

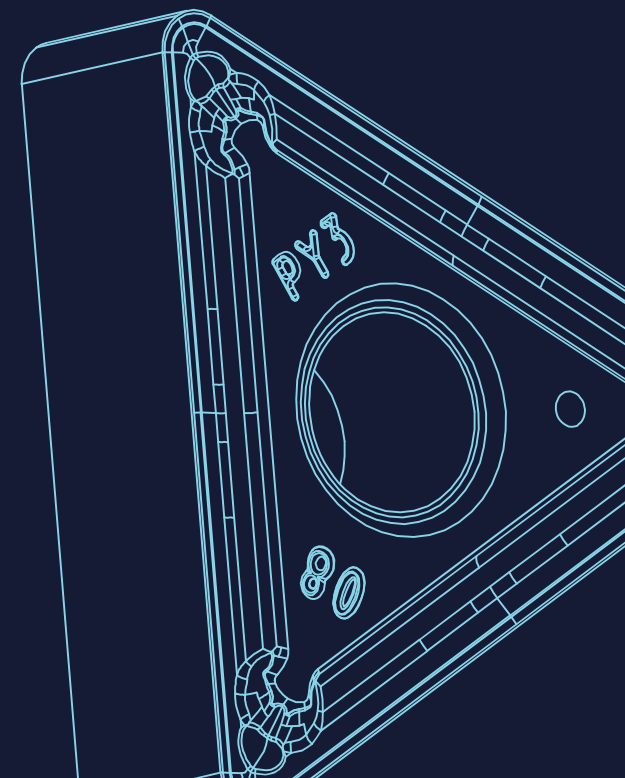
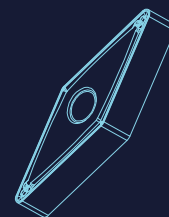
成都邦普切削刀具股份有限公司  
Chengdu Bangpu Cutting Tools CO.,LTD

邦普刀具

# PRODUCTS CATALOG

METAL CUTTING TOOLS 2024 Edition

2024综合产品目录



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成都邦普切削刀具股份有限公司（简称“邦普”）专注于硬质合金切削刀具的研发、生产与销售，培养了专业、钻研的技术团队，拥有比肩国际一流水准的制造、研发和检测设备。产品线涵盖高精度硬质合金可转位刀片、整体合金刀具、金属陶瓷刀片、钢制可转位刀具、木工刀具等多个类别，广泛应用于航空、航天、军工、汽车、工程、能源、建筑、机械等众多行业，尤其在难加工材料和铝合金加工领域，已处于国内领先地位。

Chengdu Bangpu Cutting Tools Co., LTD. (hereinafter referred to as "Bangpu"), focusing on the research and development, production and sales of carbide cutting tools, has trained a professional, research, and technical team, with the international first-class level of manufacturing, research, and testing equipment. The product line covers high-precision carbide indexable inserts, solid alloy cutting tools, cermet inserts, steel indexable tools, woodworking tools, and other categories, widely used in aviation, aerospace, military, automotive, engineering, energy, construction, machinery, and other industries, especially in the difficult-to-process materials and aluminum alloy processing field, has been in a leading position in China.

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## ● 硬质合金产品安全指南

### SAFETY GUIDELINES FOR CARBIDE TOOLS

成都邦普切削刀具股份有限公司一直以来致力于开发稳定安全可靠的产品。  
Chengdu Bangpu Cutting Tools Co LTD has been committed to developing and producing the safe and reliable carbide products.

以下是关于使用我司硬质合金产品的一般使用指南  
Please read the safety guidelines as below before operation .

如有疑问，可联系我们  
Contact us in time in case of any problems.

## ● 1.硬质合金刀具的基本特征

### Basic characteristics of carbide cutting tools

硬质合金刀具是由碳氮化物、氮化物、碳化物、钨、钛、铝、硅、硼等氧化物和作为粘合剂的金属，如铝、镍、钴、锰等组成，硬质合金刀具具有硬度高、比重大等特点。  
Carbide cutting tools is made of carbon-nitride, nitride, carbide, and oxide such as tungsten, titanium, aluminum, silicon, boron and adhesion agent such as aluminum, nickel, cobalt and manganese. The carbide cutting tools are featured with high hardness and large specific gravity.

## ● 2.硬质合金刀具使用预防事项

### Cautions

- ① 硬质合金是硬而脆的材料，在用力地震动和夹持下可能引起刀具的破损和断裂。  
Carbide tool materials are extremely both hard and brittle. Thus, it might be broken by shocks and tightening with excess force.
- ② 硬质合金材料因其比重大，在处理大型、数量较多的产品时，应作为重物处理，并且需要注意其处理事项。  
Carbide tool materials have a large specific gravity. Thus, they require special attention as heavy materials when the size or quantity is large.
- ③ 硬质合金具有锋利的切削刃，因此在处理过程中需要戴手套，以防被刀刃割伤。  
It is required to handle the carbide tool with gloves in case getting hurt from sharp cutting edge.
- ④ 存储刀具于腐蚀性气体中，将会导致刀具腐蚀，并降低其韧性。  
Cutting tools stocked in corrosive gas will be corroded with decreased toughness.
- ⑤ 在使用刀具前请先认真阅读样本及安全指南。  
Please read the catalog and safety guidelines carefully before application.
- ⑥ 在不良条件下禁止使用刀具。  
It is forbidden to use the cutting tools under unfavorable conditions.

## ● 3.使用硬质合金刀具进行加工时注意事项

### Attention to be paid in the process of application

- ① 硬质合金研磨时会产生烟雾和粉尘，它包含了有害成分如钴，因此在研磨过程中推荐使用防毒面具，吸排尘设备。假如不小心粉尘溅到手上或者飞入您的眼睛，请立即用清水清洗。  
It is recommended to use local exhaust ventilation and respirators, a dust protective mask and dust-clean equipment when grinding and machining since cutting tool products generate harmful mist and dust containing cobalt. If dust makes contact with the hands or eyes, immediately wash the affected area with clean water. Washing hands or eyes with clean water immediately if dust splashed into those body part accidentally.
- ② 表面状况会影响硬质合金工具的强度，所以推荐使用金刚石研磨砂轮进行加工。  
Surface conditions affect toughness of cutting tools. Therefore, use a diamond grinding wheel for finishing.
- ③ 在硬质合金刀具上用激光标志或者电刻都会产生裂痕，而这种裂痕会严重影响刀具的使用寿命。  
Cracks caused by lasering or electrograving on cutting tools will decrease tools life badly.
- ④ 焊接硬质合金材料时，因焊接熔点过高或过低，会导致刀具脱落或破损。  
Cutting tools will fall off or break in the process of welding with extremely high or low melting point.
- ⑤ 由于加工温度过高或零件本身原因，使用油性切削液会引起火灾，因此在使用前请做好防火措施。  
Fire prevention measures must be taken, as oily cutting fluids will cause fires at high temperature under process.

## ● 4.金属切削安全指南Safety guidelines for metal cutting

项目	危险因素	应对措施
Items	Risk factors	Solutions
切削刀具 Cutting tools	· 如果不带手套，容易被切削刀具锋利的刀刃所割伤 · Easy to be cut without gloves.	· 从盒内取出或安装到设备上时，应使用防护疏导等防护工具 · Put on protective equipment before taking out or installing the cutting tools.
	· 在切削过程中产生的刀屑有热有锋利，有烫伤或割伤的危险 · Easy to be burned or cut by sharp chips in the process of cutting.	· 为了安全起见，请佩戴防护眼镜或面罩 · 在清除切屑时，应先停机，戴上防护手套，使用钩子操作 · Wear protective glass or mask for safety. · Stop the machine and wear gloves before removing chips by hooks.
	· 过强的负载，过度的磨损使刀具切削阻力剧增而导致工具的破损，造成伤害 · Cutting resistance increased much with over load and excessive abrasion will break tools and get hurt.	· 为了安全起见，请佩戴防护眼镜或面罩 · 适时更换刀具 · Wear protective glass or mask for safety. · Change cutting tools in time.
	· 加工条件不当或不正确的使用会引起刀具碎裂，使得刀具碎片飞溅造成伤害 · Cutting tools will be broken by misoperation under improper process condition. People can easily get hurt by spattering chips.	· 为了您的人身安全，使用时请佩戴防护眼镜或面罩 · 请在推荐范围内使用刀具 · Wear protective glass or mask for safety. · The cutting tools must be applied against recommendation.
	· 刚被加工完的工件温度很高或工件上有毛刺，直接用手触摸，会导致伤害 · People will get gurt if touching the workpiece with bare hands due to high temperature and burrs.	· 请不要用手触摸工件 · Do not touch workpiece with bare hands.
可转位刀具 Indexable tools	· 没有夹紧被加工工件就直接进行加工就会造成刀具破损，并对人体造成伤害 · Cutting tools will be broken when machined with loose clamping workpiece and It brings harm to people.	· 启动机床前请用夹具将被加工工件牢牢地固定 · Clamping the workingpiece tightly before starting the machine.
	· 在加工过程中，刀片及其附件没有紧固，可能导致其脱落，飞出造成伤害 · The insert and its accessory will fall down or fly out without tight clamping and hurt people.	· 加工前请确认已用附带的扳手将刀片及其附件紧固妥当，另外，请使用指定的刀具 · Confirm that the insert and its accessory are clamped tightly with wrench. Please use appointed tools.
旋转刀具 Rotary tools	· 在高速切削时，刀片和附件会因离心力的作用而脱落、飞出去的危险 · The insert and its accessory will be at the risk of falling down or flying out due to centrifugal force when cutting at high speed.	· 使用时请在推荐的范围内使用 · Please apply the tools within recommended parameter.
	· 工具在偏心旋转或平衡不良的情况下，会产生晃动、震动而引起破飞出致伤 · Under the condition of Eccentric rotating or poor balance, the tool will sway and vibrate to cause hurt.	· 请在推荐的范围内选择加工转速 · Please select the cutting speed within recommended range.
	· 回转切削时，戴手套操作是十分危险的 · It is danger to wear gloves for rotary cutting · 回转切削时，人、衣服或长发靠近旋转部位是很危险的 · It is dangerous to get close to the rotary parts in the process of rotary cutting.	· 在回转加工时，请不要佩戴手套 · Do not wear gloves in the process of rotary cutting.
其它Others	· 在钻削加工时，钻削区域核心部位会有切削高速飞出的危险 · Chips probably will fly out at high speed from central part of drilling area.	· 在加工时为了安全起见，请佩戴手套或者防护面罩 · Wear protective glass or mask for safety.
	· 用小直径钻头时，刀尖非常锋利且易折断，折断后不易取出 · Small sized drill with sharp tip can be broken easily and the broken parts is hard to be take out.	· 为了您自身安全，请佩戴手套或防护面罩 · Wear protective glass or mask for safety.
	· 如多次进行焊接，会导致硬质合金刀片劣化并在切削中易碎 · The carbide insert will be degraded and easy broken after being welded repeatedly.	· 应尽量减少使用过多次焊接的刀片 · Use the insert welded repeatedly as less as possible.
	· 滥用刀具可能会造成机床和刀具的破裂，容易造成伤害 · Misuse of the tool may cause the machine and tool broken, thus getting hurt.	· 请规范使用刀具 · Please use the tool under guidance.

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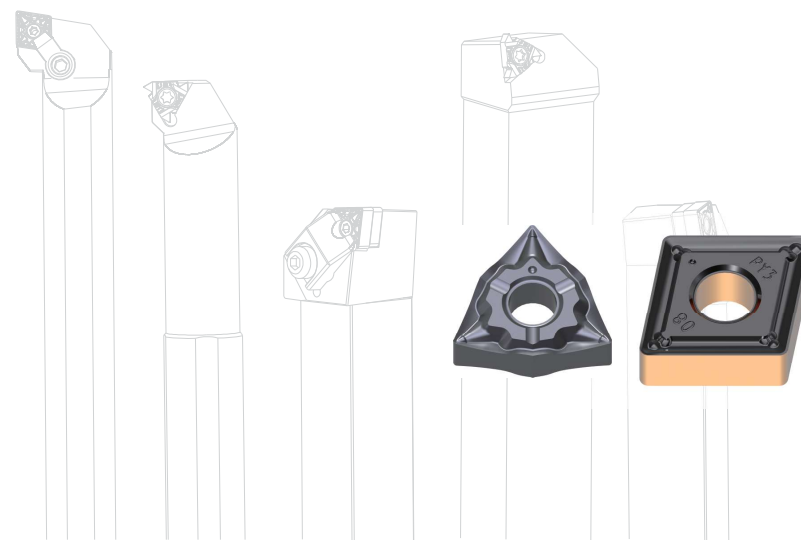
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# A

## 车削 General Turning



## 车削/General Turning

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## ● 车削刀具 Turning tools

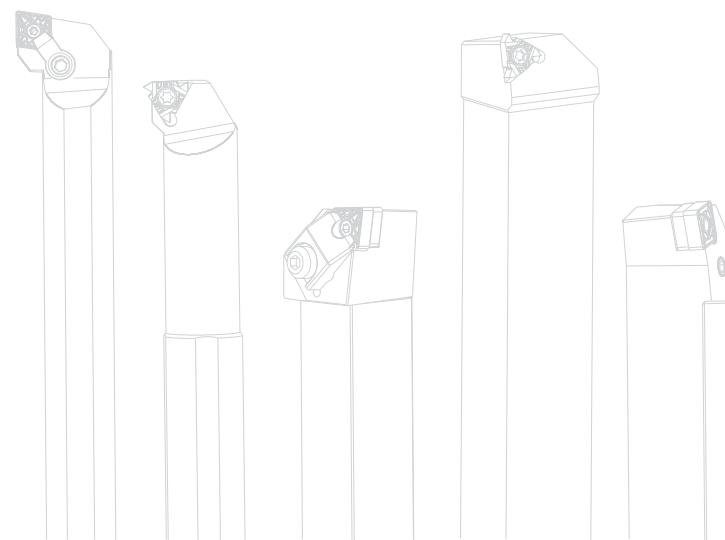
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### 切削参数推荐

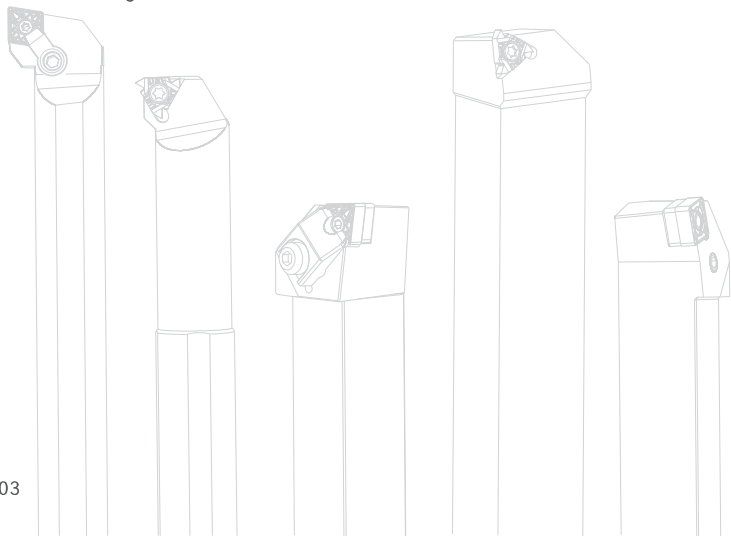
Cutting parameter recommended

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A03

## 车削牌号命名规则 Coating Grade Description



刀具参数术语		
术语Terms	符号Symbol	单位Unit
刀具直径 Cutter diameter	D	mm
切削速度 Cutting speed	Vc	m/min
每分钟旋转转速 Rotational speed per minute	n	min
每分钟进给速度 Feed speed per minute	vf	mm/min
每转进给速度 Feed speed per revolution	fn	mm/rev
每齿进给速度 Feed speed per tooth	fz	mm/t
齿(刃)数 Tooth(Edge)number	z	
轴向切削深度 Depth of axial cutting	ap	mm
径向切削深度 Depth of radial cutting	ae	mm
进给峰值 The peak of feed	pf	mm

刀具参数术语		
术语Terms	符号Symbol	单位Unit
需要马力 Horsepower required	Pc	mm
特定切削阻力 Specific cutting resistance	kc	Mpa
扭矩 Torque	Mc	N.m
插入力 Insertion force	Tc	N
循环时间 Cycling time	tc	min
刀具寿命 Tool life	T	min
后刀面磨损 Flank wear	Vb	mm
前刀面磨损 Rake face wear	Kt	mm
刀尖半径 Nose radius	r	mm

A04



# 车削刀片命名规则

## Code Key For Turning Inserts

<b>C</b>	<b>N</b>	<b>M</b>	<b>G</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

1 刀片形状	
A 85°	
B 82°	
K 55°	
H 120°	
L 90°	
O 135°	
P 108°	
C 80°	
D 55°	
E 75°	
M 86°	
V 35°	
R -	
S 90°	
T 60°	
W 80°	

2 刀片后角	
a	
A 3°	
B 5°	
C 7°	
D 15°	
E 20°	
F 25°	
G 30°	
N 0°	
P 11°	
O 特殊	

3 精度代号						
	d (±mm)	m (±mm)	s (±mm)	φ=6.35/9.525 d=12.7	φ=15.875/19.05	
A	0.025	0.005	0.025	●	●	
C	0.025	0.013	0.025	●	●	
E	0.025	0.025	0.025	●	●	
F	0.013	0.005	0.025	●	●	
G	0.025	0.025	0.130	●	●	
H	0.013	0.013	0.025	●	●	
J	0.050	0.05	0.025	●	●	
K	0.080	0.013	0.025	●	●	
M	0.100	0.013	0.025	●	●	
M	0.05	0.08	0.13	●	●	
N	0.08	0.13	0.13	●	●	
N	0.10	0.15	0.13	●	●	
N	0.05	0.08	0.025	●	●	
N	0.08	0.13	0.025	●	●	
N	0.10	0.15	0.025	●	●	
U	0.08	0.13	0.13	●	●	
U	0.13	0.20	0.13	●	●	
U	0.18	0.27	0.13	●	●	

4 切削槽及夹固形式	
R	Q  圆柱孔 + 双面倒角 40°-60°
F	C  圆柱孔 + 双面倒角 70°-90°
N	G  圆柱孔
A	T  圆柱孔 + 单面倒角 40°-60°
M	H  圆柱孔 + 单面倒角 70°-90°
U	W  圆柱孔 + 双面倒角 40°-60°
J	B  圆柱孔 + 单面倒角 70°-90°
X	特殊设计

5 切削刃长度							
d mm	C	D	R	S	T	V	W
5.56	05	-	-	05	09	-	03
6.0	-	-	06	-	-	-	-
6.35	06	07	-	06	11	11	04
6.65	-	-	-	-	-	-	-
7.94	07	-	-	07	-	-	-
8.0	-	-	08	-	-	-	-
9.525	09	11	-	09	16	16	06
10.0	-	-	10	-	-	-	-
12.0	-	-	12	-	-	-	-
12.7	12	15	-	12	22	22	08
15.875	16	19	-	15	27	-	10
16.0	-	-	16	-	-	-	-
16.74	-	-	-	16	-	-	-
19.05	19	-	-	19	33	-	13
20.0	-	-	20	-	-	-	-
25.4	25	-	25	25	-	-	-

<b>12</b>	<b>04</b>	<b>04</b>	<b>E</b>	<b>N</b>	—	<b>PY3</b>
<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	—	<b>10</b>

3 代号	内切圆直径 (mm)	3 代号	厚度 (mm)	3 代号	刀尖圆弧半径 (mm)
2	6.35	2	3.18	0.5	0.2
3	9.525	3	4.76	1	0.4
4	12.7	4	6.35	2	0.8
5	15.875	5	7.94	3	1.2
6	19.05	6	9.52	4	1.6
8	25.4	8	12.7	5	2.0
				6	2.4

厚度指刀片底面与切削刃最高部分之间的高度

6 刀片厚度 S(mm)		7 刀尖圆弧半径 R	
	01 S=1.59 T1 S=1.98 02 S=2.38 03 S=3.18 T3 S=3.97 04 S=4.76 05 S=5.56 06 S=6.35 07 S=7.94 09 S=9.52		R (mm) 02 0.2 04 0.4 05 0.5 08 0.8 12 1.2 16 1.6 20 2.0 24 2.4 32 3.2

8 刃口转化代号	
F	尖刃
E	倒圆刃
T	倒棱刃口
S	倒圆且倒棱刃口

9 切削刃方向	
R	
L	
N	

10 制造商选择代号 (断屑槽型)						
刀片的国际编号通常由前九位编号组成 (包括 8 位, 9 位编号, 仅在需要时标出)。此外, 制造商根据根据需要可以增加编号						
-P1	-P3	-P6	-S1	-S2	-N1	-N2

## 车削刀片材质推荐一览表

List of Grades Recommendations for Turning Insert

ISO使用 ISO Application	车削 Turning							螺纹 Threading		切槽切屑 Grooving & Parting		
	涂层 Coating		硬质 合金 Cemented carbide	金属 陶瓷 Cermet	涂层 金属 陶瓷 Cermet with coating	PCDBN	PCD	涂层 Coating	硬质 合金 Cemented carbide	涂层 Coating		硬质 合金 Cemented carbide
	CVD	PVD								CVD	PVD	
P 钢 Steel	01	BP6305										
	10	BP6315										
	20	BP6325								BG6225		
	30	BP6335										
	40	BP6335										
M 不锈钢 Stainless steel	01										BG2205	
	10										BG2215	
	20								BT2125	BT2225		BG2225
	30											
	40											
K 铸铁 Cast iron	01											
	10	BP3205										
	20	BP3215										BP3215
	30											
	40											
S 耐热 合金、 钛合金 Heat- resistant alloy, Titanium alloy	01											
	10											
	20											
	30											
	40											
N 有色金属 Non- ferrous metal	01											
	10											
	20											
	30											
	40											

## 材质说明

Grades Description

● P类钢件材质说明  
P-Steel material description

类别 Category	牌号 Grade	应用推荐 Application recommendation			
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
P 钢Steel	BP6305 P01-P10	·高速连续加工材质 ·出色的抗沟槽磨损和抗塑性变形能力 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3+TiN			
		·Grade for continuous cutting at high speed. ·Excellent performance of high notch resistance and resistance to plastic deformation. ·New coating technology, can withstand high temperature when machining with or without coolant; long tool life.		★	☆
		·加工类型 Processing types			
		·连续加工 Continuous cutting			
	BP6315 P10-P20	·精加工专用材质 ·具有出色抗热裂纹和抗塑性变形的基材，保证耐崩刃性 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3+TiN			
		·Grade for finish turning. ·Substrate having excellent resistance to thermal crack and plastic deformation, strong resistance to chipping. ·New coating technology, can withstand high temperature when machining with or without coolant; long tool life.		★	☆
		·加工类型 Processing types			
		·连续加工 Continuous cutting			
	BP6325 P20-P30	·半精加工专用材质 ·超强的韧性基体和耐热的MTD涂层相结合，提高耐磨性和稳定性 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3			
		·Grade for semi-finishing machining. ·Substrate having high resistance combined with heat resistance MTD coating, improves stability and wear resistance. ·New coating technology, can withstand high temperature when machining with or without cooling liquid; long tool life.		☆	★
		·加工类型 Processing types			
		·连续加工 Continuous cutting			
BP6335 P30-P40	·粗加工材质 ·超强的韧性基体和耐热的MTD涂层相结合，提高耐磨性和耐冲击性 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3				
	·Grade for rough machining. ·Substrate having high resistance combined with heat resistant MTD coating, improves resistance to impact and wear. ·New coating technology, can withstand high temperature when machining with or without coolant; long tool life.		☆	★	
	·加工类型 Processing types				
	·连续加工 Continuous cutting				



# 材质说明

## Grades Description

### ● M类不锈钢材质说明

#### M-Stainless Steel Material Description

类别 Category	牌号 Grade	应用推荐 Application recommendation					
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining		
M	BP2205	M01-P10	·精加工专用材质 ·一种AlTiSi基纳米复合涂层, 硬度高, 抗高温氧化性强 ·亚微晶粒材质确保刀片耐磨性 ·适用于不锈钢、耐热钢及钢件的连续精加工	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
			·Grade for finish machining. ·AlTiSi based nanocomposite coating with high hardness and strong resistance to oxidation at high temperature. ·Subgrain substrate makes sure the wear resistance of the insert. ·Suitable for continuous finish machining of stainless steel, heat-resistant steel and steel.	连续加工 Continous cutting	★	☆	
			·一般加工 Ordinary cutting	☆			
			断续加工 Interrupted cutting				
	BP2215	M10-P20	·精-半精加工材质 ·新型PSiX基纳米涂层, 硬度高, 抗高温氧化性强 ·摩擦系数小, 减小工件与切削刃的黏连 ·适用于不锈钢连续或轻微断续的精-半精加工	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
			·Grade for finish-semi-finish machining. ·Newly developed PSiX based nanocomposite coating with high hardness and strong resistance to oxidation at high temperature. ·Small friction coefficient which reduces the adhesion between the workpiece and the cutting edge. ·Suitable for continuous cutting or slightly interrupted cutting of stainless steel finish to semi-finish process.	连续加工 Continous cutting	☆	★	★
			·一般加工 Ordinary cutting	★	★		
			断续加工 Interrupted cutting				
	BP2225	M20-P30	·半精-粗加工专用材质 ·采用AlTiSi基纳米复合涂层, 硬度高, 抗高温氧化性强 ·摩擦系数小, 减小工件与切削刃的黏连 ·适用于不锈钢一般加工-断续加工	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
·Grade for semi-finish to rough machining. ·AlTiSi based nanocomposite coating with high hardness and strong resistance to oxidation at high temperature. ·Small friction coefficient which reduces the adhesion between the workpiece and the cutting edge. ·Suitable for general machining to continuous machining of stainless steel			连续加工 Continous cutting				
·一般加工 Ordinary cutting			☆	★	★		
断续加工 Interrupted cutting			★	★	☆		

### ● K类铸铁材质说明

#### K-Cast Iron Material Description

类别 Category	牌号 Grade	应用推荐 Application recommendation					
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining		
K	BP3205	K01-K10	·铸铁加工专用材质 ·新型涂层技术, 能够承受高温, 干湿切削加工, 延长刀具使用寿命 ·亚微晶粒材质确保刀片耐磨性 ·TiN+TiCN+Al2O3+TiN	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
			·Grade specialized for cast iron machining. ·Newly developed coating technology which can withstand high temperature and be machined with or without cooling liquid, thus improving tool life of the insert. ·Subgrain substrate makes sure the wear resistance of the insert.	连续加工 Continous cutting	★	★	★
			·一般加工 Ordinary cutting	★	★	★	
	BP3215	K10-K20	·铸铁加工通用材质 ·新型涂层技术, 能够承受高温, 干湿切削加工, 延长刀具使用寿命 ·亚微晶粒材质确保刀片耐磨性 ·TiN+TiCN+Al2O3+TiN	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
			·Grade for general machining of cast iron. ·Newly developed coating technology which can withstand high temperature and be machined with or without cooling liquid, thus improving tool life of the insert. ·Subgrain substrate makes sure the wear resistance of the insert.	连续加工 Continous cutting	☆	☆	★
			·一般加工 Ordinary cutting	☆	★	★	
			断续加工 Interrupted cutting	★	★	☆	

# 材质说明

## Grades Description

### ● S类不锈钢材质说明

#### S Heat-resistant alloy material description

类别 Category	牌号 Grade	应用推荐 Application recommendation					
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining		
S	耐热合金 Heat-resistant alloy	BP4205 S01-P10	精-半精加工专用材质 ·新型PSiX基纳米涂层, 硬度高, 抗高温氧化性强 ·亚微晶晶粒材质确保刀片耐磨性 ·适用于钛合金、高温合金、镍基合金等难加工材料精到半精加工	连续加工 Continous cutting	★	★	☆
			·Material for finish to semi-finish machining. ·Newly developed PSiX based nanocomposite coating with high hardness and strong resistance to oxidation at high temperature. ·Subgrain material makes sure the wear resistance of the insert. ·Suitable for semi-finish to rough machining of titanium alloy, high temperature alloy and nickel based alloy.	一般加工 Ordinary cutting	★	★	☆
			加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining	
			断续加工 Interrupted cutting				
	BP4215 S10-P20	半精-粗加工专用材质 ·新型PSiX基纳米涂层, 硬度高, 抗高温氧化性强 ·摩擦系数小, 减小工件与切削刃的黏连 ·适用于钛合金、高温合金、镍基合金等难加工材料半精到粗加工	连续加工 Continous cutting	☆	☆	★	
		·Material for finish to semi-finish machining. ·Newly developed PSiX based nanocomposite coating with high hardness and strong resistance to oxidation at high temperature. ·Small friction coefficient which reduces the adhesion between the workpiece and the cutting edge. ·Suitable for semi-finish to rough machining of titanium alloy, high temperature alloy and nickel based alloy.	一般加工 Ordinary cutting	★	★	★	
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining		
		断续加工 Interrupted cutting	★	★	★		

类别 Category	牌号 Grade	应用推荐 Application recommendation					
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining		
N	有色金属 Non-ferrous metal	BP5205 N01-N10	有色金属车削专用材质 ·亚微晶晶粒材质确保刀片耐磨性 ·特殊槽型设计, 降低积屑瘤产品和抗崩刃性 ·适用于有色金属(铝、铜、镁等)连续和间断连续加工	连续加工 Continous cutting	★	★	★
			·Material for non-ferrous metal. ·Subgrain material makes sure the wear resistance of the insert. ·Special geometry design reduces built up edge and improves resistance to chipping breakage. ·Suitable for non-ferrous metal(aluminum, copper and magnesium).	一般加工 Ordinary cutting	★	★	★
			加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining	
			断续加工 Interrupted cutting	★	★	☆	
	BP5215 N10-N20	铝轮毂加工专用材质 ·亚微晶晶粒材质确保刀片耐磨性 ·特殊槽型设计, 降低积屑瘤产品和抗崩刃性 ·适用于有色金属(铝、铜、镁等)间断续-强断续加工	连续加工 Continous cutting			★	
		·Material for aluminum wheel hub. ·Subgrain material makes sure the wear resistance of the insert. ·Special geometry design reduces built up edge and improves resistance to chipping breakage. ·Suitable for non-ferrous metal(aluminum, copper and magnesium).	一般加工 Ordinary cutting	★	★	★	
		加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining		
		断续加工 Interrupted cutting	★	★	★		

# 负型精加工槽型

## Geometries for Finish Turning of Negative Inserts

用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
精加工 Finish Machining	P1	<ul style="list-style-type: none"> <li>· 钢件精加工专用</li> <li>· 特殊断屑点设计，防止切屑堵塞</li> <li>· 轻切削槽型、低切削力</li> <li>· 适用于加工细长轴、薄壁和不稳定夹紧零件</li> </ul>	 
	M1	<ul style="list-style-type: none"> <li>· 不锈钢精加工专用</li> <li>· 全周槽型设计，具有宽广的排屑空间</li> <li>· 轻切削槽型、低切削力</li> <li>· 适用于精-半精加工</li> </ul>	 
	S1	<ul style="list-style-type: none"> <li>· 波浪式容屑槽，分散切屑力</li> <li>· 刃口大前角设计降低切削力</li> <li>· 超精密刃磨技术，保证定位精度和刃口质量</li> <li>· 适用于难加工材料及不锈钢的高精度加工</li> </ul>	 
	S2	<ul style="list-style-type: none"> <li>· 闭合式断屑槽，小切深排屑更流畅</li> <li>· 锋利切削刃，切削更轻松</li> <li>· 超精密刃磨技术，保证定位精度和刃口质量</li> <li>· 适用于难加工材料及钢、不锈钢精加工</li> </ul>	 
	N1	<ul style="list-style-type: none"> <li>· 波浪式容屑槽&amp;锋利切削刃—分散切削阻力，延长刀具使用寿命</li> <li>· 表面采用抛光处理，使切削更流畅，防止黏刀</li> <li>· 超精密刃磨技术，保证定位精度和刃口质量</li> <li>· 适用于有色金属精-半精加工</li> </ul>	 
	N2	<ul style="list-style-type: none"> <li>· 闭合式断屑槽，小切深排屑更流畅</li> <li>· 表面采用抛光处理，使切削更流畅，防止黏刀</li> <li>· 超精密刃磨技术，保证定位精度和刃口质量</li> <li>· 适用于有色金属精-半精加工</li> </ul>	 

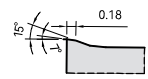
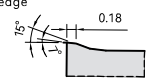
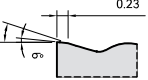
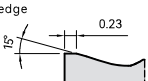
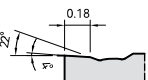
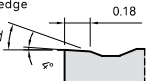
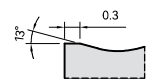
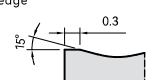
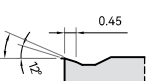
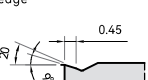
# 负型刀片槽型一览表

## List of Geometries for Negative Inserts

80°菱形	55°菱形	90°正方形	60°正三角形	35°菱形	80°六角形	圆形
80°Rhombus	55°Rhombus	90°Square	60°Triangle	35°Rhombus	80°Hexagon	Round
CNMG-P1	DNMG-P1	SNMG-P1	SNMG-P1	VNMG-P1	WNMG-P1	
						
CNMG-M1		SNMG-M1	TNMG-M1	VNMG-M1	WNMG-M1	
						
CNGG-S1	DNGG-S1	SNGG-S1	TNGG-S1	VNGG-S1	WNGG-S1	
						
CNGG-S2			TNGG-S2		WNGG-S2	
						
CNGG-N1	DNGG-N1	SNGG-N1	TNGG-N1	VNGG-N1	WNGG-N1	
						
CNGG-N2			TNGG-N2		WNGG-N2	
						

# 负型半精加工槽型

## Geometries For Semi-Finish Turning of Negative Inserts

用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
	P3	<ul style="list-style-type: none"> <li>· 钢件半精加工专用</li> <li>· 特殊断屑点设计，防止切削阻塞</li> <li>· 仿形加工及内孔加工，具有稳定的切屑控制</li> <li>· 适用于钢、合金钢等材料通用加工，具有广泛的应用范围</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	PY3	<ul style="list-style-type: none"> <li>· 钢件半精加工-粗加工</li> <li>· 特殊断屑点设计，排屑更流畅</li> <li>· 切深不稳定切屑条件下，切屑控制优异</li> <li>· 适用于钢、合金钢等材料通用加工，搭配不同材质，实现连续和断续加工</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
半精加工 Semi-finishing Machining	M3	<ul style="list-style-type: none"> <li>· 不锈钢半精加工专用</li> <li>· 特殊槽型设计，通用性能更强</li> <li>· 特殊材料配合，用于低-中-高速切削</li> <li>· 适用于各种不锈钢通用加工，具有极好的切削性能</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K3	<ul style="list-style-type: none"> <li>· 铸铁半精加工专用</li> <li>· 全周槽型设计，具有宽广的容屑空间</li> <li>· 特殊材料配合，用于低-中-高速切削</li> <li>· 适用于各种铸铁通用加工，具有极好的切削性能</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	S3	<ul style="list-style-type: none"> <li>· 难加工材料半精加工专用</li> <li>· 特殊槽型设计，切削力更低</li> <li>· 锋利切削刃设计，降低积屑瘤产生</li> <li>· 适用于各种难加工材料半精-粗加工，具有极好的切削性能</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 


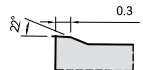
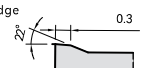

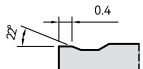
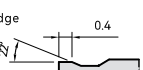



# 负型刀片槽型一览表

## List of Geometries for Negative Inserts

80°菱形 80°Rhombus	55°菱形 55°Rhombus	90°正方形 90°Square	60°正三角形 60°Triangle	35°菱形 35°Rhombus	80°六角形 80°Hexagon	圆形 Round
CNMG-P3	DNMG-P3	SNMG-P3	TNMG-P3	VNMG-P3	WNMG-P3	
						
CNMG-PY3			TNMG-PY3	VNMG-P3	WNMG-P3	
						
CNMG-M3	DNMG-M3	SNMG-M3	TNMG-M3	VNMG-M3	WNMG-M3	
						
CNMG-K3	DNMG-K3	SNMG-K3	TNMG-K3	VNMG-K3	WNMG-K3	
						
CNMG-S3	DNMG-S3	SNMG-S3	TNMG-S3	VNMG-S3	WNMG-S3	
						


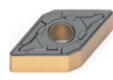




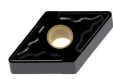









# 负型粗加工槽型

## Geometries For Rough Turning of Negative Inserts

用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
粗加工 Rough Machining	P6 	<ul style="list-style-type: none"> <li>· 钢件粗加工专用</li> <li>· 特殊槽型设计，刃口强度高，断屑更优异</li> <li>· 大切深高进给加工，高金属去除率</li> <li>· 适用于多种断续粗加工</li> </ul> <ul style="list-style-type: none"> <li>· Specialized for rough machining of steel.</li> <li>· Special geometry design with strong cutting edge and good chip breaking performance.</li> <li>· Big depth of cut at high feed rate and high metal removal rate.</li> <li>· Suitable for various rough machining applications.</li> </ul>	刀尖部分 The tip part  0.3  主切削刃部分 Main cutting edge  0.3
	K6 	<ul style="list-style-type: none"> <li>· 铸铁粗加工专用</li> <li>· 特殊槽型设计，刃口强度高</li> <li>· 大切深高进给加工，高金属去除率</li> <li>· 适用于多种断续粗加工</li> </ul> <ul style="list-style-type: none"> <li>· Specialized for rough machining of cast iron.</li> <li>· Special geometry design with strong cutting edge.</li> <li>· Big depth of cut at high feed rate and high metal removal rate.</li> <li>· Suitable for various continuous rough cutting.</li> </ul>	刀尖部分 The tip part  0.4  主切削刃部分 Main cutting edge  0.4
	平板 No chipbreaker 	<ul style="list-style-type: none"> <li>· 铸铁粗加工</li> <li>· 特殊刃口处理方式，刃口强度高</li> <li>· 大切深高进给加工，高金属去除率</li> <li>· 适用于多种强断续粗加工</li> </ul> <ul style="list-style-type: none"> <li>· Rough machining for cast iron.</li> <li>· Special treatment with the cutting edge, strong cutting edge.</li> <li>· Big depth of cut at high feed rate and high metal removal rate.</li> <li>· Suitable for various strong interrupted machining applications.</li> </ul>	刀尖部分 The tip part   主切削刃部分 Main cutting edge 








# 负型刀片槽型一览表

## List of Geometries for Negative Inserts

80°菱形	55°菱形	90°正方形	60°正三角形	35°菱形	80°六角形	圆形
80°Rhombus	55°Rhombus	90°Square	60°Triangle	35°Rhombus	80°Hexagon	Round
CNMG-P6	DNMG-P6	SNMG-P6	TNMG-P6		WNMG-P6	
						
CNMG-K6	DNMG-K6		TNMG-K6	VNMG-K6	WNMG-K6	
						
CNMA	DNMA	SNMA	TNMA	VNMA	WNMA	
						








# 正型精加工槽型

## Geometry For Finish Turning of Positive Inserts

用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
精加工 Finish Machining	P1	<ul style="list-style-type: none"> <li>· 钢件精加工专用</li> <li>· 特殊断屑点位置设计, 排屑更顺畅</li> <li>· 高线速、小切深、低进给, 具有出色的表面光洁度</li> <li>· 适用于加工细长轴、薄壁和不稳定夹紧零件</li> </ul>	刀尖部分 The tip part   主切削刃部分 Main cutting edge 
	M1	<ul style="list-style-type: none"> <li>· 不锈钢精加工专用</li> <li>· 特殊断屑点位置设计, 排屑更顺畅</li> <li>· 轻切削槽型、低切削力</li> <li>· 适用于加工细长轴、薄壁和不稳定夹紧零件</li> </ul>	刀尖部分 The tip part   主切削刃部分 Main cutting edge 
	K1	<ul style="list-style-type: none"> <li>· 铸铁精加工专用</li> <li>· 特殊断屑点位置设计, 排屑更顺畅</li> <li>· 正前角的轻型切削槽型可产生低切削力</li> <li>· 适用于加工细长轴、薄壁和不稳定夹紧零件</li> </ul>	刀尖部分 The tip part   主切削刃部分 Main cutting edge 
	S1	<ul style="list-style-type: none"> <li>· 难加工材料专用</li> <li>· 开放式断屑槽型, 低切削力, 排屑顺畅</li> <li>· 超精密刃磨技术, 保证定位精度和刃口质量</li> <li>· 适用于难加工材料高精度加工</li> </ul>	刀尖部分 The tip part   主切削刃部分 Main cutting edge 
	S2	<ul style="list-style-type: none"> <li>· 闭合式断屑槽, 小切深排屑更流畅</li> <li>· 锋利切削刃, 切削更轻快</li> <li>· 超精密刃磨技术, 保证定位精度和刃口质量</li> <li>· 适用于难加工材料及钢、不锈钢精加工</li> </ul>	刀尖部分 The tip part   主切削刃部分 Main cutting edge 

# 正型刀片槽型一览表


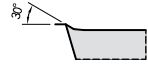
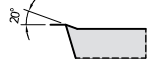



## List of Geometries for Positive Inserts

80°菱形	55°菱形	90°正方形	60°正三角形	35°菱形	80°六角形	圆形
80°Rhombus	55°Rhombus	90°Square	60°Triangle	35°Rhombus	80°Hexagon	Round
CCMT-P1	DCMT-P1	SCMT-P1	TCMT-P1	VCMT-P1		
						
CCMT-M1	DCMT-M1	SCMT-M1	TCMT-M1	VCMT-M1		
						
CCMT-K1	DCMT-K1	SCMT-K1	TCMT-K1	VCMT-K1		
						
CCGT-S1	DCGT-S1	SCGT-S1	TCGT-S1	VCGT-S1		
						
CCGT-S2	DCGT-S2			VCGT-S2		
						



# 正型精加工槽型

## Geometries for Finish Turning of Positive Inserts

用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
精加工 Finish Machining	N1 	<ul style="list-style-type: none"> <li>·波浪式容屑槽&amp;锋利切削刃-分散切削阻力, 延长刀具使用寿命</li> <li>·表面采用抛光处理, 使切削更流畅, 防止黏刀</li> <li>·超精磨刃磨技术, 保证定位精度和刃口质量</li> <li>·适用于有色金属精-半精加工</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	N2 	<ul style="list-style-type: none"> <li>·封闭式断屑槽, 小切深排屑更流畅</li> <li>·表面采用抛光处理, 使切削更流畅, 防止黏刀</li> <li>·超精磨刃磨技术, 保证定位精度和刃口质量</li> <li>·适用于有色金属精-精加工</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

# 正型刀片槽型一览表

## List of Geometries for Positive Inserts

80°菱形	55°菱形	90°正方形	60°正三角形	35°菱形	80°六角形	圆形
80°Rhombus	55°Rhombus	90°Square	60°Triangle	35°Rhombus	80°Hexagon	Round
CCGT-N1 	DCGT-N1 	SCGT-N1 	TCGT-N1 	VCGT-N1 		
CCGT-N2 	DCGT-N2 			VCGT-N2 		






## 正型半精加工槽型

### Geometry for Semi-finish Turning of Positive Inserts

用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
半精加工 Semi-finish Machining	P3	<ul style="list-style-type: none"> <li>· 钢件半精加工专用</li> <li>· 特殊断屑点位置设计, 排屑更顺畅</li> <li>· 仿形、外圆、内孔及端面加工, 具有稳定的切屑控制</li> <li>· 适用于钢、合金钢等材料通用加工, 具有宽广的应用范围</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M3	<ul style="list-style-type: none"> <li>· 不锈钢半精加工专用</li> <li>· 特殊槽型设计, 切削力更低</li> <li>· 锋利切削刃设计, 降低积屑瘤产生</li> <li>· 适用于不锈钢纵向车削、仿形车削及端面车削通用加工</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K3	<ul style="list-style-type: none"> <li>· 铸铁半精加工专用</li> <li>· 特殊刃口设计, 增加刃口强度同时降低切削力</li> <li>· 特殊材料配合, 用于低-中-高速切削</li> <li>· 适用于各种铸铁通用加工, 具有极好的切削性能</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	N3	<ul style="list-style-type: none"> <li>· 有色金属半精加工专用</li> <li>· 刃口锋利及宽大容屑槽, 不稳定内径加工时可减小黏屑</li> <li>· 超精磨刃磨技术, 保证定位精度和刃口质量</li> <li>· 适用于有色金属半精-粗加工</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

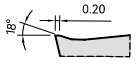
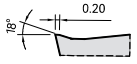
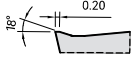
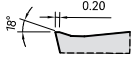
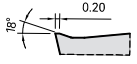
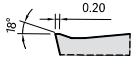
## 正型刀片槽型一览表

### List of Geometries for Positive Inserts

80°菱形	55°菱形	90°正方形	60°正三角形	35°菱形	80°六角形	圆形
80°Rhombus	55°Rhombus	90°Square	60°Triangle	35°Rhombus	80°Hexagon	Round
CCMT-P3	DCMT-P3	SCMT-P3	TCMT-P3	VCMT-P3		RCMT-P3
						
CCMT-M3	DCMT-M3		TCMT-M3	VCMT-M3		
						
CCMT-K3	DCMT-K3		TCMT-K3			
						
CCGT-N3	DCGT-N3	SCGT-N3	TCGT-N3	VCGT-N3		
						



# 正型粗加工槽型

## Geometries for Rough Turning of Positive Inserts

用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
粗加工 Rough Machining	P6	<ul style="list-style-type: none"> <li>· 钢件粗加工专用</li> <li>· 特殊槽型设计，刃口强度高，断屑优异</li> <li>· 大切深高进给加工，高金属去除率</li> <li>· 适用于断续及强断续钢件粗加工</li> </ul> <ul style="list-style-type: none"> <li>· Specialized for rough machining of stainless steel.</li> <li>· Special designed geometry with strong cutting edge and good chip breaking performance.</li> <li>· Big depth of cut and high feed rate, high metal removal rate.</li> <li>· Suitable for interrupted and strong interrupted rough machining of steel.</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M6	<ul style="list-style-type: none"> <li>· 不锈钢粗加工专用</li> <li>· 特殊槽型设计，刃口强度高，断屑优异</li> <li>· 大切深高进给加工，高金属去除率</li> <li>· 适用于断续及强断续不锈钢粗加工</li> </ul> <ul style="list-style-type: none"> <li>· Specialized for rough machining of stainless steel.</li> <li>· Special designed geometry with strong cutting edge and good chip breaking performance.</li> <li>· Big depth of cut and high feed rate, high metal removal rate.</li> <li>· Suitable for interrupted and strong interrupted rough machining of steel.</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K6	<ul style="list-style-type: none"> <li>· 铸铁粗加工</li> <li>· 特殊刃口处理方式，刃口强度高</li> <li>· 大切深高进给加工，高金属去除率</li> <li>· 适用于多种强断续粗加工</li> </ul> <ul style="list-style-type: none"> <li>· Rough machining for cast iron.</li> <li>· Special treatment with the cutting edge, strong cutting edge.</li> <li>· Big depth of cut at high feed rate and high metal removal rate.</li> <li>· Suitable for various strong interrupted machining applications.</li> </ul>	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

# 正型刀片槽型一览表

## List of Geometries for Positive Inserts

80°菱形	55°菱形	90°正方形	60°正三角形	35°菱形	80°六角形	圆形
80°Rhombus	55°Rhombus	90°Square	60°Triangle	35°Rhombus	80°Hexagon	Round
CCMT-P6	DCMT-P6	SCMT-P6	TCMT-P6	VCMT-P6		
						
CCMT-M6	DCMT-M6	SCMT-M6	TCMT-M6	VCMT-M6		
						
CCMT-K6	DCMT-K6	SCMT-K6	TCMT-K6	VCMT-K6		
						