

股票代码: 688308

OKE 欧科亿

PCBN&PCD

► 超硬切削刀具
PCBN&PCD Cutting Tools



www.oke-carbide.com

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PCBN&PCD 牌号应用推荐

▶ PCBN&PCD Grade Application Recommendation

ISO		PCBN		涂层 Coating PCBN				PCD				
H	01											↑ 抗冲击性 VC ↓ 抗冲击性
	10											
	20											
	30											
K	10											↑ 抗冲击性 VC ↓ 抗冲击性
	20											
	30											
	40											
S												
N												↑ 加工表面质量 ↓ 耐磨性

PCBN&PCD 牌号介绍

▶ PCBN&PCD Grade Introduction

被加工材料 Material	分类 Sort	牌号 Grade	粒度 Size	含量 Content	粘结相 Binding Phase	硬度 (GPa) Hardness	颜色 Colour	特点 Features
H	涂层 Coating PCBN	OBH1210 NEW	1μ	45~50	TiCN	28-32	金黄色 Golden	● 全新引入“X”元素的 TIAISiNX 涂层，抗高温氧化性好，提升高线速度下的使用寿命 ● 低含量的细晶 CBN，具有优异的抗高温性能，抗月牙洼磨损性能优异 ● The newly developed TiAlSiN(X) coating with “X” element demonstrates superior high-temperature oxidation resistance, extending service life under high linear speed conditions ● Low-content fine-grained CBN exhibits remarkable thermal stability and outstanding crater wear resistance
		OBH3210 NEW	2μ	55~60	TiN/TiC	29-33	金黄色 Golden	● 全新引入“X”元素的 TIAISiNX 涂层，抗高温氧化性好，提升高线速度下的使用寿命 ● 平均粒度为 2μ 的混晶 CBN，具有优异的抗化学磨损性能，在淬硬钢的连续至轻断续高速加工场合表现优异 ● The newly developed TiAlSiN(X) coating with “X” element demonstrates superior high-temperature oxidation resistance ● Mixed-crystal CBN with 2μm average grain size provides excellent chemical wear resistance, ideal for high-speed machining of hardened steels
		OBH3410 NEW	3μ	60~65	TiCN	30-34	金黄色 Golden	● 全新引入“X”元素的 TIAISiNX 涂层，抗高温氧化性好 ● 兼顾韧性和耐磨性的 CBN 母材，在淬硬钢连续至轻断续的常规速度下有着稳定表现 ● The newly developed TiAlSiN(X) coating with “X” element demonstrates superior high-temperature oxidation resistance ● CBN matrix balancing toughness and wear resistance maintains stable performance in conventional-speed machining of hardened steel
		OBH7210 NEW	4μ	70~75	TiN	32-36	金黄色 Golden	● 全新引入“X”元素的 TIAISiNX 涂层，抗高温氧化性好，提升高线速度下的使用寿命 ● 全新的烧结工艺，平均 4μ 的 CBN 晶粒，分布均匀致密，在中等断续场合有着卓越表现 ● The newly developed TiAlSiN(X) coating with “X” element demonstrates superior high-temperature oxidation resistance, extending service life under high linear speed conditions ● Innovative sintering achieves uniform 4μm CBN grains, delivering improved edge chipping resistance in medium-interrupted machining

PCBN&PCD 牌号介绍 ▶ PCBN&PCD Grade Introduction

被加工材料 Material	分类 Sort	牌号 Grade	粒度 Size	含量 Content	粘结相 Binding Phase	硬度 (GPa) Hardeness	颜色 Colour	特点 Features
K/S	PCBN	OBN6400	1μ	90-95	金属 Metal	41-44	-	耐磨损性、耐崩损性与耐热冲击性优良，适用于 铸铁加工通用材质，也推荐用于高温合金的 精加工 Combining wear resistance, chipping resistance and thermal shock resistance , suitable for universal cast iron machining and superalloy finishing
		OBN7400	2-3μ	90-95	金属 Metal	42-45	-	耐磨损性、耐崩损性与耐热冲击性优良，适用 于铸铁加工通用材质 Combining wear resistance, chipping resistance and thermal shock resistance, suitable for general cast iron machining
		OBN9400 NEW	4μ	80-85	TiC	32-34	-	耐磨损性能优异，推荐用于球墨铸铁的连续加工 Exceptional wear performance specifically recommended for continuous machining of ductile cast iron

被加工材料 Material	分类 Sort	牌号 Grade	粒度 Size	含量 Content	粘结相 Binding Phase	硬度 (GPa) Hardeness	颜色 Colour	特点 Features
N	PCD	OPD901	1μ	78-83	Co/WC	50-55	-	由超细晶粒烧结而成，拥有极强的刃口锋利度和 刃口耐用度，兼顾高耐磨特性和良好的耐冲击性 能，适用于需要镜面抛光效果的应用场合 It is sintered from ultrafine grains,has extremely strong sharpness and durability of the cutting edge,gives consideration to high wear resistance and good impact resistance, and is suitable for applications requiring mirror polishing effect.
		OPD310	5μ	80-85	Co/WC	55-60	-	通用性 PCD 牌号 良好的表面质量 良好的韧性和较高的耐磨性 General purpose PCD grade Good surface quality Good toughness and high wear resistance.
		OPD510	10μ	95	Co/WC	65-68	-	特别适合用单一工具进行粗切与精切的情况。平 均粒径为 10 微米，为通用型 PCD 牌号 It is especially suitable for rough and finishing cutting with a single tool. The average particle size is 10 microns, which is a general purpose PCD grade.
		OPD330	30+2μ	95	Co/WC	80-85	-	高耐磨性 高刃口强度 高刃口质量 High wear resistance High cutting edge strength High cutting edge quality

ISO 型 PCBN 车削刀片 ▶ ISO PCBN Turning Inserts

01 PCBN 材料概述

Brief Introduction of PCBN Tools

PCBN 材料具有极高的硬度、热稳定性和较高的化学惰性，在 1200-1300℃高温下也不易与铁系金属发生化学反应，非常适合用于淬硬钢（推荐 HRC50~68）、铸铁、铁基粉末冶金及部分难加工材料的高精度、高效率的加工场合。可获得极高的表面质量和尺寸稳定性、以及更长久的刀具寿命。

PCBN tool material features exceptional hardness, high thermal stability, and significant chemical inertness. Even at temperatures of 1200-1300 °C, they resist chemical reactions with ferrous metals. These properties make them highly suitable for high-precision and high-efficiency machining of hardened steel(recommended HRC 50-68), cast iron, iron-based powder metallurgy, and certain difficult-to-machine materials. PCBN tools deliver superior surface quality, dimensional stability, and extended tool life.

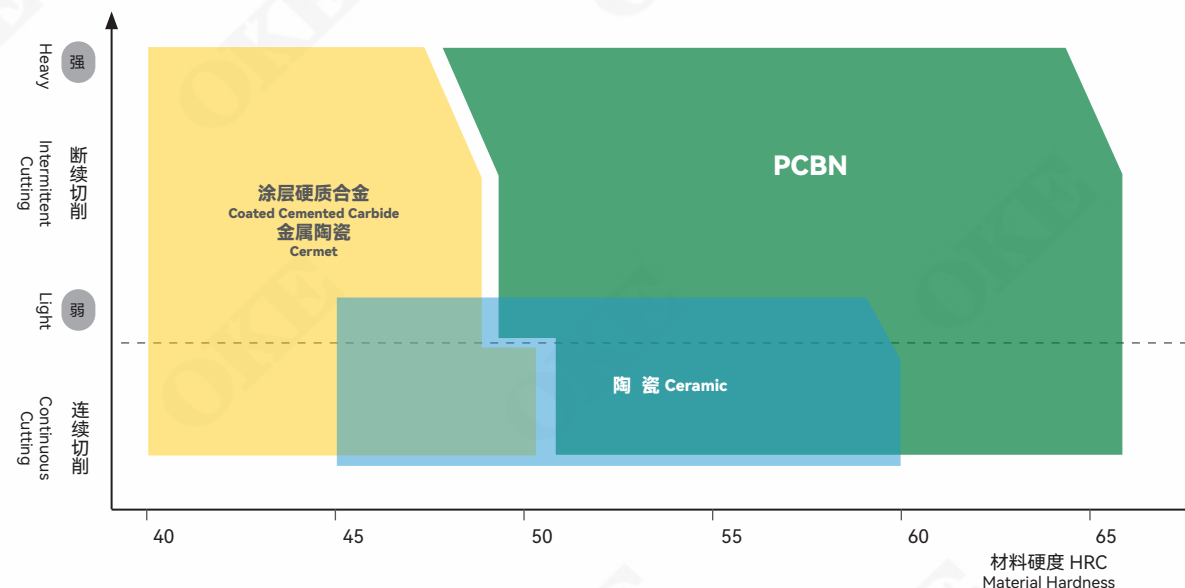


02 PCBN 材料应用推荐

Recommended Applications for PCBN Tools

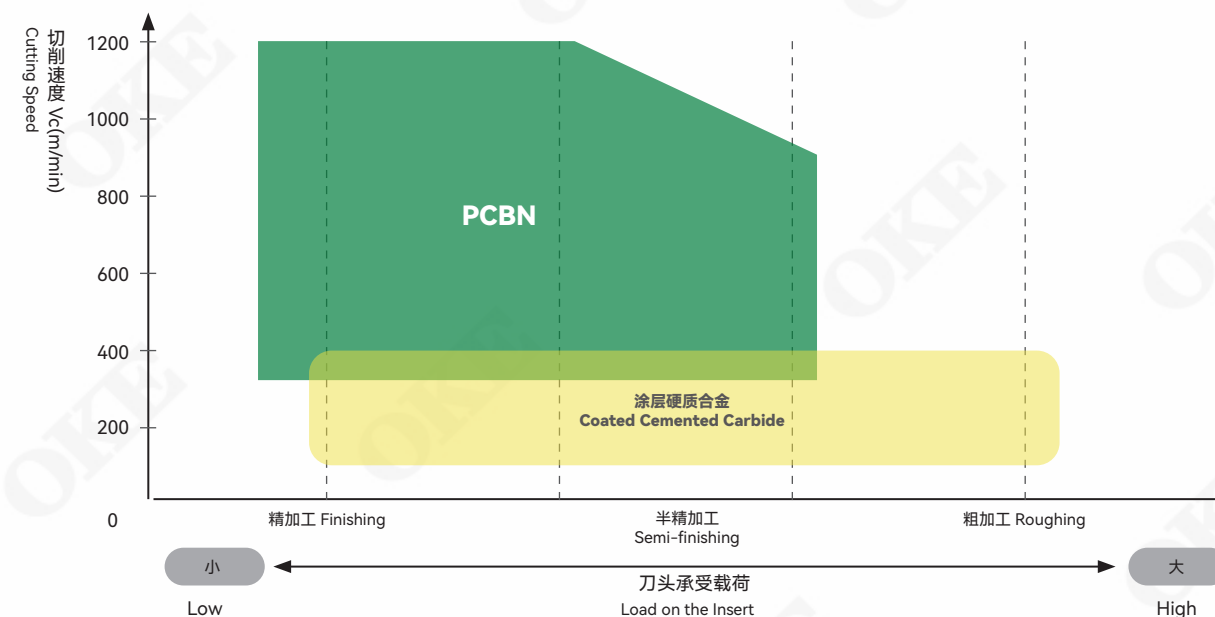
■ 淬硬钢材料应用推荐

Applications for Hardened Steel



■ 铸铁材料应用推荐

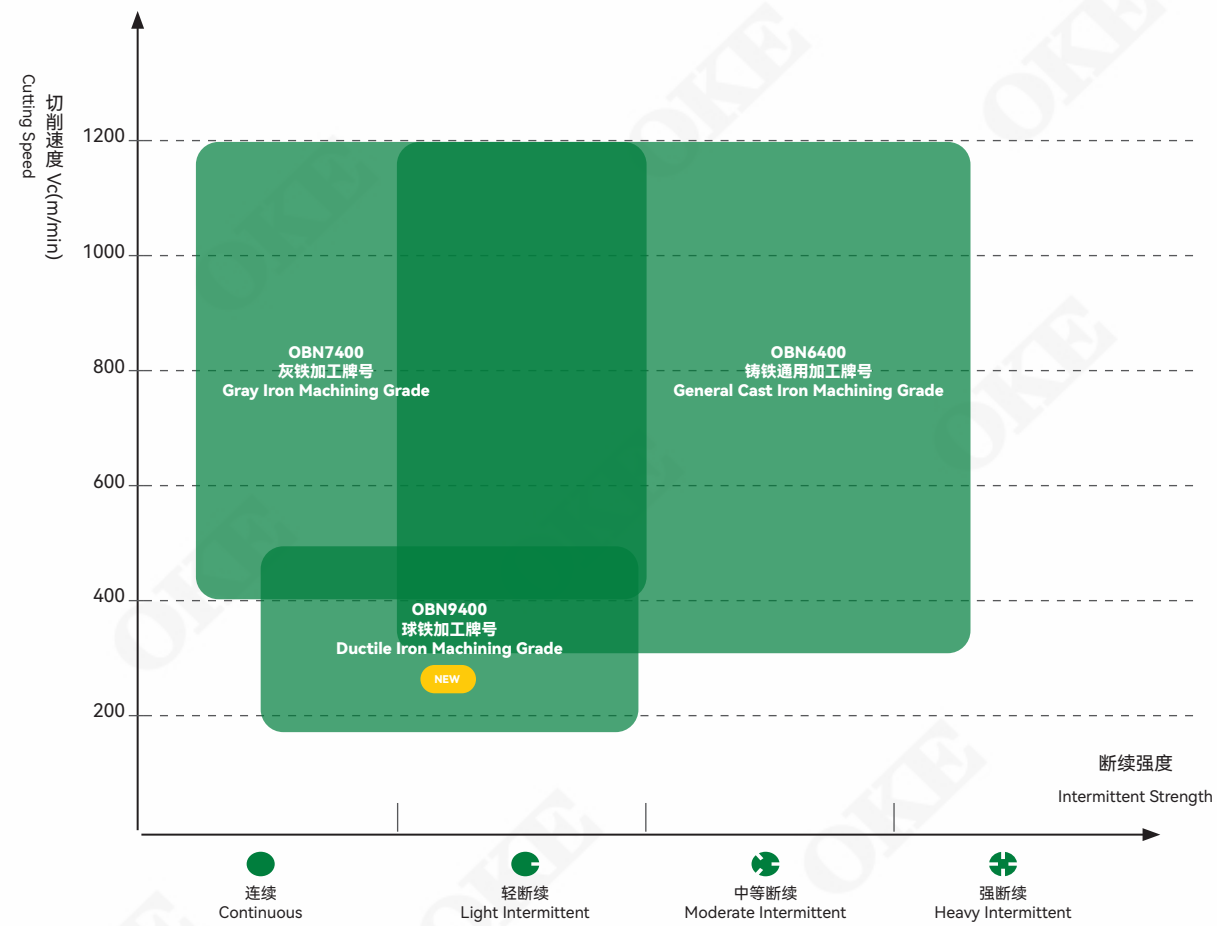
Applications for Cast Iron



■ 铸铁材料加工牌号推荐

Recommended Grade for Hardened Steel

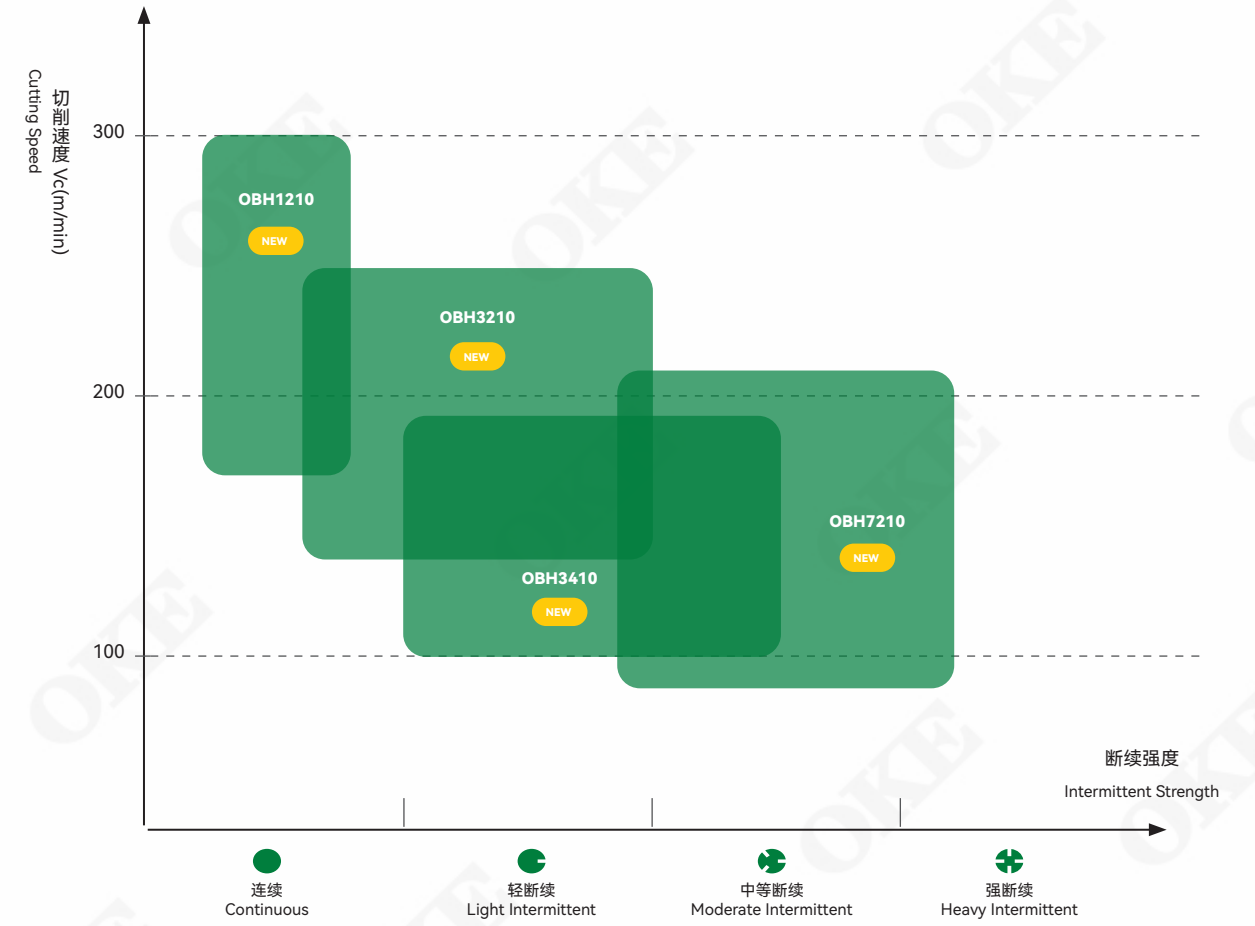
耐磨损性 / 耐热性
Wear resistance/Heat resistance



■ 淬硬钢材料加工牌号推荐

Recommended Grade for Hardened Steel

耐磨损性 / 耐热性
Wear resistance/Heat resistance



PCBN Insert Naming Rules

代号 Symbol	刀尖数量 Number of tips
缺省 Default	1 刃
2	2 刃
3	3 刃
4	4 刃
6	6 刃
8	8 刃

刀尖数量
Number of Tips

形状代号
Shape

精度等级代号
Accuracy Level Code

代号 Symbol	刀片结构 Insert Structure
缺省 Default	焊接角 Tipped PCBN Insert
T	贯穿焊接 Welding, through
L	焊接整条边 Welding, full edge
S	整体结构 Solid sintered
F	整体复合片结构 Solid composite insert

刀片结构

Insert Structure

主切削刃后角代号
Clearance Angle

断屑槽及夹固形式代号

Chip Breaker and Clamping Symbol

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					

切削刃长度代号
Cutting Edge Length

刀尖圆弧代号
Corner Radius

00	无圆角 No radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2
24	2.4
32	3.2
X	其它 Special

刀片直径尺寸mo (公制)
Diameter Dimension

刀尖圆弧代号
Corner Radius

07

09

12

04

08

S

012

25

08

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

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

刀片厚度代号
Thickness

代号 Symbol	切刃处理 Cutting edge preparation
F	标准锋利刀口 Sharp edges
E	刀口钝圆 Honing
T	刀口倒棱 Chamfering
S	刀口倒棱+钝圆 Chamfering + honing
LV	小切深用断屑槽型 Chip breaker for small ap
HV	大切深用断屑槽型 Chip breaker for large ap

切刃处理

倒棱大小
Chamfer size

倒棱角度
Chamfer angle

■ PCBN 标准刀片选型说明

2-CNGA120408 S01225

PCBN 刀片型号及刃口形式

PCBN Insert type and edge geometry

OBH3420

PCBN 刀片材质
PCBN Insert grade

空格
A space

04 PCBN 刀片刀头处理样式

S

012

25

①

②

③

刃口处理代号
Type of Edge Preparation

倒棱宽度: W(mm)
Chamfer Width

倒棱角度: α
Chamfer Angle

F 锋利刃口 Sharp edges

E 刃口钝圆 Honing

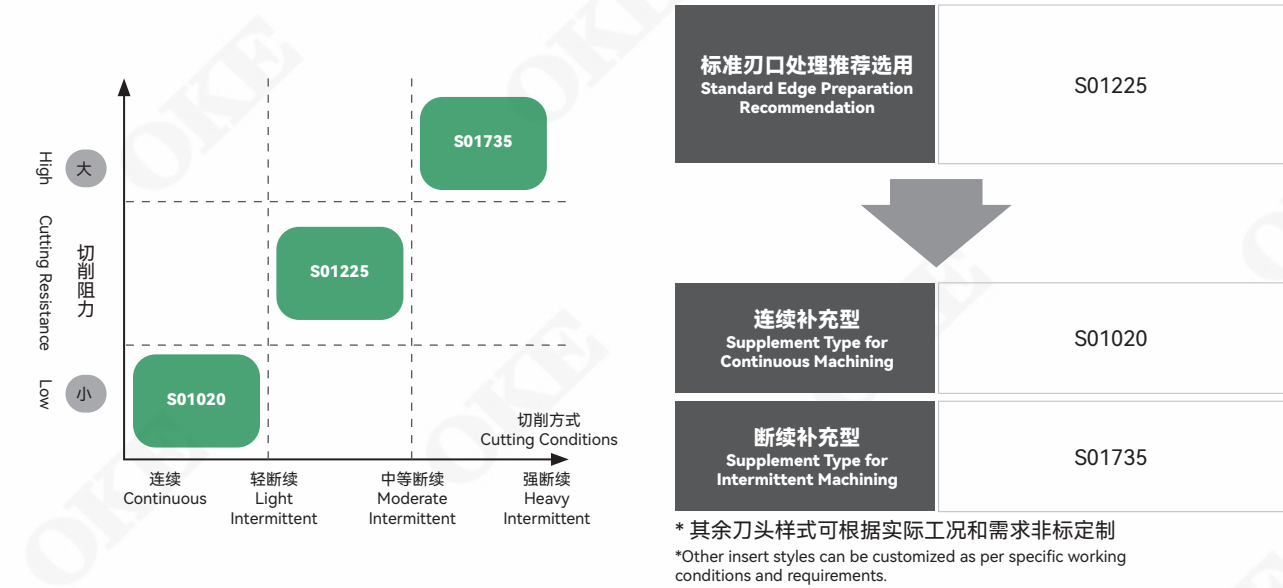
T 刃口负倒棱 Chamfering

S 刃口负倒棱 + 钝圆 Chamfering + honing

W

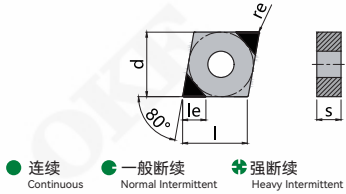
α°

R



05 PCBN 刀片规格型号

PCBN - 菱形, 负型 80° Rhombus, negative 80°
CNGA1204 □ □

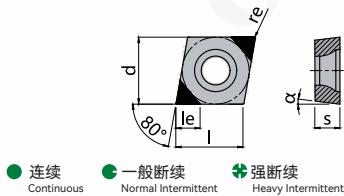


尺寸 mm	内接圆 IC	12.7	厚度 Thickness	4.76	N	有色金属 Nonferrous material											
	孔径 Hole Diameter	5.16			H	淬硬钢 Hardened material		●	●	●	✚						
					K	铸铁 Cast iron							●	●	●		
					S	难切削材料 Difficult-to-machine material							●				
图示 Insert Profile		刃口形式 Edge Geometry	型号 Type		刀片参数 Parameters			PCBN 牌号 PCBN Grade									
					刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN					
OBH1210	OBH3210	OBH3410	OBH7210	OBH6400				OBH7400	OBH9400								
 单面刀刃 Single-sided	E	2-CNGA	120404 E	2	2.4	0.4						▲	▲	▲			
			120408 E	2	2.4	0.8						▲	▲	▲			
			120412 E	2	2.5	1.2						▲	▲	▲			
	T01215	2-CNGA	120404 T01215	2	2.4	0.4						▲	●	●			
			120408 T01215	2	2.4	0.8						▲	●	●			
			120412 T01215	2	2.5	1.2						▲	▲	▲			
	S01020	2-CNGA	120404 S01020	2	2.4	0.4	●	▲	▲								
			120408 S01020	2	2.4	0.8	●	▲	▲								
			120412 S01020	2	2.5	1.2	▲	▲	▲								
	S01225	2-CNGA	120404 S01225	2	2.4	0.4	▲	●	●	▲							
			120408 S01225	2	2.4	0.8	▲	●	●	●							
			120412 S01225	2	2.5	1.2	▲	●	▲	●							
	S01735	2-CNGA	120404 S01735	2	2.4	0.4				▲	▲						
			120408 S01735	2	2.4	0.8					▲	▲					
			120412 S01735	2	2.5	1.2				▲	▲						
	修光刃	2-CNGA	120404 WL	2	2.4	0.4			▲	▲							
			120408 WL	2	2.4	0.8			▲	▲							
			120412 WL	2	2.5	1.2			▲	▲							
	大进给用 修光刃	2-CNGA	120404 WR	2	2.4	0.4			▲	▲							
			120408 WR	2	2.4	0.8			▲	▲							
			120412 WR	2	2.5	1.2			▲	▲							
	小切深加工 断屑槽型 Chip breaker for small ap	2-CNGM	120404 LV	2	2.4	0.4			▲								
			120408 LV	2	2.4	0.8			▲								
			120412 LV	2	2.5	1.2			▲								
	大切深加工 断屑槽型 Chip breaker for large ap	2-CNGM	120404 HV	2	2.4	0.4			▲								
			120408 HV	2	2.4	0.8			▲								
			120412 HV	2	2.5	1.2			▲								

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCBN – 菱形，正型 80° Rhombus, positive 80°
CCGW0602 □ □

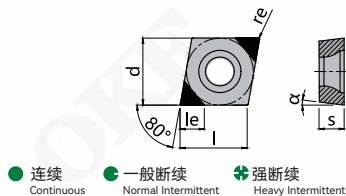


尺寸 mm	内接圆 IC	6.35	厚度 Thickness	2.38	N	有色金属 Nonferrous material							●	●	●	⊕			
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material													
					K	铸铁 Cast iron													
						S	难切削材料 Difficult-to-machine material												
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters				PCBN 牌号 PCBN Grade												
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN									
						OBH1210	OBH3210	OBH3410	OBH7210	OBN6400	OBN7400	OBN9400							
 单面刀刃 Single-sided	E	2-CCGW	060202 E	2	2.4	0.2						▲	▲	▲					
			060204 E	2	2.4	0.4						▲	▲	▲					
			060208 E	2	2.4	0.8						▲	▲	▲					
	T01215	2-CCGW	060202 T01215	2	2.4	0.2						▲	▲	▲					
			060204 T01215	2	2.4	0.4						▲	●	●					
			060208 T01215	2	2.4	0.8						▲	▲	▲					
	S01020	2-CCGW	060202 S01020	2	2.4	0.2	▲	▲	▲										
			060204 S01020	2	2.4	0.4	●	●	●										
			060208 S01020	2	2.4	0.8	▲	▲	▲										
	S01225	2-CCGW	060202 S01225	2	2.4	0.2	▲	▲	▲										
			060204 S01225	2	2.4	0.4	▲	●	●										
			060208 S01225	2	2.4	0.8	▲	▲	▲										

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PCBN – 菱形，正型 80° Rhombus, positive 80°
CCGW09T3 □ □



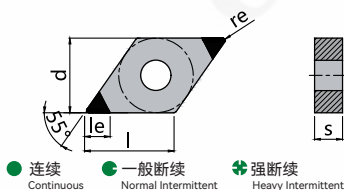
尺寸 mm	内接圆 IC	9.525	厚度 Thickness	3.97	N	有色金属 Nonferrous material							H	淬硬钢 Hardened material							K	铸铁 Cast iron							S	难切削材料 Difficult-to-machine material																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	孔径 Hole Diameter	4.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

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● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，负型 55° Rhombus, negative 55°
DNGA1504 □ □



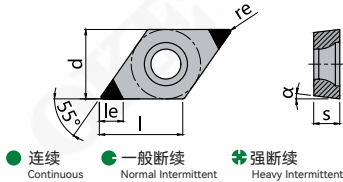
尺寸 mm	内接圆 IC	12.7	厚度 Thickness	4.76	N	有色金属 Nonferrous material											
	孔径 Hole Diameter	5.16			H	淬硬钢 Hardened material	●	●	●	✱				●	●	●	
					K	铸铁 Cast iron							●	●	●		
					S	难切削材料 Difficult-to-machine material							●				
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade											
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN							
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400					
 单面刀刃 Single-sided	E	2-DNGA	150404 E	2	2.4	0.4					▲	▲	▲				
			150408 E	2	2.4	0.8					▲	▲	▲				
			150412 E	2	2.5	1.2					▲	▲	▲				
	T01215	2-DNGA	150404 T01215	2	2.4	0.4					▲	●	●				
			150408 T01215	2	2.4	0.8					▲	●	●				
			150412 T01215	2	2.5	1.2					▲	▲	▲				
	S01020	2-DNGA	150404 S01020	2	2.4	0.4	●	▲	▲								
			150408 S01020	2	2.4	0.8	●	▲	▲								
			150412 S01020	2	2.5	1.2	▲	▲	▲								
	S01225	2-DNGA	150404 S01225	2	2.4	0.4	▲	●	●	▲							
			150408 S01225	2	2.4	0.8	▲	●	●	●							
			150412 S01225	2	2.5	1.2	▲	●	▲	▲							
	S01735	2-DNGA	150404 S01735	2	2.4	0.4			▲	▲							
			150408 S01735	2	2.4	0.8			▲	▲							
			150412 S01735	2	2.5	1.2			▲	▲							
	修光刃	2-DNGA	150404 WL	2	2.4	0.4		▲	▲								
			150408 WL	2	2.4	0.8		▲	▲								
			150412 WL	2	2.5	1.2		▲	▲								
	大进给用 修光刃	2-DNGA	150404 WR	2	2.4	0.4		▲	▲								
			150408 WR	2	2.4	0.8		▲	▲								
			150412 WR	2	2.5	1.2		▲	▲								
	小切深加工 断屑槽型 Chip breaker for small ap	2-DNGM	150404 LV	2	2.5	0.4		▲									
			150408 LV	2	2.4	0.8		▲									
			150412 LV	2	2.5	1.2		▲									
	大切深加工 断屑槽型 Chip breaker for large ap	2-DNGM	150404 HV	2	2.5	0.4		▲									
			150408 HV	2	2.4	0.8		▲									
			150412 HV	2	2.5	1.2		▲									

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，正型 55° Rhombus, positive 55°
DNGA1506 □ □



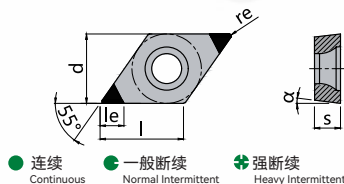
尺寸 mm	内接圆 IC	12.7	厚度 Thickness	6.35	N	有色金属 Nonferrous material											
	孔径 Hole Diameter	5.16			H	淬硬钢 Hardened material	●	●	●	✱				●	●	●	
					K	铸铁 Cast iron								●	●	●	
					S	难切削材料 Difficult-to-machine material								●			
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade											
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN							
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400					
 双面刀刃 Double-sided	E	4-DNGA	150604 E	4	2.4	0.4					▲	▲	▲				
			150608 E	4	2.4	0.8					▲	▲	▲				
			150612 E	4	2.5	1.2					▲	▲	▲				
	T01215	4-DNGA	150604 T01215	4	2.4	0.4					▲	▲	▲				
			150608 T01215	4	2.4	0.8					▲	▲	▲				
			150612 T01215	4	2.5	1.2					▲	▲	▲				
	S01020	4-DNGA	150604 S01020	4	2.4	0.4	▲	▲	▲								
			150608 S01020	4	2.4	0.8	▲	▲	▲								
			150612 S01020	4	2.5	1.2	▲	▲	▲								
	S01225	4-DNGA	150604 S01225	4	2.4	0.4	▲	▲	▲	▲							
			150608 S01225	4	2.4	0.8	▲	▲	▲	▲							
			150612 S01225	4	2.5	1.2	▲	▲	▲	▲							
	S01735	4-DNGA	150604 S01735	4	2.4	0.4				▲	▲						
			150608 S01735	4	2.4	0.8					▲	▲					
			150612 S01735	4	2.5	1.2						▲	▲				

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，正型 55° Rhombus, positive 55°
DCGW0702 □ □



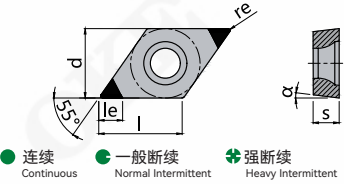
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	2.38	N	有色金属 Nonferrous material						
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material						
					K	铸铁 Cast iron						
					S	难切削材料 Difficult-to-machine material						
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade						
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
						OBH1210	OBH3210	OBH3410	OBH7210	OBN6400	OBH7400	OBH9400
 单面刀刃 Single-sided	E	2-DCGW	070202 E	2	2.4	0.2				▲	▲	▲
			070204 E	2	2.4	0.4				▲	▲	▲
			070208 E	2	2.4	0.8				▲	▲	▲
	T01215	2-DCGW	070202 T01215	2	2.4	0.2				▲	▲	▲
			070204 T01215	2	2.4	0.4				▲	●	●
			070208 T01215	2	2.4	0.8				▲	▲	▲
	S01020	2-DCGW	070202 S01020	2	2.4	0.2	▲	▲	▲			
			070204 S01020	2	2.4	0.4	●	●	●			
			070208 S01020	2	2.4	0.8	▲	▲	▲			
	S01225	2-DCGW	070202 S01225	2	2.4	0.2	▲	▲	▲			
			070204 S01225	2	2.4	0.4	▲	●	●			
			070208 S01225	2	2.4	0.8	▲	▲	▲			

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，正型 55° Rhombus, positive 55°
DCGW11T3 □ □

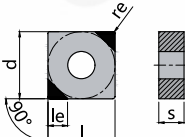


尺寸 mm	内接圆 IC	9.525	厚度 Thickness	3.97	N	有色金属 Nonferrous material						
	孔径 Hole Diameter	4.4			H	淬硬钢 Hardened material						
					K	铸铁 Cast iron						
					S	难切削材料 Difficult-to-machine material						
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade						
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
						OBH1210	OBH3210	OBH3410	OBH7210	OBH400	OBH7400	OBH9400
 单面刀刃 Single-sided	E	2-DCGW	11T302 E	2	2.4	0.2				▲	▲	▲
			11T304 E	2	2.4	0.4				▲	▲	▲
			11T308 E	2	2.4	0.8				▲	▲	▲
	T01215	2-DCGW	11T302 T01215	2	2.4	0.2				▲	▲	▲
			11T304 T01215	2	2.4	0.4				▲	●	●
			11T308 T01215	2	2.4	0.8				▲	●	●
	S01020	2-DCGW	070202 S01020	2	2.4	0.2	▲	▲	▲			
			070204 S01020	2	2.4	0.4	●	●	●			
			070208 S01020	2	2.4	0.8	●	●	●			
	S01225	2-DCGW	11T302 S01225	2	2.4	0.2	▲	▲	▲	▲		
			11T304 S01225	2	2.4	0.4	▲	●	●	▲		
			11T308 S01225	2	2.4	0.8	▲	●	●	▲		

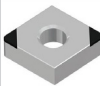
* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCBN – 方形，负型 90° Square, negative 90°
SNGA1204 □ □



● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

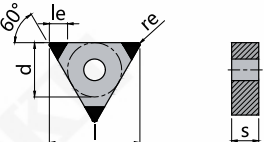
尺寸 mm	内接圆 IC	12.7	厚度 Thickness	4.76	N	有色金属 Nonferrous material									
	孔径 Hole Diameter	5.16			H	淬硬钢 Hardened material									
					K	铸铁 Cast iron									
					S	难切削材料 Difficult-to-machine material									
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type		刀片参数 Parameters			PCBN 牌号 PCBN Grade								
				刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN				
							OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400		
 单面刀刃 Single-sided	E	2-SNGA	120404 E	2	2.4	0.4						▲	▲	▲	
			120408 E	2	2.4	0.8						▲	▲	▲	
			120412 E	2	2.5	1.2						▲	▲	▲	
	T01215	2-SNGA	120404 T01215	2	2.4	0.4						▲	▲	▲	
			120408 T01215	2	2.4	0.8						▲	▲	▲	
			120412 T01215	2	2.5	1.2						▲	▲	▲	
	S01020	2-SNGA	120404 S01020	2	2.4	0.4	▲	▲	▲	▲					
			120408 S01020	2	2.4	0.8	▲	▲	▲	▲					
			120412 S01020	2	2.5	1.2	▲	▲	▲	▲					
	S01225	2-SNGA	120404 S01225	2	2.4	0.4	▲	▲	▲	▲					
			120408 S01225	2	2.4	0.8	▲	▲	▲	▲					
			120412 S01225	2	2.5	1.2	▲	▲	▲	▲					
	S01735	2-SNGA	120404 S01735	2	2.4	0.4			▲	▲					
			120408 S01735	2	2.4	0.8			▲	▲					
			120412 S01735	2	2.5	1.2			▲	▲					

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCBN – 三角形，负型 60° Triangle, negative 60°
TNGA1604 □ □

超硬切削刀具
PCBN&PCD Cutting Tools

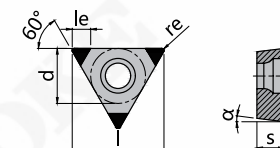


● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

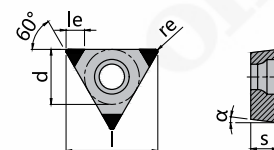
尺寸 mm	内接圆 IC	9.525	厚度 Thickness	4.76	N	有色金属 Nonferrous material																
	孔径 Hole Diameter	3.81		H	淬硬钢 Hardened material										●	●	●	⊕				
				K	铸铁 Cast iron															●	●	●
				S	难切削材料 Difficult-to-machine material															●		
图示 Insert Profile		刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade															
				刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN											
							OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400									
 单面刀刃 Single-sided	E	3-TNGA	160404 E	3	2.4	0.4								▲	▲	▲						
			160408 E	3	2.4	0.8								▲	▲	▲						
			160412 E	3	2.5	1.2								▲	▲	▲						
	T01215	3-TNGA	160404 T01215	3	2.4	0.4								▲	●	●						
			160408 T01215	3	2.4	0.8								▲	●	●						
			160412 T01215	3	2.5	1.2							▲	▲	▲							
	S01020	3-TNGA	160404 S01020	3	2.4	0.4	●	▲	▲													
			160408 S01020	3	2.4	0.8	●	▲	▲													
			160412 S01020	3	2.5	1.2	▲	▲	▲													
	S01225	3-TNGA	160404 S01225	3	2.4	0.4	▲	●	●	▲												
			160408 S01225	3	2.4	0.8	▲	●	●	●												
			160412 S01225	3	2.5	1.2	▲	●	▲	▲												
	S01735	3-TNGA	160404 S01735	3	2.4	0.4				▲	▲											
			160408 S01735	3	2.4	0.8				▲	▲											
			160412 S01735	3	2.5	1.2				▲	▲											
	修光刃	3-TNGA	160404 WL	3	2.4	0.4			▲	▲												
			160408 WL	3	2.4	0.8			▲	▲												
			160412 WL	3	2.5	1.2			▲	▲												
	大进给用 修光刃	3-TNGA	160404 WR	3	2.4	0.4			▲	▲												
			160408 WR	3	2.4	0.8			▲	▲												
			160412 WR	3	2.5	1.2			▲	▲												
	小切深加工 断屑槽型 Chip breaker for small ap	3-TNGM	120404 LV	3	2.4	0.4			▲													
			120408 LV	3	2.4	0.8			▲													
			120412 LV	3	2.5	1.2			▲													
	大切深加工 断屑槽型 Chip breaker for large ap	3-TNGM	120404 HV	3	2.4	0.4			▲													
			120408 HV	3	2.4	0.8			▲													
			120412 HV	3	2.5	1.2			▲													

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 三角形, 正型 60° Triangle, positive 60°
TCGW1102 □ □



 连续
Continuous
 一般断续
Normal Intermittent
 强断续
Heavy Intermittent

尺寸 mm	内接圆 IC	5.56	厚度 Thickness	2.38	N	有色金属 Nonferrous material								
	孔径 Hole Diameter	2.5			H	淬硬钢 Hardened material		●	●	●	✱			
					K	铸铁 Cast Iron						●	●	●
					S	难切削材料 Difficult-to-machine material						●		
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type		刀片参数 Parameters			PCBN 牌号 PCBN Grade							
				刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN			
							OBH1210	OBH3210	OBH3410	OBH7210	OBN6400	OBH7400	OBN9400	
 单面刀刃 Single-sided	E	3-TCGW	090202 E	3	2.4	0.2						▲	▲	▲
			090204 E	3	2.4	0.4					▲	▲	▲	
			090208 E	3	2.4	0.8					▲	▲	▲	
	T01215	3-TCGW	090202 T01215	3	2.4	0.2						▲	▲	▲
			090204 T01215	3	2.4	0.4					▲	●	●	
			090208 T01215	3	2.4	0.8					▲	▲	▲	
	S01020	3-TCGW	090202 S01020	3	2.4	0.2	▲	▲	▲					
			090204 S01020	3	2.4	0.4	●	●	●					
			090208 S01020	3	2.4	0.8								
	S01225	3-TCGW	090202 S01225	3	2.4	0.2	▲	▲	▲					
			090204 S01225	3	2.4	0.4	▲	●	●					
			090208 S01225	3	2.4	0.8								

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



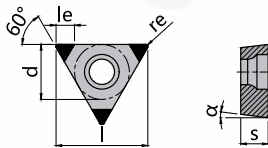
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	2.38	N	有色金属 Nonferrous material									
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material	●	●	●	✚					
					K	铸铁 Cast iron					●	●	●		
					S	难切削材料 Difficult-to-machine material					●				
图示 Insert Profile		刃口形式 Edge Geometry		型号 Type		刀片参数 Parameters			PCBN 牌号 PCBN Grade						
						刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
									OBH1210	OBH3210	OBH3410	OBH7210	OBN6400	OBH7400	OBN9400
 单面刀刃 Single-sided	E	3-TCGW	110202 E	3	2.4	0.2					▲	▲	▲		
			110204 E	3	2.4	0.4					▲	▲	▲		
			110208 E	3	2.4	0.8					▲	▲	▲		
	T01215	3-TCGW	110202 T01215	3	2.4	0.2					▲	▲	▲		
			110204 T01215	3	2.4	0.4					▲	●	●		
			110208 T01215	3	2.4	0.8					▲	▲	▲		
	S01020	3-TCGW	110202 S01020	3	2.4	0.2	▲	▲	▲						
			110204 S01020	3	2.4	0.4	▲	▲	▲						
			110208 S01020	3	2.4	0.8	▲	▲	▲						
	S01225	3-TCGW	110202 S01225	3	2.4	0.2	▲	▲	▲	▲					
			110204 S01225	3	2.4	0.4	▲	▲	▲	▲					
			110208 S01225	3	2.4	0.8	▲	▲	▲	▲					

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 三角形，正型 60° Triangle, positive 60°
TCGW1103 □□



● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

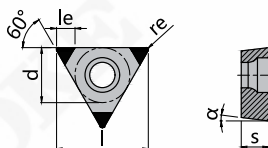
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	3.18	N	有色金属 Nonferrous material								
					H	淬硬钢 Hardened material								
	孔径 Hole Diameter	2.8			K	铸铁 Cast iron								
					S	难切削材料 Difficult-to-machine material								
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type		刀片参数 Parameters			PCBN 牌号 PCBN Grade							
				刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN			
							OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400	
 单面刀刃 Single-sided	E	3-TCGW	110302 E	3	2.4	0.2						▲	▲	▲
			110304 E	3	2.4	0.4						▲	▲	▲
			110308 E	3	2.4	0.8						▲	▲	▲
	T01215	3-TCGW	110302 T01215	3	2.4	0.2						▲	▲	▲
			110304 T01215	3	2.4	0.4						▲	●	●
			110308 T01215	3	2.4	0.8						▲	●	●
	S01020	3-TCGW	110302 S01020	3	2.4	0.2	▲	▲	▲					
			110304 S01020	3	2.4	0.4	●	●	●					
			110308 S01020	3	2.4	0.8	●	●	●					
	S01225	3-TCGW	110302 S01225	3	2.4	0.2	▲	▲	▲	▲				
			110304 S01225	3	2.4	0.4	▲	●	●	▲				
			110308 S01225	3	2.4	0.8	▲	●	●	▲				

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 三角形，正型 60° Triangle, positive 60°
TPGW0902 □□



● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

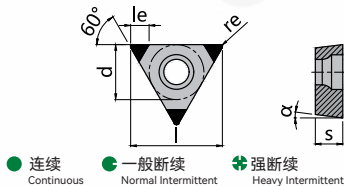
尺寸 mm	内接圆 IC	5.56	厚度 Thickness	2.38	N	有色金属 Nonferrous material									
					H	淬硬钢 Hardened material									
	孔径 Hole Diameter	2.5				K	铸铁 Cast iron								
						S	难切削材料 Difficult-to-machine material								
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type			刀片参数 Parameters			PCBN 牌号 PCBN Grade							
					刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN			
								OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400	
 单面刀刃 Single-sided	E	3-TPGW	090202 E	3	2.4	0.2						▲	▲	▲	
			090204 E	3	2.4	0.4							▲	▲	▲
			090208 E	3	2.4	0.8							▲	▲	▲
	T01215	3-TPGW	090202 T01215	3	2.4	0.2							▲	▲	▲
			090204 T01215	3	2.4	0.4							▲	●	●
			090208 T01215	3	2.4	0.8							▲	▲	▲
	S01020	3-TPGW	090202 S01020	3	2.4	0.2	▲	▲	▲						
			090204 S01020	3	2.4	0.4	●	●	●						
			090208 S01020	3	2.4	0.8									
	S01225	3-TPGW	090202 S01225	3	2.4	0.2	▲	▲	▲						
			090204 S01225	3	2.4	0.4	▲	●	●						
			090208 S01225	3	2.4	0.8									

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 三角形, 正型 60° Triangle, positive 60°
TPGW1102 □ □



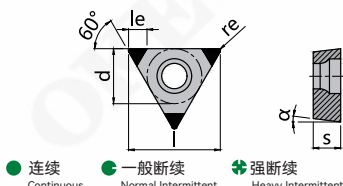
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	2.38	N	有色金属 Nonferrous material						
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material						
					K	铸铁 Cast iron						
					S	难切削材料 Difficult-to-machine material						
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade						
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400
 单面刀刃 Single-sided	E	3-TPGW	110202 E	3	2.4	0.2				▲	▲	▲
			110204 E	3	2.4	0.4				▲	▲	▲
			110208 E	3	2.4	0.8				▲	▲	▲
	T01215	3-TPGW	110202 T01215	3	2.4	0.2				▲	▲	▲
			110204 T01215	3	2.4	0.4				▲	●	●
			110208 T01215	3	2.4	0.8				▲	●	●
	S01020	3-TPGW	110202 S01020	3	2.4	0.2	▲	▲	▲			
			110204 S01020	3	2.4	0.4	▲	▲	▲			
			110208 S01020	3	2.4	0.8	▲	▲	▲			
	S01225	3-TPGW	110202 S01225	3	2.4	0.2	▲	▲	▲	▲		
			110204 S01225	3	2.4	0.4	▲	▲	▲	▲		
			110208 S01225	3	2.4	0.8	▲	▲	▲	▲		

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 三角形, 正型 60° Triangle, positive 60°
TPGW1103 □ □



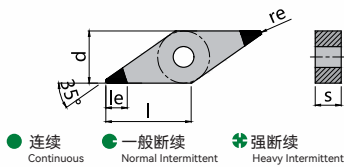
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	3.18	N	有色金属 Nonferrous material						
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material						
					K	铸铁 Cast iron						
					S	难切削材料 Difficult-to-machine material						
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade						
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400
 单面刀刃 Single-sided	E	3-TPGW	110302 E	3	2.4	0.2				▲	▲	▲
			110304 E	3	2.4	0.4				▲	▲	▲
			110308 E	3	2.4	0.8				▲	▲	▲
	T01215	3-TPGW	110302 T01215	3	2.4	0.2				▲	▲	▲
			110304 T01215	3	2.4	0.4				▲	●	●
			110308 T01215	3	2.4	0.8				▲	●	●
	S01020	3-TPGW	110302 S01020	3	2.4	0.2	▲	▲	▲			
			110304 S01020	3	2.4	0.4	●	●	●			
			110308 S01020	3	2.4	0.8	●	●	●			
	S01225	3-TPGW	110302 S01225	3	2.4	0.2	▲	▲	▲	▲		
			110304 S01225	3	2.4	0.4	▲	●	●	▲		
			110308 S01225	3	2.4	0.8	▲	▲	▲			

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形, 负型 35° Rhombus, negative 35°
VNGA1604 □ □



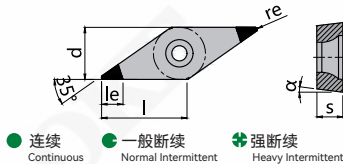
尺寸 mm	内接圆 IC	9.525	厚度 Thickness	4.76	N	有色金属 Nonferrous material											
	孔径 Hole Diameter	3.81			H	淬硬钢 Hardened material				●	●	●	⊕				
					K	铸铁 Cast iron									●	●	●
					S	难切削材料 Difficult-to-machine material									●		
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters				PCBN 牌号 PCBN Grade										
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN							
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400					
 单面刀刃 Single-sided	E	2-VNGA	160404 E	2	2.4	0.4								▲	▲	▲	
			160408 E	2	2.4	0.8							▲	▲	▲		
			160412 E	2	2.5	1.2							▲	▲	▲		
	T01215	2-VNGA	160404 T01215	2	2.4	0.4							▲	●	●		
			160408 T01215	2	2.4	0.8							▲	●	●		
			160412 T01215	2	2.5	1.2							▲	▲	▲		
	S01020	2-VNGA	160404 S01020	2	2.4	0.4	●	▲	▲								
			160408 S01020	2	2.4	0.8	●	▲	▲								
			160412 S01020	2	2.5	1.2	▲	▲	▲								
	S01225	2-VNGA	160404 S01225	2	2.4	0.4	▲	●	●	▲							
			160408 S01225	2	2.4	0.8	▲	●	●	●							
			160412 S01225	2	2.5	1.2	▲	●	▲	▲							
	S01735	2-VNGA	160404 S01735	2	2.4	0.4			▲	▲							
			160408 S01735	2	2.4	0.8			▲	▲							
			160412 S01735	2	2.5	1.2			▲	▲							
	小切深加工 断屑槽型 Chip breaker for small ap	2-VNGM	120404 LV	2	2.5	0.4		▲									
			120408 LV	2	2.4	0.8		▲									
			120412 LV	2	2.5	1.2		▲									

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形, 正型 35° Rhombus, positive 35°
VBGW1103 □ □



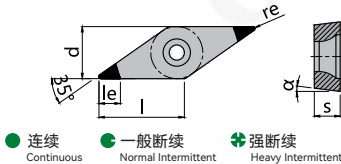
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	3.18	N	有色金属 Nonferrous material															
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material		●	●	●	+										
					K	铸铁 Cast iron									●	●	●				
					S	难切削材料 Difficult-to-machine material								●							
图示 Insert Profile	刃口形式 Edge Geometry		型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade														
				刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN										
							OBH1210	OBH3210	OBH3410	OBH7210	OBN6400	OBN7400	OBN9400								
 单面刃刃 Single-sided	E	2-VBGW	110302 E	2	2.4	0.2											▲	▲	▲		
			110304 E	2	2.4	0.4											▲	▲	▲		
			110308 E	2	2.4	0.8											▲	▲	▲		
	T01215	2-VBGW	110302 T01215	2	2.4	0.2												▲	▲	▲	
			110304 T01215	2	2.4	0.4											▲	●	●		
			110308 T01215	2	2.4	0.8											▲	▲	▲		
	S01020	2-VBGW	110302 S01020	2	2.4	0.2	▲	▲	▲												
			110304 S01020	2	2.4	0.4	●	●	●												
			110308 S01020	2	2.4	0.8	●	●	●												
	S01225	2-VBGW	110302 S01225	2	2.4	0.2	▲	▲	▲	▲											
			110304 S01225	2	2.4	0.4	▲	●	●	▲											
			110308 S01225	2	2.4	0.8	▲	●	●	▲											

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，正型 35° Rhombus, positive 35°
VBGW1604 □ □



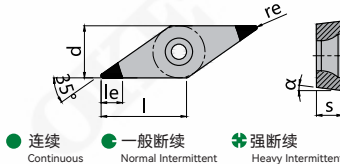
尺寸 mm	内接圆 IC	9.525	厚度 Thickness	4.76	N	有色金属 Nonferrous material										
	孔径 Hole Diameter	3.81			H	淬硬钢 Hardened material										
					K	铸铁 Cast iron										
					S	难切削材料 Difficult-to-machine material										
图示 Insert Profile		刃口形式 Edge Geometry		型号 Type		刀片参数 Parameters			PCBN 牌号 PCBN Grade							
						刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN			
									OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400	
 单面刀刃 Single-sided	E	2-VBGW	160404 E	2	2.4	0.4								▲	▲	▲
			160408 E	2	2.4	0.8								▲	▲	▲
			160412 E	2	2.5	1.2								▲	▲	▲
	T01215	2-VBGW	160404 T01215	2	2.4	0.4								▲	●	●
			160408 T01215	2	2.4	0.8								▲	●	●
			160412 T01215	2	2.5	1.2								▲	▲	▲
	S01020	2-VBGW	160404 S01020	2	2.4	0.4	●	●	●							
			160408 S01020	2	2.4	0.8	●	●	●							
			160412 S01020	2	2.5	1.2	▲	▲	▲							
	S01225	2-VBGW	160404 S01225	2	2.4	0.4	▲	●	●	▲						
			160408 S01225	2	2.4	0.8	▲	●	●	▲						
			160412 S01225	2	2.5	1.2	▲	●	●	▲						

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，正型 35° Rhombus, positive 35°
VCGW1103 □ □



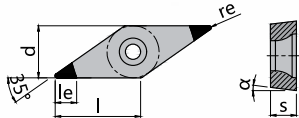
尺寸 mm	内接圆 IC	6.35	厚度 Thickness	3.18	N	有色金属 Nonferrous material									
	孔径 Hole Diameter	2.8			H	淬硬钢 Hardened material									
					K	铸铁 Cast iron									
					S	难切削材料 Difficult-to-machine material									
图示 Insert Profile	刃口形式 Edge Geometry		型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade								
				刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN				
							OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400		
 单面刀刃 Single-sided	E	2-VCGW	110302 E	2	2.4	0.2									
			110304 E	2	2.4	0.4									
			110308 E	2	2.4	0.8									
	T01215	2-VCGW	110302 T01215	2	2.4	0.2									
			110304 T01215	2	2.4	0.4									
			110308 T01215	2	2.4	0.8									
	S01020	2-VCGW	110302 S01020	2	2.4	0.2	▲	▲	▲						
			110304 S01020	2	2.4	0.4	●	●	●						
			110308 S01020	2	2.4	0.8	●	●	●						
	S01225	2-VCGW	110302 S01225	2	2.4	0.2	▲	▲	▲	▲					
			110304 S01225	2	2.4	0.4	▲	●	●	▲					
			110308 S01225	2	2.4	0.8	▲	●	●	▲					

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 菱形，正型 35° Rhombus, positive 35°
VCGW1604 □ □



● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

尺寸 mm	内接圆 IC	9.525	厚度 Thickness	4.76	N	有色金属 Nonferrous material						
					H	淬硬钢 Hardened material						
	孔径 Hole Diameter	3.81			K	铸铁 Cast iron						
					S	难切削材料 Difficult-to-machine material						

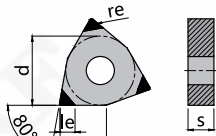
图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade						
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400
 单面刀刃 Single-sided	E	2-VCGW	160404 E	2	2.4	0.4				▲	▲	▲
			160408 E	2	2.4	0.8				▲	▲	▲
			160412 E	2	2.5	1.2				▲	▲	▲
	T01215	2-VCGW	160404 T01215	2	2.4	0.4				▲	●	●
			160408 T01215	2	2.4	0.8				▲	●	●
			160412 T01215	2	2.5	1.2				▲	▲	▲
	S01020	2-VCGW	160404 S01020	2	2.4	0.4	●	●	●			
			160408 S01020	2	2.4	0.8	●	●	●			
			160412 S01020	2	2.5	1.2	▲	▲	▲			
	S01225	2-VCGW	160404 S01225	2	2.4	0.4	▲	●	●	▲		
			160408 S01225	2	2.4	0.8	▲	●	●	▲		
			160412 S01225	2	2.5	1.2	▲	●	●	▲		

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCBN – 多边形，负型 80° Hexagon, negative 80°
WNGA0804 □ □



● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

尺寸 mm	内接圆 IC	12.7	厚度 Thickness	4.76	N	有色金属 Nonferrous material						
					H	淬硬钢 Hardened material						
	孔径 Hole Diameter	5.16			K	铸铁 Cast iron						
					S	难切削材料 Difficult-to-machine material						

图示 Insert Profile	刃口形式 Edge Geometry	型号 Type	刀片参数 Parameters			PCBN 牌号 PCBN Grade						
			刃数 Tip Qty	刃长 (le)	刀尖 半径 (re)	涂层 PCBN				PCBN		
						OBH1210	OBH3210	OBH3410	OBH7210	OBH6400	OBH7400	OBH9400
 单面刀刃 Single-sided	E	3-WNGA	080404 E	3	2.4	0.4				▲	▲	▲
			080408 E	3	2.4	0.8				▲	▲	▲
			080412 E	3	2.5	1.2				▲	▲	▲
	T01215	3-WNGA	080404 T01215	3	2.4	0.4				▲	▲	▲
			080408 T01215	3	2.4	0.8				▲	▲	▲
			080412 T01215	3	2.5	1.2				▲	▲	▲
	S01020	3-WNGA	080404 S01020	3	2.4	0.4	●	▲	▲			
			080408 S01020	3	2.4	0.8	●	▲	▲			
			080412 S01020	3	2.5	1.2	▲	▲	▲			
	S01225	3-WNGA	080404 S01225	3	2.4	0.4	▲	●	●	▲		
			080408 S01225	3	2.4	0.8	▲	●	●	●		
			080412 S01225	3	2.5	1.2	▲	●	▲	▲		
	S01735	3-WNGA	080404 S01735	3	2.4	0.4			▲	▲		
			080408 S01735	3	2.4	0.8			▲	▲		
			080412 S01735	3	2.5	1.2			▲	▲		

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

ISO 型 PCD 车削刀片 ISO PCD Turning Insert

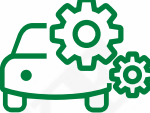
01 PCD 材料概述

Brief introduction of PCD insert

PCD(聚晶金刚石)材料具有硬度高,耐磨性好的特点,用 PCD 材料制成的 PCD 刀具被广泛用于加工有色金属,如铜、铝、镁及其合金,以及非金属材料,如纤维增强塑料(GFK 和 CFK)、硬质橡胶、石墨、木材、纤维板、三聚氰胺树脂聚合材料和纤维增强金属(MMC)等。被广泛应用于汽车、航空航天、3C 电子等领域,可实现高效率加工及高寿命要求,最终实现提效降本的目标,为客户带来更大的经济效益。

PCD (Polycrystalline Diamond) material has the characteristics of high hardness and good wear resistance. PCD tools are widely used to process non-ferrous metals, such as copper, aluminum, magnesium and magnesium alloys, as well as non-metallic materials, such as fiber reinforced plastics (GFK and CFK), hard rubber, graphite, wood, fiberboard, melamine resin polymeric materials and fiber reinforced metal (MMC). Widely used in automobile, aerospace, 3C electronics and other fields, it can achieve high-efficiency processing and long-life requirements, and finally achieve the goal of improving efficiency and reducing costs, bringing greater economic benefits to customers.

行业应用 Industry application

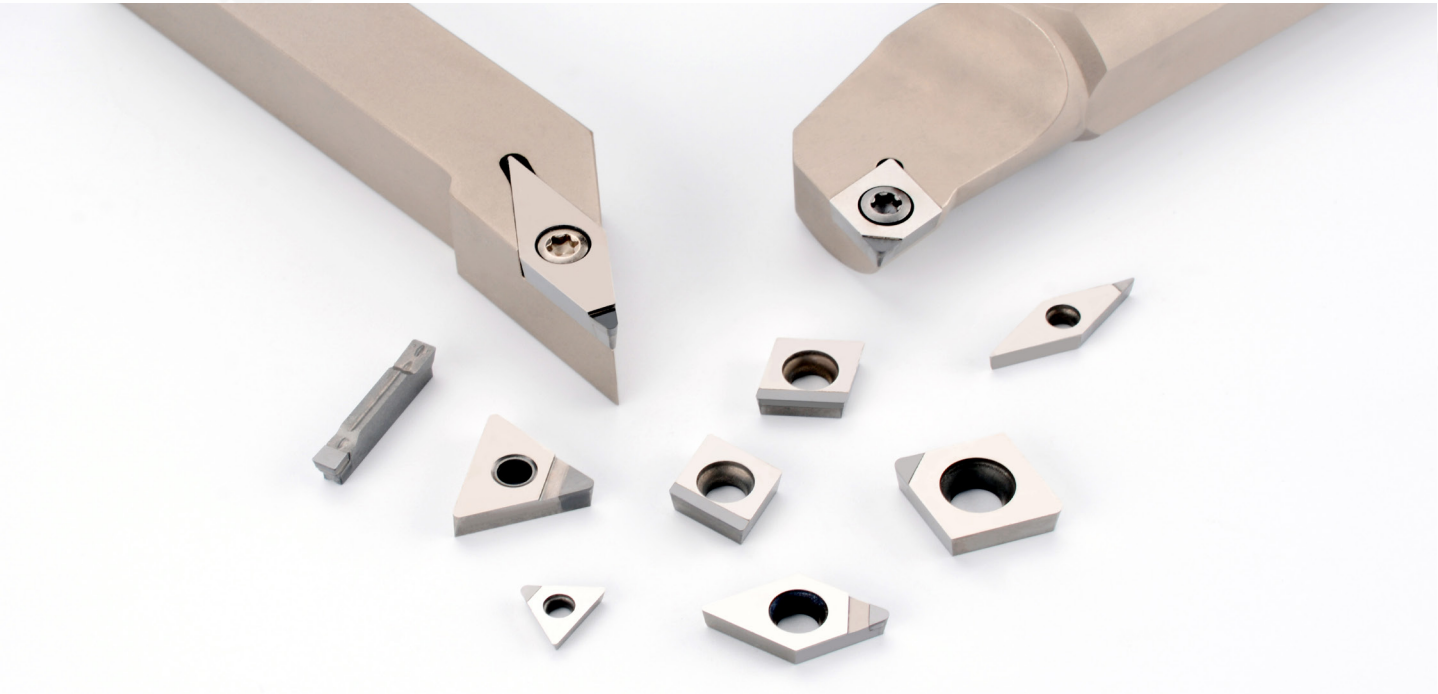

汽车制造
Automobile Manufacture


航空航天
Aerospace


3C 电子
3C Electronics

02 PCD 材质编码规则

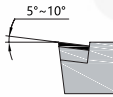
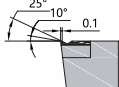
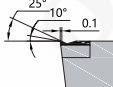
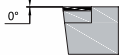
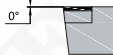
PCD coding rule



03 PCD 刀片槽型一览

Chip breaker of PCD insert

P:Steel; M:Stainless steel; K:Cast iron;
N:Aluminum Alloy; S:Hi-tempt Alloy;
H:Hardened materials; O:Other

槽型 Chip breaker	介绍及应用 Introduction and application	被加工材料 Processed materials							主刀刃截面 Cutting edge	圆角截面 Round corner section	Ap(mm)	Fn(mm/rev)
		P 钢	M 不锈钢	K 铸铁	N 有色金属	S 难加工材料	H 高硬材料	O 其它材料				
	...GT... -G 公差周边磨削 PCD 精加工刀片 -5°~10° 前角，切削力极低 - 高的表面质量 -G Tolerance Perimeter Grinding PCD Finishing Insert -5~10 rake angle, extremely low cutting force -High surface quality				●	○		○	-		0.05- (le-0.2)	0.05-0.25
	...GT...-V/W - G 公差周边磨削 PCD 精加工刀片 - 断屑槽形状，切屑控制非常好 - 非常高的表面质量 - G Tolerance Perimeter Grinding PCD Finishing Insert - Chip breaker shape, chip control is very good - Very high surface quality				●	○		○			0.08- (le-0.2)	0.05-0.25
 	...GW... -G 公差周边磨削 PCD 精加工刀片 -0° 前角通用 PCD 刀片 - 重复定位精度高 -GTolerance Perimeter GrindingPCD Finishing Insert -0 rake angle universal PCD blade -High precision ofrepeatedpositioning				●	○		○			0.05- (le-0.2)	0.05-0.25

● 特别适合 Perfect ○ 适合 Good

04 PCD 刀片切削参数推荐

Insert cutting parameter recommendation

PCD 牌号 PCD Grade	被加工材料 Processed materials	加工方式 Processing method	切削速度 (m/min) Cutting speed
OPD901	Si ≤ 9% 硅铝合金 Si ≤ 9% Si-Al alloy	车削 Turning	500~3000
		铣削 Milling	300~2400
	纤维复合材料 Fiber composite	车削 / 铣削 Turning/Milling	300~1000
OPD310	铜、镁及其合金 Copper, magnesium and their alloys	车削 / 铣削 Turning/Milling	400~1300
	木材 Wood	车削 / 铣削 Turning/Milling	1000~3500
	石墨 Graphite	车削 / 铣削 Turning/Milling	300~1000
OPD510	Si < 12% 硅铝合金 Si < 12% Si-Al alloy	车削 Turning	500~3000
		铣削 Milling	300~2400
OPD330	Si < 12% 硅铝合金 Si < 12% Si-Al alloy	车削 Turning	500~3000
		铣削 Milling	300~2400
	玻璃纤维 Glass Fibre	车削 / 铣削 Turning/Milling	300~1000
	金属基复合材料 Metal Matrix Composites	车削 / 铣削 Turning/Milling	300~1000
	双金属材料 Bimetallic Material	车削 / 铣削 Turning/Milling	200~300
	未烧结硬质合金 (10 - 16%Co) Unsintered cemented carbide (10-16%Co)	车削 / 铣削 Turning/Milling	100~200
	烧结硬质合金 (10 - 16%Co) Sintered cemented carbide (10-16%Co)	车削 / 铣削 Turning/Milling	20~50

05 PCD 刀片编码规则
PCD naming rule

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

01

C	C
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02

A	B
C	D
E	F
G	N
P	O
	其它后角 Others
主切削刃后角代号 Clearance Angle	

代号 Symbol	刀尖高度m 公差 (mm) m (mm)	内接圆ΦLC 公差 (mm) d=LC (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	...
A	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	...	...
F	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	...	...
C	±0.013	±0.025	±0.025	25.4	...	±0.18	...	...	...	...
H	±0.013	±0.013	±0.013	●内接圆ΦLC公差 (mm) ●Tolerance of Inscribed Circle						
E	±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
G	±0.025	±0.025	±0.13							
J	±0.005	±0.05~±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	...
K	±0.013	±0.05~±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
L	±0.025	±0.05~±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	...	±0.08
M	±0.08~±0.18	±0.05~±0.13	±0.13	15.875	±0.1	±0.1	±0.10	±0.10	...	±0.1
N	±0.08~±0.18	±0.05~±0.13	±0.025	19.05	±0.1	±0.1	±0.10	±0.10	...	±0.1
U	±0.13~±0.38	±0.08~±0.25	±0.13	25.4	...	...	±0.13	...	...	±0.13
公差代号 Tolerance										

03

G	W	09
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04

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	有(Y)	无(N)		N	无(N)	无(N)	
H	有(Y)	单面(S)		R	无(N)	单面(S)	
C	有(Y)	无(N)		F	无(N)	双面(D)	
J	有(Y)	双面(D)		A	有(Y)	无(N)	
W	有(Y)	无(N)		M	有(Y)	单面(S)	
T	有(Y)	单面(S)		G	有(Y)	双面(D)	
Q	有(Y)	无(N)		X			
U	有(Y)	双面(D)					
断屑槽及夹固形式代号 Chip Breaker and Hole							

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		09			
5.56								
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					
切削刃长度代号 Cutting Edge Length								

07

T3	04	R	V	9
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06

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

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

刀片厚度代号 Thickness

代号 Symbol	切削方向 Cutting direction
R	右手 Right Hand
L	左手 Left Hand
缺省 Default	无方向 Neutral
切削方向 Cutting direction	

代号 Symbol	切刃处理 Cutting edge preparation
缺省 Default	标准锋利刃口 Standard sharp cutting edge
WL	修光刃型 Wiper
V	断屑槽型 (精) Finishing chip breaker
W	断屑槽型 (粗) Roughing chip breaker
切刃处理 Cutting edge preparation	

代号 Symbol	切削刃长 (mm) Cutting edge length (mm)
3	3.0
3.5	3.5
9	9.0
...	...
切削刃长 Cutting edge length	

PCD 标准刀片选型说明 Standard Insert Type

CCGW09T304-3.5
PCD 刀片型号及刃口形式
Insert type and Cutting edge form

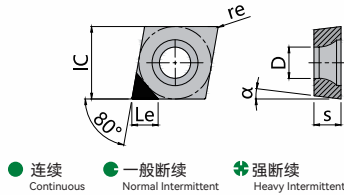
OPD310
PCD 刀片材质
Insert Grade

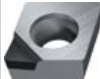
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06 PCD 刀片规格型号

PCD type

PCD – 菱形, 正型 80° Rhombus,Positive 80°
CCGT □□□□

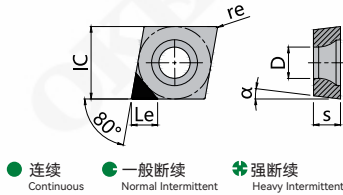


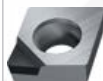
产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 5°-10° 前角, 切削力极低 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD inserts ● Sharp cutting edge ● 5-10 rake angle, extremely low cutting force ● High repeated positioning accuracy.		N	有色金属 Aluminum Alloy		●	●	●	●				
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron					✚				
			S	难切削材料 Hard-cutting Material					✚				
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	CCGT	060202-3	1	3	6.35	0.2	2.38	2.8	7°	▲	●	▲	▲
		060204-3	1	3	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲
		060208-3	1	3	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	CCGT	09T302-3.5	1	3.5	9.525	0.2	3.97	4.4	7°	▲	●	▲	▲
		09T304-3.5	1	3.5	9.525	0.4	3.97	4.4	7°	▲	●	▲	▲
		09T308-3.5	1	3.5	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
	CCGT	120402-4	1	4.0	12.7	0.2	4.76	5.5	7°	▲	▲	▲	▲
		120404-4	1	4.0	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲
		120408-3.9	1	3.9	12.7	0.8	4.76	5.5	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 菱形, 正型 80° Rhombus,Positive 80°
CCGT □□□□ -V/W

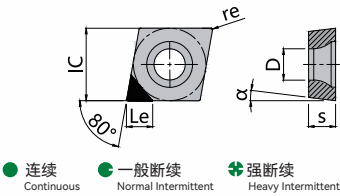


产品信息 Information	● 精加工至中等加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 非常好的切屑控制 ● 重复定位精度高 ● Fine machining to medium machining ● G tolerance peripheral grinding PCD inserts ● Sharp cutting edge ● Very good chip control ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy		●	●	●	●				
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron					✚				
			S	难切削材料 Hard-cutting Material					✚				
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	CCGT	060204-V-2.8	1	2.8	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		060204-W-2.8	1	2.8	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		060208-V-2.8	1	2.8	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
		060208-W-2.8	1	2.8	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	CCGT	09T304-V-3.3	1	3.3	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		09T304-W-3.3	1	3.3	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		09T308-V-3.3	1	3.3	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
		09T308-W-3.3	1	3.3	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
	CCGT	120404-V-3.8	1	3.8	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲
		120404-W-3.8	1	3.8	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲
		120408-V-3.7	1	3.7	12.7	0.8	4.76	5.5	7°	▲	▲	▲	▲
		120408-W-3.7	1	3.7	12.7	0.8	4.76	5.5	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 菱形, 正型 80° Rhombus,Positive 80°
CPGW □□□□



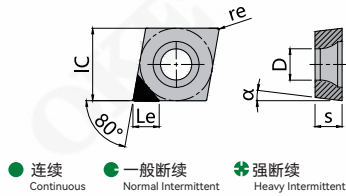
产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 0° 前角通用 PCD 刀片 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● General PCD insert with 0 rake angle ● High repeated positioning accuracy	N	有色金属 Aluminum Alloy	●	●	●	●
		H	淬硬钢 Hardened Steel				
		K	铸铁 Cast Iron				✱
		S	难切削材料 Hard-cutting Material				✱

图示 Picture	型号 Type	刀片参数 Insert Parameters								PCD 牌号 Grade			
		刃数 Edge number	Le	IC	Re	s	D	a		OPD901	OPD310	OPD510	OPD330
	CPGW	060202-3	1	3	6.35	0.2	2.38	2.8	11°	▲	●	▲	▲
		060204-3	1	3	6.35	0.4	2.38	2.8	11°	▲	●	▲	▲
		060208-2.9	1	2.9	6.35	0.8	2.38	2.8	11°	▲	▲	▲	▲
	CPGW	09T302-3.5	1	3.5	9.525	0.2	3.97	4.4	11°	▲	●	▲	▲
		09T304-3.5	1	3.5	9.525	0.4	3.97	4.4	11°	▲	●	▲	▲
		09T308-3.4	1	3.4	9.525	0.8	3.97	4.4	11°	▲	▲	▲	▲
	CPGW	120402-4	1	4.0	12.7	0.2	4.76	4.4	11°	▲	●	▲	▲
		120404-4	1	4.0	12.7	0.4	4.76	4.4	11°	▲	●	▲	▲
		120408-3.9	1	3.9	12.7	0.8	4.76	4.4	11°	▲	▲	▲	▲

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● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 菱形, 正型 80° Rhombus,Positive 80°
CCGW □□□□



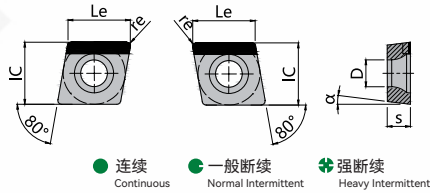
产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 0° 前角通用 PCD 刀片 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● General PCD insert with 0 rake angle ● High repeated positioning accuracy	N	有色金属 Aluminum Alloy	●	●	●	●
		H	淬硬钢 Hardened Steel				
		K	铸铁 Cast Iron				✱
		S	难切削材料 Hard-cutting Material				✱

图示 Picture	型号 Type	刀片参数 Insert Parameters								PCD 牌号 Grade			
		刃数 Edge number	Le	IC	Re	s	D	a		OPD901	OPD310	OPD510	OPD330
	CCGW	060202-3	1	3	6.35	0.2	2.38	2.8	7°	▲	●	▲	▲
		060204-3	1	3	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲
		060208-2.9	1	2.9	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	CCGW	09T302-3.5	1	3.5	9.525	0.2	3.97	4.4	7°	▲	●	▲	▲
		09T304-3.5	1	3.5	9.525	0.4	3.97	4.4	7°	▲	●	▲	▲
		09T308-3.4	1	3.4	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
	CCGW	120402-4	1	4.0	12.7	0.2	4.76	4.4	7°	▲	●	▲	▲
		120404-4	1	4.0	12.7	0.4	4.76	4.4	7°	▲	●	▲	▲
		120408-3.9	1	3.9	12.7	0.8	4.76	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 菱形，正型 80° Rhombus,Positive 80°
CCGW □□□□

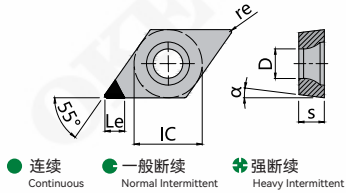


产品信息 Information	● 中等至粗加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 带全刃的切削刃 ● 最大切深和肩部加工 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● General PCD insert with 0 rake angle ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy		●	●	●	●				
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron					✚				
			S	难切削材料 Hard-cutting Material					✚				
图示 Picture		型号 Type	刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	CCGW	060204-L-6	1	6.0	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		09T304-L-9.2	1	9.2	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		09T308-L-8.8	1	8.8	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
		120404-L-12.4	1	12.4	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲
	CCGW	060204-R-6	1	6.0	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		09T304-R-9.2	1	9.2	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		09T308-R-8.8	1	8.8	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
		120404-R-12.4	1	12.4	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 菱形，正型 55° Rhombus,Positive 55°
DCGT □□□□



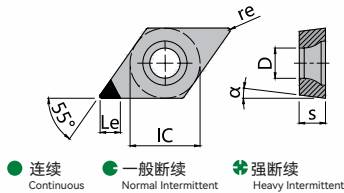
产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 5° -10° 前角，切削力极低 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● 5-10 rake angle, extremely low cutting force ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy			●	●	●	●			
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron						✚			
			S	难切削材料 Hard-cutting Material						✚			
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	DCGT	070202-2.8	1	2.8	6.35	0.2	2.38	2.8	7°	▲	●	▲	▲
		070204-2.8	1	2.8	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲
		070208-2.8	1	2.8	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	DCGT	11T302-3.3	1	3.3	9.525	0.2	3.97	4.4	7°	▲	●	▲	▲
		11T304-3.3	1	3.3	9.525	0.4	3.97	4.4	7°	▲	●	▲	▲
		11T308-3.3	1	3.3	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD – 菱形, 正型 55° Rhombus,Positive 55°
DCGT □□□□ -V/W



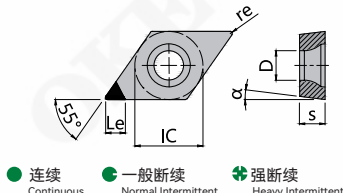
产品信息 Information	● 精加工至中等加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 非常好的切屑控制 ● 重复定位精度高 ● Fine machining to medium machining ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● Very good chip control ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy	●	●	●	●					
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron								✱	
			S	难切削材料 Hard-cutting Material								✱	
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	DCGT	070202-V-2.6	1	2.6	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		070204-W-2.6	1	2.6	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
	DCGT	11T304-V-3.1	1	3.1	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		11T304-W-3.1	1	3.1	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD – 菱形, 正型 55° Rhombus,Positive 55°
DCGW □□□□

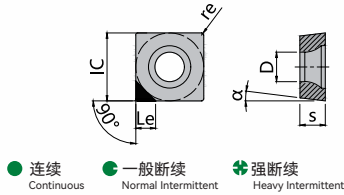


产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 0° 前角通用 PCD 刀片 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● General PCD insert with 0 rake angle ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy	●	●	●	●					
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron								✱	
			S	难切削材料 Hard-cutting Material								✱	
图示 Picture	型号 Type		刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	DCGW	070202-2.8	1	2.8	6.35	0.2	2.38	2.8	7°	▲	●	▲	▲
		070204-2.8	1	2.8	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲
		070208-2.8	1	2.8	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	DCGW	11T302-3.3	1	3.3	9.525	0.2	3.97	4.4	7°	▲	●	▲	▲
		11T304-3.3	1	3.3	9.525	0.4	3.97	4.4	7°	▲	●	▲	▲
		11T308-3.3	1	3.3	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 正方形，正型 90° Square,Positive 90°
SCGW □□□□



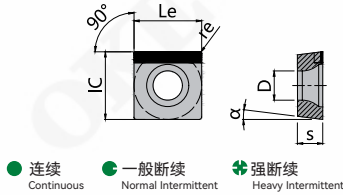
● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 0° 前角通用 PCD 刀片 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● General PCD insert with 0 rake angle ● High repeated positioning accuracy									N	有色金属 Aluminum Alloy	●	●	●	●
										H	淬硬钢 Hardened Steel				
										K	铸铁 Cast Iron				✦
										S	难切削材料 Hard-cutting Material				✦
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade					
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330		
	SCGW	09T304-3	1	3.0	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲		
		09T308-3	1	3.0	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲		
	SCGW	120404-3.5	1	3.5	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲		
		120408-3.5	1	3.5	12.7	0.8	4.76	5.5	7°	▲	▲	▲	▲		

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD – 正方形，正型 90° Square,Positive 90°
SCGW □□□□



● 连续 Continuous
● 一般断续 Normal Intermittent
✦ 强断续 Heavy Intermittent

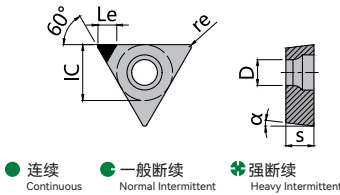
产品信息 Information	● 中等至粗加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 带全刃的切削刃 ● 最大切深和肩部加工 ● Medium to rough machining ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● Cutting edge with full edge ● Maximum cutting depth and square shoulder machining									N	有色金属 Aluminum Alloy		●	●	●	●
										H	淬硬钢 Hardened Steel					
										K	铸铁 Cast Iron					✚
										S	难切削材料 Hard-cutting Material					✚
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade						
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330			
	SCGW	09T304-9.1	1	9.1	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲			
		120404-11.6	1	11.6	12.7	0.4	4.76	5.5	7°	▲	▲	▲	▲			

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD - 三角形, 正型 60° Triangle, Positive 60°
TP/TCGW □□□□



● 连续 Continuous
● 一般断续 Normal Intermittent
✱ 强断续 Heavy Intermittent

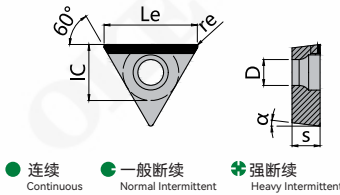
产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 0° 前角通用 PCD 刀片 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● General PCD insert with 0 rake angle ● High repeated positioning accuracy					N	有色金属 Aluminum Alloy			●	●	●	●
						H	淬硬钢 Hardened Steel						
						K	铸铁 Cast Iron						✱
						S	难切削材料 Hard-cutting Material						✱
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
	TPGW	090204-3	1	3.0	5.56	0.2	2.38	2.5	11°	▲	●	▲	▲
		090208-3	1	3.0	5.56	0.4	2.38	2.5	11°	▲	▲	▲	▲
	TPGW	110202-3.5	1	3.5	6.35	0.2	2.38	2.8	11°	▲	●	▲	▲
		110204-3.5	1	3.5	6.35	0.4	2.38	2.8	11°	▲	●	▲	▲
		110208-3.5	1	3.5	6.35	0.8	2.38	2.8	11°	▲	▲	▲	▲
	TPGW	16T302-4	1	4.0	9.525	0.2	3.97	4.4	11°	▲	●	▲	▲
		16T304-4	1	4.0	9.525	0.4	3.97	4.4	11°	▲	●	▲	▲
		16T308-4	1	4.0	9.525	0.8	3.97	4.4	11°	▲	▲	▲	▲
	TPGW	160402-4	1	4.0	9.525	0.2	4.76	4.4	11°	▲	▲	▲	▲
		160404-4	1	4.0	9.525	0.4	4.76	4.4	11°	▲	▲	▲	▲
		160408-4	1	4.0	9.525	0.8	4.76	4.4	11°	▲	▲	▲	▲
	TCGW	090204-3	1	3.0	5.56	0.2	2.38	2.5	7°	▲	●	▲	▲
		090208-3	1	3.0	5.56	0.4	2.38	2.5	7°	▲	▲	▲	▲
	TCGW	110202-3.5	1	3.5	6.35	0.2	2.38	2.8	7°	▲	●	▲	▲
		110204-3.5	1	3.5	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲
		110208-3.5	1	3.5	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	TCGW	16T302-4	1	4.0	9.525	0.2	3.97	4.4	7°	▲	●	▲	▲
		16T304-4	1	4.0	9.525	0.4	3.97	4.4	7°	▲	●	▲	▲
		16T308-4	1	4.0	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
	TCGW	160402-4	1	4.0	9.525	0.2	4.76	4.4	7°	▲	▲	▲	▲
		160404-4	1	4.0	9.525	0.4	4.76	4.4	7°	▲	▲	▲	▲
		160408-4	1	4.0	9.525	0.8	4.76	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD - 三角形, 正型 60°
TCGW □□□□



● 连续 Continuous
● 一般断续 Normal Intermittent
✱ 强断续 Heavy Intermittent

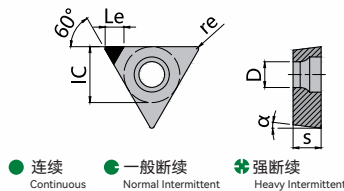
产品信息 Information	● 中等至粗加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 带全刃的切削刃 ● 最大切深和肩部加工 ● Medium to rough machining ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● Cutting edge with full edge ● Maximum cutting depth and shoulder machining									N	有色金属 Aluminum Alloy		●	●	●	●
										H	淬硬钢 Hardened Steel					
										K	铸铁 Cast Iron					+
										S	难切削材料 Hard-cutting Material					+
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade						
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330			
	TCGW	090204-8.6	1	8.6	5.5	0.4	2.38	2.5	7°	▲	●	▲	▲			
		110204-10	1	10	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲			
		16T308-14.5	1	14.5	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲			
		160408-14.5	1	14.5	9.525	0.8	4.76	4.4	7°	▲	▲	▲	▲			

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD - 三角形, 正型 60° Triangle, Positive 60°
TP/TCGT □□□□



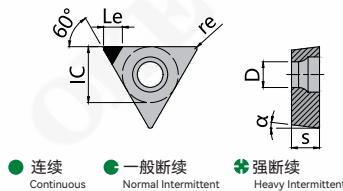
产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 5° -10° 前角, 切削力极低 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● 5-10 rake angle, extremely low cutting force ● High repeated positioning accuracy					N	有色金属 Aluminum Alloy			●	●	●	●
						H	淬硬钢 Hardened Steel						
						K	铸铁 Cast Iron						+
						S	难切削材料 Hard-cutting Material						+
图示 Picture	型号 Type	刀片参数 Insert Parameters								PCD 牌号 Grade			
		刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330	
	TPGT	090204-3	1	3.0	5.56	0.2	2.38	2.5	11°	▲	●	▲	▲
		090208-3	1	3.0	5.56	0.4	2.38	2.5	11°	▲	▲	▲	▲
	TPGT	110202-3.5	1	3.5	6.35	0.2	2.38	2.8	11°	▲	●	▲	▲
		110204-3.5	1	3.5	6.35	0.4	2.38	2.8	11°	▲	●	▲	▲
		110208-3.5	1	3.5	6.35	0.8	2.38	2.8	11°	▲	▲	▲	▲
	TPGT	16T302-4	1	4.0	9.525	0.2	3.97	4.4	11°	▲	●	▲	▲
		16T304-4	1	4.0	9.525	0.4	3.97	4.4	11°	▲	●	▲	▲
		16T308-4	1	4.0	9.525	0.8	3.97	4.4	11°	▲	▲	▲	▲
	TPGT	160402-4	1	4.0	9.525	0.2	4.76	4.4	11°	▲	▲	▲	▲
		160404-4	1	4.0	9.525	0.4	4.76	4.4	11°	▲	▲	▲	▲
		160408-4	1	4.0	9.525	0.8	4.76	4.4	11°	▲	▲	▲	▲
	TCGT	090204-3	1	3.0	5.56	0.2	2.38	2.5	7°	▲	●	▲	▲
		090208-3	1	3.0	5.56	0.4	2.38	2.5	7°	▲	▲	▲	▲
	TCGT	110202-3.5	1	3.5	6.35	0.2	2.38	2.8	7°	▲	●	▲	▲
		110204-3.5	1	3.5	6.35	0.4	2.38	2.8	7°	▲	●	▲	▲
		110208-3.5	1	3.5	6.35	0.8	2.38	2.8	7°	▲	▲	▲	▲
	TCGT	16T302-4	1	4.0	9.525	0.2	3.97	4.4	7°	▲	●	▲	▲
		16T304-4	1	4.0	9.525	0.4	3.97	4.4	7°	▲	●	▲	▲
		16T308-4	1	4.0	9.525	0.8	3.97	4.4	7°	▲	▲	▲	▲
	TCGT	160402-4	1	4.0	9.525	0.2	4.76	4.4	7°	▲	▲	▲	▲
		160404-4	1	4.0	9.525	0.4	4.76	4.4	7°	▲	▲	▲	▲
		160408-4	1	4.0	9.525	0.8	4.76	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD - 三角形, 正型 60° Triangle, Positive 60°
TCGT □□□□ -V/W



产品信息 Information	● 精加工至中等加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 非常好的切屑控制 ● 重复定位精度高 ● Finishing to medium processing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● Good chip control ● The repeated positioning accuracy is high									N	有色金属 Aluminum Alloy		●	●	●	●
	H	淬硬钢 Hardened Steel														
	K	铸铁 Cast Iron					+									
	S	难切削材料 Hard-cutting Material					+									

图示 Picture	型号 Type	刀片参数 Insert Parameters								PCD 牌号 Grade			
		刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330	
 断屑槽型 Chip breaker groove	TCGT	090204-V-2.8	1	2.8	5.56	0.4	2.38	2.5	7°	▲	▲	▲	▲
		110204-V-3.3	1	3.3	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		16T304-V-3.8	1	3.8	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		160404-V-3.8	1	3.8	9.525	0.4	4.76	4.4	7°	▲	▲	▲	▲
	TCGT	090204-W-2.8	1	2.8	5.56	0.4	2.38	2.5	7°	▲	▲	▲	▲
		110204-W-3.3	1	3.3	6.35	0.4	2.38	2.8	7°	▲	▲	▲	▲
		16T304-W-3.8	1	3.8	9.525	0.4	3.97	4.4	7°	▲	▲	▲	▲
		160404-W-3.8	1	3.8	9.525	0.4	4.76	4.4	7°	▲	▲	▲	▲

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 5° -10° 前角，切削力极低 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● 5-10 rake angle, extremely low cutting force ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy		●	●	●	●					
			H	淬硬钢 Hardened Steel										
			K	铸铁 Cast Iron										✚
			S	难切削材料 Hard-cutting Material										✚
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade				
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330	
	VCGT	110302-2.8	1	2.8	6.35	0.2	3.18	2.8	7°	▲	●	▲	▲	
		110304-2.8	1	2.8	6.35	0.4	3.18	2.8	7°	▲	●	▲	▲	
		110308-2.8	1	2.8	6.35	0.8	3.18	2.8	7°	▲	▲	▲	▲	
	VCGT	160402-3.2	1	3.2	9.525	0.2	4.76	4.4	7°	▲	●	▲	▲	
		160404-3.2	1	3.2	9.525	0.4	4.76	4.4	7°	▲	●	▲	▲	
		160408-3.2	1	3.2	9.525	0.8	4.76	4.4	7°	▲	▲	▲	▲	

* 根据实际加工需求，可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order



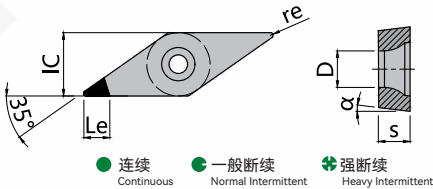
产品信息 Information	● 精加工至中等加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 非常好的切屑控制 ● 重复定位精度高 ● Fine machining to medium machining ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● Very good chip control ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy		●	●	●	●				
			H	淬硬钢 Hardened Steel									
			K	铸铁 Cast Iron								✚	
			S	难切削材料 Hard-cutting Material								✚	
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade			
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330
 断屑槽型 Chip breaker groove	VCGT	110304-V-2.6	1	2.6	6.35	0.4	3.18	2.8	7°	▲	▲	▲	▲
		110304-W-2.6	1	2.6	6.35	0.4	3.18	2.8	7°	▲	▲	▲	▲
		110308-V-2.6	1	2.6	6.35	0.8	3.18	2.8	7°	▲	▲	▲	▲
		1103048-W-2.6	1	2.6	6.35	0.8	3.18	2.8	7°	▲	▲	▲	▲
	VCGT	160404-V-3	1	3.0	9.525	0.4	4.76	4.4	7°	▲	▲	▲	▲
		160404-W-3	1	3.0	9.525	0.4	4.76	4.4	7°	▲	▲	▲	▲
		160408-V-3	1	3.0	9.525	0.8	4.76	4.4	7°	▲	▲	▲	▲
		160408-W-3	1	3.0	9.525	08	4.76	4.4	7°	▲	▲	▲	▲

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● 标准产品 Stock available ▲ 按需生产 Make-to-order



PCD- 菱形, 正型 35°
VCGW □□□□



产品信息 Information	● 精加工 ● G 级公差周边磨削 PCD 刀片 ● 锋利的切削刃 ● 5° -10° 前角，切削力极低 ● 重复定位精度高 ● Finishing ● G tolerance peripheral grinding PCD insert ● Sharp cutting edge ● 5-10 rake angle, extremely low cutting force ● High repeated positioning accuracy		N	有色金属 Aluminum Alloy		●	●	●	●					
			H	淬硬钢 Hardened Steel										
			K	铸铁 Cast Iron										✚
			S	难切削材料 Hard-cutting Material										✚
图示 Picture	型号 Type		刀片参数 Insert Parameters							PCD 牌号 Grade				
			刃数 Edge number	Le	IC	Re	s	D	a	OPD901	OPD310	OPD510	OPD330	
	VCGW	110302-2.8	1	2.8	6.35	0.2	3.18	2.8	7°	▲	●	▲	▲	
		110304-2.8	1	2.8	6.35	0.4	3.18	2.8	7°	▲	●	▲	▲	
		110308-2.8	1	2.8	6.35	0.8	3.18	2.8	7°	▲	▲	▲	▲	
	VCGW	160402-3.2	1	3.2	9.525	0.2	4.76	4.4	7°	▲	●	▲	▲	
		160404-3.2	1	3.2	9.525	0.4	4.76	4.4	7°	▲	●	▲	▲	
		160408-3.2	1	3.2	9.525	0.8	4.76	4.4	7°	▲	▲	▲	▲	

* 根据实际加工需求, 可非标定制
According to processing requirements, the customized tools can be provided.

● 标准产品 Stock available ▲ 按需生产 Make-to-order

PCD 铣刀夹 PCD Milling Holder

切削刃形式 Cutting Edge Type			
刀夹类型 Cartridge Type	短修光刃 Short wiper land	大圆弧修光刃 Big radius wiper land	破坏刃 Destructive edge
	OPX-30x13.5-A OPD510	OPX-30x13.5-B OPD510	OPX-30x13.5-P OPD510
	OPX-30x13.5-A OPD310	OPX-30x13.5-B OPD310	OPX-30x13.5-P OPD310
	OPX-27x11.85-A OPD510	OPX-27x11.85-B OPD510	OPX-27x11.85-P OPD510
	OPX-27x11.85-A OPD310	OPX-27x11.85-B OPD310	OPX-27x11.85-P OPD310
	OPX-16.5x12-A OPD510	OPX-16.5x12-B OPD510	OPX-16.5x12-P OPD510
	OPX-16.5x12-A OPD310	OPX-16.5x12-B OPD310	OPX-16.5x12-P OPD310

PCD 成型刀 PCD Forming Cutting Tool



一体 PCD 面铣刀
Integrated PCD Face Milling Cutter



PCD 槽铣刀
PCD Slot Milling Cutter



PCD 复合铰刀
PCD Composite Reamer



法兰 PCD 铰刀
Flange PCD Reamer



一体 PCD 玉米铣刀
Integrated PCD Corn Milling Cutter

01 PCD 非标刀具的优势
Advantage Of PCD Tool

高硬度和耐磨性:

PCD (聚晶金刚石) 的硬度极高, 可达 8000HV, 是硬质合金的 80~120 倍, 且耐磨性更好。这使得 PCD 刀具在高速切削中能够保持较高的加工精度和效率。

良好的导热性:

PCD 的导热系数为 700W/MK, 是硬质合金的 1.5~9 倍, 甚至高于 PCBN 和铜。良好的导热性能够迅速传递热量, 减少刀具的热变形, 从而延长刀具寿命并提高加工精度。

低摩擦系数:

PCD 的摩擦系数一般为 0.1 至 0.3, 而硬质合金的摩擦系数为 0.4~1。低摩擦系数使得 PCD 刀具在切削过程中切削力小, 能够显著减少表面摩擦, 延长刀具寿命。

高光洁度和加工精度:

PCD 刀具加工的光洁度高, 适合加工高精度零件。例如, 0.5-1 μ m 粒度的 PCD 复合片可以加工高光洁度和高精度的非铁金属材料。

广泛的应用领域:

PCD 刀具适用于多种行业, 特别是在汽车、电子和航天等领域。它们可以在一次走刀中完成钻孔、扩孔、倒角、精修等多道工序, 显著降低加工成本。

定制化服务:

PCD 刀具可以根据具体需求进行非标定制, 满足各种复杂形状和功能的加工需求。这种灵活性使得 PCD 刀具在复杂零件的加工中表现出色。

Ultra-high hardness & wear resistance:

PCD (polycrystalline diamond) exhibits extreme hardness up to 8000HV (80-120 times harder than cemented carbide), with superior wear resistance for maintaining precision in high-speed cutting.

Superior thermal conductivity:

With thermal conductivity of 700W/m·K (1.5-9 times higher than cemented carbide), PCD rapidly dissipates heat to minimize thermal deformation and extend tool life.

Low friction coefficient:

The friction coefficient of PCD ranges 0.1-0.3 (compared to 0.4-1.0 for cemented carbide), significantly reducing cutting forces and surface friction.

High surface finish & machining accuracy:

PCD tools achieve mirror-like finishes (Ra 0.1-0.5 μ m) using 0.5-1 μ m grain PCD composites, ideal for precision machining of non-ferrous metals.

Broad application spectrum:

Suitable for multiple industries including automotive, electronics, and aerospace. Capable of completing drilling, reaming, chamfering, and finishing in single pass.

Customized solutions:

Non-standard PCD tools can be tailored for complex geometries through advanced 5-axis laser processing, optimizing performance for specific applications.

02 PCD 非标刀具的应用领域

PCD customized cutting tool application

机械零件加工：

在机械零件的制造过程中，PCD 刀具的高硬度和良好的热稳定性使其能够满足高精度和高难度的加工需求，确保产品的质量和精度。

汽车零部件生产：

PCD 刀具在汽车行业中有着广泛的应用，能够进行高速高效的车削和铣削等加工工艺，提高生产效率和产品质量。特别是在汽车轻量化和小型化方面，PCD 刀具发挥了重要作用。

木工雕刻及复合材料加工：

PCD 刀具适用于木工雕刻和某些特殊材料如碳纤维增强塑料的加工，能够实现精细加工并保证质量稳定可靠。

高精尖领域：

在高精尖领域如航空航天中，PCD 刀具因其特殊的材质和优秀的物理特性，广泛应用于航空发动机中的涡轮叶片和其他部件的高精度加工。此外，PCD 刀具在发动机行业中表现出色，能够获得更好的平面度并保证产品尺寸的一致性和精密性。

3C 行业：

在 3C 产品制造中，PCD 刀具的应用也非常广泛。由于 3C 产品通常使用铝和塑料混合材料，PCD 刀具能够满足其轻、短、小的设计要求，并且在加工过程中能够保持良好的外观质量。例如，手机外壳、平板电脑等产品的加工都需要 PCD 刀具来保证加工后的工件具有良好的外观面。

Machining Of Mechanical Components:

In the manufacturing process of mechanical parts, the high hardness and excellent thermal stability of PCD tools enable them to meet high-precision and challenging machining requirements, ensuring product quality and dimensional accuracy.

Automotive Parts Manufacturing:

PCD tools are widely used in the automotive industry for high-speed turning and milling processes, enhancing production efficiency and product quality. They play a crucial role in lightweight and miniaturization of automotive parts.

Woodworking Engraving & Composite Material Processing:

PCD tools are suitable for wood carving and special materials like carbon fiber-reinforced plastics, achieving fine processing with stable quality.

Advanced Aerospace Applications:

In aerospace engineering, PCD tools are extensively used for high-precision machining of turbine blades in aircraft engines. They ensure superior flatness and dimensional consistency in engine components.

3C Product Manufacturing:

PCD tools are widely applied in 3C product manufacturing (e.g., smartphone casings and tablets). Their ability to process aluminum-plastic composites meets lightweight design requirements while maintaining excellent surface finish.



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