09	16	16	100	16	20	16			
	SCLCR/L2020K09	20	20	125	20	23	20			
	SCLCR/L2020K12	20	20	125	20	24	25	CC□T1204□□	L60M5*12	T20
	SCLCR/L2525M12	25	25	150	25	29	25			
	SCLCR/L3225P12	32	32	170	32	29	25			
SCLCR/L3232P12	32	32	170	32	36	38				

## S类夹紧方式(外圆) S Type External Turning Tool Holder

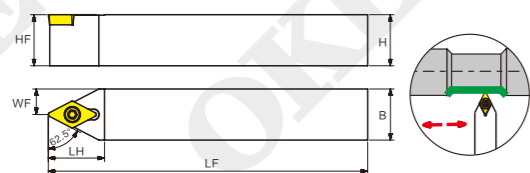


SDACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SDACR/L1010E07	10	10	70	10	10.5	15	DC□T0702□□	L60M2.5×5	T08
	SDACR/L1212F11	12	12	80	12	12.5	20	DC□T11T3□□	L60M4×8	T15
	SDACR/L1616H11	16	16	100	16	16.7	20			



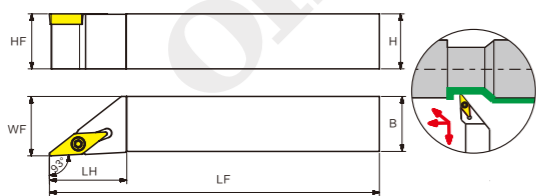
SDJCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SDJCR/L1010E07	10	10	70	10	12	15	DC□T0702□□	L60M2.5×5	T08
	SDJCR/L1212F07	12	12	80	12	14	15			
	SDJCR/L1616H07	16	16	100	16	18	18			
	SDJCR/L2020K07	20	20	125	20	22	18	DC□T11T3□□	L60M4×8	T15
	SDJCR/L1616H11	16	16	100	16	19	20			
	SDJCR/L2020K11	20	20	125	20	23	26			
	SDJCR/L2525M11	25	25	150	25	28	26			
	SDJCR/L3225P11	32	25	170	32	28	26			
	SDJCR/L3232P11	32	32	170	32	35	31			

## S类夹紧方式(外圆) S Type External Turning Tool Holder



B

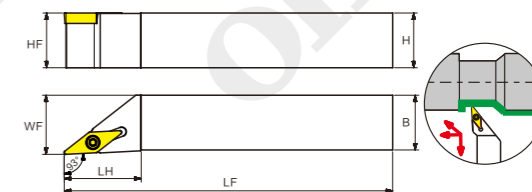
SDNCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SDNCN1010E07	10	10	70	10	5	16	DC□T0702□□	L60M2.5×5	T08
	SDNCN1212F07	12	12	80	12	6	20			
	SDNCN1212H11	12	12	100	12	6	22	DC□T11T3□□	L60M4×8	T15
	SDNCN1616H11	16	16	100	16	8	22			
	SDNCN2020K11	20	20	125	20	10	22			
	SDNCN2525M11	25	25	150	25	12.5	22			



D

SVJCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SVJCR/L1212F11	12	12	80	12	14	20	VC□T1103□□	L60M2.5×5	T08
	SVJCR/L1616H11	16	16	100	16	18	22			
	SVJCR/L2020K11	20	20	125	20	22	27			
	SVJCR/L2525M11	25	25	150	25	27	35	VC□T1604□□	L60M4×8	T15
	SVJCR/L1616H16	16	16	100	16	18	32			
	SVJCR/L2020K16	20	20	125	20	22	32			
	SVJCR/L2525M16	25	25	150	25	27	35			
	SVJCR/L3225P16	32	25	170	32	27	35			
SVJCR/L3232P16	32	32	170	32	35	45				

## S类夹紧方式(外圆) S Type External Turning Tool Holder

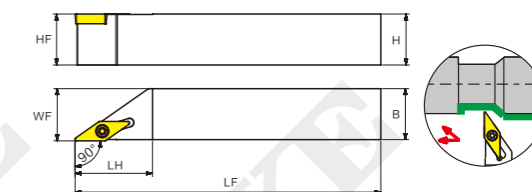


A/b

B

SVJBR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SVJBR/L1212F11	12	12	80	12	14	27	VB□T1103□□	L60M2.5×5	T08
	SVJBR/L1616H11	16	16	100	16	18	27			
	SVJBR/L2020K11	20	20	125	20	22	27			
	SVJBR/L2525M11	25	25	150	25	27	27	VB□T1604□□	L60M4×8	T15
	SVJBR/L1616H16	16	16	100	16	18	36			
	SVJBR/L2020K16	20	20	125	20	22	41			
	SVJBR/L2525M16	25	25	150	25	27	41			
	SVJBR/L3225P16	32	25	170	32	27	41			
	SVJBR/L3232P16	32	32	170	32	35	41			

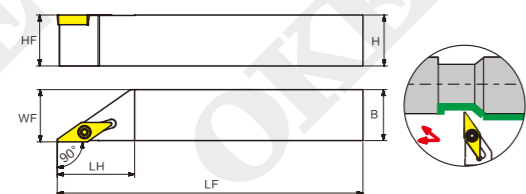
C



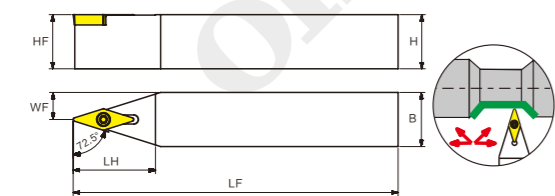
D

SVABR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SVABR/L1616H16	16	16	100	16	16.5	32	VB□T1604□□	L60M4×8	T15
	SVABR/L2020K16	20	20	125	20	20.5	32			
	SVABR/L2525M16	25	25	150	25	25.5	38			

## S类夹紧方式(外圆) S Type External Turning Tool Holder

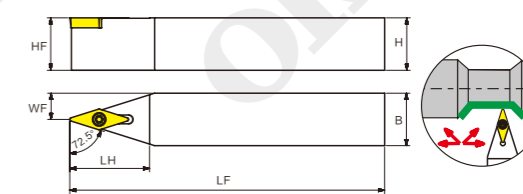


SVACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
90°	SVACR/L1616H16	16	16	100	16	16.5	32	VC□T1604□□	L60M4×8	T15
	SVACR/L2020K16	20	20	125	20	20.5	32			
	SVACR/L2525M16	25	25	150	25	25.5	38			

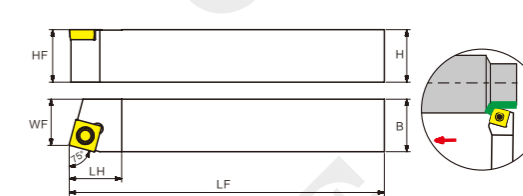


SVVBN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
72.5°	SVVBN1212F11	12	12	80	12	6	22	VB□T1103□□	L60M2.5×5	T08
	SVVBN1616H11	16	16	100	16	8	27			
	SVVBN2020K11	20	20	125	20	10	30			
	SVVBN1616H16	16	16	100	16	8	33	VB□T1604□□	L60M4×8	T15
	SVVBN2020K16	20	20	125	20	10	33			
	SVVBN2525M16	25	25	150	25	12.5	38			
	SVVBN3225P16	32	25	170	32	12.5	38			
SVVBN3232P16	32	32	170	32	16	38				

## S类夹紧方式(外圆) S Type External Turning Tool Holder

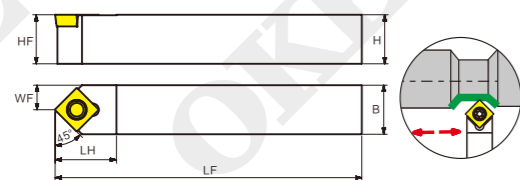


SVVCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
72.5°	SVVCN1212F11	12	12	80	12	6	22	VC□T1103□□	L60M2.5×5	T08
	SVVCN1616H11	16	16	100	16	8	27			
	SVVCN2020K11	20	20	125	20	10	30			
	SVVCN1616H16	16	16	100	16	8	33	VC□T1604□□	L60M4×8	T15
	SVVCN2020K16	20	20	125	20	10	33			
	SVVCN2525M16	25	25	150	25	12.5	38			
	SVVCN3225P16	32	25	170	32	12.5	38			
SVVCN3232P16	32	32	170	32	16	38				

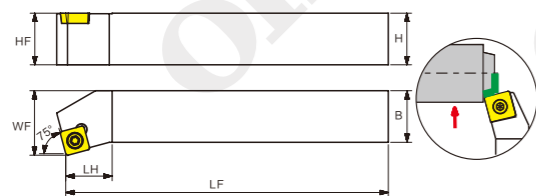



SSBCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
75°	SSBCR/L1212F09	12	12	80	12	11	14	SC□T09T3□□	L60M4×8	T15
	SSBCR/L1616H09	16	16	100	16	13	16			
	SSBCR/L2020K12	20	20	125	20	17	25	SC□T1204□□	L60M5×12	T20
	SSBCR/L2525M12	25	25	150	25	22	25			
	SSBCR/L3232P12	32	32	170	32	27	28			

## S类夹紧方式(外圆) S Type External Turning Tool Holder

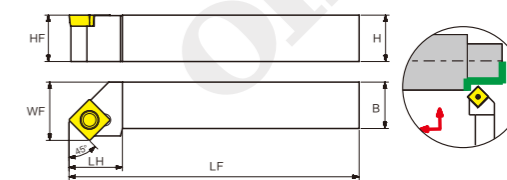


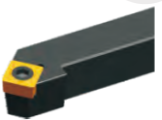
SSDCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SSDCN1212F09	12	12	80	12	6	16	SC□T09T3□□	L60M4 × 8	T15
	SSDCN1616H09	16	16	100	16	8	16			
	SSDCN2020K09	20	20	125	20	10	16			
	SSDCN2525M09	25	25	150	25	12.5	25	SC□T1204□□	L60M5 × 12	T20
	SSDCN2020K12	20	20	125	20	10	25			
	SSDCN2525M12	25	25	150	25	12.5	25			
SSDCN3232P12	32	32	170	32	16	25				

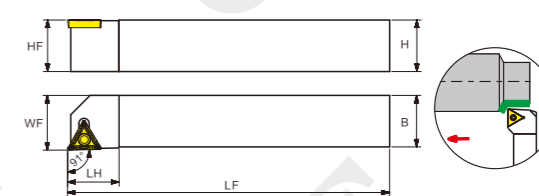


SSKCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SSKCR/L1616H09	16	16	100	16	20	13	SC□T09T3□□	L60M4 × 8	T15
	SSKCR/L2020K09	20	20	125	20	25	18			
	SSKCR/L2020K12	20	20	125	20	20	18	SC□T1204□□	L60M5 × 12	T20
	SSKCR/L2525M12	25	25	150	25	32	22			
	SSKCR/L3232P12	32	32	170	32	40	27			

## S类夹紧方式(外圆) S Type External Turning Tool Holder

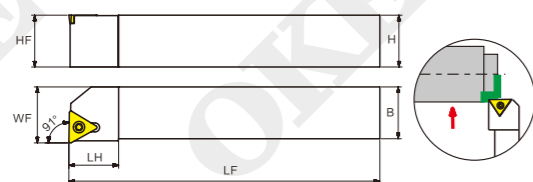


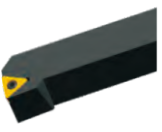






SSSCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
	SSSCR/L1616H09	16	16	100	16	20	16	SC□T09T3□□	L60M4 × 8	T15
	SSSCR/L2020K09	20	20	125	20	25	20			
	SSSCR/L2020K12	20	20	125	20	20	23	SC□T1204□□	L60M5 × 12	T20
	SSSCR/L2525M12	25	25	150	25	32	25			
	SSSCR/L3232P12	32	32	170	32	40	28			

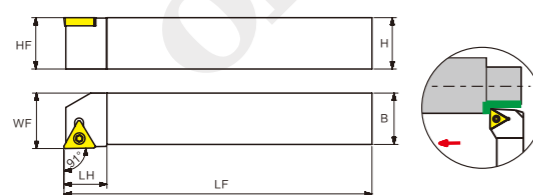





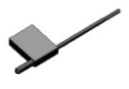



STACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
91°	STACR/L1212F11	12	12	80	12	12.5	14	TC□T1102□□	L60M2.5 × 5	T08

## S类夹紧方式(外圆) S Type External Turning Tool Holder

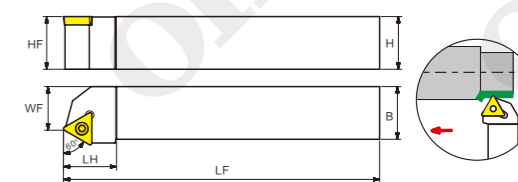






STFCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	
		H	B	LF	HF	WF	LH				
	91°	STFCR/L1212F11	12	12	80	12	14	14			
	STFCR/L1616H11	16	16	100	16	18	16	TC□T1102□□			
	STFCR/L2020K11	20	20	125	20	22	16				
	STFCR/L1616H16	16	16	100	16	18	19				
	STFCR/L2020K16	20	20	125	20	22	19				
STFCR/L2525M16	25	25	150	25	27	24					

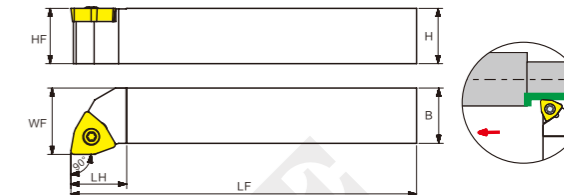





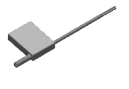
STGCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	
		H	B	LF	HF	WF	LH				
	91°	STGCR/L0808D09	08	08	60	8	10	11			
	STGCR/L1010E09	10	10	70	10	11	11	TC□T0902□□			
	STGCR/L1212F11	12	12	80	12	14	14				
	STGCR/L1616H11	16	16	100	16	17	16				
	STGCR/L2020K16	20	20	125	20	22	21				
STGCR/L2525M16	25	25	150	25	27	21	TC□T16T3□□	L60M4×8	T15		

## S类夹紧方式(外圆) S Type External Turning Tool Holder

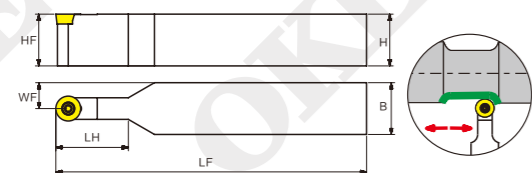


STTCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	
		H	B	LF	HF	WF	LH				
	60°	STTCR/L1616H11	16	16	100	16	13	14			
	STTCR/L1616H16	16	16	100	16	13	19	TC□T1102□□			
	STTCR/L2020K16	20	20	125	20	17	19	TC□T16T3□□	L60M4×8	T15	

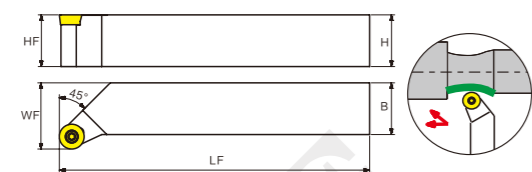


SWACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	
		H	B	LF	HF	WF	LH				
	90°	SWACR/L1010E04	10	10	70	10	10.5	10			
	SWACR/L1212F04	12	12	80	12	12.5	14	WC□X0402□□			
	SWACR/L1616H06	16	16	100	16	16.5	20	WC□X06T3□□	L60M3×7	T09	
	SWACR/L2020K08	20	20	125	20	20.5	24	WC□X0804□□	L60M4×8	T15	

## S类夹紧方式(外圆) S Type External Turning Tool Holder

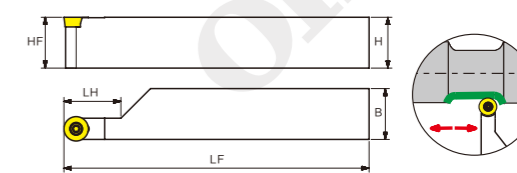


SRDCN	型号 Type	尺寸 Dimension					适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	刀垫 Shim	刀垫螺钉 Shim Screw	刀垫扳手 Shim Wrench	
		H	B	LF	HF	WF							LH
	SRDCN2020K06	20	20	125	20	10	11	RC□T0602□□	L60M2.5×5	T08	—	—	—
	SRDCN2525M06	25	25	150	25	12.5	11	RC□T0602□□	L60M2.5×5	T08	—	—	—
	SRDCN2020K08	20	20	125	20	10	16	RC□T0803□□	L60M3×7	T09	—	—	—
	SRDCN2525M08	25	25	150	25	12.5	16	RC□T0803□□	L60M3×7	T09	—	—	—
	SRDCN2020K10	20	20	125	20	10	25	RC□T10T3□□	L60M3.5×10	T15	—	—	—
	SRDCN2525M10	25	25	150	25	12.5	25	RC□T10T3□□	L60M3.5×10	T15	—	—	—
	SRDCN2020K12	20	20	125	20	10	35	RC□T1204□□	L60M3.5×12	T15	—	—	—
	SRDCN2525M12	25	25	150	25	12.5	35	RC□T1204□□	L60M3.5×12	T15	—	—	—
	SRDCN3225P12	32	25	170	32	16	35	RC□T1606□□	L60M4×16	T20	R16BS	SM0614	S4
	SRDCN2525M16	25	25	150	25	12.5	35	RC□T1606□□	L60M4×16	T20	R16BS	SM0614	S4
	SRDCN3232P16	32	32	170	32	16	40	RC□T1606□□	L60M4×16	T20	R16BS	SM0614	S4
	SRDCN3232P20	32	32	170	32	16	40	RC□T1606□□	L60M4×16	T20	R16BS	SM0614	S4
	SRDCN4040S20	40	40	250	40	20	40	RCMX2006	L60M5×16-8.1	T20	R20BS	SM0814	S5



SRGCR/L	型号 Type	尺寸 Dimension					适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	刀垫 Shim	刀垫螺钉 Shim Screw	刀垫扳手 Shim Wrench
		H	B	LF	HF	WF						
	SRGCR/L2020K10	20	20	125	20	25	RC□T 10T3□□	L60M3.5×10	T15	—	—	—
	SRGCR/L2525M10	25	25	150	25	32	RC□T 10T3□□	L60M3.5×10	T15	—	—	—
	SRGCR/L2020K12	20	20	125	20	27	RC□T 1204□□	L60M3.5×12	T15	—	—	—
	SRGCR/L2525M12	25	25	150	25	32	RC□T 1204□□	L60M3.5×12	T15	—	—	—
	SRGCR/L3225P12	32	25	170	32	32	RC□T 1606□□	L60M4×6	T20	R16BS	Sm0614	S4
	SRGCR/L2525M16	25	25	150	25	32	RC□T 1606□□	L60M4×6	T20	R16BS	Sm0614	S4
	SRGCR/L3232P16	32	32	170	32	40	RC□T 1606□□	L60M4×6	T20	R16BS	Sm0614	S4
	SRGCR/L3232P20	32	32	170	32	40	RC□T 1606□□	L60M4×6	T20	R16BS	Sm0614	S4
	SRGCR/L4040S20	40	40	250	40	48	RCMX2006	L60M5×16-8.1	T20	R20BS	SM0814	S5

## S类夹紧方式(外圆) S Type External Turning Tool Holder



SRACR/L	型号 Type	尺寸 Dimension					适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	刀垫 Shim	刀垫螺钉 Shim Screw	刀垫扳手 Shim Wrench
		H	B	LF	HF	LH						
	SRACR/L2020K06	20	20	125	20	15	RC□T 0602□□	L60M2.5×5	T08	—	—	—
	SRACR/L2525M06	25	25	150	25	23	RC□T 0602□□	L60M2.5×5	T08	—	—	—
	SRACR/L2020K08	20	20	125	20	18	RC□T 0803□□	L60M3×7	T09	—	—	—
	SRACR/L2525M08	25	25	150	25	23	RC□T 0803□□	L60M3×7	T09	—	—	—
	SRACR/L2020K10	20	20	125	20	20	RC□T 10T3□□	L60M3.5×10	T15	—	—	—
	SRACR/L2525M10	25	25	150	25	25	RC□T 10T3□□	L60M3.5×10	T15	—	—	—
	SRACR/L2020K12	20	20	125	20	28	RC□T 1204□□	L60M3.5×12	T15	—	—	—
	SRACR/L2525M12	25	25	150	25	28	RC□T 1204□□	L60M3.5×12	T15	—	—	—
	SRACR/L3225P12	32	25	170	32	28	RC□T 1606□□	L60M4×16	T15	R16BS	SM0614	S4
	SRACR/L2525M16	25	25	150	25	35	RC□T 1606□□	L60M4×16	T15	R16BS	SM0614	S4
	SRACR/L3232P16	32	32	170	32	40	RC□T 1606□□	L60M4×16	T15	R16BS	SM0614	S4
	SRACR/L3232P20	32	32	170	32	40	RC□T 1606□□	L60M4×16	T15	R16BS	SM0614	S4
	SRACR/L4040S20	40	40	250	40	55	RCMX2006	L60M5×16-8.1	T20	R20BS	SM0814	S5



# 内孔车刀命名规则 Internal Turning Tool Holder Naming Rule

## 刀杆形式 Tool Holder Type

**S** 25 **R** - **P** **C** **L** **N** **R** 09

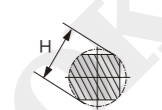
代号 Symbol	A	E	C	S	X
刀杆类型 Type of shank	钢杆+油冷却孔 Steel shank+oil cooling hole	硬质合金杆+油冷却孔 Carbide shank+oil cooling hole	硬质合金杆 Carbide shank	钢杆 Steel shank	使用特殊刀片 Special insert application



## 刀杆直径 Tool Holder Diameter

**S** **25** **R** - **P** **C** **L** **N** **R** 09

刀杆直径 Tool holder diameter
H






## 刀杆长度 Tool Length

**S** 25 **R** - **P** **C** **L** **N** **R** 09

H	K	M	N	Q	R	S	T	U	V
100	125	150	160	180	200	250	300	350	400








## 压紧方式 Clamping System

**S** 25 **R** - **P** **C** **L** **N** **R** 09

M	P	S
 复合压紧式 Top and hole clamping	 杠杆压紧式 hole clamping	 螺钉压紧式 Screw on

## 刀片形状 Insert Shape






**S** 25 **R** - **P** **C** **L** **N** **R** 09

C	R	T	W	D	S	V
						

# 内孔车刀命名规则 Internal Turning Tool Holder Naming Rule





## 刀头形状 Tool Holder Style and Leading Angle

**S** 25 **R** - **P** **C** **L** **N** **R** 09

P	U	K	L	F
				

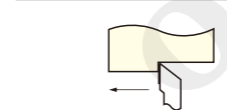

## 刀片后角 Clearance Angle

**S** 25 **R** - **P** **C** **L** **N** **R** 09

B	C	P	N
			


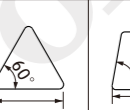
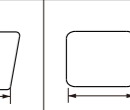
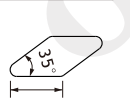

## 切削方向 Cutting Direction

**S** 25 **R** - **P** **C** **L** **N** **R** 09

R	L
	

## 切削刃长 Cutting Edge Length

**S** 25 **R** - **P** **C** **L** **N** **R** 09

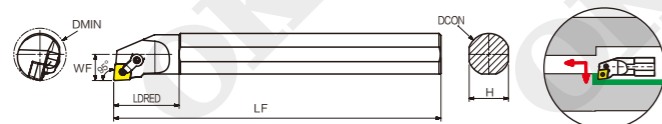
D	T	C	S	V
				

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder



B

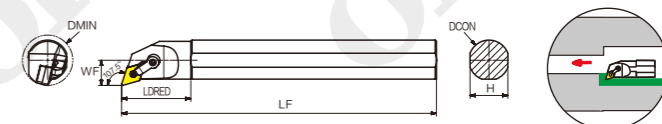
MCKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench	
		DMIN	DCON	H	LF	WF	LDRED							
	75°	S20Q-MCKNR/L12	26	20	18	180	14	35	CN□□1204□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MCKNR/L12	32	25	23	200	16.5	35							
	S32S-MCKNR/L12	40	32	30	250	22	50	MC1204	MSP617	MCL1814	WS061025	S3		
	S40T-MCKNR/L12	50	40	38	300	26	55							
	S50U-MCKNR/L12	60	50	48	350	30	60							



D

MCLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench	
		Dmin	DCON	H	LF	WF	LDRED							
	95°	S20Q-MCLNR/L12	26	20	18	180	13	40	CN□□1204□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MCLNR/L12	32	25	23	200	16	40							
	S32S-MCLNR/L12	40	32	30	250	20	50	MC1204	MSP617	MCL1814	WS061025	S3		
	S40T-MCLNR/L12	50	40	37	300	26	55							
	S50U-MCLNR/L12	60	50	46	350	31	70							

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder



B

MDQNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench	
		DMIN	DCON	H	LF	WF	LDRED							
	107.5°	S20Q-MDQNR/L1504	26	20	18	180	13	40	DN□□1504□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MDQNR/L1504	32	25	23	200	17	45							
	S32S-MDQNR/L1504	40	32	30	250	20	55	MD1504	MSP617	MCL2114	WS061025	S3		
	S40T-MDQNR/L1504	50	40	38	300	24	55							
	S32S-MDQNR/L1506	40	32	30	250	20	55	DN□□1506□□	MSP619					
	S40T-MDQNR/L1506	50	40	38	300	24	55							



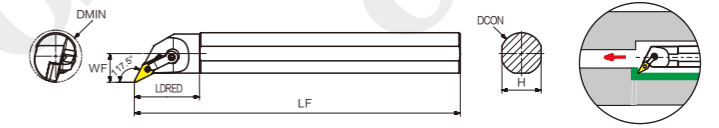
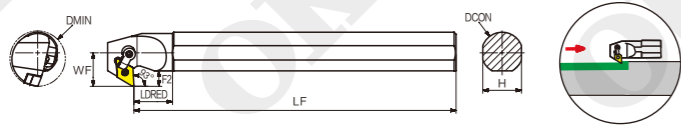
C






MDUNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench	
		DMIN	DCON	H	LF	WF	LDRED							
	93°	S20Q-MDUNR/L1504	28	20	18	180	17	40	DN□□1504□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MDUNR/L1504	32	25	24	200	19	40							
	S32S-MDUNR/L1504	40	32	30	250	22	45	MD1504	MSP617	MCL2114	WS061025	S3		
	S40T-MDUNR/L1504	50	40	37	300	26	55							
	S32S-MDUNR/L1506	40	32	30	250	22	45	DN□□1506□□	MSP619					
	S40T-MDUNR/L1506	50	40	37	300	26	55							

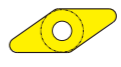




D

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder






## M类夹紧方式(内孔) M Type Internal Turning Tool Holder

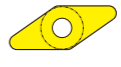






MDZNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench				
		DMIN	DCON	H	LF	WF	LDRED	F2											
93°	S25R-MDZNR/L1504	36	25	23	200	22	35	11		X	MSP613								
	S32S-MDZNR/L1504	43	32	30	250	26	40	12								DN□□1504□□			
	S40T-MDZNR/L1504	50	40	37	300	29	50	11.5								MD1504	MSP617	MCL1814	WS061025
	S32S-MDZNR/L1506	43	32	30	250	26	40	12								DN□□1506□□	MSP619		
	S40T-MDZNR/L1506	50	40	37	300	29	50	11.5											

MVQNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench						
		DMIN	DCON	H	LF	WF	θ°	LDRED													
117.5°	S25R-MVQNR/L16	32	25	23	200	17	12°	40		X	MSP510										
	S32S-MVQNR/L16	42	32	30	250	22	17°	40								VN□□1604□□	MV1603	MSP513	MCL2414	WS061025	S2 S3
	S40T-MVQNR/L16	50	40	37	300	27	15°	50													




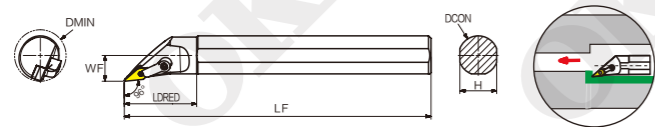
MSKNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench				
		DMIN	DCON	H	LF	WF	θ°	LDRED											
75°	S20Q-MSKNR/L12	26	20	18	180	13	15°	31		X	MSP613								
	S25R-MSKNR/L12	32	25	23	200	17	12°	35								SN□□1204□□			
	S32S-MSKNR/L12	40	32	30	250	22	17°	40								MS1204	MSP617	MCL1814	WS061025
	S40T-MSKNR/L12	50	40	37	300	27	15°	50											


MVUNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench						
		DMIN	DCON	H	LF	WF	LDRED	F2													
93°	S25R-MVUNR/L16	36	25	23	200	20	40	8		X	MSP510										
	S32S-MVUNR/L16	42	32	30	250	23	40	8								VN□□1604□□	MV1603	MSP513	MCL1814	WS061025	S2 S3
	S40T-MVUNR/L16	50	40	37	300	27	55	10													

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder




型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench	
	DMIN	DCON	H	LF	WF	LDRED	F2							
72.5° 	S25R-MVWNR/L16	36	25	23	200	22	35	10	VN□□1604□□	X	MSP510	MCL1814	WS061025	S2 S3
	S32S-MVWNR/L16	48	32	30	250	25	40	10		MV1603	MSP513			
	S40T-MVWNR/L16	56	40	37	300	29	45	11						

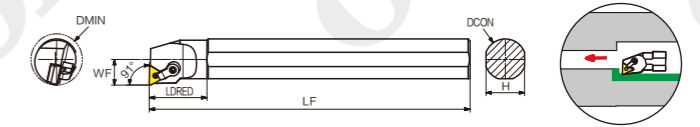



型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED	F2						
96° 	S25R-MVXNR/L16	32	25	23	200	17	55	VN□□1604□□	X	MSP510	MCL2414	WS061025	S2 S3
	S32S-MVXNR/L16	42	32	30	250	21	60		MV1603	MSP513			
	S40T-MVXNR/L16	50	40	38	300	25	68						

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder

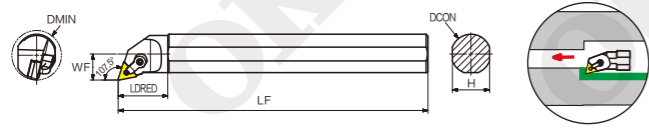



型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED	F2						
95° 	S20Q-MWLNR/L08	25	20	18	180	14.5	36	WN□□0804□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MWLNR/L08	32	25	23	200	17	40		MV1603	MSP513	MCL1814	WS061025	S3
	S32S-MWLNR/L08	41	32	30	250	22	50						
	S40T-MWLNR/L08	50	40	37	300	27	55						

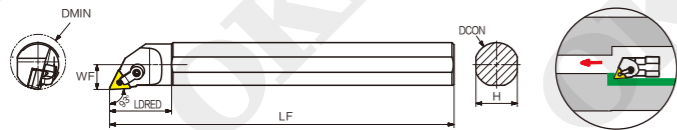



型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED	F2						
91° 	S20Q-MTFNR/L16	25	20	18	180	13	35	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
	S25R-MTFNR/L16	32	25	23	200	16	40		MT1603	MSP513	MCL1814	WS061025	
	S32S-MTFNR/L16	40	32	30	250	20	45						
	S40T-MTFNR/L16	50	40	37	300	25	50						

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder




型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED							
107.5° 	S20Q-MTQNR/L16	25	20	18	180	14	35	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
S25R-MTQNR/L16	32	25	23	200	18	35	MCL1814				WS061025		
S32S-MTQNR/L16	40	32	30	250	21	40			MT1603	MSP513			
S40T-MTQNR/L16	50	40	37	300	25	50							




型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED							
93° 	S25R-MTJNR/L16	32	25	23	200	15	40	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
S32S-MTJNR/L16	40	32	30	250	18	45	MT1603						
S40T-MTJNR/L16	50	40	37	300	24	55							

## M类夹紧方式(内孔) M Type Internal Turning Tool Holder



型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED							
93° 	S20Q-MTUNR/L16	25	20	18	180	13	31	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
S25R-MTUNR/L16	32	25	23	200	17	35	MCL1814				WS061025		
S32S-MTUNR/L16	40	32	30	250	22	40			MT1603	MSP513			
S40T-MTUNR/L16	50	40	37	300	23	50							



型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LDRED							
60° 	S20Q-MTWNR/L16	27	20	18	180	15	31	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
S25R-MTWNR/L16	32	25	23	200	17	35	MCL1814				WS061025		
S32S-MTWNR/L16	40	32	30	250	22	42			MT1603	MSP513			
S40T-MTWNR/L16	50	40	38	300	27	50							

# P类夹紧方式(内孔) P Type Internal Turning Tool Holder




B

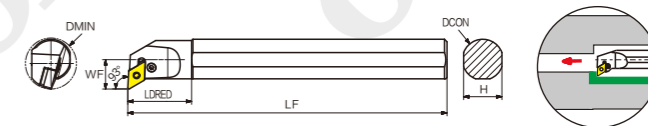
PCLNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		DMIN	DCON	H	LF	WF	θ°	LDRED							
	95°														
	S16Q-PCLNR/L09	20	16	15	180	10	-12°	30							
	S20Q-PCLNR/L09	25	20	18	180	12	-11°	30	CN□□0903□□	VHX0509	—	S2	LV3C	—	
	S25R-PCLNR/L09	32	25	23	200	15	-10°	35							
	S20Q-PCLNR/L12	25	20	18	180	13	-11°	35		VHX0613	—	S2.5	LV4A	—	
	S25R-PCLNR/L12	32	25	23	200	15	12°	40							
	S32S-PCLNR/L12	44	32	30	250	22	-10°	50	CN□□1204□□						
	S40T-PCLNR/L12	54	40	37	300	24	-10°	55		VHX0821	PC12318	S3	LV4	SP4	
S50U-PCLNR/L12	63	50	47	350	27	-10°	58								
S50U-PCLNR/L19	63	50	47	350	32	-10°	70	CN□□1906□□	VHX1027	PC19476	S4	LV6	SP6		




D

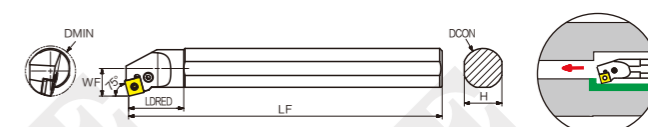
PDSNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		DMIN	DCON	H	LF	WF	LDRED	F2							
	62.5°														
	S32S-PDSNR/L15	40	32	30	250	23.5	45	9	DN□□1506□□	VHX0821	PD15318	S3	LV4B	SP4	
	S40T-PDSNR/L15	50	40	37	300	28.5	43	11							
	S32S-PDSNR/L15-3	40	32	30	250	23.5	45	9	DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4	
S40T-PDSNR/L15-3	50	40	37	300	28.5	43	11								

# P类夹紧方式(内孔) P Type Internal Turning Tool Holder




B

PDUNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		DMIN	DCON	H	LF	WF	θ°	LDRED							
	93°														
	S20Q-PDUNR/L11	25	20	18	180	13	-16°	30							
	S25R-PDUNR/L11	32	25	23	200	17	-13°	35	DN□□1104□□	VHX0512	—	S2	LV3D	—	
	S32S-PDUNR/L11	40	32	30	250	22	-16°	40		VHX0617	PD11270	S2.5	LV3	SP3	
	S32S-PDUNR/L15	40	32	30	250	22	-16°	50	DN□□1506□□	VHX0821	PD15318	S3	LV4B	SP4	
	S40T-PDUNR/L15	50	40	37	300	27	-11°	50							
S32S-PDUNR/L15-3	40	32	30	250	22	-16°	50	DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4		
S40T-PDUNR/L15-3	50	40	37	300	27	-11°	50								



C

PSKNR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim Pin
		DMIN	DCON	H	LF	WF	θ°	LDRED							
	75°														
	S25R-PSKNR/L12	32	25	23	200	17	-12°	42		VHX0613	—	S2.5	LV4A	—	
	S32S-PSKNR/L12	44	32	30	250	22	-10°	45	SN□□1204□□						
	S40T-PSKNR/L12	54	40	37	300	27	-10°	50		VHX0821	PS12318	S3	LV4	SP4	

D

## P类夹紧方式(内孔) P Type Internal Turning Tool Holder



B

PTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Cushion Block					
		DMIN	DCON	H	LF	WF	LDRED											
	90°	S16Q-PTFNR/L11	20	16	15	180	11	28	TN□□1103□□	VHX0509	—	S2	LV2	—				
	S20Q-PTFNR/L11	25	20	18	180	13	31											
	S25R-PTFNR/L11	32	25	23	200	17	35	TN□□1604□□	VHX0512	—	S2	LV3B	—					
	S25R-PTFNR/L16	32	25	23	200	17	42											
	S32S-PTFNR/L16	44	32	30	250	22	50							VHX0613	PT16476	S2.5	LV3	SP3
	S40T-PTFNR/L16	54	40	37	300	27	55											

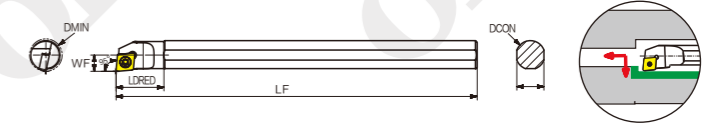
C



D

PWLNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Cushion Block				
		DMIN	DCON	H	LF	WF	θ°	LDRED										
	95°	S16Q-PWLNR/L06	20	16	15	180	11	-13°	25	WN□□0604□□	VHX0512	—	S2	LV3B	—			
	S20Q-PWLNR/L06	25	20	18	180	13	-13°	32										
	S25R-PWLNR/L06	32	25	23	200	17	-13°	35										
	S20Q-PWLNR/L08	25	20	18	180	13	-13°	32	WN□□0804□□	VHX0613	—	S2.5	LV4A	—				
	S25R-PWLNR/L08	32	25	23	200	17	-13°	45										
	S32S-PWLNR/L08	40	32	30	250	22	-13°	50							VHX0821	PW08318	S3	LV4A
S40T-PWLNR/L08	50	40	42	300	30	-13°	55											

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



B

SCLCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	
		DMIN	DCON	H	LF	WF	LDRED				
	95°	S07K-SCLCR/L06	9	7	6	125	4.6	15	CC□T0602□□	L60M2.5×5	T08
	S08K-SCLCR/L06	10	8	7	125	4.5	14				
	S10K-SCLCR/L06	12	10	9	125	6	17				
	S12M-SCLCR/L06	16	12	11	150	7	17				
	S12M-SCLCR/L09	16	12	11	150	8	25	CC□T09T3□□	L60M4×8	T15	
	S16Q-SCLCR/L09	20	16	15	180	9	27				
	S20Q-SCLCR/L09	25	20	18	180	11	28				
	S25R-SCLCR/L09	32	25	23	200	14	35				
	S25R-SCLCR/L12	32	25	23	250	17	34	CC□T1204□□	L60M5×12	T20	
	S32S-SCLCR/L12	36	32	30	250	18	45				
	S40T-SCLCR/L12	50	40	37	300	27	60				

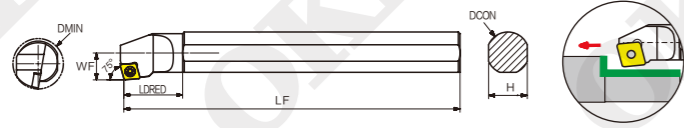
C



D

SCLCR/L-H	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	
		DMIN	DCON	H	LF	WF	θ°	LDRED				
	95°	S08K-SCLCR/L06H09	9	8	7	125	4.3	-15°	15	CC□T0602□□	L60M2.5×5	T08
	S10K-SCLCR/L06H09	11	10	9	125	5.5	-15°	16				
	S12M-SCLCR/L06H09	13	12	11	150	6.5	-10°	17				
	S16Q-SCLCR/L09H09	17	16	15	180	8.5	-12°	27	CC□T09T3□□			

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



B

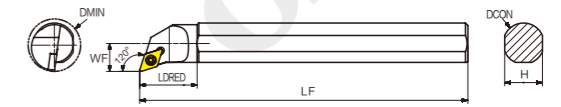
SCKCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED				
	75°	S08K-SCKCR/L06	10	8	7.5	125	5.5	13°	15	CC□T0602□□	L60M2.5×5	T08
	S10K-SCKCR/L06	13	10	9	125	7	12°	15				
	S12M-SCKCR/L06	16	12	11	150	8	10°	20				
	S12M-SCKCR/L09	16	12	11	150	8	12°	20	CC□T09T3□□	L60M4×8	T15	
	S16Q-SCKCR/L09	20	16	15	160	10	10°	25				
	S20Q-SCKCR/L09	24	20	19	180	13	8°	30				
S25R-SCKCR/L09	31	26	24	200	16	8°	35					



D

SDQCR/L	型号 Type	尺寸 Dimension									适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED	F2				
	107.5°	S08K-SDQCR/L07	10	8	7	125	6	-8°		DC□T0702□□	L60M2.5×5	T08	
	S10K-SDQCR/L07	13	10	9	150	7	-8°	20					
	S12M-SDQCR/L07	16	12	11	150	9	-8°	22					
	S16Q-SDQCR/L07	20	16	15	180	11	-6°	27	DC□T11T3□□	L60M4×8	T15		
	S20Q-SDQCR/L11	25	20	18	180	13	-6°	35					
	S25R-SDQCR/L11	32	26	23	200	17	-6°	38					

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder

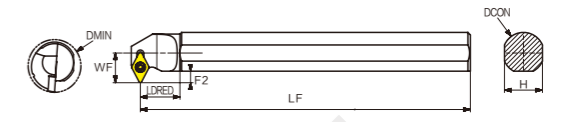


A/b

B

SDXCR	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED				
	120°	S10K-SDXCR/07	13	10	9	125	7	-8°	18	DC□T0702□□	L60M2.5×5	T08
	S12M-SDXCR/07	16	12	11	150	8	-8°	20				
	S16Q-SDXCR/07	20	16	15	180	10	-6°	25				
	S20Q-SDXCR/11	25	20	18	180	13	-6°	33	DC□T11T3□□	L60M4×8	T15	
	S25R-SDXCR/11	32	25	23	200	16	-6°	32				

C



D

SDWCR/L	型号 Type	尺寸 Dimension									适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED	F2				
	62.5°	S12M-SDWCR/L07	19	12	11	125	11	-8°	15	5.5	DC□T0702□□	L60M2.5×5	T08
	S16Q-SDWCR/L07	23	16	15	180	12.5	-8°	15	5				
	S20Q-SDWCR/L07	27	20	19	180	14.5	-8°	22	5.5				
	S20Q-SDWCR/L11	27	20	19	180	14.5	-6°	25	6	DC□T11T3□□	L60M4×8	T15	
	S25R-SDWCR/L11	32	25	24	200	18	-6°	25	7				
	S32S-SDWCR/L11	40	32	30	250	21.5	-6°	40	6.5				



## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



B

SDUCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	$\theta^\circ$	LDRED	F2			
	93°	S08K-SDUCR/L07	13	8	7.5	125	8	-8°	4	DC□T 0702□□	L60M2.5×5	T08
	S10K-SDUCR/L07	13	10	9	125	7.7	-8°	3				
	S12M-SDUCR/L07	16	12	11	150	8.5	-8°	22	3			
	S16Q-SDUCR/L07	20	16	15	180	11	-6°	27	3.5	DC□T 11T3□□	L60M4×8	T15
	S20Q-SDUCR/L11	25	20	18	180	14.5	-6°	30	5.5			
	S25R-SDUCR/L11	32	25	23	200	18.5	-6°	35	7			

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



A/b

B

SSKCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	$\theta^\circ$	LDRED	F2			
	75°	S12M-SSKCR/L09	16	12	11	150	9	-10°	25	SC□T 09T3□□	L60M4×8	T15
	S16Q-SSKCR/L09	20	16	15	180	11	-11°	30				
	S20Q-SSKCR/L09	25	20	18	180	13	-6°	35				
	S25R-SSKCR/L09	32	25	23	200	17	-8°	40	SC□T 1204□□	L60M5×12	T20	
	S25R-SSKCR/L12	32	25	23	200	17	-8°	40				
	S32S-SSKCR/L12	40	32	30	250	22	-10°	45				

C



D

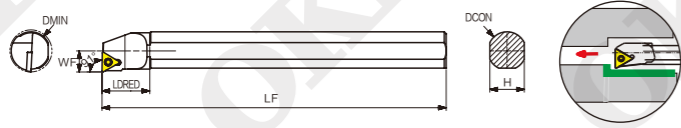
SDZCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	$\theta^\circ$	LDRED	F2			
	93°	S20Q-SDZCR/L11	27	20	18	180	15	-6°	20	DC□T 11T3□□	L60M4×8	T15
	S25R-SDZCR/L11	33	25	23	200	17	-6°	30	7.5			
	S32S-SDZCR/L11	40	32	30	250	22	-6°	35	8.4			
	S40T-SDZCR/L11	50	40	37	300	27	-4°	50	9.4			

C

SSSCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	$\theta^\circ$	LDRED	F2			
	75°	S12M-SSSCR/L09	17	12	11	150	10	-10°	15	SC□T 09T3□□	L60M4×8	T15
	S16Q-SSSCR/L09	22	16	15	180	13	-11°	25	5.5			
	S20Q-SSSCR/L09	25	20	18	180	15	-6°	30	6			
	S25R-SSSCR/L09	32	25	23	200	17	-8°	35	5.5	SC□T 1204□□	L60M5×12	T20
	S25R-SSSCR/L12	32	25	23	200	17	-8°	35	5.5			
	S32S-SSSCR/L12	40	32	30	250	22	-10°	40	7			

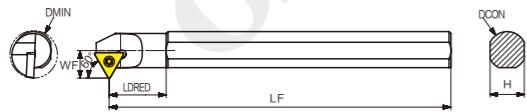
D

# S类夹紧方式(内孔) S Type Internal Turning Tool Holder



B

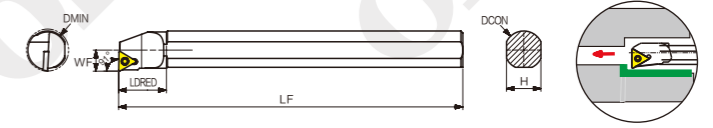
STFCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED				
	S08K-STFCR/L09	10	8	7	125	5.5	8	TC□T0902□□	L60M2.5×5	T08	
	S10K-STFCR/L09	12	10	9	125	6.8	10				
	S12M-STFCR/L09	16	12	11	150	8	10	TC□T1102□□	L60M2.5×5	T08	
	S12M-STFCR/L11	14	12	11	150	6.5	25				
	S16Q-STFCR/L11	18	16	15	180	9	25				
	S20Q-STFCR/L11	25	20	18	180	11	25				
	S25R-STFCR/L16	32	25	23	200	17	40	TC□T16T3□□	L60M4×8	T15	
	S32S-STFCR/L16	36	32	30	250	18	50				
S40T-STFCR/L16	50	40	37	300	25	60					



D

STWCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED			
	S10K-STWCR/L11	14	10	9	125	8	-10°	14	TC□T1102□□	L60M2.5×5	T08
	S12M-STWCR/L11	16	12	11	150	9	-13°	25			
	S16Q-STWCR/L11	20	16	15	180	11	-10°	30			
	S20Q-STWCR/L11	25	20	19	180	13	-6°	30			
	S25R-STWCR/L11	32	25	24	200	17	-6°	35	TC□T16T3□□	L60M4×8	T15
	S20Q-STWCR/L16	25	20	19	180	14.5	-3°	36			
	S25R-STWCR/L16	32	25	24	200	17	-6°	49			
	S32S-STWCR/L16	39	32	30	250	22	-10°	50			
S40T-STWCR/L16	50	40	38	300	25	-8°	50				

# S类夹紧方式(内孔) S Type Internal Turning Tool Holder



B

STFPR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED			
	S08K-STFPR/L09	10	08	7	125	5	-10°	14	TP□T0902□□	L60M2.5×5	T08
	S10K-STFPR/L11H11	11	10	9	125	5.5	-13°				
	S12M-STFPR/L11H13	13	12	11	150	6.8	-10°		TP□T1103□□	L60M2.5×5	T08
	S16Q-STFPR/L11H17	17	16	15	180	8.8	-6°				



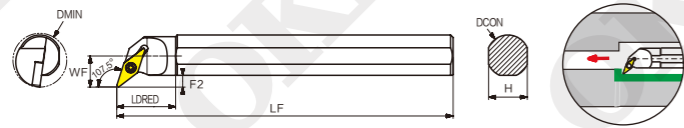
C

STUCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED			
	S08K-STUCR/L09	11	08	7	125	5.5	-15°		TC□T0902□□	L60M2.2×6	T06
	S08K-STUCR/L09-A16	11	16	15	125	5.5	-15°	24			
	S10K-STUCR/L09	13	10	9	125	6	-13°	10			
	S10K-STUCR/L09-A16	13	16	15	125	7	-13°	30			
	S10K-STUCR/L11	13	10	9	125	7	-12°	10	TC□T1102□□	L60M2.5×5	T08
	S10K-STUCR/L11-A16	16	16	15	125	7	-12°	30			
	S12M-STUCR/L11	16	12	11	150	7	-10°	25			
	S12M-STUCR/L11-A16	16	16	15	150	7	-10°	30			
	S16Q-STUCR/L11	20	16	15	160	9	-8°	25	TC□T16T3□□	L60M4×8	T15
	S20Q-STUCR/L11	25	20	19	180	11	-6°	25			
	S25R-STUCR/L11	31	25	24	200	15	-4°	34			
	S20Q-STUCR/L16	25	20	19	180	13	-8°	36			
	S25R-STUCR/L16	31	25	24	200	17	-6°	40	TC□T16T3□□	L60M4×8	T15
	S32S-STUCR/L16	39	32	30	250	18	-4°	50			
S40T-STUCR/L16	50	40	38	300	25	-2°	60				

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



SVQCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	$\theta^\circ$	LDRED	F2			
	S20Q-SVQCR/L16	27	20	18	180	15	-8°	40	6.0	VC□T1604□□	L60M4×8	T15
	S25S-SVQCR/L16	32	25	23	200	18.5	-8°	45	6.9			
	S32S-SVQCR/L16	40	32	30	250	22	-8°	56	8.4			
	S40T-SVQCR/L16	50	40	37	300	27	-8°	64	9.4			

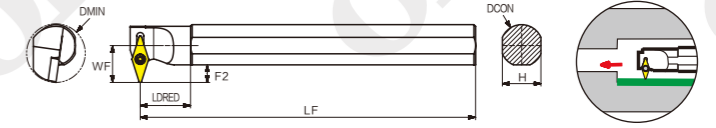


SVQBR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	$\theta^\circ$	LDRED	F2			
	S20Q-SVQBR/L16	27	20	18	180	15	-8°	40	6.0	VB□T1604□□	L60M4×8	T15
	S25S-SVQBR/L16	32	25	23	200	18.5	-8°	45	6.9			
	S32S-SVQBR/L16	40	32	30	250	22	-8°	56	8.4			
	S40T-SVQBR/L16	50	40	37	300	27	-8°	64	9.4			

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



SVUCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
	S16Q-SVUCR/L11	22	16	15	180	13.5	24	6	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVUCR/L16	31	20	19	180	19	32	9.5	VC□T1604□□	L60M4×8	T15
	S25R-SVUCR/L16	35	25	23	180	20	32	8.4			
	S32S-SVUCR/L16	42	32	30	250	22	49	8.4			
	S40T-SVUCR/L16	51	40	37	300	27	49	11			



SVWCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
	S16Q-SVWCR/L11	25	16	15	180	14	25	6.9	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVWCR/L16	32	20	18	180	22	25	12.9	VC□T1604□□	L60M4×8	T15
	S25R-SVWCR/L16	36	25	23	200	22	30	10			
	S32S-SVWCR/L16	45	32	30	250	27	42	12.2			
	S40T-SVWCR/L16	55	40	37	300	30	50	11			

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



SVXCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
	S16Q-SVXCR/L11	20	16	15	180	9.5	35	2	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVXCR/L16	25	20	18	180	13	40	4			
	S25R-SVXCR/L16	32	25	23	180	14.5	40	3	VC□T1604□□	L60M4×8	T15
	S32S-SVXCR/L16	40	32	30	250	21	62	6			
	S40T-SVXCR/L16	50	40	37	300	24	62	5.5			

## S类夹紧方式(内孔) S Type Internal Turning Tool Holder



SVZCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
93° 	S16Q-SVZCR/L11	22	16	15	180	13.5	15	6.5	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVZCR/L11	28	20	18	180	16	22	7.5			
	S25R-SVZCR/L16	34	25	23	200	21	30	10	VC□T1604□□	L60M4×8	T15
	S32S-SVZCR/L16	42	32	30	250	23	35	9			
	S40T-SVZCR/L16	50	40	37	300	29	40	11			

# 切断切槽刀杆命名规则 Parting and Grooving Holder Naming Rule

## 外圆、端面切断切槽刀具 External and End Face Parting and Grooving Cutting Tools

**Q F G D 25 25 R 22 52 H**

Q	F	G	D	25	25	R	22	52	H
切槽刀代号 Q:切断切槽 P:切断 Application code Q:parting and grooving P:part off	加工方式 E:外圆切削 F:端面切削 Cutting application E:external cutting F:end face cutting	定位槽代号与刀片 对应的定位槽代号 一致并对应一定 刀片刃宽范围 Positioning slot code	对应刀片的 刀刃数代号 S:单刃 D:双刃 Cutting edge number S:single head D:double heads	切槽刀刀体高度 Tool body height	切槽刀刀体宽度 Tool body width	刀具的左右手 R:右 L:左 N:两者皆可 Cutting direction R:right L:left N:neutral	最大切削深度 Max cutting depth	端面切槽刀首次 切削的最小直径 (外圆切槽时省略) The minimum diameter for initial end face cutting	端面切槽 刀刀柄类 H:直头 L:弯头 End face cutting shank type: H:straight L:bend

## 内圆切槽刀具 Grooving Tool

**C 32 S - Q G D R 11 - 44**

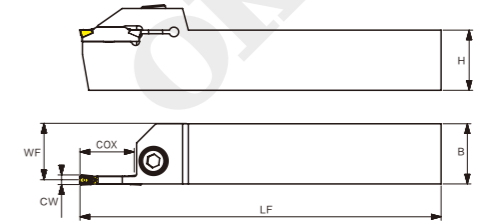
C	32	S	Q	G	D	R	11	44
切槽刀压紧方式 Clamp type	刀杆直径 Holder diameter	刀杆长度 Holder length	切槽刀代号 Application code	定位槽代号 Positioning slot code	对应刀片刃数 Cutting edge number	刀具的左右手 R:右 L:左 Cutting direction (R:right L:left)	最大切削深度 Max cutting depth	最小加工孔径 Min diameter

## 用于切断刀板的刀座 Part off Blade

**P H S 32 32**

P	H	S	32	32
切断刀具 Parting off cutting tools	切断刀具基座 Parting off tool base	对应刀片刃数 Cutting edges numbers of insert	刀座规格 Blade model code	刀板高度 Blade height

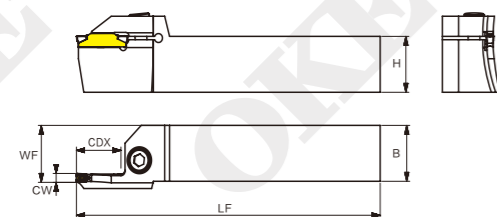
# 外圆切断、切槽刀具 External and End Face Parting and Grooving Cutting Tools



型号 Type	尺寸 Dimension					适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
	HxB	LF	WF	CW	CDX			
QEED	1616R/L10	16x16	100	15	2.5	10	M5 × 20	S4
	1616R/L17	16x16	100	15	2.5	17		
	2020R/L10	20x20	125	19	2.5	10		
	2020R/L17	20x20	125	19	2.5	17		
	2525R/L10	25x25	150	24	2.5	10		
QEFD	1616R/L10	16x16	100	14.8	3	10	M6 × 20	S5
	1616R/L17	16x16	100	14.8	3	17		
	2020R/L10	20x20	125	18.8	3	10		
	2020R/L17	20x20	125	18.8	3	17		
	2525R/L10	25x25	150	23.8	3	10		
QEGD	2020R/L13	20x20	140	18.5	4	13	M6 × 20	S5
	2020R/L22	20x20	140	18.5	4	22		
	2525R/L13	25x25	150	23.5	4	13		
	2525R/L22	25x25	150	23.5	4	22		
	3232R/L13	32x32	170	30.5	4	13		
QEHD	2525R/L13	25x25	150	23	5	13	M6 × 20	S5
	2525R/L22	25x25	150	23	5	22		
QEHS	2525N30	25x25	150	12.5	5	30	M6 × 20	S5
	3232R/L13	32x32	170	30	5	13		
QEHD	3232R/L22	32x32	170	30	5	22	M6 × 20	S5
	3232R/L22	32x32	170	30	5	22		
QEHS	3232N30	32x32	170	16	5	30	M6 × 20	S5
	3232R/L13	32x32	170	29.6	6	13		
QEKD	2525R/L13	25x25	150	22.6	6	13	M6 × 20	S5
	2525R/L22	25x25	150	22.6	6	22		
QEKS	2525N30	25x25	150	12.5	6	30	M6 × 20	S5
	3232R/L13	32x32	170	29.6	6	13		
QEKD	3232R/L22	32x32	170	29.6	6	22	M6 × 20	S5
	3232R/L22	32x32	170	29.6	6	22		
QEKS	3232N30	32x32	170	16	6	30	M6 × 20	S5



# 端面切槽、车削刀具 End Face Grooving and Turning Holders



A/b

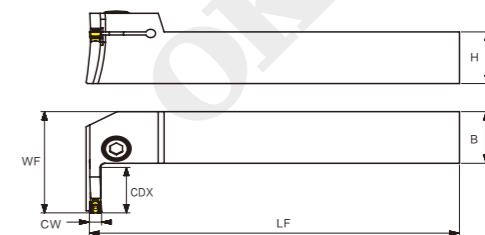
B

C

D

型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
	HxB	LF	WF	CW	CDX	φD				
QFFD	2525RL10-48H	25x25	150	26	3	10	48-66	QTFD0303-MG	M6 × 20	S5
	2525RL17-48H	25x25	150	26	3	17	48-66	QTFD0303-MG		
	2525RL10-60H	25x25	150	26	3	10	60-80	QTFD0303-MG		
	2525RL17-60H	25x25	150	26	3	17	60-80	QTFD0303-MG		
	2525RL10-74H	25x25	150	26	3	10	74-110	QTFD0303-MG		
	2525RL17-74H	25x25	150	26	3	17	74-110	QTFD0303-MG		
	2525RL10-100H	25x25	150	26	3	10	100-150	QTFD0303-MG		
	2525RL17-100H	25x25	150	26	3	17	100-150	QTFD0303-MG		
QFGD	2525RL13-52H	25x25	150	26	4	13	52-72	QTGD0404-MG		
	2525RL22-52H	25x25	150	26	4	22	52-72	QTGD0404-MG		
	2525RL13-64H	25x25	150	26	4	13	64-100	QTGD0404-MG		
	2525RL22-64H	25x25	150	26	4	22	64-100	QTGD0404-MG		
	2525RL13-90H	25x25	150	26	4	13	90-140	QTGD0404-MG		
	2525RL22-90H	25x25	150	26	4	22	90-140	QTGD0404-MG		
	2525RL13-130H	25x25	150	26	4	13	130-230	QTGD0404-MG		
	2525RL22-130H	25x25	150	26	4	22	130-230	QTHD0404-MG		
QFHD	2525RL13-58H	25x25	150	26	5	13	58-96	QTHD0404-MG		
	2525RL22-58H	25x25	150	26	5	22	58-96	QTHD0404-MG		
	2525RL13-86H	25x25	150	26	5	13	86-140	QTHD0404-MG		
	2525RL22-86H	25x25	150	26	5	22	86-140	QTHD0404-MG		
	2525RL13-130H	25x25	150	26	5	13	130-200	QTHD0404-MG		
	2525RL22-130H	25x25	150	26	5	22	130-200	QTHD0404-MG		
	2525RL13-185H	25x25	150	26	5	13	185-400	QTHD0404-MG		
	2525RL22-185H	25x25	150	26	5	22	185-400	QTHD0404-MG		
QFKD	2525RL30-185H	25x25	150	26	6	30	185-400	QTKD0608-MG		
	2525RL13-60H	25x25	150	26	6	13	60-100	QTKD0608-MG		
	2525RL22-60H	25x25	150	26	6	22	60-100	QTKD0608-MG		
	2525RL13-88H	25x25	150	26	6	13	88-180	QTKD0608-MG		
	2525RL22-88H	25x25	150	26	6	22	88-180	QTKD0608-MG		
	2525RL13-160H	25x25	150	26	6	13	160-400	QTKD0608-MG		
	2525RL22-160H	25x25	150	26	6	22	160-400	QTKD0608-MG		
	2525RL30-160H	25x25	150	26	6	30	160-400	QTKD0608-MG		

# 端面切槽、车削刀具 End Face Grooving and Turning Holders



A/b

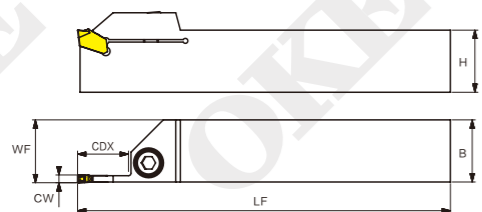
B

C

D

型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
	HxB	LF	WF	CW	CDX	φD				
QFFD	2525RL10-48L	25x25	150	36.5	3	10	48-66	QTFD0303-MG	M6 × 20	S5
	2525RL17-48L	25x25	150	43.5	3	17	48-66	QTFD0303-MG		
	2525RL10-60L	25x25	150	36.5	3	10	60-80	QTFD0303-MG		
	2525RL17-60L	25x25	150	43.5	3	17	60-80	QTFD0303-MG		
	2525RL10-74L	25x25	150	36.5	3	10	74-110	QTFD0303-MG		
	2525RL17-74L	25x25	150	43.5	3	17	74-110	QTFD0303-MG		
	2525RL10-100L	25x25	150	36.5	3	10	100-150	QTFD0303-MG		
	2525RL17-100L	25x25	150	43.5	3	17	100-150	QTFD0303-MG		
QFGD	2525RL13-52L	25x25	150	39.5	4	13	52-72	QTGD0404-MG		
	2525RL22-52L	25x25	150	48.5	4	22	52-72	QTGD0404-MG		
	2525RL13-64L	25x25	150	39.5	4	13	64-100	QTGD0404-MG		
	2525RL22-64L	25x25	150	48.5	4	22	64-100	QTGD0404-MG		
	2525RL13-90L	25x25	150	39.5	4	13	90-140	QTGD0404-MG		
	2525RL22-90L	25x25	150	48.5	4	22	90-140	QTGD0404-MG		
	2525RL13-130L	25x25	150	39.5	4	13	130-230	QTGD0404-MG		
	2525RL22-130L	25x25	150	48.5	4	22	130-230	QTHD0404-MG		
QFHD	2525RL13-58L	25x25	150	39.5	5	13	58-96	QTHD0504-MG		
	2525RL22-58L	25x25	150	48.5	5	22	58-96	QTHD0504-MG		
	2525RL13-86L	25x25	150	39.5	5	13	86-140	QTHD0504-MG		
	2525RL22-86L	25x25	150	48.5	5	22	86-140	QTHD0504-MG		
	2525RL13-130L	25x25	150	39.5	5	13	130-200	QTHD0504-MG		
	2525RL22-130L	25x25	150	48.5	5	22	130-200	QTHD0504-MG		
	2525RL13-185L	25x25	150	39.5	5	13	185-400	QTHD0504-MG		
	2525RL22-185L	25x25	150	48.5	5	22	185-400	QTHD0504-MG		
QFKD	2525RL30-185L	25x25	150	56.5	6	30	185-400	QTKD0608-MG		
	2525RL13-60L	25x25	150	39.5	6	13	60-100	QTKD0608-MG		
	2525RL22-60L	25x25	150	48.5	6	22	60-100	QTKD0608-MG		
	2525RL13-88L	25x25	150	39.5	6	13	88-180	QTKD0608-MG		
	2525RL22-88L	25x25	150	48.5	6	22	88-180	QTKD0608-MG		
	2525RL13-160L	25x25	150	39.5	6	13	160-400	QTKD0608-MG		
	2525RL22-160L	25x25	150	48.5	6	22	160-400	QTKD0608-MG		
	2525RL30-160L	25x25	150	56.5	6	30	160-400	QTKD0608-MG		

# ZQ



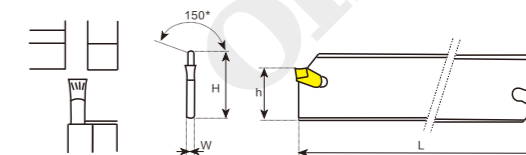
B

型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
	H	B	LF	WF	CW	CDX			
ZQ1616R03	16	16	100	16.4	3	16	ZQMX3N11-1E	M5 × 17	S4
ZQ1616R04	16	16	100	16.4	4	18			
ZQ2020R03	20	20	125	20.4	3	20	ZQMX3N11-1E	M6 × 20	S5
ZQ2020R04	20	20	125	20.4	4	20	ZQMX4N11-1E		
ZQ2525R03	25	25	150	25.4	3	20	ZQMX3N11-1E		
ZQ2525R04	25	25	150	25.4	4	20	ZQMX4N11-1E		
ZQ2525R05	25	25	150	25.4	5	25	ZQMX5N11-1E		
ZQ2525R06	25	25	150	25.7	6	32	ZQMX6N11-1E		
ZQ3225R03	32	25	170	25.4	3	25	ZQMX3N11-1E	M6 × 22	S5
ZQ3225R04	32	25	170	25.4	4	25	ZQMX4N11-1E		
ZQ3225R05	32	25	170	25.4	5	25	ZQMX5N11-1E		
ZQ3225R06	32	25	170	25.7	6	32	ZQMX6N11-1E		
ZQ1616L03	16	16	100	16.4	3	16	ZQMX3N11-1E	M5 × 17	S4
ZQ1616L04	16	16	100	16.4	4	16	ZQMX4N11-1E		
ZQ2020L03	20	20	125	20.4	3	20	ZQMX3N11-1E	M6 × 20	S5
ZQ2020L04	20	20	125	20.4	4	20	ZQMX4N11-1E		
ZQ2525L03	25	25	150	25.4	3	20	ZQMX3N11-1E		
ZQ2525L04	25	25	150	25.4	4	20	ZQMX4N11-1E		
ZQ2525L05	25	25	150	25.4	5	25	ZQMX5N11-1E		
ZQ2525L06	25	25	150	25.7	6	32	ZQMX6N11-1E		
ZQ3225L03	32	25	170	25.4	3	25	ZQMX3N11-1E	M6 × 22	S5
ZQ3225L04	32	25	170	25.4	4	25	ZQMX4N11-1E		
ZQ3225L05	32	25	170	25.4	5	25	ZQMX5N11-1E		
ZQ3225L06	32	25	170	25.7	6	32	ZQMX6N11-1E		



D

# 外圆切断的刀板 External Parting Blade



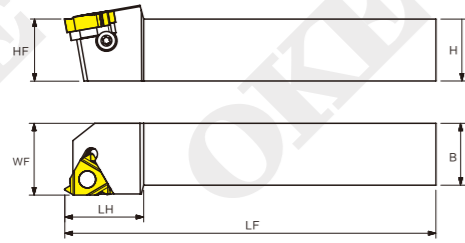
B

型号 Type	尺寸 Dimension				适用刀片 Adaptable Inserts	
	H	W	L	h		
	SPB326-S	26	2.4	110	21	ZQMX3N11-1E
	SPB426-S	26	3.2	110	21	ZQMX4N11-1E
	SPB526-S	26	4.0	110	21	ZQMX5N11-1E
	SPB626-S	26	5.2	110	21	ZQMX6N11-1E
	SPB332-S	32	2.4	150	25	ZQMX3N11-1E
	SPB432-S	32	3.2	150	25	ZQMX4N11-1E
	SPB532-S	32	4.0	150	25	ZQMX5N11-1E
	SPB632-S	32	5.2	150	25	ZQMX6N11-1E

C

D

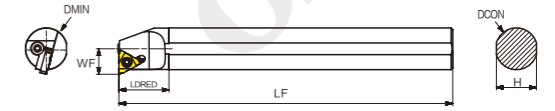
# 外螺纹车刀 External Threading Turning Tool



B

型号 Type	尺寸 Dimension					适用刀片 Adaptable Inserts	刀片螺钉 Inserts Screw	刀垫 Shim	刀垫螺钉 Shim Screw	扳手 Wrench
	H	HF	B	LF	WF					
SWR/L1010H11	10	10	10	100	16	R/LT11□□G-□□	L60 M2.5×6	—	—	T08
SWR/L1212H11	12	12	12	100	16					
SWR/L1616H16	16	16	16	100	20	R/LT16□□G-□□	L60 M3.5×12	TT16-□□	SS04008	T15 S2.5
SWR/L2020K16	20	20	20	125	25					
SWR/L2525M16	25	25	25	150	32					
SWR/L3225P16	32	32	25	170	32					
SWR/L3232P16	32	32	32	170	40					
SWR/L2525M22	25	25	25	150	32					
SWR/L2525P22	32	32	25	170	32	R/LT22□□G-□□	L60 M4×16	TT22-□□	SS04008	T20 S2.5
SWR/L3232P22	32	32	32	170	40					
SWR/L4040S22	40	40	40	250	50	R/LT27□□G-□□	L60 M6×16	TT27-□□	SS04008	T20 S2.5
SWR/L3232P22	32	32	32	170	40					
SWR/L4040S27	40	40	40	250	50					

# 内螺纹车刀 External Threading Turning Tool

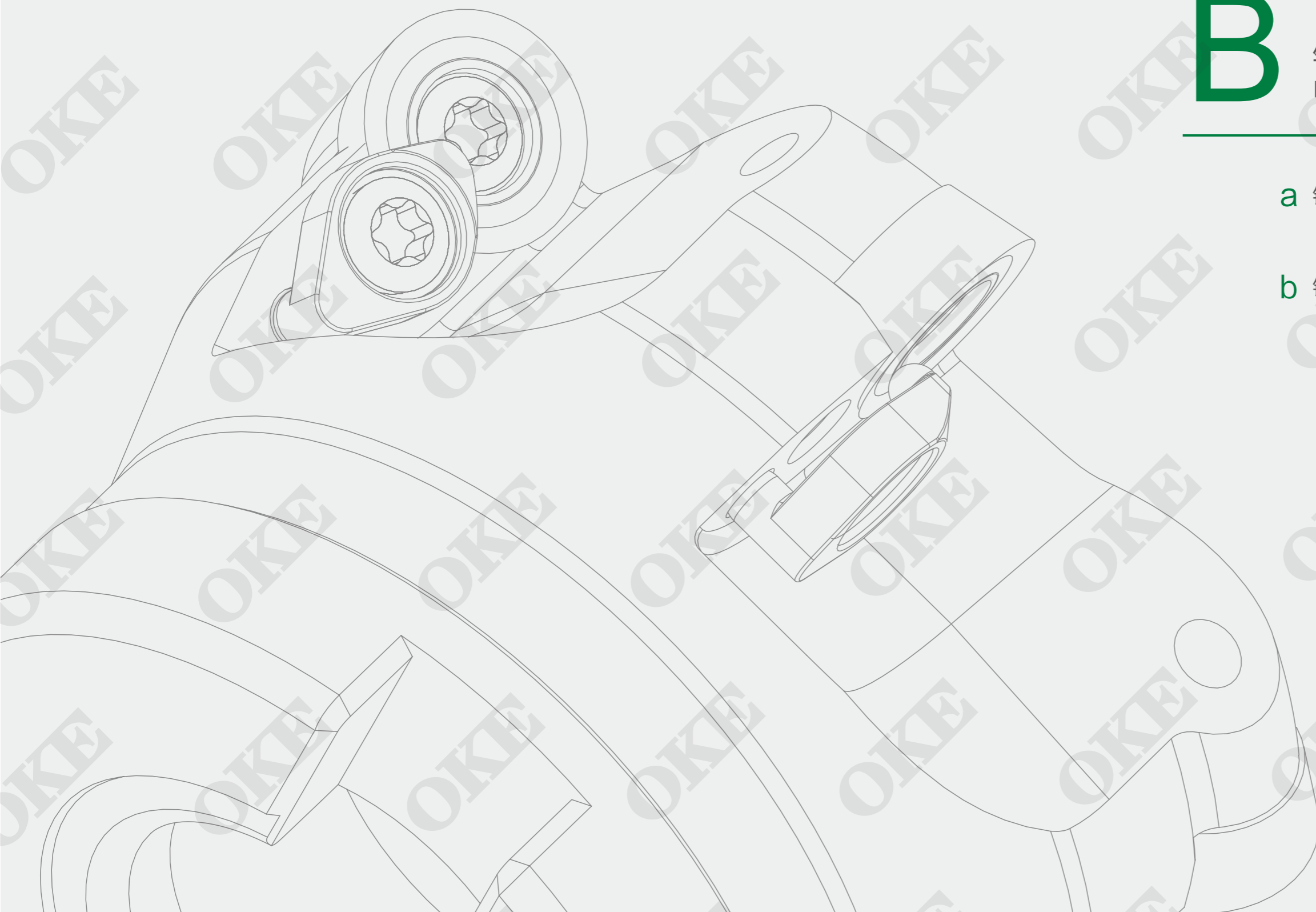
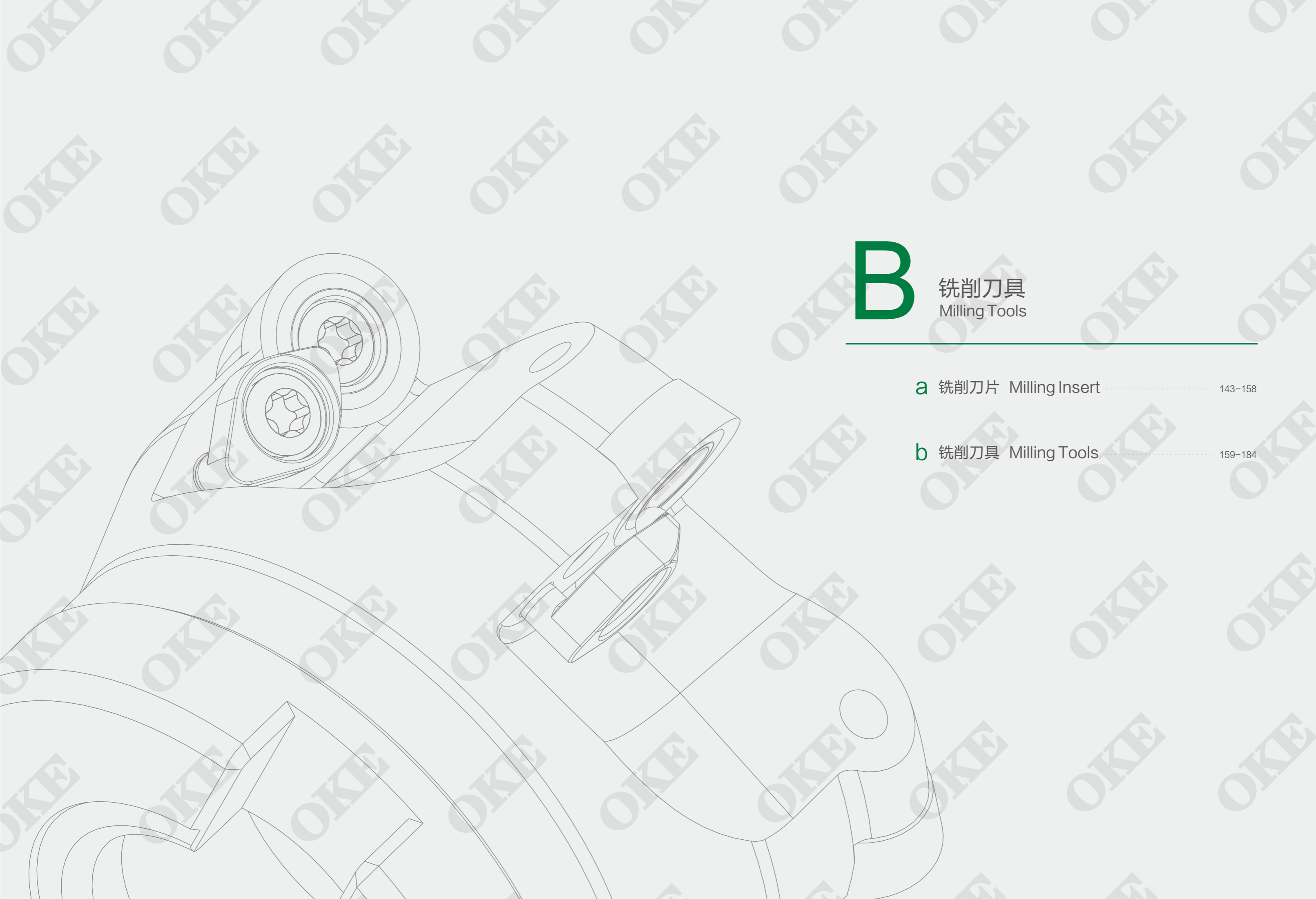


B

型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	刀垫螺钉 Shim Screw	扳手 Wrench
	DMIN	DCON	H	LF	WF	LRED						
SNR/L0010K11	10	12	9.5	125	6	32	R/LT11□□L-□□	L60 M2.5×5	—	—	—	T08
SNR/L0012K11	12	16	11.5	125	6	32						
SNR/L0013M16	13	16	15.5	150	10	32	R/LT16□□L-□□	L60 M3.5×8	TT16	SS04008	T15 S2.5	
SNR/L0016M16	16	20	15.5	150	12	40						
SNR/L0020Q16	20	25	19.5	180	14	40						
SNR/L0025R16	25	30	24	200	16	45						
SNR/L32S16	32	38	30	250	20	55						
SNR/L0025R22	25	30	24	200	18	45						
SNR/L0032S22	32	38	30	250	22	55	R/LT22□□L-□□	L60 M4×16	TT22	SS04008	T20 S2.5	
SNR/L0040T22	40	46	38	300	26	60						
SNR/L0032S27	32	40	30	250	24	55	R/LT27□□L-□□	L60 M6×16	TT27	SS04008	T20 S2.5	
SNR/L0040T27	40	50	38	300	30	60						

C





# B

铣削刀具  
Milling Tools

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a 铣削刀片 Milling Insert ..... 143-158

b 铣削刀具 Milling Tools ..... 159-184

# 铣削刀片命名规则 Milling Insert Naming Rule

## 形状代号 Shape

T P K N 22 04 ED T32 R OPM

<b>A</b> 	<b>B</b> 	<b>C</b> 
<b>D</b> 	<b>E</b> 	<b>H</b> 
<b>K</b> 	<b>L</b> 	<b>M</b> 
<b>O</b> 	<b>P</b> 	<b>R</b> 
<b>S</b> 	<b>T</b> 	<b>T</b> 
<b>V</b> 	<b>W</b> 	<b>Z</b> 其它

## 断屑槽及夹固形式代号 Chip Breaker and Hole

T P K N 22 04 ED T32 R OPM

代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile	代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile
<b>B</b>	有(Y)	无(N)		<b>N</b>	无(N)	无(N)	
<b>H</b>	有(Y)	单面(S)		<b>R</b>	无(N)	单面(S)	
<b>C</b>	有(Y)	无(N)		<b>F</b>	无(N)	双面(D)	
<b>J</b>	有(Y)	双面(D)		<b>A</b>	有(Y)	无(N)	
<b>W</b>	有(Y)	无(N)		<b>M</b>	有(Y)	单面(S)	
<b>T</b>	有(Y)	单面(S)		<b>G</b>	有(Y)	双面(D)	
<b>Q</b>	有(Y)	无(N)		<b>X</b>			
<b>U</b>	有(Y)	双面(D)					

# 铣削刀片命名规则 Milling Insert Naming Rule

## 切削刃长度代号 Cutting Edge Length

T P K N 22 04 ED T32 R OPM

内切圆直径 Inscribed Circle diameter(mm)	刀片外形 Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5			05					
5.56					09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			19	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

## 刀片厚度代号 Thickness

T P K N 22 04 ED T32 R OPM

代号 Symbol	刀片厚度 Thickness(mm)
<b>00</b>	0.79
<b>T0</b>	0.99
<b>01</b>	1.59
<b>T1</b>	1.98
<b>02</b>	2.38
<b>T2</b>	2.58
<b>03</b>	3.18
<b>T3</b>	3.97
<b>04</b>	4.76
<b>T4</b>	4.96
<b>05</b>	5.56
<b>T5</b>	5.95
<b>06</b>	6.35
<b>T6</b>	6.75
<b>07</b>	7.94
<b>09</b>	9.52
<b>T9</b>	9.72
<b>11</b>	11.11
<b>12</b>	12.7

厚度指刀片底面与切削刃最高部分之间的高度  
The Height Between Insert Bottom And Nose

## 主切削刃后角代号 Clearance Angle 公差代号 Tolerance

T P K N 22 04 ED T32 R OPM

<b>A</b> 	<b>B</b> 
<b>C</b> 	<b>D</b> 
<b>E</b> 	<b>F</b> 
<b>G</b> 	<b>N</b> 
<b>P</b> 	其它后角 Others

## 公差代号 Tolerance

T P K N 22 04 ED T32 R OPM

代号 Symbol	刀尖高度m 公差 (mm) m(mm)	内接圆φI.C 公差 (mm) d=I.C. (mm)	厚度S 公差 (mm) s (mm)	(参考) M级精度详细情况 (按形状、大小分) ●刀尖高度公差(mm) (reference) M grade tolerance detail (according to shape, size.) Tolerance of insert nose height							
				内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round	
				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	...	...	
<b>A</b>	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	...	...	
<b>F</b>	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	...	...	
<b>C</b>	±0.013	±0.025	±0.025	25.4	...	±0.18	...	...	...	...	
<b>H</b>	±0.013	±0.013	±0.013	●内接圆φI.C公差 (mm) ●Tolerance of Inscribed Circle							
<b>E</b>	±0.025	±0.025	±0.025	内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round	
<b>G</b>	±0.025	±0.025	±0.13	6.35	±0.05	±0.05	±0.05	±0.05	±0.05		
<b>J</b>	±0.005	±0.05-±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05		
<b>K</b>	±0.013	±0.05-±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	
<b>L</b>	±0.025	±0.05-±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	...	±0.08	
<b>M</b>	±0.08-±0.18	±0.05-±0.13	±0.13	15.875	±0.1	±0.1	±0.1	±0.1	...	±0.1	
<b>N</b>	±0.08-±0.18	±0.05-±0.13	±0.025	19.05	±0.1	±0.1	±0.1	±0.1	...	0.1	
<b>U</b>	±0.13-±0.38	±0.08-±0.25	±0.1	25.4	...	±0.13	±0.13	...	...	±0.13	

## 修光刃代号 Wiper Land and Clearance Angle

T P K N 22 04 ED T32 R OPM

	$Kr^\circ$	$\alpha n$	
<b>A</b>	45°	<b>A</b>	3°
<b>D</b>	60°	<b>B</b>	5°
<b>E</b>	75°	<b>C</b>	7°
<b>F</b>	85°	<b>D</b>	15°
<b>P</b>	90°	<b>E</b>	20°
<b>Z</b>	其它	<b>F</b>	25°
		<b>G</b>	30°
		<b>N</b>	0°
		<b>P</b>	11°
		<b>Z</b>	其它

## 切削刃倒棱代号 Cutting Edge Preparation (mm)

T P K N 22 04 ED T32 R OPM

代号	倒棱量	倒棱角	代号	倒棱量	倒棱角
<b>F</b>	0	5°	<b>K</b>	0	0.1
<b>E</b>	1	10°	<b>P</b>	1	0.15
<b>T</b>	2	15°	<b>W</b>	2	0.2
	3	20°		3	0.25
	4	25°		4	0.3
	5	30°		5	0.35
<b>S</b>	6		不标	6	0.4
	7			7	0.45

## 切削方向代号 Cutting Direction

T P K N 22 04 ED T32 R OPM

<b>R</b>	右 Right
<b>L</b>	左 Left
<b>N</b>	双向 Neutral

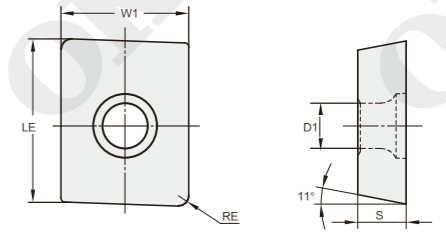
## 断屑槽型代号 Chip Breaker Code



T P K N 22 04 ED T32 R OPM

<b>OPF</b>	<b>OPM</b>
<b>OPR</b>	

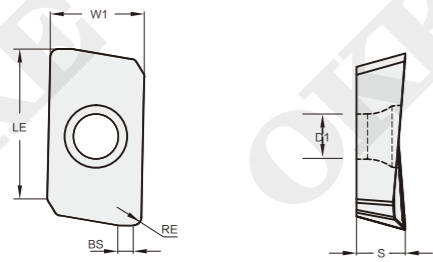
# 铣削刀片一览表 Milling Insert Overview

APKT-HT-Q1  P146	APKT-OPM  P146	APMT-ZM  P147	APMT-SDX  P147	APGT-NL  P147	APKT-NL  P147
RCKT-OPM  P148	RCKT-OPR  P148	RDMW-QBG  P148	RDKX-QBG  P148	RPEW-QBG  P149	RPMW-SD  P149
RPKT-SD  P149	RDMW-SD  P149	SDMT-OSM  P150	SDMT-ZDM  P150	SEET-QPF  P151	SEET-QPM  P151
SEET-QPR  P151	SEKT-NL  P151	SEET-OPF  P152	SEET-OPM  P152	SEET-OPR  P152	SEKN-Q  P152
SEKT-XM  P153	SEKT-OPM  P153	SNMX-OM  P154	SNMX-OR  P154	SPKN  P155	SPKR-YR  P156
SPMT090308  P157	SPMT-HT-1  P157	TPKN-Q1  P158	WPGT  P158		

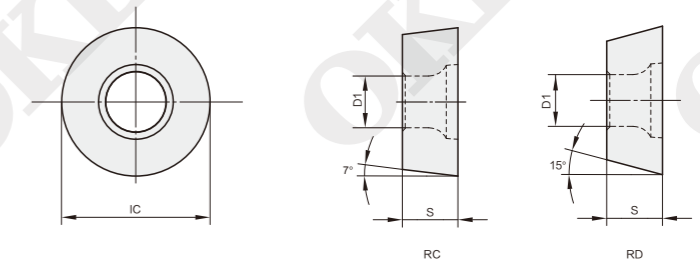


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade				
		LE	W1	S	D1	RE	OP1215	OP1315	OP1325	OP1630	OP2202
	APKT150412-HT-Q1	15.875	12.7	4.76	5.4	1.2	●	▲			●
	APKT150412-OPM	15.875	12.7	4.76	5.4	1.2	●	▲			●

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

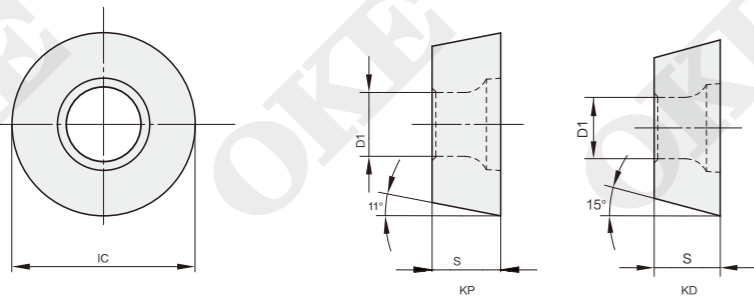


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	W1	S	D1	RE	OP1215	OP1315	OP1325	OP1630	OP2202	OK434
	APMT11T308-ZM	12.32	6.49	3.6	2.8	0.8			●	▲		
	APMT160408-ZM	17.56	9.5	5.76	4.4	0.8			●	▲		
	APMT1135PDER-SDX	11.39	6.2	3.5	2.8	0.8	●	▲			●	
	APMT1604PDER-SDX	17.12	9.2	4.76	4.4	0.8	●	▲			●	
	APGT1135PDER-NL	9.5	6.2	3.5	2.8	0.8						▲
	APKT160402-NL	16.3	9.525	4.76	4.4	0.2						▲

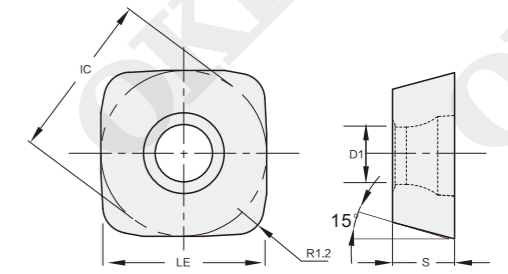


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)			涂层牌号 Grade				
		IC	S	D1	OP1215	OP1315	OP1325	OP1630	OP2202
	RCKT1606MO-OPM	16	6.35	5.56	●	▲			●
	RCKT1204MO-OPR	12	4.76	4.4	●	▲			●
	RCKT1606MO-OPR	16	6.35	5.56	●	▲			●
	RDMW0803MO-QBG	8	3.18	3.4	▲	▲			●
	RDKW10T3MO-QBG	10	3.97	4.4	▲	▲			●
	RDKW1204MO-QBG	12	4.76	4.4	▲	▲			●
	RDKW1604MO-QBG	16	4.76	5.2	▲	▲			●
	RDKW1605MO-QBG	16	5.56	5.56	▲	▲			●
	RDKW2006MO-Q	20	6.35	6.55	▲	▲			●
	RDKX10T3MO-QBG	10	3.97	4.4	▲	▲			●
	RDKX1204MO-QBG	12	4.76	4.4	▲	▲			●
	RDKX1605MO-QBG	16	5.56	5.56	▲	▲			●

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

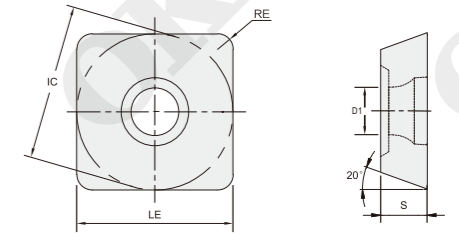
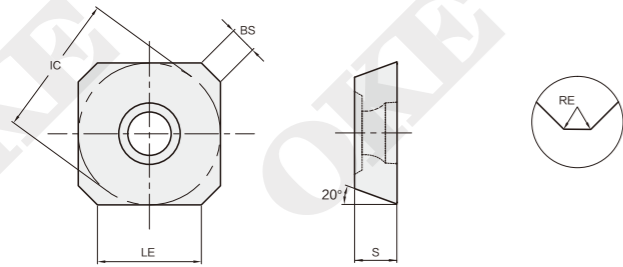


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)			涂层牌号 Grade				
		IC	S	D1	OP1215	OP1315	OP1325	OP1630	OP2202
	RPEW0802MO-QBG	8	2.38	3.5	●	▲			●
	RPEW1003MO-QBG	10	3.18	4.6	●	▲			●
	RPMW1003MO-SD	10	3.18	4.6	●	▲			●
	RPKT1204MO-SD	12	4.76	4.4	●	▲			●
	RDMW0501MO-SD	5	1.59	2.0					▲
	RDMW0702MO-SD	7	2.38	2.8					▲
	RDMW0803MO-SD	8	3.22	3.4					▲
	RDMW10T3MO-SD	10	4.03	4.5					▲



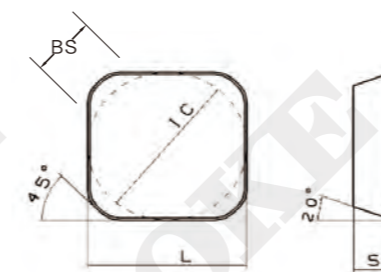
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)						涂层牌号 Grade				
		IC	LE	D1	S	RE	$\alpha$	OP1215	OP1315	OP1325	OP1630	OP2202
	SDMT120412-OSM	12.7	12.7	4.4	4.76	2.0	15°	●	▲			●
	SDMT09T312-ZDM	9.525	9.525	4	3.97	1.2	15°	●	▲			●
	SDMT120412-OPM	12.7	12.7	4.4	4.76	2	15°	●	▲			●

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



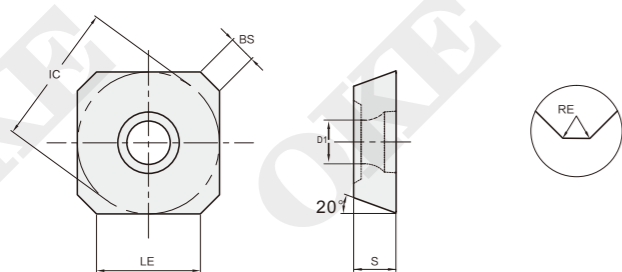
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	IC	S	D1	BS	OP1215	OP1315	OP1325	OP1630	OP2202	OK434
	SEET12T3-QPF	8.55	13.4	3.97	4.1	2.55	●	▲			●	
	SEET12T3-QPM	8.55	13.4	3.97	4.1	2.55	●	▲			●	
	SEET12T3-QPR	8.55	13.4	3.97	4.1	2.55	●	▲			●	
	SEKT1204-NL	9.3	12.7	4.76	5.6	2.01						▲

刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade				
		LE	IC	S	D1	RE	OP1215	OP1315	OP1325	OP1630	OP2202
	SEET120308PER-OPF	13.29	13.29	4.042	4.1	R0.784	●	▲			●
	SEET120308PER-OPM	13.29	13.29	4.042	4.1	R0.784	●	▲			●
	SEET09T308PER-OPR	9.525	9.525	4.016	3.3	R0.786	●	▲			●

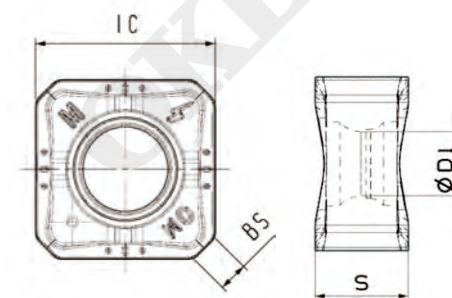


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade				
		LE	IC	S	D1	BS	OP1215	OP1315	OP1325	OP1630	OP2202
	SEKN1203AFTN	12.7	12.7	3.18		2.4	●	▲			●
	SEKN1504AFN-Q	15.875	15.875	4.76		2.45	●	▲			●

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

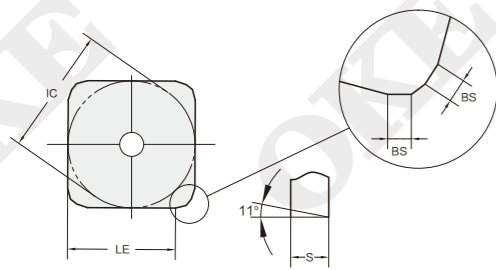




刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)				涂层牌号 Grade				
		IC	S	D1	BS	OP1215	OP1315	OP1325	OP1630	OP2202
	SEKT1204AFTN-XM	12.7	4.76	5.5	2.1	●	▲			●
	SEKT1204-OPM	12.7	4.76	5.6	2.1	●	▲			●
	SEKT1204-OPR	12.7	4.76	5.6	2.1	●	▲			

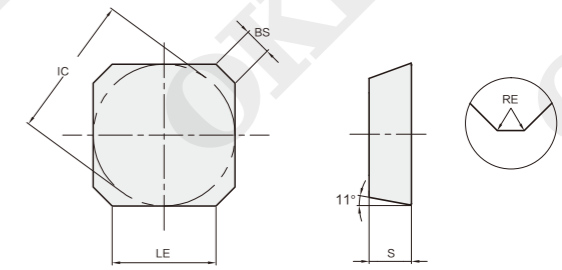



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)				涂层牌号 Grade				
		IC	S	D1	BS	OP1215	OP1315	OP1325	OP1630	OP2202
	SNMX1205ANN-OM	12.7	6.2	6	2.1	●	▲			●
	SNMX1205ANN-OR	12.7	6.35	6	2.1	●	▲			●
	SNMX1205ZNN-OM	12.7	6.64	6	1.3	●	▲			●
	SNMX1205ZNN-OR	12.7	6.76	6	1.3	●	▲			●

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



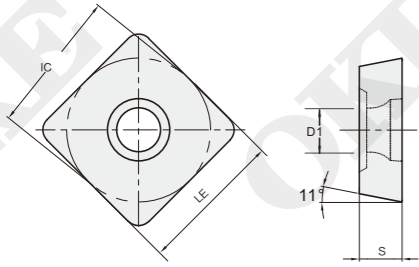
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade				
		LE	IC	S	D1	BS	OP1215	OP1315	OP1325	OP1630	OP2202
	SPKN1203EDSKR	12.7	12.7	3.18		1.481	●	▲			●
	SPKN1203EDSKL	12.7	12.7	3.18		1.481	●	▲			●
	SPKN1504EDL	15.875	15.875	4.76		1.35	●	▲			●
	SPKN1504EDR	15.875	15.875	4.76		1.35	●	▲			●
	SPKN1504EDS11PL	15.875	15.875	4.76		1.068	●	▲			●
	SPKN1504EDS11PR	15.875	15.875	4.76		1.068	●	▲			●





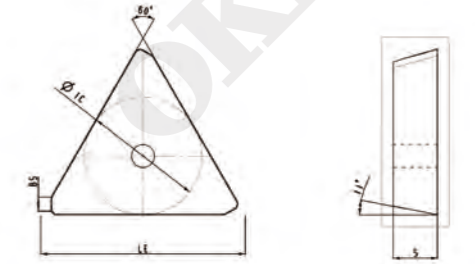
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade				
		IC	LE	S	D1	BS	OP1215	OP1315	OP1325	OP1630	OP2202
	SPKR1504EDL-YR	15.875	11.64	4.51		1.25	●	▲			●
	SPKR1504EDR-YR	15.875	11.64	4.51		1.25	●	▲			●


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

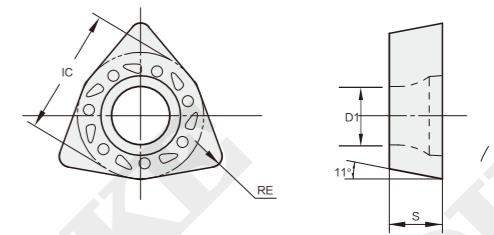





刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade				
		LE	IC	S	D1	RE	OP1215	OP1315	OP1325	OP1630	OP2202
	SPMT090308	9.525	9.525	3.18	3.5	0.8	●	▲			●
	SPMT120408-HT-1	12.7	12.7	4.76	5.5	0.8	●	▲		●	



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)				涂层牌号 Grade				
		IC	LE	S	BS	OP1215	OP1315	OP1325	OP1630	OP2202
	TPKN2204PDSR-Q1	12.7	22	4.76	1.51	▲	▲			●
	TPKN2204PDTR-Q1	22	22	4.76	1.51	▲	▲			●



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)				涂层牌号 Grade				
		IC	RE	S	D1	OP1215	OP1315	OP1325	OP1630	OP2202
	WPGT080615ZSR	12.85	1.5	6.35	5.5	●	▲			●

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

## 铣削刀具命名规则 Milling Tools Naming Rule

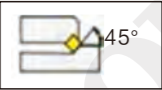
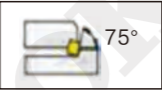

### 刀具类型 Type of Tools

FM 45 2 A22 63 5 SN13 L

FM	LM	SM	HM	RM	CM
面铣/方肩铣 Face milling Quare-shoulder milling	螺旋立铣刀 Indexable Helical Milling Tool	三面刃铣 Slot milling	快进给 High feed	仿形铣 Profiling tool	倒角铣 Chamfer milling

### 主偏角 Lead Angle

FM 45 2 A22 63 5 SN13 L

45°	75°	90°
		

### 区别代码 Differentiate Code

FM 45 2 A22 63 5 SN13 L

### 刀具加工部分直径 Cutting Tool Diameter

FM 45 2 A22 63 5 SN13 L

## 铣削刀具命名规则 Milling Tools Naming Rule

### 刀具安装部位结构 Adaptor Type

FM 45 2 A22 63 5 SN13 L

A	B	C	D	P	W	MT
A型接口 A interface	B型接口 B interface	C型接口 C interface	D型接口 D interface	圆形直柄 Cylindrical shank	侧固式 Lateral solid	莫氏锥柄 Morse taper shank

### 齿数 Teeth Number

FM 45 2 A22 63 5 SN13 L

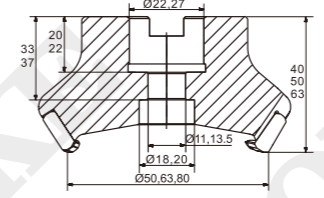
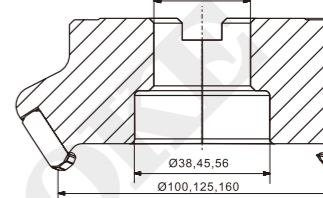
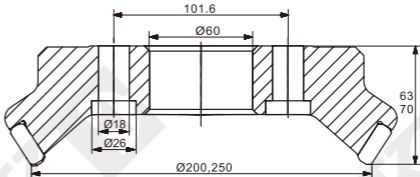
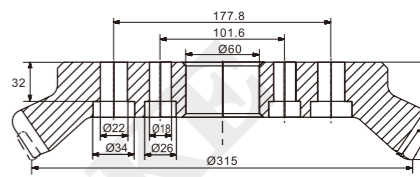
### 刀片规格 Type

FM 45 2 A22 63 5 SN13 L

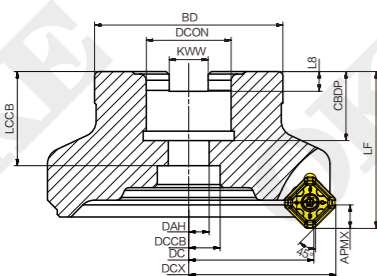
### 切削方向: 右刀R缺省, 左刀L Cutting Direction: Right/Left

FM 45 2 A22 63 5 SN13 L

### 套式结构 Shell Structure

A型接口 Type of Adapter		B型接口 Type of Adapter	
	GB5342-96规定的 $\phi 50-\phi 80$ 套式面铣刀 GB5342-96 of $\phi 50-\phi 80$ shell Facemilling Cutter		GB5342-96规定的 $\phi 100-\phi 160$ 套式面铣刀 GB5342-96 of $\phi 100-\phi 160$ shell Facemilling Cutter
C型接口 Type of Adapter		D型接口 Type of Adapter	
	GB5342-96规定的 $\phi 200-\phi 250$ 套式面铣刀 GB5342-96 of $\phi 200-\phi 250$ shell Facemilling Cutter		GB5342-96规定的 $\phi 315$ 及以上的套式面铣刀 GB5342-96 of $\phi 315$ Facemilling Cutter

## 面铣刀具 Face Milling Tool



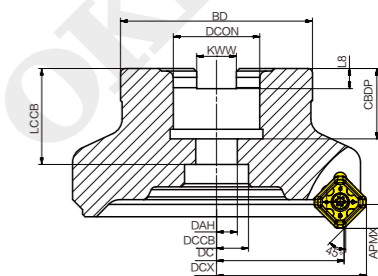
型号 Type	刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
FM451A-A22-50-4-SE12	4	50	62.4	40	22	20		11		40	10.4	6.3	6	0.3	A
FM451A-A22-63-5-SE12	5	63	75.4	40	22	20		11		50	10.4	6.3	6	0.5	A
FM451A-A27-80-6-SE12	6	80	92.4	50	27	22		13		60	12.4	7	6	1.3	A
FM451A-B32-100-7-SE12	7	100	112.4	50	32		28		45	70	14.4	8	6	1.8	B
FM451A-B40-125-8-SE12	8	125	137.4	63	40		35		56	80	16.4	9	6	3.1	B
FM451A-C40-160-10-SE12	10	160	172.4	63	40		35		56	100	16.4	9	6	5.1	C
FM451A-C60-200-12-SE12	12	200	212.4	63	60		32		150	160	25.7	14	6	6.8	C
FM451A-C60-250-14-SE12	14	250	262.4	63	60		32		190	200	25.7	14	6	11.2	C
FM451A-D60-315-18-SE12	18	315	327.4	70	60		32		250	270	25.7	14	6	20.8	D



### 刀具附件 Accessories

适用刀片 Applicable Insert	刀垫 Shim	螺套 Thread Sleeve	刀片螺钉 Insert Screw	扳手 Wrench	扳手 Wrench
SE□T12T3 P151	S13BS	SM0507	TL60 M3.5 × 10	T15T	S3.5

## 面铣刀具 Face Milling Tool



型号 Type	刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
FM451A-A22-50-3-SE12	3	50	62.4	40	22	20		11		40	10.4	6.3	6	0.3	A
FM451A-A22-63-4-SE12	4	63	75.4	40	22	20		11		50	10.4	6.3	6	0.5	A
FM451A-A27-80-4-SE12	4	80	92.4	50	27	22		13		60	12.4	7	6	1.2	A
FM451A-B32-100-5-SE12	5	100	112.4	50	32		28		45	70	14.4	8	6	1.8	B
FM451A-B40-125-6-SE12	6	125	137.4	63	40		35		56	80	16.4	9	6	3.55	B

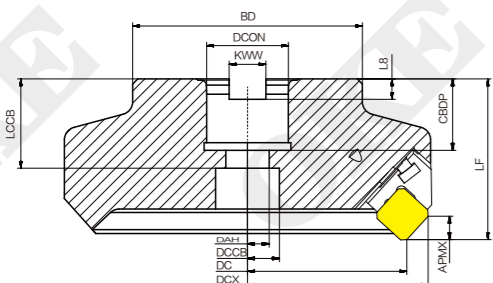



疏齿不等齿距

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀垫 Shim	螺套 Thread Sleeve	刀片螺钉 Insert Screw	扳手 Wrench	扳手 Wrench
SE□T12T3 P151	S13BS	SM0508	TL60 M3.5 × 10	T15T	S3.5

## 面铣刀具 Face Milling Tool

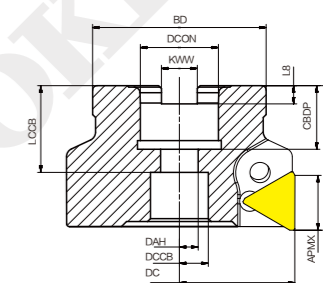


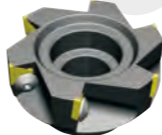
型号 Type	刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
 FM451B-B27-80-4-SE12	4	80	103	50	27	22		13		60	12.4	7	5.5	1.8	A
FM451B-B32-100-5-SE12	5	100	122	50	32		28		45	80	14.4	8	5.5	2.4	B
FM451B-B40-125-6-SE12	6	125	147	63	40		35		56	80	16.4	9	5.5	4.4	B
FM451B-B40-160-8-SE12	8	160	181	63	40		35		56	100	16.4	9	5.5	6.4	B
FM451B-C60-200-10-SE12	10	200	221	63	60					160	25.7	14	5.5	8.5	C
FM451B-C60-250-12-SE12	12	250	270	63	60				180	200	25.7	14	5.5	14.1	C
FM451B-D60-315-15-SE12	15	315	353	63	60				230	250	25.7	14	5.5	22.2	D

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀夹 Tools Chuck	压块 Clamp	双头螺钉 Double Headed Screw	刀夹螺钉 Tools Chuck Screw	扳手 Wrench
SE□N1203 P152	LSE12R/L	W01R/L	DM8 × 21X	LOM5 × 15.1	S3

## 方肩铣刀 Square Shoulder Milling

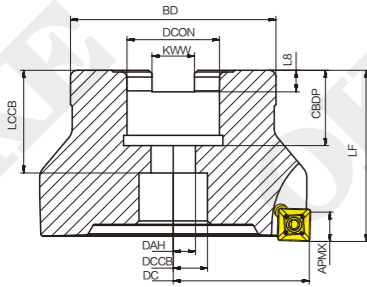



型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
 FM901A-A22-63-3-TP22	3	63	50	22	20		11		50	10.4	6.3	15	0.5	A
FM901A-A27-80-4-TP22	4	80	50	27	22		13		60	12.4	7	15	0.9	A
FM901A-A32-100-5-TP22	5	100	50	32		28		45	70	14.4	8	15	1.8	B
FM901A-B40-125-6-TP22	6	125	63	40		35		56	80	16.4	9	15	2.5	B
FM901A-B40-160-7-TP22	7	160	63	40		35		56	100	16.4	9	15	3.6	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
TPKN2204 P158	MYL8 × 18	S4

## 方肩铣刀 Square Shoulder Milling

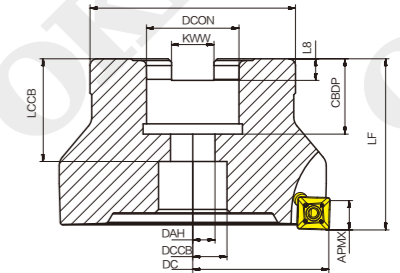


型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
 FM901B-A22-50-5-SE09	5	50	40	22	20		11		40	10.4	6.3	6.5	0.3	A
FM901B-A22-63-6-SE09	6	63	40	22	20		11		50	10.4	6.3	6.5	0.5	A
FM901B-A27-80-8-SE09	8	80	50	27	22		13		60	12.4	7	6.5	0.9	A
FM901B-B32-100-8-SE09	8	100	50	32		28		45	70	14.4	8	6.5	1.8	B
FM901B-B32-100-10-SE09	10	100	50	32		28		45	70	14.4	8	6.5	2.5	B
FM901B-B40-125-12-SE09	12	125	63	40		35		56	80	16.4	9	6.5	3.6	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
SEET09T308PER P152	TL60 M3×7	T08T

## 方肩铣刀 Square Shoulder Milling

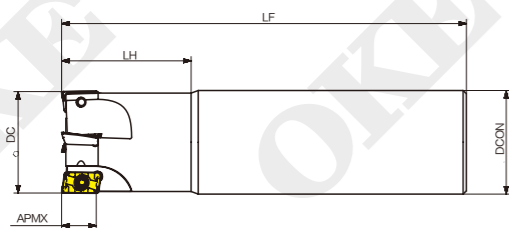


型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
FM901B-A22-50-3-SE12	3	50	40	22	20		11		40	10.4	6.3	10	0.3	A
FM901B-A22-63-4-SE12	4	63	40	22	20		11		50	10.4	6.3	10	0.65	A
FM901B-A27-80-4-SE12	4	80	50	27	22		13		60	12.4	7	10	0.9	A
FM901B-B32-100-5-SE12	5	100	50	32		28		45	70	14.4	8	10	1.2	B
FM901B-B40-125-6-SE12	6	125	63	40		35		56	80	16.4	9	10	3.1	B
FM901B-C40-160-8-SE12	8	160	63	40		35		112	100	16.4	9	10	4.1	C
FM901B-C60-200-10-SE12	10	200	63	60		32		150	140	25.7	14	10	6.1	C
FM901B-C60-250-12-SE12	12	250	63	60		32		215	200	25.7	14	10	10.9	C
FM901B-A22-50-4-SE12	4	50	40	22	20		11		40	10.4	6.3	10	0.3	A
FM901B-A22-63-5-SE12	5	63	40	22	20		11		50	10.4	6.3	10	0.65	A
FM901B-A27-80-6-SE12	6	80	50	27	22		13		60	12.4	7	10	0.9	A
FM901B-B32-100-7-SE12	7	100	50	32		28		45	70	14.4	8	10	1.2	B
FM901B-B40-125-8-SE12	8	125	63	40		35		56	80	16.4	9	10	3.1	B
FM901B-C40-160-12-SE12	12	160	63	40		35		112	100	16.4	9	10	4.1	C
FM901B-A22-50-5-SE12	5	50	40	22	20		11		40	10.4	6.3	10	0.3	A
FM901B-A22-63-6-SE12	6	63	40	22	20		11		50	10.4	6.3	10	0.65	A
FM901B-A27-80-8-SE12	8	80	50	27	22		13		60	12.4	7	10	0.9	A
FM901B-B32-100-10-SE12	10	100	50	32		28		45	70	14.4	8	10	1.2	B
FM901B-B40-125-12-SE12	12	125	63	40		35		56	80	16.4	9	10	3.1	B
FM901B-C40-160-14-SE12	14	160	63	40		35		112	100	16.4	9	10	4.1	C
FM901B-C60-200-16-SE12	16	200	63	60		32		150	140	25.7	14	10	6.1	C
FM901B-C60-250-18-SE12	18	250	63	60		32		215	200	25.7	14	10	10.9	C
FM901B-D60-315-24-SE12	24	315	63	60		32		260	250	25.7	14	10	21.6	D

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀垫 Shim	螺套 Thread Sleeve	刀片螺钉 Insert Screw	扳手 Wrench	扳手 Wrench
SEET120308PER P152	S12BSX	SM0508	TL60 M3.5×10	T15T	S3.5

## 方肩铣刀 Square Shoulder Milling



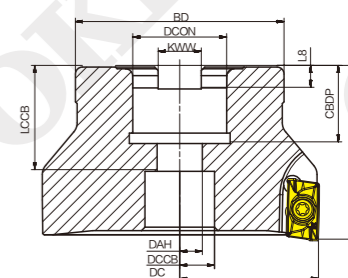
型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口 形式 Inter Face
FM901C-P16-12-1-AP11-85	1	12	25	85	16	10.5	0.1	P
FM901C-P16-16-2-AP11-90	2	16	25	90	16	10.5	0.1	P
FM901C-P20-20-2-AP11-100	2	20	30	100	20	10.5	0.2	P
FM901C-P25-25-3-AP11-115	3	25	35	115	25	10.5	0.4	P
FM901C-P32-32-4-AP11-125	4	25	40	125	32	10.5	0.7	P
FM901C-W16-12-1-AP11-85	1	12	25	85	16	10.5	0.1	W
FM901C-W16-16-2-AP11-90	2	16	25	90	16	10.5	0.1	W
FM901C-W20-20-2-AP11-100	2	20	30	100	20	10.5	0.2	W
FM901C-W25-25-3-AP11-115	3	25	35	115	25	10.5	0.4	W
FM901C-W32-32-4-AP11-125	4	25	40	125	32	10.5	0.7	W
FM901C-P25-25-2-AP16-115	2	25	35	115	16	10.5	0.4	P
FM901C-P32-32-3-AP16-125	3	32	40	125	20	10.5	0.7	P
FM901C-P32-40-4-AP16-130	4	40	42	130	25	10.5	0.8	P
FM901C-W25-25-2-AP16-115	2	25	35	115	16	10.5	0.4	W
FM901C-W32-32-3-AP16-125	3	32	40	125	20	10.5	0.7	W
FM901C-W32-40-4-AP16-130	4	40	42	130	25	10.5	0.8	W



### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
APMT11T3□□ P147	TL60 M2.5×6.5	T08
APMT1604□□ P147	TL60 M4×10	T15

## 方肩铣刀 Square Shoulder Milling



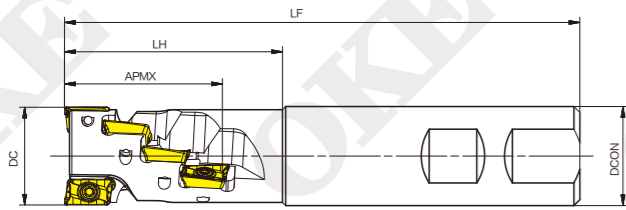
型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
FM901C-A22-50-6-AP11	6	50	40	22	20		11		40	10.4	6.3	11	0.3	A
FM901C-A22-63-8-AP11	8	63	40	22	20		11		50	10.4	6.3	11	0.6	A
FM901C-A27-80-8-AP11	8	80	50	27	22		13		60	12.4	7	11	1.2	A
FM901C-B32-100-10-AP11	10	100	50	32		28		45	60	14.4	8	11	1.7	B
FM901C-A22-50-5-AP16	5	50	40	22	20		11		40	10.4	6.3	15.5	0.3	A
FM901C-A22-63-6-AP16	6	63	40	22	20		11		50	10.4	6.3	15.5	0.5	A
FM901C-A27-80-7-AP16	7	80	50	27	22		13		60	12.4	7	15.5	1.1	A
FM901C-B32-100-8-AP16	8	100	50	32		28		45	70	14.4	8	15.5	1.6	B
FM901C-B40-125-10-AP16	10	125	63	40		35		56	80	16.4	9	15.5	3.2	B
FM901C-B40-160-10-AP16	10	160	63	40		35		56	100	16.4	9	15.5	3.2	B




### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
APMT11T3□□ P147	TL60 M2.5×6.5	T08
APMT1604□□ P147	TL60 M4×10	T15

## 方肩铣刀 Square Shoulder Milling

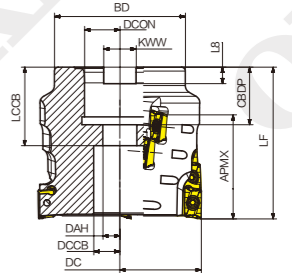



型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口 形式 Inter Face
 FM901D-W20-20-1-AP11-29	1	20	45	120	20	29	0.3	W
FM901D-W25-25-2-AP11-39	2	25	55	130	25	39	0.4	W
FM901D-W32-32-2-AP11-48	2	32	65	140	32	48	0.7	W
FM901D-W32-40-2-AP11-55	2	40	75	150	32	55	1.3	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
APMT11T3□□ P147	TL60 M2.5 × 6.5	T08

## 方肩铣刀 Square Shoulder Milling

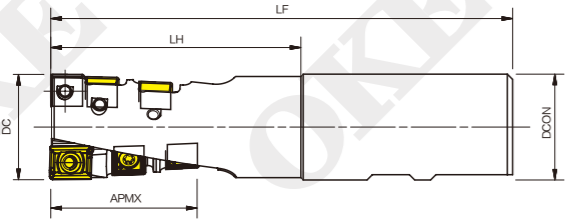



型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
 FM901D-A22-50-4-AP11-39	4	50	58	22	20		11		40	10.4	6.3	39	0.5	A
FM901D-A27-63-4-AP11-39	4	63	58	27	22		13		50	12.4	7	39	0.9	A
FM901D-B32-80-5-AP11-39	5	80	63	32		28		45	60	14.4	8	39	1.3	B
FM901D-B40-100-6-AP11-39	6	100	63	40		35		56	70	16.4	9	39	2.1	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
APMT11T3□□ P147	TL60 M2.5 × 6.5	T08T

## 螺旋立铣刀 Indexable Helical Milling Tool

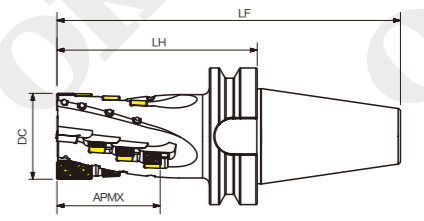



型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
 LM901-W40-40-2-SP12-55	2	40	95	175	40	55	1.2	W
LM901-W40-50-4-SP12-55	4	50	95	175	40	55	1.5	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	侧切刀片 Side Cutting Insert	刀片螺钉 Insert Screw	扳手 Wrench
APKT150412 P146	SPMT120408	TL60 M5 × 12	T20

## 螺旋立铣刀 Indexable Helical Milling Tool



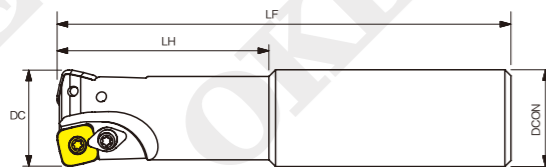
型号 Type	刃数 Edge	DC	LH	LF	APMX	重量 Weight	接口形式 Inter Face
 LM901-JT50-50-4-SP12-84	4	50	145	246.75	84	4.8	JT50
LM901-JT50-63-4-SP12-74	4	63	135	236.75	74	5.5	JT50
LM901-JT50-63-4-SP12-104	4	63	165	266.75	104	6.1	JT50
LM901-JT50-63-4-SP12-134	4	63	195	296.75	134	6.3	JT50
LM901-JT50-80-4-SP12-104	4	80	165	266.75	104	6.9	JT50
LM901-JT50-80-4-SP12-144	4	80	205	306.75	144	7.2	JT50
LM901-BT50-50-4-SP12-84	4	50	145	246.75	84	4.8	BT50
LM901-BT50-63-4-SP12-74	4	63	135	236.75	74	5.5	BT50
LM901-BT50-63-4-SP12-104	4	63	165	266.75	104	6.1	BT50
LM901-BT50-63-4-SP12-134	4	63	195	296.75	134	6.3	BT50
LM901-BT50-80-4-SP12-104	4	80	165	266.75	104	6.9	BT50
LM901-BT50-80-4-SP12-144	4	80	205	306.75	144	7.2	BT50


### 刀具附件 Accessories

适用刀片 Applicable Insert	侧切刀片 Side Cutting Insert	刀片螺钉 Insert Screw	扳手 Wrench
APKT150412 P146	SPMT120408	TL60 M5 × 12	T20



## 大进给刀具 High Feed Milling

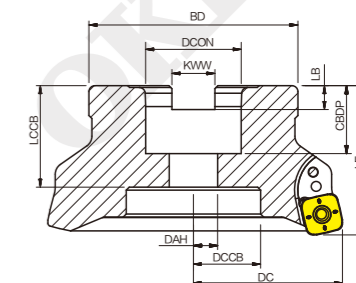



型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
 HM101-P25-25-2-SD09-140	2	25	60	140	25		0.5	P
HM101-P32-32-3-SD09-150	3	32	70	150	32		0.8	P
HM101-P32-35-3-SD09-150	3	35	50	150	32		0.8	P
HM101-P32-32-2-SD12-150	2	32	70	150	32		0.8	P
HM101-P32-40-3-SD12-150	3	40	50	150	32		1.3	P

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench
SDMT09T3 <span style="color: green;">P150</span>	TL60 M3.5 × 8	L60 M4 × 10	WD204	T10/T15
SDMT1204 <span style="color: green;">P150</span>	TL60 M4 × 10			T15

## 大进给刀具 High Feed Milling

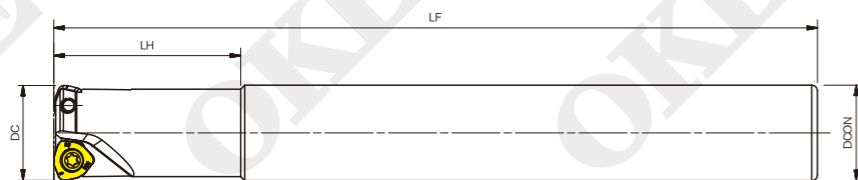


型号 Type	刃数 Edge	DC	LF	DCON	CDBP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
 HM101-A22-50-4-SD09	4	50	40	22	20		11	40	10.4	6.3			0.3	A
HM101-A22-63-6-SD09	6	63	50	22	20		11	50	10.4	6.3			0.5	A
HM101-A27-63-6-SD09	6	63	50	27	22		13	50	12.4	7			0.6	A
HM101-A22-63-5-SD12	5	63	50	22	20		11	50	10.4	6.3			0.5	A
HM101-A27-63-5-SD12	5	63	50	27	22		13	50	12.4	7			0.6	A
HM101-A27-80-5-SD12	5	80	50	27	22		13	60	12.4	7			0.9	A
HM101-A32-100-6-SD12	6	100	50	32		28	45	70	14.4	8			1.8	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench
SDMT09T3 <span style="color: green;">P150</span>	TL60 M3.5 × 8	L60 M4 × 10	WD204	T10/T15
SDMT1204 <span style="color: green;">P150</span>	TL60 M4 × 10			T15

## 大进给刀具 High Feed Milling

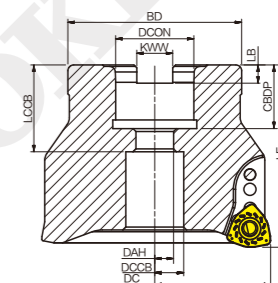


型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口 形式 Inter Face
HM221-P25-25-2-WP06-140	2	25	60	140	25		0.4	P
HM221-P25-25-2-WP06-200	2	25	120	200	25		0.6	P
HM221-P25-25-2-WP06-300	2	25	180	300	25		0.9	P
HM221-P32-32-3-WP06-150	3	32	70	150	32		0.8	P
HM221-P32-32-3-WP06-200	3	32	120	200	32		0.9	P
HM221-P32-32-3-WP06-300	3	32	180	300	32		1.6	P
HM221-P32-40-3-WP08-150	3	40	50	150	32		0.9	P
HM221-P32-40-3-WP08-200	3	40	50	200	32		1.5	P
HM221-P32-40-3-WP08-300	3	40	50	300	32		1.8	P
HM221-P32-40-2-WP08-150	2	40	50	150	32		0.9	P
HM221-P32-40-2-WP08-200	2	40	50	200	32		1.5	P
HM221-P32-40-2-WP08-300	2	40	50	300	32		1.9	P

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench	
WPGT080615ZSR	P158	TL60 M4 × 10	L60 M5 × 12	WD208	T20

## 大进给刀具 High Feed Milling

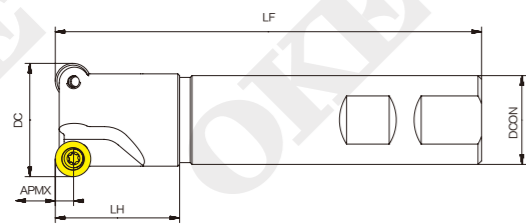



型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
HM221-A22-50-4-WP06	4	50	50	22	20		11		40	10.4	6.3		0.4	A
HM221-A22-50-3-WP08	3	50	50	22	20		11		40	10.4	6.3		0.4	A
HM221-A22-63-4-WP08	4	63	50	22	20		11		50	10.4	6.3		0.7	A
HM221-A27-63-4-WP08	4	63	50	27	22		13		50	12.4	7		0.7	A
HM221-A27-80-5-WP08	5	80	50	27	22		13		60	12.4	7		1.5	A
HM221-B32-100-6-WP08	6	100	63	32		28		45	70	14.4	8		2.2	B
HM221-B40-125-7-WP08	7	125	63	40		35		56	80	16.4	9		3.5	B
HM221-B40-160-8-WP08	8	160	63	40		35		56	100	16.4	9		5.9	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench	
WPGT080615ZSR	P158	TL60 M5 × 12	TL60 M5 × 12	WD208	T20T

## 仿形铣刀具 Profiling Tool

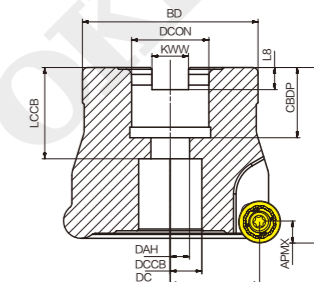



型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
 RM01-W32-40-3-RC12-120	3	40	40	120	32	6	0.7	W
RM01-W32-50-5-RC12-120	5	50	40	120	32	6	0.8	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
RCKT1204MO	P148	TL60 M4 × 10

## 仿形铣刀具 Profiling Tool

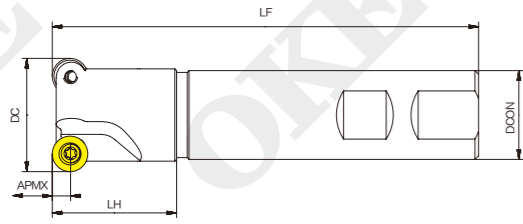



型号 Type	刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
 RM01-A22-63-4-RC12	4	63	50	50	22	20		11		50	10.4	6.3	6	0.7	A
RM01-B27-80-5-RC12	5	80	50	50	27		30		38	60	12.4	7	8	0.7	B
RM01-B32-100-6-RC16	6	100	50	50	32		28		45	70	14.4	8	8	1.2	B
RM01-B40-125-7-RC16	7	125	63	63	40		35		56	80	16.4	9	10	2.2	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
RCKT1204MO-OPR	P148	TL60 M4 × 10
RCKT1606MO-OPR	P148	TL60 M5 × 13

## 仿形铣刀具 Profiling Tool

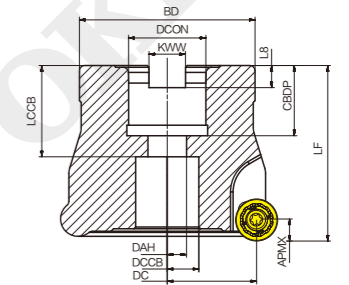



型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口 形式 Inter Face
 RM02-W16-16-2-RD08-100	2	16	25	100	16	4	0.1	W
RM02-W25-25-2-RD08-100	2	25	30	100	25	4	0.3	W
RM02-W32-32-2-RD10-120	2	32	40	120	32	5	0.7	W
RM02-W32-40-3-RD12-120	3	40	40	120	32	6	0.7	W
RM02-W32-50-4-RD12-120	4	50	40	120	32	6	0.8	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
RDkW10T3MO	P148	TL60 M4 × 10
RDkW1204MO	P148	TL60 M4 × 10

## 仿形铣刀具 Profiling Tool

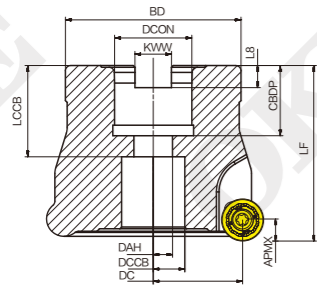



型号 Type	刃数 Edge	DC	LF	DCON	CDBP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
 RM02-A22-50-3-RD12	3	50	50	22	20		11	40	10.4	6.3	6	0.3	A	
RM02-A22-63-4-RD12	4	63	50	22	20		11	50	10.4	6.3	6	0.5	A	
RM02-B27-80-5-RD16	5	80	50	27		30	38	60	12.4	7	8	1.2	B	
RM02-B32-100-6-RD16	6	100	50	32		28	45	70	14.4	8	8	1.6	B	
RM02-B40-125-6-RD20	6	125	63	40		35	56	80	16.4	9	10	1.9	B	
RM02-B40-160-7-RD20	7	160	63	40		35	56	100	16.4	9	10	3.7	B	

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	压板 Pressing Plate	扳手 Wrench
RDkW1204MO	P148	TL60 M4 × 10	WD204
RDkW1605MO	P148	TL60 M5 × 12	WD208
RDkW2006MO	P148	TL60 M6 × 16	T25T

## 仿形铣刀具 Profiling Tool

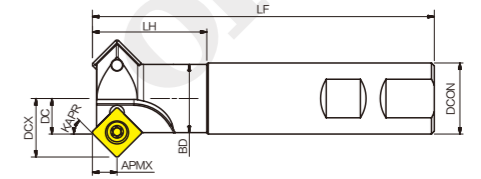



型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口 形式 Inter Face
 RM03-A22-50-4-RP12	4	50	40	22	20		11		40	10.4	6.3	6	0.4	A
RM03-A22-63-5-RP12	5	63	45	22	20		11		50	10.4	6.3	6	0.7	A
RM03-B27-80-6-RP12	6	80	50	27		30		38	60	12.4	7	8	1.2	B
RM03-A22-63-4-RP16	4	63	50	22	20		11		40	10.4	6.3	8	0.7	A
RM03-A27-80-5-RP16	5	80	50	27	22		13		60	12.4	7	8	1.2	A
RM03-B32-100-6-RP16	6	100	63	32		28		45	70	14.4	8	8	1.6	B

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	压板 Pressing Plate	扳手 Wrench
RP□□1204MO P149	TL60 M4 × 10	WD204	T15T

## 倒角铣刀 Chamfer Milling Tool

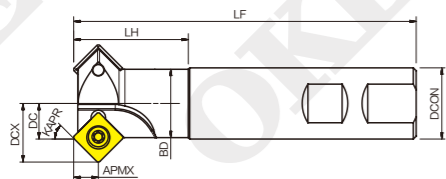


型号 Type	刃数 Edge	KAPR	DC	DCX	LH	LF	DCON	BD	APMX	重量 Weight	接口 形式 Inter Face
 CM451-P20-12-1-SP12-100	1	45	12	28.1	40	100	20	15	8.3	0.2	P
CM451-W20-12-1-SP12-100	1	45	12	28.1	40	100	20	15	8.3	0.2	W
CM451-P25-25-2-SP12-120	2	45	25	41.3	40	120	25	24	8.3	0.8	P
CM451-W25-25-2-SP12-120	2	45	25	41.3	40	120	25	24	8.3	0.6	W
CM451-P32-32-3-SP12-180	3	45	32	49.3	40	180	32	30	8.3	1.1	P
CM451-W32-32-3-SP12-180	3	45	32	49.3	40	180	32	30	8.3	1.1	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
SPMT120408 P157	TL60 M5 × 13	T20

## 倒角铣刀 Chamfer Milling Tool

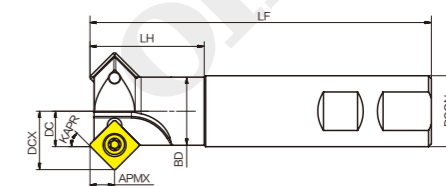


型号 Type	刃数 Edge	KAPR	DC	DCX	LH	LF	DCON	BD	APMX	重量 Weight	接口形式 Inter Face
CM601-P20-12-1-SP12-100	1	30	12	23.3	40	100	20	14	9.5	0.2	P
CM601-W20-12-1-SP12-100	1	30	12	23.3	40	100	20	14	9.5	0.2	W
CM601-P25-25-2-SP12-120	2	30	25	36.3	40	120	25	20	9.5	0.8	P
CM601-W25-25-2-SP12-120	2	30	25	36.3	40	120	25	20	9.5	0.6	W
CM601-P32-32-2-SP12-180	2	30	32	43.3	40	180	32	26	9.5	1.1	P
CM601-W32-32-2-SP12-180	2	30	32	43.3	40	180	32	26	9.5	1.1	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
SPMT120408	P157	TL60 M5 × 13

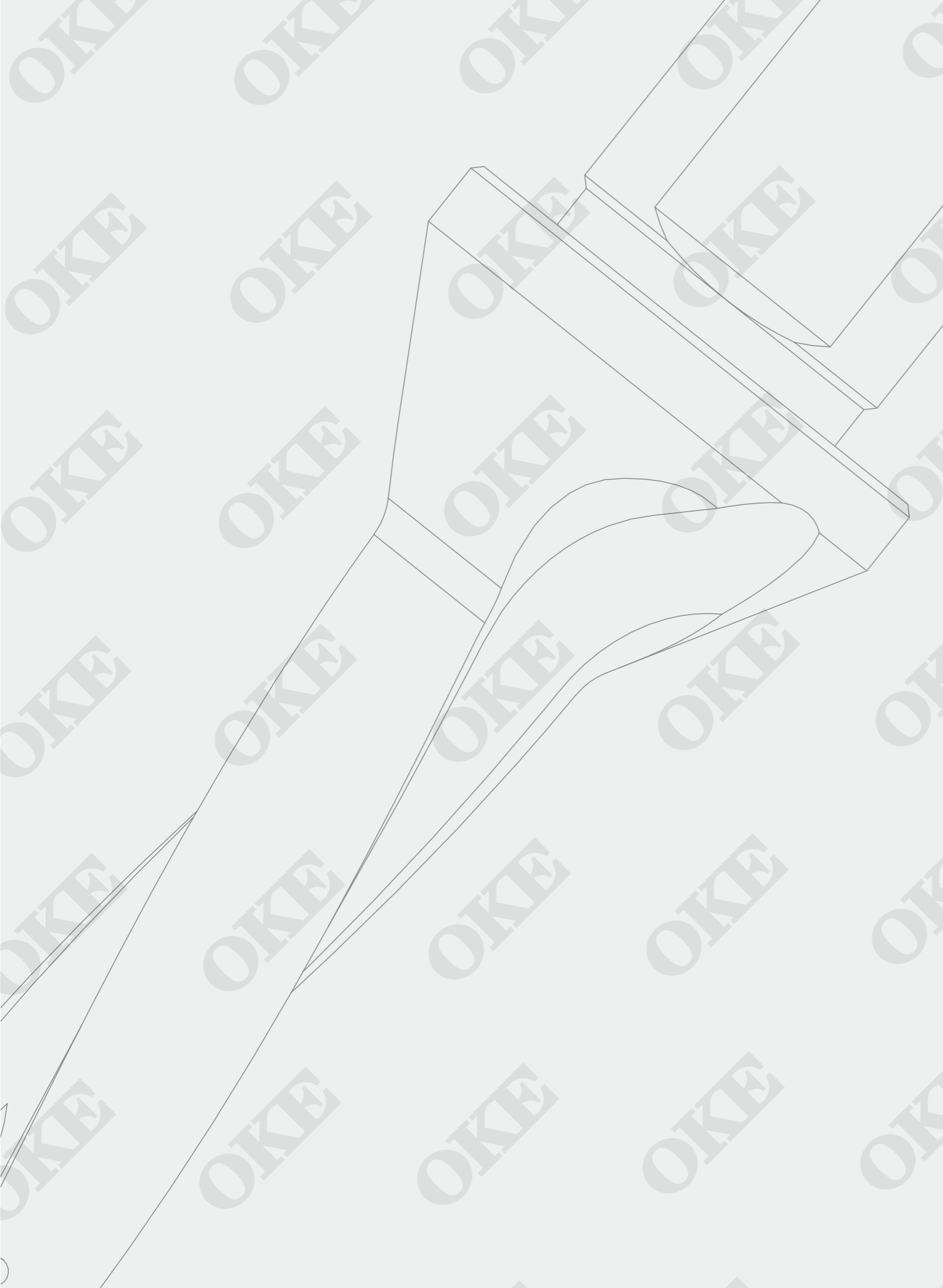
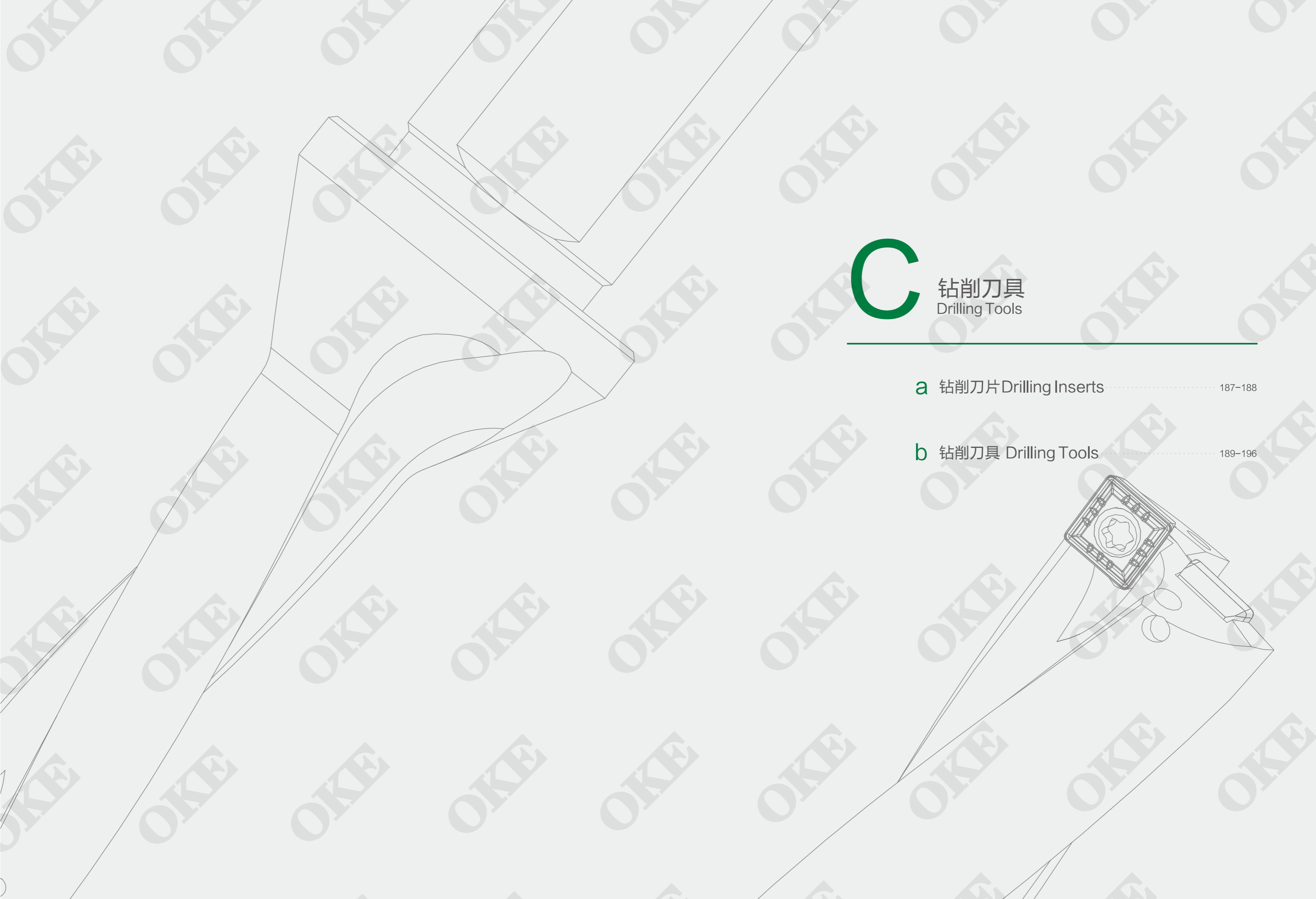
## 倒角铣刀 Chamfer Milling Tool



型号 Type	刃数 Edge	KAPR	DC	DCX	LH	LF	DCON	BD	APMX	重量 Weight	接口形式 Inter Face
CM301-P20-12-1-SP12-100	1	60	12	32	40	100	20	19	5	0.2	P
CM301-W20-12-1-SP12-100	1	60	12	32	40	100	20	19	5	0.2	W
CM301-P25-25-2-SP12-120	2	60	25	45.4	40	120	25	24	5	0.8	P
CM301-W25-25-2-SP12-120	2	60	25	45.4	40	120	25	24	5	0.6	W
CM301-P32-32-3-SP12-180	3	60	32	52	50	180	32	30	5	1.1	P
CM301-W32-32-3-SP12-180	3	60	32	52	50	180	32	30	5	1.1	W

### 刀具附件 Accessories

适用刀片 Applicable Insert	刀片螺钉 Insert Screw	扳手 Wrench
SPMT120408	P157	TL60 M5 × 13

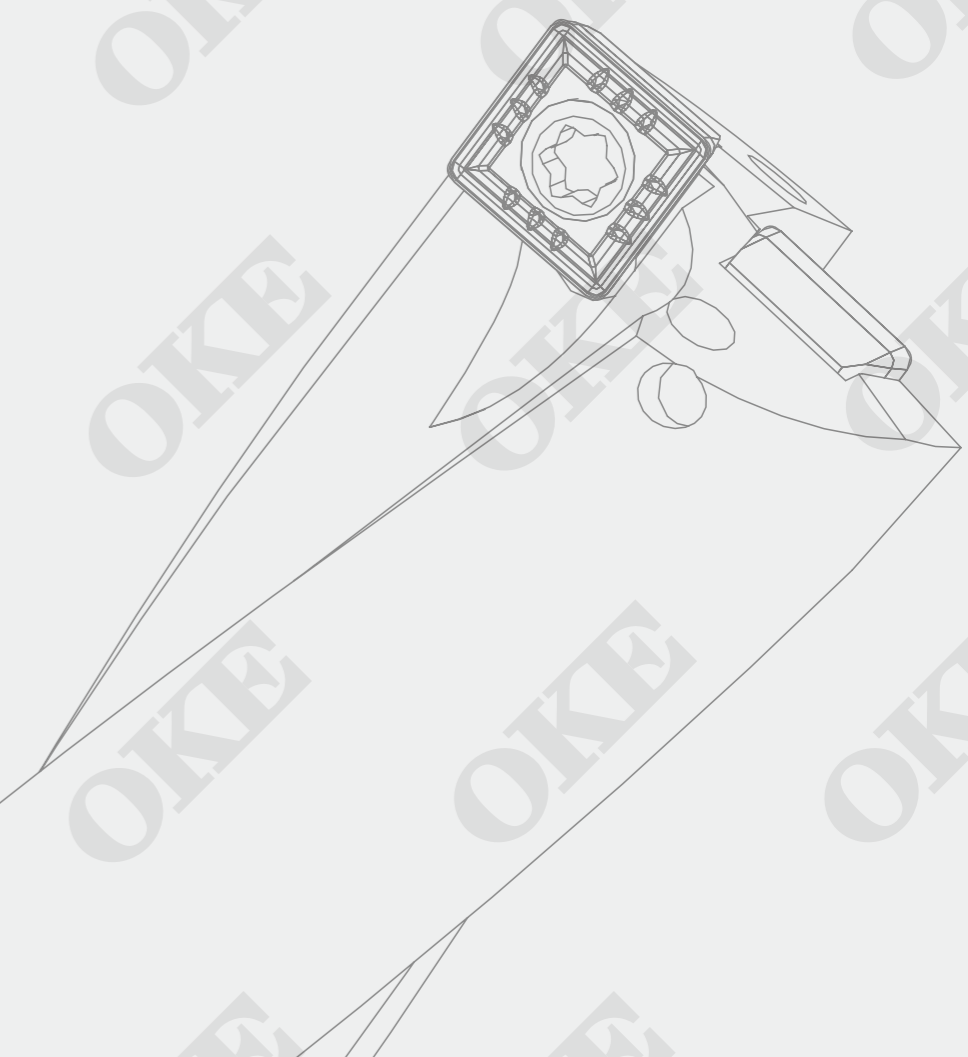


# C

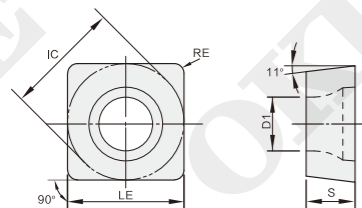
## 钻削刀具 Drilling Tools

a 钻削刀片 Drilling Inserts ..... 187-188

b 钻削刀具 Drilling Tools ..... 189-196



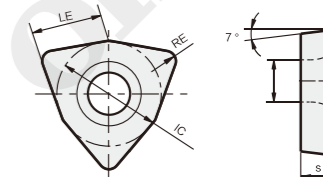
## 可转位浅孔钻刀片 Indexable Shallow Drilling Insert List



B

刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade	
		LE	IC	S	D1	RE	OP1215	OP1315
	SPGT050204-OPM	5	5	2.38	2.2	0.4	▲	●
	SPGT060204-OPM	6	6	2.38	2.6	0.4	▲	●
	SPGT07T308-OPM	7.94	7.94	3.97	2.8	0.8	▲	●
	SPGT090408-OPM	9.8	9.8	4.3	4.2	0.8	▲	●
	SPGT110408-OPM	11.5	11.5	4.76	4.4	0.8	▲	●
	SPGT140512-OPM	14.3	14.3	5.2	5.75	1.2	▲	●

## 可转位浅孔钻刀片 Indexable Shallow Drilling Insert List



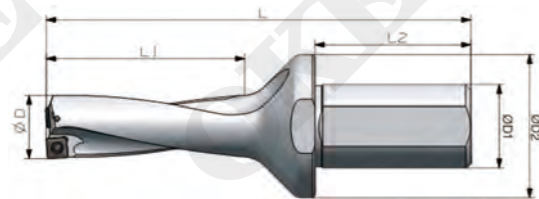
B

刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade	
		LE	IC	S	D1	RE	OP1215	OP1315
	WCMX030208-ZK	3.8	5.56	2.38	2.8	0.8	▲	●
	WCMX040208-ZK	4.3	6.35	2.38	3.1	0.8	▲	●
	WCMX050308-ZK	5.4	7.94	3.18	3.2	0.8	▲	●
	WCMX06T308-ZK	6.5	9.525	3.97	3.7	0.8	▲	●
	WCMX080412-ZK	8.7	12.7	4.76	4.3	1.2	▲	●

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



## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder

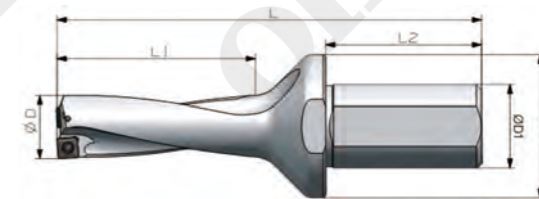


型号  
Type

基本尺寸 Dimensions(mm)

型号 Type	D	ΦD <sub>1</sub>	ΦD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L
UDR01-D13-W20-2X	13	20	25	32	50	96
UDR01-D14-W20-2X	14	20	25	34	50	98
UDR01-D15-W20-2X	15	20	25	36	50	100
UDR01-D16-W20-2X	16	20	25	38	50	102
UDR01-D17-W25-2X	17	25	32	40	56	118
UDR01-D18-W25-2X	18	25	32	42	56	120
UDR01-D19-W25-2X	19	25	32	44	56	121
UDR01-D20-W25-2X	20	25	32	46	56	123
UDR01-D21-W25-2X	21	25	32	48	56	125
UDR01-D22-W25-2X	22	25	32	50	56	128
UDR01-D23-W25-2X	23	25	32	52	60	130
UDR01-D24-W25-2X	24	25	32	54	60	132
UDR01-D25-W25-2X	25	25	32	56	60	134
UDR01-D26-W32-2X	26	32	40	58	60	136
UDR01-D27-W32-2X	27	32	40	60	60	138
UDR01-D28-W32-2X	28	32	40	62	60	147
UDR01-D29-W32-2X	29	32	40	64	60	149
UDR01-D30-W32-2X	30	32	40	66	60	151
UDR01-D31-W40-2X	31	40	50	68	60	153
UDR01-D32-W40-2X	32	40	50	70	60	155
UDR01-D33-W40-2X	33	40	50	72	60	157
UDR01-D34-W40-2X	34	40	50	74	60	174
UDR01-D35-W40-2X	35	40	50	76	60	176
UDR01-D36-W40-2X	36	40	50	78	60	178
UDR01-D37-W40-2X	37	40	50	80	70	180
UDR01-D38-W40-2X	38	40	50	82	70	182
UDR01-D39-W40-2X	39	40	50	84	70	184
UDR01-D40-W40-2X	40	40	50	86	70	186
UDR01-D41-W40-2X	41	40	50	88	70	188

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号  
Type

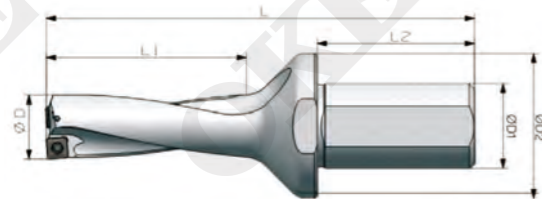
基本尺寸 Dimensions(mm)

型号 Type	D	ΦD <sub>1</sub>	ΦD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L
UDR01-D42-W40-2X	42	40	60	90	70	200
UDR01-D43-W40-2X	43	40	60	92	70	202
UDR01-D44-W40-2X	44	40	60	94	70	204
UDR01-D45-W40-2X	45	40	60	96	70	206
UDR01-D46-W40-2X	46	40	60	98	70	208
UDR01-D47-W40-2X	47	40	60	100	70	210
UDR01-D48-W40-2X	48	40	60	102	70	212
UDR01-D49-W40-2X	49	40	60	104	70	214
UDR01-D50-W40-2X	50	40	60	106	70	216

### 刀具附件 Accessories

适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
SPGT050204-OPM	13-16	L60 M2 × 4.3	T06
SPGT060204-OPM	17-21	L60 M2.2 × 5.5	T07
SPGT07T308-OPM	22-27	L60 M2.5 × 6.5	T08
SPGT090408-OPM	28-33	L60 M3.5 × 8	T15
SPGT110408-OPM	34-41	L60 M4 × 10	T15
SPGT140512-OPM	42-50	L60 M5 × 13	T20

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



B

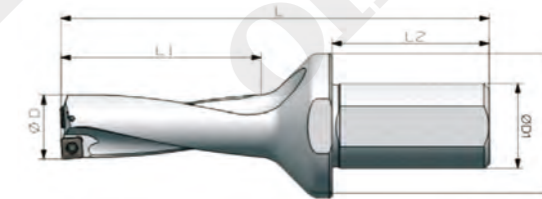
型号 Type	基本尺寸 Dimensions(mm)					
	D	ΦD <sub>1</sub>	ΦD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L
UDR01-D13-W20-3X	13	20	25	44	50	111
UDR01-D14-W20-3X	14	20	25	47	50	114
UDR01-D15-W20-3X	15	20	25	50	50	127
UDR01-D16-W20-3X	16	20	25	53	50	120
UDR01-D17-W25-3X	17	25	32	56	56	135
UDR01-D18-W25-3X	18	25	32	59	56	138
UDR01-D19-W25-3X	19	25	32	62	56	140
UDR01-D20-W25-3X	20	25	32	65	56	143
UDR01-D21-W25-3X	21	25	32	68	56	146
UDR01-D22-W25-3X	22	25	32	71	56	149
UDR01-D23-W25-3X	23	25	32	74	60	153
UDR01-D24-W25-3X	24	25	32	77	60	156
UDR01-D25-W25-3X	25	25	32	80	60	159
UDR01-D26-W32-3X	26	32	40	83	60	162
UDR01-D27-W32-3X	27	32	40	86	60	165
UDR01-D28-W32-3X	28	32	40	89	60	168
UDR01-D29-W32-3X	29	32	40	92	60	178
UDR01-D30-W32-3X	30	32	40	95	60	181
UDR01-D31-W40-3X	31	40	50	98	60	184
UDR01-D32-W40-3X	32	40	50	101	60	187
UDR01-D33-W40-3X	33	40	50	104	60	190
UDR01-D34-W40-3X	34	40	50	107	60	193
UDR01-D35-W40-3X	35	40	50	110	60	196
UDR01-D36-W40-3X	36	40	50	113	60	199
UDR01-D37-W40-3X	37	40	50	117	70	217
UDR01-D38-W40-3X	38	40	50	119	70	220
UDR01-D39-W40-3X	39	40	50	122	70	223
UDR01-D40-W40-3X	40	40	50	125	70	231
UDR01-D41-W40-3X	41	40	50	128	70	229



C/b

D

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



A

B

型号 Type	基本尺寸 Dimensions(mm)					
	D	ΦD <sub>1</sub>	ΦD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L
UDR01-D42-W40-3X	42	40	60	131	70	232
UDR01-D43-W40-3X	43	40	60	134	70	240
UDR01-D44-W40-3X	44	40	60	138	70	248
UDR01-D45-W40-3X	45	40	60	141	70	251
UDR01-D46-W40-3X	46	40	60	144	70	254
UDR01-D47-W40-3X	47	40	60	147	70	257
UDR01-D48-W40-3X	48	40	60	149	70	260
UDR01-D49-W40-3X	49	40	60	152	70	263
UDR01-D50-W40-3X	50	40	60	155	70	266



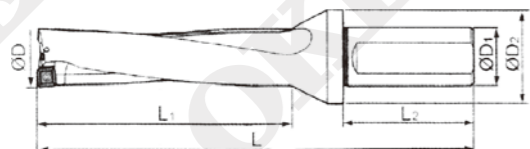
### 刀具附件 Accessories

适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
SPGT050204-OPM	13-16	L60 M2 × 4.3	T06
SPGT060204-OPM	17-21	L60 M2.2 × 5.5	T07
SPGT07T308-OPM	22-27	L60 M2.5 × 6.5	T08
SPGT090408-OPM	28-33	L60 M3.5 × 8	T15
SPGT110408-OPM	34-41	L60 M4 × 10	T15
SPGT140512-OPM	42-50	L60 M5 × 13	T20

C/b

D

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号  
Type

基本尺寸 Dimensions(mm)

型号 Type	ΦD	ΦD <sub>1</sub>	ΦD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L
UDR01-D13-W20-4X	13	20	25	57	50	124
UDR01-D14-W20-4X	14	20	25	61	50	128
UDR01-D15-W20-4X	15	20	25	65	50	132
UDR01-D16-W20-4X	16	20	25	69	50	136
UDR01-D17-W25-4X	17	25	32	73	56	152
UDR01-D18-W25-4X	18	25	32	77	56	156
UDR01-D19-W25-4X	19	25	32	81	56	159
UDR01-D20-W25-4X	20	25	32	85	56	163
UDR01-D21-W25-4X	21	25	32	89	56	167
UDR01-D22-W25-4X	22	25	32	93	56	172
UDR01-D23-W32-4X	23	25	40	97	56	176
UDR01-D24-W32-4X	24	25	40	101	56	180
UDR01-D25-W32-4X	25	25	40	105	56	184
UDR01-D26-W32-4X	26	32	40	109	56	188
UDR01-D27-W32-4X	27	32	40	113	56	192
UDR01-D28-W32-4X	28	32	40	118	60	203
UDR01-D29-W32-4X	29	32	40	122	60	207
UDR01-D30-W32-4X	30	32	40	125	60	211
UDR01-D31-W40-4X	31	40	50	129	60	215
UDR01-D32-W40-4X	32	40	50	133	60	219
UDR01-D33-W40-4X	33	40	50	137	70	223
UDR01-D34-W40-4X	34	40	50	142	70	242
UDR01-D35-W40-4X	35	40	50	146	70	246
UDR01-D36-W40-4X	36	40	50	150	70	250
UDR01-D37-W40-4X	37	40	50	154	70	254
UDR01-D38-W40-4X	38	40	50	158	70	258
UDR01-D39-W40-4X	39	40	50	162	70	262
UDR01-D40-W40-4X	40	40	50	166	70	266
UDR01-D41-W40-4X	41	40	50	170	70	270

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号  
Type

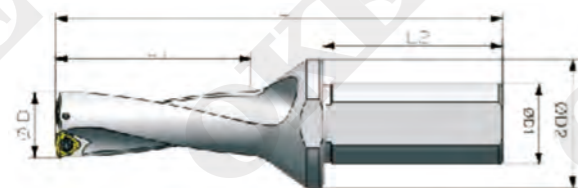
基本尺寸 Dimensions(mm)

型号 Type	D	ΦD <sub>1</sub>	ΦD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L
UDR01-D42-W40-4X	42	40	60	174	70	284
UDR01-D43-W40-4X	43	40	60	178	70	288
UDR01-D44-W40-4X	44	40	60	182	70	292
UDR01-D45-W40-4X	45	40	60	186	70	296
UDR01-D46-W40-4X	46	40	60	190	70	300
UDR01-D47-W40-4X	47	40	60	194	70	304
UDR01-D48-W40-4X	48	40	60	198	70	307
UDR01-D49-W40-4X	49	40	60	202	70	312
UDR01-D50-W40-4X	50	40	60	206	70	316

### 刀具附件 Accessories

适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
SPGT050204-OPM	13-16	L60 M2 × 4.3	T06
SPGT060204-OPM	17-21	L60 M2.2 × 5.5	T07
SPGT07T308-OPM	22-27	L60 M2.5 × 6.5	T08
SPGT090408-OPM	28-33	L60 M3.5 × 8	T15
SPGT110408-OPM	34-41	L60 M4 × 10	T15
SPGT140512-OPM	42-50	L60 M5 × 13	T20

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



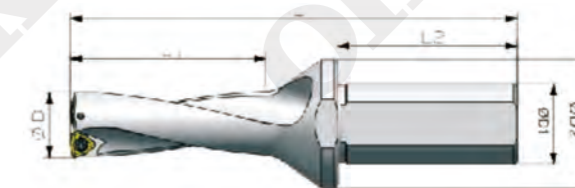
B

型号  
Type

基本尺寸 Dimensions(mm)

型号 Type	$\Phi D$	$\Phi D_1$	$\Phi D_2$	$L_1$	$L_2$	L
UDR02-D16-W25-3X	16	25	32	52	56	129
UDR02-D17-W25-3X	17	25	32	55	56	133
UDR02-D18-W25-3X	18	25	32	58	56	137
UDR02-D19-W25-3X	19	25	32	61	56	140
UDR02-D20-W25-3X	20	25	32	64	56	143
UDR02-D21-W25-3X	21	25	32	67	56	153
UDR02-D22-W25-3X	22	25	32	70	56	156
UDR02-D23-W25-3X	23	25	32	73	56	159
UDR02-D24-W25-3X	24	25	32	76	56	162
UDR02-D25-W25-3X	25	25	32	79	56	165
UDR02-D26-W32-3X	26	32	40	83	60	176
UDR02-D27-W32-3X	27	32	40	86	60	180
UDR02-D28-W32-3X	28	32	40	89	60	184
UDR02-D29-W32-3X	29	32	40	92	60	188
UDR02-D30-W32-3X	30	32	40	95	60	192
UDR02-D31-W40-3X	31	40	50	98	70	203
UDR02-D32-W40-3X	32	40	50	101	70	206
UDR02-D33-W40-3X	33	40	50	104	70	209
UDR02-D34-W40-3X	34	40	50	107	70	212
UDR02-D35-W40-3X	35	40	50	110	70	215
UDR02-D36-W40-3X	36	40	50	113	70	218
UDR02-D37-W40-3X	37	40	50	116	70	221
UDR02-D38-W40-3X	38	40	50	119	70	225
UDR02-D39-W40-3X	39	40	50	122	70	228
UDR02-D40-W40-3X	40	40	50	125	70	231
UDR02-D41-W40-3X	41	40	50	128	70	234
UDR02-D42-W40-3X	42	40	60	131	70	239
UDR02-D43-W40-3X	43	40	60	134	70	242
UDR02-D44-W40-3X	44	40	60	137	70	245
UDR02-D45-W40-3X	45	40	60	140	70	248
UDR02-D46-W40-3X	46	40	60	143	70	251
UDR02-D47-W40-3X	47	40	60	146	70	253

## 可转位浅孔钻 Indexable Drilling Inserts Tool Holder



A

B

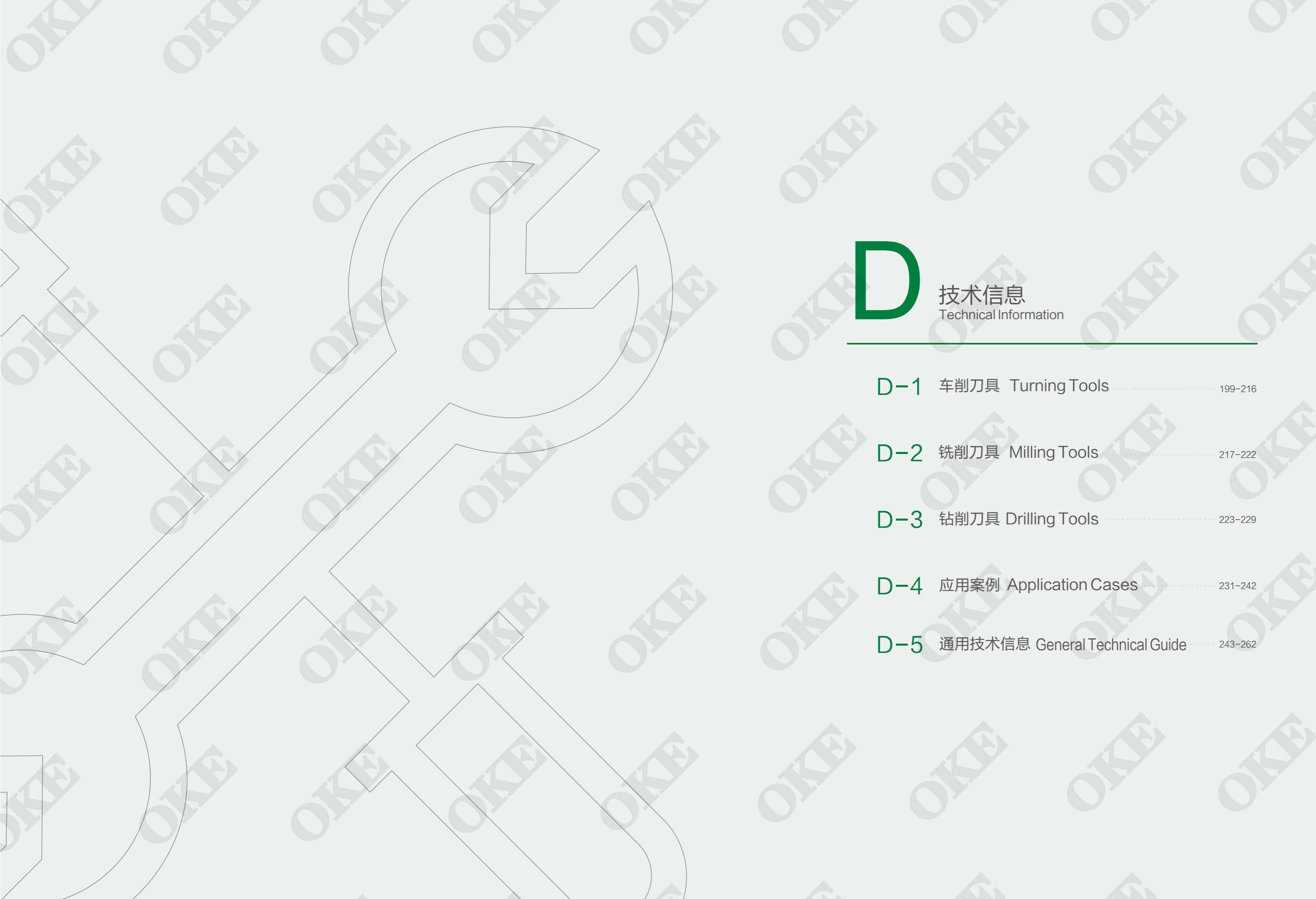
型号  
Type

基本尺寸 Dimensions(mm)

型号 Type	D	$\Phi D_1$	$\Phi D_2$	$L_1$	$L_2$	L
UDR02-D48-W40-3X	48	40	60	149	70	255
UDR02-D49-W40-3X	49	40	60	152	70	257
UDR02-D50-W40-3X	50	40	60	155	70	259
UDR02-D51-W50-3X	51	50	60	158	70	261
UDR02-D52-W50-3X	52	50	60	161	70	263
UDR02-D53-W50-3X	53	50	60	164	70	265
UDR02-D54-W50-3X	54	50	60	167	70	267
UDR02-D55-W50-3X	55	50	60	170	70	269
UDR02-D56-W50-3X	56	50	60	173	70	271
UDR02-D57-W50-3X	57	50	60	176	70	273
UDR02-D58-W50-3X	58	50	60	179	70	275

### 刀具附件 Accessories

适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
WCMX030208-ZK	16-20	L60 M2.5 × 6.5	T08
WCMX040208-ZK	21-25	L60 M2.5 × 6.5	T08
WCMX050308-ZK	26-30	L60 M3 × 8	T10
WCMX06T308-ZK	31-41	L60 M3.5 × 8	T15
WCMX080412-ZK	42-58	L60 M4 × 10	T15



# D

## 技术信息 Technical Information

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# D-1

技术信息  
Technical Information

车削刀具 Turning Tools

## 普通车削刀片牌号与槽型推荐组合

Recommend Collocation of General Turning Grades and Chip Breakers

	P类加工 ISO P Steel	M类加工 ISO M Stainless Steel	K类加工 ISO K Cast Iron	S类加工 ISO S Cast Iron
精加工 Finishing	OPF — OC2115	OMF — OP1215 — OP1315		SMM — OP1105
	OTF — OC2115	OTF — OP1215 — OP1315		OP6215
		MSF — OP1215 — OP1315	OKM — OC3210	
半精加工 Semi Finishing	OPM — OC2125	MF — OP1215 — OP1315	OC3215	
	OC2325	OMM — OC4315 — OP1215	通槽 General chip breaker — OC3210	
	OC2325S	OP1315	OC3215	OSM — OP1105
	OTM — OC2125	OTM — OP1215 — OP1315		OP6215
粗加工 Roughing	OC2325		OKR — OC3215	
	OC2325S		OC3220	
	OPR — OC2125		无槽 Flat (None chip breaker) — OC3215	
	OC2325S		OC3220	
	OTR — OC2125			
	OC2325			
	OC2325S			

## 车削刀片推荐切削用量

Recommended Cutting Parameters on Different Grades

ISO	P类 IOS P		
加工材料 Materials	碳素钢 Carbon steel	合金钢 Alloy steel	调质钢 Hardened and tempered steel
硬度 Hardness	HB120-180	HB180-240	HB240-350

ISO	M类 IOS M	
加工材料 Materials	奥氏体 Austenite	马氏体 Martensite
硬度 Hardness	HB120-200	HB330

ISO	K类 IOS K	
加工材料 Materials	灰口铸铁 Grey cast Iron	球墨铸铁 Nodular cast Iron
硬度 Hardness	HB150-220	HB140-220

ISO	N类 IOS N
加工材料 Materials	铝合金 Aluminium alloy
硬度 Hardness	HB60

## 车削刀片推荐切削用量

Recommended Cutting Parameters on Different Grades

材料 Materials	牌号 Grade	OC2015	OC2025	OC2115	OC2125
碳素钢 Carbon steel	速度 Vc(m/min)	450-200	430-180	480-260	460-240
合金钢 Alloy steel		320-140	300-130	340-150	330-150
调质钢 Hardened and tempered steel		200-80	190-70	220-80	210-70

材料 Materials	牌号 Grade	OC4015	OC4025	OC4225	OP1205
奥氏体 Austenite	速度 Vc(m/min)	200-100	190-90	210-110	220-100
马氏体 Martensite		200-140	210-130	220-140	260-170

材料 Materials	牌号 Grade	OC3015	OC3115D	OC3215
灰口铸铁 Grey cast Iron	速度 Vc(m/min)	280-160	400-190	380-200
球墨铸铁 Nodular cast Iron		280-140	300-150	220-110

牌号 Grade	OK434			
速度 Vc(m/min)	900-400			

# 车削加工常见问题及解决方案

Common Problems and Solutions for Turning

常见问题		原因	解决办法	刀具材料		切削条件			刀具形状					机床装夹				
				硬度更高的材料	韧性更好的材料	切削速度	进给	切深	切削液	改变刀片槽型	前角	刀尖圆弧半径	主偏角	切削刃强度	提高刀片精度	提高刀柄刚性	工件刀柄装夹	刀柄悬伸
刀尖磨损过大	加工中精度超标	后刀面磨损增大	○															
		切削条件不适合			↓	↑												
表面精度恶化	表面质量差	刀具磨损增大、刀刃不够锋利	○		↓				↑	↑	↓	○						
		切削刃缺损		○		↓	↓			○	↑	↑			○	○	○	
		切削刃几何形状不合适								○	↑	↓	○					
		切削条件不适合			↑	↓	↓	○										
		振动、发颤		○	↑↓	↓	↓	○	○	↑	↓	↑	↓		○	○	○	○
		积屑瘤			↑	↑		○	○	↑		↓	○					
发热	切削热的影响	切削条件不适合			↓	↓	↓											
		切削刃几何形状不适合	○						○	↑		↓						
尺寸精度差	加工中尺寸波动	刀片精度不适合										○						
		工件、刀具位置偏移							○	↑	↓	↑		○	○	○	○	
刀具切削刃损伤	后刀面前刀面磨损增大	后刀面磨损	○		↓				○	↑	↑	↓						
		前刀面磨损	○		↓	↓	↓		○	↑	↓							
	微崩		○		↓	↓		○		↓	↑		○	○	○	○		
	积屑瘤			↑	↑		○	○	↑		↓	○						
	热龟裂			↓	↓	↓	○	○	↑		↓							
	切削刃刀尖部分变形		○		↑	↓	↓	○	○	↑	↑	↓	↓					
	刀具寿命		○		↓	↓		○	↑	↓	↑		○	○	○	○		
切屑控制	长切屑缠绕	切削条件不适合			↓	↑	↑	○										
		刀刃几何形状不合适						○		↓	↑							
	切削太短、导致飞溅	切削条件不适合				↓	↓	○										
		刀刃几何形状不合适						○		↑	↓							
毛刺、塌边	钢、铝产生毛刺	切削条件不适合			↑	↓		○										
		刀具磨损、几何形状不合适	○					○	↑	↓	↑	↓						
	铸铁、塌边	切削条件不适合			↓	↑		○										
		刀具磨损、几何形状不合适	○					○	○	↓	↓	↓						
	软钢、毛边	切削条件不适合				↓	↓											
刀具磨损、几何形状不合适	○					○	↑	↑	↑			○	○	○	○			

# 车削加工常见问题及解决方案

Common Problems and Solutions for Turning

FAQ		Reason	Solutions		Cutting Conditions			Tool Shape					Setting/Machine					
			Harder Grade	Tougher Grade	Vc	Fn	Ap	Coolant	Chip Breaker Review	Rake Angle	Corner Radius	Setting Angle	Edge Strength	Higher Tolerance	Change to Rigidly	Toolholder Installation	Workpiece/Tool Overhang Length	Power, Rigidity
Too Much Vibration	Accuracy Out Tolerance	Wear Increase at Flank Wear	○															
		Unsuitable Cutting Conditions			↓	↑												
Surface Accuracy Deterioration	POOR Roughness	Tool weariness Increasing, Cutting Edge not Sharp	○		↓				○		↑	↑	↓	○				
		Cutting Edge Chipping		○			↓	↓		○	↑	↑	↑		○	○	○	
		Unsuitable Geometry								○	↑	↓	↓	○				
		Unsuitable Cutting Conditions			↑	↓	↓	○										
		Vibration, Chattering		○	↑↓	↓	↓	○	○	↑	↓	↑	↓		○	○	○	○
		Built-up Edge			↑	↑		○	○	↑		↓	↓	○				
		Unsuitable Cutting Conditions				↓	↓	↓										
Heat	Cutting Heat Factors	Unsuitable Cutting Conditions			↓	↓	↓											
		Unsuitable Geometry	○						○	↑	↓	↓						
Deterioration of Accuracy	Variation of Dimension	Unsuitable Insert Accuracy												○				
		Position Offset of Workpiece and Tool							○	↑	↓	↑			○	○	○	
Edge Damage	Wear Increase at Relief Face	Flank Wear	○		↓						○	↑	↑	↓				
		Rake Face Wear	○		↓	↓	↓			○	↑	↓						
	Chipping		○			↓	↓			○		↓	↑	○	○	○		
	Built-up Edge			↑	↑		○	○	↑		↓	↓	○					
	Comp Cracks	Unsuitable Tool's Material and Cutting Condition to Workpiece Material			↓	↓	↓	○	○	↑		↓						
	Edge Nose Deformation	Interrupted Cutting	○		↑	↓	↓	○	○	↑	↑	↓	↓					
	Tool Life	Unsuitable Material and Cutting Condition	○			↓	↓			○	↑	↓	↑	○	○	○		
Chip Control	Long, Tangling Chips	Unsuitable Cutting Conditions			↓	↑	↑											
		Unsuitable Material and Cutting Conditions								○		↓	↑					
	Chips Scattering	Unsuitable Cutting Conditions				↓	↓	○										
Unsuitable Geometry on cutting edge								○		↑	↓							
Burs Turned-down Edge	Steel, Aluminum-Burr	Unsuitable Cutting Conditions			↑	↓		○										
		Insert Wear, Unsuitable Geometry	○						○	↑	↓	↑	↓					
	Iron Cast, Turned-down Edge	Unsuitable Cutting Conditions			↓	↑		○										
Insert Wear, Unsuitable Geometry	○						○	○	↓	↓	↓							
Soft Steel, Turned-down Edge	Unsuitable Cutting Conditions					↓	↓											
		Insert Wear, Unsuitable Geometry	○						○	↑	↑	↑		○	○	○		




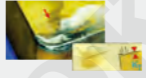



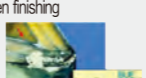

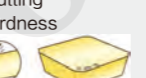
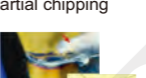
# 刀具磨损及解决方案

Tool Wear and Solution

刀具磨损/破损形式	现象	原因	解决方案
后面磨损	切削阻力增加，后刀面逐渐形成沟槽磨损。表面质量变差或尺寸超差。 	刀具材料过软 切削速度过高 后角过小 进给量太小	选用高耐磨性刀具材料 降低切削速度 增大后角 加大进给量
前刀面磨损（月牙洼磨损）	断屑控制不好，精加工表面恶化，高速加工碳钢的情况下出现。 	刀具材料过软 切削速度过高 进给量太大 槽型强度太小	选用高耐磨性刀具材料 降低切削速度 降低进给量 选用强度更大的刀片槽型
崩刃	突发性崩刃（前后刀面），刀具寿命不稳定。 	刀具材料过硬 进给量大 切削刃强度不足 刀杆、刀柄刚性不足	先用韧性好的刀具材料 降低进给量 加大刀口修磨量（倒棱改倒圆） 加大刀具刚性和主偏角
刀片破裂	切削阻力增加表面粗糙度恶化。 	刀具材料过硬 进给量大 切削刃强度不足 刀杆、刀柄刚性不足	选用韧性好的刀具材料 降低进给量 加大刀口修磨量（倒棱改倒圆） 改善工件及刀具刚性
塑性变形（刀刃塌下）	工件尺寸变化，刀尖磨损，刀刃折皱或纯化加工合金钢产生。 	刀具材料过软 切削速度过高 切削深度、进给量太大 切削刃温度过高	选用高耐磨性刀具材料 降低切削速度 减小切削深度进给量 选用导热系数高的刀具材料（CVD和充分的切削液）
积屑瘤（粘结）	工件材料溶结到刀具切削刃精加工表面恶化，切削阻力增加，加工软性材料。 	切削速度低， 切削刃不锋利， 刀具材料不适合。	提高切削速度 增大前角 选用亲和力小的刀具材料（涂层、金属陶瓷等）
热龟裂	由于热循环而崩损（多出现在铣削和断续切削） 	刀具材料过硬， 切削热引起的膨胀与收缩（冷热循环）	干式切削或提供充足冷却液 选用韧性好更抗热冲击力的刀具材料
剥落	多出现在高硬度材料、有振动的切削 	切削刃上粘结 切屑排出不畅	增大前角使切削刃锋利 增大刀片容屑槽。
切深处沟槽磨损	切深处的局部失效，局部崩刃，局部月牙洼。 	加工硬化材料、氧化皮、高温合金等	选用高耐磨性的CVD涂层材质 采用锥形切削（变切深） 减少主偏角

# 刀具磨损及解决方案

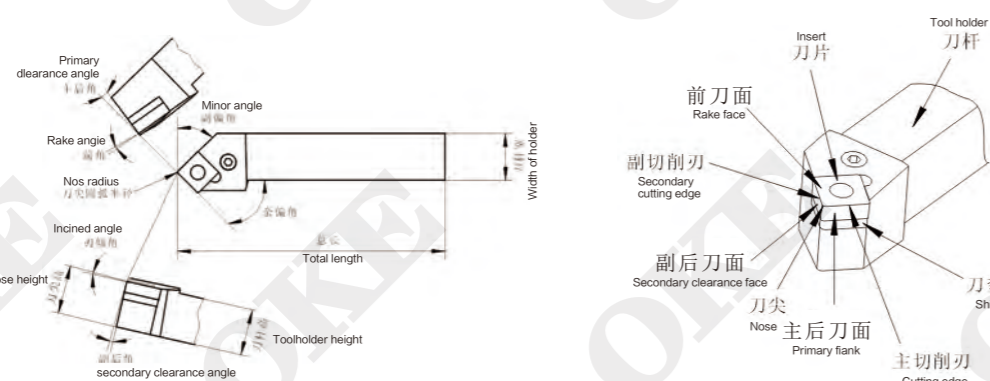
Tool Wear and Solution

Tool Wear Types	Situation	Reason	Solutions
<b>Flank Wear</b>	Higher cutting resistance Notch wear on flank Poor roughness of surface or deterioration of accuracy. 	Soft grades Excessive cutting speed Small flank angle Low feed	Select a higher wear-resistant grade Reduce cutting speed Increase flank angle Increase feed
<b>Crater Wear</b>	Uncontrolled chip Poor surface quality when finishing High speed processing carbon steel 	Soft grades Excessive cutting speed Excessive feed The strength of chip breaker Insufficient	Change to a higher wear-resistant grade Reduce cutting speed Reduce feed Select a higher strength chip breaker
<b>Chipping</b>	Sudden fracture of cutting edge (rake face and flank) Instability insert life 	Toughness insufficient Excessive feed rate Strength of cutting edge insufficient Instability of the tool	Select a tougher grade Decrease feed rate Increase honing of cutting edge (chamfering to rounding) Increase the stability and setting angle
<b>Insert Fracture</b>	Cutting resistance increased Poor surface roughness 	Toughness insufficient Excessive feed rate Strength of cutting edge insufficient Instability of the tool	Select a tougher grade Decrease feed rate Increase honing of cutting edge (chamfering to rounding) Increase the stability and setting angle
<b>Plastic Deformation</b>	Variation of dimension Nose wear, cutting edge drape or passivating when processing alloy steel Poor surface roughness 	Soft grade Excessive cutting speed Excessive cutting depth and feed rate Overheat on cutting edge	Select a higher red hardness cutting material Decrease cutting speed Decrease cutting depth and feed rate Select a higher thermal conductivity cutting material(CVD+sufficient coolant)
<b>Build-Up-Edge</b>	Workpiece dissolve with Cutting edge Poor surface roughness when finishing Cutting resistance increased Cutting soft materials 	Cutting speed too low Cutting edge obtuse Unsuitable tool material	Increase cutting speed Increase rake angle Select small sticking force
<b>Thermal Crack</b>	Crack by heat cycle (often happen in milling and interrupted cutting) 	Toughness of tool grade insufficient Swell and shrink by cutting heat(cold-thermocycling)	Cutting without coolant/Sufficient coolant Select a tougher and more thermal shock resistance grade
<b>Flaking</b>	Often in instability cutting and cutting high-hardness materials 	Build-up edge Uncontrolled chip	Increase rake angle Increase chip breaker
<b>Notch Wear</b>	Notch partial failure Partial chipping Partial cratering 	Processing hardened material, oxide-scale, superalloy	Select a higher wear-resistance CVD grade Adopt taper cutting (variable cutting depth) Decrease setting angle

# 车削刀具各部分作用

The Names of Each Part of Turning Tool

## 一、车刀各部分的名称 Names of Turning Holder Parts



## 二、前角的影响 Effects of Rake Angle

前角增大使切削刃锋利，切屑流出阻力小，摩擦力小，切削变形小，因此切削力和切削功率小，切削温度低，刀具磨损小，加工表面质量高。但过大前角使刀具的刚性和强度降低，热量不易传散，刀具磨损和破损严重，刀具寿命低。在确定刀具前角时，应根据加工条件考虑选择。

Larger rake angle makes cutting edge sharper. reduces resistant forces of chip flow. diminishes friction and prevent deformation. leading to smaller, less abrasion and higher surface quality. However, too large rake angle would reduce the rigidity and strength of tool. Heat can't be diffused easily, Serious breakage and abrasion on tool would occur, reducing too life. Please choose rake angle according to machining conditions.

选值 Value selection	具体情况 Situations
小前角 Small rake angle	1.加工脆性材料和硬材料时 When machining brittle and hard materials; 2.粗加工和断续切削时 When roughing and interrupted cutting
大前角 Big rake angle	1.加工塑性材料和软材料时 When machining Plastic or soft materials; 2.精加工时 When finishing;

# 车削刀具各部分作用

The Names of Each Part of Turning Tool

## 三、后角的影响 Effects of Clearance Angle

后角在加工中的主要作用是减小刀具后刀面与加工表面的摩擦。当前角固定时，后角的增大能增大刀刃的锋利程度，切削力减小，摩擦减小，故加工表面质量高；但是过大的后角使切削刃强度降低，散热条件差，磨损量大，因此刀具寿命降低。

后角选择原则是：在摩擦不严重的情况下，选择较小的后角。

The main function of clearance angle to reduce the friction between the clearance face of tool and the surface of workpiece. When the rake angle is fixed, larger clearance angle can increase and the achieve higher surface quality. However, if clearance angle is too large, the strength of cutting edge would decrease. Also, heat can't be diffused easily and serious abrious would occur, reducing tool life.

The principle of choosing clearance angle: Choose small clearance angle if friction is not serious

选值 Value selection	具体情况 Situations
小后角 Small clearance angle	1.粗加工时为提高刀尖强度 In order to increase nose strength when roughing 2.加工脆性材料和硬材料时 When machining brittle and hard materials
大后角 Large clearance angle	1.精加工时为了减少摩擦 In order to reduce friction when finishing 2.加工易产生硬化层的材料时 When machining materials easy to be hardened;

## 车削刀具各部分作用

The Names of Each Part of Turning Tool

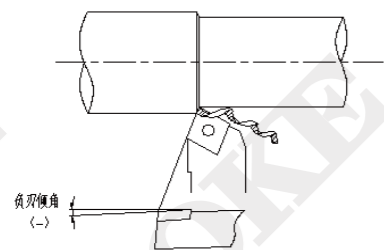
### 四、刃倾角的作用 Effects of Inclined Angle

刃倾角的正负决定了切屑的排出方向，还影响刀尖强度和抗冲击性能。

Positive or negative inclined angle determines the direction of chip flow, and also affects the strength and impact resistance of insert nose.

(1)如下图所示，当刃倾角为负时，即刀尖相对于车刀的底平面处于最低点，切屑流向工件已加工表面。

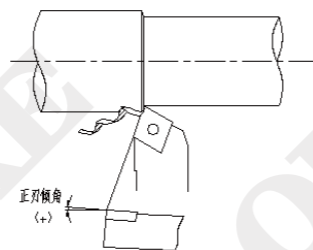
As diagram(1) shows, when the inclined angle is negative, namely nose is in the lowest point as apposed to the bottom of tool, chips flow to the machined surface of workpiece.



Negative inclined angle

(2)如下图所示，当刃倾角为正时，即刀尖相对于车刀的底平面处于最高点，切屑流向工件未加工表面。

As diagram(2) shows, when inclined angle is positive, namely the nose is in the highest point as apposed to the bottom of the tool, chips flow to the areas of workpiece surface that haven't been machined.



Positive inclined angle

刃倾角的变化还能影响刀尖的强度和抗冲击性能。当刃倾角取负值时，刀尖在切削刃的最低点，切削刃切入工件时，切入点在切削刃或前刀面，保护刀尖免受冲击，增强刀尖强度。一般大前角刀具通常选用负的刃倾角，既可增强刀尖强度，又可避免刀尖切入时产生的冲击。

The change of inclined angle also affects insert nose strength and impact resistance. When the inclined angle is negative, the nose is in the lowest point of cutting edge. When the cutting edge enters the workpiece, the contacting point is on the cutting edge or rake face, protecting the nose from impact and increase the strength of the nose. Normally, negative inclined angle should be chosen for tools with big rake angle. This can not only increase nose strength, but also prevent the impact of entry.

## 车削刀具各部分作用

The Names of Each Part of Turning Tool

### 五、主偏角的影响 Effects of Approach Angle

减小主偏角可以使刀具强度提高，散热条件好，加工表面粗糙度小。这是因为主偏角小时，切削宽度长，故单位切削刃长度上受力小。同时主偏角减小能提高刀具的寿命。

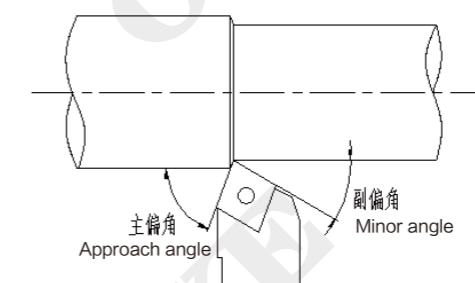
Reduces approaching angle increases the strength of tools and enable heat to diffuse easily, improving surface quality. This is because when the approach angle is small, cutting edge width is large, and then the unit width of cutting edge bears less cutting force. Meanwhile, tool life can be improved.

通常，在车细长轴和阶梯轴时，选90°主偏角；在车外圆、端面和倒角时，选45°主偏角。

增大主偏角，径向分力减小，切削平稳，切削厚度增大，断屑性能好。

Normally, select 90° approach angle for turning of slender and step shaft; select 45° approach angle for external turning. End surface machining and chamfering. When approach angle is larger, radial force is reduced, cutting is stable, cutting thickness is increased, and chip breaking is excellent.

选值 Value selection	具体情况 Situations
小主偏角 Small approach	高强度、高硬度和表面有硬化层的材料 For those materials with high intensity, high hardness and hardened layer on the surface
大主偏角 Big approach angle	机床刚性不足时 When rigidity of the machine is not enough



主偏角 Approach angle  
副偏角 Minor angle

## 车削刀具各部分作用

The Names of Each Part of Turning Tool

### 六、副偏角的影响 Effects of Minor Angle

副偏角是影响表面粗糙度的主要角度，它的大小也影响刀具强度。过小的副偏角，会增加副后面与已加工表面间摩擦，引起振动。副偏角的选择原则是，在粗加工或者不影响摩擦和产生振动的条件下，应选取较小的副偏角；在精加工时可选择较大的副偏角。

Minor angle is the main angle that can affect surface quality, and it can also affect tool strength. If the approach angle is too small, the friction between the secondary flank and machined surface of workpiece will increase, causing vibration.

The principle of selecting minor angle: Select small minor angle when roughing or when the friction is unaffected and is on vibration. Select large minor angle when finishing.

### 七、刀尖圆弧半径 Nose Radius

刀尖圆弧半径对刀尖强度及加工表面粗糙度影响很大。

刀尖圆弧半径大，切削刃强度增大，刀具前、后刀面磨损可以在某种程度上减小。但刀尖圆弧半径过大时，径向切削力增加，易产生振动，影响加工精度和工件表面粗糙度。

Nose radius significantly affects nose strength and surface quality. Large nose radius means higher cutting edge strength, and the abrasion on the rake face and clearance face can be reduced to some extent. However, if the nose radius is too large, radial force will increase, and vibration is easy to occur, affecting machining precision and surface quality.

选值 Value selection	具体情况 Situations
小的刀尖圆弧半径 Small nose radius	1. 小切深的精加工 Finishing at small cutting depth 2. 加工细长轴类零件 Machining parts such as slender shaft 3. 机床刚性不足时 When the rigidity of the machine is not enough
大的刀尖圆弧半径 Large nose radius	1. 粗加工时 When roughing / When machining hard 2. 加工硬材料，断续切削时 materials (intermittent cutting) 3. 机床刚性好时 When the rigidity of the machine is not enough

## 车削加工参数计算方法

Tool Wear and Solution

### 一、切削速度的计算 Calculation of Cutting Speed



$$V_c = \frac{\pi \times D \times n}{1000} \text{ (m/min)}$$

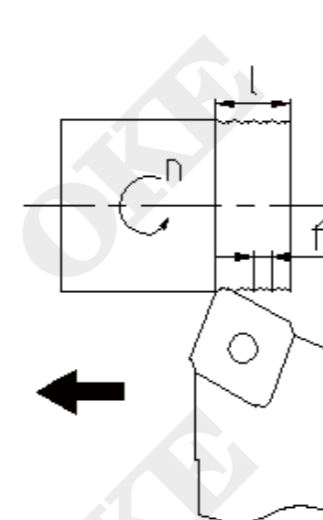
式中：V<sub>c</sub>：切削速度(m/min)  
n：主轴转速(rev/min)  
D：工件直径(mm)

例如：主轴转速为280rev/min，切削直径为150mm的工件，其切削速度为：

In the formula: V<sub>c</sub>: Cutting speed(m/min)  
n: Rotating speed of main axle (rev/min)  
D: Diameter of workpiece(mm)  
For example: When the rotating speed is 280rev/min and the diameter of workpiece is 150mm, the cutting speed should be:

$$V_c = \frac{\pi \times D \times n}{1000} = \frac{3.14 \times 150 \times 280}{1000} = 132 \text{ (m/min)}$$

### 二、进给量的计算 Calculation of Feed Rate



$$f = \frac{l}{n} \text{ (mm/rev)}$$

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500rev/min，每分钟切削长度为100mm/min，其每转进给量为：

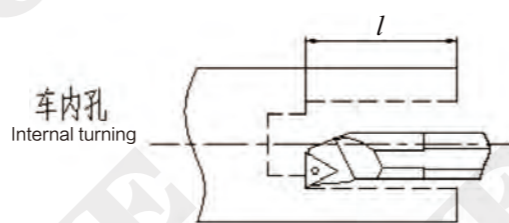
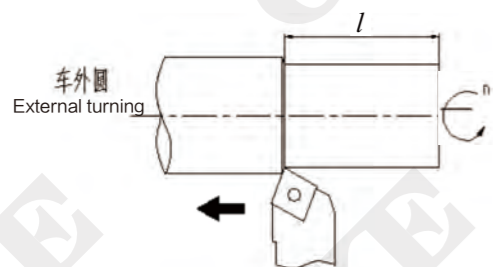
In the formula: f: Feed rate per rotation(mm/rev)  
L: Cutting length per minute(mm/min)  
N: Rotating speed of main axle(rev/min)  
For example: When the rotating speed of main axle is 500rev/min, and the cutting length per minute is 100mm/min, the feed rate per rotating should be:

$$f = \frac{l}{n} = \frac{100}{500} = 0.2 \text{ (mm/rev)}$$

## 车削加工参数计算方法

Tool Wear and Solution

### 三、外圆、内孔切削时间的计算 Cutting Time Calculation of External and Internal Turning



$$T = \frac{l}{f \times n} \text{ (min)}$$

式中: T: 切削时间(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250rev/min, 进给量为0.2mm/rev, 切削长度为150mm的工件所用时间:

$$T = \frac{l}{f \times n} = \frac{150}{0.2 \times 250} = 3 \text{ (min)}$$

In the formula: T: Cutting time(min)

L: length of machined areas(mm)

F: Feed rate(mm/rev)

N: Rotating speed of main axle(rev/min)

For example: When the rotating speed of main axle is 250rev/min, and the feed rate is 2.0mm/rev.the time needed for a cutting length of 150mm should be:

### 四、端面切削时间的计算 (恒线速) Time Calculation End Surface Turning (Constant Linear Speed)

$$T = \frac{\pi \times (a^2 - b^2)}{4000 \times V_c \times f} \text{ (min)}$$

式中: T: 切削时间(min)

Vc: 切削速度(m/min)

f: 进给量(mm/rev)

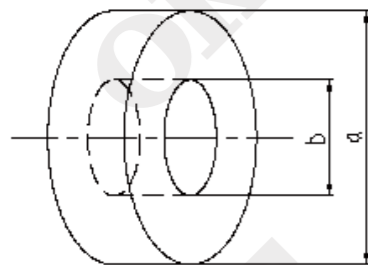
当所切削的端面无内孔时, b=0, 公式亦适用。

In the formula: T: Cutting time(min)

Vc: length of machined areas(mm)

F: Cutting speed

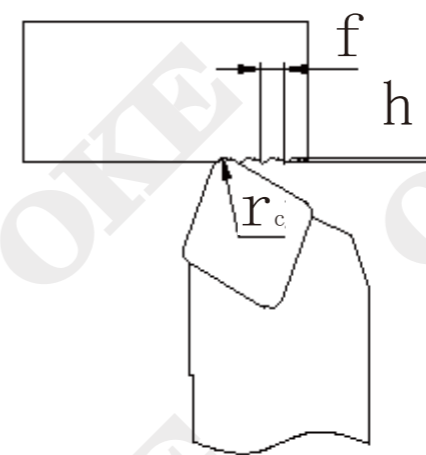
For end surface without hole, b=0, the formula is still Valid.



## 车削加工参数计算方法

Tool Wear and Solution

### 五、已加工表面粗糙度的理论值计算 The Oretical Value Calculation of Machined Surface Roughness



$$R = \frac{f^2}{8r_c} \times 1000 (\mu m)$$

式中: R: 已加工表面粗糙度理论值( $\mu m$ )

f: 进给量(mm/rev)

rc: 刀尖圆弧半径(mm)

例如: 进给量为0.2mm/rev, 刀尖圆弧半径为0.4mm时, 其已加工表面粗糙度理论值为:

In the formula: R: Theoretical roughness value of machined surface

F: Feed rate (mm/rev)

Rc: Nose radius(mm)

For example: When the feed rate is 0.2mm/rev, and the nose radius is 0.4mm, the theoretical roughness value of machined surface should be:

$$R = \frac{f^2}{8r_c} \times 1000 = \frac{0.2^2}{8 \times 0.4} \times 1000 = 12.5 (\mu m)$$

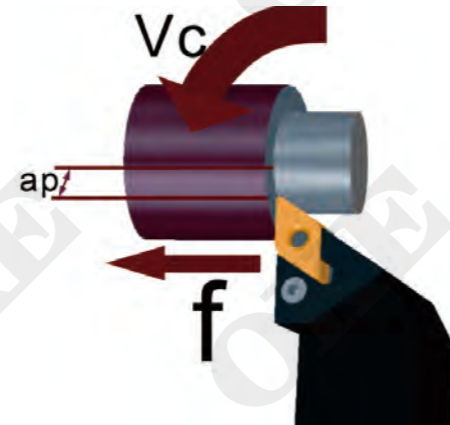
## 车削三要素对加工的影响

Tool Wear and Solution

### 三要素的影响 Effects of Three Main Parameters

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，必须充分考虑工件材料的材质、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。

Normally, short machining time, long tool life and high machining precision are expected in machining, so the material quality, hardness, and shape of the workpiece, and properties of machine should be fully considered and then we can select suitable tools and adopt high-efficiency cutting parameters, namely three parameters.



### 切削速度 ( $V_c$ ) Cutting Speed ( $V_c$ )

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。

When the workpiece is rotating on the machine, the number of its rotation per minute is defined as Rotating speed of main axle ( $n$ ). Because of its rotation, the cutting speed measured on the contacting point of diameter is defined as linear speed. m/min. Normally, linear, linear speed is considered to measure the effect of cutting speed on machining

### 切削速度的影响 Effect of Cutting Speed

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：

Cutting speed has significant effect in tool life. When the cutting speed is increased, cutting temperature will increase and tool life will be shortened. Cutting speed varies according to the different types and hardness of work-piece. The below conclusions are reached after many cutting experiments:

(1) 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。

(1) Normally tool life would be reduced to half when the cutting speed is increased by 20%. Tool life would be 20% of the original life if the cutting speed is raised by 50%.

(2) 低速 (20-40m/min) 切削易产生振动，使刀具寿命缩短。

(2) Low speed (20-40m/min) cutting could easily cause vibration and shorten tool life.

## 车削加工参数计算方法

Tool Wear and Solution

### 进给量 ( $f_n$ ) Feed Rate ( $f_n$ )

进给量是指工件每旋转一周，刀具的移动量，单位为毫米/转。

Feed rate is defined as the moving distance of tool after workpiece rotates for one circle, measured by mm/rotation.

### 进给量的影响 Feed Rate ( $f_n$ )

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。

Feed rate is a key factor that determines surface quality. Meanwhile it also affects the range of chip forming and the thickness of chips during machining.

In terms of the effect on tool life, small feed rate leads to serious abrasion on clearance face, reducing tool life.

### 切削深度 ( $a_p$ ) Cutting Depth ( $a_p$ )

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。

Cutting depth is defined as the difference between machined surface and unmachined surface. Measured by mm. It is half the difference value between the original diameter and machined diameter.

### 切削深度的影响 Effect of Cutting Depth

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，以避免刀具只切削工件的表面硬化层，造成刀具的异常磨损甚至破损。

Cutting depth should be determined by the machining allowance and shape of workpiece, power and rigidity of machine, and tool rigidity.

The change of cutting depth has little effect on tool life. If the cutting depth is too low, the cutting nose only scrapes the hardened layer on the workpiece surface, reducing tool life. When there is a hardened oxide layer on the workpiece surface, higher cutting depth should be adopted within the possible range of machine's power to avoid cutting only the hardened layer of the workpiece.

# D-2

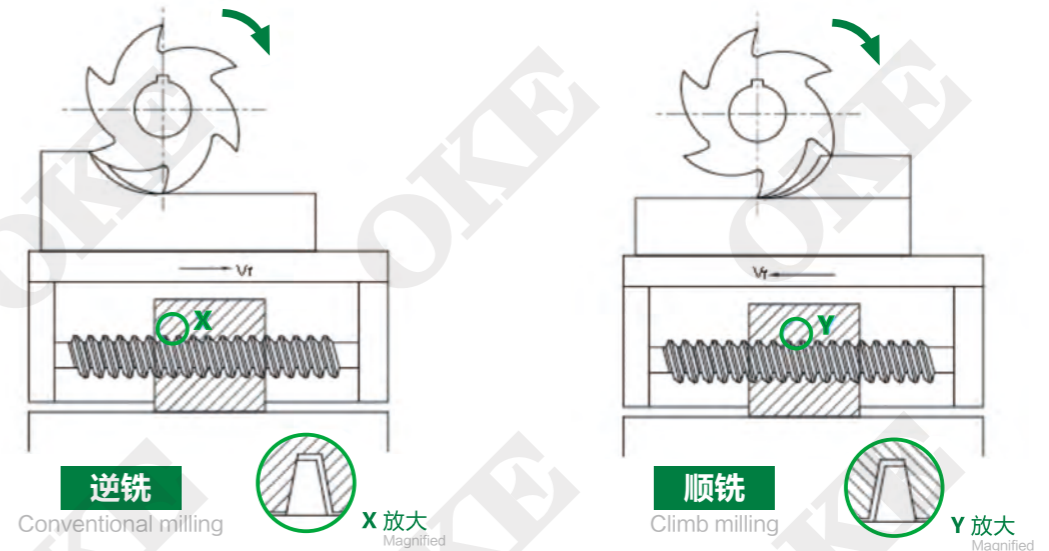
技术信息  
Technical Information

## 铣削刀具 Milling Tools

### 可转位铣削刀具技术信息

Technical Information About Indexable Milling Tools

#### 顺铣和逆铣的差别和选择 Difference and Selection Between Down Milling and Up Milling



逆铣：铣刀与工件接触部分的旋转方向与切削进给方向相反的铣削方式。

Conventional milling (also called up milling): the feed direction of workpiece is opposite to that of the milling rotation at the connecting position

顺铣：铣刀与工件接触部分的旋转方向与切削进给方向相同的铣削方式。

Climb milling (also called down milling): the feed direction of workpiece is the same as that of the milling rotation at the connecting position

顺铣时，切削刃主要受到的是压应力，逆铣时，切削刃受到的是拉应力。硬质合金材料抗压强度比抗拉强度大得多；顺铣时，切屑由厚变薄，刀刃与工件间相互挤压，刀齿与加工表面相对滑行时摩擦小，可减少刀齿磨损，减少加工表面硬化、减小表面粗糙度Ra值。逆铣时，切屑由薄变厚，刀片切入时产生强烈的摩擦、较顺铣产生更多的热量和使加工表面硬化。

逆铣时，由于铣刀作用在工件的水平切削力方向与工件进给方向相反，所以工作台丝杠与螺母的一个侧面紧密结合。而顺铣切削时切削力的方向与进给方向一致，当刀对工件的水平作用力大到一定程度时工作台会发生窜动，从而将间隙留在后侧，随着丝杠的继续转动，间隙又恢复到前侧。在这一瞬间工作台停止运动；当下次水平切削分力又大到一定程度时，工作台会再次窜动。工作台的这种周期性的窜动，将严重影响加工质量和损坏刀具。

使用立铣刀顺铣时，刀齿每次都是由工件表面开始切削，所以不宜用来加工有硬皮的工件。

铣削薄壁零件或精度较高的方肩铣采用逆铣。

In down milling, the major force of cutting edge is compressive stress, while in up milling the tensile stress. The compressive strength of cemented carbide material is much larger than its tensile strength. In down milling, as chips become thin from thick gradually, cutting edge and workpiece press against each other. The friction between edge and workpiece is small, thus reducing the abrasion of edge, the hardening of workpiece surface and the surface roughness (Ra). In up milling, chips become thick from thin gradually. When the insert is cutting into the workpiece, it produces strong friction and more heat than in down milling, and make workpiece surface hardened.

In up milling, because horizontal direction of cutting force milling cutter conducting on workpiece is opposite to the feed direction of workpiece, the lead screw of worktable joints closely with one side of the screw nut. In down milling, the direction of cutting force is the same as the feed direction. When edge's radial force on workpiece is large enough, the worktable will bounce left and right, thus make the gap fall behind. The gap will return to the front side with the continuing rotation of lead screw. At this moment the worktable stops motion, however, it will bounce left and right again when the radial cutting force is large enough again. The periodical bounce of worktable will cause poor surface quality of workpiece and tool breakage.

When using end mills for down milling, the edges always starts cutting at the workpiece surface, therefore end mills are not suitable for machining workpiece with hardened surface.

Up milling is recommended for milling thin-wall components or square milling with high requirement for precision.

# 刀具齿距的选择

## Pitch Selection

铣削刀具齿距是刃刀上某点和下一刀刀相同点之间的距离。铣削刀具分疏齿、密齿、超密齿。

Pitch is the distance between one point on one cutting edge and the same point on the next edge. Milling cutters are mainly classified into coarse, close and extra close pitches.

操作稳定性 Optimized stability		
L(低)	M(中)	H(高)
<p>疏齿 Coarse pitch</p> <p>不等齿距设计 unequal pitch design</p> 	<p>密齿 Close pitch</p> 	<p>超密齿 Extra close pitch</p> 
<p>切宽等于刀具直径时，加工系统稳定，机床主电机功率足够时，选择疏齿刀具，可得到高的生产效率 When the milling width is equal to diameter of cutter, the machining system is stable and main power of machine is sufficient, the use of coarse pitch can achieve high productive efficiency.</p>	<p>一般用途铣削和多种混合生产。 Used in general milling and multiple mixed productions.</p>	<p>切宽小于刀具直径时，以最多的刀刃来参与切削，可获得高的生产率。 When the milling width is less than diameter of cutter, cutting by maximum edges can achieve high productive efficiency.</p>

## 选择主偏角 Selection of Approach Angle

铣削刀具的主偏角是由刀片与刀体形成的，主偏角影响切削厚度、切削力和刀具寿命。在给定的进给率下，减小主偏角，则切削厚度会减小，可使切削刃在更大的切削范围内与工件接触。

较小的主偏角可使刀片更为平稳的步入或退出刀具表面，这有助于减少径向力、保护刀刃，并减少破损机率。但会增大轴向力，故不适用加工薄板类零件。

The approach angle is formed by insert and tool body. It affects chip thickness, cutting forces and tool life. Decreasing the approach angle reduces chip thickness and expands the cutting area between cutting edge and workpiece at a given feed rate.

A smaller approach angle also ensures stable entry into or exiting workpiece, protecting the cutting edge and extending tool life. However, this will increase axial cutting forces on the workpiece, thus is not suitable for machining thin workpiece such as thin plate.

主偏角 Approach angle	每齿进给量 Feed rate per tooth	实际最大切削厚度 Maximum chip stickiness
90°	$f_z$	$hex = f_z \times \sin \alpha$
75°	$f_z$	$hex = 0.96 \times f_z$
60°	$f_z$	$hex = 0.86 \times f_z$
45°	$f_z$	$hex = 0.707 \times f_z$
圆刀片	$f_z$	$hex = \frac{\sqrt{ic^2 \times (ic-2ap)^2}}{ic} \times f_z$

# 通用公式

## The Names of Each Part of Milling Tools

- $V_c$ : 切削速度(m/min)  
 $V_c$ : cutting speed(m/min)
- $f_z$ : 每齿进给量(mm/z)  
 $f_z$ : feed rate per tooth(mm/z)
- $Z_n$ : 刃数  
 $Z_n$ : number of teeth
- $f_r$ : 每转进给量(mm/rev)  
 $f_r$ : feed rate per revolution(mm/rev)
- $V_f$ : 工作台进给量(进给速度)(mm/min)  
 $V_f$ : feed rate of worktable(feed speed)(mm/min)
- $n$ : 主轴转速(rev/min)  
 $n$ : spindle speed
- $T_c$ : 加工时间(min)  
 $T_c$ : machining time(min)
- $L$ : 实际走刀距离(mm)  
 $L$ : Actual working distance(mm)
- $D_c$ : 铣刀公称直径(mm)  
 $D_c$ : nominal diameter of milling tool(mm)
- $\pi$ : 圆周率 $\approx 3.14$   
 $\pi$ : circumference ratio $\approx 3.14$
- $Q$ : 金属去除率( $cm^3/min$ )  
 $Q$ : metal removal rate( $cm^3/min$ )

切削速度 Cutting speed

$$V_c = \frac{\pi \times D_c \times n}{1000} \text{ (m/min)}$$

主轴转速 Spindle speed

$$n = \frac{1000 \times V_c}{\pi \times D_c} \text{ (rev/min)}$$

工作台进给量(进给速度)  
Feed rate of worktable(feed speed)

$$V_f = f_z \times n \times Z_n \text{ (mm/min)}$$

每齿进给量 Feed rate per tooth

$$f_z = \frac{V_f}{n \times Z_n} \text{ (mm/z)}$$

每转进给量 Feed rate per revolution

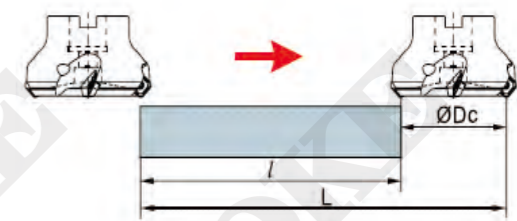
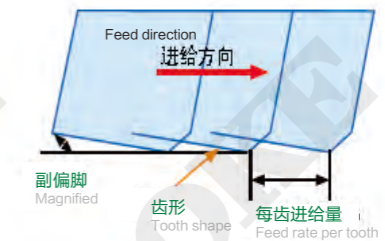
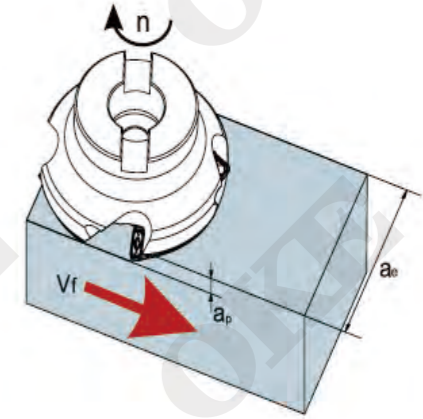
$$f_r = \frac{V_f}{n} \text{ (mm/rev)}$$

加工时间 Machining time

$$T_c = \frac{L}{V_f} \text{ (min)}$$

金属去除率 Metal removal rate

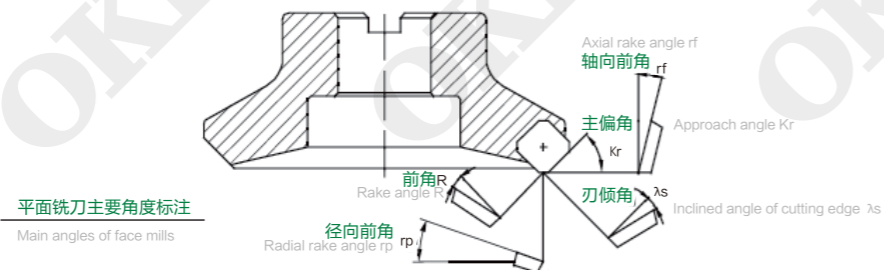
$$Q = \frac{ap \times ae \times V_f}{1000} \text{ (cm}^3/\text{min)}$$





# 铣削刀具各部分的作用

Function of Each Part in Face Milling



平面铣刀主要角度标注  
Main angles of face mills

## 平面铣刀主要角度标注 Main Angles of Face Mill

名称 Designation	作用 Function	效果 Effect
轴向前角 $r_f$ Axial rake angle $r_f$	决定排屑方向 Determining the chip direction	角度为负: 排屑性能好 Negative, excellent capability of chip removal
径向前角 $r_p$ Radial rake angle $r_p$	决定切削轻快与否 Determining whether the cutting is easy and fast or not	角度为正: 排屑性能好 Positive angle: good cutting performance
主偏角 $K_r$ Approach angle $K_r$	决定切屑厚度 Determining the chip thickness	$K_r \uparrow$ , 切削厚度 $\uparrow$ ; $K_r \downarrow$ , 切削厚度 $\downarrow$ $K_r \uparrow$ , chip thickness $\uparrow$ ; $K_r \downarrow$ , chip thickness $\downarrow$
前角 $R$ Rake angle $R$	决定切削轻快与否 Determining whether easy and fast the cutting is or not	切削性能差, 切削刃强度高 Poor cutting performance, High-strength cutting edge
刃倾角 $\lambda_s$ Inclined angle of cutting edge $\lambda_s$	决定排屑方向 Determining the chip flow direction	排屑性能差, 切削刃强度高 Poor capability of chip removal, High-strength cutting edge

## 不同前角的组合特征 Characteristics of Different Rake Angles Combined

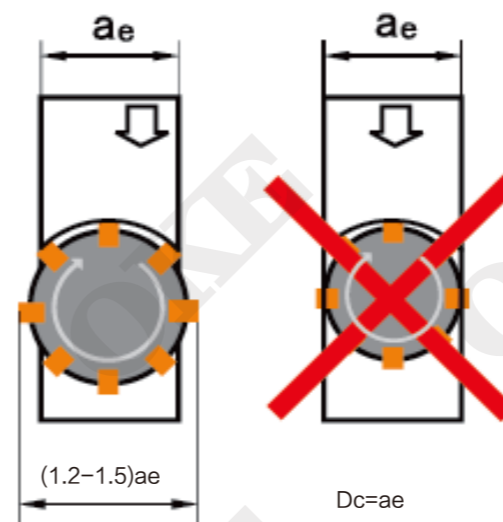
前角类型	示意图	双正前角 Double positive rake angle	双负前角 Double negative rake angle	一正一负前角 Positive and negative rake angle
负型前角 Negative rake angle				
零度前角 0° rake angle				
正型前角 Positive rake angle				
$r_f$ Axial rake angle $r_f$		+	-	+
$r_p$ Radial rake angle $r_p$		+	-	-
适合加工材料 Applicable material machined	P	✓		✓
	M	✓		✓
	K		✓	✓
	N	✓		
	S	✓		

# 不同主偏角的切削性能

Selection Method of Cutting Tools

主偏角 approach angle	45°	75°	90°
示意图 Schematic diagram			
说明 Instruction	轴向分力最大。加工薄壁零件时, 工件会发生扭曲, 导致加工件的精度下降; 加工铸铁时, 有利于防止工件边缘产生崩落。 Axial force is the largest, it will bend when machining thin-wall workpiece, reducing the precision of workpiece. It can help avoid fringe breakage of workpiece when machining cast iron	主要的为径向切削分力, 是平面铣削最常用的一种主偏角。 The main force is radial cutting force, it is often used in general face milling	理论上轴向分力为零, 适合于薄板件的铣削。 The axial is zero in theory, suitable for milling thin plate workpiece

## 面铣中切宽与刀具切削直径的选择 Selection of Cutting Width and Tool Cutting Diameter in Face Milling



一般来说, 切削宽度与刀具的切削直径与切宽的关系为:  $D_c = (1.2-1.5) a_e$ 。在实际加工中尽量避免刀具中心与工件中心重合

Generally speaking, the relation between cutting width and tool cutting diameter is  $D_c = (1.2-1.5) a_e$  in practical machining, same center line of tool center and work piece center should be avoided.

$D_c$ : 刀具切削直径  
 $a_e$ : 切削宽度  
Tool cutting diameter  
Cutting width

# D-3

## 技术信息 Technical Information

### 钻削刀具 Drilling Tools

## 可转位浅孔钻技术信息

### Drilling Application

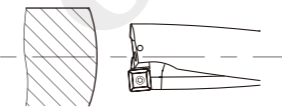
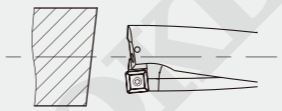
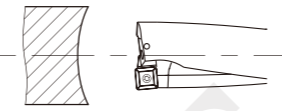

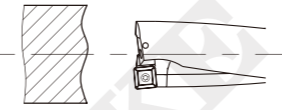
#### 钻头的钻入 initial Drill Penetration

钻头的钻入是钻削成功的重要因素。保证良好的孔质量的方法之一是保证工件的钻入表面与钻头的中心轴线垂直。

此外，可转位浅孔钻还可以通过调整进给，来加工凸的、凹的、倾斜的和不规则的钻入表面。

Initial drill penetration is an important factor for successful drilling. one way of ensuring good hole quality is to make sure the penetration surface of the workpiece is vertical to the drill centre axis.

In addition, an indexable drill can carry out initial penetration of convex, concave, inclined and irregular surfaces by adjusting rates.

加工表面情况 workpiece surface	应对措施 countermeasures
	<p>对于凸的表面，其加工条件相对较好，并且钻头能理想地首先与工件接触，因而可采用正常的进给。</p> <p>For a convex surface, the conditions are relatively good and the centre of the drill ideally makes contact with the workpiece first, thus normal feed can be adopted.</p>
	<p>被钻削的零件表面为倾斜表面，切削刃受到不均匀的负荷，会使切削刃过早的磨损。如果倾斜表面的角度超过<math>2^\circ</math>，进给应减小推荐值的1/3。</p> <p>When penetrating an inclined surface, the cutting edges will be unevenly loaded, which may result in the premature drill abrasion. if the angle of the inclined surface is larger than <math>2^\circ</math>, the feed should be reduced to 1/3 of the value recommended for the drill.</p>
	<p>在钻入凹的表面时，通常会造成钻头轴心偏离中心，对于这种情况进给应减小到推荐值的1/3。</p> <p>When drilling into non-symmetric curved surface, the drill tends to deviate from the centre because it is penetrating an inclined surface. the feed should be reduced to lower than the value recommended for the initial penetration of concave surface.</p>
	<p>在钻入不对称的曲面时，由于是钻入倾斜表面，所以钻头可能会偏离中心，此时进给的选择比钻入凹表面时应更小。</p> <p>When drilling into irregular surface, the insert faces the risk of chipping, which may also occur when drilling through the workpiece. therefore, the feed rate should be reduced. reduced to lower than the value recommended for the initial penetration of concave surface.</p>
	<p>在钻入不规则表面时，会出现刀片崩刃的危险，在开始钻削时心须减少进给量，同时在钻头钻通时也可能出现这种情况，因此也必须减小进给。</p> <p>When drilling into irregular surface, the insert faces the risk of chipping, which may also occur when drilling through the workpiece. therefore, the feed rate should be reduced</p>

# 浅孔钻加工相关参数计算方法

Calculations for Shallow Drilling

## 切削速度

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

V<sub>c</sub>(m/min): 切削速度  
D<sub>c</sub>(mm): 钻头直径  
n(rev/min): 转速

实例:  
主轴转速为 1600rev/min, 钻头直径为φ20mm, 其切削速度为:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100 \text{ (m/min)}$$

## 孔加工时间

$$T_c = \frac{l_d \times i}{n \times f}$$

T<sub>c</sub>(min): 加工时间  
f<sub>r</sub>(mm/rev) 每转进给量  
i: 孔数量 l<sub>d</sub>(mm): 钻孔深  
n (rev/min): 主轴转速

实例:  
钻一个直径为φ20mm, 深为 40mm 的孔, 切削速度为 100m/min, 每转进给量为 0.1mm/rev, 求钻孔时间:

$$n = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600 \text{ (rev/min)}$$

$$T_c = \frac{l_d \times i}{n \times f} = \frac{40 \times 1}{1600 \times 0.1} = 0.25 \text{ (min)}$$

## 进给速度

$$V_f = f_r \times n \text{ (mm/min)}$$

V<sub>f</sub>(mm/min): 进给速度  
f<sub>r</sub>(mm/rev): 每转进给量  
n(rev/min): 主轴转速

实例:  
主轴转速为 1500rev/min, 每转进给量为 0.1mm/rev, 其进给速度为:

$$V_f = f_r \times n = 0.1 \times 1500 = 150 \text{ (mm/min)}$$

## 金属去除率

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000}$$

Q(cm<sup>3</sup>/min): 金属去除率  
D<sub>c</sub>(mm): 钻头直径  
V<sub>f</sub>(mm/min): 进给速度

实例:  
一个直径为φ20mm 的钻头, 加工时的进给速度为 160mm/min, 其金属去除率为:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 50.24 \text{ (cm}^3/\text{min)}$$

## Cutting Speed

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

V<sub>c</sub>(m/min):cutting speed  
D<sub>c</sub>(mm):drill diameter  
n(rev/min):rotating speed

实例:  
Spindle speed is 1600rev/min, drill diameter is 20mm, thus cutting speed is:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100 \text{ (m/min)}$$

## Machining Time

$$T_c = \frac{l_d \times i}{n \times f}$$

T<sub>c</sub>(min):machining time  
f<sub>r</sub>(mm/rev)feed rate per revolution  
i:umber of holes l<sub>d</sub>(mm):drilling depth  
n (rev/min):spindle speed

实例:  
Drilling a hole with a diameter of 20mm and a depth of 40mm,cutting speed is 100m/min and feed rate per revolution is 0.1mm/rev.Calculate the drilling time.

$$n = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600 \text{ (rev/min)}$$

$$T_c = \frac{l_d \times i}{n \times f} = \frac{40 \times 1}{1600 \times 0.1} = 0.25 \text{ (min)}$$

## Feed Speed

$$V_f = f_r \times n \text{ (mm/min)}$$

V<sub>f</sub>(mm/min):feed speed  
f<sub>r</sub>(mm/rev):feed rate per revolution  
n(rev/min):spindle speed

实例:  
Example:spindle speed is 1500 rev/min, feed rate per revolution is 0.1 mm/rev, thus feed speed is:

$$V_f = f_r \times n = 0.1 \times 1500 = 150 \text{ (mm/min)}$$

## Metal Removal Rate

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000}$$

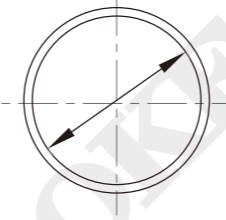
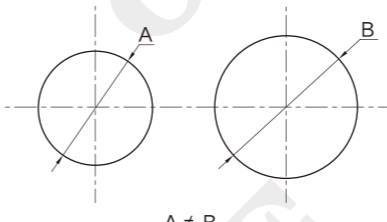
Q(cm<sup>3</sup>/min):metal removal rate  
D<sub>c</sub>(mm):drill diameter  
V<sub>f</sub>(mm/min):feed speed

实例:  
Example:drill diameter is 20mm, feed speed is 160mm/rev, thus metal removal rate is:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 50.24 \text{ (cm}^3/\text{min)}$$

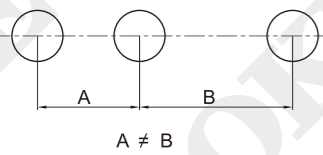
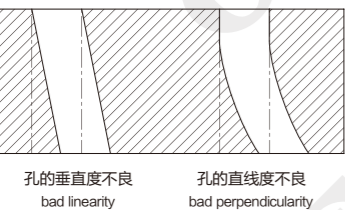
# 孔加工孔常见问题及解决方法

Common Problems and Solutions for Drilling

现象 Problem	原因 Cause	解决方法 Solution
孔径扩大Oversize holes 	钻头装夹不好 主轴本身跳动量过大 Poor clamping Large run-out around spindle	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时, 仔细测量与调整 Select the holder and chuch with high Precision calibrating spindle Check and adjust after clamping drill
顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center		修磨刀具 修磨后检查精度 Regrind drill Check the precision after clamping drill
孔径的一致性较差 Irregular hole size 	顶角不对称 钻头跳动过大 横刃偏心 刃带棱面磨损过大 Non-symmetric point angle Large run-out Chisel edge is off center Excessive margin abrasion	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时, 仔细测量与调整 Select the holder and chuch with high Precision Calibrating spindle Check and adjust after clamping drill
	钻头装夹不好 主轴本身跳动量大 工件装夹不牢固 Poor clamping Large run-out around spindle Workpiece is not firmly held	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时, 仔细测量与调整 Select the holder and chuch with high Precision Calibrating spindle Check and adjust after clamping drill
	进给量过大 Feed rate is too high	降低进给速度 Reduce the feed speed
	切削液供给不足 Coolant provide is not enough	改变切削液供给方法, 增加流量 Change the coolant supply method, Or increase coolant volume

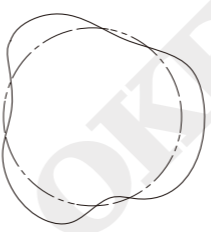
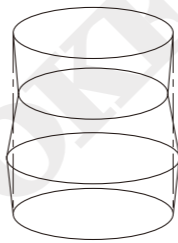
# 孔加工常见问题及解决方法

Common Problems and Solutions for Drilling

现象 Problem	原因 Cause	解决方法 Solution
孔的位置精度较差 Low position accuracy 	机床主轴重复定位精度低 钻头装夹不好 主轴本身跳动量大 Poor re-positioning of spindle Poor clamping Large run-out around spindle	提高机床重复定位精度 选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时, 仔细测量与调整 Improve the re-positioning precision of Machine select the holder and chuch With high precision Calibrating spindle Check and adjust after clamping drill
	被加工表面进给方向不垂直 The feed direction is not Vertical to the workpiece Surface	将被加工表面调整成与进给方向垂直 Adjust the feed direction vertical to The workpiece
	顶尖与轴心不重合(车床) Top center not align with the Spindle center	加工前仔细调整 Check and adjust alignment carefully Before drilling
直线度不良 垂直度不良 Bad linearity bad perpendicularity 	刀具磨损过大 Excessive margin abrasion	重新修磨 Regrind
	中心孔精度不好 Poor center hole accuracy	提高中心孔位置精度 Increase the position accuracy of hole
	顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Check the precision after regrinding
	钻头刚性不足 Insufficient drill rigidity	提高钻头刚性 Increase drill rigidity
	被切削平面不平 顶尖与轴心不重合(车床) Uneven workpiece rigidity Top center not align with the Spindle center (lathe)	调整为水平面或预加工为水平面 预钻中心孔 The workpiece must be horizontal or Premachined to horizontal before drilling Pre-drill a center hole

# 孔加工常见问题及解决方法

Common Problems and Solutions for Drilling

现象 Problem	原因 Cause	解决方法 Solution
圆度较差 Poor roundness 	顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Check the precision after regrinding
	钻头装夹不好 主轴本身跳动量大 工件装夹不牢固 Poor clamping Large run-out around spindle Workpiece is not firmly held	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时, 仔细测量与调整 Select the holder and chuch with high Precision calibrating spindle check run Out and adjust after clamping drill
	后角过大 Clearance angle is too large	重新修磨切削刃 Regrind drill
	钻头刚性不足 Insufficient drill rigidity	提高钻头刚性 Increase drill rigidity
被加工工件表面质量差 Poor workpiece surface quality	修磨不当 Incorrect regrinding	重新修磨校正 Regrind calibration
	切削液供给不足或型号不匹配 Insufficient coolant or Unsuitable coolant type	改变切削液供给方法, 增加流量 采用润滑性好的切削油 Change the coolant supply method, Or increase coolant volume
	钻头装夹不好 主轴本身跳动量大 Poor clamping Large run-out around spindle	选择精度高的刀柄及夹具 校正主轴 Select the holder and chuch with high Precision calibrating spindle
	进给速度过大 Feed rate is too high	降低进给速度 Decrease the feed rate
	切削刃磨损过大, 刃带棱面粘结严重。 Excessive abrasion on Cutting edge Excessive build-up on margin	重新修磨切削刃, 使用涂层钻头 Regrind drill Select a coated drill
	切削阻塞 Chip jamming	重选钻头(容屑槽型、螺旋角等) 重选加工方法 (进给速度的调整, 采用分步阶梯方式等) Select a suitable drill(considering flute Geometry, helical angle etc.) change the Cutting method (adjust feed rate, use Step feed etc.)
圆柱度较差 Poor cylindricity 	顶角不对称 钻头跳动量过大 横刃偏心 刃带棱面磨损过大 Non-symmetric point angle Large run-out Chisel edge is off center Excessive margin abrasion	重修磨刀具 修磨后检查精度 Regrind drill Check the precision after regrinding
	进给速度过低 Feed rate is too low	提高进给速度 Increase the feed speed

# 浅孔钻推荐切削参数表

Shallow Drilling Recommend Cutting Parameter Chart

ISO	材料 Material	硬度HB	直径Dc mm	进给量fn mm/r	切削速度 Vc m/min
P	碳钢 Carbon steel	80-200	16.0-23.0	0.05-0.09	200(170-240)
			24.0-30.0	0.05-0.09	
			31.0-38.0	0.06-0.10	
			39.0-46.0	0.07-0.11	
P	低合金钢 Low alloy steel	150-260	16.0-23.0	0.05-0.09	170(140-220)
			24.0-30.0	0.05-0.12	
			31.0-38.0	0.06-0.14	
			39.0-46.0	0.08-0.16	
P	高合金钢 High alloy steel	150-320	16.0-23.0	0.05-0.09	150(120-180)
			24.0-30.0	0.05-0.12	
			31.0-38.0	0.06-0.16	
			39.0-46.0	0.08-0.18	
P	铸钢 Cast steel	180-250	16.0-23.0	0.05-0.08	140(120-170)
			24.0-30.0	0.05-0.08	
			31.0-38.0	0.06-0.10	
			39.0-46.0	0.07-0.11	
M	不锈钢 Stainless steel	150-270	16.0-23.0	0.05-0.09	160(110-230)
			24.0-30.0	0.05-0.12	
			31.0-38.0	0.06-0.16	
			39.0-46.0	0.08-0.18	
M	铁素体 Ferritic stainless steel	150-270	16.0-23.0	0.05-0.09	160(110-230)
			24.0-30.0	0.05-0.12	
			31.0-38.0	0.06-0.16	
			39.0-46.0	0.08-0.18	
M	马氏体 Martensitic stainless steel	150-270	16.0-23.0	0.05-0.09	160(110-230)
			24.0-30.0	0.05-0.12	
			31.0-38.0	0.06-0.16	
			39.0-46.0	0.08-0.18	
M	奥氏体 Austenitic stainless steel	150-275	16.0-23.0	0.05-0.09	140(110-220)
			24.0-30.0	0.05-0.11	
			31.0-38.0	0.06-0.13	
			39.0-46.0	0.08-0.14	
K	可锻铸铁 Malleable cast iron	150-230	16.0-23.0	0.05-0.10	160(120-220)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
K	灰口铸铁 Grey cast iron	150-220	16.0-23.0	0.05-0.10	200(170-240)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
K	球墨铸铁 Nodular cast iron	160-250	16.0-23.0	0.05-0.09	160(130-200)
			24.0-30.0	0.05-0.12	
			31.0-38.0	0.06-0.14	
			39.0-46.0	0.08-0.16	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	
N	铝合金 Aluminium alloy	60-110	16.0-23.0	0.05-0.10	300(250-350)
			24.0-30.0	0.05-0.14	
			31.0-38.0	0.08-0.16	
			39.0-46.0	0.10-0.20	

# D-4 技术信息

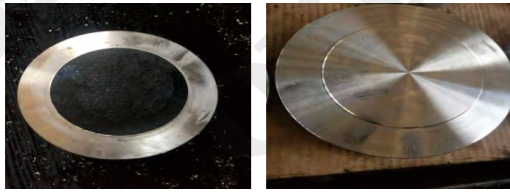
Technical Information

应用案例

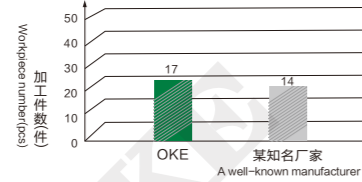
Application Cases

# 不锈钢加工案例

## Stainless Steel Cutting Application Cases



寿命对比图:  
Cutting life comparison



客户名称: \*\*\*\*法兰制造有限公司  
 工件名称: 不锈钢法兰(盲板)  
 被加工材料: 304L  
 加工设备: CSK50A  
 使用刀片: CNMG120412-MF/OP1215  
 对比刀片: 某知名厂家  
 冷却方式: 冷却液  
 加工内容: 粗车端面  
 加工参数:  $V_c = 180 \text{ m/min}$ ,  $F_n = 0.28 \text{ mm/r}$ ,  $A_p = 2.2 \text{ mm}$

### Stainless steel flange

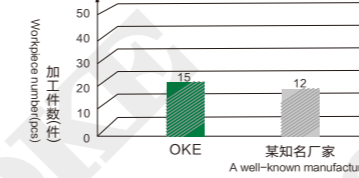
Customer: XX Company  
 Workpiece: Stainless steel flange(no hole)  
 Workpiece material: 304L  
 Lathe type: CSK50A  
 OKE insert: CNMG120412-MF/OP1215  
 Compare insert: A well-known manufacturer  
 Cooling type: Fluid cooling  
 Processing content: End face rough turning  
 Cutting parameter:  $V_c = 180 \text{ m/min}$ ,  $F_n = 0.28 \text{ mm/r}$ ,  $A_p = 2.2 \text{ mm}$

# 不锈钢加工案例

## Stainless Steel Cutting Application Cases



寿命对比图:  
Cutting life comparison



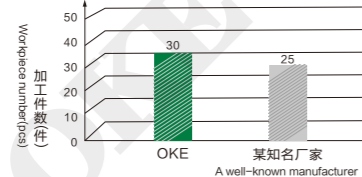
客户名称: \*\*\*\*机械股份有限公司  
 工件名称: 高颈法兰  
 被加工材料: SUS304L  
 加工设备: HTC1635i  
 使用刀片: WNMG060412-OMM/OP1215  
 对比刀片: 某知名厂家  
 冷却方式: 冷却液  
 加工内容: 锥度、端面(半精加工)  
 加工参数:  $V_c = 160 \text{ m/min}$ ,  $F_n = 0.18 \text{ mm/r}$ ,  $A_p = 1.5 \text{ mm}$

### Stainless steel flange

Customer: XX Company  
 Workpiece: Hubbed flange  
 Workpiece material: SUS304L  
 Lathe type: HTC1635i  
 OKE insert: WNMG060412-OMM/OP1215  
 Compare insert: A well-known manufacturer  
 Cooling type: Fluid cooling  
 Processing content: Taper, end face(semi-finishing)  
 Cutting parameter:  $V_c = 160 \text{ m/min}$ ,  $F_n = 0.18 \text{ mm/r}$ ,  $A_p = 1.5 \text{ mm}$



寿命对比图:  
Cutting life comparison



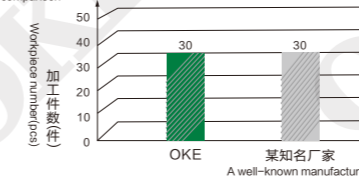
客户名称: \*\*\*\*机械制造有限公司  
 工件名称: 法兰盘  
 被加工材料: SUS304  
 加工设备: HTC1635i  
 使用刀片: WNMG060412-MSF/OP1315  
 对比刀片: 某知名厂家  
 冷却方式: 冷却液  
 加工内容: 精加工端面  
 加工参数:  $V_c = 200 \text{ m/min}$ ,  $F_n = 0.28 \text{ mm/r}$ ,  $A_p = 0.6 \text{ mm}$

### Stainless steel flange

Customer: XX Company  
 Workpiece: Flange  
 Workpiece material: SUS304  
 Lathe type: HTC1635i  
 OKE insert: WNMG060412-MSF/OP1315  
 Compare insert: A well-known manufacturer  
 Cooling type: Fluid cooling  
 Processing content: End face fine finishing  
 Cutting parameter:  $V_c = 200 \text{ m/min}$ ,  $F_n = 0.28 \text{ mm/r}$ ,  $A_p = 0.6 \text{ mm}$



寿命对比图:  
Cutting life comparison



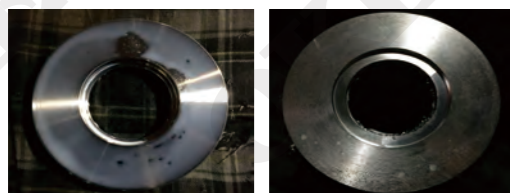
客户名称: \*\*\*机械厂  
 工件名称: 法兰盘  
 被加工材料: 45#锻件  
 加工设备: 数控车床  
 使用刀片: WNMG080412-OMM/OP1215  
 对比刀片: 某知名厂家  
 冷却方式: 无  
 加工内容: 端面车削  
 加工参数:  $V_c = 258 \text{ m/min}$ ,  $F_n = 0.2 \text{ mm/r}$ ,  $A_p = 1.25 \text{ mm}$

### Stainless steel flange

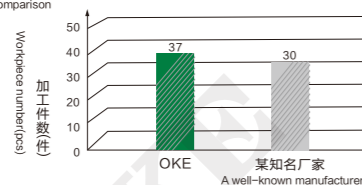
Customer: XX Company  
 Workpiece: Flange  
 Workpiece material: 45#Forge piece  
 Lathe type: CNC lathe  
 OKE insert: WNMG080412-OMM/OP1215  
 Compare insert: A well-known manufacturer  
 Cooling type: No  
 Processing content: End face turning  
 Cutting parameter:  $V_c = 258 \text{ m/min}$ ,  $F_n = 0.2 \text{ mm/r}$ ,  $A_p = 1.25 \text{ mm}$

## 不锈钢加工案例

### Stainless Steel Cutting Application Cases



寿命对比图:  
Cutting life comparison



客户名称: \*\*\*加工厂  
工件名称: 法兰盘  
被加工材料: SUS316  
加工设备: 数控车床  
使用刀片: WNMG060412-MF/OC4315  
对比刀片: 某知名厂家  
冷却方式: 水冷  
加工内容: 端面粗车、去黑皮  
加工参数:  $V_c = 200$  m/min,  $F_n = 0.28-0.33$  mm/r,  $A_p = 0.2-0.8$  mm

#### Stainless steel flange

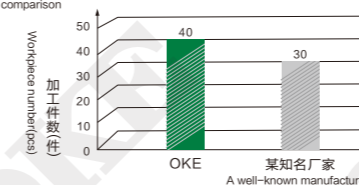
Customer: XX Company  
Workpiece: Flange  
Workpiece material: SUS316  
Lathe type: CNC lathe  
OKE insert: WNMG060412-MF/OC4315  
Compare insert: A well-known manufacturer  
Cooling type: Cooling liquid  
Processing content: End face rough turning, remove black skin  
Cutting parameter:  $V_c = 200$  m/min,  $F_n = 0.28-0.33$  mm/r,  $A_p = 0.2-0.8$  mm

## 钢件加工案例

### Steel Cutting Application Cases



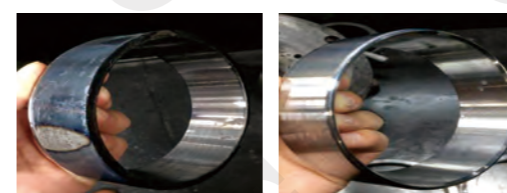
寿命对比图:  
Cutting life comparison



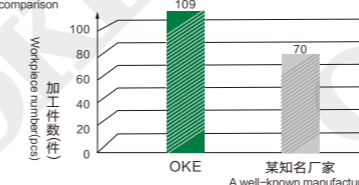
客户名称: \*\*\*\*制造有限公司  
工件名称: 轮毂轴承单元(外圈)  
被加工材料: 55#锻钢  
加工设备: CY-K800H  
使用刀片: WNMG080412-OPM/OC2125  
对比刀片: 某知名厂家  
冷却方式: 无  
加工内容: 粗车端面、外圆  
加工参数:  $V_c = 260$  m/min,  $F_n = 0.28$  mm/r,  $A_p = 1.3$  mm

#### Steel

Customer: XX Company  
Workpiece: Hub Bearing Unit(outer ring)  
Workpiece material: 55# forge steel  
Lathe type: CY-K800H  
OKE insert: WNMG080412-OPM/OC2125  
Compare insert: A well-known manufacturer  
Cooling type: No  
Processing content: End face and external rough turning  
Cutting parameter:  $V_c = 260$  m/min,  $F_n = 0.28$  mm/r,  $A_p = 1.3$  mm



寿命对比图:  
Cutting life comparison



客户名称: 杭州\*\*\*\*机械有限公司  
工件名称: 轴承外圈  
被加工材料: GCr15  
加工设备: SK50P  
使用刀片: WNMG080412-Z/OC2325  
对比刀片: 某知名厂家  
冷却方式: 冷却液  
加工内容: 半精车外圆  
加工参数:  $V_c = 393$  m/min,  $F_n = 0.176$  mm/r,  $A_p = 1.0$  mm

#### Steel

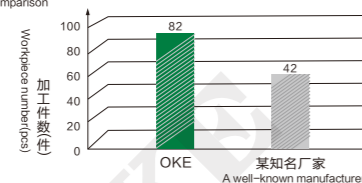
Customer: XX Company  
Workpiece: Bearing outer ring  
Workpiece material: Gcr15  
Lathe type: SK50P  
OKE insert: WNMG080412-Z/OC2325  
Compare insert: A well-known manufacturer  
Cooling type: Fluid cooling  
Processing content: External semi-finishing turning  
Cutting parameter:  $V_c = 393$  m/min,  $F_n = 0.176$  mm/r,  $A_p = 1.0$  mm

## 钢件加工案例

### Steel Cutting Application Cases



寿命对比图:  
Cutting life comparison



**客户名称:** 杭州\*\*\*机械有限公司  
**工件名称:** 轴承外圈  
**被加工材料:** GCr15  
**加工设备:** SK50P  
**使用刀片:** WNMG080408-Z/OC2325  
**对比刀片:** 某知名厂家  
**冷却方式:** 冷却液  
**加工内容:** 精车外圆  
**加工参数:**  $V_c = 340 \text{ m/min}$ ,  $F_n = 0.18 \text{ mm/r}$ ,  $A_p = 0.5 \text{ mm}$

#### Steel

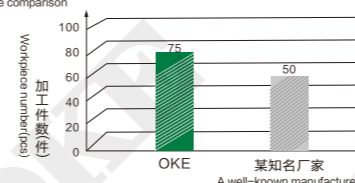
**Customer:** XX Company  
**Workpiece:** Bearing outer ring  
**Workpiece material:** Gcr15  
**Lathe type:** SK50P  
**OKE insert:** WNMG080408-Z/OC2325  
**Compare insert:** A well-known manufacturer  
**Cooling type:** Fluid cooling  
**Processing content:** External finishing turning  
**Cutting parameter:**  $V_c = 340 \text{ m/min}$ ,  $F_n = 0.18 \text{ mm/r}$ ,  $A_p = 0.5 \text{ mm}$

## 钢件加工案例

### Steel Cutting Application Cases



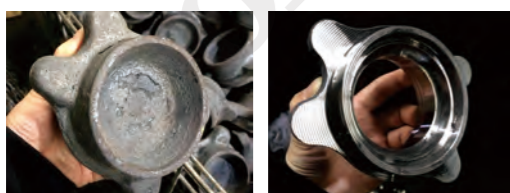
寿命对比图:  
Cutting life comparison



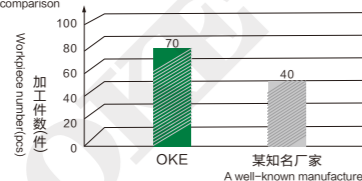
**客户名称:** 杭州\*\*\*机械厂  
**工件名称:** 十字轴  
**被加工材料:** 55#锻钢  
**加工设备:** 卧式数控车床  
**使用刀片:** WNMG080408-OPM/OC2125  
**对比刀片:** 某知名厂家  
**冷却方式:** 乳化液  
**加工内容:** 端面、外圆加工  
**加工参数:**  $V_c = 79 \text{ m/min}$ ,  $F_n = 0.4 \text{ mm/r}$ ,  $A_p = 1.25 \text{ mm}$

#### Steel

**Customer:** XX Company  
**Workpiece:** Cross bearing  
**Workpiece material:** 55# forge steel  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** WNMG080408-OPM/OC2125  
**Compare insert:** A well-known manufacturer  
**Cooling type:** Emulsion fluid cooling  
**Processing content:** End face, external  
**Cutting parameter:**  $V_c = 79 \text{ m/min}$ ,  $F_n = 0.4 \text{ mm/r}$ ,  $A_p = 1.25 \text{ mm}$



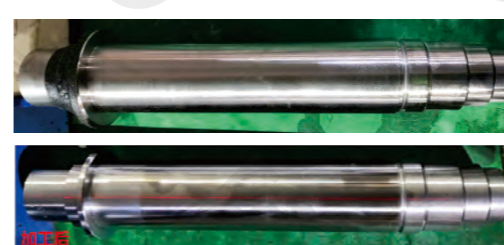
寿命对比图:  
Cutting life comparison



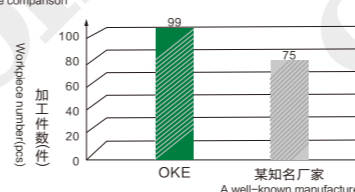
**客户名称:** 杭州\*\*\*机械有限公司  
**工件名称:** 轴承外圈  
**被加工材料:** 65#锻钢  
**加工设备:** 卧式数控车床  
**使用刀片:** WNMG080412-OPM/OC2125  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 端面、外圆加工  
**加工参数:**  $V_c = 160-220 \text{ m/min}$ ,  $F_n = 0.2-0.28 \text{ mm/r}$ ,  $A_p = 1.0 \text{ mm}$

#### Steel

**Customer:** XX Company  
**Workpiece:** Outer bearing  
**Workpiece material:** 65# forge steel  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** WNMG080412-OPM/OC2125  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** End face, and external  
**Cutting parameter:**  $V_c = 160-220 \text{ m/min}$ ,  $F_n = 0.2-0.28 \text{ mm/r}$ ,  $A_p = 1.0 \text{ mm}$



寿命对比图:  
Cutting life comparison



**客户名称:** 广州\*\*\*公司  
**工件名称:** 转轴组件  
**被加工材料:** 20CrMoH  
**加工设备:** 卧式数控车床  
**使用刀片:** TNMG160408-OPR/OC2115  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 粗车外圆  
**加工参数:**  $V_c = 138-218 \text{ m/min}$ ,  $F_n = 0.24-0.36 \text{ mm/r}$ ,  $A_p = 1 \text{ mm}$

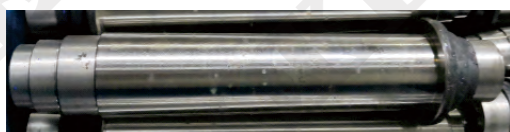
#### Steel

**Customer:** XX Company  
**Workpiece:** Spindle  
**Workpiece material:** 20CrMoH  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** TNMG160408-OPR/OC2115  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** External roughing turning  
**Cutting parameter:**  $V_c = 138-218 \text{ m/min}$ ,  $F_n = 0.24-0.36 \text{ mm/r}$ ,  $A_p = 1 \text{ mm}$

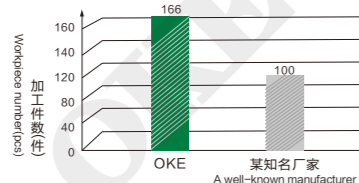


## 钢件加工案例

### Steel Cutting Application Cases



寿命对比图:  
Cutting life comparison



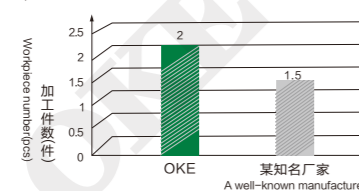
**客户名称:** 广州\*\*\*公司  
**工件名称:** 转轴组件  
**被加工材料:** 20CrMoH  
**加工设备:** 卧式数控车床  
**使用刀片:** VNMG160404-OPF/OC2115  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 精车外圆  
**加工参数:**  $V_c = 132\text{--}181\text{ m/min}$ ,  $F_n = 0.12\text{--}0.24\text{ mm/r}$ ,  $A_p = 0.5\text{ mm}$

#### Steel

**Customer:** XX Company  
**Workpiece:** Spindle  
**Workpiece material:** 20CrMoH  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** VNMG160404-OPF/OC2115  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** External roughing turning  
**Cutting parameter:**  $V_c = 132\text{--}181\text{ m/min}$ ,  $F_n = 0.12\text{--}0.24\text{ mm/r}$ ,  $A_p = 0.5\text{ mm}$



寿命对比图:  
Cutting life comparison



**客户名称:** 西安\*\*\*机械有限公司  
**工件名称:** 外缸筒  
**被加工材料:** 30CrMnSi  
**加工设备:** 卧式数车  
**使用刀片:** CNMG160608-OPM/OC2125  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 粗车外圆  
**加工参数:**  $V_c = 138\text{ m/min}$ ,  $F_n = 0.4\text{ mm/r}$ ,  $A_p = 3\text{ mm}$

#### Steel

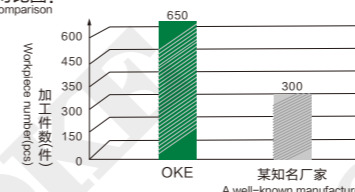
**Customer:** XX Company  
**Workpiece:** The outer cylinder  
**Workpiece material:** 30CrMnSi  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** CNMG160608-OPM/OC2125  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** External roughing turning  
**Cutting parameter:**  $V_c = 138\text{ m/min}$ ,  $F_n = 0.4\text{ mm/r}$ ,  $A_p = 3\text{ mm}$

## 铸铁加工案例

### Cast iron Cutting Application Cases



寿命对比图:  
Cutting life comparison



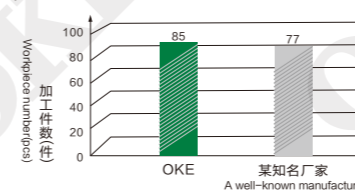
**客户名称:** \*\*\*\*金属制品厂  
**工件名称:** 空调压缩机法兰  
**被加工材料:** HT250  
**加工设备:** SK50P  
**使用刀片:** WNMG080412/OC3215  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 粗车外圆端面  
**加工参数:**  $V_c = 550\text{ m/min}$ ,  $F_n = 0.35\text{ mm/r}$ ,  $A_p = 1.2\text{ mm}$

#### Cast iron

**Customer:** XX Company  
**Workpiece:** Air Compressor Flange  
**Workpiece material:** HT250  
**Lathe type:** SK50P  
**OKE insert:** WNMG080412/OC3215  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** External and end face roughing turning  
**Cutting parameter:**  $V_c = 550\text{ m/min}$ ,  $F_n = 0.35\text{ mm/r}$ ,  $A_p = 1.2\text{ mm}$



寿命对比图:  
Cutting life comparison



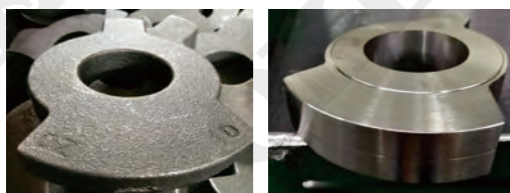
**客户名称:** 山东\*\*\*\*机械配件有限公司  
**工件名称:** 刹车盘  
**被加工材料:** G3000  
**加工设备:** i5T3  
**使用刀片:** TNMG220416-GH/OC3215  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 半精车端面  
**加工参数:**  $V_c = 706\text{ m/min}$ ,  $F_n = 0.32\text{ mm/r}$ ,  $A_p = 1.0\text{ mm}$

#### Cast iron

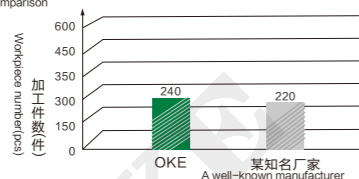
**Customer:** XX Company  
**Workpiece:** Brake disc  
**Workpiece material:** G3000  
**Lathe type:** i5T3  
**OKE insert:** TNMG220416-GH/OC3215  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** End face semi-finishing turning  
**Cutting parameter:**  $V_c = 706\text{ m/min}$ ,  $F_n = 0.32\text{ mm/r}$ ,  $A_p = 1.0\text{ mm}$

## 铸铁加工案例

### Cast iron Cutting Application Cases



寿命对比图:  
Cutting life comparison



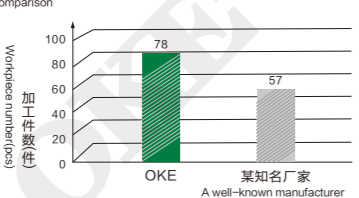
**客户名称:** 东莞\*\*\*机械公司  
**工件名称:** 空调压缩机法兰  
**被加工材料:** HT250  
**加工设备:** 卧式数控车床  
**使用刀片:** WNMG080412/OC3215  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 外圆端面  
**加工参数:**  $V_c = 356 \text{ m/min}$ ,  $F_n = 0.28 \text{ mm/r}$ ,  $A_p = 1 \text{ mm}$

#### Cast iron

**Customer:** XX Company  
**Workpiece:** Air compressor flange  
**Workpiece material:** HT250  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** WNMG080412/OC3215  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** External and end face turning  
**Cutting parameter:**  $V_c = 356 \text{ m/min}$ ,  $F_n = 0.28 \text{ mm/r}$ ,  $A_p = 1 \text{ mm}$



寿命对比图:  
Cutting life comparison



**客户名称:** 陕西\*\*\*制造有限公司  
**工件名称:** 制动毂  
**被加工材料:** HT250  
**加工设备:** 卧式数控车床  
**使用刀片:** WNMG080408/OC3215  
**对比刀片:** 某知名厂家  
**冷却方式:** 无  
**加工内容:** 端面、外圆粗加工  
**加工参数:**  $V_c = 230\text{--}290 \text{ m/min}$ ,  $F_n = 0.3\text{--}0.45 \text{ mm/r}$ ,  $A_p = 2\text{--}3 \text{ mm}$

#### Cast iron

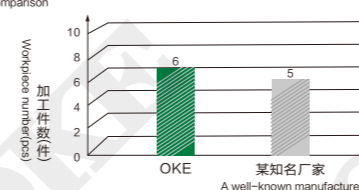
**Customer:** XX Company  
**Workpiece:** Brake drum  
**Workpiece material:** HT250  
**Lathe type:** Horizontal CNC lathe  
**OKE insert:** WNMG080408/OC3215  
**Compare insert:** A well-known manufacturer  
**Cooling type:** No  
**Processing content:** Endface and external rough turning  
**Cutting parameter:**  $V_c = 230\text{--}290 \text{ m/min}$ ,  $F_n = 0.3\text{--}0.45 \text{ mm/r}$ ,  $A_p = 2\text{--}3 \text{ mm}$

## 铣削加工案例

### Milling Application Cases



寿命对比图:  
Cutting life comparison



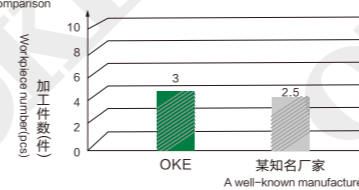
**客户名称:** \*\*\*\*机械制造有限公司  
**工件名称:** 中压缸第四级动/锁叶片  
**被加工材料:** 22Cr12NiWMoV-5  
**加工设备:** HSTM-500-HD  
**使用刀片:** APKT170516R-QG/OP1312  
**冷却方式:** 冷却液  
**加工内容:** 铣型面  
**加工参数:**  $V_c = 241 \text{ m/min}$ ,  $V_f = 3500 \text{ mm/min}$ ,  
 $A_p = 1.2 \text{ mm}$ ,  $A_e = 16 \text{ mm}$

#### Milling

**Customer:** XX Company  
**Workpiece:** Turbine blade  
**Workpiece material:** 22Cr12NiWMoV-5  
**Lathe type:** HSTM-500-HD  
**OKE insert:** APKT170516R-QG/OP1312  
**Compare insert:** A well-known manufacturer  
**Cooling type:** Fluid cooling  
**Processing content:** Profile Milling  
**Cutting parameter:**  $V_c = 241 \text{ m/min}$ ,  $V_f = 3500 \text{ mm/min}$ ,  
 $A_p = 1.2 \text{ mm}$ ,  $A_e = 16 \text{ mm}$



寿命对比图:  
Cutting life comparison



**客户名称:** 陕西\*\*\*\*机电设备有限公司  
**工件名称:** 万向接头  
**被加工材料:** 30CrMnSiNi2A  
**加工设备:** VL850  
**使用刀片:** APMT1135PDER-M2/OP1130  
**对比刀片:** 某知名厂家  
**冷却方式:** 冷却液  
**加工内容:** 精铣平面及外轮廓  
**加工参数:**  $V_c = 120 \text{ m/min}$ ,  $V_f = 3500 \text{ mm/min}$ ,  
 $A_p = 0.18 \text{ mm}$ ,  $A_e = 2 \text{ mm}$

#### Milling

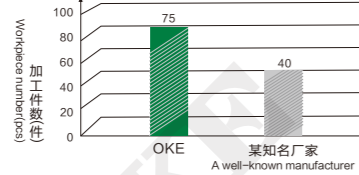
**Customer:** XX Company  
**Workpiece:** Gimbal Joint  
**Workpiece material:** 30CrMnSiNi2A  
**Lathe type:** VL850  
**OKE insert:** APMT1135PDER-M2/OP1130  
**Compare insert:** A well-known manufacturer  
**Cooling type:** Fluid cooling  
**Processing content:** Finishing face milling and profile milling  
**Cutting parameter:**  $V_c = 120 \text{ m/min}$ ,  $V_f = 3500 \text{ mm/min}$ ,  
 $A_p = 0.18 \text{ mm}$ ,  $A_e = 2 \text{ mm}$

## 铣削加工案例

### Milling Application Cases



寿命对比图:  
Cutting life comparison



**客户名称:** \*\*\*模具厂  
**工件名称:** 侧板模具  
**被加工材料:** 45#  
**加工设备:** 数控龙门铣  
**使用刀片:** APMT1604PDER-H2L/OP1215  
**对比刀片:** 某知名厂家  
**冷却方式:** 压缩空气  
**加工内容:** U型槽、方槽加工及切断  
**加工参数:**  $V_c = 94 \text{ m/min}$ ,  $F_n = 1.04 \text{ mm/r}$ ,  $A_p = 0.3-0.35 \text{ mm}$

#### Milling

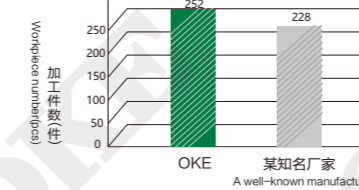
**Customer:** XX Company  
**Workpiece:** Side panel mold  
**Workpiece material:** 45#  
**Lathe type:** CNC gantry milling  
**OKE insert:** APMT1604PDER-H2L/OP1215  
**Compare insert:** A well-known manufacturer  
**Cooling type:** Compressed air  
**Processing content:** U-groove, square groove machining, parting  
**Cutting parameter:**  $V_c = 94 \text{ m/min}$ ,  $F_n = 1.04 \text{ mm/r}$ ,  $A_p = 0.3-0.35 \text{ mm}$

## 螺纹加工案例

### Threading Application Cases



寿命对比图:  
Cutting life comparison



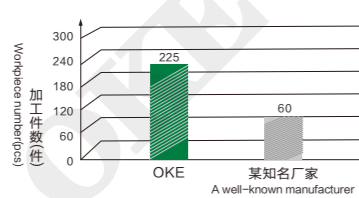
**客户名称:** \*\*阀门有限公司  
**工件名称:** 接头  
**加工行业:** 阀门  
**被加工材料:** SUS201  
**加工设备:** 温州东海数控  
**使用刀片:** RT1601L-11WA/OP1205  
**对比刀片:** 某知名厂家  
**加工内容:** 内螺纹车削  
**换刀标准:** 刀片磨损  
**切削液:** 有  
**加工参数:**  $V_c = 75-83 \text{ m/min}$ ,  $F_n = 2.309 \text{ mm/r}$

#### Thread

**Customer:** XX Company  
**Workpiece:** Joint  
**Processing industry:** Valve  
**Workpiece material:** SUS201  
**Lathe type:** Wenzhou Eastsea CNC  
**OKE insert:** RT1601L-11WA/OP1205  
**Compare insert:** A well-known manufacturer  
**Processing content:** Internal threading turning  
**criterion of changing tool:** Insert wear  
**Cutting fluid:** Yes  
**Cutting parameter:**  $V_c = 75-83 \text{ m/min}$ ,  $F_n = 2.309 \text{ mm/r}$



寿命对比图:  
Cutting life comparison



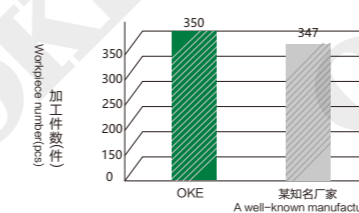
**客户名称:** \*\*\*模具厂  
**工件名称:** 侧板模具  
**被加工材料:** 45#  
**加工设备:** 数控龙门铣  
**使用刀片:** RPMT1204MO-JSL/OP1315  
**对比刀片:** 某知名厂家  
**冷却方式:** 压缩空气  
**加工内容:** U型槽、方槽加工及切断  
**加工参数:**  $V_c = 138 \text{ m/min}$ ,  $F_n = 0.96 \text{ mm/r}$ ,  $A_p = 0.45 \text{ mm}$

#### Milling

**Customer:** XX Company  
**Workpiece:** Side panel mold  
**Workpiece material:** 45#  
**Lathe type:** CNC gantry milling  
**OKE insert:** RPMT1204MO-JSL/OP1315  
**Compare insert:** A well-known manufacturer  
**Cooling type:** Compressed air  
**Processing content:** U-groove, square groove machining, parting  
**Cutting parameter:**  $V_c = 138 \text{ m/min}$ ,  $F_n = 0.96 \text{ mm/r}$ ,  $A_p = 0.45 \text{ mm}$



寿命对比图:  
Cutting life comparison



**客户名称:** \*\*阀门有限公司  
**工件名称:** 弯头  
**加工行业:** 阀门  
**被加工材料:** 304  
**加工设备:** KND  
**使用刀片:** RT1601L-14WA/OP1205  
**对比刀片:** 某知名厂家  
**加工内容:** 内螺纹车削  
**换刀标准:** 刀片磨损  
**切削液:** 有  
**加工参数:**  $V_c = 58-65 \text{ m/min}$ ,  $F_n = 1.814 \text{ mm/r}$

#### Thread

**Customer:** XX Company  
**Workpiece:** Elbow  
**Machining Industry:** Valve  
**Workpiece material:** 304  
**Lathe type:** KND  
**OKE insert:** RT1601L-14WA/OP1205  
**Compare insert:** A well-known manufacturer  
**Processing content:** Internal threading turning  
**criterion of changing tool:** Insert wear  
**Cutting fluid:** Yes  
**Cutting parameter:**  $V_c = 58-65 \text{ m/min}$ ,  $F_n = 1.814 \text{ mm/r}$

# D-5

## 技术信息 Technical Information

### 通用技术信息

### General Technical Reference

## 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、选择适合的刀片形状，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 clamoins 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、定位方式、槽型、牌号等明细

#### 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, demensions,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 condition

# 刀具规格选用办法

Selection Method of Cutting Tool

## 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 Tool Specifications:

1. The first step is to understand the material condition, machine type and state you need to process.
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. Finally determine the blade specification, groove type, and brand number corresponding to the above factors.

## 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刀具的基本类型（钻削、镗销、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刀具。
- 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 for Hole Processing Tool Specifications:

1. Understand the material condition, machine type and state you need to process.
2. Determine the basic types 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. Finally determine the insert specification, groove type, and brand number corresponding to the above factors.

# 材料硬度与切削速度的修正系数表

The Correction Coefficient Table Of Hardness and Cutting Speed

工件材料 Material	理论硬度 Theoretical Hardness	材料硬度与切削速度的修正系数 The Correction Coefficient Table Of Hardness and Cutting Speed									
		硬度降低 Hardness Decrease		硬度差值（实测值-理论值） Hardness Difference (Measured Difference - Theoretical Difference)						硬度增大 Hardness Increase	
		-60	-40	-20	0	20	40	60	80	100	
P	HB180	1.42	1.24	1.11	1.00	0.91	0.84	0.77	0.72	0.67	
M	HB180	1.44	1.25	1.11	1.00	0.91	0.84	0.78	0.73	0.68	
K	灰口铸铁 Grey Cast Iron	HB220	1.21	1.13	1.06	1.00	0.95	0.9	0.86	0.82	0.79
	球墨铸铁 Nodular Cast Iron	HB250	1.33	1.21	1.09	1.00	0.91	0.84	0.75	0.7	0.65
N	HB75			1.05	1.00	0.95					
S	HB350			1.12	1.00	0.89					
HRC			-6	-3	0.00	3	6	9			
H	HRC60		1.10	1.02	1.00	0.96	0.93	0.9			

实际加工速度=推荐加工速度×切削速度修正系数  
Actual Processing Speed=Recommended Processing Speed\*Correction Factor Of Cutting Speed

## 推荐的切削参数见刀片包装盒 Recommended Cutting Parameters See Packaging

表格使用举例：当您要加工的材料为普通的合金钢，理论硬度为HB180，选择的刀片为CNMG120404-OPF/OC2015时，推荐切削速度：V=250m/min。如果实测硬度值为HB220，则硬度差值为220-180=40，对照上表查到速度修正系数0.84，则实际加工速度Vc=250x0.84=210m/min。  
i.e. Cutting general alloy steel, hardness HB180, CNMG120404-OPF/OC2015, the recommended cutting speed is V=250m/min. When measured hardness is HB220, the hardness difference is 40(220-180). Find The corresponding speed correction coefficient is 0.84 on above table, and then the actual processing speed Vc=250\*0.84=210mm/min

# 刀具寿命与切削速度的修正系数表

The Correction Coefficient Table Of Insert Life and Cutting Speed

刀片材质 Insert Material	刀具寿命和切削速度的修正系数 The Correction Coefficient Table Of Insert Life and Cutting Speed					
	10	15	30	45	60	90
OC2015	1.12	1.00	0.82	0.73	0.67	0.6
OC2025	1.11	1.00	0.84	0.76	0.71	0.64
OC2035	1.11	1.00	0.84	0.76	0.70	0.63
OC2115	1.25	1.00	0.68	0.54	0.46	0.37
OC2125	1.55	1.00	0.47	0.30	0.22	0.14
OP1205	1.15	1.00	0.82	0.74	0.69	0.64
OP1215	1.10	1.00	0.85	0.72	0.65	0.62
OP1030	1.10	1.00	0.85	0.72	0.65	0.62
OC4025	1.19	1.00	0.75	0.63	0.56	0.47
OC4315	1.22	1.00	0.73	0.61	0.54	0.45
OC3105	1.11	1.00	0.70	0.60	0.50	0.40
OC3215	1.22	1.00	0.80	0.65	0.60	0.55
OC3115D	1.25	1.00	0.72	0.63	0.52	0.41
OP2202	1.20	1.00	0.84	0.70	0.63	0.59

实际加工速度=推荐加工速度×切削速度修正系数  
Actual Processing Speed=Recommended Processing Speed\*Correction Factor Of Cutting Speed

表格使用举例：当您要加工的材料为普通的合金钢，选择的刀片为CNMG120404-OPF/OC2015，推荐切削速度（标准寿命15分钟）为：V=250m/min。如果期望刀具寿命为60分钟，对照表查到速度修正系数0.67，则实际加工速度是Vc=250×0.67=167.5m/min。

i.e. Cutting general alloy steel, CNMG120404-OPF/OC2015, the recommended cutting speed is V=250m/min (the standard life is 15 min). If the insert life of 60 mins is expected, find the speed correction coefficient is 0.67 on above table, and then the actual processing speed is Vc=250\*0.67=167.5m/min.

# 车削刀片断屑槽选择对照表

Comparison Table for Turning Insert Chipbreaker

## 负角刀片 Negative Inserts

ISO	加工范畴 Processing Category	OKE 欧科亿	特固克 TaeguTec	肯纳 KENAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMITOMO	三菱 MITSUBISHI
P	超精加工 Superfinishing	R/L-F	FA	FF	FE		QF,LC	01, F	DP,GP,PP, VF,XP, XP-T,XF	VL	FA,FB, FL	PK,FH,FP, FY,FS
	精加工 Finishing	OPF 53 Z	FG,FA	FN	BE, B, CE, BH	DF	XF,PF,	TS,TSF,ZF 11,NS,AS, TQ,NM,CS	DP,GP,PP	VF,VB	SU, LU, FE	LP,C, SA, SH
	精加工(软钢) Finishing(Soft Steel)	OPF	FC	FN		SF		17,TS,NS,CB 11, 27, ZF	XQ,XS	VL	FL	SY
	精加工(修光刃) Finishing(Wiper)		WS	FW		WGF	WL,WF	AFW,FW, ASW,SW	WF,WP	HW	LUW,SEW	SW
	半精加工 Semifinishing	OPM KPM	MP,MC, PC,MT	MN	CT,AB, AH,AY,AE	DM,PM	PM,QM, XM	TM,AM,DM, ZM,通槽,TA	PG,GS,PS	VM,MP	GU (UG) UX, GE	MP,MA
	轻载粗 Light Roughing	OPR	RT,通槽	RN,RP (单面)	RE, Y	DR (双面) LR(单面)	PR,HM XMR,通槽	TH,THS	全周,PH	B25,HR, GR	MU, MX, UX	GH,RP, 通槽
	粗加工 Roughing	OPR OPH	RX,RH,HD, HT,HY,HZ	MR, RN, RP(单面)	TE,UE,HX HE,H	DR(单面) HDR(单面)	QR,MR PR,HR	TI,TRS, TUS	PX	GH,VH, VT	HG,HP,HU, HW,HF	HZ, HL,HM, HX,HR,HV

# 车削刀片断屑槽选择对照表

Comparison Table for Turning Insert Chipbreaker

## 负角刀片 Negative Inserts

ISO	加工范畴 Processing Category	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMITOMO	三菱 MITSUBISHI
M	精加工 Finishing	OMF MSF	EA,SF	FP,FF	MP,AB,BH	EF	MF	SF,SA,SS	MQ,SQ	VP2,MP	SU,EF	SH,LM
	半精加工 Semifinishing	OMM MF	ET,EM	MP,UP	PV,DE,SE,AH	EM	MM,QM, XM,K	SM,S,TA	MU,MS, TK,SX	HS,MM	EX,EG,GU	MS,GM, MM,MA,ES
	粗加工 Roughing	OMR	MR,RP,P	AE	ER	MR	TH,SH,TU		GA,RM	HM,EM,MU	GH, HZ, RM,HL,HZ	
K	精加工 Finishing	OKM 通槽	MT	FN	VA,AH	PM	KF	CF,TA		MP	UZ	LK,MA
	半精加工 Semifinishing	TK,OKM,通槽 Without chipbreaker	MG,RT	RP,UN	V,AE	PM	KM	CM,通槽	KQ,KG, C,全周	B25,MK	GZ(UX)	MK,GK,通槽
	粗加工 Roughing	OPR,平板	KT,RT	平板	RE,平板	平板	KR,KRR	CH,平板	KH,GC,ZS	MA,RK		PK, 平板
S	精加工 Finishing	OSF	EA,SF	FS			SF	HRF	MQ	VP2	EF	FJ
	半精加工 Semifinishing	OSM	ML,MP, SU,MK	NG,UP,MS		VI	NGP,SM	HRM, HMM,SA	SQ,MS, MU,TK	VP3	EG,EX	MS
	粗加工 Roughing	OSM		RP			SR,SMR		SG,SX	VP4	MU,EM	RS,GJ

# 车削刀片断屑槽选择对照表

Comparison Table for Turning Insert Chipbreaker

## 正角刀片 Positive Inserts

ISO	加工范畴 Processing Category	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMITOMO	三菱 MITSUBISHI
P	精加工 Finishing	OTF	FA,SA,FG	LF,FP	JQ	SF,HF	PF,UF,XF	01,PF FS,JS	PF,DP,GP, PP,VF	VL,VF	FC,FB, LU(FP,FK)	FP,FV, LP,SV
	精加工(修光刃) Finishing(Wiper)		WS	FW			WF		WP		LUW,SDW	SW
	半精加工 Semifinishing	OTM	PC,MT, PMR	MF,MP	JE	HM	XM,PM, UM,PR,XR	PM,PS,PF PSF,PSS 23,24	HQ,GK, 全周	HMP,MP	MU	MV,MP, 全周
	半精加工(修光刃) Semifinishing(Wiper)	OTR	WT	MW			WM,PR, UR,KM					MW
M	精加工 Finishing	MSF,OTF		FP,FF	MP	EF	MF	SS&	CF,CK,GQ, GF,MQ,SK	VP1	FC	FM,LM
	半精加工 Semifinishing	OTM		MP,UP		EM	MM	PM	HQ,GK	VL	MU	MM, 通槽
K	半精加工 Semifinishing	OTM		MW,平板		HR,HM, 平板	KM,KR,KF	无断屑槽,CM CM Without chipbreaker	平板	MP	MU	MK,通槽, 平板
S	精加工 Finishing	OSM		GT-LF,R,GV, GT-HP		NF,NSF	SF,01		MQ	VP1	SI	FS,LS, FS-P, LS-P,FJ, LS,MS
	半精加工 Semifinishing			MT-LF,R,GV-T, MT-FP			MM,QM, SMR	VL				
N	通用切削 General cutting	NL,AK	FL	GT-HP,GT-LF, GW-F,GW-E		LH	AL	PP,AL	AH	AK,AR	AG,AW,AY	AZ

# 材料对照表

Material Comparison

钢 Steel

ISO	国家和标准 Nations And Standard										
	中国	德国	美国	英国	意大利	西班牙	瑞典	法国	日本		
	GB (P类)	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
碳素钢 Carbon Steel	15	1.0401	C15	1015	080M15		C15C16	F.111	1350	CC12	
	20	1.0402	C22	1020	050A20	2C	C20C21	F.112	1450	CC20	
	35	1.0501	C35	1035	060A35		C35	F.113	1550	CC35	
	45	1.0503	C45	1045	080M40		C45	F.114	1650	CC45	
	55	1.0535	C55	1055	070M55		C55		1655		
	60	1.0601	C60	1060	080A62	43D	C60			CC55	
	Y15	1.7015	9SMN28	1213	230M07		CF9SMn28	11SMn28	1912	S250	SUM22
锰钢 Manganese Steel	40Mn	1.1157	40Mn4	1039	150M36	15				35M5	
	25	1.1158	Ck25	1025							S25C
	35Mn2	1.1167	36Mn5	1335				36Mn5	2120	40Mn5	SMn438(H)
	30Mn	1.117	28Mn6	1330	150M28	14A	C28Mn			20M5	SCMn1
	35Mn	1.1183	CF35	1035	060A35		C36		1572	XS38TS	S35C
其他钢种		1.0718	9SMnPb28	12L13			CF9MnPb28	11SMnPb28	1914	S250Pb	SUM22L
		1.0722	10SPb20				CF10Pb20	10SPb		10PbF2	
		1.0726	35S20	1140	212M36	8M		F210G	1957	35MF4	
	Y13	1.0736	9SMn36	1215	240M07	1B	CF9SMn36	12SMn35		S300	
		1.0737	9SMnPb36	12L14			CF9SMnPb36	12SMnPb35	1926	S300Pb	
	55Si2Mn	1.0904	55Si9	9255	250A53	45	55Si8	56Si7	2085	55S7	
		1.0961	60SiCr7	9262			60SiCr8	60SiCr8		60SC7	
	15	1.1141	Ck15	1015	080M15	32C	C16	C15K	1370	XC12	S15C
	Ck45	1.1191	45	1045	080M46		C45	C45K	1672	XC42	S45C
	55	1.1203	Ck55	1055	070M55		C50	C55K		XC45	S55C
	50	1.1213	CF53	1050	060A52		C53		1674	XC48TS	S50C
	60Mn	1.1221	Ck60	1060	080A62	43D	C60		1678	XC60	S68C
		1.1274	Ck101	1095	060A96				1870		SUP4
		1.3401	X120Mn12		Z120M12		XG120Mn12	X120Mn12		X120M12	SCMnH/1
	Gr15,45Gr	1.3505	100Cr6	52100	534A99	31	100Cr6	F.131	2258	100C6	SUJ2
	1.5415	15Mo3	ASTMA204Gr,A	1501-240		16Mo3KW	16Mo3	2912	15D3		
	1.5426	16Mo5	4520	1503-245-420		16Mo5	16Mo5				
	1.5622	14Ni6	ASTMA350LF5			14Ni6	15Ni6		16N6		
	1.5662	X8Ni9	ASTM A353	1501-509:510		X10Ni9	XBNI09				

# 材料对照表

Material Comparison

钢 Steel

ISO	国家和标准 Nations And Standard										
	中国	德国	美国	英国	意大利	西班牙	瑞典	法国	日本		
	GB (P类)	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
镍铬钢 Nickel Chromium Steel		1.5680	12Ni19	2515						Z18N5	
		1.5710	36NiCr6	3135	640A35	111A				35NC6	SNC236
		1.5732	14NiCr10	3415			16NiCr11	15NiCr11		14NC11	SNC415(H)
		1.5752	14NiCr14	3415, 3310	655M13 655A12	36A				12NC15	SNC815(H)
镍铬钼钨钢 Nickel Chromium Molybdenum Steel		1.6511	36CrNiMo4	9840	816M40	110	38CrNiMo4(KB)	35CrNiMo4		40NCD3	
		1.6523	21NiCrMo2	8620	850M20	362	20NiCrMo2	20NiCrMo2	2503	20NCD2	SNCM220(H)
		1.6546	40NiCrMo2	8740	311-Type7		40NiCrMo2(KB)	40NiCrMo2			SNC240
	40CrNiMoA	1.6582	34CrNiMo6	4340	817M40	24	35CrNiMo6(KB)		2541	35NCD6	
铬钢 Chromium Steel		1.7015	15Cr3	5015	523M15					12C3	SCr415(H)
		1.7033	34Cr4	5132	530A32	18B	34Cr4(KB)	35Cr4		32C4	SCr430(H)
		1.7035	41Cr4	5140	530M40	18	41Cr4	42Cr4		42C4	SCr440(H)
		1.7045	42Cr4	5140				42Cr4	2245		SCr440
锰铬钢 Manganese Chromium Steel		1.7131	16MnCr15	5115	527M20		16MnCr15	16MnCr15	2511	16MC5	
		1.7176	55Cr3	5155	527A60	48				55C3	SUP9(A)
		1.7218	25CrMo4	4130	1717CDS110		25CrMo4(KB)	55Cr3	2225	25CD4	SCM420; SCM430
		1.722	34CrMo4	4137, 4135	708A37	19B	35CrMo4	34CrMo4	2234	35CD4	SCM432 SCRRM3
		1.7223	41CrMo4	4140, 4142	708M40	19A	41CrMo4	41CrMo4	2244	42CD4TS	SCM440
铬钼钢 Chromium Molybdenum Steel		1.7225	42CrMo4	4140	708M40	19A	42CrMo4	42CrMo4	2244	42CD4	SCM440(H)
		1.7262	15CrMo5						12CrMo4	2216	12CD4
		1.7335	13CrMo44	ASTM A182 F11 ASTM A182 F12	1501-620Cr. 27		14CrMo44	14CrMo45		15CD3.5; 15CD4.5	
		1.7361	32CrMo12		722M24	40B	32CrMo12	F.124.A	2240	30CD12	
		1.738	10CrMo910	ASTM A182 F22	1501-622Cr.31;45		12CrMo9,10	TU.H	2218	12CD9;10	
		1.7715	14MoV63		1503-660-440			13MoCrV6			
	50CrVA	1.8159	50CrV4	6150	735A50	47	50CrV4	51CrV4	2230	50CV4	SUP10
	1.8509	41CrAlMo7		905M39	41B	41CrAlMo7	41CrAlMo7	2940	40CAD6,12		
	1.8523	39CrMoV139		897M39	40C	36CrMoV12					



# 材料对照表

Material Comparison

钢 Steel

ISO	国家和标准 Nations And Standard									
	中国	德国	美国	英国	意大利	西班牙	瑞典	法国	日本	
GB (P类)	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
T10	1.1545	C105W1	W.110			C98KU C100KU	F.515 F.516	1880	Y1105	
T12A	1.1663	C125W	W.112			C120KU	(C120)		Y2120	SK2
CrV,9SiCr	1.2067	100Cr6	L3	BL3			100Cr6		Y100C6	
Cr12	1.208	X210Cr12	D3	BD3		X210Cr13KU X250Cr12KU	X210Cr12		Z200Cr12	SKD1
4Cr5MoVSi	1.2344	X40CrMoV51	H13	BH13			X40CrMoV5	2242	Z40CDV5	SKD61
Cr6WV	1.2363	X100CrMoV51	A2	BA2		X35CrMoV05KU X40CrMoV51KU	X100CrMoV5	2260	Z100CDV5	SKD12
CrWMo	1.2419	105WCr6				X100CrMoV51KU	105WCr5	2140	105WC13	SKS31 SKS2 SKS3
Cr12W	1.2436	X210CrW12				10WCr6 107WCr5KU	X210CrW12	2312		SKD2
5CrNiMo	1.2542	45WCrV7	S1	BS1		X215CrW121KU	45WCrS8	2710		
3Cr2W8V	1.2581	X30WCrV93 X30WCrV93KU	H21	BH21		45WCrV8KU	X30WCrV9		Z30WCV9	SKD5
Cr12MoV	1.2601	X165CrMoV12				X28W09KU X30WCrV93KU	X160CrMoV12	2310		SKD11
5CrNiMo	1.2731	55NiCrMoV6	L6			X165CrMoV12KU	F.250.S		55NCDV7	SKT4
V	1.2833	100V1	W210	BW2					Y1105V	SKS43
W6Mo5Cr4V2Co5	1.3243	S6-5-2-5					HS6-5-2-5	2723	Z85WDCV	SKH55
W18Cr4VCo5	1.3255	S18-1-2-5	T4	BT4		HS6-5-2-5	HS18-1-1-5		Z80WCV 10-05-04-1	SKH3
W6Mo5Cr4V2	1.3343	S6-5-2S	M2	BM2		X78WCo1805KU	HS6-5-2	2722	Z85WDCV 06-05-04-02	SKH9
	1.3348	S2-9-2	M7	Z		X82WMo0605KU	HS-2-9-2	2782	Z100WCWV 09-02-04-02	
W18Cr4V	1.3355	S18-0-1	T1	BT1		HS2-9-2	HS18-0-1		Z80WCV 18-04-01	SKH2
W6Mo5Cr4V3		S6-5-3	M3			X75W18KU				SKH52
			M42	BM42						SKH59

# 材料对照表

Material Comparison

钢 Steel

ISO	国家和标准 Nations And Standard				
	中国	德国	日本	大同(日本)	美国
GB (P类)	W-nr	DIN	JIS	DAIDO	AISI/SAE
塑料模具钢					
				PX5N	P20mod
				NAK55	
				NAK80	
3Cr13			SUS420J2mod	S-STAR	420mod
冷作模具钢					
			SKS93	YK30	2
9CrWMn			SKS3mod	GOA	01mod
Cr12MoV	X165CrMoV12		SKD11	DC11	D2
			SKD11mod	DC53	D2mod
热作模具钢					
4Cr5MoSiV1	X40CrMoV51		SKD61	DHA1	H13
				DH21	
				DH31-S	
				DH2F	

# 材料对照表

Material Comparison

## 不锈钢 Stainless Steel

ISO	国家和标准 Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB (P类)	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
不锈钢 Stainless Steel	0Cr13;1Cr12	1.4000	X6Cr13	403	403S17		X6Cr13	F.3110	2301	Z6C13	SUS403
		1.4001	X7Cr14					F.8401			
	1Cr13	1.4006	X10Cr13	410	410S21	56A	X12Cr13	F.3401	2302	Z10C14	SUS410
	1Cr17	1.4016	X6Cr17	430	430S15	60	X8Cr17	F.3113	220	Z8C17	SUS430
	2Cr13	1.4021	X20Cr13	410	S62	56B; 56C	X20C13	F.3401		Z20C13	SUS410
		1.4027	G-X20Cr14		420C29	56B				Z20C13M	SCS2
	4Cr13	1.4034	X46Cr13		420S45	56D	X40Cr14	F.3405	2304	Z40CM;Z38C13M	SUS420J2
	1Cr17Ni2	1.4057	X20CrNi172	431	431S29	57	X16CrNi16	F.3427	2321	Z15CNi6.02	SUS431
	Y1Cr17	1.4104	X12CrMoS17	430F			X10CrS17	F.3117	2383	Z10CF17	SUS430F
	1Cr17Mo	1.4113	X6CrMo171	434	434S17		x8CrMo17		2325	Z8CD17.01	SUS434
		1.4313	X5CrNi134							Z4CND13.4M	SCS5
		1.4408	G-X6CrNiMo1810					F.8414			SCS14
	4Cr9Si2	1.4718	X45CrSi93	HW3	401S45	52	X45CrSi8	F.322		Z45CS9	SUH1
	0Cr13Al	1.4724	X10CrAl13	405	403S17		X10CrAl12	F.311		Z10C13	SUS405
	Cr17	1.4742	X10CrAl18	430	430S15	60	X8Cr17	F.3113		Z10CAS18	SUS430
8Cr20Si2Ni	1.4757	X80CrNiSi20	HNV6	443S65	59	X80CrSiNi20	F.320V		Z80CSN20.02	SUH4	
2Cr25N	1.4762	X10CrAl24	446			X16Cr26		2322	Z10CAS24	SUH446	
不锈钢 Stainless Steel	0Cr18Ni9	1.4301	X5CrNi1810	304	304S15	58E	X5CrNi1810	F.3551 F.354 F.3504	2332	Z6CN18.09	SUS304
	1Cr18Ni9MoZr	1.4305	X10CrNiS189	303	303S21	58M	X10CrNiS18.09	F.3508	2346	Z10CNF18.09	SUS303
	0Cr19Ni10	1.4306	X2CrNi1911	304L	304S12		X2CrNi18.11	F.3503	2352	Z2CN18.10	SCS19
		1.4308	G-X6CrNi189		304C15					Z6CN18.10M	SCS13
	Cr17Ni7	1.4310	X12CrNi177	301			X12CrNi1707	F.3517	2331	Z12CN17.07	SUS301
		1.4311	X2CrNiN1810	304LN	304S62				2371	Z2CN18.10	SUS304LN
	0Cr19Ni9	1.4350	X5CrNi189	304	304S31	58E	X5CrNi1810			Z6CN18.09	SUS304
	0Cr17Ni11Mo2	1.4401	X5CrNiMo1712	316	316S16	Z6CND17.11	X5CrNiMo1712	F.3543	2347	1.4401	SUS316
	00Cr17Ni13Mo2	1.4429	X2CrNiMoN17133	316LN					2375	Z2CND17.13	SUS316LN
	0Cr27Ni12Mo3	1.4435	X2CrNiMo18143	316L	316S12		X2CrNiMo1713		2353	Z2CDN17.13	SCS16
	00Cr19Ni13Mo3	1.4438	X2CrNiMo17133	317L	317S12		X2CrNiMo18.16		2367	Z2CND19.15	SUS317L
		1.4460	X8CrNiMo275	329L					2324		SUS329L; SCH11 SCS11
	1Cr18Ni9Ti	1.4541	X6CrNiTi1810	321	2337	321S12	X6CrNiTi1811	F.3553	58B	Z6CNT18.10	SUS321
	1Cr18Ni11Nb	1.4550	X6CrNiNb1810	347	347S17	58F	X6CrNiTi1811	F.3552	2338	Z6CNNb18.1	SUS347
	Cr18Ni12Mo2Ti	1.4571	X6CrNiMoTi17122	316Ti	320S17	58J	X6CrNiMoTi17	F.3535	2350	Z6NDT17.12	
不锈钢 Stainless Steel		1.4581	G-X5CrNiMoNb1810		318C7		XG8CrNiMo18			Z4CNDNb1812M	SCS22
	Cr17Ni12Mo3Nb	1.4583	X10CrNiMoNb1812	318			X6CrNiMoTiNb17			Z6CNDNb1713B	
	1Cr23Ni13	1.4828	X15CrNiSi2012	309	309S24					Z15CNS20.1	SUH309
	0Cr25Ni20	1.4845	X12CrNi2521	310S	310S24		X6CrNi2520	F.331	2361	Z12CN2520	SUH310
	Cr15Ni36W3Ti	1.4864	X12NiCrSi3616	330						Z12CN35.1	SUH330
		1.4865	G-X40NiCrSi3818		330C11		XG50NiCr3919				SCH15
	5Cr2Mn9Ni4N	1.4871	X53CrMnNiN219	EV8	349S54;321S12	58B	X53CrMnNiN219			Z52CMN21.0	SUH35
1Cr18Ni9Ti	1.4878	X12CrNiTi189	321	321S320	58C	X6CrNiTi1811	F.3523		Z6CNT18.12	Su321	

# 材料对照表

Material Comparison

## 铸铁 Cast Iron

ISO	国家和标准 Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB (P类)	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
球墨铸铁 Nodular Iron	QT400-18		GGG40	60-40-18		400/17	GS370-17	FGE38-17	0717-02	FGS370-17	FCD400
	QT450-10			65-45-12		420/12	GS400-13	FGE42-12		FGS400-12	FCD450
	QT500-7		GGG50	70-50-05		500/7	GS500-7	FGE50-7	0727-02	FGS500-7	FCD500
	QT600-3		GGG60	80-60-03		600/7	GS600-2	FGE60-2	0732-03	FGS600-2	FCD600
	QT700-2		GGG70	100-70-03		700/2	GS700-2	FGE70-2	0737-01	FGS700-2	FCD700
	QT800-2		GGG80	120-90-02		800/2	GS800-2	FGE80-2	0864-03	FGS800-2	FCD800
	QT900-2					900/2					
灰口铸铁 Grey Cast Iron			GG40	NO.60					0140	FGL400	FC350
	HT350		GG35	NO.50		350	G35	FG35	0135	FGL350	FC300
	HT300		GG30	NO.45		300	G30	FG30	0130	FGL300	FC250
	HT250		GG25	NO.35		250	G25	FG25	0125	FGL250	FC200
	HT200		GG20	NO.30		200	G20	FG20	0120	FGL200	FC150
	HT150		GG15	NO.20		150	G15	FG15	0115	FGL150	FC100
	Ht100					100	G10		0110		

# 牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	钻石 ZCCCT	三菱 MITSUBISHI	可乐伊 Korloy	特固克 TaeguTec	住友工业 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	日立工具 HITACHI	山特维克 SANDVIK	肯纳金属 KENNAMETAL
CVD 涂层 Turning	P01			UE6105		TT8105	AC8015P AC810P	T9205 T9105	CA510 CA5505	HG8010	GC4305 GC4315	KCP05B KCP05 KCPK05 KCK05B KCK05 KCK15B KCK15
	P10	OC2015 OC2115 OC2325	YBC151 YBC152	UE6105 MC6015 UE6110 MY5015	NC3215	TT8105 TT8115	AC8015P AC810P	T9205 T9105 T9215 T9115	CA510 CA515 CA5505 CA5515	HG8010	GC4305 GC4315 GC4325	KCP05B KCP05 KCPK05 KCP10B KCP10 KCP15B KCK15 KCK20B
	P20	OC2025 OC2125 OC2325	YBC251 YBC252	MC6015 UE6110 MC6025 UE6020 MY5015	NC3225 NC3120	TT5100 TT8125	AC8025P AC820P	T9215 T9115 T9225 T9125	CA025P CA525 CA5515 CA5525 CR9025	HG8025 IP2000 GM25	GC4315 GC4325 GC4225 GC1515	KCP10B KCP10 KCP25B KCP25 KCM15B KCM15
	P30	OC2035 OC2125 OC2135	YBC252 YBC351 YBC352	MC6025 UE6020 MC6035 UE6035 UH6400	NC3030	TT8125 T5100	AC8035P AC830P AC6030M AC630M	T9225 T9125 T9235 T9135 T6130	CA025P CA525 CA5525 CA530 CA5535 CR9025	IP3000 GM8035	GC4315 GC4325 GC4335 GC2025	KCP25B KCP25 KCP30B KCP30 KCM15B
	P40	OC2035	YBC351 YBC352	MC6035 UE6035 UH6400	NC5330	TT8135 TT7100	AC8035P AC830P AC6030M AC630M		CA530 CA5535	GM8035 GX30	GC4325 GC4335	KCP30B KCP30 KCP40B KCP40 KCM25B KCM25 KCM35B KCM35
	M10	OC4015 OC4315		MC7015 US7020	NC9115	TT9215	AC6020M AC610M	T9235 T9135 T6130	CA6515	IP1050S	GC2015 GC1515	KCM15B KCM15
	M20	OC4025 OC4225	YBM151 YBM153	MC7015 US7020 MC7025	NC9115 NC9125	TT9225	AC6020M AC6030M AC610M AC630M	T9215 T9115	CA6525	IP1050S	GC2015 GC2025 GC2020	KCP30B KCP30 KCP40B KCP40 KCM15B KCM15 KCM25B KCM25
	M30	OC4035	YBM151 YBM251	MC7025 US735	NC9125 NC9135	TT9235	AC6030M AC630M AC8035P AC830P	T6120 T9215 T9115		IP100S GX30	GC2025 GC2020	KCP40B KCP40 KCM25B KCM25 KCM35B KCM35
	M40		YB253	US735	NC9135	TT9235	AC6030M AC630M	T6130		IP100S GX30		KCM35B KCM35
	K01	OC3105	YBD052	MC5005 UC5105	NC6310	TT7005	AC4010K AC405K	T5105	CA310 CA4010 CA4505 CA5505	HX3505	GC3210	KCK05B KCK05
	K10	OC3115D OC3215	YBD102	MC5015 UC5115 MY5015	NC6310 NC6315	TT7015	AC4010K AC4015K AC405K AC415K	T5105 T515 T5115 T9215	CA310 CA315 CA4010 CA4115 CA4505 CA4515 CA5505	HX3505 HX3515 HG8010	GC3210	KCK05B KCK05 KCK15B KCK15
	K20	OC3115D OC3215	YBD152 YBD252	MC5015 UC5115 UE6110 MY5115	NC6315	TT7015 TT7025	AC4015K AC415K AC420K AC425K AC8025P	T515 T5115 T5125 T9215	CA315 CA320 CA4115 CA4120 CA4515	HX3515 HG8010	GC3210 GC3225	KCK15B KCK15 KCK20B KCK20
	K30	OC3125		UE6110				T5125	CA320	HG8010	GC3225	KCP05B KCP05 KCPK05 KCP10B KCP10 KCP25B KCP25 KCK20B KCK20

# 牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	钻石 ZCCCT	三菱 MITSUBISHI	可乐伊 Korloy	特固克 TaeguTec	住友工业 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	日立工具 HITACHI	山特维克 SANDVIK	肯纳金属 KENNAMETAL
CVD 涂层 Milling	P10					TT7515	ACP2000 ACP100				GC4220 GC4230 GC3040	KC930M KC935P
	P20		YBC301 YBC251	F7030 MC7020	NC5330	TT7515	ACP2000 ACP100	T3225			GC4220 GC4230 GC3040	SC6525 SP6519
	P30	OC4025 OC4225	YBM351	F7030 MC7020	NC5330 NC5340 NCM325	TT7800	ACP2000 ACP100	T3130 T3225			GC4230 GC3040 GC2040 M30B	MP91M SC6525 KCPK30 X500
	P40	OC4035	YBC302		NC5340 NC325 NCM325 NC5350 NCM335	TT7800					GC4240 GC4230 GC3040 GC2040 M30B	KCPK30 X500
	M10						ACM200					
	M20	OC4025 OC4225	YBM251 YBM253	F7030 MC7020	NC5330		ACM200	T3225	CA6535	GX2160 AX2040	GC2040 GC4230	SC6525
	M30	OC4035	YBM302	F7030 MC7020	NC5330 NC5340 NCM325 NC5350	TT7800	ACM200	T3225 T3130			GC2040 GC4230 GC4240 M30B S40T	SC6525 X500
	M40				NCM335 NC5350	TT7800					GC2040 M30B S40T GC4240	X500
	K10	OC3105 OC3115	YBD151	MC5020		TT7515	ACK2000 ACK100 ACK200	T1215 T1115				SC3025 KCK15
	K20	OC3115D OC3115	YBD252	MC5020	NC5330	TT7515	ACK200 ACK200	T1215	CA420M	GX2120	GC3220 K20W	KCK15 SC3025 MP91M
	K30	OC3125	YBD252		NC5340						GC3040	MP91M KCPK30 SC6525

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Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	钻石 ZCCCT	三菱 MITSUBISHI	可乐伊 Korloy	特固克 TaeguTec	住友工业 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	日立工具 HITACHI	山特维克 SANDVIK	肯纳金属 KENNAMETAL
PVD 涂层 Turning	P10	OP1102	YBG102	VP10MF MS6015	PC8105		AC1030U ACZ150 AC5025S AC520U	AH710	PR930 PR1005 PR1025 PR1115 PR1215 PR1425 PR1225		GC1025 GC1125	KCS10 KCU10 KC5010
	P20	OP1205	YBG202	VP10RT VP20RT VP15TF VP20MF	PC8110 PC230	TT9020 TT9030	AC1030U AC5025S AC520U AC530U	AH120 AH725 AH730 SH725 SH730 J740	PR930 PR1025 PR1115 PR1215 PR1225 PR1625	IP2000	GC1025 GC1125	KCS10 KCU10 KCU25 KC5010 KC5025
	P30	OP1302	YBG202	VP10RT VP20RT VP15TF VP20MF	PC5300 PC8115	TT8020 TT8080 TT9030	AC1030U AC530U	AH120 AH725 AH7025 AH730 SH725 SH730 GH730 GH330 J740	PR1025 PR1225 PR1535	IP3000 CY250	GC1025 GC1125	KCU25 KC5025
	P40					TT8020 TT8080 TT9080	AC1030U	AH120 AH725 AH645		IP3000	GC1025	
	M10	OP1102 OP1205 OP1305	YBG202 YBG205	VP10MF MS6015	PC8105 PC8110	TT5080	AC515S AC5025S AC510U AC520U ACZ150	AH8005 AH630	PR1025 PR1215 PR1225	IP050S IP100S JP9105 JP9115	GC1115 GC1125	KCS10 KCU10 KC5010
	M20	OP1202 OP1215 OP1315 OP1525	YBG202 YBG205	VP10RT VP20RT VP15TF VP20MF	PC8110 PC8110 PC5300	TT5080 TT9080	AC5015S AC5025S AC1030U AC520U	AH8015 AH630 AH120 AH7025 AH725 SH725 SH730	PR930 PR1025 PR1125 PR1215 PR1425 PR1225 PR1515	IP100S HS9115	GC1115 GC1125 GC2035	KCS10 KCU10 KCU25 KC5010 KC5025
	M30	OP1205H OP1215 OP1302		VP10RT VP20RT VP15TF VP20MF MP7035	PC9030 PC5300 PC5400	TT8020 TT8080 TT9020 TT9080	AC5025S AC6040M AC1030U AC520U AC530U	AH645 AH120 AH725 SH725 SH730 J740	PR1125 PR1535		GC1125 GC2035	KCU25 KC5025
	M40			MP7035	PC5400	TT8020 TT8080 TT9020 TT9080	AC6040M AC1030U AC530U	AH645		GX30	GC2035	
	K10	OP1102					AC1030U AC510U ACZ150	GH110 AH110	PR905 PR1215	HX3305 HG3305 HX3515 HG8010 TH315 ATH10E	GC3330 GC3220 GC3040 K20W K20D K20M K15W	KCS10 KCU10 KC5010
	K20	OP1202		VP10RT VP20RT VP15TF	PC5300		AC1030U AC510U AC530U ACZ150	AH120 AH7025	PR905 PR1215		GC3330 GC3220 GC3040 K20W K20D GC4230 K20M K15W	KCS10 KCU10 KCU25 KC5010 KC5025
	K30			VP10RT VP20RT VP15TF			AC1030U AC530U	AH120 GH130			GC3330 GC3040 K20W GC4240 GC4230	

# 牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	钻石 ZCCCT	三菱 MITSUBISHI	可乐伊 Korloy	特固克 TaeguTec	住友工业 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	日立工具 HITACHI	山特维克 SANDVIK	肯纳金属 KENNAMETAL
PVD 涂层 Turning	P10		YBG252		PC2005 PC2010 PC2015	TT2510 TT7080	ACP2500 ACP200	AH120 AH725	PR830 PR1025 PR1225	PCA12M PN15M PN215 JP4115	GC1010 GC1025 GC1030	KC5010M KC515M
	P20	OP1205 OP1305 OP2202	YBG202 YBG205 YBG9320 YBG252	MP6120 VP15TF	PC2505 PC2510	TT2510 TT7080 TT8020 TT9030 TT9080	ACP3000 ACU2500 ACP200 ACP300	AH120 AH725 AH3135 AH9030 AH3225 AH9130	PR1525 PR830 PR1025 PR1225 PR1230	CY150 CY9020 JP4120	GC1025 GC1030 GC2030	KC522M KC525M KCSM30 SP6519
	P30	OP1030 OP1130 OP1215 OP1302 OP1315 OP1325	YBG302	MP6120 VP15TF MP6130 VP30RT	PC3600 PC3500 PC210F PC5300	TT8020 TT8080 TT9030 TT9080	ACP3000 ACU2500 ACP200 ACP300	AH120 AH725 AH3135 AH130 AH3225 AH9130	PR1230 PR1535	HC844 CY25 CY250 CY259V JS4045	GC1030 GC1010 GC2030	KC525M KC530 KC725M KC735M KCPM40 KCSM30 X400
	P40		YBG302	VP30RT	PC5400	TT8020 TT8080 TT9030 TT9080	ACP3000 ACU2500 ACP300	AH140		PTH30E PTH40H JS4060 GX2140	GC1030 GC2030	KC725M KC735M KCPM40
	M10		YBG252		PC210F		ACU2500 ACM100 ACK300 ACP300	AH725	PR1025 PR1225	PN15M PN215	GC1010 GC1030	KC515M SP4019 SP6519
	M20	OP1202 OP1215 OP1205H	YBG202 YBG205 YBG9320 YBG252	VP15TF MP7130 MP7030 VP20RT	PC5300	TT9030 TT9080	ACU2500 ACK300 ACP300	AH725 AH3135 AH130 AH6030 AH3225 AH9130	PR1525 PR1025 PR1225	JP4120	GC1030 GC1040 GC2030 S30T	KC522M KC525M SP4019 SP6519 X700
	M30	OP1302	YBG302	VP15TF MP7130 MP7030 VP20RT MP7140	PC9530 PC5400	TT8020 TT8080 TT9030 TT9080	ACM300	AH3135 AH130 AH9130	PR1535	HC844 CY250 JS4045	GC1040 S30T GC2030	KC522M KC525M KC725M KC735M KCPM40 KCSM30 KCSM40 SC6525 X700
	M40		YBG302	MP7140 VP30RT	PC5400	TT8020 TT8080 TT9030 TT9080	ACM300	AH140		PTH30E PTH40H JM4160 GX2160 AX2040		KC725M KCPM40 KCSM40
	K10	OP1102	YBG102 YBG252	MP8010	PC8110 PC6510	TT6080	ACK3000 ACU2500	AH110 GH120	PR510 PR905 PR1210	ATH10E TH315 CY100H	GC1010 GC1020	KC514M KC515M KCK20 SP4019
	K20	OP1202 OP2212	YBG152	VP15TF VP20RT	PC5300	TT6080	ACK3000 ACU2500 ACK300	AH120 AH9030 AH9130	PR905 PR1210	CY9020 CY150 PTH13S JP4120 GX2120	GC1020	KC514M KC520M KC524M KCK20 SP6519
	K30	OP1205 OP1205H		VP15TF VP20RT			ACK3000 ACU2500 ACK300	AH120		CY250 JS4045 GX2040		KC522M KC524M SP6519

# 硬度对照表

## Hardness Comparison

硬度 Hardness				抗拉强度 Tensile Strength	硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(HV)	布氏 Brinell Hardness(BH)		洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(HV)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB		HRC	HRA	HV	HB	
70.0	86.6	1037						1780	
69.5	86.3	1017						1750	
69.0	86.1	997						1720	
68.5	85.8	978						1690	
68.0	85.5	959						1660	
67.5	85.2	941						1630	
67.0	85.0	923						1605	
66.5	84.7	906						1575	
66.0	84.4	889						1550	
65.5	84.1	872						1525	
65.0	83.9	856						1500	
64.5	83.6	840						1475	
64.0	83.3	825						1450	
63.5	83.1	810						1430	
63.0	82.8	795						1405	
62.5	82.5	780						1385	
62.0	82.2	766						1360	
61.5	82.0	752						1340	
61.0	81.7	739						1320	
60.5	81.4	726						1300	
60.0	81.2	713		2555				1280	
59.5	80.9	700		2500				1260	
59.0	80.6	688		2450				1245	
58.5	80.3	676		2395				1225	
58.0	80.1	664		2345				1210	
57.5	79.8	653		2295				1190	
57.0	79.5	642		2250				1175	
56.5	79.3	631		2205				1160	
56.0	79.0	620		2160				1140	
55.5	78.7	609		2115				1125	
55.0	78.5	599		2075				1110	
54.5	78.2	589		2035				1095	
54.0	77.9	579		1995				1080	
53.5	77.7	570		1955				1065	
53.0	77.4	561		1920				1050	
52.5	77.1	551		1885				1035	
52.0	76.9	543		1850				1020	
51.5	76.6	534		1815				1010	

# 硬度对照表

## Hardness Comparison

硬度 Hardness				抗拉强度 Tensile Strength	硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(HV)	布氏 Brinell Hardness(BH)		洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(HV)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB		HRC	HRA	HV	HB	
32.0		304	298	995	24.0		249	245	820
31.5		300	294	980	23.5		246	242	810
31.0		296	291	970	23.0		243	240	800
30.5		292	287	960	22.5		240	237	790
30.0		289	283	950	22.0		237	234	785
29.5		285	280	935	21.5		234	232	775
29.0		281	276	920	21.0		231	229	765
28.5		278	273	910	20.5		229	227	760
28.0		274	269	900	20.0		226	225	750
27.5		271	266	890	19.5		223	222	745
27.0		268	263	880	19.0		221	220	735
26.5		264	260	870	18.5		218	218	730
26.0		261	257	860	18.0		216	216	725
25.5		258	254	850	17.5		214	214	715
25.0		255	251	835	17.0		211	211	710
24.5		252	248	830					