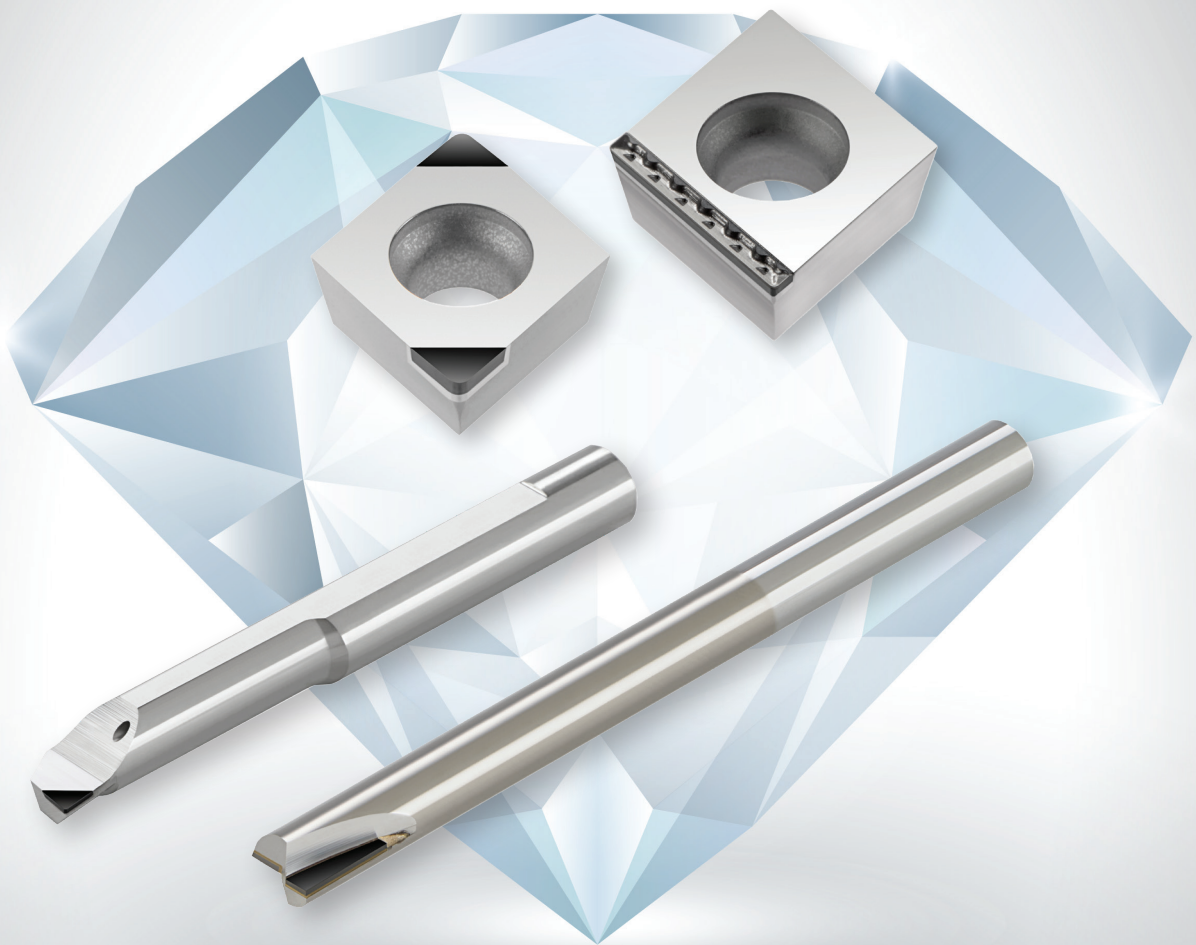


Diamond Tools

金剛石刀具

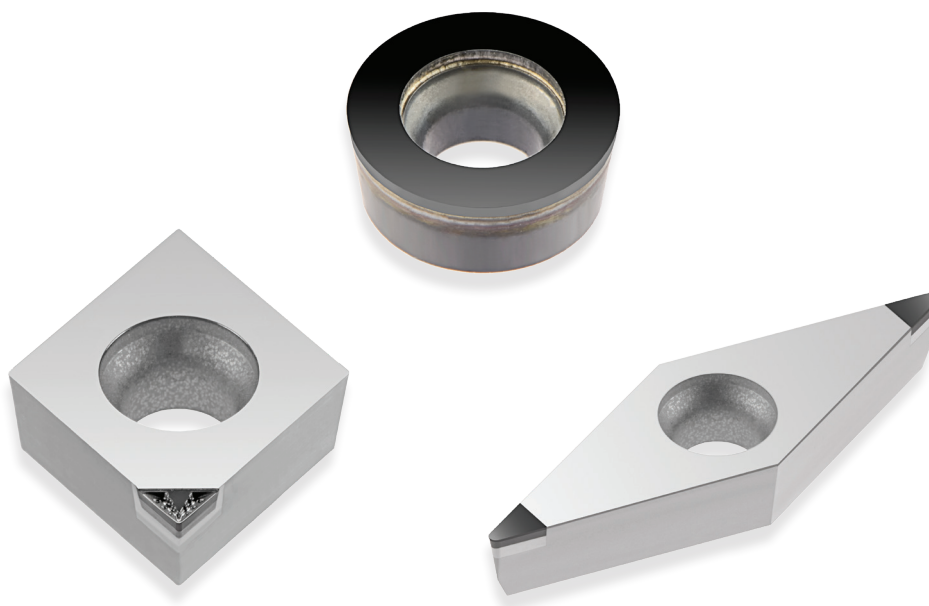


Carmex Diamond Tools

Carmex 金刚石刀具

Carmex PCD, CVD-T and PCBN cutting tools are designed for high productivity and longer tool life when machining materials ranging from plastics to brass, cast iron, hardened steel, and super alloys. The inserts provide faster machining times compared to grinding and outperform ceramics, thereby reducing production costs.

Carmex PCD, CVD-T和PCBN刀具设计用于高效率加工和长的刀具寿命在塑料到黄铜、铸铁、硬钢和超合金加工时。与磨削相比，这种材料的速度更高，其性能优于陶瓷，减少生产成本。



PCD

PCD is a composition of diamond particles sintered together with a metallic binder. The polycrystalline structure creates a hard and wear-resistant tool with high thermal conductivity to quickly transfer heat away from the cutting edge. Since diamond is the hardest material available, it provides the highest abrasive resistance. PCD tools are used for non-ferrous materials, high-silicon aluminum, carbon fiber,

and plastic (CFRP). PCD是金刚石颗粒与金属结合剂烧结在一起的材质。多晶结构制造了一种具有高导热性的硬而耐磨的刀具，可快速将切削热从切削刃移除。因为金刚石是最硬的材料，它提供了最高的耐磨性。PCD 工具用于有色金属材料、高硅铝、碳纤维和塑料（增强复合材料-CFRP）

CVD

The CVD cutting material is harder than PCD and twice as wear-resistant. CVD delivers various benefits when machining long-chipping aluminum and magnesium alloys, high-silicon aluminum, precious metal alloys, plastics with abrasive fillers, tungsten carbide, and ceramic green compacts. Laser equipment is used to cut out the segments from the CVD-thick film. These are then attached to inserts by brazing under vacuum. The chip breakers and cutting edges are also laser formed. The advanced chip breaker reduces contact of the chip with the insert surface, which considerably reduces heat generation and energy consumption. In addition, the controlled chip breaker increases process

reliability and reduces cutting forces. CVD金刚石厚膜材料比PCD更硬，耐磨性两倍于PCD。CVD金刚石在加工长屑铝和镁合金、高硅铝、贵金属合金、带磨料填充的塑料、硬质合金和绿色烧结陶瓷时提供益处。用激光从CVD金刚石厚膜上切断。然后附上这些在真空下铜焊的刀片。断屑台和切削刃也是激光成形的。先进的断屑台减少切屑与刀片表面摩擦，降低热量的产生和能耗。另外，控制断屑，增加工艺的可靠性，降低切削力。

PCBN

Its high heat resistance combined with the high level of hardness, which is second only to diamond, makes PCBN the ideal cutting material for machining hardened steels. In addition to the machining of hardened steels (45-72 HRC), this cutting material group is also highly suited to the machining of cast materials and special alloys—applications in which carbide and cutting ceramic tools often reach their limits. CBN material provides excellent heat resistance and can be used at very high cutting speeds. It also enhances toughness and thermal shock resistance.

PCBN耐热性高，硬度高，仅次于金刚石，是加工硬钢的理想切削材料。除了加工硬钢（45-72 HRC），这种切削材料也非常适合加工铸造材料和特殊合金，在这些应用中，硬质合金和陶瓷刀具往往达到其极限。

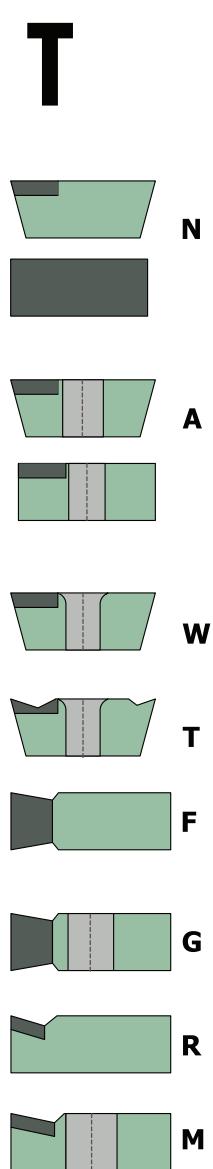
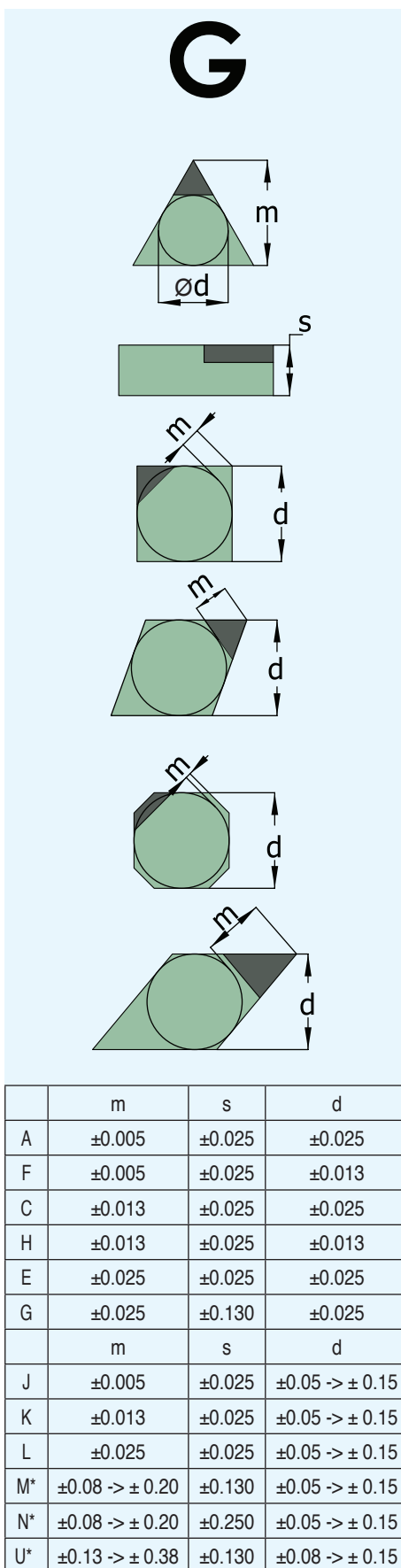
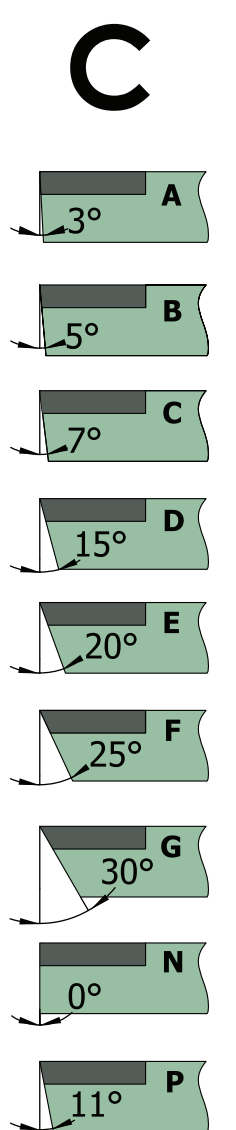
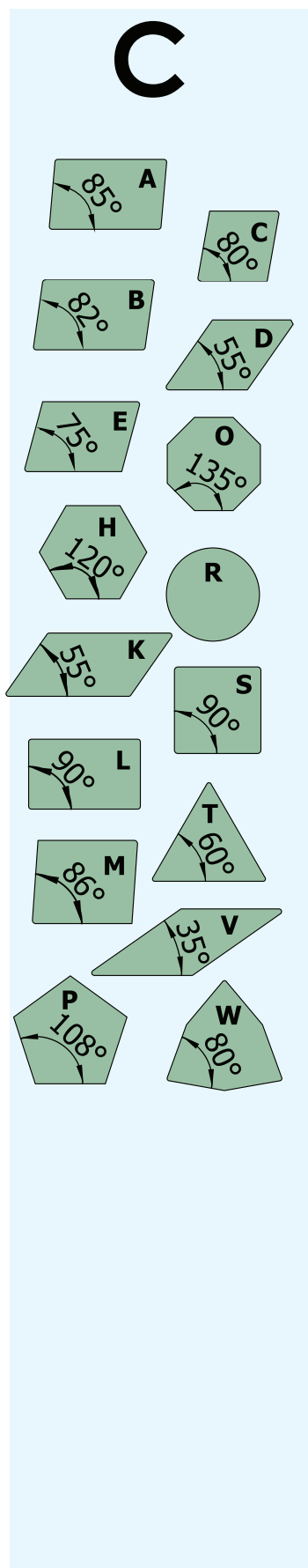
CBN材料具有杰出的耐热性和可以在非常高的切割速度下使用。它还增强韧性和耐热冲击性。

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PCBN inserts PCBN 刀片

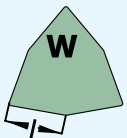
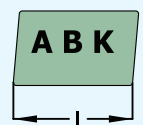
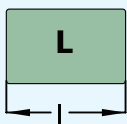
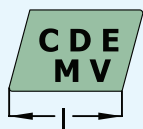
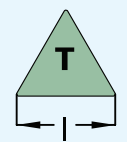
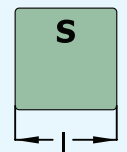
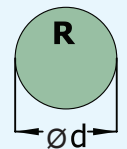
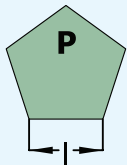
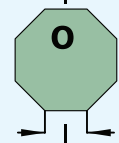
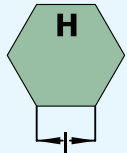
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ISO Codes ISO 标识



刀片边长

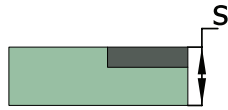
11



x - special

刀片厚度

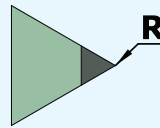
06



	S
01	1.59
T1	1.98
02	2.38
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35

刀尖圆角

02



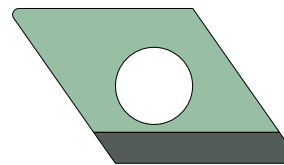
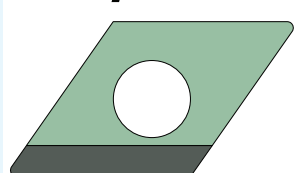
01	0.1
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6

00 = round insert / inch 00=刀片圆角/英寸

M0 = round insert / metric M0=刀片圆角公制

左/右

R/L GS



槽型

W

修光刃

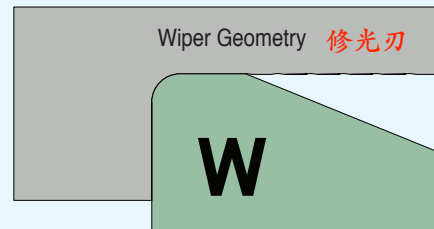
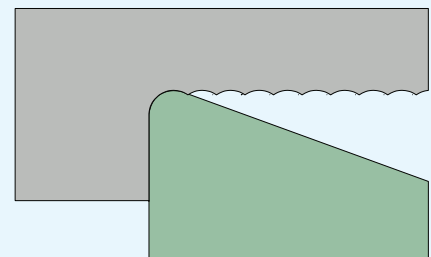
刀片材质

PCD

CVD

PCD

CBN

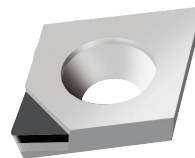
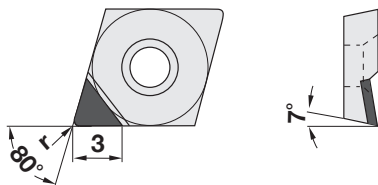


X - 特殊

PCD and CVD Thick film diamond

PCD和CVD厚膜金刚石

Positive 80° - CCGT – single cutting edge 正角80°-CCGT 单刃



订货号Ordering Code	Toolholder 刀杆
CCGT 060202	SCLC...06 A/E...SCLC.06
CCGT 060204	
CCGT 060208	
CCGT 09T302	SCLC...09 A/E...SCLC.09
CCGT 09T304	
CCGT 09T308	
CCGT 09T312	SCLC...12 A/E...SCLC.12
CCGT 120402	
CCGT 120404	
CCGT 120408	

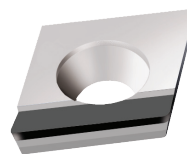
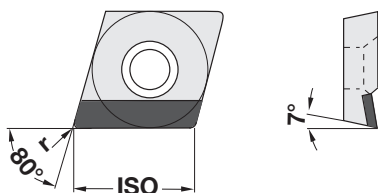
被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁材料	Positive 正角	PCD
		CVD

Order example: CCGT 060202 **PCD** or CCGT 060202 **CVD**

订货样式: CCGT 060202 PCD或CCGT060202 CVD

Positive 80° - CCGT – GS, single cutting edge

正角80°-CCGT - GS, 单刃



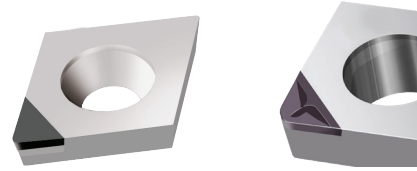
订货号Ordering Code	Toolholder 刀杆
CCGT 060202 R/L-GS	SCLCR/L...06 A...SCLCR/L.06
CCGT 060204 R/L-GS	
CCGT 060208 R/L-GS	
CCGT 09T304 R/L-GS	SCLCR/L...09 A...SCLCR/L.09
CCGT 09T308 R/L-GS	
CCGT 09T312 R/L-GS	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁材料	Positive 正角	PCD
		CVD

Order example: CCGT 060204 R-GS **PCD** or CCGT 060204 R-GS **CVD**

For L.H, specify CCGT 060204 **L...** instead of 对于左手刀片, 规定 CCGT 060204 L...而不是CCGT 060204 R...

CCGW 80°-single cutting edge CCGW 80° -单刃



Neutral 平面 (平板) Chip Breaker 带断屑台
被加工材料

订货号Ordering Code	Toolholder 刀杆
*CCGW 060201	SCLC...06 A...SCLC.06
CCGW 060202	
CCGW 060204	
CCGW 060208	
CCGW 09T302	SCLC...09 A...SCLC.09
CCGW 09T304	
CCGW 09T308	
CCGW 09T312	
CCGW 120402	SCLC...12 A...SCLC.12
CCGW 120404	
CCGW 120408	
CCGW 120412	

ISO Standard	Type 刀片类型	Grade 材质
N 非铁材料	Neutral 平面	PCD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	
	Neutral 平面	CVD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	

F - Finishing R - Roughing F - 精加工 R - 粗加工

Order example: CCGW 060202 N PCD or 订货样式: CCGW 060202 N PCD或CCGW 06201 R CVD
CCGW 060201 R CVD

* Available only in Neutral CVD grade * 只有 平面CVD材质

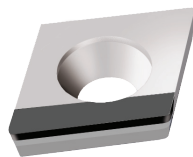
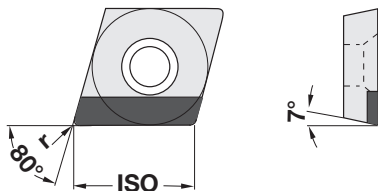
Wiper 修光刃

订货号Ordering Code	Toolholder 刀杆
CCGW 060202-W	SCLC...06 A...SCLC.06
CCGW 060204-W	
CCGW 09T302-W	SCLC...09 A...SCLC.09
CCGW 09T304-W	
CCGW 09T308-W	
CCGW 120402-W	SCLC...12 A...SCLC.12
CCGW 120404-W	
CCGW 120408-W	

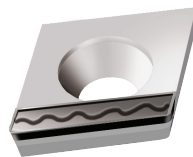
Order example: CCGW 120402-WF PCD or 订货样式: CCGW 120402-WF PCD或CCGW 120402-WR CVD
CCGW 120402-WR CVD

Same insert for R.H or L.H cutting 刀片相同, 可用于R.H或L.H切削

CCGW 80°-GS, single cutting edge CCGW 80° -GS, 单刃



Neutral 平面
被加工材料



Chip Breaker 带断屑台

订货号 Ordering Code	Toolholder 刀杆
CCGW 060202 R/L-GS	SCLCR/L...06 A...SCLCR/L.06
CCGW 060204 R/L-GS	
CCGW 060208 R/L-GS	
CCGW 09T304 R/L-GS	SCLCR/L...09 A...SCLCR/L.09
CCGW 09T308 R/L-GS	
CCGW 09T312 R/L-GS	

Order example: CCGW 09T304 R-GSF **PCD** or
CCGW 060202 R-GS**N CVD**
For L.H, specify CCGW 09T304 **L...** instead of
CCGW 09T304 **R...**

订货样式: CCGW 09T304 R-GSF PCD 或

CCGW060202 R-GSN CVD

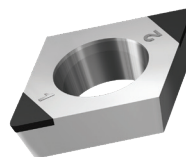
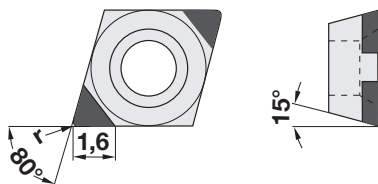
左手刀杆用 CCGW09T304 L...而不是 CCGW 09T304 R...

ISO Standard	Type 刀片类型	Grade 材质
N 非铁材料	Neutral 平面	PCD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	
	Neutral 平面	CVD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	

F - Finishing R - Roughing

F - 带断屑台 (精车) R - 带断屑台 (粗车)

CDGW 80°-two cutting edges CDGW 80° -双刃

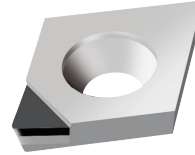
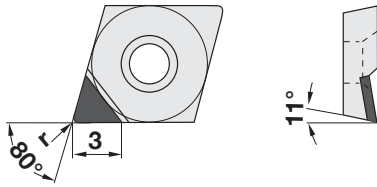


订货号 Ordering Code	Toolholder 刀杆
CDGW 040101	E...SCLDR/L 04
CDGW 040102	
CDGW 040104	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁材料	Neutral 平面	CVD

Order example: CDGW 040102 **CVD** 订货样式: CDGW 040102 CVD

Positive 80° - CPGT – single cutting edge 正角80° -CPGT 单刃

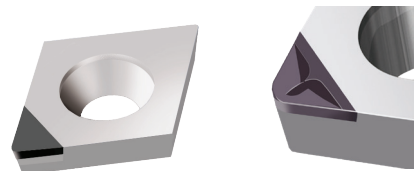


订货号 Ordering Code	Toolholder 刀杆
CPGT 060202	SCLP...06 A...SCUP.06
CPGT 060204	
CPGT 060208	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁金属	Positive 正角	PCD
		CVD

Order example: CPGT 060202 **PCD** or 订货样式: CPGT 060202 PCD或CPGT 060202 CVD
CPGT 060202 **CVD**

CPGW 80°– single cutting edge CPGW 80° - 单刃



订货号 Ordering Code	Toolholder 刀杆
*CPGW 060201	SCLP...06 A...SCUP.06
CPGW 060202	
CPGW 060204	
CPGW 060208	
*CPGW 09T301	SCLP...09 A...SCUP.09
CPGW 09T302	
CPGW 09T304	
CPGW 09T308	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁金属	Neutral 平面	PCD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	
	Neutral 平面	CVD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	

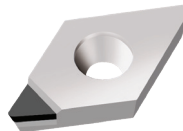
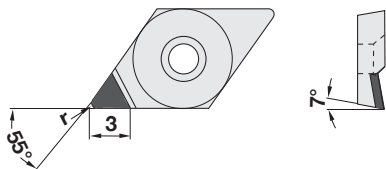
F - Finishing R - Roughing F - 精车 R - 粗车

Order example: CPGW 060201 **N PCD** or 订货样式: CPGW 060201 N PCD或CPGW 060201 R CVD
CPGW 060201 **R CVD**

* Available only in Neutral **CVD** grade * 只有平面刀片 CVD材质

Positive 55° - DCGT – single cutting edge

正角 55° - DCGT-单刃



订货号 Ordering Code	Toolholder 刀杆
DCGT 070201	SDJC..07 A...SDUC./ A/E...SDQC.07
DCGT 070202	
DCGT 070204	
DCGT 070208	
DCGT 11T301	SDJC..11 A...SDUC./ A/E...SDQC.11
DCGT 11T302	
DCGT 11T304	
DCGT 11T308	
DCGT 11T312	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁金属	Positive 正角	PCD CVD

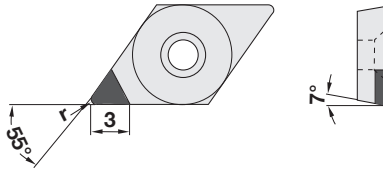
Order example: DCGT 070201 **PCD** or 订货样式: DCGT 070201 PCD或DCGT 070201 CVD
DCGT 070201 **CVD**

Wiper 修光刃

订货号 Ordering Code	Toolholder 刀杆
DCGT 070202-W	SDJC..07 A...SDUC.07
DCGT 070204-W	
DCGT 070208-W	
DCGT 11T302-W	SDJC..11 A...SDUC.11
DCGT 11T304-W	
DCGT 11T308-W	

Order example: DCGT 11T302-W **PCD** or 订货样式: DCGT 11T302-W PCD或DCGT 11T302-W CVD
DCGT 11T302-W **CVD**
Same insert for R.H or L.H cutting 相同刀片用于左手或右手切削

DCGW 55° – Single cutting edge DCGW 55° - 单刃



Neutral 平面 被加工材料 刀片类型 刀片材质
Chip Breaker 断屑台

订货号 Ordering Code	Toolholder 刀杆
*DCGW 070201	SDJC..07 A...SDUC./ A/E...SDQC.07
DCGW 070202	
DCGW 070204	
DCGW 070208	
*DCGW 11T301	SDJC..11 A...SDUC./ A/E...SDQC.11
DCGW 11T302	
DCGW 11T304	
DCGW 11T308	
DCGW 11T312	

ISO Standard	Type	Grade
N 非铁金属	Neutral 平面	断屑台 PCD
	F - Chip Breaker	
	R - Chip Breaker	
	Neutral 平面	断屑台 CVD
	F - Chip Breaker	
	R - Chip Breaker	

F - Finishing R - Roughing F - 精车 R - 粗车

Order example: DCGW 11T312 F PCD or 订货样式: DCGW 11T312 F PCD或DCGW 11T312 F CVD

* Available only in Neutral PCD/CVD grade * 只有平面PCD/CVD材质

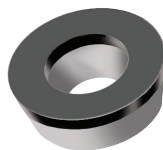
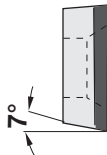
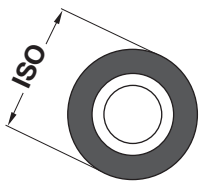
Wiper 修光刃

订货号 Ordering Code	Toolholder 刀杆
DCGW 070202-W	SDJC..07 A...SDUC.07
DCGW 070204-W	
DCGW 070208-W	
DCGW 11T302-W	SDJC..11 A... SDUC.11
DCGW 11T304-W	
DCGW 11T308-W	

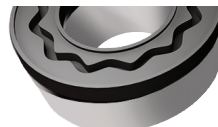
Order example: DCGW 070208-WR PCD or 订货样式: DCGW 070208-WR PCD或DCGW 070208-WR CVD

DCGW 070208-WR CVD
Same insert for R.H or L.H cutting 相同刀片左手或右手切削

RCGW – Full Face RCGW - 满面切削刃



Neutral 平面



Chip Breaker 断屑台

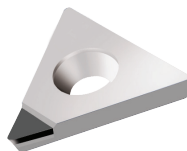
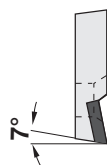
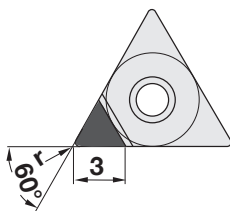
订货号 Ordering Code	Toolholder 刀杆
RCGW 0602 M0-FF	SRDCN/ SRGC...06 E...SRLC.06
RCGW 0803 M0-FF	SRDCN./ SRGC...08
RCGW 1003 M0-FF	SRDCN./ SRGC...1003 E...SRLC.1003
RCGW 10T3 M0-FF	SRDCN./SRGC... 10T3
RCGW 1204 M0-FF	SRDCN./ SRGC...12

ISO Standard	Type 刀片类型	Grade 刀片材质
N 非铁金属	Neutral 平面	PCD 断屑台
	F - Chip Breaker	
	R - Chip Breaker	
	Neutral 平面	CVD 断屑台
	R - Chip Breaker	

F - Finishing R - Roughing F - 精车 R - 粗车

Order example: RCGW 0602 M0-FFR **PCD** or 订货样式: RCGW 0602 M0-FFR PCD或RCGW 0602 M0-FFN **CVD**

Positive 60° - TCGT - Single cutting edge 正角 60° - TCGT - 单刃

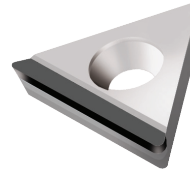
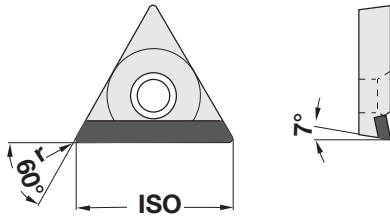


订货号 Ordering Code	Toolholder 刀杆
TCGT 090202	STGC...09 A...STFC.09
TCGT 090204	
TCGT 090208	
TCGT 110202	E10M STFPR/L-11 STGC...11 A...STFC.11
TCGT 110204	
TCGT 110208	
TCGT 16T302	STGC...16 A...STFC.16
TCGT 16T304	
TCGT 16T308	
TCGT 16T312	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非铁金属	Positive 正角	PCD
		CVD

Order example: TCGT 090202 **PCD** or 订货样式: TCGT 090202 PCD或TCGT 090202 **CVD**

Positive 60° - TCGT- GS 正角 60° -GS

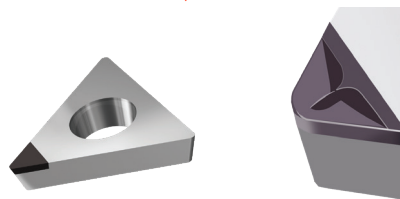
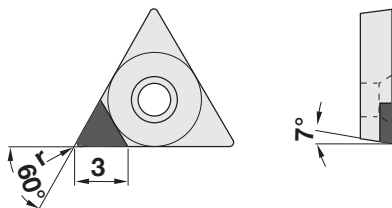


订货号 Ordering Code	Toolholder 刀杆
TCGT 090202-GS	STGC...09 A...STFC.09
TCGT 090204-GS	
TCGT 090208-GS	
TCGT 110202-GS	E10M STFPR/L-11 STGC...11 A...STFC.11
TCGT 110204-GS	
TCGT 110208-GS	
TCGT 110212-GS	
TCGT 16T302-GS	STGC...16
TCGT 16T304-GS	
TCGT 16T308-GS	
TCGT 16T312-GS	

被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N 非钛金属	Positive 正角	PCD CVD

Order example: TCGT 110208-GS **PCD** or 订货样式: TCGT 110208-GS PCD或TCGT 110208-GS CVD
TCGT 110208-GS **CVD**

TCGW 60° - Single cutting edges TCGW 60° - 单刃



被加工材料 Neutral 平面 Chip Breaker 断屑台

订货号 Ordering Code	Toolholder 刀杆
*TCGW 090201	STGC...09 A...STFC.09
TCGW 090202	
TCGW 090204	
TCGW 090208	
*TCGW 110201	STGC...11 A...STFC.11
TCGW 110202	
TCGW 110204	
TCGW 110208	
TCGW 16T302	STGC...16
TCGW 16T304	
TCGW 16T308	
TCGW 16T312	

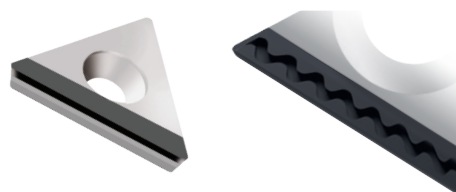
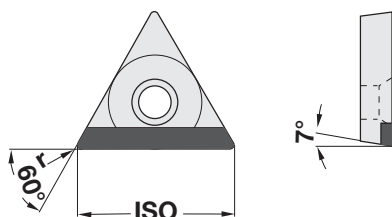
ISO Standard	Type 刀片类型	Grade 刀片材质
N 非铁金属	Neutral 平面	PCD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	
	Neutral 平面	CVD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	

F - Finishing R - Roughing F - 精车 R - 粗车

Order example: TCGW 090208 **N PCD** or 订货样式: TCGW 090208 N PCD或TCGW 090208 F CVD
TCGW 090208 **F CVD**

* Available only in Neutral **PCD/CVD** grade * 只有平面PCD/CVD材质

TCGW 60°-GS TCGW 60° - GS



Neutral 平面 Chip Breaker 断屑台

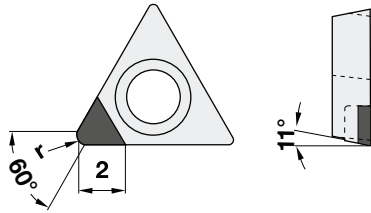
订货号 Ordering Code	Toolholder 刀杆
TCGW 090202-GS	STGC...09 A...STFC.09
TCGW 090204-GS	
TCGW 090208-GS	
TCGW 110202-GS	STGC...11 A...STFC.11
TCGW 110204-GS	
TCGW 110208-GS	
TCGW 110212-GS	
TCGW 16T302-GS	STGC...16
TCGW 16T304-GS	
TCGW 16T308-GS	
TCGW 16T312-GS	

ISO Standard	Type 刀片类型	Grade 刀片材质
N 非铁金属	Neutral 平面	PCD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	
	Neutral 平面	CVD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	

F - Finishing R - Roughing F - 精车 R - 粗车

Order example: TCGW 110212-GS **F PCD** or 订货样式: TCGW 110212-GS F PCD或TCGW 110212-GS F CVD
TCGW 110212-GS **F CVD**

TPGW 60°-Single cutting edge TPGW 60° - 单刃

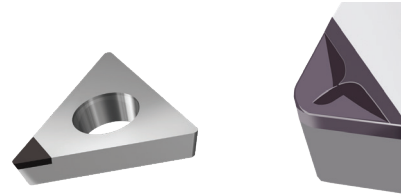


订货号 Ordering Code	Toolholder 刀杆
*TPGW 06T101	E06H STXPR/L 06
TPGW 06T102	
TPGW 06T104	

Order example: TPGW 06T101 **N CVD**
 * Available only in **Neutral CVD** grade

订货样式: TPGW 060101 N CVD

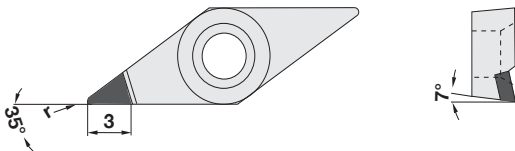
* 只有平面CVD材质



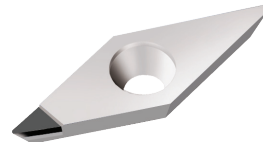
被加工材料	Neutral 平面	Chip Breaker 断屑台
ISO Standard	Type 刀片类型	Grade 刀片材质
N 非铁金属	Neutral 平面	CVD
	F - Chip Breaker 断屑台	
	R - Chip Breaker 断屑台	

F - Finishing R - Roughing F - 精车 R - 粗车

Positive 35° VCGT -Single cutting edge 正角 35° VCGT - 单刃



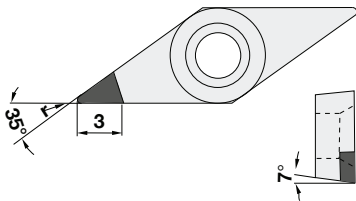
订货号 Ordering Code	Toolholder 刀杆
VCGT 070201	SVJC./ SVVCN...07
VCGT 070202	
VCGT 070204	
VCGT 070208	
VCGT 110301	SVJC./SVVCN...11
VCGT 110302	
VCGT 110304	
VCGT 110308	
VCGT 160401	SVJC./SVHC./ SVVCN...16 A...SVJC.16
VCGT 160402	
VCGT 160404	
VCGT 160408	
VCGT 160412	



被加工材料	刀片类型	刀片材质
ISO Standard	Type	Grade
N	Positive 正角	PCD
		CVD

Order example: VCGT 070208 **PCD** or 订货样式: VCGT 070208 PCD或VCGT 070208 CVD
 VCGT 070208 **CVD**

VCGW 35°-Single cutting edge VCGW 35° - 单刃



Neutral 平面 Chip Breaker 断屑台

订货号 Ordering Code	Toolholder 刀杆
*VCGW 070201	SVJC./SVVCN...07
VCGW 070202	
VCGW 070204	
VCGW 070208	
*VCGW 110301	SVJC./SVVCN...11
VCGW 110302	
VCGW 110304	
VCGW 110308	
*VCGW 160401	SVJC./SVHC./SVVCN...16 A...SVJC.16
VCGW 160402	
VCGW 160404	
VCGW 160408	
VCGW 160412	

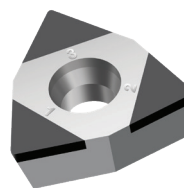
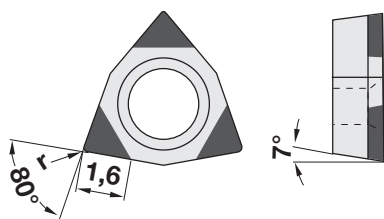
ISO Standard	Type 刀片类型	Grade 刀片材质
N 非铁金属	Neutral 平面	PCD 断屑台
	F - Chip Breaker	
	R - Chip Breaker	
	Neutral 平面	CVD 断屑台
	F - Chip Breaker	
	R - Chip Breaker	

F - Finishing R - Roughing F - 精车 R - 粗车

Order example: VCGW 070208 **N PCD** or 订货样式: VCGW 070208 N PCD或VCGW 070208 F CVD
VCGW 070208 **F CVD**

* Available only in Neutral **PCD/CVD** grade * 只有平面PCD/CVD材质

WCGW 80°-three cutting edges WCGW 80° - 3刃



被加工材料 刀片类型 刀片材质

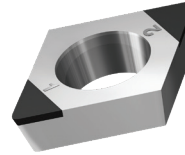
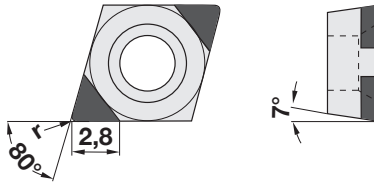
订货号 Ordering Code	Toolholder 刀杆
WCGW 020101	E...SWUC. 02
WCGW 020102	
WCGW 020104	

ISO Standard	Type	Grade
N 非铁金属	Neutral 平面	CVD

Order example: WCGW 020101 **CVD** 订货样式: WCGW 020101 CVD

PCBN 立方氮化硼 CBN

Neutral 80° - CCGW – two cutting edges CCGW 80° - 2刃



订货号 Ordering Code	Toolholder 刀杆
*CCGW 060201	SCLC...06 A/E...SCLC.06
CCGW 060202	
CCGW 060204	
CCGW 060208	
*CCGW 09T301	SCLC...09 A/E...SCLC.09
CCGW 09T302	
CCGW 09T304	
CCGW 09T308	

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Order example: CCGW 060201 **CH65 CBN** or 订货式样: CCGW 060201 CH65 CBN或CCGW 09T302 CK85 CBN
CCGW 09T302 **CK85 CBN**

* Available only in **CH25** and **CK65** grade * 只有CH25和CK65材质

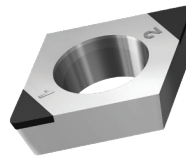
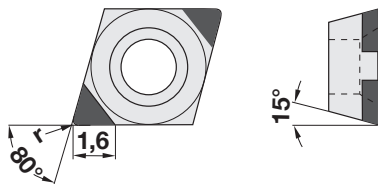
Wiper 修光刃

订货号 Ordering Code	Toolholder 刀杆
*CCGW 09T302-W	SCLC...09 A...SCLC.09
CCGW 09T304-W	
CCGW 09T308-W	

Order example: CCGW 09T302-W **CH65 CBN** or 订货式样: CCGW 09T302-W CH25 CBN或CCGW 09T308-W CK85 CBN
CCGW 09T308-W **CK85 CBN**

* Available only in **CP25, CP45, CK65** and **CK85** grade * 只有CP25, CP45, CK65和CK85材质

Neutral 80° - CDGW – two cutting edges 平面 80° -CDGW- 2刃

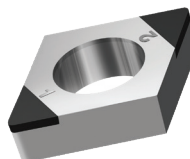
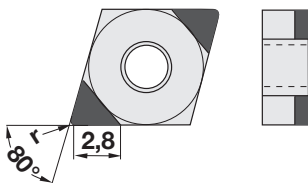


订货号 Ordering Code	Toolholder 刀杆
CDGW 040101	E...SCLD.04
CDGW 040102	
CDGW 040104	

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CH65 刀片	✓	CBN

Order example: CDGW 040101 **CH65 CBN** or 订货式样: CDGW 040101 CH65 CBN 或 CDGW 040104 CH65 CBN
CDGW 040104 **CH65 CBN**

Neutral 80° - CNGA – two cutting edges 平面 80° -CNGA- 2刃



订货号 Ordering Code	Toolholder 刀杆
CNGA 120402	DCLN..12 A...PCLN.12
CNGA 120404	
CNGA 120408	
CNGA 120412	

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Order example: CNGA 120402 **CH65 CBN** or CNGA 120412 **CK85 CBN**

订货式样: CNGA 120402 CH25 CBN 或
CNGA 120412 CK85 CBN

Wiper 修光刀

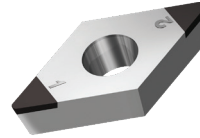
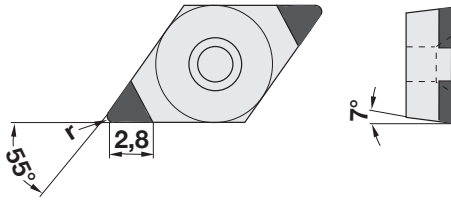
订货号 Ordering Code	Toolholder 刀杆
CNGA 120404-W	DCLN..12 A...PCLN.12
CNGA 120408-W	

Order example: CNGA 120404 -W **CH65 CBN** or CNGA 120408 -W **CK85 CBN**

订货式样: CNGA 120404-W CH65 CBN 或 CNGA 120408-W CK85 CBN

Neutral 55° - DCGW – two cutting edges

平面 55°-DCGW - 2刃



订货号 Ordering Code	Toolholder 刀杆
*DCGW 070201	SDJC../ SDNCN..07 A...SDUC../ A/E...SDQC..07
DCGW 070202	
DCGW 070204	
DCGW 070208	
*DCGW 11T301	SDJC../ SDNCN..07 A...SDUC../ A/E...SDQC..07
DCGW 11T302	
DCGW 11T304	
DCGW 11T308	

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Order example: DCGW 070204 **CH65 CBN** or
DCGW 11T308 **CK85 CBN** 订货样式: DCGW 070204 CH65 CBN或DCGW 11T3 08 CK85 CBN

* Available only in **CH25** and **CK65** grade * 只有CH25, CK65材质

Wiper 修光刃

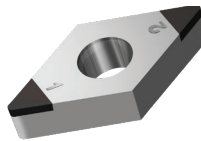
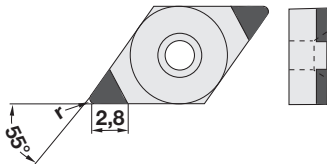
订货号 Ordering Code	Toolholder 刀杆
DCGW 11T304-W	SDJC...11 A...SDUC
DCGW 11T308-W	

Order example: DCGW 11T304 -W **CH65 CBN** or
DCGW 11T308 -W **CK85 CBN**

订货式样: DCGW 11T304-W CH25 CBN或DCGW 11T308-W CK85 CBN

Neutral 55° - DNGA – two cutting edges

平面 55°-DNGA - 2刃



订货号 Ordering Code	Toolholder 刀杆
*DNGA 150401	DDJN..15(04)
DNGA 150402	
DNGA 150404	
DNGA 150408	
DNGA 150412	

Order example: DNGA 150404 **CH65 CBN** or 订货样式: DNGA 150408 **CK85 CBN** DNGA 150404 CH65 CBN DNGA 150408 CK85 CBN
 * Available only in **CH25** and **CK65** grade

* 只有CH25, CK65材质

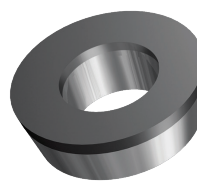
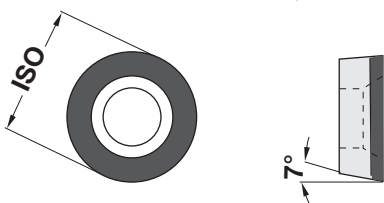
Wiper 修光刃

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

订货号 Ordering Code	Toolholder 刀杆
DNGA 150404-W	DDJN..15(04)
DNGA 150408-W	

Order example: DNGA 150404-**W CH65 CBN** or DNGA 150408-**W CK85 CBN** 订货样式: DNGA 150404-W CH65 CBN或DNGA 150408-W CK85 CBN

Neutral RCGW 平面 RCGW



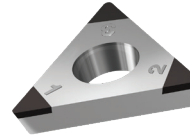
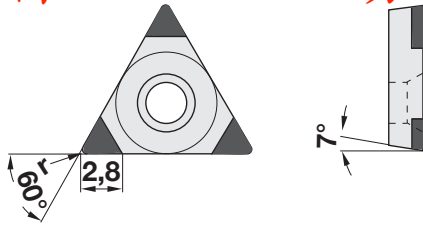
订货号 Ordering Code	Toolholder 刀杆
RCGW 0602 M0-FF	SRDCN./ SRGC...06 E...SRLC.06
RCGW 0803 M0-FF	SRDCN./ SRGC...08 E...SRLC.08
RCGW 1003 M0-FF	SRDCN./ SRGC...1003 E... SRLC.06
RCGW 10T3 M0-FF	SRDCN./SRGC... 10T3
RCGW 1204 M0-FF	SRDCN./ SRGC...12

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CK65 铸铁		CBN
CH65 硬钢	✓	

Order example: RCGW 0602 M0-FF **CH65 CBN** or RCGW 1204 M0-FF **CK65 CBN** 订货样式: RCGW 0602 M0-FF CH65 CBN或RCGW 1204 M0-FF CK65 CBN

Neutral 60° - TCGW – three cutting edges

平面 60°-TCGW - 3刃



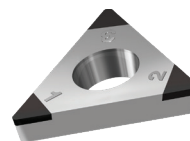
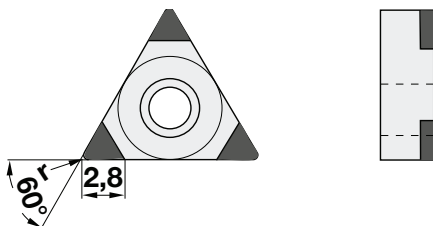
订货号 Ordering Code	Toolholder 刀杆
*TCGW 090201	STGC...09
TCGW 090202	
TCGW 090204	
TCGW 090208	
*TCGW 110201	STGC...11
TCGW 110202	
TCGW 110204	
TCGW 110208	
TCGW 16T302	STGC...16
TCGW 16T304	
TCGW 16T308	

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Order example: TCGW 090202 **CH65 CBN** or
TCGW 16T308 **CK65 CBN** 订货式样: TCGW 090202 CH65 CBN或TCGW 16T308 CK65 CBN

* Available only in **CH25 CBN** grade * 只有CH25 CBN材质

Neutral 60° - TNGA – three cutting edges 平面 60°-TNGA - 3刃



订货号 Ordering Code	Toolholder 刀杆
TNGA 160402	MTJNR...16 MTENN...16
TNGA 160404	
TNGA 160408	
TNGA 160412	

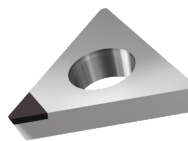
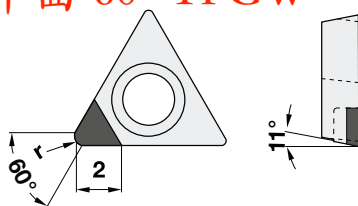
被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Order example: TNGA 160402 **CH65 CBN** or
TNGA 160408 **CK65 CBN**

订货式样: TNGA 160402 CH25 CBN或
TNGA 160408 CK65 CBN

Neutral 60° - TPGW – one cutting edge

平面 60°-TPGW - 单刃



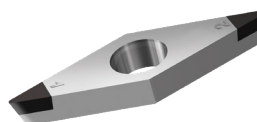
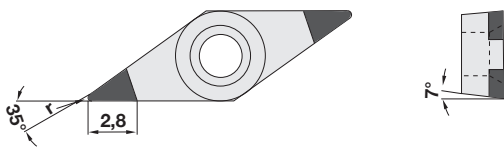
订货号 Ordering Code	Toolholder 刀杆
TPGW 06T101	E06H STXPR/L 06
TPGW 06T102	
TPGW 06T104	

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CH65 硬钢	✓	CBN

Order example: TPGW 06T101 **CH65 CBN** or 订货式样: TPGW 06T101 CH65 CBN 或 TPGW 06T104 CH65 CBN
TPGW 06T104 **CH65 CBN**

Neutral 35° - VCGW – two cutting edges

平面 35°-VCGW - 2刃



订货号 Ordering Code	Toolholder 刀杆
*VCGW 070201	SVJC./SVHC./ SVVCN...07 E10..SVQC.07
VCGW 070202	
VCGW 070204	
*VCGW 110301	SVJC./SVHC./ SVVCN...11 E16..SVQC.11
VCGW 110302	
VCGW 110304	
VCGW 110308	
*VCGW 160401	SVJC./SVHC./ SVVCN...16 E25..SVQC.16
VCGW 160402	
VCGW 160404	
VCGW 160408	
VCGW 160412	

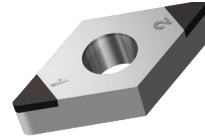
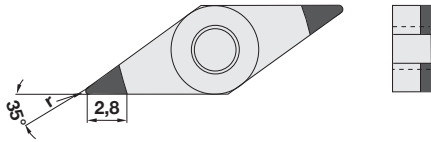
被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Order example: VCGW 070202 **CH65 CBN** or 订货式样: VCGW 070202 CH25 CBN 或 VCGW 160408 CH65 CBN
VCGW 160408 **CH65 CBN**

* Available only in **CH25** and **CK65** grade * 只有CH25和CK65材质

Neutral 35° - VNGA – two cutting edges

平面 35°-VNGA - 2刃



订货号 Ordering Code	Toolholder 刀杆
VNGA 160402	MVJN./ MVVNN...16
VNGA 160404	
VNGA 160408	
VNGA 160412	

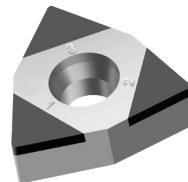
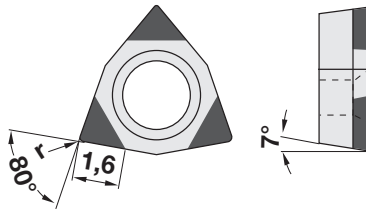
Order example: VNGA 160402 **CH65 CBN** or
VNGA 160408 **CH25 CBN**

订货式样: VNGA 160404 CH25 CBN 或
VNGA 160408 CH25 CBN

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Neutral 80° - WCGW – three cutting edges

平面 80°-WCGW - 3刃



订货号 Ordering Code	Toolholder 刀杆
WCGW 020101	E...SWUC. 02
WCGW 020102	
WCGW 020104	

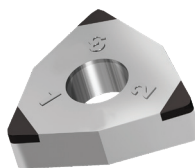
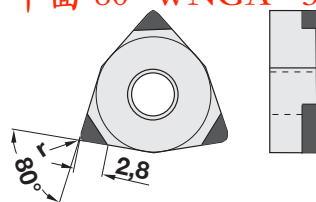
Order example: WCGW 020101 **CH65 CBN** or
WCGW 020104 **CH65 CBN**

订货样式: WCGW 020101 CH65 CBN 或 WCGW 020104 CH65 CBN

被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CH65 硬钢	✓	CBN

Neutral 80° - WNGA – three cutting edges

平面 80°-WNGA - 3刃



订货号 Ordering Code	Toolholder 刀杆
WNGA 080402	DWLN./ MWLN...08
WNGA 080404	
WNGA 080408	
WNGA 080412	

Order example: WNGA 080402 **CH65 CBN** or
WNGA 080412 **CK65 CBN**

订货式样: WNGA 080402 CH25 CBN 或
WNGA 080412 CK65 CBN

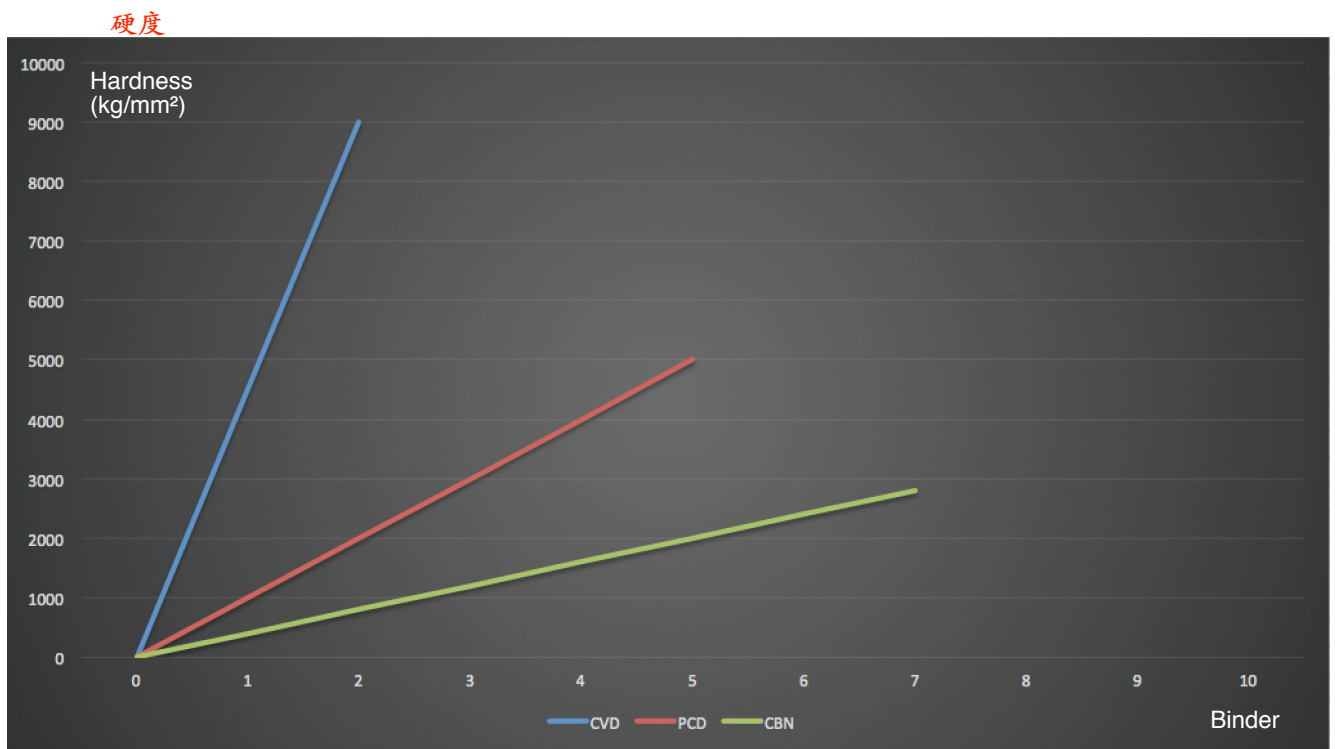
被加工材料	涂层	刀片材质
ISO Standard	Coated	Grade
CP25 CP45 烧结钢 (粉末冶金)		CBN
CK65 CK85 铸铁		
CH25 CH45 CH65 CH85 硬钢	✓	

Wiper geometry Wiper 修光刀的几何形状

The wiper insert is designed with a short flat edge that is located where the straight edge meets the corner radius. Wiper 修光刀刀片带一个短的侧面刃设计，它位于直边与拐角半径相交的位置。Wiper inserts are capable of turning at high feed rates - without losing the capability for generating good surface finishes or chip breaking ability.

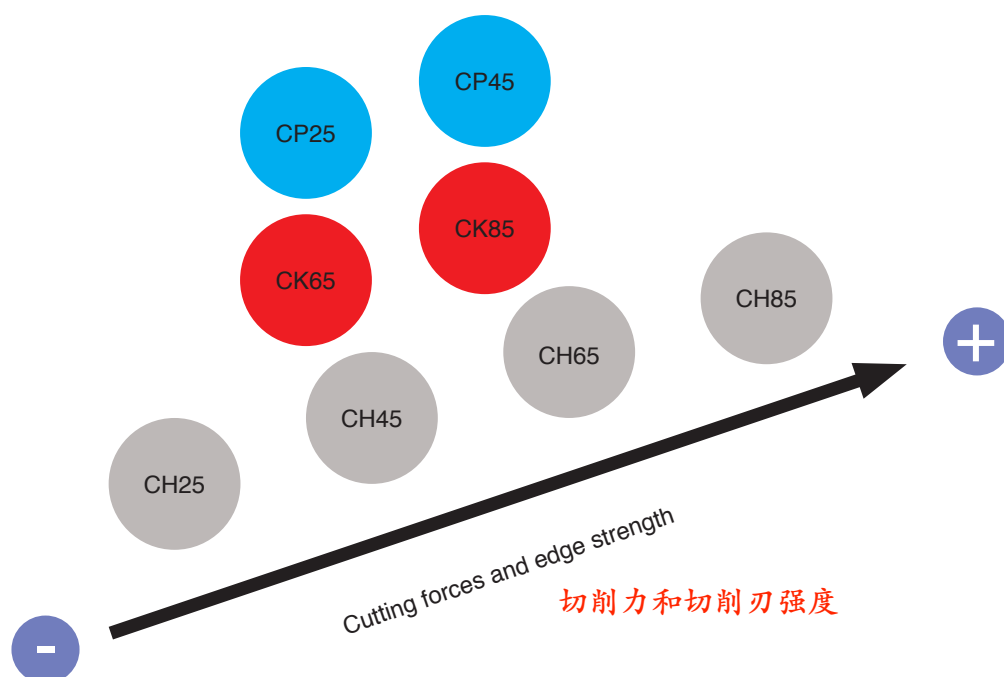
修光刀刀片能够以高的进给率进行车削，而不会损失好的表面光洁度或断屑的能力。

Material type comparison 材料型号比较



结合剂

Technical information 技术说明

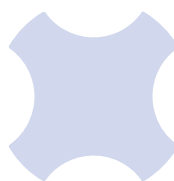
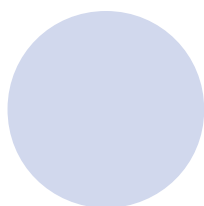


Working conditions and grade selection- CBN CBN加工条件和材质选择

Continuous 连续

Medium interrupt 中等断续

Heavy interrupt 大的断续



ISO Standard			
粉末 CP25 冶金	✓	✓	
粉末 CP45 冶金		✓	✓
铸 CK65 铁	✓	✓	✓
铸 CK85 铁		✓	✓
硬 CH25 钢	✓		
硬 CH45 钢	✓	✓	✓
硬 CH65 钢	✓	✓	✓
硬 CH85 钢		✓	✓

Cutting Data- PCD/CVD inserts PCD/CVD切削数据

N 非铁金属	r	Vc (m/min) 线速度			Ap (mm) 切深			Feed (mm/rev) 进给		
		N/P 平/正前角	F Finish 精加工	R Rough 粗加工	N/P 平/正前角	F Finish 精加工	R Rough 粗加工	N/P 平/正前角	F Finish 精加工	R Rough 粗加工
Aluminum alloys Si < 1% 硅含量小于1%铝合金	0.1	200-3000	200-3000	200-3000	0.01-2.80			0.01-0.05		
	0.2	200-3000	200-3000	200-3000	0.01-2.80	0.06-1.50	0.12-2.80	0.01-0.10	0.02-0.10	0.08-0.10
	0.4	200-3000	200-3000	200-3000	0.01-2.80	0.06-2.00	0.12-2.80	0.01-0.20	0.04-0.20	0.12-0.20
	0.8	200-3000	200-3000	200-3000	0.01-2.80	0.06-2.40	0.12-2.80	0.01-0.40	0.08-0.40	0.25-0.40
	1.2	200-3000	200-3000	200-3000	0.01-2.80	0.06-2.85	0.12-2.80	0.01-0.60	0.12-0.60	0.30-0.60
Aluminum Casting Alloys Si > 12% 硅含量大于12%铸铝合金	0.1	150-2500	150-1800	150-2000	0.01-2.80			0.01-0.05		
	0.2	150-2500	150-1800	150-2000	0.01-2.80	0.06-1.50	0.12-2.80	0.01-0.10	0.02-0.10	0.08-0.10
	0.4	150-2500	150-1800	150-2000	0.01-2.80	0.06-2.00	0.12-2.80	0.01-0.20	0.04-0.20	0.12-0.20
	0.8	150-2500	150-1800	150-2000	0.01-2.80	0.06-2.40	0.12-2.80	0.01-0.40	0.08-0.40	0.25-0.40
	1.2	150-2500	150-1800	150-2000	0.01-2.80	0.06-2.85	0.12-2.80	0.01-0.60	0.12-0.60	0.30-0.60
Copper/Brass/Bronze 紫铜 黄铜 青铜	0.1	150-2500	150-2200	150-2800	0.01-2.80			0.01-0.05		
	0.2	150-2500	150-2200	150-2800	0.01-2.80	0.06-1.50	0.12-2.80	0.01-0.10	0.02-0.10	0.08-0.10
	0.4	150-2500	150-2200	150-2800	0.01-2.80	0.06-2.00	0.12-2.80	0.01-0.20	0.04-0.20	0.12-0.20
	0.8	150-2500	150-2200	150-2800	0.01-2.80	0.06-2.40	0.12-2.80	0.01-0.40	0.08-0.40	0.25-0.40
	1.2	150-2500	150-2200	150-2800	0.01-2.80	0.06-2.85	0.12-2.80	0.01-0.60	0.12-0.60	0.30-0.60
Ceramic/Zirconium 陶瓷 锆	0.1	150-2800	150-2200	150-2800	0.01-2.80			0.01-0.05		
	0.2	150-2800	150-2200	150-2800	0.01-2.80	0.06-1.50	0.12-2.80	0.01-0.10	0.02-0.10	0.08-0.10
	0.4	150-2800	150-2200	150-2800	0.01-2.80	0.06-2.00	0.12-2.80	0.01-0.20	0.04-0.20	0.12-0.20
	0.8	150-2800	150-2200	150-2800	0.01-2.80	0.06-2.40	0.12-2.80	0.01-0.40	0.08-0.40	0.25-0.40
	1.2	150-2800	150-2200	150-2800	0.01-2.80	0.06-2.85	0.12-2.80	0.01-0.60	0.12-0.60	0.30-0.60
Glass, Carbon fiber reinforced, Graphite 玻璃 增强碳纤维 石墨	0.1	200-3000	150-2200	200-3000	0.01-2.80			0.01-0.05		
	0.2	200-3000	150-2200	200-3000	0.01-2.80	0.06-1.50	0.12-2.80	0.01-0.10	0.02-0.10	0.08-0.10
	0.4	200-3000	150-2200	200-3000	0.01-2.80	0.06-2.00	0.12-2.80	0.01-0.20	0.04-0.20	0.12-0.20
	0.8	200-3000	150-2200	200-3000	0.01-2.80	0.06-2.40	0.12-2.80	0.01-0.40	0.08-0.40	0.25-0.40
	1.2	200-3000	150-2200	200-3000	0.01-2.80	0.06-2.85	0.12-2.80	0.01-0.60	0.12-0.60	0.30-0.60

N/P- Neutral/Positive 平板刀片或正前角刀片
 F - Finishing Chip Breaker 精加工断屑台
 R - Roughing Chip Breaker 粗加工断屑台
 r - Corner Radius 刀尖圆角

Cutting Data - CBN inserts CBN刀片切削数据

	Grades →	CP25 CBN材质			CP45 CBN材质		
ISO	Material	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)
P	Sintered steel	200-400	0.01-2.50	0.01-0.30	180-300	0.01-2.00	0.01-0.30

烧结钢 (粉末冶金)

	Grades →	CK65 CBN材质			CK85 CBN材质		
ISO	Material	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)
K 铸铁	Grey Cast Iron 灰铁	350-2000	0.01-2.80	0.01-0.35	350-1400	0.01-2.80	0.01-0.35
	Ductile 球铁 graphite iron	250-1200	0.01-2.80	0.01-0.35	200-1000	0.01-2.80	0.01-0.35
	Chilled cast 冷硬 iron 铸铁	80-200	0.01-2.50	0.01-0.30	80-180	0.01-2.50	0.01-0.30
	Sintered 粉末 steel 冶金	200-400	0.01-2.50	0.01-0.30			
	Ni-Co-Fe 镍钴铁 base alloy 合金	80-350	0.01-0.50	0.01-0.30			
	Stellite 斯太利合硬质合金	80-140	0.01-2.50	0.06-0.25			
	Titanium 钛合金	80-240	0.01-0.50	0.01-0.30			

	Grades →	CBN材质 CH25			CBN材质 CH45			CBN材质 CH65			CBN材质 CH85		
ISO	Material	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)	Vc 线速度 (m/min)	Ap 切深 (mm)	Feed 进给 (mm/rev)
H 硬钢	> 45 HRC	100-400	0.01-0.50	0.01-0.25	100-300	0.01-0.80	0.01-0.40	80-180	0.01-0.30	0.01-0.15			
	> 68 HRC	80-240	0.01-2.50	0.01-0.25	60-220	0.01-1.50	0.01-0.25	60-200	0.01-0.50	0.01-0.25	60-180	0.01-0.30	0.01-0.20
	> 72 HRC	60-220	0.01-0.60	0.01-0.20	60-200	0.01-0.60	0.01-0.25	60-200	0.01-0.60	0.01-0.25	50-140	0.02-0.25	0.01-0.18
	Cold worked and hot forming tool steel	80-220	0.01-0.50	0.01-0.20	80-210	0.01-0.40	0.01-0.25				60-140	0.01-0.20	0.01-0.15
	Hard/soft machining	80-300	0.01-1.50	0.01-0.30	80-300	0.01-1.50	0.01-0.30	80-300	0.01-1.50	0.01-0.30			
	Sintered steel hardened	80-240	0.01-2.50	0.01-0.30	80-220	0.01-2.00	0.01-0.30						

大于HRC45

大于HRC68

大于HRC72

冷和热成型工具钢

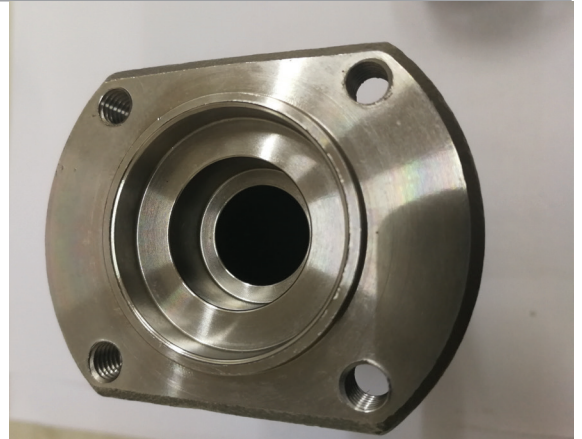
硬/软加工

硬化烧结钢 (粉末冶金)

Case Studies 案例

Tool life PCD vs. CVD PCD与CVD刀具寿命对比

Before:	PCD
Insert:	DCGT 070204 PCD
Vc:	380m/min 线速度
f:	0,12mm/rev 进给/转
time/hole:	6 sec 每孔所需时间/秒
tool life:	7 days 刀具寿命7天
After:	CVD
Insert:	DCGW 070204 N CVD
Vc:	510m/min 线速度
f:	0,16mm/rev 进给/转
time/hole:	4 sec 每孔所需时间/秒
tool life:	14 days 刀具寿命14天



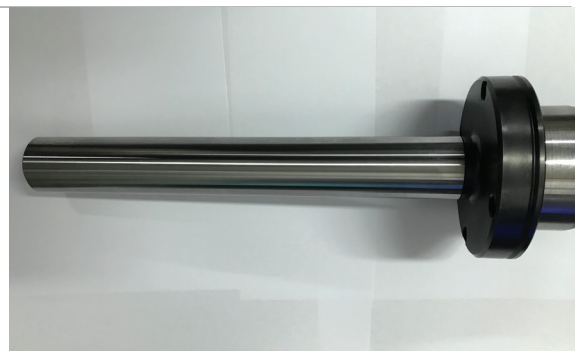
Benefits Carmex CVD against PCD

4 x higher tool life time 4倍的刀具寿命
 Much better surfaces 更好的表面光洁度
 Much better tolerances 更好的公差
 Turning process is much cheaper 更经济的车削工艺
 Roughing and finishing possible 粗加工和精加工小孔
 Boring smallest holes are possible 比磨制硬质合金钻头
 approx. 60-70% faster as grinding 快60-70%,
 Drilling carbide is possible



Machining Inconel 加工因科镍

Material:	Inconel 718 因科镍718
Work piece:	Shaft (1080mm) 传动轴
CBN	VCGW 160408 CBN VCGW160408
Vc:	200m/min 线速度
ap:	0,15mm 切深
f:	0,12 进给
Ra:	0,11
Life time carbide:	4 min. 硬质合金寿命: 4分钟
Life time CBN:	16 min. CBN寿命: 16分钟
Size accuracy:	+/-0,03 精度: 正负0.03mm

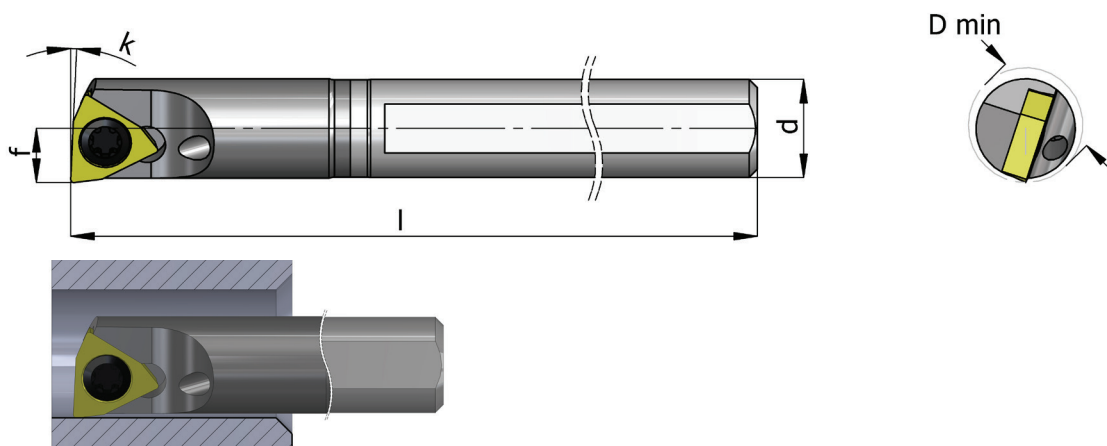


Carbide shank turning toolholder 硬质合金车刀杆

High performance Carbide Shank, turning toolholders for internal machining from 6 mm (.236") minimum diameter and larger. 高性能硬质合金刀杆，用于最小直径为6 mm (.236"英寸) 及以上的内孔加工。

- Unique Carbide type for high rigidity 特别的硬质合金，高硬度。
- Cylindrical shank 圆柄
- Internal coolant supply to the cutting edge 内冷直达切削刃
- Screw clamping design 螺丝锁紧设计
- Can be used also for standard ISO turn inserts 同样能用ISO标准车刀片

Boring bar, SWUBR/L type Lead angle $k=3^\circ$ SWUBR/L型镗孔刀杆



Metric holders 公制刀杆

订货号 Ordering Code	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 Insert Screw	扳手 Torx Key	适用刀片 insert
E06H SWUBR-06	R 右手	6	6.5	100	3.2	3°	S06	K06	WBMT 06 01 02R
E06H SWUBL-06	L 左手	6	6.5	100	3.2	3°	S06	K06	WBMT 06 01 02L
E08K SWUBR-06	R 右手	8	8.6	125	4.2	3°	S06	K06	WBMT 06 01 02R
E08K SWUBL-06	L 左手	8	8.6	125	4.2	3°	S06	K06	WBMT 06 01 02L
E10M SWUBR-06	R 右手	10	11.0	150	5.5	3°	S06	K06	WBMT 06 01 02R
E10M SWUBL-06	L 左手	10	11.0	150	5.5	3°	S06	K06	WBMT 06 01 02L

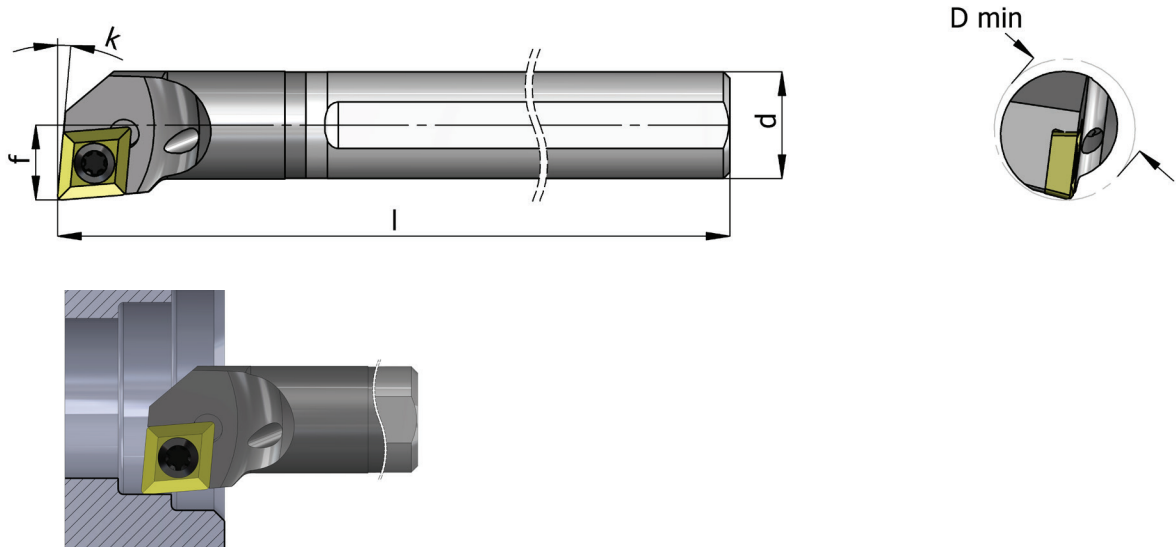
Dimensions- mm mm

Inch holders 英制刀杆

订货号 Ordering Code	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 Insert Screw	扳手 Torx Key	适用刀片 insert
E-SWUBR 4-5	R 右手	1/4	.276	4	.134	3°	S06	K06	WBMT 06 01 02R
E-SWUBR 5-5	R 右手	5/16	.331	5	.165	3°	S06	K06	WBMT 06 01 02R
E-SWUBR 6-5	R 右手	3/8	.413	6	.210	3°	S06	K06	WBMT 06 01 02R

Dimensions- inch 英寸

Boring bar, SCLCR/L type Lead angle $k=5^\circ$ SCLCR 镗孔刀杆



Metric holders 公制刀杆

订货号 Ordering Code	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 Insert Screw	扳手 Torx Key	适用刀片 insert
E08K SCLCR-06	R 右手	8	10.0	125	4.9	5°	S09	K07	CCMT 06 02 04
E08K SCLCL-06	L 左手	8	10.0	125	4.9	5°	S09	K07	CCMT 06 02 04
E10M SCLCR-06	R 右手	10	14.0	150	6.9	5°	S09	K07	CCMT 06 02 04
E10M SCLCL-06	L 左手	10	14.0	150	6.9	5°	S09	K07	CCMT 06 02 04
E12P SCLCR-06	R 右手	12	16.0	170	8.9	5°	S09	K07	CCMT 06 02 04
E12P SCLCL-06	L 左手	12	16.0	170	8.9	5°	S09	K07	CCMT 06 02 04
E16R SCLCR-06	R 右手	16	20.0	200	10.9	5°	S09	K07	CCMT 06 02 04
E16R SCLCL-06	L 左手	16	20.0	200	10.9	5°	S09	K07	CCMT 06 02 04
E16R SCLCR-09	R 右手	16	20.0	200	10.9	5°	S20	K22	CCMT 09 T3 08
E16R SCLCL-09	L 左手	16	20.0	200	10.9	5°	S20	K22	CCMT 09 T3 08

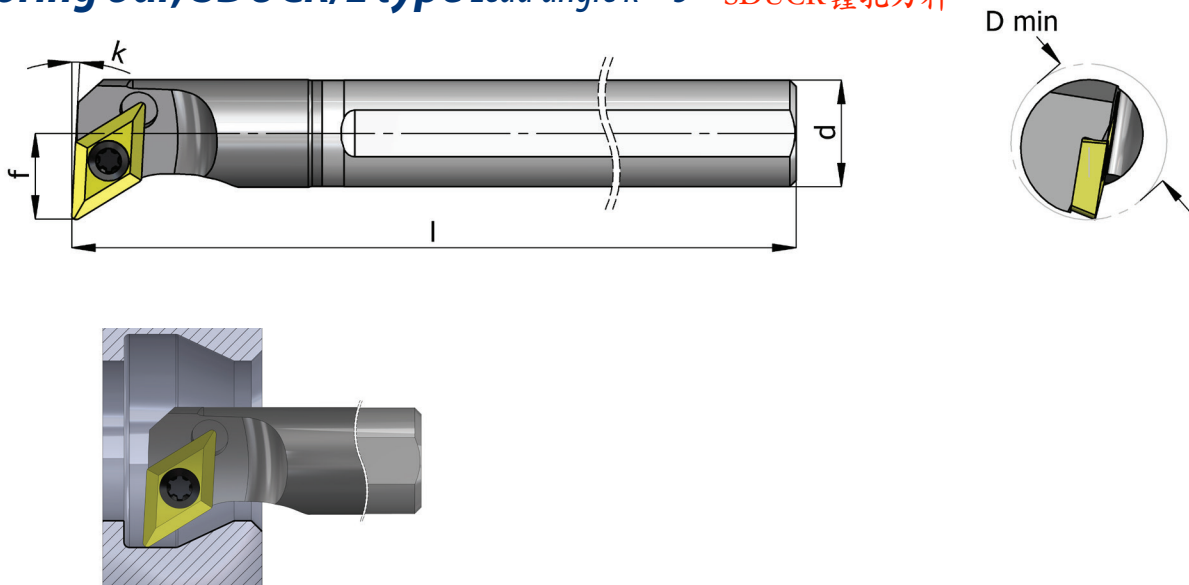
Dimensions- mm mm

Inch holders 英制刀杆

订货号 Ordering Code	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 Insert Screw	扳手 Torx Key	适用刀片 insert
E-SCLCR 5-2	R 右手	5/16	.394	5	.193	5°	S09	K07	CCMT 06 02 04
E-SCLCR 6-2	R 右手	3/8	.461	6	.250	5°	S09	K07	CCMT 06 02 04
E-SCLCR 8-2	R 右手	1/2	.622	7	.353	5°	S09	K07	CCMT 06 02 04
E-SCLCR 10-3	R 右手	5/8	.787	8	.429	5°	S20	K22	CCMT 09 T3 08
E-SCLCR 12-3	R 右手	3/4	.985	10	.500	5°	S20	K22	CCMT 09 T3 08

Dimensions- inch 英寸

Boring bar, SDUCR/L type Lead angle $k=3^\circ$ SDUCR 镗孔刀杆



Metric holders 公制刀杆

Ordering Code 订货号	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 扳手 Insert Screw	适用刀片 Torx Key	insert
E10M SDUCR-07	R 右手	10	14.0	150	7.9	3°	S09	K07	DCMT 07 02 04
E10M SDUCL-07	L 左手	10	14.0	150	7.9	3°	S09	K07	DCMT 07 02 04
E12P SDUCR-07	R 右手	12	16.0	170	8.9	3°	S09	K07	DCMT 07 02 04
E12P SDUCL-07	L 左手	12	16.0	170	8.9	3°	S09	K07	DCMT 07 02 04
E16R SDUCR-07	R 右手	16	20.0	200	10.9	3°	S09	K07	DCMT 07 02 04
E16R SDUCL-07	L 左手	16	20.0	200	10.9	3°	S09	K07	DCMT 07 02 04

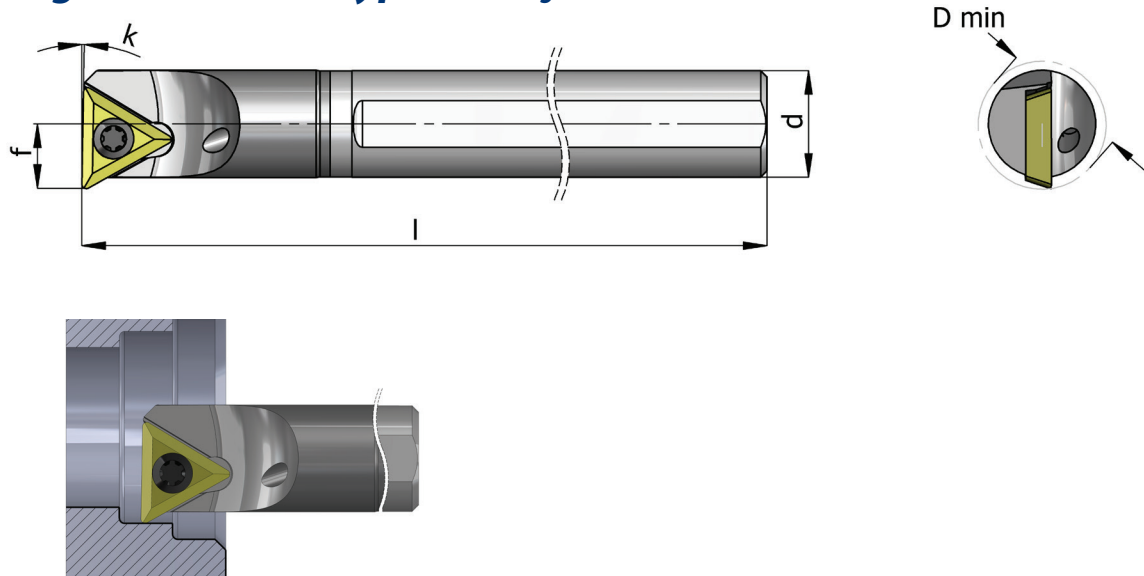
Dimensions- mm mm

Inch holders 英制刀杆

Ordering Code 订货号	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 扳手 Insert Screw	适用刀片 Torx Key	insert
E-SDUCR 6-2	R 右手	3/8	.563	6	.353	3°	S09	K07	DCMT 07 02 04
E-SDUCR 8-2	R 右手	1/2	.630	7	.353	3°	S09	K07	DCMT 07 02 04
E-SDUCR 10-2	R 右手	5/8	.787	8	.431	3°	S09	K07	DCMT 07 02 04
E-SDUCR 12-3	R 右手	4/3	.985	10	.500	3°	S20	K22	DCMT 11T 304

Dimensions- inch 英吋

Boring bar, STFPR/L type Lead angle $k=1^\circ$ STFPR 镗孔刀杆



Metric holders 公制刀杆

订货号 Ordering Code	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 Insert Screw	扳手 Torx Key	颜色搭配 insert
E10M STFPR-11	R 右手	10	11.0	150	5.9	1°	S18	K07	TPGB 11 03 04
E10M STFPL-11	L 左手	10	11.0	150	5.9	1°	S18	K07	TPGB 11 03 04
E12P STFPR-11	R 右手	12	14.0	170	6.9	1°	S18	K07	TPGB 11 03 04
E12P STFPL-11	L 左手	12	14.0	170	6.9	1°	S18	K07	TPGB 11 03 04

Dimensions- mm mm

Inch holders 英制刀杆

订货号 Ordering Code	R. Hand L. Hand	柄径 d	最小加工孔 Min Bore Dia	l	f	k	刀片螺丝 Insert Screw	扳手 Torx Key	适用刀片 insert
E-STFPR 6-2	R 右手	3/8	.449	6	.217	1°	S18	K07	TPGB 11 03 04
E-STFPR 8-2	R 右手	1/2	.555	7	.285	1°	S18	K07	TPGB 11 03 04
E-STFPR 10-2	R 右手	5/8	.689	8	.343	1°	S18	K07	TPGB 11 03 04

Dimensions- inch 英寸

Tiny Tools with diamond cutting edge 微型刀杆带金刚石切削刃

Carmex wide range of Tiny Tools now includes a CBN and CVD tipped bars, for boring and profiling. CBN与CVD

- CBN tools are used for hard turning of grey cast iron; steels up to 72 HRC, Sintered carbide, as well as Nickel based super alloys. CBN用于车硬钢灰铁；钢硬度达HRC72，烧结硬质合金，一句镍基合金。
- The CVD-T (Thick film diamond) bars delivers various benefits when machining long-chipping aluminum and magnesium alloys, high-silica aluminum as well as of precious metal alloys, plastics with abrasive fillers, tungsten carbide and ceramic green compacts

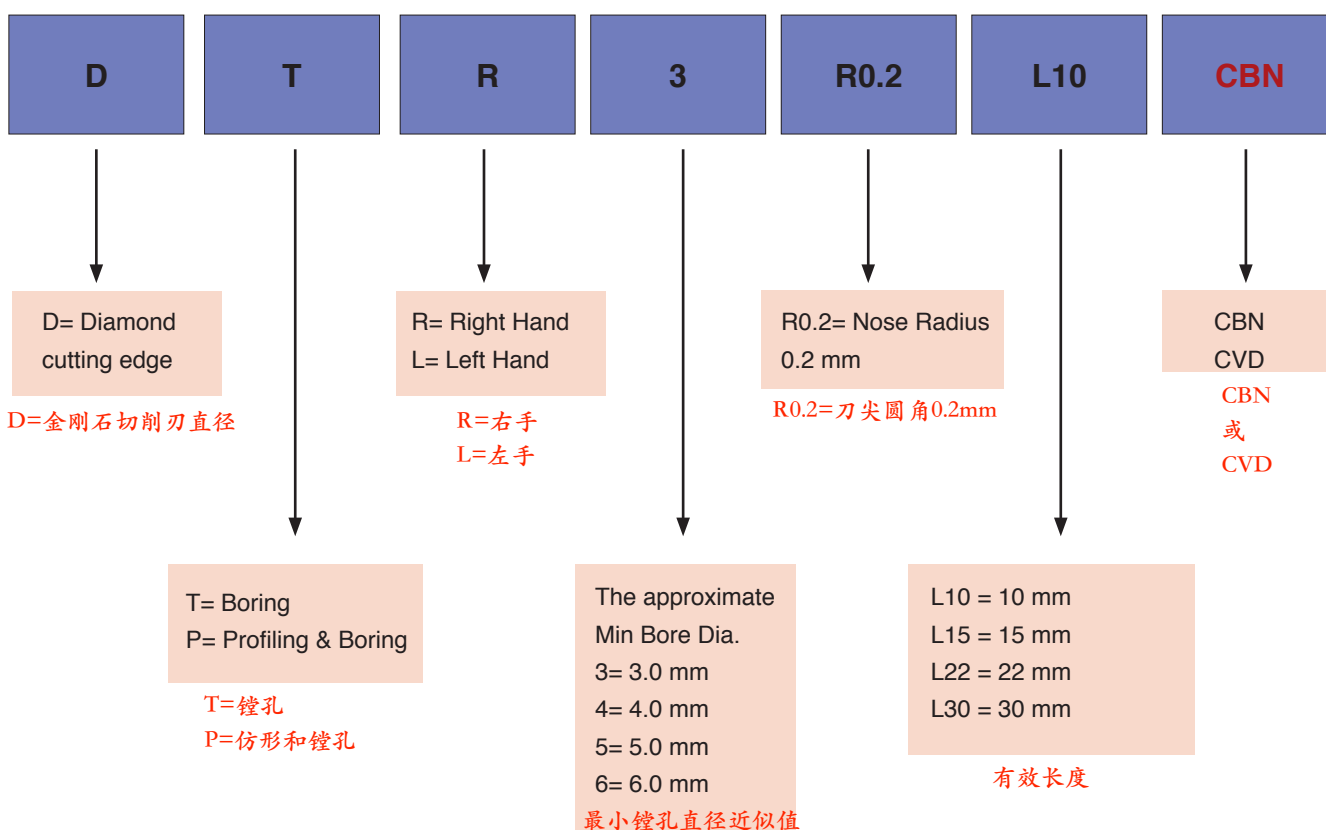
CVD-T (厚膜金刚石) 在加工长屑铝和镁合金、高硅铝以及贵金属合金、带研磨填料的塑料、硬质合金和陶瓷生坯时表现出色。

Features:

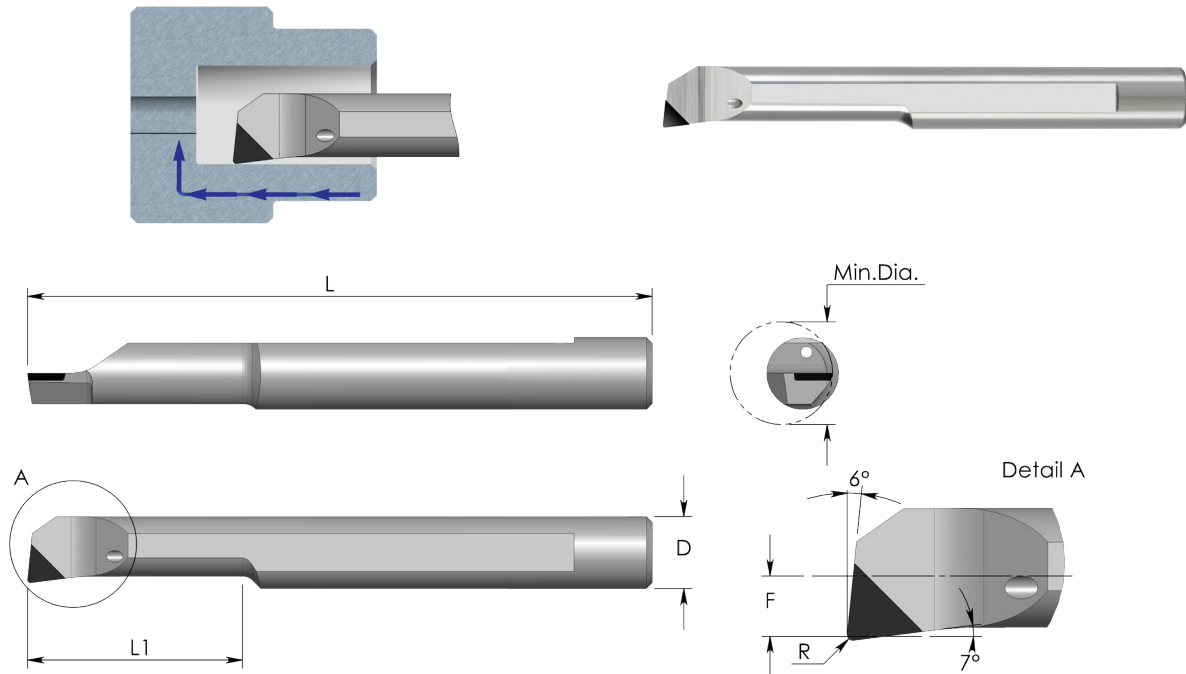
- Internal through coolant to the cutting edge. 内冷直达切削刃
- Suitable for continuous or interrupted cut. 适用连续和断续切削
- Bore diameter 3.1 mm and larger. 3.1mm和以上的大孔
- To use with the standard SIM toolholders 用标准的SIM变径套



Product Identification 产品标识



DTR Bars Boring DTR 微型镗刀杆



适用被加工材料

	P	M	K	N	S	H
CBN			•		•	≤ 72 HRc
CVD				•		

最小加工孔 变径套

D	订货号Ordering Code	L	L1	R	F	Min. Dia.	Holder
4.0	DTR 3 R0.2 L10	51	10	0.20	1.3	3.1	SIM...H4
	DTR 3 R0.2 L15	51	15	0.20	1.3	3.1	
4.0	DTR 4 R0.2 L10	51	10	0.20	1.7	4.1	SIM...H4
	DTR 4 R0.2 L15	51	15	0.20	1.7	4.1	
	DTR 4 R0.2 L22	51	22	0.20	1.7	4.1	
5.0	DTR 5 R0.2 L15	51	15	0.20	2.1	5.1	SIM...H5
	DTR 5 R0.2 L22	51	22	0.20	2.1	5.1	
6.0	DTR 6 R0.2 L15	51	15	0.20	2.8	6.1	SIM...H6
	DTR 6 R0.2 L22	51	22	0.20	2.8	6.1	
	DTR 6 R0.2 L30	58	30	0.20	2.8	6.1	

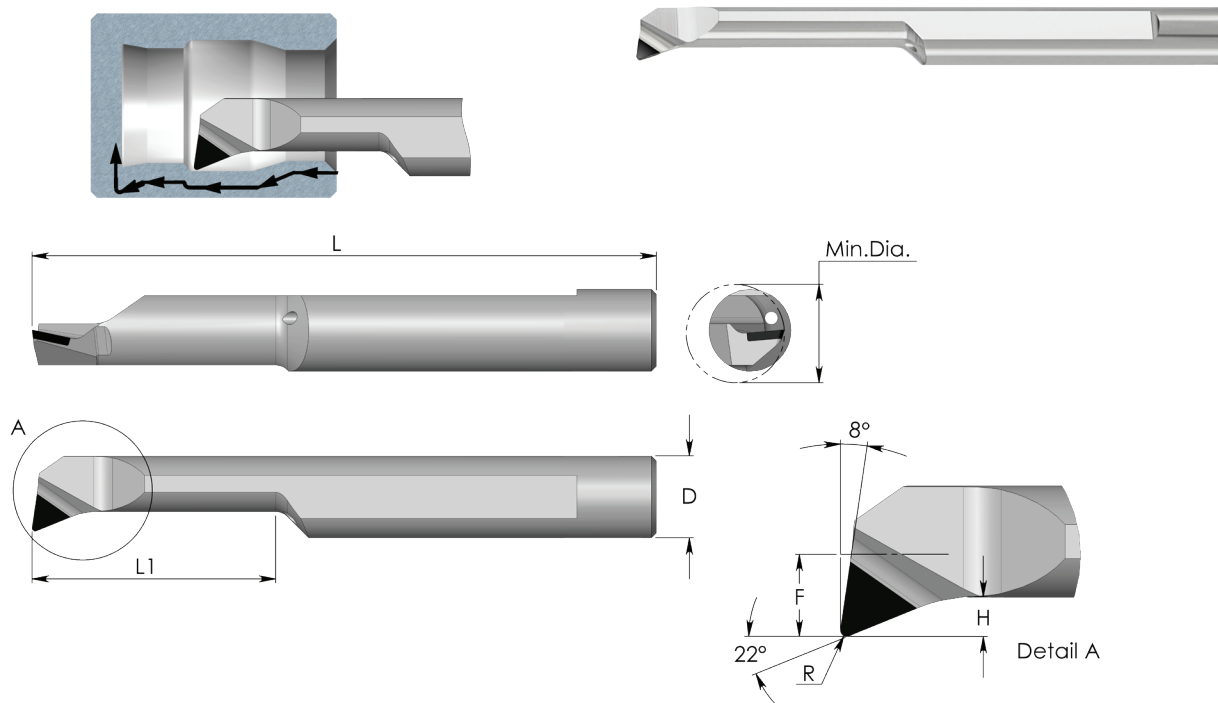
For L.H. bars specify DTL... instead of DTR... 左手刀杆DTL而不是DTR

Order example: DTR 5 R0.2 L15 CBN 订货样式: DTR 5 R0.2 L15 CBN

DTR 5 R0.2 L15 CVD

DTR 5 R0.2 L15 CVD

DPR Bars Profiling and Boring DPR仿形和镗杆



被加工材料

	P	M	K	N	S	H
CBN			•		•	≤ 72 HRc
CVD				•		

最小加工孔

变径套

D	订货号Ordering Code	L	L1	R	H	F	Min. Dia.	Holder
4.0	DPR 3 R0.2 L10	51	10	0.20	0.7	1.3	3.1	SIM...H4
	DPR 3 R0.2 L15	51	15	0.20	0.7	1.3	3.1	
4.0	DPR 4 R0.1 L10	51	10	0.10	0.8	1.7	4.1	SIM...H4
	DPR 4 R0.2 L10	51	10	0.20	0.8	1.7	4.1	
	DPR 4 R0.2 L15	51	15	0.20	0.8	1.7	4.1	
5.0	DPR 5 R0.2 L15	51	15	0.20	1.2	2.1	5.1	SIM...H5
	DPR 5 R0.2 L22	51	22	0.20	1.2	2.1	5.1	
6.0	DPR 6 R0.2 L15	51	15	0.20	1.4	2.8	6.1	SIM...H6
	DPR 6 R0.2 L22	51	22	0.20	1.4	2.8	6.1	
	DPR 6 R0.2 L30	76	30	0.20	1.4	2.8	6.1	

For L.H. bars specify DPL... instead of DPR... 左手刀杆DPL而不是DPR

Order example: DPR 5 R0.2 L15 CBN 订货式样: DPR 5 R0.2 L15 CBN
DPR 5 R0.2 L15 CVD DPR 5 R0.2 L15 CVD

Cutting Data 切削数据

CBN CBN

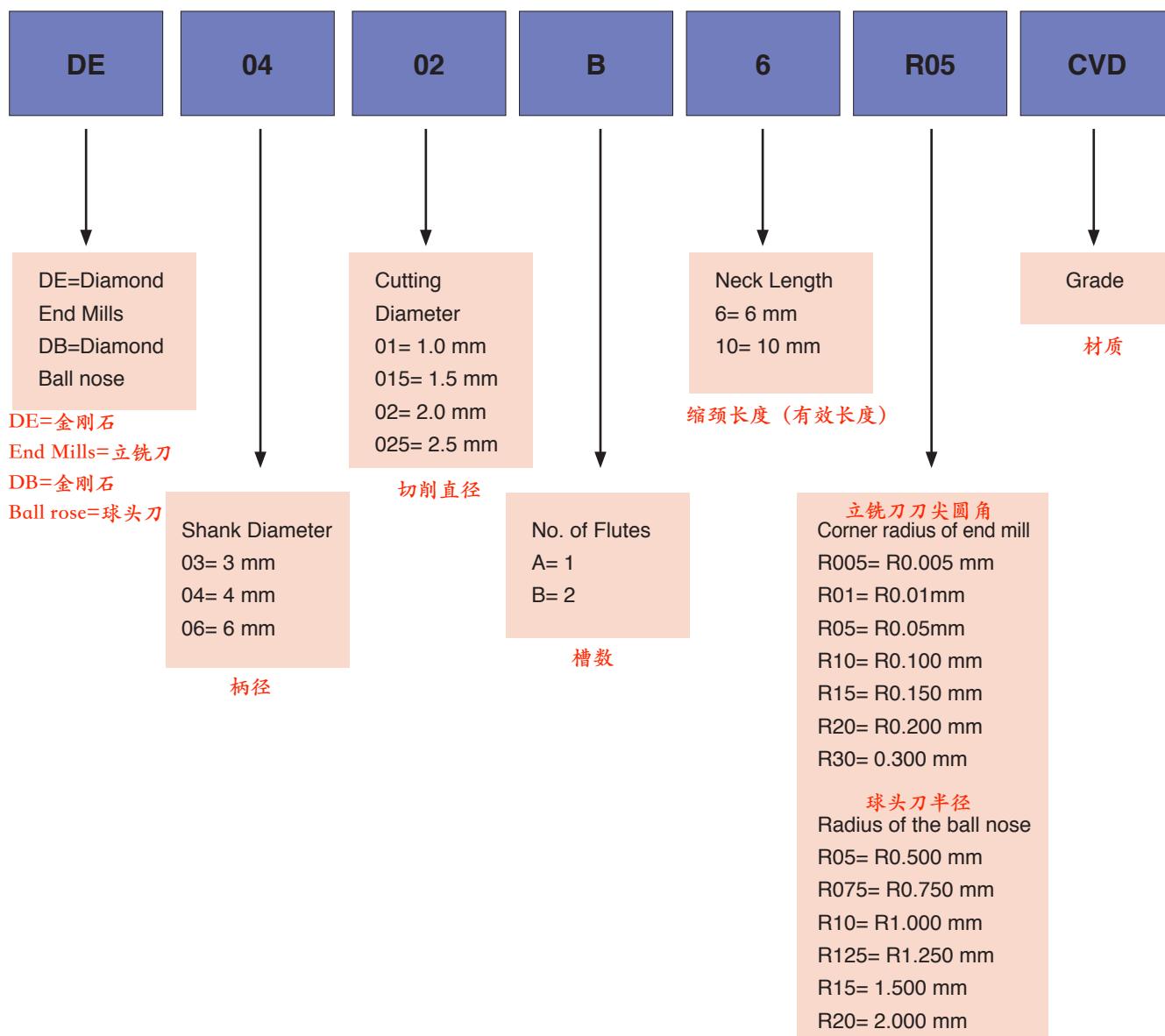
ISO Standard	被加工材料 Material	切削速度 Cutting Speed Vc (m/min)	进给 Feed Rate f (mm/rev)	切深ap Depth of Cut Ap (mm)
K 铸铁	Cast Iron Nodular (GGG) 球铁	20-200	0.01-0.10	Ø3: 0.02-0.07 Ø4: 0.02-0.10 Ø5: 0.02-0.12 Ø6: 0.02-0.15
	Grey Cast Iron (GG) 灰铁			
S 高温合金	High Temperature/Super Alloys 高温合金			
H 硬钢	Hardened Steel 45-72 HRc Sintered carbide 硬钢HRC45-72, 烧结硬质合金			

CVD CVD

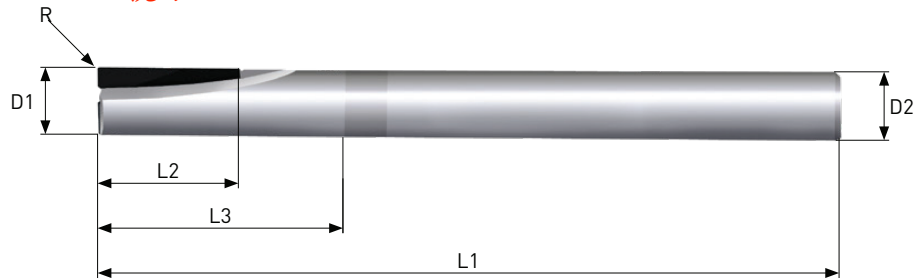
ISO Standard	Material 材料	切削速度 Cutting Speed Vc (m/min)	进给 Feed Rate f (mm/rev)	切深ap Depth of Cut Ap (mm)
N 非铁金属	Aluminum Alloys 铝合金	20-1500	0.01-0.15	Ø3: 0.05-0.80 Ø4: 0.05-0.90 Ø5: 0.05-1.10 Ø6: 0.05-1.20
	Aluminum Alloys up to 12%Si 高硅铝			
	Magnesium 镁合金			
	Copper/ Brass/Bronze 紫铜/黄铜/青铜			
	Graphite 石墨			
	Ceramic/Zirconium 陶瓷/锆			
	Reinforced Plastics 增强塑料			
	GFRP- Glass Fiber Reinforced Polymer 玻璃纤维加固聚合物			

Diamond end mills 金刚石立铣刀

Product Identification: End mills/Ball nose 产品说明：立铣刀/球头刀

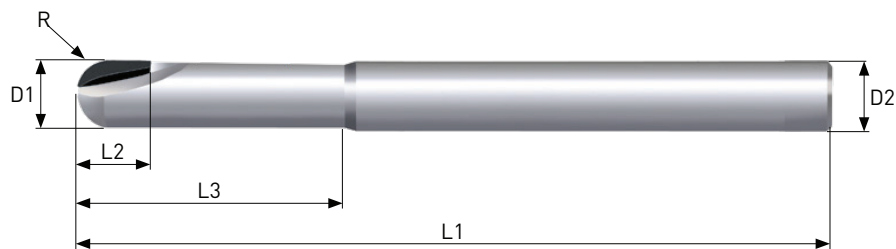


End mill - CVD CVD立铣刀



切削径 D1	订货号 Ordering Code	柄径 D2 (h5)	槽数 No of flutes	切削刃长度 L2	有效长度 L3	总长 L1	刀尖圆角 R±4μm
1.0	DE0401 A4 R05	4	1	3.0	4.0	50	0.050
	DE0601 A5 R10	6	1	2.0	5.0	50	0.100
	DE0601 A10 R10	6	1	2.0	10.0	50	0.100
	DE0601 A20 R10	6	1	2.0	20.0	50	0.100
1.5	DE04015 B3 R005	4	2	2.0	3.0	38	0.005
	DE04015 B4 R05	4	2	3.0	4.0	50	0.050
	DE06015 B5 R15	6	2	2.0	5.0	50	0.150
	DE06015 B10 R15	6	2	2.0	10.0	50	0.150
	DE06015 B20 R15	6	2	2.0	20.0	50	0.150
2.0	DE0402 B3 R005	4	2	2.0	3.0	38	0.005
	DE0402 B6 R005	4	2	4.0	6.0	38	0.005
	DE0402 B6 R05	4	2	3.0	6.0	38	0.050
	DE0402 B5 R10	4	2	3.0	5.0	50	0.100
	DE0402 B8 R10	4	2	3.0	8.0	50	0.100
	DE0602 B5 R15	6	2	3.0	5.0	50	0.150
	DE0602 B10 R15	6	2	3.0	10.0	50	0.150
	DE0602 B20 R15	6	2	3.0	20.0	50	0.150
2.5	DE04025 B7 R005	4	2	5.0	7.0	38	0.005
	DE04025 B6 R10	4	2	4.0	6.0	50	0.100
	DE04025 B10 R10	4	2	4.0	10.0	50	0.100
3.0	DE0403 B5 R005	4	2	3.0	5.0	38	0.005
	DE0403 B9 R005	4	2	6.0	9.0	38	0.005
	DE0603 B8 R20	6	2	5.0	8.0	50	0.200
	DE0603 B8 R50	6	2	5.0	8.0	50	0.500
	DE0603 B12 R10	6	2	5.0	12.0	60	0.100
	DE0603 B10 R30	6	2	4.0	10.0	75	0.300
	DE0603 B15 R30	6	2	4.0	15.0	75	0.300
	DE0603 B20 R30	6	2	4.0	20.0	75	0.300
4.0	DE0404 B10 R01	4	2	6.0	10.0	38	0.010
	DE0604 B10 R10	6	2	5.0	10.0	60	0.100
	DE0604 B10 R30	6	2	5.0	10.0	60	0.300
	DE0604 B10 R50	6	2	5.0	10.0	60	0.500
	DE0604 B10 R10	6	2	5.0	16.0	65	0.100
	DE0604 B20 R30	6	2	5.0	20.0	75	0.300
	DE0604 B30 R30	6	2	5.0	30.0	75	0.300

Ball nose - CVD CVD球头刀



切削径 D1	订货号 Ordering Code	柄径 D2 (h5)	槽数 No of flutes	切削刃长度 L2	有效长度 L3	总长 L1	半径 R±4μm
1.0	DB0301 A4 R05	3	1	1.0	4.0	32	0.500
	DB0401 A4 R05	4	1	3.0	4.0	50	0.500
	DB0601 A5 R05	6	1	2.0	5.0	50	0.500
	DB0601 A10 R05	6	1	2.0	10.0	50	0.500
	DB0601 A20 R05	6	1	2.0	20.0	50	0.500
1.5	DB03015 B5 R075	3	2	2.0	5.0	32	0.750
	DB04015 B5 R075	4	2	3.0	5.0	50	0.750
	DB06015 B5 R075	6	2	2.0	5.0	50	0.750
	DB06015 B15 R075	6	2	2.0	15.0	50	0.750
	DB06015 B20 R075	6	2	2.0	20.0	50	0.750
2.0	DB0302 B5 R10	3	2	3.0	5.0	32	1.000
	DB0302 B8 R10	3	2	3.0	8.0	32	1.000
	DB0402 B5 R10	4	2	3.0	5.0	50	1.000
	DB0402 B8 R10	4	2	3.0	8.0	50	1.000
	DB0602 B5 R10	6	2	3.0	5.0	50	1.000
	DB0602 B15 R10	6	2	3.0	15.0	50	1.000
	DB0602 B20 R10	6	2	3.0	20.0	50	1.000
2.5	DB03025 B6 R125	3	2	3.0	6.0	32	1.250
	DB03025 B10 R125	3	2	3.0	10.0	32	1.250
	DB04025 B6 R125	4	2	3.0	6.0	50	1.250
	DB04025 B10 R125	4	2	3.0	10.0	50	1.250
3.0	DB0303 B6 R15	3	2	4.0	6.0	32	1.500
	DB0303 B9 R15	3	2	4.0	9.0	32	1.500
	DB0603 B8 R15	6	2	5.0	8.0	50	1.500
	DB0603 B12 R15	6	2	5.0	12.0	60	1.500
	DB0603 B10 R15	6	2	4.0	10.0	50	1.500
	DB0603 B15 R15	6	2	4.0	15.0	50	1.500
	DB0603 B20 R15	6	2	4.0	20.0	50	1.500
4.0	DB0404 B7 R20	4	2	5.0	7.0	38	2.000
	DB0404 B10 R20	4	2	5.0	10.0	38	2.000
	DB0604 B10 R20	6	2	5.0	10.0	60	2.000
	DB0604 B16 R20	6	2	5.0	16.0	65	2.000
	DB0604 B10 R20	6	2	5.0	10.0	75	2.000
	DB0604 B20 R20	6	2	5.0	20.0	75	2.000
	DB0604 B30 R20	6	2	5.0	30.0	75	2.000

Cutting Data – CVD end mills/ball nose CVD立铣刀/球头刀切削数据

N 非铁金属	线速度 Vc (m/min)	切削直径 每齿进给 Cutting Diameter Fz (mm/tooth)	
		Ø1-3	Ø4
Aluminum alloys Si < 1% 铝合金	150-4000	0.007-0.05	0.02-0.15
Aluminum Casting Alloys Si > 12% 高硅铝	150-2000	0.007-0.05	0.02-0.15
Magnesium/Copper/Brass/ 镁合金/紫铜/黄铜	150-4000	0.007-0.05	0.02-0.15
Ti alloys 钛合金	50-400	0.007-0.05	0.02-0.15
Graphite 石墨	150-3000	0.007-0.05	0.02-0.15
Glass fiber/ Carbon fiber 玻璃纤维 composites 碳纤维	150-3000	0.007-0.05	0.02-0.15
Peek 工程塑料	150-2000	0.007-0.05	0.02-0.15
Thermoplastics, Duroplas- 热塑料 tics 硬塑料	150-4000	0.007-0.05	0.02-0.15
Ceramic/ Zirconium 陶瓷/锆	75-300	0.007-0.05	0.02-0.15
Glass, Carbon fiber rein- forced, Graphite 玻璃, 碳纤维增强, 石墨	150-3000	0.007-0.05	0.02-0.15



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