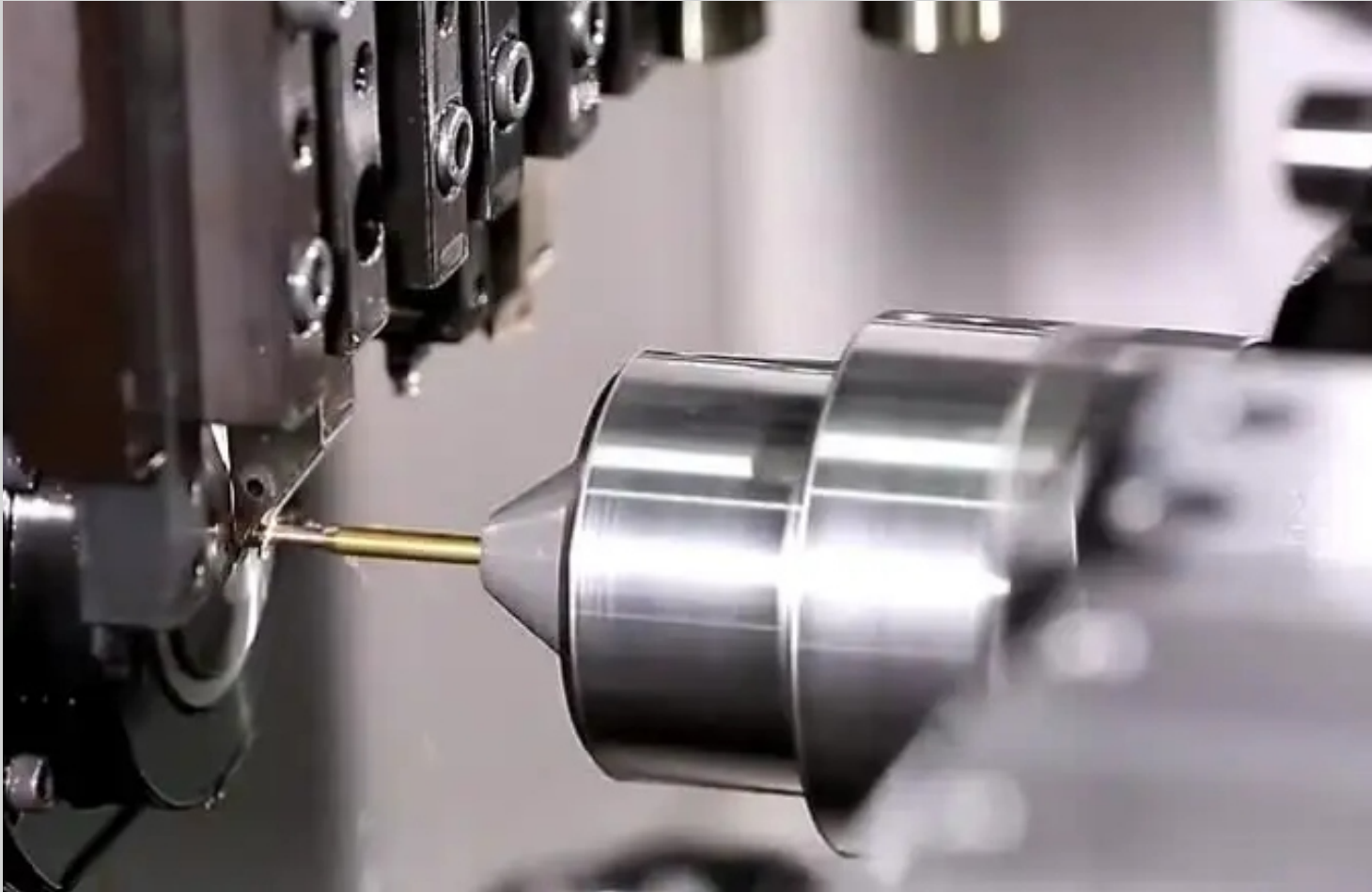


小零件刀具

Small part cutter



2026 SMALL PART CUTTER

KOVES®
科维丝工具

东莞市科维丝精密工具有限公司
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前扫/背车/切槽/切断/
内径加工/螺纹加工
FRONT TURNING/BACK TURNING/
GROOVING/PARTING OFF/
BORING/THREADING PROCESS

ABOUT US
关于我们



科维丝公司是一家专注于切削工具生产与销售的企业。
公司成立于2009年，从成立之初就注重技术服务为基础，公司建有“高性能数控刀具与工具系统技术联合实验室”，同时我们根据客户的产品和工艺需求：制定和优化加工工艺方案；选择合理切削参数；计算加工节拍；选择工具、刀具、刀片及附件；量身定做非标刀具；提供与机械加工相关的全套技术服务。

KOVES is a global service-oriented enterprise,specialized in developing and selling industrial products.
Since established in 2009,from the very beginning,koves pays attention to technical service as basement,we own" high performance CNC cutting tools and systems technology laboratory" ,also according to the customer' s product and process requirements formulate and optimize manufacturing processes;reasonable selection of cutting parameters;calculating cycle times;select tools,cutters,blades and accessories;customized non-standard tools;provide a full range of technical

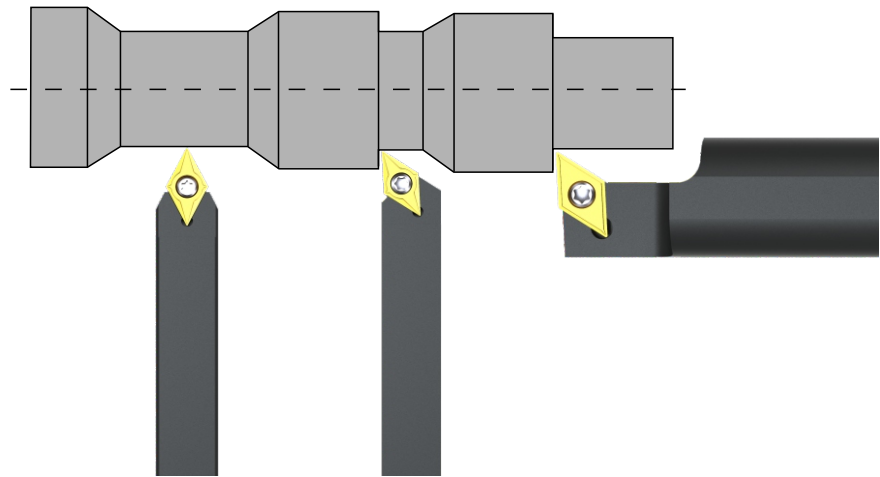


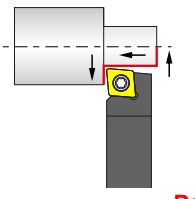
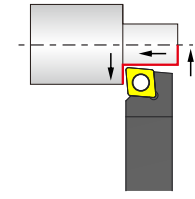
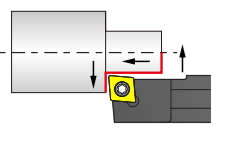
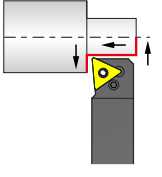
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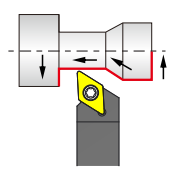
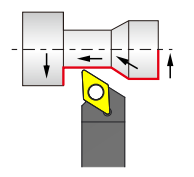
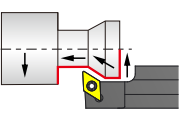
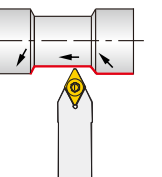
材 质 介 绍 Material Introduction	刀具选定表 01-08 Insert material list
	刀片材质一览表 09-12 Insert material list
	材质简介 13-18 Material Introduction
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	后车加工 35-36 Back turning processing
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	螺纹加工 76-80 Threading processing
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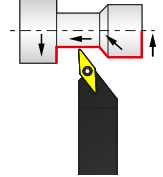
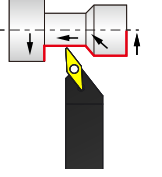
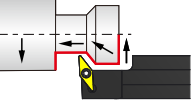
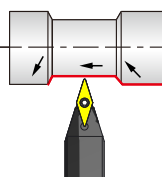
外径车削-前车加工

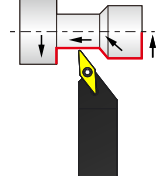
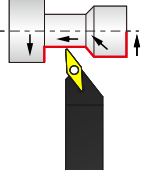
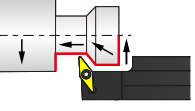
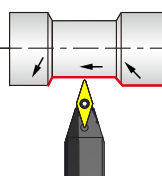
Outer diameter turning - front turning

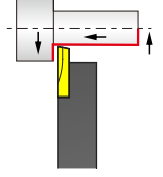
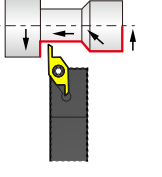


CC...0602 CC...09T3			TN...160408
SCLCR/L-F	ACLCR/L-F	S-SCLCL圆柄	PTLNR
 P19	 P19	 P20	 P23

DC...0702 DC...11T3			
SDJCR/L-F	ADJCR/L-F	S-SDUCL圆柄	SDNCN
 P25	 P25	 P26	 P26

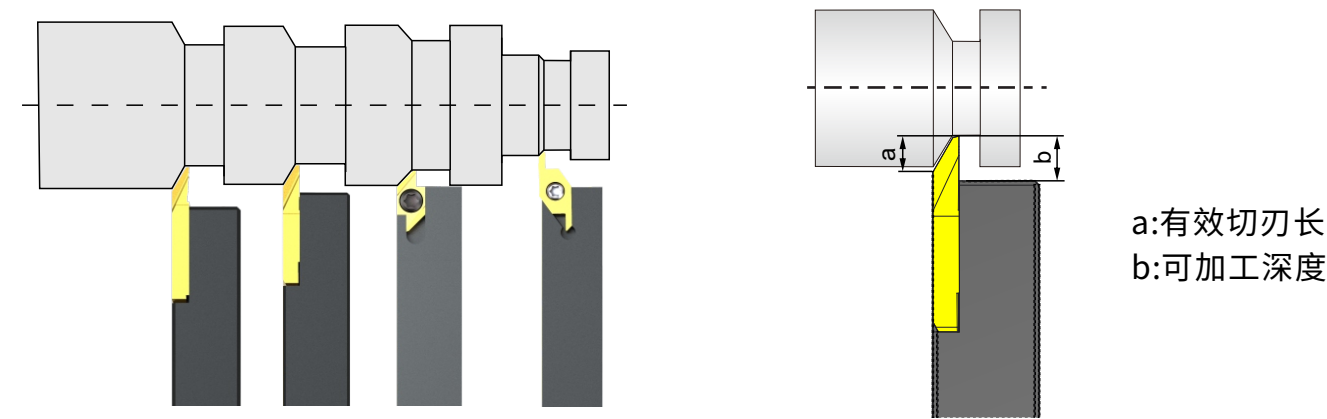
VB..1103..			
SVJBR/L-F	AVJBR/L-F	S-SVUBL圆柄	SVVBN
 P31	 P31	 P32	 P32

VC..1103..			
SVJCR/L-F	AVJCR/L-F	S-SVUCL圆柄	SVVCN
 P29	 P29	 P30	 P30

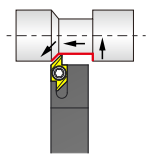
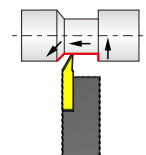
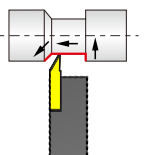
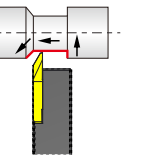
KTP12R/L-FQ	CSVF	
KTP12R/L	CSVRL	
 P43	 P56	

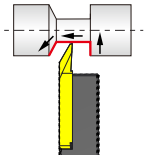
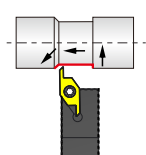
外径车削-后车加工

Outer diameter turning - back turning



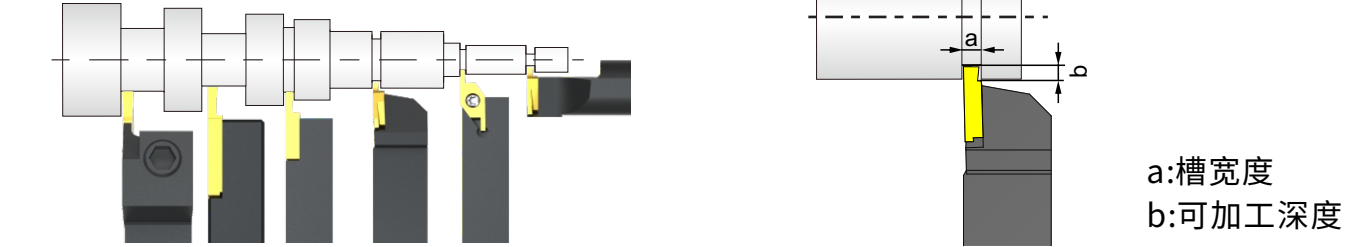
a:有效切刀长
b:可加工深度

刀片 Insert	ABS15R40..	KTP12R/L-FB	KTP16R/L-FB	KTP28R/L-FB
	SABS...-40F	KTP12R/L	KTP16R/L	KTP28R/L
刀杆 Holder	 P35	 P45	 P48	 P51
a(mm)	0~4	0~4.5	0~6	0~6
b(mm)	4	6	8	6.5

刀片 Insert	KTP38R/L-FB	CSVB		
	KTP38R/L	CSV/L		
刀杆 Holder	 P54	 P56		
a(mm)	0~8	0~1		
b(mm)	9	2		

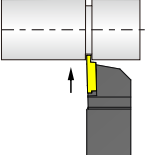
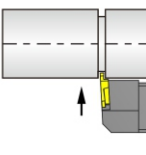
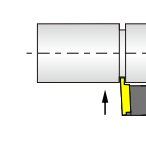
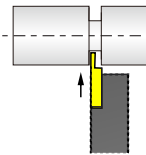
槽加工/多功能加工刀具

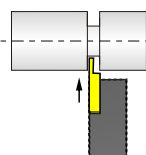
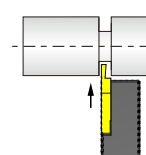
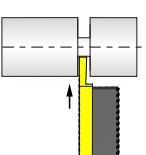
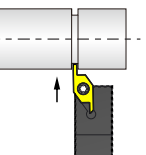
Grooving processing/ Multi function tools

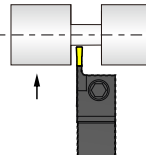


a:槽宽度
b:可加工深度

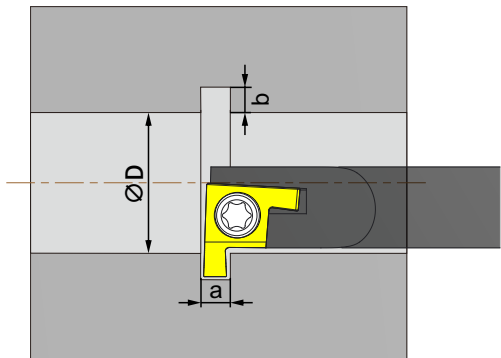
外径槽加工 External Grooving

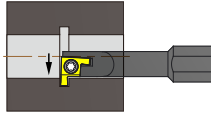
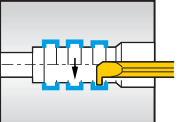
刀片 Insert	TGF32..			KTP12R/L-FN
	KTGFR/L-F	KTGXFR	S-KTGFL圆柄	KTP12R/L
刀杆 Holder	 P37	 P37	 P38	 P44
a(mm)	0.3~3.0	0.3~3.0	0.3~3.0	0.5~2.5
b(mm)	0~2.7	0~2.7	0~2.7	0~6.0

刀片 Insert	KTP16R/L-FN	KTP28R/L-FN	KTP38R/L-FN	CSVG
	KTP16R/L	KTP28R/L	KTP38R/L	CSV/L
刀杆 Holder	 P47	 P50	 P53	 P58
a(mm)	0.5~3.5	0.5~2.5	0.5~3.5	0.25~1.5
b(mm)	0~8.0	0~6.5	0~8.0	0~2.6

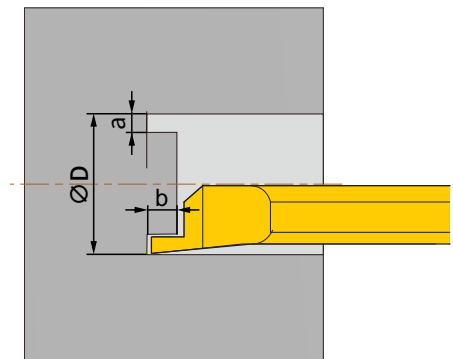
刀片 Insert	WD			
	TWDR/L			
刀杆 Holder	 P60			
a(mm)	2~5			
b(mm)	0~25			

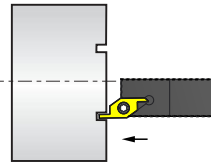
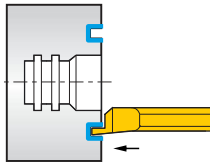
内径槽加工Internal Grooving



刀片 Insert	GER/L...A-E	PSGR
	SIGE	SL
刀杆 Holder	 P40	 P68
a(mm)	1.0~4.0	1.0~2.5
b(mm)	0~6.5	0~2.0
D(mm)	≥8	≥3.2

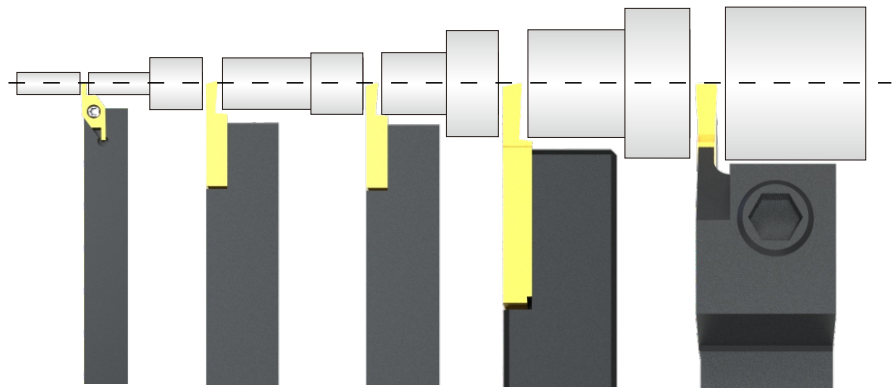
端面槽加工Face Grooving

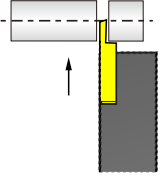
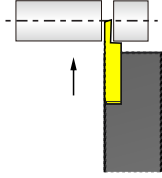
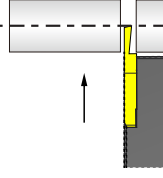
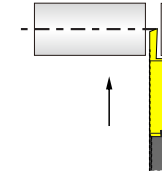


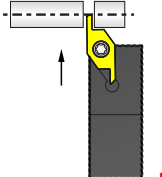
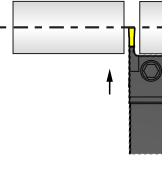
刀片 Insert	CSVG	PSGFR
	CSVR/L	SL
刀杆 Holder	 P58	 P67
a(mm)	1.0~2.0	1.0~4.5
b(mm)	0~3.0	0~5.0
D(mm)	≥6.0	≥6.0

切断加工/多功能加工刀具

Cutting off processing/ Multi function tools

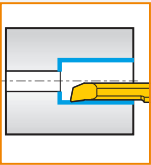
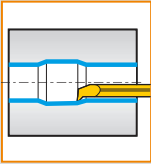
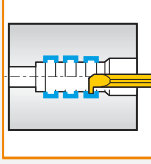
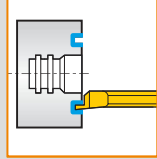
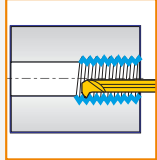
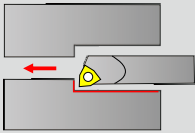
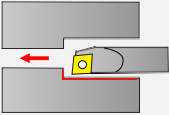


刀片 Insert	KTP12R/L-FA	KTP16R/L-FA	KTP28R/L-FA	KTP38R/L-FA
	KTP12R/L	KTP16R/L	KTP28R/L	KTP38R/L
刀杆 Holder	 P45	 P47	 P50	 P53
加工直径	0~12.0	0~16.0	0~17.0	0~20.0
刀片宽度	0.5~2.5	0.5~3.5	1.0~2.5	1.0~4.0

刀片 Insert	CSVC	WD		
	CSVR/L	TWDR/L		
刀杆 Holder	 P57	 P60		
加工直径	0~5.0	0~50.0		
刀片宽度	0.6~1.5	2.0~5.0		

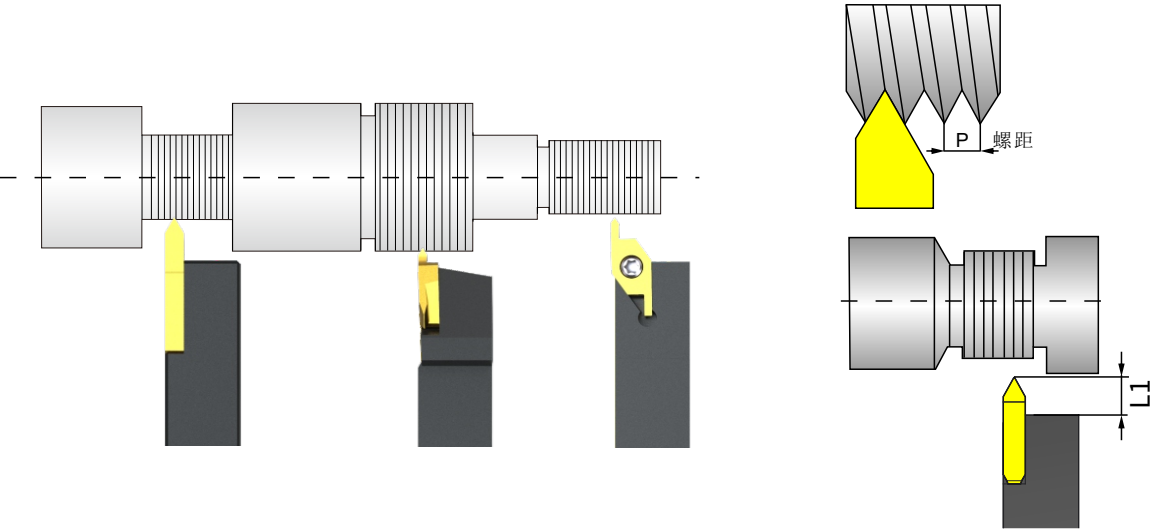
内孔加工刀具

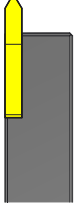
Boring tools

型号 Size	刀片外形 Shape	应用范围 Applicable	特点 Features
PSBR			内孔加工 最小加工直径3.2mm Inner hole machining Minimum machining diameter 3.2 mm
PSCR			内孔倒拉加工 最小加工直径3.2mm Back turning machining for inner hole Minimum machining diameter is 3.2mm
PSGR			内孔切槽加工 最小加工直径3.2mm,槽宽1.0-2.5mm Internal grooving machining Minimum machining diameter is 3.2mm, Groove width is 1.0-2.5mm
PSGFR			端面槽加工 最小加工直径6.0mm 槽宽1.0-4.5mm Face grooving machining Minimum machining diameter 6.0mm Groove width 1.0-4.5mm
PSTR			内螺纹加工 最小加工直径3.3mm 螺距0.5-1.5mm Internal thread machining Minimum machining diameter 3.3mm Pitch 0.5-1.5mm
C-SWUBR/L E-SWUBR/L			内孔加工 最小加工直径4.8mm Inner hole machining Minimum processing diameter 4.8 mm
C-SCLCR/L E-SCLCR/L			内孔加工 最小加工直径4.8mm Inner hole machining Minimum processing diameter 4.8 mm

螺纹加工

Threading processing



刀片 Insert	KTP12R/L-FT	KTP16R/L-FT	KTP28R/L-FT	KTP38R/L-FT
	KTP12R/L	KTP16R/L	KTP28R/L	KTP38R/L
刀杆 Holder	 P44	 P48	 P51	 P54
P螺距	0.3~3.0	0.3~3.0	0.3~3.0	0.3~3.5
L距离	6.0	8.0	8.0	10.0

刀片 Insert	CSVT	TTX32R..		
	CSVR/L	KTTXR	S-KTTX圆柄	
刀杆 Holder	 P57	 P72	 P72	
P螺距	0.2~0.5	0.8~3.0	0.8~3.0	
L距离	3.0	4.0	3.0	

刀具材质一览表

刀片材质一览表

Summary of Insert Grades

普通车削加工

General Turning

材质符号 Workpiece Material	P 钢 Steel					M 不锈钢 Stainless steel					K 铸铁 Cast Iron				N 有色金属 Nonferrous			S 耐热合金 NRSA				H 高硬材料 Hardness		
ISO	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20
CVD 涂层硬质合金 CVD Coated Carbide	KC1115 KC1125										KC3110													
PVD 涂层硬质合金 PVD Coated Carbide	KP2120 KKX					KP2120 KP2130 KKX					KP2120 KKX							KP6105 KP6110				KP1110		
硬质合金 Uncoated Carbide															KW20									
金属陶瓷 Cermet	KT20					KT20					KT20													
金刚石 PCD															KCD10									
氮化硼 PCBN																						KBN5010		

刀片材质一览表

Summary of Insert Grades

切断切槽加工

For Grooving, Parting off

材质符号 Workpiece Material	P 钢 Steel					M 不锈钢 Stainless steel					K 铸铁 Cast Iron				N 有色金属 Nonferrous			S 耐热合金 NRSA				H 高硬材料 Hardness		
ISO	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20
PVD 涂层硬质合金 PVD Coated Carbide	CTX KVX					KVX					CTX													
硬质合金 Uncoated Carbide															KW20									

整体合金内孔镗刀

Solid Carbide Mini Boring Bar

材质符号 Workpiece Material	P 钢 Steel					M 不锈钢 Stainless steel					K 铸铁 Cast Iron				N 有色金属 Nonferrous			S 耐热合金 NRSA				H 高硬材料 Hardness		
ISO	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20
PVD 涂层硬质合金 PVD Coated Carbide	CTX KVX					KVX					KVX													
硬质合金 Uncoated Carbide															KW20									

螺纹加工

Threading Turning

材质符号 Workpiece Material	P 钢 Steel					M 不锈钢 Stainless steel					K 铸铁 Cast Iron				N 有色金属 Nonferrous			S 耐热合金 NRSA				H 高硬材料 Hardness		
ISO	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20
PVD 涂层硬质合金 PVD Coated Carbide	CTX KVX					KKX KVX					CTX													
硬质合金 Uncoated Carbide															KW20									

PCD Inserts
PCD刀片

PCD材质 PCD material

材质 Grades	特性 Characteristic	应用 Application	颗粒尺寸 Grain size (μm)	硬度 Hardness (Hv)	抗弯强度 Bending strength (kgf)
KPD05	超微颗粒钻精华，可以制造锋利切削刃， 是有色金属加工的合适材质 Ultra fine particle drilling essence, can make sharp cutting edge, It is a suitable material for non-ferrous metal processing	塑料、木头、 铝合金精加工 Plastic,wood, aluminum alloy processing.	5μm	10,000 ~ 12,000	220
KPD10	细颗粒的材质，粒度精密，适合 有色金属、石墨加工 Fine particle material, fine granularity, suitable for non-ferrous metals, graphite processing	高硅铝合金、紫青铜 合金、橡胶、木头、 石墨加工 High silicon aluminum alloy, purple bronze alloy, rubber, wood, graphite processing	10μm	10,000 ~ 12,000	200
KPD25	粗颗粒的材质具有杰出的耐磨性 用于高硅铝合金和硬质合金加工 Rough grained material has excellent wear resistance For high silicon aluminum alloy and cemented carbide processing	硬质合金、陶瓷粗 加工、高硅铝合 金、岩石、石材 Carbide, ceramic rough processing, high silicon aluminum alloy, rock, stone	25μm	10,000 ~ 12,000	110

推荐切削条件 Recommended cutting conditions

被加工材质 Processed material	切削速度 Cutting speed (m/min)	进给 Feeding (mm/rev)	切深 Cut deep (mm)	推荐材质 Recommended material	
				1 st	2 nd
铝合金（4%~8% Si） Aluminum alloy (4%~8%, Si)	1000~3000	0.1~0.6	~3	KPD10	KPD25
铝合金（9%~14% Si） Aluminum alloy (9%~14%, Si)	600~2500	0.1~0.5	~3	KPD10	KPD25
铝合金（15%~18% Si） Aluminum alloy (15%~18%, Si)	300~700	0.1~0.4	~3	KPD10	KPD25
紫铜，青铜合金 Red copper, bronze alloy	~1000	0.05~0.2	~3	KPD10	KPD25
高强度塑料 High strength plastic	~1000	0.1~0.3	~2	KPD10	KPD25
木材 wood	~4000	0.1~0.4	-	KPD10	KPD25
硬质合金 Cemented carbide	10~30	~0.2	~0.5	KPD05	KPD10

PCBN Inserts
PCBN刀片

淬火钢切削

Hardened steel cutting

系列	用途
涂层PCBN	有加冷却液的工况 淬火钢加工首选 要求高效加工 要求高速高精度加工 Add coolant condition Preferred for hardened steel processing Demand efficient processing High speed and high precision machining is required
未涂层PCBN	低刚性加工 不能提高切削速度时的小零件加工 在加工多样硬质粒子材料时 Cannot improve the cutting speed when machining small parts In the processing of various hard particle materials

硬车-优势:
Hard Turning – Advantages

以车代磨 Substitution of Grinding by Turning

降低生产成本 Decreased production costs

最小化投资 Smaller investment

更高的工艺灵活性 Higher flexibility in manufacturing process

简化工艺流程 Shorter process chain

环保Environmentaly friendly

推荐材质 The recommended material

	材质	结合材	含有率 %	粒度μm	硬度HV	抗折力Gpa	特点
涂层 coating	KCBN7030	TiCN	70-75	1	34-36	1.4-1.5	在强韧的母材上加上优秀的涂层，实现高效和长寿命 With excellent coating on strong base material, high efficiency and long life are achieved
	KCBN710	TiN	65-70	2	33-35	1.5-1.6	在强韧的母材上结合耐磨涂层，实现加工寿命长 The strong base material is combined with wear-resistant coating to achieve long processing life
	KCBN6020	TiN	60-65	2	31-33	1.2-1.3	在淬火钢的精加工时保持稳定的高精度 Maintain stable and high precision in the finishing of hardened steel
	KCBN610	TiN	55-60	2	31-33	1.2-1.3	优秀的耐磨损性涂层，实现稳定的加工 Excellent wear-resistant coating for stable processing
	KCBN5010	TiCN	50-55	1	30-32	1.1-1.2	提高涂层的和母材的耐磨损性，实现优良的表面粗糙度 Improve the abrasion resistance of coating and base material to achieve excellent surface roughness
无涂层 No coating	KBN7030	TiCN	70-75	1	34-36	1.4-1.5	淬火钢通用加工，优秀的抗崩损性和耐磨性 Hardened steel general processing, excellent resistance to breakage and wear resistance
	KBN710	TiN	65-70	2	33-35	1.5-1.6	优良的刀头强度，适用于断续加工 Excellent blade strength, suitable for intermittent machining
	KBN6020	TiN	60-65	2	31-33	1.2-1.3	优良的耐月牙洼磨损性，适用高效率加工 Excellent crescent depression wear resistance, suitable for high efficiency processing
	KBN610	TiN	55-60	2	31-33	1.2-1.3	通用材质，兼备了耐磨损性 Universal material with wear resistance
	KBN5010	TiCN	50-55	1	30-32	1.1-1.2	优秀的耐磨损性，适合高速连续加工 Excellent wear resistance, suitable for high-speed continuous machining

推荐切削条件表
Recommended Cutting Conditions

切削工况 Applications	材质牌号 Grade	切削速度推荐值 Recommended Cutting Speed		
		Vc(m/min)	f(mm/rev)	ap(mm)
连续切削	KBN5010	110-180-300	0.03-0.10-0.20	0.03-0.20-0.35
一般切削	KBN610	50-100-160	0.03-0.20-0.40	0.03-0.20-0.35
	KBN6020	80-160-200	0.03-0.10-0.20	0.03-0.20-0.35
断续切削	KBN710	50-100-150	0.03-0.10-0.20	0.03-0.20-0.35
	KBN7030	60-100-180	0.03-0.10-0.20	0.03-0.20-0.35

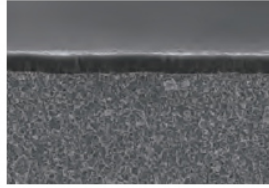
刀具材质简介

车削刀片材质简介 Turning Insert Grades

PVD涂层硬质合金系列
PVD coating carbide inserts

KP1110

适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing

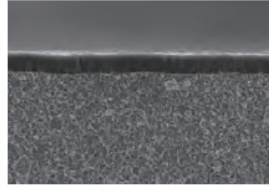


TiAlN涂层与超细颗粒的强韧性基体相结合,具有良好的抗积屑瘤特性,能延长刀具寿命,适合于高硬钢的精加工及半精加工

TiAlN coating on super micro-grain carbide substrate with good toughness, superior adhesion resistance and longer tool life
Application: Suitable for high hardness steel cutting

KP2120

适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing

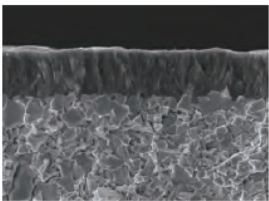


TiAlN涂层与超细颗粒的强韧性基体相结合,具有良好的抗积屑瘤特性,能延长刀具寿命,适合于不锈钢的精加工及半精加工

TiAlN coating on super micro-grain carbide substrate with good toughness, superior adhesion resistance and longer tool life
Application: Suitable for stainless steel cutting

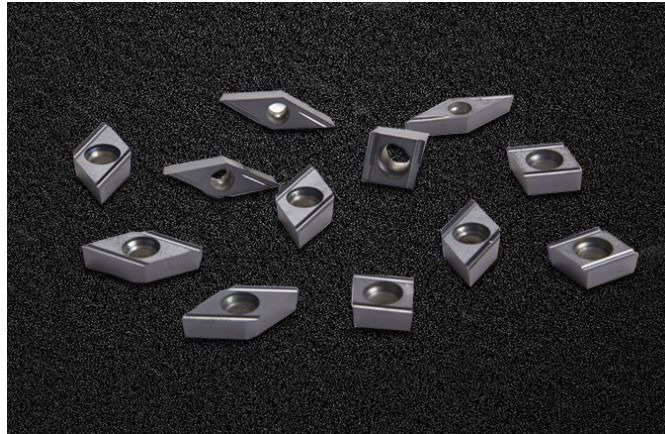
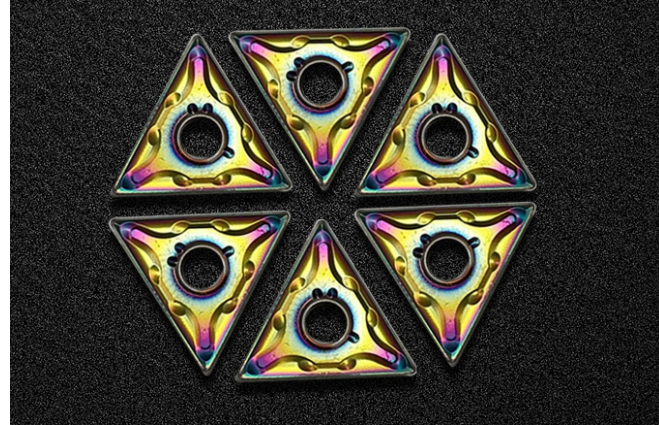
KP2130

适用类型：半精到轻微粗加工
Cutting Range: Semi-finishing to Light Roughing



韧性好的基体和TiCN,TiN涂层相结合,具有良好耐热冲击性和耐机械冲击性,适合于不锈钢的半精加工和粗加工,亦可用于断续切削。

TiCN and TiN coating on good toughness carbide substrate, superior resistance to thermal shock and mechanical shock,
Application: Suitable for stainless steel cutting and interrupted cutting.

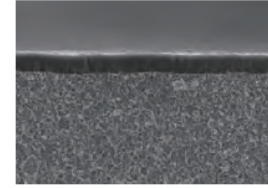


车削刀片材质简介 Turning Insert Grades

PVD涂层硬质合金系列
PVD coating carbide inserts

KP6105

适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing

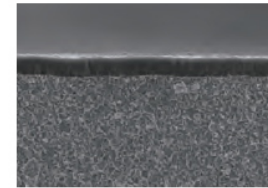


TiAlN涂层与超细颗粒的强韧性基体相结合,具有良好的抗积屑瘤特性,能延长刀具寿命,适合于钛合金/高温合金的精加工及半精加工

TiAlN coating on super micro-grain carbide substrate with good toughness, superior adhesion resistance and longer tool life
Application: Suitable for Titanium/Superalloy cutting

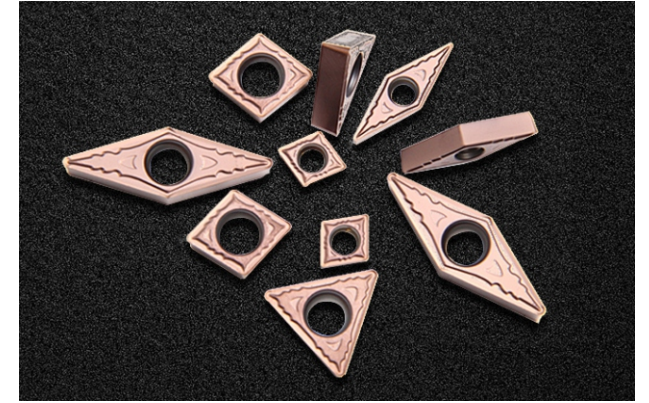
KP6110

适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing



TiAlN涂层与超细颗粒的强韧性基体相结合,具有良好的抗积屑瘤特性,能延长刀具寿命,适合于不锈钢,钛合金,高温合金的精加工及半精加工

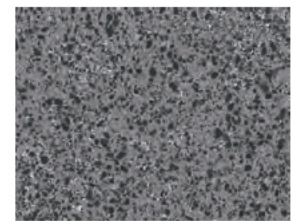
TiAlN coating on super micro-grain carbide substrate with good toughness, superior adhesion resistance and longer tool life
Application: Suitable for Suitable for stainless steel, titanium, superalloy cutting



车削刀片材质简介 Turning Insert Grades

金属陶瓷牌号
Cermet Grades

KT20

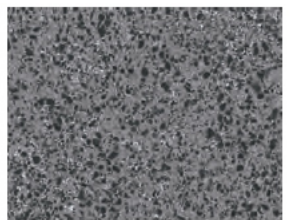


钢,铸铁,不锈钢通用牌号;车,铣削兼用,高耐磨损性及韧性兼备.
For turning and milling of steel ,cast iron and stainless,
High wear resistance and good roughness



涂层金属陶瓷牌号
Coating Cermet Grades

KCT20



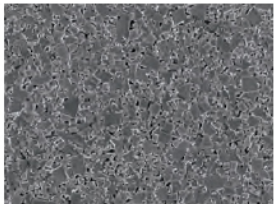
钢,铸铁,不锈钢通用牌号;车,铣削兼用,高耐磨损性及韧性兼备.
For turning and milling of steel ,cast iron and stainless,
High wear resistance and good roughness



车削刀片材质简介 Turning Insert Grades

加工 N 类材料牌号
Grades for N applications

KW20

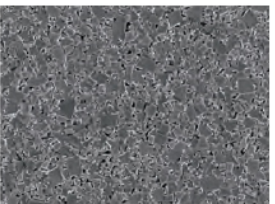


细颗粒硬质合金基体，具有高的硬度和良好的耐磨性，适合于铜，铝合金的加工,表面抛光处理，减少积屑瘤的产生。

Micro-grain carbide substrate with high hardness and superior wear resistance
Application: copper alloys and aluminum alloys
Buffed on top face reduced built-up edge



KCW20



细颗粒硬质合金基体，具有高的硬度和良好的耐磨性，适合于铜，铝合金的加工,表面抛光处理，减少积屑瘤的产生。

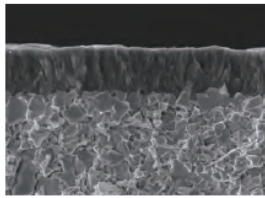
Micro-grain carbide substrate with high hardness and superior wear resistance
Application: copper alloys and aluminum alloys
Buffed on top face reduced built-up edge



材质简介
Insert Grades

PVD涂层硬质合金系列
PVD coating carbide inserts

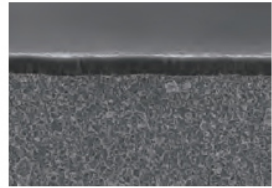
KTX 适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing



高硬度的硬质合金基体,具有较好的高温红硬性,匹配通用性良好的 TiCN PVD 涂层,推荐用于钢件材质的车削

With highly hard substrate, favorable red hardness and .Use TiCN PVD coating with excellent versatility
Application: Suitable for steel cutting

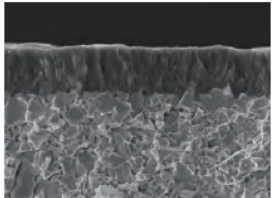
KVX 适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing



高硬度的硬质合金基体,具有较好的高温红硬性,匹配通用性良好的 TiAlN PVD 涂层,推荐用于不锈钢材质的车削

With highly hard substrate, favorable red hardness and .Use TiAlN PVD coating with excellent versatility
Application: Suitable for stainless steel cutting

KKX 适用类型：精，半精加工
Cutting Range: Finishing and Semi-finishing



高硬度的硬质合金基体,具有较好的高温红硬性,匹配通用性的PVD复合涂层,推荐用于不锈钢和钢件材质的车削

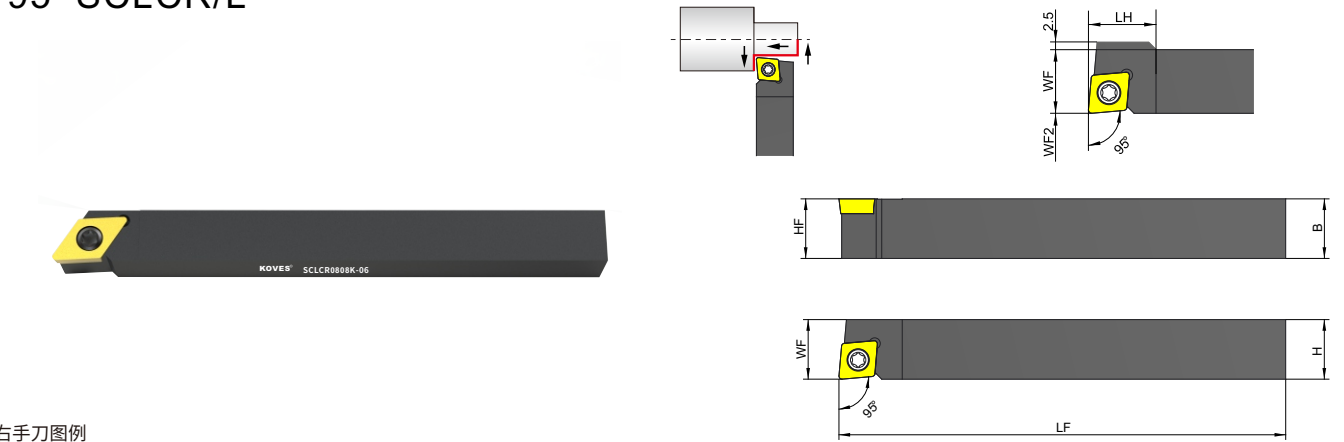
With highly hard substrate, favorable red hardness and excellen tversatility
Application: Suitable for stainless steel and steel cutting



车削刀片一览表
Features of Turning Insert
车削刀片(正型)
Turning Inserts (Positive)

槽型 Chipbreaker	刀片外形 Shape	断屑范围 Applicable Chipbreaker Range	特点 Features
无 None			钢件和不锈钢内孔的精加工到半精加工,简洁的断屑槽设计,通用性强,应用范围广 Finishing to semi finishing of steel parts and stainless steel inner holes, simple chip breaking groove design, Strong universality and wide application range
FG			独特的槽型设计在保证刀口锋利的基础上,增加了刀片的抗冲击力能够有效避免刀片切削堆积,适用于钢件,不锈钢的半精加工 Special chip breaker design to keep both sharp cutting edge and good impact resistance which can efficiently avoid accumulated and suited for semi-finishing steel and stainless steel.
SA			用于不锈钢和高温合金的超精加工到精加工,在低进给和小切深时具备优越的断屑效果,在加工时能得到良好的表面光洁度和更长的刀具寿命 For superfinishing to finishing of stainless steel and superalloys. Excellent chip breaking effect at low feed and small cutting depth, Good surface finish and longer tool life can be obtained during machining
R/L-F			精加工 控制切屑流向,切削阻力小 Finishing control cutting flow direction which can reduce the cutting resistance
R/L-U			适用于精加工和半精加工 低进给条件下,即使切深变化也能控制切屑, Suitable for finishing and semi-finishing, it can control the chip even under low feed conditions.
APK			铝合金切削用 大前角,刀尖锋利度高 For aluminum alloy cutting Sharp tool nose due to large rake angle
AM			刀尖强度,切削处理的万能排屑槽 Tip strength, universal chip removal groove for cutting

前车加工 Front Turning holder
95° SCLCR/L



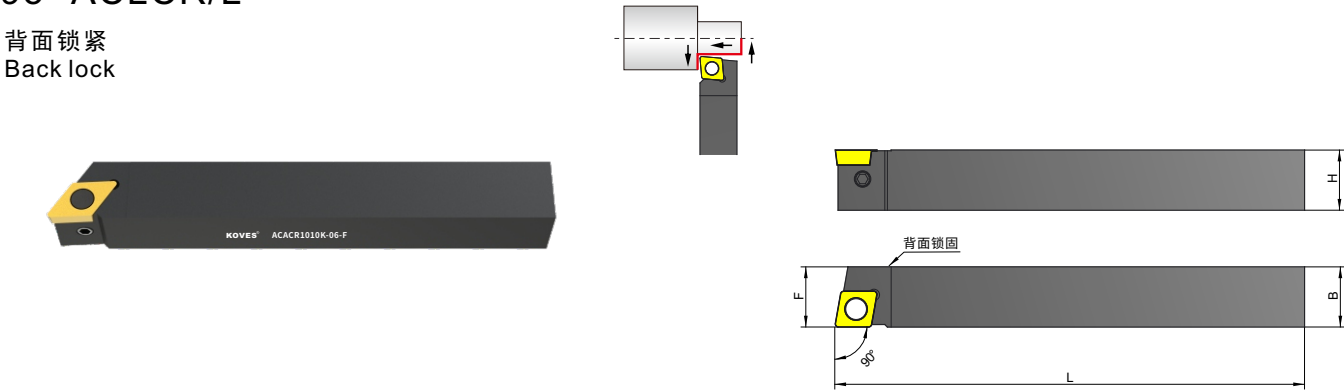
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		尺寸(mm)							适用刀片 Insert 螺钉 Screw 扳手 Wrench		
				R	L	H	HF	B	LF	LH	WF	WF2	
J-SCLCR0808K06	J-SCLCL0808K06	●	●	8	8	8	100	-	8	0	CC...0602	M2.5X8	T8
J-SCLCR1010K06	J-SCLCL1010K06	●	●	10	10	10		-	10	0			
J-SCLCR1212K06	J-SCLCL1212K06	●	●	12	12	12	120	-	12	0	CC...09T3	M3.5X9	T15
J-SCLCR1010K09	J-SCLCL1010K09	●	●	10	10	10		15	10	0			
J-SCLCR1212K09	J-SCLCL1212K09	●	●	12	12	12		-	12	0			
J-SCLCR1616K09	J-SCLCL1616K09	●	●	16	16	16		-	16	0			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

前车刀杆 Front Turning Holder
95° ACLCR/L

背面锁紧
Back lock

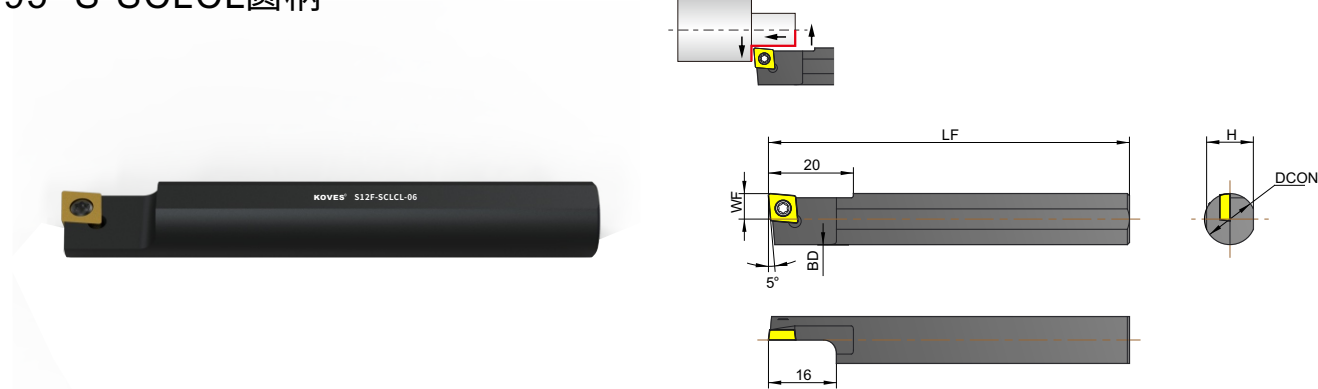


右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		适用刀片 Insert	尺寸 (mm)						
					H	B	L	F			
ACLCR1010K06F	ACLCL1010K06F	●	●	CC...0602	10	10	125	10.5	TP-11	M5X12	T20
ACLCR1010K09F	ACLCL1010K09F	●	●		CC...09T3	10	10	125	10.5		
ACLCR1212K09F	ACLCL1212K09F	●	●	12		12	125	12			
ACLCR1616K09F	ACLCL1616K09F	●	●	16		16	125	16	TP-17		

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

前车加工 Front Turning holder
95° S-SCLCL圆柄

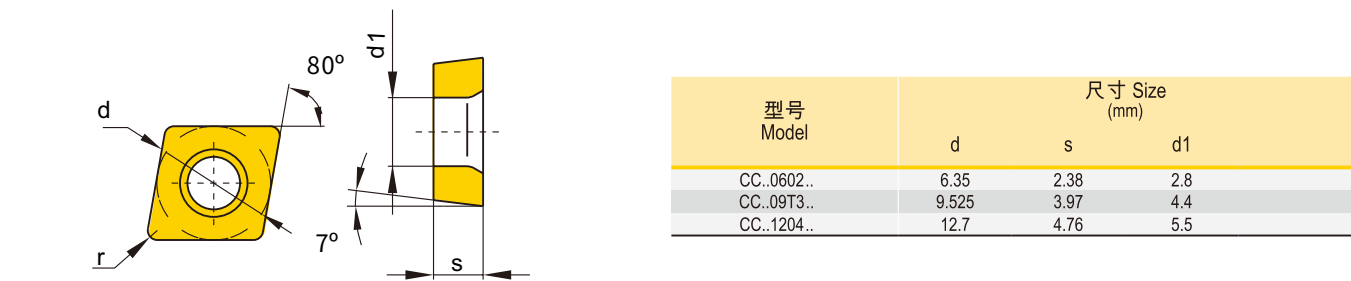


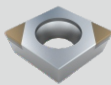
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock	尺寸(mm)						适用刀片 Insert	螺钉 Screw	扳手 Wrench
			DCON	LF	WF	BD	H	RE			
S12F-SCLCL-06		●	12	80	6	13.4	11	0.4	CC...0602	M2.5X6	T8
S14H-SCLCL-06		●	14	100		13.4	13				
S15F-SCLCL-06		●	15.875	85		15.4	15				
S16F-SCLCL-06		●	16	85		15.4	15				
S19G-SCLCL-06		●	19.05	90		18.4	17				
S19K-SCLCL-06		●	19.05	120	10	18.4	17	0.4	CC...09T3	M3.5X9	T15
S20G-SCLCL-06		●	20	90		19.4	18				
S20K-SCLCL-06		●	20	120		19.4	18				
S19G-SCLCL-09		●	19.05	90		18.4	17				
S19K-SCLCL-09		●	19.05	120		18.4	17				
S20G-SCLCL-09		●	20	90		19.4	18				
S20K-SCLCL-09		●	20	120		19.4	18				
S25.0H-SCLCL-09		●	25	100		24.4	23				
S25K-SCLCL-09		●	25.4	120		24.8	23				

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

车削刀片(正型)
Turning Inserts (Positive)
CC..

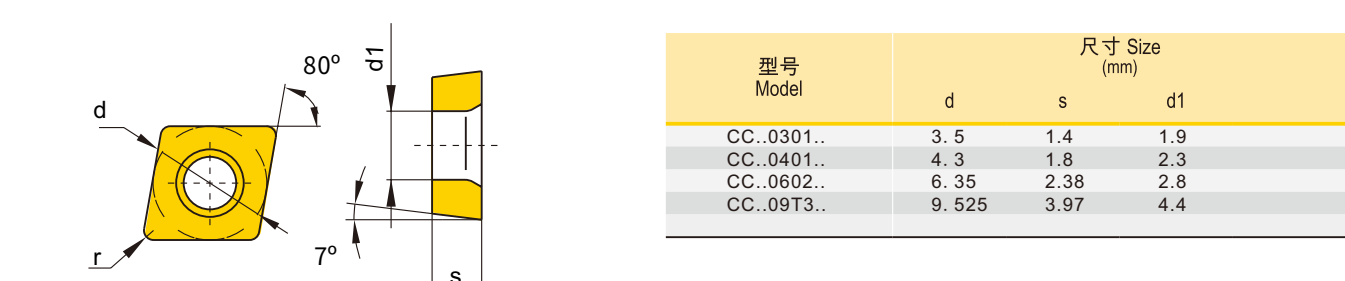


刀片外形 Insert shape		型号 Model	r	进给fn mm/rev	切深ap mm	刀片材质及适用加工材料 Insert grades and application													
						KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
半精加工 Semi-Finishing		CCMT060202	0.2	0.02-0.07	0.15-1.6						●	●							
		CCMT060204	0.4	0.05-0.16	0.35-1.9						●	●							
		CCMT09T302	0.8	0.02-0.07	0.15-2.4						●	●							
		CCMT09T304	0.4	0.05-0.16	0.35-2.9						●	●							
		CCMT09T308	0.8	0.10-0.32	0.70-2.9						●	●							
半精加工 / 精加工 Semi-finishing/Finishing		CCMT060202FG	0.2	0.07-0.15	0.4-2.0										●				
		CCMT060204FG	0.4	0.08-0.18	0.4-2.0											●			
		CCMT09T304FG	0.4	0.07-0.20	0.4-2.0											●			
		CCMT09T308FG	0.8	0.10-0.25	0.6-2.0											●			
		CCGT060202APK	0.2	0.01-0.12	0.05-3.0													●	●
半精加工 / 精加工 Semi-finishing/Finishing		CCGT060204APK	0.4	0.02-0.15	0.1-3.0												●	●	
		CCGT060208APK	0.8	0.02-0.20	0.1-4.0													●	●
		CCGT09T302APK	0.2	0.02-0.20	0.05-3.0													●	●
		CCGT09T304APK	0.4	0.02-0.30	0.1-5.0													●	●
		CCGT09T308APK	0.8	0.03-0.50	0.1-5.0													●	●
金刚石刀片 PCD insert		CCMT060201	0.1	0.10-0.20	0.1-1.0	●													
		CCMT060202	0.2	0.10-0.40	0.1-2.0	●													
		CCMT060204	0.4	0.10-0.60	0.1-3.0	●													
		CCMT09T301	0.1	0.10-0.20	0.1-1.0	●													
		CCMT09T302	0.2	0.10-0.40	0.1-2.0	●													
		CCMT09T304	0.4	0.10-0.60	0.1-3.0	●													
		CCMT09T308	0.8	0.10-0.60	0.1-3.0	●													
		CCMW060204FA	0.4	0.10-0.60	0.1-2.0	●													
断屑槽金刚石刀片 PCD chip breaker insert		CCMW09T304FA	0.4	0.10-0.60	0.1-3.0	●													
		CCMW09T308FA	0.8	0.10-0.60	0.1-3.0	●													
立方氮化硼刀片 PCBN insert		2NU-CCGW060202	0.2	0.05-0.15	0.05-1.0		●												
		2NU-CCGW060204	0.4	0.05-0.15	0.05-2.0		●												
		2NU-CCGW060208	0.8	0.05-0.15	0.05-2.0		●												
		2NU-CCGW09T302	0.2	0.05-0.20	0.05-1.0		●												
		2NU-CCGW09T304	0.4	0.05-0.20	0.05-2.0		●												
		2NU-CCGW09T308	0.8	0.05-0.20	0.05-2.0		●												
半精加工 / 精加工 Semi-finishing/Finishing		CCGT060201AM	0.1	0.02-0.15	0.10-1.4						●			●					
		CCGT060202AM	0.2	0.02-0.15	0.10-1.4						●			●					
		CCGT09T301AM	0.1	0.02-0.15	0.10-2.4						●			●					
		CCGT09T302AM	0.2	0.02-0.15	0.10-2.4						●			●					
钢 Steel						☆				☆	☆		☆	★					
不锈钢 Stainless Steel											★		★						
铸铁 Cast Iron																			
有色金属 Nonferrous Metal						★										★	★		
耐热合金 Heat Resistant Alloy														★					
淬硬钢 Hardened Steel							★				★								
★ 首选Preferred		☆ 可选optional		● 标准库存standard stock												○ 订单生产order production			

★ 首选Preferred ☆ 可选optional

● 标准库存standard stock ○ 订单生产order production

车削刀片(正型)
Turning Inserts (Positive)
CC..

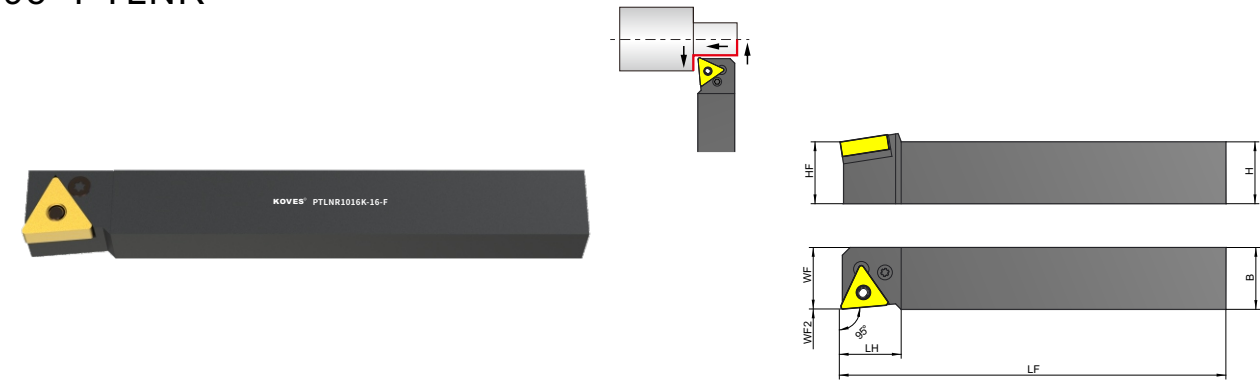


刀片外形 Insert shape	型号 Model	刀片材质及适用加工材料 Insert grades and application																
		r	进给fn mm/rev	切深ap mm	KD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
精加工 Finishing	CCET0301005L-F	0.05	0.01-0.05	0.1-0.3						●			●					
	CCET030101L-F	0.1	0.01-0.05	0.1-0.3						●			●					
	CCET030102L-F	0.2	0.01-0.05	0.1-0.3						●			●					
	CCET0401005L-F	0.05	0.01-0.10	0.1-0.5						●			●					
	CCET040101L-F	0.1	0.01-0.10	0.1-0.5						●			●					
	CCET040102L-F	0.2	0.01-0.10	0.1-0.5						●			●					
	CCET0602005R-F	0.05	0.01-0.06	0.04-1.3						●			●					
	CCET0602005L-F	0.05	0.01-0.06	0.04-1.3						●			●					
	CCET060201R-F	0.1	0.02-0.08	0.05-1.5						●			●					
	CCET060201L-F	0.1	0.02-0.08	0.05-1.5						●			●					
	CCET060202R-F	0.2	0.03-0.11	0.06-1.7						●			●					
	CCET060202L-F	0.2	0.03-0.11	0.06-1.7						●			●					
	CCET09T3005R-F	0.05	0.02-0.08	0.05-1.5						●			●					
	CCET09T3005L-F	0.05	0.02-0.08	0.05-1.5						●			●					
半精加工 / 精加工 Semi-finishing/Finishing	CCET09T301R-F	0.1	0.03-0.11	0.06-1.7						●			●					
	CCET09T301L-F	0.1	0.03-0.11	0.06-1.7						●			●					
	CCET09T302R-F	0.2	0.04-0.15	0.08-2.0						●			●					
	CCET09T302L-F	0.2	0.04-0.15	0.08-2.0						●			●					
	CCGT060201R-U	0.1	0.02-0.08	0.05-1.5						●			●	●				
	CCGT060201L-U	0.1	0.02-0.08	0.05-1.5						●			●	●				
	CCGT060202R-U	0.2	0.03-0.11	0.06-1.7						●			●	●				
	CCGT060202L-U	0.2	0.03-0.11	0.06-1.7						●			●	●				
	CCGT060204R-U	0.4	0.05-0.15	0.08-2.0						●			●	●				
	CCGT060204L-U	0.4	0.05-0.15	0.08-2.0						●			●	●				
	CCGT09T301R-U	0.1	0.03-0.11	0.06-1.7						●			●	●				
	CCGT09T301L-U	0.1	0.03-0.11	0.06-1.7						●			●	●				
	CCGT09T302R-U	0.2	0.04-0.15	0.08-2.0						●			●	●				
	CCGT09T302L-U	0.2	0.04-0.15	0.08-2.0						●			●	●				
半精加工 / 精加工 Semi-finishing/Finishing	CCGT09T304R-U	0.4	0.05-0.20	1.0-2.5						●			●	●				
	CCGT09T304L-U	0.4	0.05-0.20	1.0-2.5						●			●	●				
	CCGT060201SA	0.1	0.02-0.15	0.10-1.4						●			●					
	CCGT060202SA	0.2	0.02-0.15	0.10-1.4						●			●					
	CCGT060204SA	0.4	0.03-0.20	0.10-1.4						●			●					
	CCGT09T301SA	0.1	0.02-0.15	0.10-2.4						●			●					
	CCGT09T302SA	0.2	0.02-0.15	0.10-2.4						●			●					
	CCGT09T304SA	0.4	0.03-0.20	0.10-2.4						●			●					
	CCGT09T308SA	0.8	0.03-0.25	0.10-2.4						●			●					
钢 Steel										☆			☆	★				
不锈钢 Stainless Steel										★			★					
铸铁 Cast Iron																		
有色金属 Nonferrous Metal															★			
耐热合金 Heat Resistant Alloy													★					
淬硬钢 Hardened Steel																		

★ 首选Preferred ☆ 可选optional

● 标准库存standard stock ○ 订单生产order production

前车刀杆 Front Turning Holder
95° PTLNR



右手刀图例

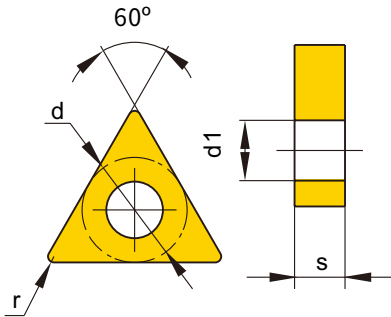
Legend of right hand knife

型号 Model		库存 Stock		尺寸 Size (mm)							刀片 Insert	刀垫 Shim	锁销 Screw	压板 Lever	压板螺钉 Shim pin	扳手 Hex wrench
右刀 Right hand	左刀 Left hand	R	L	H	HF	B	LF	LH	WF							
PTLNR1016K16F	PTLNL1016K16F	●	●	10	16	16	120	24	20	TN..1604..	PT16	VHX0617	LV3	SP3	S2.5	
PTLNR1216K16F	PTLNL1216K16F	●	●	12	16	16	120	24	20							
PTLNR1620K16F	PTLNL1620K16F	●	●	16	16	16	120	24	20							
PTLNR2020K16F	PTLNL2020K16F	●	●	20	20	20	120	24	20							

* 刀片需单独订购。Blades to be ordered separately.

● 标准库存 Standard inventory ○ 订单生产 The order production

车削刀片(负型)
Turning Inserts (Negative)
TN..



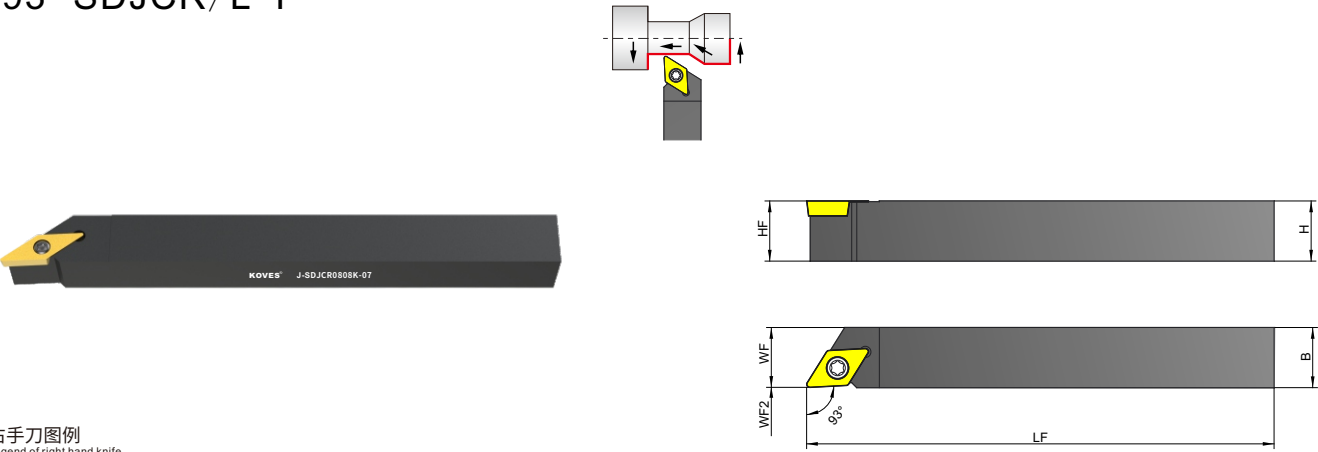
型号 Model	尺寸 Size (mm)		
	d	s	d1
TN..1604..	9.525	4.76	3.81

刀片外形 Insert shape		型号 Model	r	进给fn mm/rev	切深ap mm	刀片材质及适用加工材料 Insert grades and application													
						KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
半精加工 Semi-Finishing		TNMG160404MH	0.4	0.07-0.20	0.34-3.7						●	●							
		TNMG160408MH	0.8	0.14-0.40	0.68-3.7						●	●							
精加工 Finishing		TNGG160401R-F	0.1	0.03-0.20	0.1-1.5							●			●	●			
		TNGG160401L-F	0.1	0.03-0.20	0.1-1.5							●			●	●			
		TNGG160402R-F	0.2	0.05-0.25	0.3-2.0							●			●	●			
		TNGG160402L-F	0.2	0.05-0.25	0.3-2.0							●			●	●			
		TNGG160404R-F	0.4	0.05-0.25	0.3-2.0							●			●	●			
		TNGG160404L-F	0.4	0.05-0.25	0.3-2.0							●			●	●			
半精加工 Semi-Finishing		TNMG160404R-C	0.4	0.12-0.30	1.0-3.5						●					●			
		TNMG160404L-C	0.4	0.12-0.30	1.0-3.5						●					●			
		TNMG160408R-C	0.8	0.15-0.35	1.3-3.5						●					●			
		TNMG160408L-C	0.8	0.15-0.35	1.3-3.5						●					●			
金刚石刀片 PCD insert		TNMM160402	0.2	0.10-0.60	0.1-3.0	●													
		TNMM160404	0.4	0.10-0.60	0.1-3.0	●													
		TNMM160408	0.8	0.10-0.60	0.1-3.0	●													
		TNMM160412	1.2	0.10-0.60	0.1-3.0	●													
断屑槽金刚石刀片 PCD chip breaker insert		TNMA160404FA	0.4	0.10-0.60	0.1-3.0	●													
		TNMA160408FA	0.8	0.10-0.60	0.1-3.0	●													
		TNMA160412FA	1.2	0.10-0.60	0.1-3.0	●													
立方氮化硼刀片 PCBN insert		3NU-TNGA160402	0.2	0.05-0.15	0.05-2.0		●												
		3NU-TNGA160404	0.4	0.05-0.20	0.05-2.0		●												
		3NU-TNGA160408	0.8	0.05-0.20	0.05-2.0		●												
半精加工 / 精加工 Semi-fnishing/Finishing		TNMG160402AH	0.2	0.04-0.28	0.5-3.0												●	●	
		TNMG160404AH	0.4	0.05-0.30	0.8-3.5													●	●
		TNMG160408AH	0.8	0.10-0.40	0.8-3.5													●	●
半精加工 / 精加工 Semi-fnishing/Finishing		TNGG160401SA	0.1	0.05-0.15	0.40-4.1							●			●				
		TNGG160402SA	0.2	0.15-0.44	0.80-4.1							●			●				
钢 Steel							☆				☆	☆			☆	★			
不锈钢 Stainless Steel												★			★				
铸铁 Cast Iron																			
有色金属 Nonferrous Metal						★											★	★	
耐热合金 Heat Resistant Alloy															★				
淬硬钢 Hardened Steel								★				★							

★ 首选 Preferred ☆ 可选 optional

● 标准库存 standard stock ○ 订单生产 order production

前车刀杆 Front Turning Holder
93° SDJCR/L-F



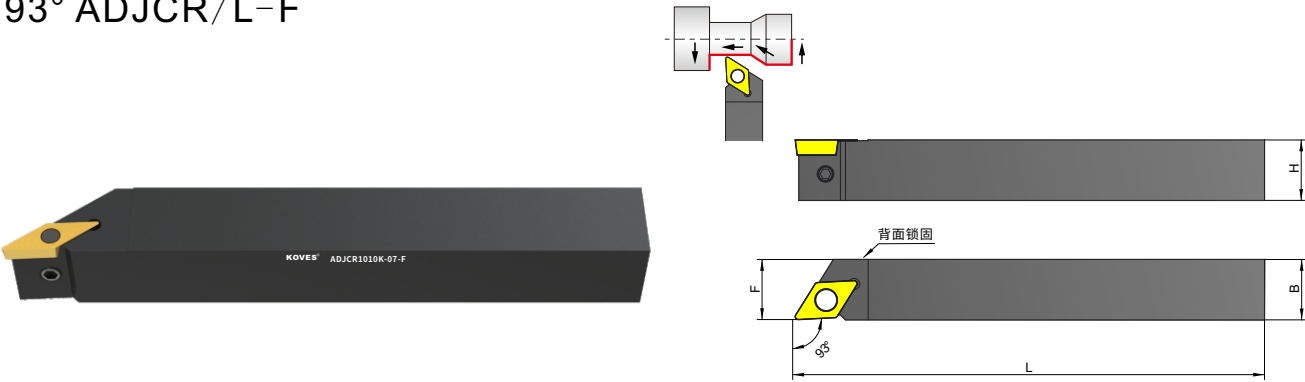
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		尺寸 (mm)								RE	适用刀片 insert	 螺钉 Screw	 扳手 Wrench
				R	L	H	HF	B	LF	LH	WF				
J-SDJCR0808K07	J-SDJCL0808K07	●	●	8	8	8	125	-	8	-	0	0.2	DC...0702	M2.5X6	T8
J-SDJCR1010K07	J-SDJCL1010K07	●	●	10	10	10	125	-	10	-	0	0.2			
J-SDJCR1212K07	J-SDJCL1212K07	●	●	12	12	12		20	12	-	0	0.2			
J-SDJCR1010K11	J-SDJCL1010K11	●	●	10	10	10		-	10	3	0	0.2			
J-SDJCR1212K11	J-SDJCL1212K11	●	●	12	12	12		-	12	1	0	0.2			
J-SDJCR1616K11	J-SDJCL1616K11	●	●	16	16	16		-	16	-	0	0.2	DC...11T3	M3.5X9	T15

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀杆 Front Turning Holder
93° ADJCR/L-F



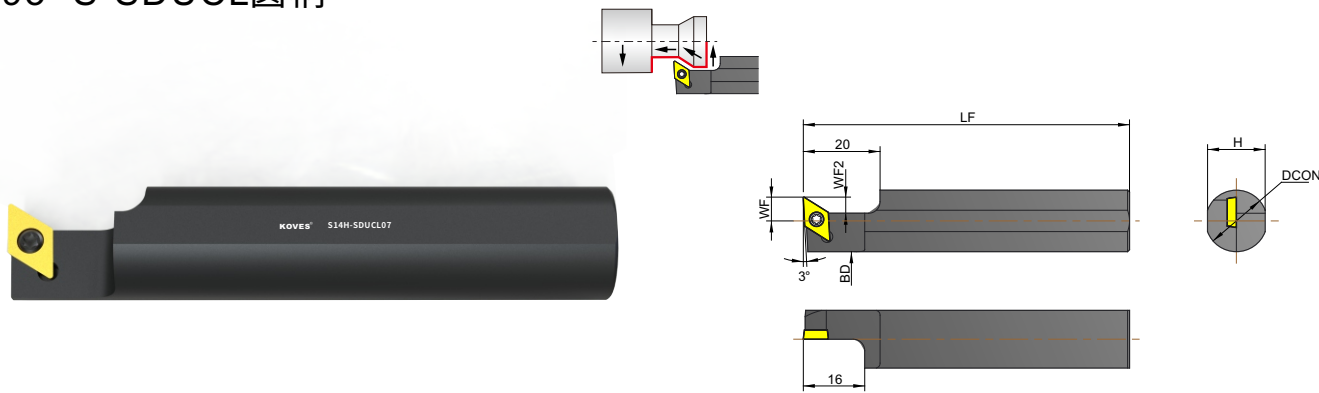
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		适用刀片 Insert	尺寸(mm)						
					H	B	L	F	Pin	螺钉 Screw	扳手 Wrench
ADJCR1010K07F	ADJCL1010K07F	●	●	DC... 0702 DC... 11T3	10	10	125	10.5	TP-11	LHW-4	LH-020
ADJCR1212K07F	ADJCL1212K07F	●	●		10	10		10.5	TP-13		
ADJCR1212K11F	ADJCL1212K11F	●	●		12	12		12			
ADJCR1616K11F	ADJCL1616K11F	●	●		16	16		16			

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀杆 Front Turning Holder
93° S-SDUCL圆柄



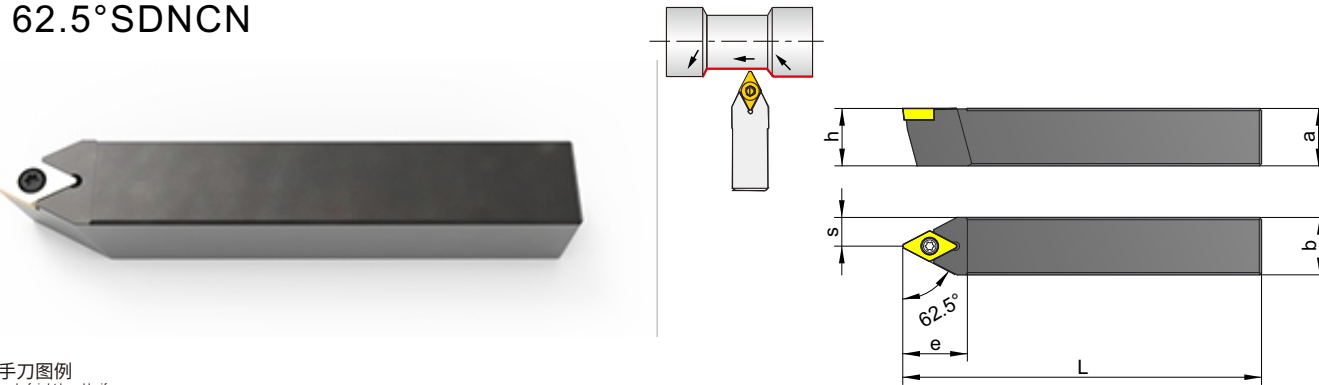
右手刀图例
Legend of right hand knife

型号 Model	库存 Stock	尺寸 (mm)						RE	适用刀片 Insert			
		DCON	LF	WF	BD	H	WF2			螺钉 Screw	扳手 Wrench	
S14H-SDUCL07	●	14	100	6	13.4	13	3.8	0.4	DC. . 0702 DC. . 11T3	M2.5×6	T8	
S15F-SDUCL07	●	15. 875	85		15.4	15						
S19G-SDUCL07	●	19. 05	90		18.4	17						
S19K-SDUCL07	●	19. 05	120		18.4	17						
S20G-SDUCL07	●	20	90		19.4	18						
S20K-SDUCL07	●	20	120		19.4	18						
S19G-SDUCL11	●	19. 05	90	18.4	17	5.8	0.4			M3.5×9	T15	
S19.05K-SDUCL11	●	19. 05	120	18.4	17							
S20G-SDUCL11	●	20	90	19.4	18							
S20K-SDUCL11	●	20	120	19.4	18							
S22K-SDUCL11	●	22	120	21.4	20							
S25.0K-SDUCL11	●	25	120	24.4	23							
S25.4K-SDUCL11	●	25. 4	120	24.8	23							

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀杆 Front Turning Holder
62.5°SDNCN



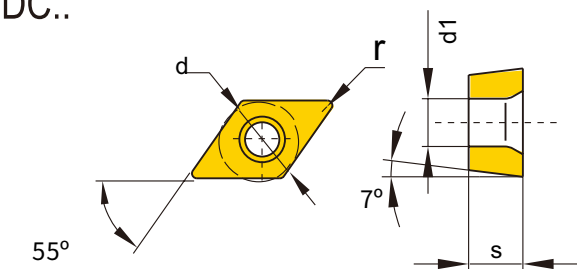
右手刀图例
Legend of right hand knife

型号 Model	库存 Stock	尺寸 Size (mm)						刀片 Insert	螺钉 Screw	扳手 Hex wrench
		a	b	L	h	s	e			
SDNCN1010JX07	●	10	10	120	10	5	16	DC..T0702..	M2.5×6	T8
SDNCN1212JX07	●	12	12	120	12	6	20			
SDNCN1212JX11	●	12	12	120	12	6	22	DC..T11T3..	M3.5×9	T15
SDNCN1616JX11	●	16	16	120	16	8	22			
SDNCN2020JX11	●	20	20	120	20	10	22			
SDNCN2525JX11	●	25	25	120	25	12.5	22			

* 刀片需单独订购。Blades to be ordered separately.

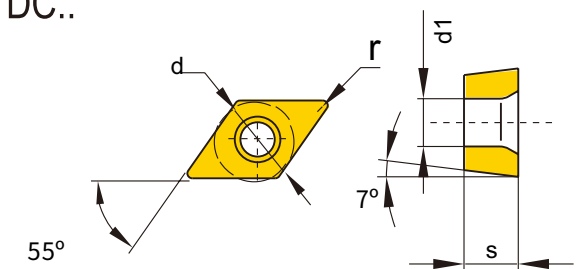
●标准库存Standard inventory ○订单生产The order production

车削刀片(正型)
Turning Inserts (Positive)
DC..

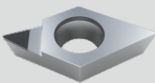
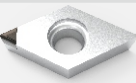
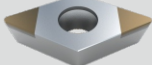


型号 Model	尺寸 Size (mm)		
	d	s	d1
DC..0702 ..	6.35	2.38	2.8
DC..11T3 ..	9.525	3.97	4.4

车削刀片(正型)
Turning Inserts (Positive)
DC..



型号 Model	尺寸 Size (mm)		
	d	s	d1
DC..0702 ..	6.35	2.38	2.8
DC..11T3 ..	9.525	3.97	4.4

刀片外形 Insert shape		型号 Model	r	进给fn mm/rev	切深ap mm	刀片材质及适用加工材料 Insert grades and application													
						KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
半精加工 Semi-Finishing		DCMT070202	0.2	0.02-0.07	0.15-1.5						●	●							
		DCMT070204	0.4	0.05-0.16	0.35-2.1						●	●							
		DCMT11T302	0.2	0.02-0.07	0.15-2.3						●	●							
		DCMT11T304	0.4	0.05-0.16	0.35-3.1						●	●							
		DCMT11T308	0.8	0.10-0.32	0.70-3.1						●	●							
半精加工 / 精加工 Semi-finishing/Finishing		DCMT070202FG	0.2	0.07-0.20	0.4-1.5											●			
		DCMT070204FG	0.4	0.08-0.25	0.5-2.5											●			
		DCMT11T302FG	0.2	0.07-0.20	0.4-2.0											●			
		DCMT11T304FG	0.4	0.10-0.25	0.6-2.0											●			
半精加工 / 精加工 Semi-finishing/Finishing		DCGT070202APK	0.2	0.01-0.20	0.05-3.0												●	●	
		DCGT070204APK	0.4	0.02-0.30	0.1-4.0													●	●
		DCGT070208APK	0.8	0.03-0.40	0.1-4.0													●	●
		DCGT11T302APK	0.2	0.02-0.30	0.05-4.0													●	●
		DCGT11T304APK	0.4	0.03-0.50	0.1-5.0													●	●
		DCGT11T308APK	0.8	0.03-0.50	0.1-5.0													●	●
		DCGT11T312APK	1.2	0.04-0.60	0.15-5.0													●	●
金刚石刀片 PCD insert		DCMT070201	0.1	0.10-0.20	0.1-1.0	●													
		DCMT070202	0.2	0.10-0.40	0.1-2.0	●													
		DCMT070204	0.4	0.10-0.60	0.1-3.0	●													
		DCMT11T301	0.1	0.10-0.20	0.1-1.0	●													
		DCMT11T302	0.2	0.10-0.40	0.1-2.0	●													
		DCMT11T304	0.4	0.10-0.60	0.1-3.0	●													
		DCMT11T308	0.8	0.10-0.60	0.1-3.0	●													
断屑槽金刚石刀片 PCD chip breaker insert		DCGW070204FA	0.4	0.10-0.60	0.1-2.0	●													
		DCGW11T304FA	0.4	0.10-0.60	0.1-3.0	●													
		DCGW11T308FA	0.8	0.10-0.60	0.1-3.0	●													
立方氮化硼刀片 PCBN insert		2NU-DCGW070202	0.2	0.05-0.15	0.05-1.0		●												
		2NU-DCGW070204	0.4	0.05-0.15	0.05-2.0		●												
		2NU-DCGW070208	0.8	0.05-0.15	0.05-2.0		●												
		2NU-DCGW11T302	0.2	0.05-0.20	0.05-1.0		●												
		2NU-DCGW11T304	0.4	0.05-0.20	0.05-2.0		●												
		2NU-DCGW11T308	0.8	0.05-0.20	0.05-2.0		●												
钢 Steel						☆				☆	☆				★				
不锈钢 Stainless Steel											★								
铸铁 Cast Iron																			
有色金属 Nonferrous Metal						★													
耐热合金 Heat Resistant Alloy																			

★ 首选Preferred ☆ 可选optional

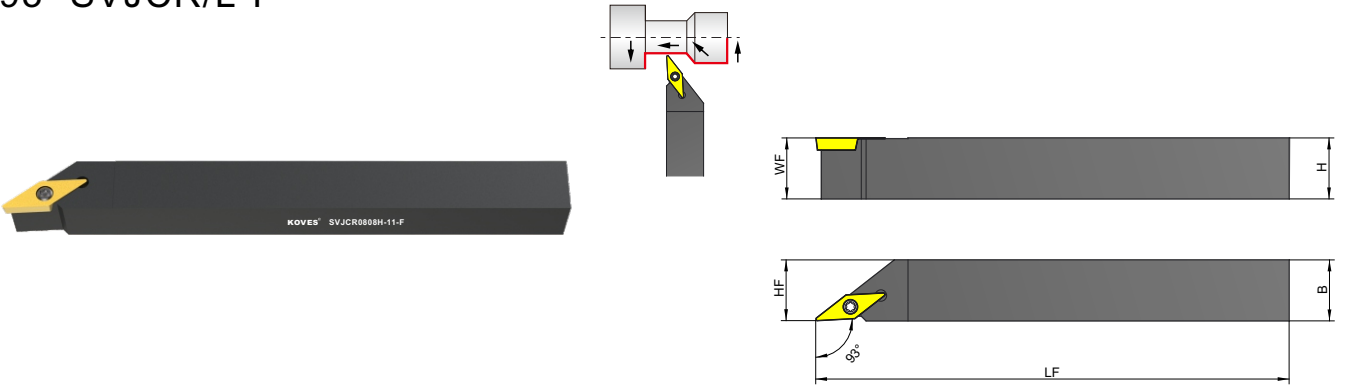
● 标准库存standard stock ○ 订单生产order production

钢 Steel									☆			☆	★					
不锈钢 Stainless Steel										★			★					
铸铁 Cast Iron																		
有色金属 Nonferrous Metal																	★	
耐热合金 Heat Resistant Alloy																		
淬硬钢 Hardened Steel																		

★ 首选Preferred ☆ 可选optional

● 标准库存standard stock ○ 订单生产order production

前车刀杆
93° SVJCR/L-F



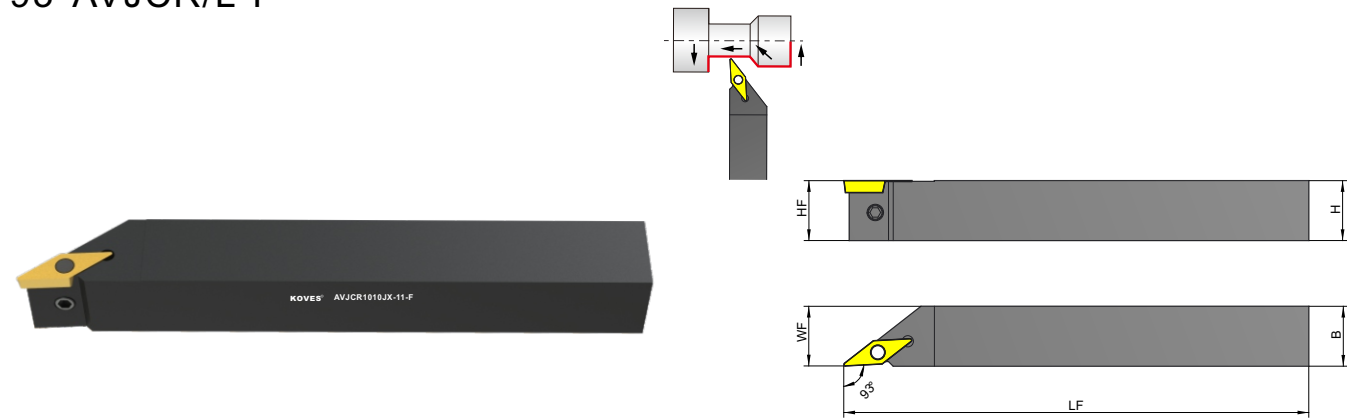
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		尺寸 (mm)							RE	适用刀片 Insert	 螺钉 Screw	 扳手 Wrench
				R	L	H	HF	B	LF	WF		WF2		
SVJCR0808H11F	SVJCL0808H11F	○	○	8	8	8	100	8	0	0.4	VC...1103	M2.5X8	T8	
SVJCR1010K11F	SVJCL1010K11F	○	○	10	10	10	120	10	0	0.4				
SVJCR1212K11F	SVJCL1212K11F	○	○	12	12	12		12	0	0.4				
SVJCR1616K11F	SVJCL1616K11F	○	○	16	16	16		16	0	0.4				
SVJCR2020K11F	SVJCL2020K11F	○	○	20	20	20		20	0	0.4				

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀杆
93° AVJCR/L-F



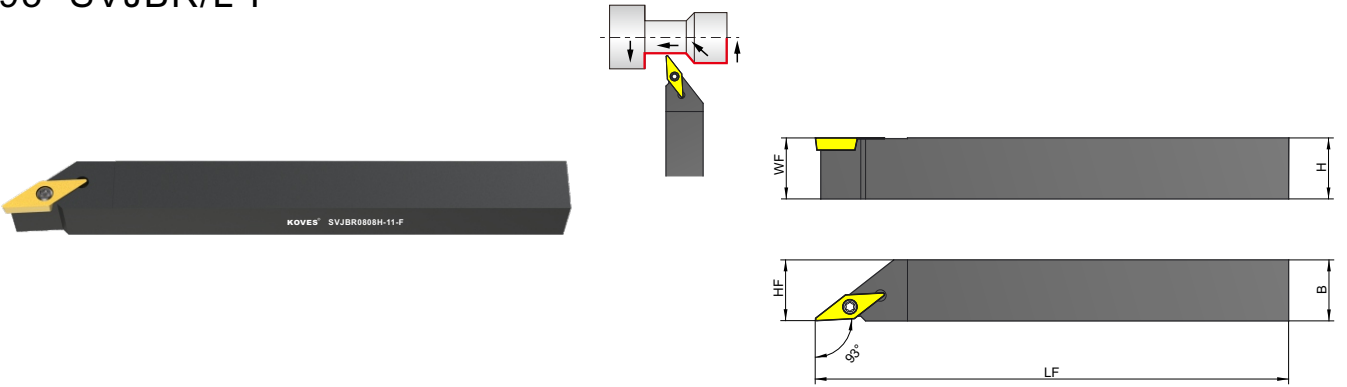
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		适用刀片 Insert	尺寸 (mm)				Pin	螺钉 Screw	扳手 Wrench
					H	B	L	F			
AVJCR1010K11F	AVJCL1010K11F	○	○	VC..1103..	10	10	125	10.5	TP-11	LHW-4	LH-020
AVJCR1212K11F	AVJCL1212K11F	○	○		12	12		12			
AVJCR1616K11F	AVJCL1616K11F	○	○		16	16		16			

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀杆
93° SVJBR/L-F



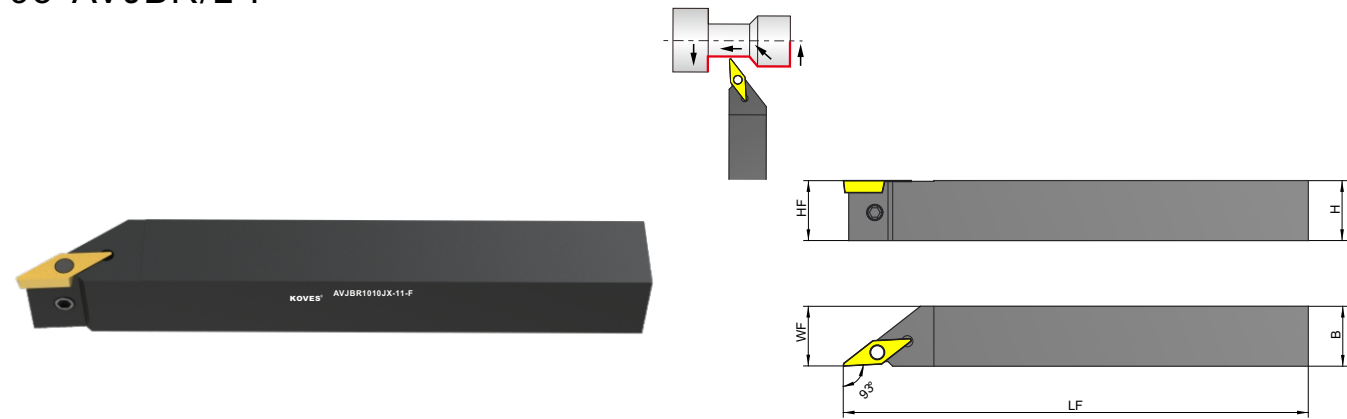
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		尺寸 (mm)							适用刀片 Insert	 螺钉 Screw	 扳手 Wrench
				R	L	H	HF	B	LF	WF			
SVJBR0808H11F	SVJBL0808H11F	○	○	8	8	8	100	8	0	0.4	VB...1103	M2.5X8	T8
SVJBR1010K11F	SVJBL1010K11F	○	○	10	10	10	120	10	0	0.4			
SVJBR1212K11F	SVJBL1212K11F	○	○	12	12	12		12	0	0.4			
SVJBR1616K11F	SVJBL1616K11F	○	○	16	16	16		16	0	0.4			
SVJBR2020K11F	SVJBL2020K11F	○	○	20	20	20		20	0	0.4			

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀杆
93° AVJBR/L-F



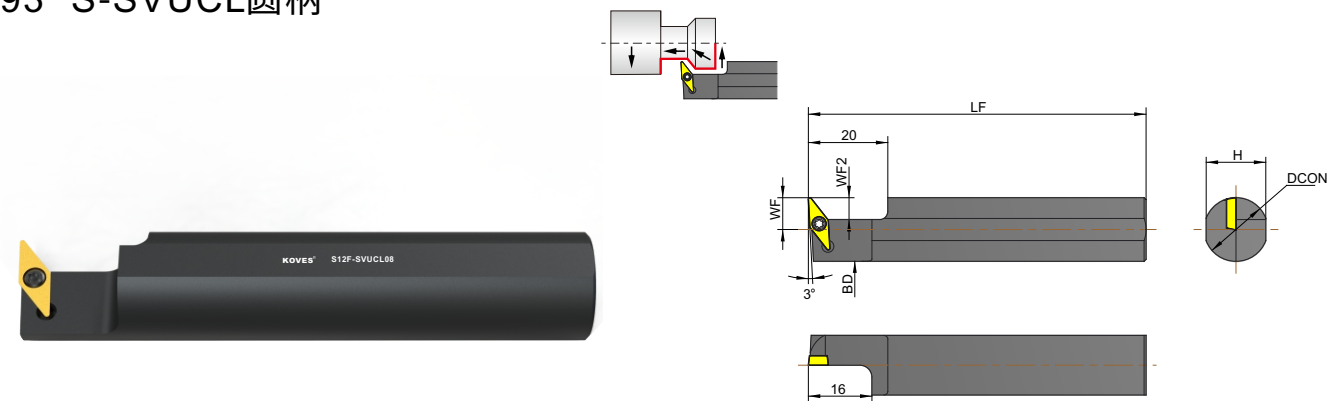
右手刀图例
Legend of right hand knife

型号 Model		库存 Stock		适用刀片 Insert	尺寸 (mm)				Pin	螺钉 Screw	扳手 Wrench
					H	B	L	F			
AVJBR1010K11F	AVJBL1010K11F	○	○	VB..1103..	10	10	125	10.5	TP-11	LHW-4	LH-020
AVJBR1212K11F	AVJBL1212K11F	○	○		12	12		12			
AVJBR1616K11F	AVJBL1616K11F	○	○		16	16		16			

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

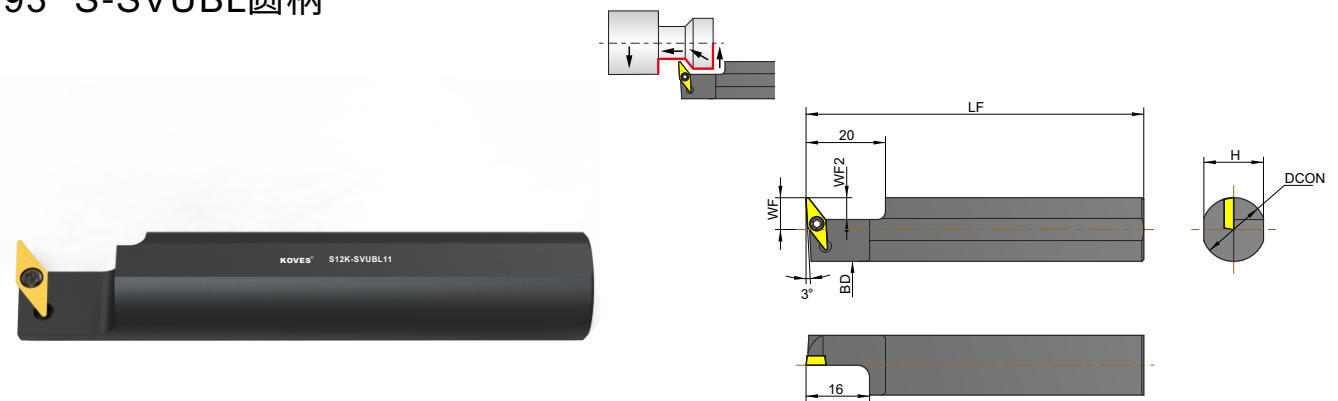
前车刀杆 Front Turning Holder
93° S-SVUCL圆柄



型号 Model	库存 Stock	mm							适用刀片 Insert	螺钉 Screw	扳手 Wrench
		DCON	HF	WF	BO	H	WF2	RE			
S19G-SVUCL11	●	19.05	90	8	18.4	17	8	0.2	VC...1103	M2.5X8	T8
S19K-SVUCL11	●	19.05	120	10.5	18.4	17	8	0.2			
S20G-SVUCL11	●	20	90		19.4	18	8	0.2			
S20K-SVUCL11	●	20	120		19.4	18	8	0.2			
S25.0H-SVUCL11	●	25	100		24.4	23	8	0.2			
S25K-SVUCL11	●	25.4	120		24.8	23	8	0.2			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

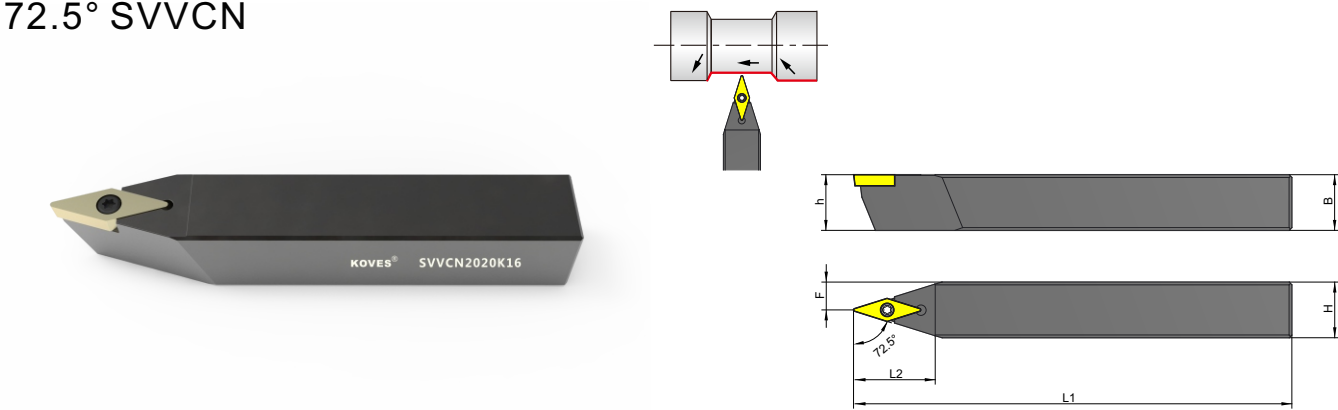
前车刀杆 Front Turning Holder
93° S-SVUBL圆柄



型号 Model	库存 Stock	尺寸(mm)							适用刀片 Insert	螺钉 Screw	扳手 Wrench
		DCON	LF	WF	BO	H	WF2	RE			
S19K-SVUBL11	●	19.05	120	8	18.4	17	8	0.2	VB...1103	M2.5X8	T8
S19K-SVUBL11	●	19.05	120	10.5	18.4	17	8	0.2			
S20K-SVUBL11	●	20	120		19.4	18	8	0.2			
S20K-SVUBL11	●	20	120		19.4	18	8	0.2			
S25K-SVUBL11	●	25	100		24.4	23	8	0.2			
S25.4K-SVUBL11	●	25.4	120		24.8	23	8	0.2			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

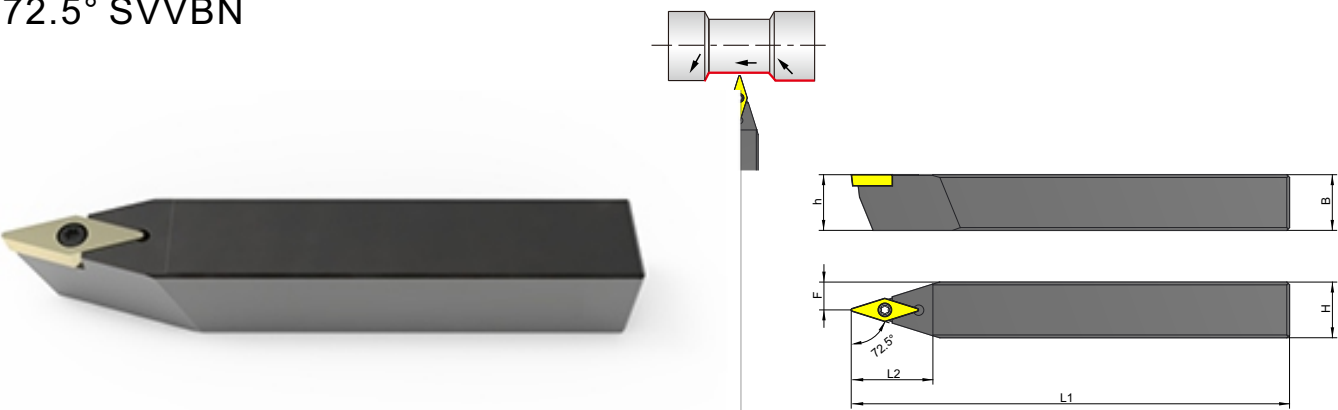
前车刀杆 Front Turning Holder
72.5° SVVCN



型号 Model	库存 Stock	适用刀片 Insert	mm				螺钉 Screw	扳手 Wrench
			H	B	L	F		
SVVCN1010K11	●	VC..1103..	10	10	125	5	M2.5X8	T8
SVVCN1212K11	●		12	12		6		
SVVCN1616K11	●		16	16		8		

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

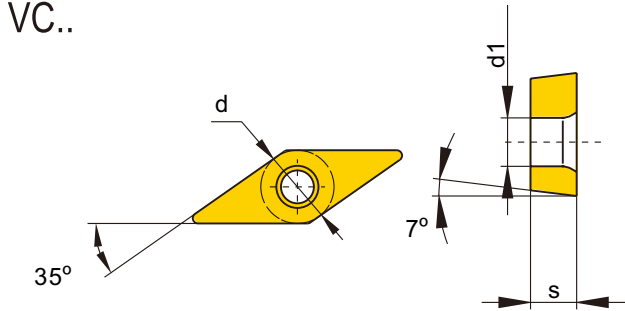
前车刀杆 Front Turning Holder
72.5° SVVBN



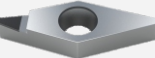
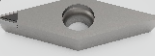
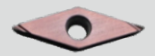
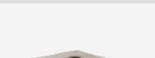
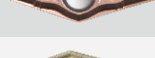
型号 Model	库存 Stock	适用刀片 Insert	尺寸(mm)				螺钉 Screw	扳手 Wrench
			H	B	L	F		
SVVBN0808JX11	●	VB..1103..	08	08	125	4	M2.5X8	T8
SVVBN1010JX11	●		10	10		5		
SVVBN1212JX11	●		12	12		6		
SVVBN1616JX11	●		16	16		8		
SVVBN2020JX11	●		20	20		10		

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

车削刀片(正型)
Turning Inserts (Positive)
VC..



型号 Model	尺寸Size (mm)		
	d	s	d1
VC..1103..	6.35	3.18	2.8

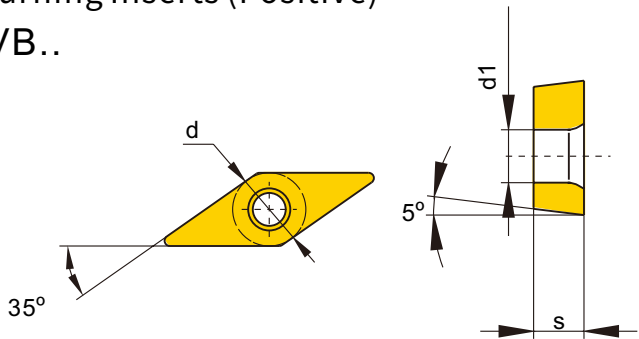
刀片外形 Insert shape		型号 Model	r	进给 fn mm/rev	切深 ap mm	刀片材质及适用加工材料 Insert grades and application													
						KOD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
半精加工 Semi-Finishing		VCMT110302	0.2	0.05-0.16	0.35-2.1						●	●							
		VCMT110304	0.4	0.05-0.16	0.35-2.1						●	●							
		VCMT110308	0.8	0.10-0.32	0.70-2.1						●	●							
半精加工 / 精加工 Semi-finishing/Finishing		VCGT110302APK	0.2	0.02-0.20	0.05-3.0												●	●	
		VCGT110304APK	0.4	0.02-0.20	0.1-4.0													●	●
		VCGT110308APK	0.8	0.03-0.30	0.1-5.0													●	●
金刚石刀片 PCD insert		VCMT110301	0.1	0.10-0.20	0.1-1.0	●													
		VCMT110302	0.2	0.10-0.40	0.1-2.0	●													
		VCMT110304	0.4	0.10-0.60	0.1-3.0	●													
断屑槽金刚石刀片 PCD chip breaker insert		VCMW110304FA	0.4	0.10-0.40	0.1-2.0	●													
		VCMW110308FA	0.8	0.10-0.60	0.1-3.0	●													
立方氮化硼刀片 PCBN insert		2NU-VCGW110302	0.2	0.05-0.20	0.05-1.0		●												
		2NU-VCGW110304	0.4	0.05-0.20	0.05-2.0		●												
		2NU-VCGW110308	0.8	0.05-0.20	0.05-2.0		●												
精加工 Finishing		VCET110301R-F	0.1	0.02-0.08	0.05-1.5							●					●		
		VCET110301L-F	0.1	0.02-0.08	0.05-1.5							●						●	
		VCET110302R-F	0.2	0.03-0.13	0.06-1.7							●						●	
		VCET110302L-F	0.2	0.03-0.13	0.06-1.7							●						●	
		VCET110304R-F	0.4	0.05-0.20	0.08-2.0							●						●	
		VCET110304L-F	0.4	0.05-0.20	0.08-2.0							●						●	
		VCGT110302R-U	0.2	0.03-0.13	0.06-1.7							●						●	
半精加工 / 精加工 Semi-finishing/Finishing		VCGT110302L-U	0.2	0.03-0.13	0.06-1.7						●						●		
		VCGT110304R-U	0.4	0.05-0.15	0.08-2.0						●						●		
		VCGT110304L-U	0.4	0.05-0.15	0.08-2.0						●						●		
半精加工 / 精加工 Semi-finishing/Finishing		VCGT110301SA	0.1	0.02-0.15	0.10-1.4						●						●		
		VCGT110302SA	0.2	0.02-0.15	0.20-1.4						●							●	
		VCGT110304SA	0.4	0.03-0.20	0.20-1.4						●							●	
半精加工 / 精加工 Semi-finishing/Finishing		VCGT110301AM	0.1	0.02-0.15	0.10-1.4						●						●		
		VCGT110302AM	0.2	0.02-0.15	0.20-1.4						●						●		
钢 Steel							☆				☆	☆			☆	★			
不锈钢 Stainless Steel											★				★				
铸铁 Cast Iron																			
有色金属 Nonferrous Metal						★											★	★	
耐热合金 Heat Resistant Alloy																			
淬硬钢 Hardened Steel									★			★			★				

★ 首选Preferred ☆ 可选optional

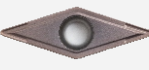
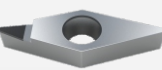
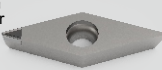
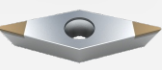
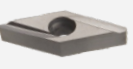
● 标准库存standard stock

○ 订单生产order production

车削刀片(正型)
Turning Inserts (Positive)
VB..



型号 Model	尺寸Size (mm)		
	d	s	d1
VB..1103..	6.35	3.18	2.8

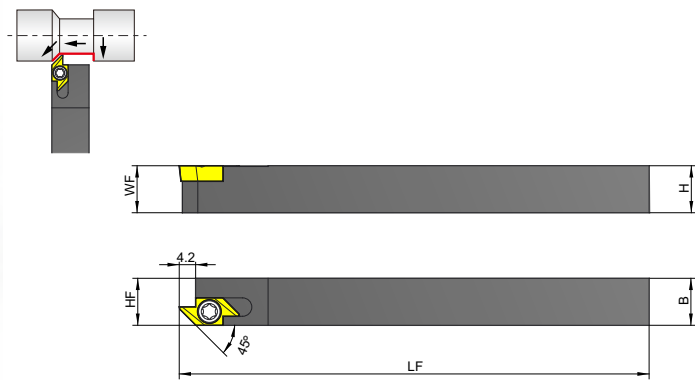
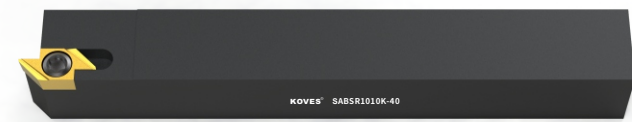
刀片外形 Insert shape		型号 Model	r	进给fn mm/rev	切深ap mm	刀片材质及适用加工材料 Insert grades and application													
						KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
半精加工 Semi-Finishing		VBMT110302	0.2	0.05-0.16	0.35-2.1						●	●							
		VBMT110304	0.4	0.05-0.16	0.35-2.1						●	●							
		VBMT110308	0.8	0.10-0.32	0.70-2.1						●	●							
半精加工 / 精加工 Semi-finishing/Finishing		VBGT110302APK	0.2	0.02-0.20	0.05-3.0												●	●	
		VBGT110304APK	0.4	0.02-0.20	0.1-4.0													●	●
		VBGT110308APK	0.8	0.03-0.30	0.1-5.0													●	●
金刚石刀片 PCD insert		VBMT110301	0.1	0.10-0.20	0.1-1.0	●													
		VBMT110302	0.2	0.10-0.40	0.1-2.0	●													
		VBMT110304	0.4	0.10-0.60	0.1-3.0	●													
断屑槽金刚石刀片 PCD chip breaker insert		VBMW110304FA	0.4	0.10-0.40	0.1-2.0	●													
		VBMW110308FA	0.8	0.10-0.60	0.1-3.0	●													
立方氮化硼刀片 PCBN insert		2NU-VBGW110302	0.2	0.05-0.20	0.05-1.0		●												
		2NU-VBGW110304	0.4	0.05-0.20	0.05-2.0		●												
		2NU-VBGW110308	0.8	0.05-0.20	0.05-2.0		●												
精加工 Finishing		VBET110301R-F	0.1	0.02-0.08	0.05-1.5							●				●			
		VBET110301L-F	0.1	0.02-0.08	0.05-1.5							●				●			
		VBET110302R-F	0.2	0.03-0.13	0.06-1.7							●				●			
		VBET110302L-F	0.2	0.03-0.13	0.06-1.7							●				●			
		VBET110304R-F	0.4	0.05-0.20	0.08-2.0							●				●			
		VBET110304L-F	0.4	0.05-0.20	0.08-2.0							●				●			
		VBGT110302R-U	0.2	0.03-0.13	0.06-1.7							●				●	●		
半精加工 / 精加工 Semi-finishing/Finishing		VBGT110302L-U	0.2	0.03-0.13	0.06-1.7						●			●	●				
		VBGT110304R-U	0.4	0.05-0.15	0.08-2.0						●			●	●				
		VBGT110304L-U	0.4	0.05-0.15	0.08-2.0						●			●	●				
半精加工 / 精加工 Semi-finishing/Finishing		VBGT110301SA	0.1	0.02-0.15	0.10-1.4						●				●				
		VBGT110302SA	0.2	0.02-0.15	0.20-1.4						●				●				
		VBGT110304SA	0.4	0.03-0.20	0.20-1.4						●				●				
半精加工 / 精加工 Semi-finishing/Finishing		VBGT110301AM	0.1	0.02-0.15	0.10-1.4						●				●				
		VBGT110302AM	0.2	0.02-0.15	0.20-1.4						●				●				
钢 Steel							☆				☆	☆			☆	★			
不锈钢 Stainless Steel												★			★				
铸铁 Cast Iron																			
有色金属 Nonferrous Metal						★											★	★	
耐热合金 Heat Resistant Alloy																			
淬硬钢 Hardened Steel										★		★				★			

★ 首选Preferred ☆ 可选optional

● 标准库存standard stock

○ 订单生产order production

后车加工 Backing Turning Holder
SABS-40F

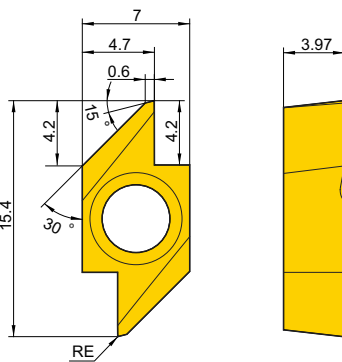
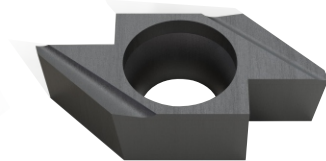


型号 Model	库存 Stock	尺寸(mm)						适用刀片	螺钉 Screw	扳手 Wrench
		H	HF	B	LF	WF2	RE			
SABSR0808K-40F	●	08	08	08	120	8.2	0.15	ABS15R4005M ABS15R4015M	M3.0X8	T10
SABSR1010K-40F	●	10	10	10	120	10.2	0.15			
SABSR1212K-40F	●	12	12	12	120	12.2	0.15			
SABSR1616K-40F	●	16	16	16	120	16.2	0.15			
SABSR2020K-40F	●	20	20	20	120	20.2	0.15			

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

后车刀片 Back Turning inserts
ABS15R40..

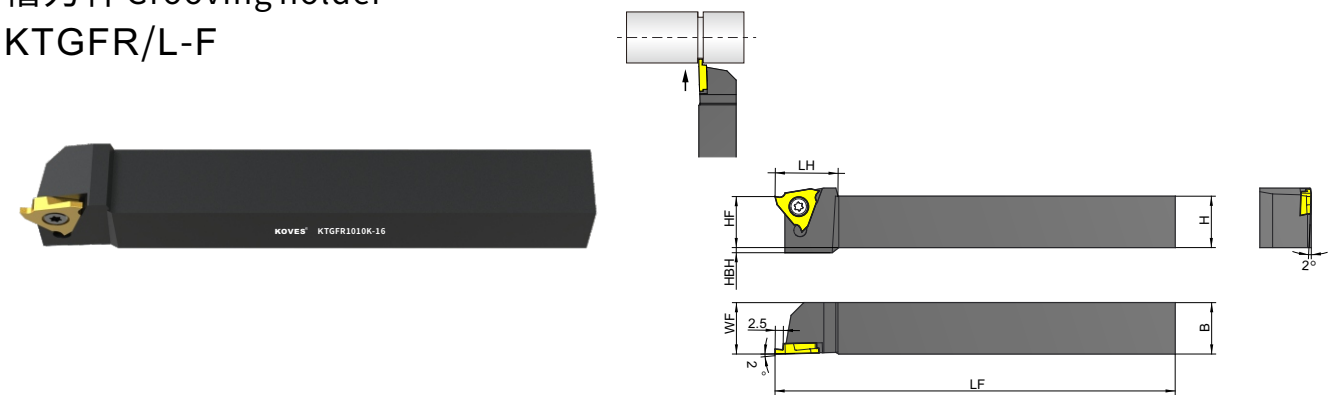


刀片外形 Insert shape	型号 Model	r	进给fn mm/rev	切深ap mm	刀片材质及适用加工材料 Insert grades and application									
					KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110
	ABS15R4005	0.05	0.03-0.10	0.05-4.0						●	●			
	ABS15R4015	0.15	0.03-0.10	0.05-4.0						●	●			
	ABS15R4005M	<0.05	0.03-0.10	0.05-4.0						●	●			
	ABS15R4015M	<0.15	0.03-0.10	0.05-4.0						●	●			
钢 Steel					☆ ☆									
不锈钢 Stainless Steel					★									
铸铁 Cast Iron														
有色金属 Nonferrous Metal														
耐热合金 Heat Resistant Alloy														
淬硬钢 Hardened Steel					★									

★ 首选Preferred ☆ 可选optional

●标准库存standard stock ○订单生产order production

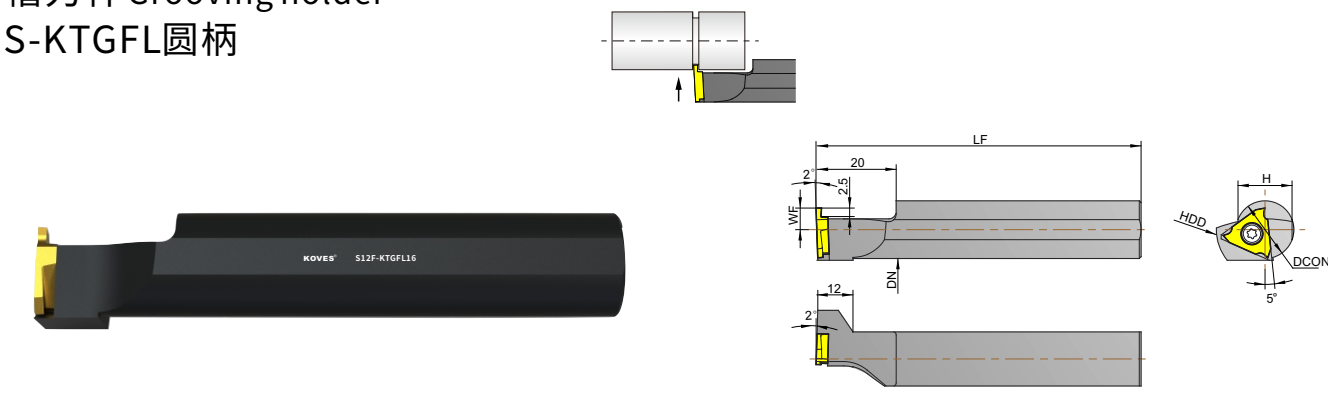
槽刀杆 Grooving holder
KTGFR/L-F



型号 Model		库存 Stock		尺寸 (mm)							适用刀片 Insert 螺钉 Screw 扳手 Wrench		
				R	L	H	HBH	HF	B	LF	LH	WF	
KTGFR1010K-16F	KTGFL1010K-16F	●	●	10	2	10	10	120	18.5	10	TGF32R/L...	M4.0X7	T8
KTGFR1212K-16F	KTGFL1212K-16F	●	●	12	-	12	12	120	18.5	12			
KTGFR1616K-16F	KTGFL1616K-16F	●	●	16	-	16	16	120	18.5	16			
KTGFR2020K-16F	KTGFL2020K-16F	●	●	20	-	20	20	120	18.5	20			
KTGFR2525M-16F	KTGFL2525M-16F	●	●	25		25	25	150	18.5	25			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

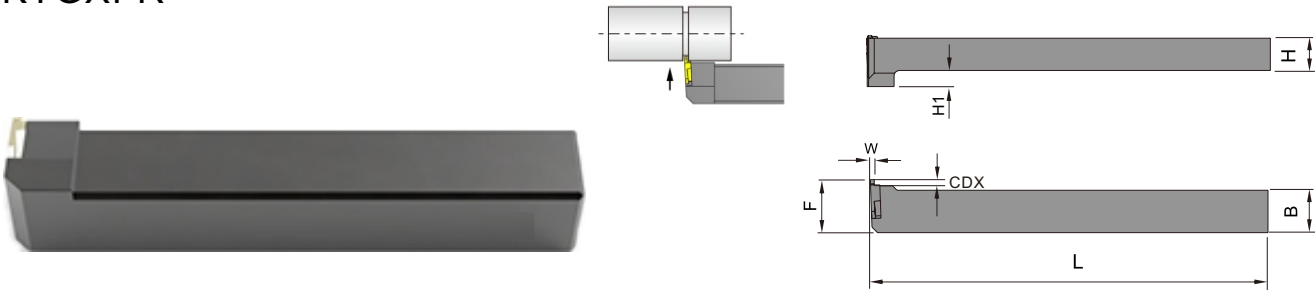
槽刀杆 Grooving holder
S-KTGFL圆柄



型号 Model		库存 Stock	尺寸 (mm)							适用刀片 Insert	螺钉 Screw	扳手 Wrench
			DCON	LF	WF	DN	HDD	H				
S12F-KTGFL16		●	12	80	6	11.0	27	11		TGF32R/L...	M4.0X7	T10
S14H-KTGFL16		●	14	100	6	13.0	27	13				
S15F-KTGFL16		●	15.875	85	6	14.6	27	15				
S16F-KTGFL16		●	16	85	6	14.6	27	15				
S19G-KTGFL16		●	19	90	6	17.6	27	17				
S19.05K-KTGFL16		●	19.05	125	6	17.6	27	17				
S20K-KTGFL16		●	20	125	6	18.6	27	18				
S22K-KTGFL16		●	22	125	6	18.6	27	18				
S25.0K-KTGFL16		●	25	125	10	23.6	37	23				
S25.4K-KTGFL16		●	25.4	125	10	23.6	37	23				

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

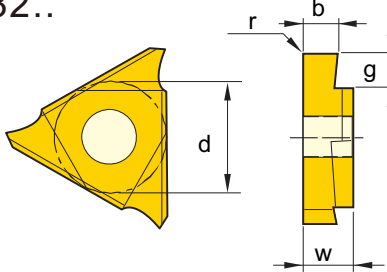
槽刀杆 Grooving holder
KTGXFR



型号 Model		库存 Stock	尺寸 (mm)							适用刀片 Insert	螺钉 Screw	扳手 Wrench
			W	H H1	B	L	f	CDX				
B-KTGFXR1010K-16		●	0.33-2.5	10	10	125	18	3		TGF32R/L...	M4.0X8	T15
B-KTGFXR1212K-16		●	0.33-2.5	12	12	125	18	3				
B-KTGFXR1616K-16		●	0.33-2.5	16	16	125	20	3				
B-KTGFXR2020K-16		●	0.33-2.5	20	20	125	24	3				
B-KTGFXR2525M-16		●	0.33-2.5	25	25	150	29	3				

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

切槽刀片 Grooving inserts
TGF32..



型号 Model	尺寸 Size (mm)		
	d	s	d1
TGF32..	9.525	3.18	4.6

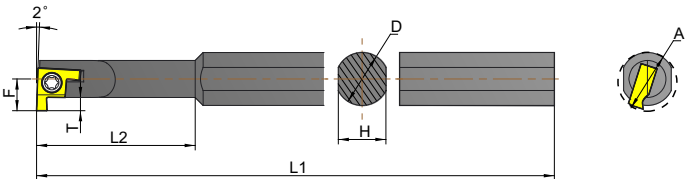
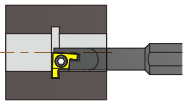
刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades			KTX	KVX	KW20
		W	B	R			
	TGF32R033	0.33	0.8	0.05	●	●	●
	TGF32R050	0.50	1.2	0.05	●	●	●
	TGF32R075	0.75	2.0	0.1	●	●	●
	TGF32R095	0.95	2.0	0.1	●	●	●
	TGF32R100	1.00	2.0	0.1	●	●	●
	TGF32R120	1.20	2.0	0.1	●	●	●
	TGF32R125	1.25	2.0	0.1	●	●	●
	TGF32R150	1.50	2.0	0.1	●	●	●
	TGF32R175	1.75	2.0	0.1	●	●	●
	TGF32R200	2.00	2.5	0.1	●	●	●
	TGF32R250	2.50	2.5	0.1	●	●	●
	TGF32L033	0.33	0.8	0.05			
	TGF32L050	0.50	1.2	0.05			
	TGF32L075	0.75	2.0	0.1			
	TGF32L095	0.95	2.0	0.1			
	TGF32L100	1.00	2.0	0.1			
	TGF32L120	1.20	2.0	0.1			
	TGF32L125	1.25	2.0	0.1			
	TGF32L150	1.50	2.0	0.1			
	TGF32L175	1.75	2.0	0.1			
	TGF32L200	2.00	2.5	0.1			
	TGF32L250	2.50	2.5	0.1			
钢 Steel					★	★	
不锈钢 Stainless Steel						★	
铸铁 Cast Iron					☆	☆	
有色金属 Nonferrous Metal							★
耐热合金 Heat Resistant Alloy						☆	
淬硬钢 Hardened Steel							

★ 首选 Preferred ☆ 可选 optional ● 标准库存 standard stock ○ 订单生产 order production

推荐切削条件表
Recommended Cutting Conditions

工件材料 Workpiece Materials		加工形式	切削速度推荐值Vc(m/min) Recommended Cutting Speed			切削速度推荐值f(mm/rev) Recommended Cutting Speed					
			KTX	KVX	KW20	0.33-0.50	0.75-0.95	1.00-1.45	1.50-2.50		
						f(mm/rev)	f(mm/rev)	f(mm/rev)	f(mm/rev)		
P	钢 Steel	切槽加工		80-180		0.01-0.05	0.02-0.07	0.03-0.08	0.03-0.08		
		横向加工		80-180				0.03-0.06	0.03-0.06		
M	不锈钢 Stainless Steel	切槽加工		60-130		0.01-0.04	0.2-0.06	0.03-0.07	0.03-0.07		
		横向加工		60-130				0.02-0.05	0.02-0.05		
K	铸铁 Cast iron	切槽加工			60-100	0.01-0.05	0.02-0.07	0.03-0.08	0.03-0.08		
		横向加工			60-100			0.03-0.06	0.03-0.06		
N	有色金属 Nonferrous metal	切槽加工			150-400	0.01-0.04	0.02-0.06	0.03-0.08	0.03-0.08		
		横向加工			150-400			0.03-0.06	0.03-0.06		

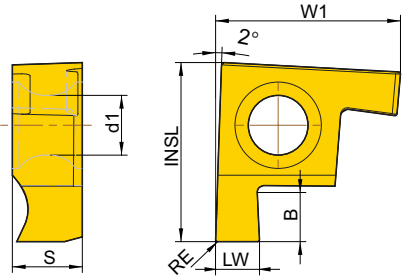
槽刀杆
Grooving holder
SIGER/L



型号 Model		库存 Stock		最小 加工径	尺寸 Size (mm)							 夹持螺钉 Clamping Screw	 扳手 Wrench	适用刀片 Apply to the blade	
		R	L	φA	φD	H	L1	L2	F	T	φd				
SIGER%	0808A-EH	●	●	8	8	7.2	100	20	4.8	1.5	3	M2.0X4.5	T6	-	GER100-050AR-GER200-100AR GE100-005A-GER200-010A
	1010B-EH	●	●	10	10	9	125	20	6.2	22	3	M2.2X5.5	-	DT-7	GE100-005B-GE1300-020B GER100-050BR-GER200-100BR
	1210B-EH	●	●	12	10	9	125	25	7	22	3				
	1212B-EH	●	●	12	12		125								
	1412C-EH	●	●	14	12	11.4	150	33	8	2.5	4	M2.5X7.0	T8	-	GE100-005C-GE1350-020C GER150-010CM-GER350-020M GER200-100CR-GER300-150CR
	1612C-EH	●	●	16	12	11.4	150	20	8.5	2.5	4				
	1616C-EH	●	●	16	16	15	160	36	9	2.5	5				
	2020D-EH	●	●	20	20	19	180		12.1	4.5	5	M3.0X8.0	T10	-	GE100-005D-GE1400-020D GER150-010DM-GER400-020M GER200-100DR-GER300-150DR
	2525E-EH	●	●	25	25	24	200	45	15.6	6.5	5	M4.0X8.5	T15	-	GE100-005E-GE1500-020E GER150-010EM-GER500-020EM

* 刀片需单独订购。Blades to be ordered separately. ● 标准库存 standard inventory ○ 订单生产 The order production

切槽刀片
Grooving inserts



型号 Model	尺寸 Size (mm)			
	W1	INSL	s	d1
GER/L...A	6.69	6.5	2.58	2.58
GER...-AR	6.69	6.5	2.58	2.58

GER/L...A

刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades					
		LW	B	RE	KTX	KVX	KW20
	GER100-005A	1.00	1.5	0.05		●	●
	GER120-005A	1.20	1.5	0.05		●	●
	GER125-005A	1.25	1.5	0.05		●	●
	GER150-010A	1.50	1.5	0.1		●	●
	GER200-010A	2.00	1.5	0.1		●	●
	GEL100-005A	1.00	1.5	0.05		●	●
	GEL120-005A	1.20	1.5	0.05		●	●
	GEL125-005A	1.25	1.5	0.05		●	●
	GEL150-010A	1.50	1.5	0.1		●	●
	GEL200-010A	2.00	1.5	0.1		●	●
	GER100-050AR	1.00	1.5	0.5		●	●
	GER200-100AR	2.00	1.5	1.0		●	●
钢 Steel					★	★	
不锈钢 Stainless Steel						★	
铸铁 Cast Iron					☆	☆	
有色金属 Nonferrous Metal							★
耐热合金 Heat Resistant Alloy						☆	
淬硬钢 Hardened Steel							

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

GER/L...B

刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades					
		LW	B	RE	KTX	KVX	KW20
	GE%125-005B	1.25	2.2	0.1		●	●
	GE%145-010B	1.45	2.2	0.1		●	●
	GE%150-010B	1.50	2.2	0.1		●	●
	GE%200-010B	2.00	2.2	0.5		●	●
	GE%250-020B	2.50	2.2	0.5		●	●
	GE%300-020B	3.00	2.2	0.2		●	●
	GER100-050BR	1.00	2.2	0.5		●	●
	GER200-100BR	2.00	2.2	1.0		●	●
钢 Steel					★	★	
不锈钢 Stainless Steel						★	
铸铁 Cast Iron					☆	☆	
有色金属 Nonferrous Metal							★
耐热合金 Heat Resistant Alloy						☆	
淬硬钢 Hardened Steel							

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

GER/L...C

刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades					
		LW	B	RE	KTX	KVX	KW20
	GE%150-010C	1.50	2.5	0.1		●	●
	GE%170-010C	1.70	2.5	0.1		●	●
	GE%185-010C	1.85	2.5	0.1		●	●
	GE%195-010C	1.95	2.5	0.1		●	●
	GE%200-010C	2.00	2.5	0.2		●	●
	GE%250-020C	2.50	2.5	0.2		●	●
	GE%300-020C	3.00	2.5	0.2		●	●
	GER200-100CR	2.00	2.5	1.0		●	●
	GER250-125CR	2.50	2.5	1.25		●	●
	GER300-150CR	3.00	2.5	1.5		●	●
钢 Steel					★	★	
不锈钢 Stainless Steel						★	
铸铁 Cast Iron					☆	☆	
有色金属 Nonferrous Metal							★
耐热合金 Heat Resistant Alloy						☆	
淬硬钢 Hardened Steel							

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

GER/L...D

刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades					
		LW	B	RE	KTX	KVX	KW20
	GE%195-010D	1.95	3.2	0.10		●	●
	GE%200-010D	2.00	3.2	0.10		●	●
	GE%225-010D	2.25	3.2	0.10		●	●
	GE%230-020D	2.30	3.2	0.20		●	●
	GE%250-020D	2.50	3.2	0.20		●	●
	GE%275-020D	2.75	3.2	0.20		●	●
	GE%280-020D	2.80	3.2	0.20		●	●
	GER200-100DR	2.00	3.2	1.0		●	●
	GER300-150DR	3.00	4.5	1.5		●	●
钢 Steel					★	★	
不锈钢 Stainless Steel						★	
铸铁 Cast Iron					☆	☆	
有色金属 Nonferrous Metal							★
耐热合金 Heat Resistant Alloy						☆	
淬硬钢 Hardened Steel							

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

GER/L...E

刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades					
		LW	B	RE	KTX	KVX	KW20
	GE%200-010E	2.00	3.2	0.1		●	●
	GE%225-010E	2.25	3.2	0.1		●	●
	GE%230-020E	2.30	3.2	0.1		●	●
	GE%250-020E	2.50	4.5	0.2		●	●
	GE%275-020E	2.75	4.5	0.2		●	●
	GE%280-020E	2.80	4.5	0.2		●	●
	GE%300-020E	3.00	4.5	0.2		●	●
	GE%330-020E	3.30	4.5	0.2		●	●
	GE%350-020E	3.50	5.5	0.2		●	●
	GE%400-020E	4.00	5.5	0.2		●	●
	GE%430-020E	4.30	5.5	0.2		●	●
	GE%450-020E	4.50	6.5	0.2		●	●
	GE%460-020E	4.60	6.5	0.2		●	●
钢 Steel					★	★	
不锈钢 Stainless Steel						★	
铸铁 Cast Iron					☆	☆	
有色金属 Nonferrous Metal							★
耐热合金 Heat Resistant Alloy						☆	
淬硬钢 Hardened Steel							

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

多功能加工系列

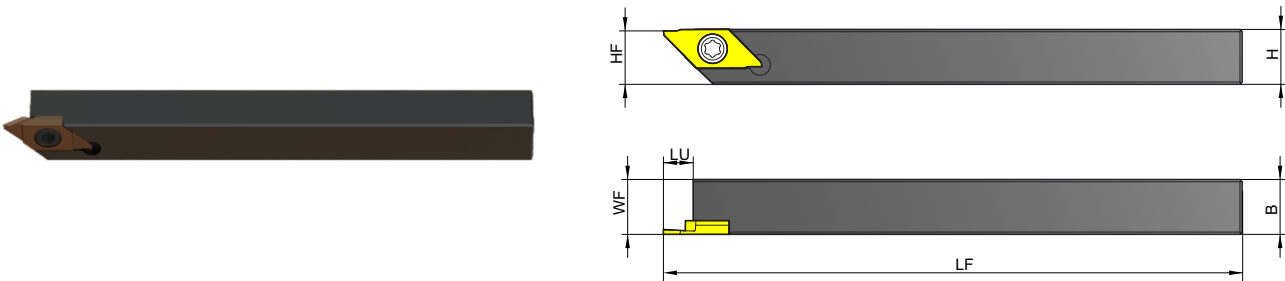
Multi function Processing Series



① 立式刀片装夹
大幅提升刚性
Vertical inserts clamping
significantly improves rigidity

② 最大切深达5MM
小刀片也有大用途
Maximum cutting depth of 5MM
Small inserts also have great uses

多功能刀杆 Turning Holder KTP10R/L

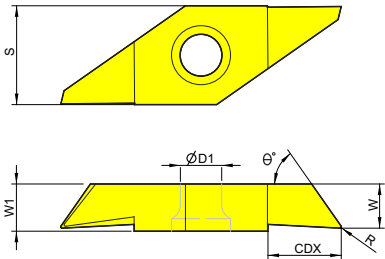


型号 Model		库存 Stock		尺寸 (mm)						适用刀片 Insert	 螺钉 Screw	 扳手 Wrench
				H	B	HF	WF	LF	LU			
KTP10R08JX	KTP10L08JX	●	●	8	8	8	8	120	5	KTP10..	M2.5X5.0	T08
KTP10R10JX	KTP10L10JX	●	●	10	10	10	10	120	5			
KTP10R12JX	KTP10L12JX	●	●	12	12	12	12	120	5			
KTP10R16JX	KTP10L16JX	●	●	16	16	16	16	120	5			
KTP10R20M	KTP10L20M	●	●	20	20	20	20	150	5			

*刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

前车刀片 Front Turning inserts KTP10..FQ

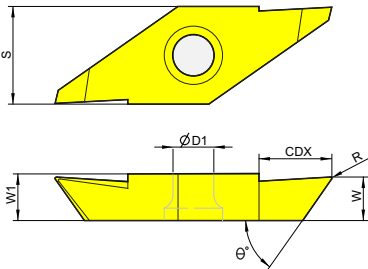


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		W	R	CDX	W1	S	D1	θ°	KTX	KVX	KW20
	KTP10R/L000FQ-35	3.0	0.00	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L003FQ-35	3.0	0.03	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L005FQ-35	3.0	0.05	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L010FQ-35	3.0	0.10	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L015FQ-35	3.0	0.15	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L020FQ-35	3.0	0.20	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L040FQ-35	3.0	0.40	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L080FQ-35	3.0	0.80	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L000FQ-55	3.0	0.00	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L003FQ-55	3.0	0.03	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L005FQ-55	3.0	0.05	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L010FQ-55	3.0	0.10	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L015FQ-55	3.0	0.15	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L020FQ-55	3.0	0.20	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L040FQ-55	3.0	0.40	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L080FQ-55	3.0	0.80	3.6	3.2	6.7	2.8	55	●	●	●
	钢 Steel								★	★	
	不锈钢 Stainless Steel									★	
	铸铁 Cast Iron								☆	☆	
	有色金属 Nonferrous Metal										★
	耐热合金 Heat Resistant Alloy									☆	
	淬硬钢 Hardened Steel										

★ 首选Preferred ☆ 可选optional

● 标准库存standard stock ○ 订单生产order production

后车刀片 Back Turning inserts KTP10..FB

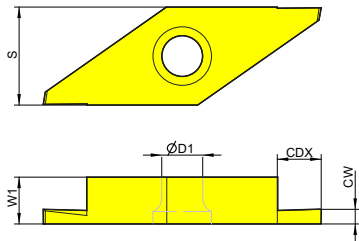


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		W	R	CDX	W1	S	D1	θ°	KTX	KVX	KW20
	KTP10R/L000FB-35	3.0	0.00	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L003FB-35	3.0	0.03	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L005FB-35	3.0	0.05	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L010FB-35	3.0	0.10	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L015FB-35	3.0	0.15	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L020FB-35	3.0	0.20	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L040FB-35	3.0	0.40	3.6	3.2	6.7	2.8	35	●	●	●
	KTP10R/L000FB-55	3.0	0.00	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L003FB-55	3.0	0.03	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L005FB-55	3.0	0.05	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L010FB-55	3.0	0.10	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L015FB-55	3.0	0.15	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L020FB-55	3.0	0.20	3.6	3.2	6.7	2.8	55	●	●	●
	KTP10R/L040FB-55	3.0	0.40	3.6	3.2	6.7	2.8	55	●	●	●
	钢 Steel								★	★	
	不锈钢 Stainless Steel									★	
	铸铁 Cast Iron								☆	☆	
	有色金属 Nonferrous Metal										★
	耐热合金 Heat Resistant Alloy									☆	
	淬硬钢 Hardened Steel										

★ 首选Preferred ☆ 可选optional

● 标准库存standard stock ○ 订单生产order production

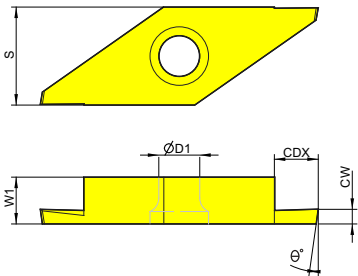
切槽刀片
Grooving inserts
KTP10..FN

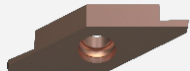
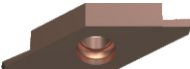


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades							
		CW	CDX	W1	S	D1	KTX	KVX	KW20
	KTP10R/L020FN-0.5L	0.20	0.5	3.2	6.7	2.8	●	●	●
	KTP10R/L025FN-1L	0.25	1.0	3.2	6.7	2.8	●	●	●
	KTP10R/L030FN-2L	0.30	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L035FN-2L	0.35	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L040FN-2L	0.40	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L045FN-2L	0.45	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L050FN-2L	0.50	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L055FN-2L	0.55	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L060FN-2L	0.60	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L065FN-2L	0.65	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L070FN-2L	0.70	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L075FN-2L	0.75	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L080FN-3L	0.80	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L085FN-3L	0.85	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L090FN-3L	0.90	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L100FN-3L	1.00	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L110FN-3L	1.10	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L120FN-4L	1.20	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L150FN-4L	1.50	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L175FN-4L	1.75	4.0	3.2	6.7	2.8	●	●	●
 刃长加长型 Long flutes type	KTP10R/L200FN-4L	2.00	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L025FN-2L	0.25	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L030FN-2L	0.30	2.0	3.2	6.7	2.8	●	●	●
	KTP10R/L035FN-3L	0.35	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L040FN-3L	0.40	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L045FN-3L	0.45	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L050FN-3L	0.50	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L055FN-3L	0.55	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L060FN-3L	0.60	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L065FN-3L	0.65	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L070FN-3L	0.70	3.0	3.2	6.7	2.8	●	●	●
	KTP10R/L075FN-4L	0.75	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L080FN-4L	0.80	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L085FN-4L	0.85	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L090FN-4L	0.90	4.0	3.2	6.7	2.8	●	●	●
	KTP10R/L100FN-5L	1.00	5.0	3.2	6.7	2.8	●	●	●
	KTP10R/L110FN-5L	1.10	5.0	3.2	6.7	2.8	●	●	●
	KTP10R/L120FN-5L	1.20	5.0	3.2	6.7	2.8	●	●	●
	KTP10R/L150FN-5L	1.50	5.0	3.2	6.7	2.8	●	●	●
	KTP10R/L175FN-5L	1.75	5.0	3.2	6.7	2.8	●	●	●
	KTP10R/L200FN-5L	2.00	5.0	3.2	6.7	2.8	●	●	●
钢 Steel									★
不锈钢 Stainless Steel									★
铸铁 Cast Iron									☆
有色金属 Nonferrous Metal									★
耐热合金 Heat Resistant Alloy									☆
淬硬钢 Hardened Steel									☆

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

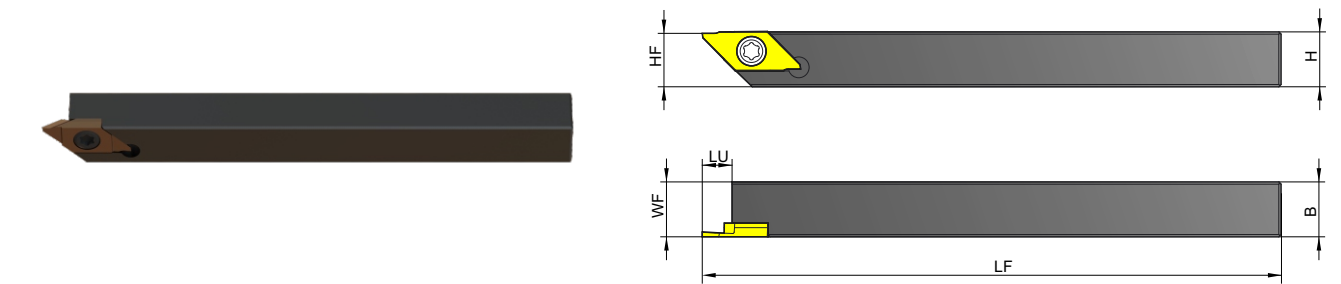
切断刀片
Parting off inserts
KTP10..FA



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades								
		CW	CDX	W1	S	D1	θ°	KTX	KVX	KW20
	KTP10R/L050-8D-FA	0.5	1.5	3.2	6.7	2.8	8	●	●	●
	KTP10R/L070-8D-FA	0.7	2.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L080-8D-FA	0.8	2.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-100-8D-FA	1.0	3.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-120-8D-FA	1.2	4.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-130-8D-FA	1.3	4.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-150-8D-FA	1.5	5.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-200-8D-FA	2.0	5.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-050-15D-FA	0.5	4.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-070-15D-FA	0.7	4.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-080-15D-FA	0.8	5.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-100-15D-FA	1.0	5.0	3.2	6.7	2.8	8	●	●	●
	KTP10R/L-120-15D-FA	1.2	1.5	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-130-15D-FA	1.3	2.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-150-15D-FA	1.5	2.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-200-15D-FA	2.0	3.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-050-20D-FA	0.5	4.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-070-20D-FA	0.7	4.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-080-20D-FA	0.8	5.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-100-20D-FA	1.0	5.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-120-20D-FA	1.2	4.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-130-20D-FA	1.3	4.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-150-20D-FA	1.5	5.0	3.2	6.7	2.8	15	●	●	●
	KTP10R/L-200-20D-FA	2.0	5.0	3.2	6.7	2.8	15	●	●	●
刃长加长型Long flutes type	KTP10R/L-080-8D-4L-FA	0.8	4.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-100-8D-5L-FA	1.0	5.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-120-8D-5L-FA	1.2	5.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-150-8D-5L-FA	1.5	5.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-200-8D-5L-FA	2.0	5.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-080-15D-4L-FA	0.8	4.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-100-15D-5L-FA	1.0	5.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-120-15D-5L-FA	1.2	5.0	3.2	6.7	2.8	20	●	●	●
刃长加长型Long flutes type	KTP10R/L-150-15D-5L-FA	1.5	5.0	3.2	6.7	2.8	20	●	●	●
	KTP10R/L-200-15D-5L-FA	2.0	5.0	3.2	6.7	2.8	20	●	●	●
	钢 Steel							★	★	
	不锈钢 Stainless Steel								★	
铸铁 Cast Iron								☆	☆	
有色金属 Nonferrous Metal										★
耐热合金 Heat Resistant Alloy									☆	
淬硬钢 Hardened Steel										

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

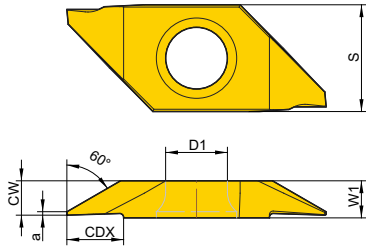
多功能刀杆 Turning Holder
KTP12R/L



型号 Model		库存 Stock		尺寸(mm)						适用刀片 Insert	 螺钉 Screw	 扳手 Wrench
				H	B	HF	WF	LF	LU			
KTP12R10JX	KTP12L10JX	●	●	10	10	10	10	120	6	KTP12..	M4.5X5.0	T20
KTP12R12JX	KTP12L12JX	●	●	12	12	12	12	120	6			
KTP12R16JX	KTP12L16JX	●	●	16	16	16	16	120	6			
KTP12R20JX	KTP12L20JX	●	●	20	20	20	20	120	6			
KTP12R25M	KTP12L25M	●	●	25	25	25	25	150	6			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

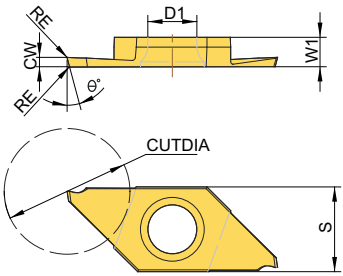
前车刀片
Front Turning inserts
KTP12..FQ



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		a	CW	CDX	W1	S	D1	θ°	KTX	KVX	KW20
	KTP12R/L05FQ	0.5	2.8	4.6	3.0	8.7	5	60	●	●	●
	KTP12R/L10FQ	1.0	2.8	4.6	3.0	8.7	5	60	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★首选Preferred ☆可选optional ●标准库存standard stock ○订单生产order production

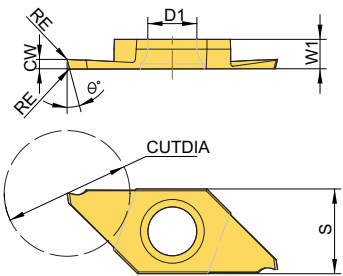
切断刀片
Parting off inserts
KTP12..FA



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		CW	CUTDIA	W1	RE	S	D1	θ°	KTX	KVX	KW20
	KTP12R/L050FA	0.5	5.0	3.0	0.05	8.7	5	16	●	●	●
	KTP12R/L070FA	0.7	8.0	3.0	0.05	8.7	5	16	●	●	●
	KTP12R/L100FA	1.0	12	3.0	0.05	8.7	5	16	●	●	●
	KTP12R/L125FA	1.25	12	3.0	0.05	8.7	5	16	●	●	●
	KTP12R/L150FA	1.5	12	3.0	0.05	8.7	5	16	●	●	●
	KTP12R/L200FA	2.0	12	3.0	0.05	8.7	5	16	●	●	●
	KTP12R/L250FA	2.5	12	3.0	0.05	8.7	5	16	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★首选Preferred ☆可选optional ●标准库存standard stock ○订单生产order production

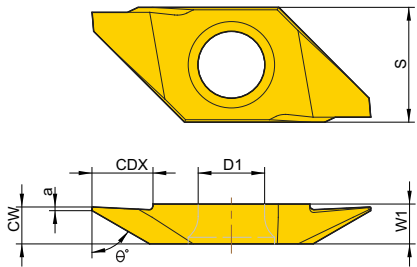
切槽刀片
Grooving inserts
KTP12..FN



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		CW	CUTDIA	W1	RE	S	D1	θ°	KTX	KVX	KW20
	KTP12R/L050FN	0.5	5.0	3.0	0.05	8.7	5	0	●	●	●
	KTP12R/L070FN	0.7	8.0	3.0	0.05	8.7	5	0	●	●	●
	KTP12R/L100FN	1.0	12	3.0	0.05	8.7	5	0	●	●	●
	KTP12R/L125FN	1.25	12	3.0	0.05	8.7	5	0	●	●	●
	KTP12R/L150FN	1.5	12	3.0	0.05	8.7	5	0	●	●	●
	KTP12R/L200FN	2.0	12	3.0	0.05	8.7	5	0	●	●	●
	KTP12R/L250FN	2.5	12	3.0	0.05	8.7	5	0	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★首选Preferred ☆可选optional ●标准库存standard stock ○订单生产order production

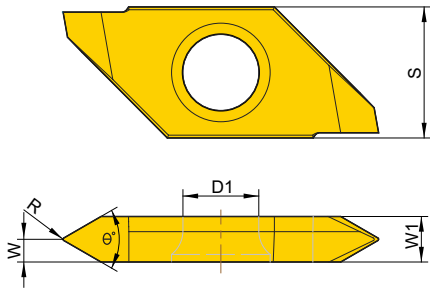
后车刀片
Back Turning inserts
KTP12..FB



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		a	CW	CDX	W1	S	D1	θ°	KTX	KVX	KW20
	KTP12R/L05FB	0.5	2.8	4.6	3.0	8.7	5	60	●	●	●
	KTP12R/L10FB	1.0	2.8	4.6	3.0	8.7	5	60	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

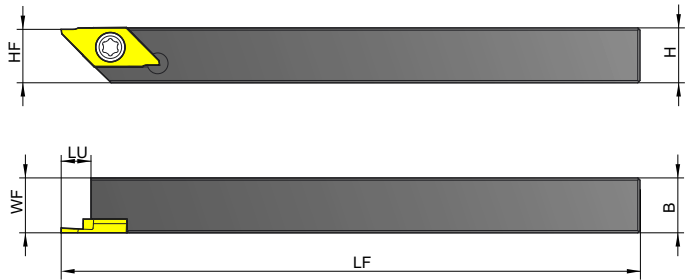
螺纹刀片
Threading inserts
KTP12..FT



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		螺距 Pitch	W	R	W1	S	D1	θ°	KTX	KVX	KW20
	KTP12R/L6000FT	0.2-0.6	1.5	0.00	3.0	8.7	5	60	●	●	●
	KTP12R/L6005FT	0.5-1.25	1.5	0.05	3.0	8.7	5	60	●	●	●
	KTP12R/L5500FT	0.2-0.6	1.5	0.00	3.0	8.7	5	55	●	●	●
	KTP12R/L5505FT	0.5-1.25	1.5	0.05	3.0	8.7	5	55	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

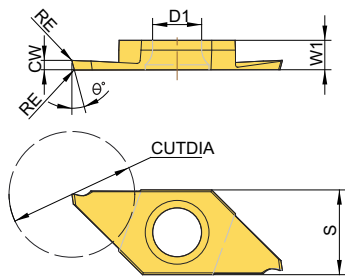
多功能刀杆 Turning Holder
KTP16R/L



型号 Model		库存 Stock		尺寸 (mm)						适用刀片 Insert	螺钉 Screw	扳手 Wrench
				H	B	HF	WF	LF	LU			
KTP16R10JX	KTP16L10JX	●	●	10	10	10	10	120	8	KTP16..	M4.5X5.0	T20
KTP16R12JX	KTP16L12JX	●	●	12	12	12	12	120	8			
KTP16R16JX	KTP16L16JX	●	●	16	16	16	16	120	8			
KTP16R20JX	KTP16L20JX	●	●	20	20	20	20	120	8			
KTP16R25M	KTP16L25M	●	●	25	25	25	25	150	8			

* 刀片需单独订购。Blades to be ordered separately. ● 标准库存Standard inventory ○ 订单生产The order production

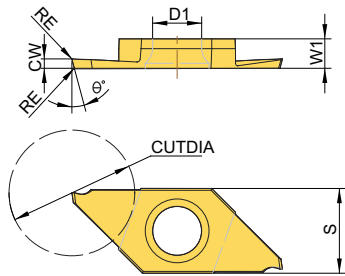
切断刀片
Parting off inserts
KTP16..FA



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		CW	CUTDIA	W1	RE	S	D1	θ°	KTX	KVX	KW20
	KTP16R/L050FA	0.5	5.0	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L070FA	0.7	8.0	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L100FA	1.0	12	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L125FA	1.25	12	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L150FA	1.5	16	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L200FA	2.0	16	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L250FA	2.5	16	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L300FA	3.0	16	4.0	0.05	9.5	5	16	●	●	●
	KTP16R/L350FA	3.5	16	4.0	0.05	9.5	5	16	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

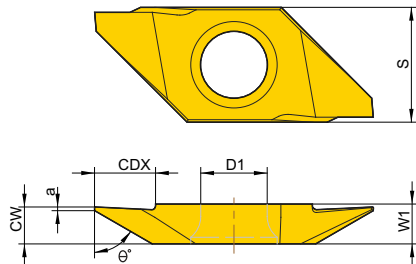
切槽刀片
Grooving inserts
KTP16..FN



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		CW	CUTDIA	W1	RE	S	D1	θ°	KTX	KVX	KW20
	KTP16R/L050FN	0.5	5.0	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L070FN	0.7	8.0	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L100FN	1.0	12	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L125FN	1.25	12	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L150FN	1.5	16	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L200FN	2.0	16	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L250FN	2.5	16	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L300FN	3.0	16	4.0	0.05	9.5	5	0	●	●	●
	KTP16R/L350FN	3.5	16	4.0	0.05	9.5	5	0	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

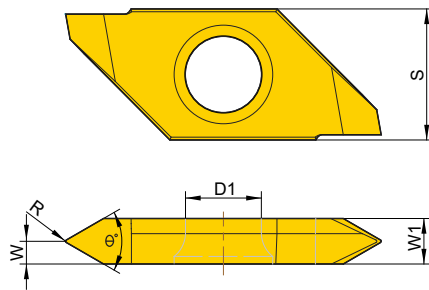
后车刀片
Back turning inserts
KTP16..FB



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		a	CW	CDX	W1	S	D1	θ°	KTX	KVX	KW20
	KTP16R/L05FB	0.5	3.8	6.3	4.0	9.5	5	60	●	●	●
	KTP16R/L10FB	1.0	3.8	6.3	4.0	9.5	5	60	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

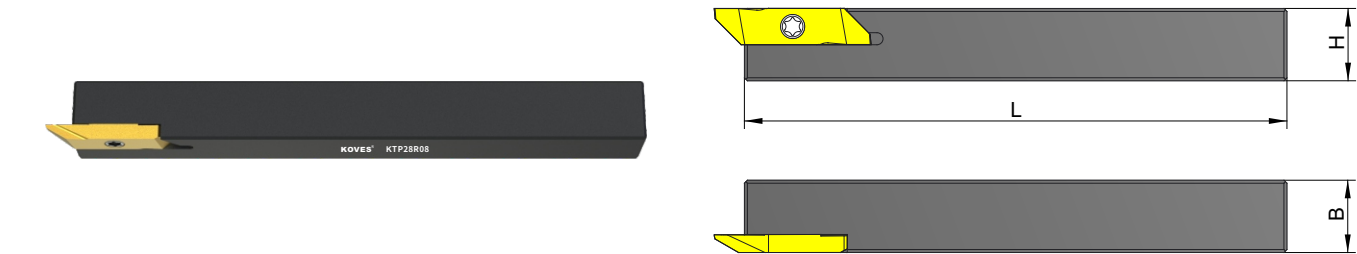
螺纹刀片
Threading inserts
KTP16..FT



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		螺距 Pitch	W	R	W1	S	D1	θ°	KTX	KVX	KW20
	KTP16R/L6000FT	0.2-0.6	2.0	0.00	4.0	9.5	5	60	●	●	●
	KTP16R/L6005FT	0.5-1.25	2.0	0.05	4.0	9.5	5	60	●	●	●
	KTP16R/L5500FT	0.2-0.6	2.0	0.00	4.0	9.5	5	55	●	●	●
	KTP16R/L5505FT	0.5-1.25	2.0	0.05	4.0	9.5	5	55	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

多功能刀杆 Turning Holder
KTP28R/L

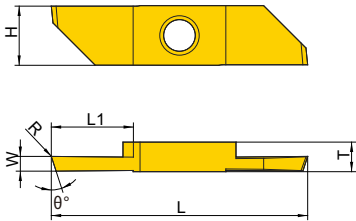


型号 Model		库存 Stock		ØD	尺寸 (mm)						适用刀片 Insert		
					h	b	L1	h1	h2	f		螺钉 Screw	扳手 Wrench
KTP28R08	KTP28L08	●	●	12.0	8	10	120	8	4	0.0	KTP28..	M4X5.0	T15
KTP28R10H	KTP28L10H	●	●	12.0	10	10	100	10	2	0.0			
KTP28R10	KTP28L10	●	●	12.0	10	10	120	10	2	0.0			
KTP28R12GX	KTP28L12GX	●	●	12.0	12	12	85	12	0	0.0			
KTP28R12	KTP28L12	●	●	12.0	12	12	120	12	0	0.0		M4X7.0	
KTP28R13	KTP28L13	●	●	12.0	13	13	120	13	0	0.0			
KTP28R16H	KTP28L16H	●	●	12.0	16	16	100	16	0	0.0			
KTP28R16	KTP28L16	●	●	12.0	16	16	120	16	0	0.0			

* 刀片需单独订购。Blades to be ordered separately.

● 标准库存 Standard inventory ○ 订单生产 The order production

切断刀片
Parting off inserts
KTP28..FA

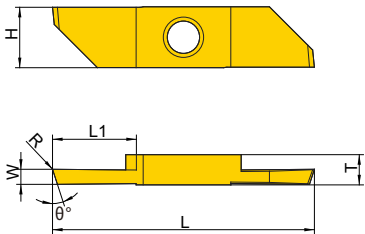


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		w	L1	R	T	H	L	θ°	KTX	KVX	KW20
	KTP28R/L100FA	1.0	5.0	0.08	3.0	6.0	26	16	●	●	●
	KTP28R/L150FA	1.5	7.0	0.08	3.0	6.0	26	16	●	●	●
	KTP28R/L200FA	2.0	8.5	0.08	3.0	6.0	26	16	●	●	●
	KTP28R/L250FA	2.5	8.5	0.08	3.0	6.0	26	16	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选 Preferred ☆ 可选 optional

● 标准库存 standard stock ○ 订单生产 order production

切槽刀片
Grooving inserts
KTP28..FN

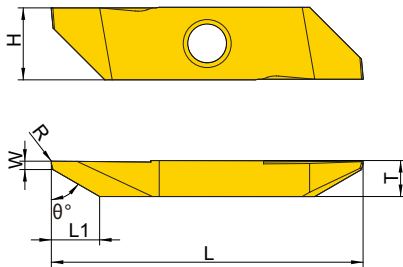


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		w	L1	R	T	H	L	θ°	KTX	KVX	KW20
	KTP28R/L050FN	0.5	2.0	0.05	3.0	8.0	25	0	●	●	●
	KTP28R/L070FN	0.7	2.8	0.05	3.0	8.0	25	0	●	●	●
	KTP28R/L100FN	1.0	4.0	0.05	3.0	8.0	25	0	●	●	●
	KTP28R/L125FN	1.25	5.0	0.05	3.0	8.0	25	0	●	●	●
	KTP28R/L150FN	1.5	5.5	0.05	3.0	8.0	25	0	●	●	●
	KTP28R/L200FN	2.0	6.0	0.05	3.0	8.0	25	0	●	●	●
	KTP28R/L250FN	2.5	6.5	0.05	3.0	8.0	25	0	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel											★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选 Preferred ☆ 可选 optional

● 标准库存 standard stock ○ 订单生产 order production

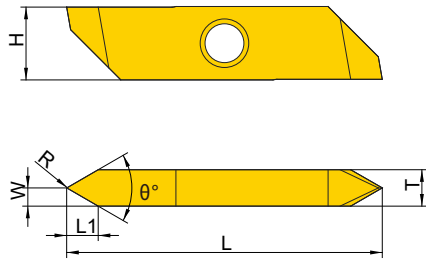
后车刀片
Back turning inserts
KTP28..FB



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		w	L1	R	T	H	L	θ°	KTX	KVX	KW20
	KTP28R/L05FB	0.5	4.0	0.05	3.0	8.0	26	60	●	●	●
	KTP28R/L10FB	1.0	4.0	0.1	3.0	8.0	26	60	●	●	●
钢 Steel									★	★	
不锈钢 Stainless Steel										★	
铸铁 Cast Iron									☆	☆	
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

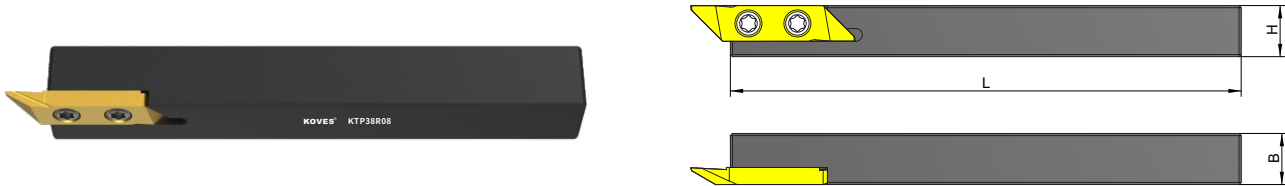
螺纹刀片
Threading inserts
KTP28..FT



刀片外形 Insert shape	型号 Model	螺距 Pitch	尺寸与材质 Size and Grades								
			W	R	T	H	L	θ°	KTX	KVX	KW20
	KTP28R/L6000FT	0.2-0.6	1.5	0.00	3.0	8.0	24	60	●	●	●
	KTP28R/L6005FT	0.5-1.25	1.5	0.05	3.0	8.0	24	60	●	●	●
	KTP28R/L5500FT	64-48	1.5	0.00	3.0	8.0	24	55	●	●	●
	KTP28R/L5505FT	48-24	1.5	0.05	3.0	8.0	24	55	●	●	●
钢 Steel									★	★	
不锈钢 Stainless Steel										★	
铸铁 Cast Iron									☆	☆	
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

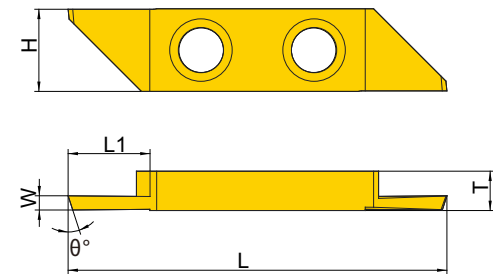
多功能刀杆 Turning Holder
KTP38R/L



型号 Model		库存 Stock		ØD	尺寸 (mm)						适用刀片 Insert	螺钉 Screw	扳手 Wrench
		R	L		h	b	L1	h1	h2	f			
KTP38R08	KTP38L08	●	●	12.0	8	10	120	8	4	0.0	KTP38..	M4X6.0	T15
KTP38R10H	KTP38L10H	●	●	12.0	10	10	100	10	2	0.0			
KTP38R10	KTP38L10	●	●	12.0	10	10	120	10	2	0.0			
KTP38R12GX	KTP38L12GX	●	●	12.0	12	12	85	12	0	0.0			
KTP38R12	KTP38L12	●	●	12.0	12	12	120	12	0	0.0			
KTP38R13	KTP38L13	●	●	12.0	13	13	120	13	0	0.0			
KTP38R16H	KTP38L16H	●	●	12.0	16	16	100	16	0	0.0			
KTP38R16	KTP38L16	●	●	12.0	16	16	120	16	0	0.0			

* 刀片需单独订购。Blades to be ordered separately. ● 标准库存Standard inventory ○ 订单生产The order production

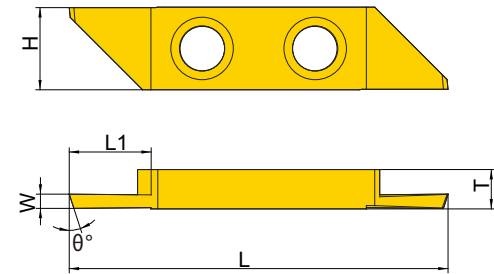
切断刀片
Parting off inserts
KTP38..FA



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		w	L1	R	T	H	L	θ°	KTX	KVX	KW20
	KTP38R/L100FA	1.0	5.0	0.05	4.0	8.4	38	16	●	●	●
	KTP38R/L150FA	1.5	7.0	0.05	4.0	8.4	38	16	●	●	●
	KTP38R/L200FA	2.0	8.5	0.05	4.0	8.4	38	16	●	●	●
	KTP38R/L250FA	2.5	9.0	0.05	4.0	8.4	38	16	●	●	●
	KTP38R/L300FA	3.0	9.5	0.05	4.0	8.4	38	16	●	●	●
	KTP38R/L350FA	4.0	10.0	0.05	4.0	8.4	38	16	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

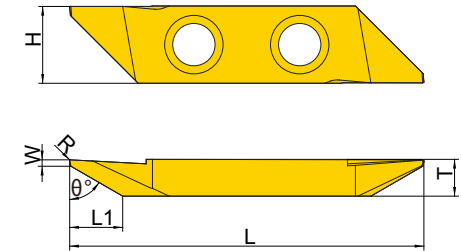
切槽刀片
Grooving inserts
KTP38..FN



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		w	L1	R	T	H	L	θ°	KTX	KVX	KW20
	KTP38R/L050FN	0.5	2.0	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L070FN	0.7	2.8	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L100FN	1.0	4.0	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L150FN	1.5	5.0	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L200FN	2.0	5.5	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L250FN	2.5	6.0	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L300FN	3.0	7.0	0.05	4.0	8.4	38	0	●	●	●
	KTP38R/L350FN	3.5	8.0	0.05	4.0	8.4	38	0	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

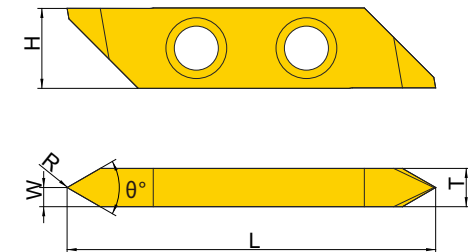
后车刀片
Back turning inserts
KTP38..FB



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		w	L1	R	T	H	L	θ°	KTX	KVX	KW20
	KTP38R/L05FB	0.5	5.7	0.05	4.0	8.4	38	60	●	●	●
	KTP38R/L10FB	1.0	5.7	0.1	4.0	8.4	38	60	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

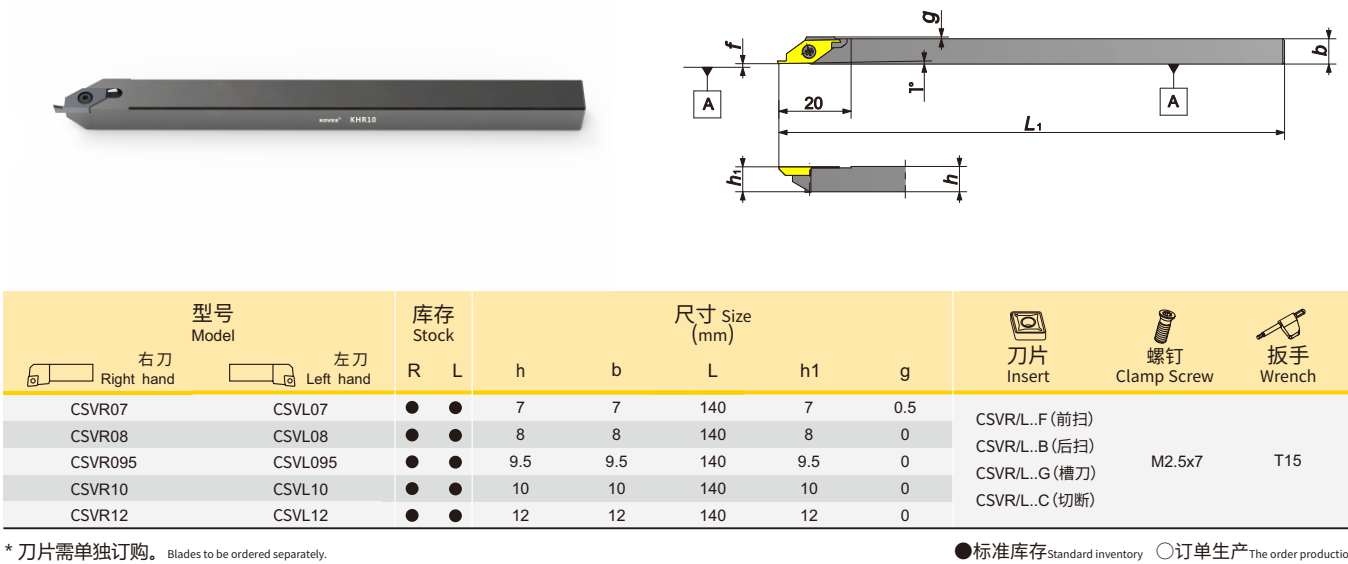
螺纹刀片
Threading inserts
KTP38..FT



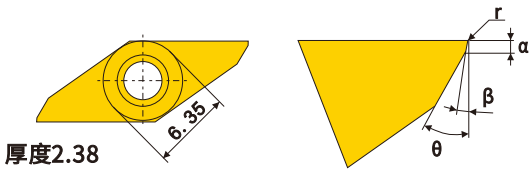
刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		螺距 Pitch	W	R	T	H	L	θ°	KTX	KVX	KW20
	KTP38R/L6000FT	0.2-0.6	2.0	0.00	4.0	8.4	38	60	●	●	●
	KTP38R/L6005FT	0.5-1.25	2.0	0.05	4.0	8.4	38	60	●	●	●
	KTP38R/L5500FT	64-48	2.0	0.00	4.0	8.4	38	55	●	●	●
	KTP38R/L5505FT	48-24	2.0	0.05	4.0	8.4	38	55	●	●	●
钢 Steel										★	★
不锈钢 Stainless Steel										★	
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

刀杆Turning Holders
CSV/L



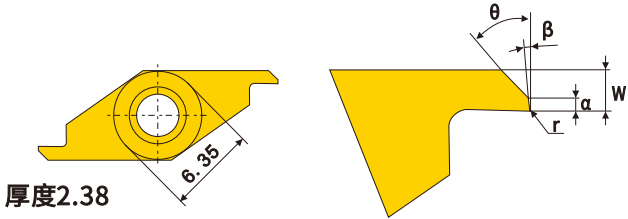
前车刀片
Front Turning inserts
CSVF



刀片外形 Insert shape	型号 Model	库存 Stock	排屑槽 Chip removal tank	尺寸与材质 Size and Grades							
				α	β	θ	r	KTX	KVX	KW20	
	CSVF	11F _{R/L} V	○	N	0.30	5°	30°	0.0	●	●	●
		11F _{R/L} V-A	○	N	0.30	2°	30°	0.0	●	●	●
		11F _{R/L} V-M	○	N	0.15	2°	30°	0.0	●	●	●
		11F _{R/L} V-C	○	N	0.15	5°	30°	0.0	●	●	●
 This style comes with chip discharge groove 此款带排屑槽	CSVF	11F _{R/L} VB	○	Y	0.30	5°	30°	0.0	●	●	●
		11F _{R/L} VB-A	○	Y	0.30	2°	30°	0.0	●	●	●
		11F _{R/L} VB-M	○	Y	0.15	2°	30°	0.0	●	●	●
		11F _{R/L} VB-C	○	Y	0.15	5°	30°	0.0	●	●	●
钢 Steel									★	☆	
不锈钢 Stainless Steel										★	
铸铁 Cast Iron									☆		
有色金属 Nonferrous Metal									☆		★
耐热合金 Heat Resistant Alloy										★	
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

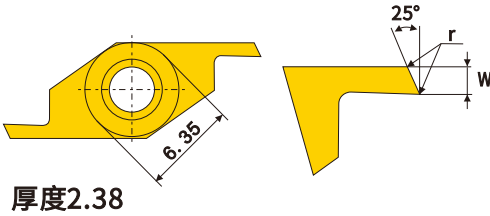
后车刀片
Back Turning inserts
CSV/B

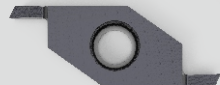


刀片外形 Insert shape	型号 Model	库存 Stock	排屑槽 Chip breaker	尺寸与材质 Size and Grades									
				刀尖宽度 W	α	β	θ	r	有效切 刃长a	加工深度	KTX	KVX	KW20
	CSV/B 11F _{R/L} V	○	N	1.00	0.30	5°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} V-A	○	N	1.00	0.30	2°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} V-M	○	N	1.00	0.15	2°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} V-C	○	N	1.00	0.15	5°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} V-12	○	N	1.20	0.30	5°	45°	0.0	0.8	2.0	●	●	●
	11F _{R/L} V-14	○	N	1.40	0.30	5°	45°	0.0	1.0	2.0	●	●	●
 此款带排屑槽 This with chipbreaker	CSV/B 11F _{R/L} VB	○	Y	1.00	0.30	5°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} VB-A	○	Y	1.00	0.30	2°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} VB-M	○	Y	1.00	0.15	2°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} VB-C	○	Y	1.00	0.15	5°	45°	0.0	0.7	2.0	●	●	●
	11F _{R/L} VB-12	○	Y	1.20	0.30	5°	45°	0.0	0.8	2.0	●	●	●
	11F _{R/L} VB-14	○	Y	1.40	0.30	5°	45°	0.0	1.0	2.0	●	●	●
钢 Steel											★	☆	
不锈钢 Stainless Steel												★	
铸铁 Cast Iron											☆		
有色金属 Nonferrous Metal											☆		★
耐热合金 Heat Resistant Alloy												★	
淬硬钢 Hardened Steel													

★ 首选 Preferred ☆ 可选 optional ● 标准库存 standard stock ○ 订单生产 order production

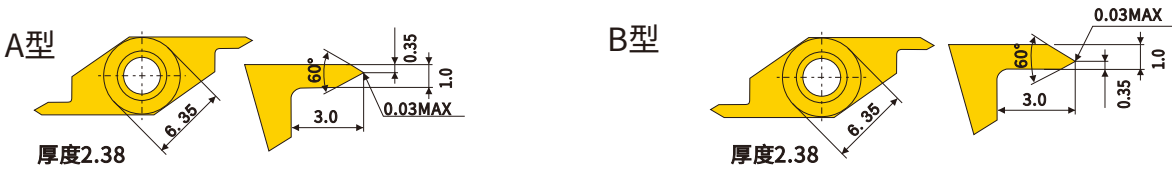
切断刀片
Cutting off inserts
CSVC

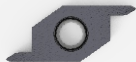


刀片外形 Insert shape	型号 Model	库存 Stock	排屑槽 Chip removal tank	尺寸与材质 Size and Grades						
				最大切 断直径 ØD	W	FE	KTX	KVX	KW20	
	CSVC	11F _{R/L} V06	○	N	3.0	0.6	0.0	●	●	●
		11F _{R/L} V07	○	N	4.0	0.7	0.0	●	●	●
		11F _{R/L} V08	○	N	4.0	0.8	0.0	●	●	●
		11F _{R/L} V09	○	N	4.0	0.9	0.0	●	●	●
		11F _{R/L} V10	○	N	5.0	1.0	0.0	●	●	●
		11F _{R/L} V13	○	N	5.0	1.3	0.0	●	●	●
 此款带排屑槽 This style comes with chip discharge groove	CSVC	11F _{R/L} V15	○	N	5.0	1.5	0.0	●	●	●
		11F _{R/L} VB06	○	Y	3.0	0.6	0.0	●	●	●
		11F _{R/L} VB07	○	Y	4.0	0.7	0.0	●	●	●
		11F _{R/L} VB08	○	Y	4.0	0.8	0.0	●	●	●
		11F _{R/L} VB09	○	Y	4.0	0.9	0.0	●	●	●
		11F _{R/L} VB10	○	Y	5.0	1.0	0.0	●	●	●
		11F _{R/L} VB13	○	Y	5.0	1.3	0.0	●	●	●
		11F _{R/L} VB15	○	Y	5.0	1.5	0.0	●	●	●
钢 Steel								★	☆	
不锈钢 Stainless Steel									★	
铸铁 Cast Iron								☆		
有色金属 Nonferrous Metal								☆		★
耐热合金 Heat Resistant Alloy									★	
淬硬钢 Hardened Steel										

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

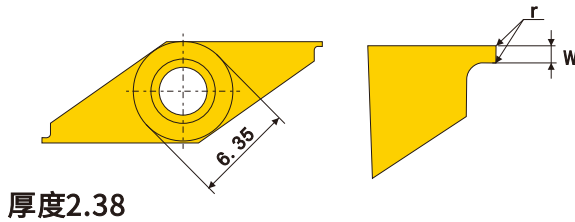
螺纹刀片
Threading inserts
CSVT

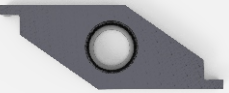


刀片外形 Insert shape		型号 Model		库存 Stock		排屑槽 Chip removal tank		尺寸与材质 Size and Grades			
								螺距 (mm)	牙/英寸 (TPI)	KTX	KVX
A型		CSVT	11F _{RL} P60-035A	○	Y	0.2~0.5	127-51	●	●	●	
B型			11F _{RL} P60-035B	○	Y	0.2~0.5	127-51	●	●	●	
钢 Steel								★	☆		
不锈钢 Stainless Steel									★		
铸铁 Cast Iron								☆			
有色金属 Nonferrous Metal								☆		★	
耐热合金 Heat Resistant Alloy									★		
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

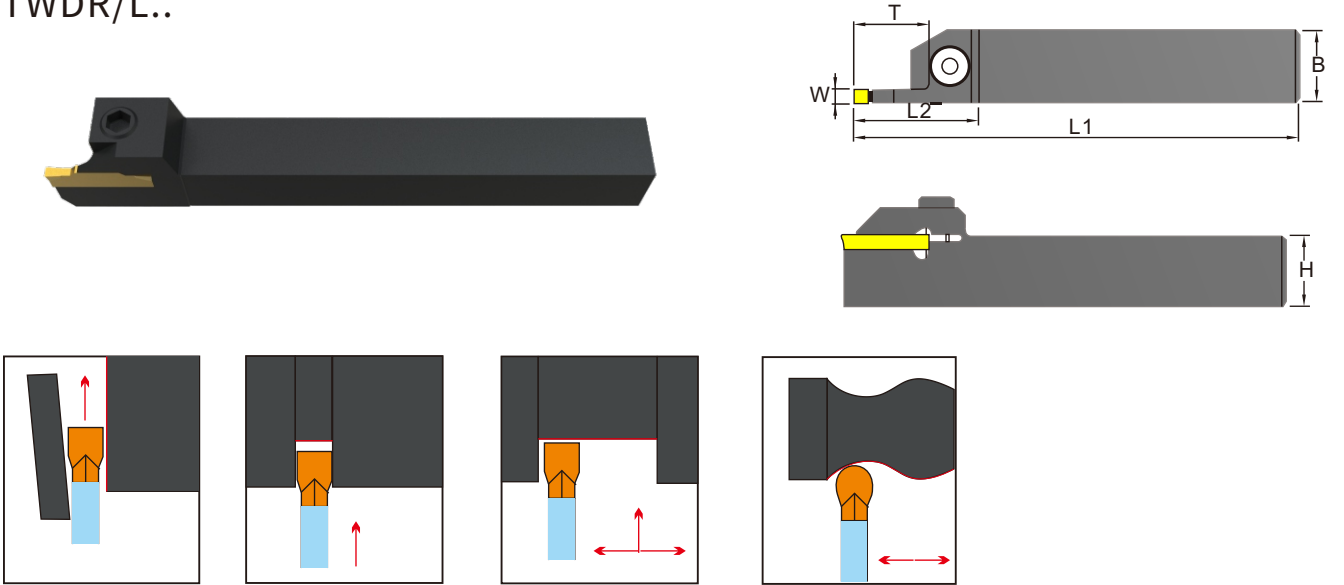
槽刀片
Grooving inserts
CSVG



刀片外形 Insert shape	型号 Model	库存 Stock	排屑槽 Chip removal tank	尺寸与材质 Size and Grades							
				W	有效加工深度	r	KTX	KVX	KW20		
 	CSVG	11FR/L	V025	○	Y	0.25	0.15	0.0	●	●	●
	11FR/L	V030	○	Y	0.30	0.15	0.0	●	●	●	
	11FR/L	V035	○	Y	0.35	0.15	0.0	●	●	●	
	11FR/L	V040	○	Y	0.40	0.15	0.0	●	●	●	
	11FR/L	V045	○	Y	0.45	0.45	0.0	●	●	●	
	11FR/L	V050	○	Y	0.50	0.45	0.0	●	●	●	
	11FR/L	V055	○	Y	0.55	0.45	0.0	●	●	●	
	11FR/L	V060	○	Y	0.60	0.45	0.0	●	●	●	
	11FR/L	V065	○	Y	0.65	0.45	0.0	●	●	●	
	11FR/L	V070	○	Y	0.70	0.45	0.0	●	●	●	
	11FR/L	V075	○	Y	0.75	1.40	0.0	●	●	●	
	11FR/L	V080	○	Y	0.80	1.40	0.0	●	●	●	
	11FR/L	V085	○	Y	0.85	1.40	0.0	●	●	●	
	11FR/L	V090	○	Y	0.90	1.40	0.0	●	●	●	
	11FR/L	V095	○	Y	0.95	1.40	0.0	●	●	●	
	11FR/L	V100	○	Y	1.00	1.40	0.0	●	●	●	
	11FR/L	V110	○	Y	1.10	2.60	0.0	●	●	●	
	11FR/L	V120	○	Y	1.20	2.60	0.0	●	●	●	
	11FR/L	V130	○	Y	1.30	2.60	0.0	●	●	●	
	11FR/L	V140	○	Y	1.40	2.60	0.0	●	●	●	
	11FR/L	V150	○	Y	1.50	2.60	0.0	●	●	●	
钢 Steel								★	☆		
不锈钢 Stainless Steel									★		
铸铁 Cast Iron								☆			
有色金属 Nonferrous Metal								☆		★	
耐热合金 Heat Resistant Alloy									★		
淬硬钢 Hardened Steel											

★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

切断切槽刀杆Parting Grooving Holder
TWDR/L..

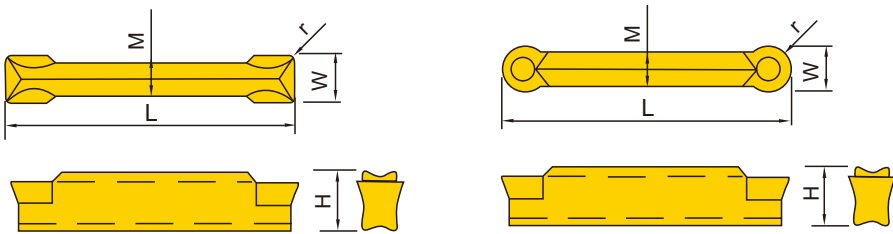


型号 Model						刀片 Inserts	重量 (kg)		螺钉 Screw	扳手 Wrench
	W	H	B	L	T					
TWDR1212K-2T12	2	12	12	125	12	WD22N2.00..	0.16		BS0407	L115
TWDL1212K-2T12	2	12	12	125	12	WD22N2.00..	0.16			
TWDR1616K-2T16	2	16	16	125	17	WD22N2.00..	0.22			
TWDL1616K-2T16	2	16	16	125	17	WD22N2.00..	0.22		BX0520	LH040
TWDR2020K-2T16	2	20	20	125	17	WD22N2.00..	0.37			
TWDL2020K-2T16	2	20	20	125	17	WD22N2.00..	0.37			
TWDR2525M-2T16	2	25	25	150	17	WD22N2.00..	0.69		BX0620	LH050
TWDL2525M-2T16	2	25	25	150	17	WD22N2.00..	0.69			
TWDR1616K-3T06	3	16	16	125	14	WD22N3.00..	0.22			
TWDL1616K-3T06	3	16	16	125	14	WD22N3.00..	0.22		BX0520	LH040
TWDR1616K-3T20	3	16	16	125	20	WD22N3.00..	0.22			
TWDL1616K-3T20	3	16	16	125	20	WD22N3.00..	0.22			
TWDR2020K-3T09	3	20	20	125	09	WD22N3.00..	0.37		BX0620	LH050
TWDL2020K-3T09	3	20	20	125	09	WD22N3.00..	0.37			
TWDR2020K-3T20	3	20	20	125	20	WD22N3.00..	0.37			
TWDL2020K-3T20	3	20	20	125	20	WD22N3.00..	0.37			
TWDR2525M-3T09	3	25	25	150	09	WD22N3.00..	0.69			
TWDL2525M-3T09	3	25	25	150	09	WD22N3.00..	0.69			
TWDR2525M-3T22.5	3	25	25	150	20	WD22N3.00..	0.69			
TWDL2525M-3T22.5	3	25	25	150	20	WD22N3.00..	0.69			
TWDR2020K-4T10	4	20	20	125	10	WD25N4.00..	0.37			
TWDL2020K-4T10	4	20	20	125	10	WD25N4.00..	0.37			
TWDR2020K-4T20	4	20	20	125	20	WD25N4.00..	0.37			
TWDL2020K-4T20	4	20	20	125	20	WD25N4.00..	0.37			
TWDR2525M-4T10	4	25	25	150	10	WD25N4.00..	0.69			
TWDL2525M-4T10	4	25	25	150	10	WD25N4.00..	0.69			
TWDR2525M-4T22.5	4	25	25	150	20	WD25N4.00..	0.69			
TWDL2525M-4T22.5	4	25	25	150	20	WD25N4.00..	0.69			
TWDR2525M-5T12	5	25	25	150	12	WD25N5.00..	0.69			
TWDL2525M-5T12	5	25	25	150	12	WD25N5.00..	0.69			
TWDR2525M-5T24	5	25	25	150	25	WD25N5.00..	0.69			
TWDL2525M-5T24	5	25	25	150	25	WD25N5.00..	0.69			

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

切断切槽刀片
Parting Grooving Inserts
WD..



刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades							KT	KV	KW
		W	L	R	H	A					
	WD22N2.00S-0.2T	2.0	22	0.2	4.0					●	
	WD22N3.00S-0.3T	3.0	22	0.3	4.0					●	
	WD25N4.00S-0.4T	4.0	25	0.4	4.0					●	
	WD25N5.00S-0.4T	5.0	25	0.4	4.0					●	
	WD22R-2.00S-06F	2.0	22		4.0	6					
	WD22R-3.00S-06F	3.0	22		4.0	6				●	
	WD22N3.00S-1.5R	3.0	22	1.5	4.0					●	
	WD25N4.00S-2.0R	4.0	25	2.0	4.0					●	
										●	
										★	★
钢 Steel										★	★
不锈钢 Stainless Steel										★	★
铸铁 Cast Iron										☆	☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

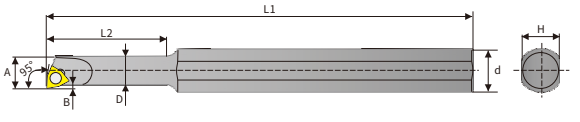
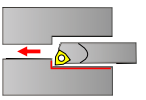
★ 首选Preferred ☆ 可选optional ● 标准库存standard stock ○ 订单生产order production

推荐切削条件表
Recommended Cutting Conditions

工件材料 Workpiece Materials		加工形式 Processing the form	切削速度推荐值Vc(m/min) Recommended Cutting Speed			切削速度推荐值f(mm/rev) Recommended Cutting Speed				
			KT	KV	KW	2.0	3.0	4.0	5.0	
						f(mm/rev)	f(mm/rev)	f(mm/rev)	f(mm/rev)	
P	钢 Steel	外圆加工 Cylindrical processing	50-100-170	50-100-170		0.06-0.12	0.08-0.20	0.10-0.25	0.12-0.25	
		内孔端面加工 Inner hole end processing	40-70-100	40-70-100		0.05-0.10	0.07-0.12	0.08-0.14	0.10-0.16	
M	不锈钢 Stainless Steel	外圆加工 Cylindrical processing		100-130-170		0.06-0.12	0.08-0.20	0.10-0.25	0.12-0.25	
		内孔端面加工 Inner hole end processing		50-80-120		0.05-0.10	0.07-0.12	0.08-0.14	0.10-0.16	
K	铸铁 Cast Iron	外圆加工 Cylindrical processing	50-100-170	50-100-170		0.06-0.12	0.08-0.20	0.10-0.25	0.12-0.25	
		内孔端面加工 Inner hole end processing	40-70-100	40-70-100		0.05-0.10	0.07-0.12	0.08-0.14	0.10-0.16	

内孔加工

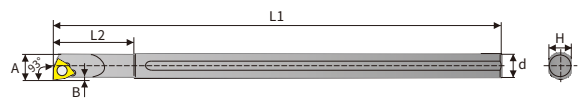
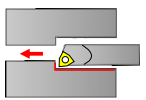
内孔车刀杆(小径) Boring tool holder(Micro Diameter)
H-SWUBR/L



(STEEL钢)		型号 Model		库存 Stock		尺寸 Size (mm)					Min Cutting Diameter 最小加工直径		刀片 Insert	螺钉 Clamp Screw	扳手 Wrench
 右刀 Right hand		 左刀 Left hand		R	L	D	Ød	L2	L1	A	B				
H1005K-SWUBR06-20		H1005K-SWUBR06-20		●	○	05	10	20	125	5.4	0.4	6	WB--0201 WB--0601	M2.0	T6
H1006K-SWUBR06-24		H1006K-SWUBR06-24		●	○	06	10	24	125	6.4	0.4	7			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

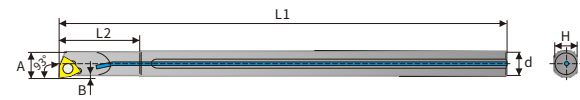
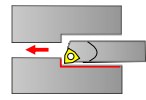
合金内孔车刀杆 Carbide boring tool holder
C-SWUBR/L



(CARBIDE)		型号 Model		库存 Stock		Size (mm)					Min Cutting Diameter 最小加工直径		刀片 Insert	螺钉 Clamp Screw	扳手 Wrench
 右刀 Right hand		 左刀 Left hand		R	L	Ød	L1	A	B						
C05H-SWUBR-06		C05H-SWUBL-06		●	○	05	100	5.4	0.4		5.8		WB--0601 WB--0201	M2.0x3	T6
C06J-SWUBR-06		C06J-SWUBL-06		●	○	06	110	6.4	0.4		6.8				
C07K-SWUBR-06		C07K-SWUBL-06		●	○	07	125	7.4	0.4		7.8				
C08K-SWUBR-06		C08K-SWUBL-06		●	○	08	125	8.5	0.5		9.0				

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

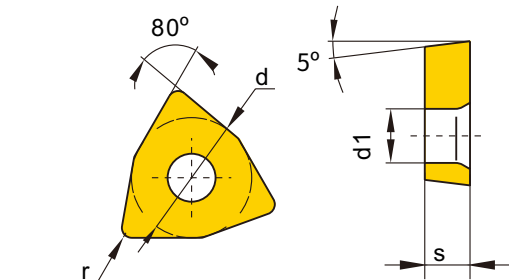
合金内冷内孔车刀杆
Carbide boring tool holder with cooling hole
E-SWUBR/L



(CARBIDE WITH COOLANT中心出水)		型号 Model		库存 Stock		Size (mm)					Min Cutting Diameter 最小加工直径		刀片 Insert	螺钉 Clamp Screw	扳手 Wrench
 右刀 Right hand		 左刀 Left hand		R	L	Ød	L1	A	B						
E05H-SWUBR-06		E05H-SWUBL-06		●	○	05	100	5.4	0.4		5.8		WB--0601 WB--0201	M2.0x3	T6
E06J-SWUBR-06		E06J-SWUBL-06		●	○	06	110	6.4	0.4		6.8				
E07K-SWUBR-06		E07K-SWUBL-06		●	○	07	125	7.4	0.4		7.8				
E08K-SWUBR-06		E08K-SWUBL-06		●	○	08	125	8.5	0.5		9.0				

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

车削刀片(正型)
Turning Inserts (Positive)
WB..



型号 Model	尺寸 Size (mm)		
	d	s	d1
WB..0601..	3.97	1.59	2.3

刀片外形 Insert shape		型号 Model	刀片材质及适用加工材料 Insert grades and application																
			r	进给fn mm/rev	切深ap mm	KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
		WBG060101R-F	0.1	0.01-0.05	0.1-0.3														
		WBG060101L-F	0.1	0.01-0.05	0.1-0.3							●					●		
		WBG060102R-F	0.2	0.01-0.08	0.1-0.4														
		WBG060102L-F	0.2	0.01-0.08	0.1-0.4							●					●		●
		WBG060104R-F	0.4	0.01-0.10	0.1-0.5														
		WBG060104L-F	0.4	0.01-0.10	0.1-0.5							●					●		●
精加工 Finishing	钢 Steel											☆					★		
	不锈钢 Stainless Steel											★							
	铸铁 Cast Iron																		
	有色金属 Nonferrous Metal																		
	耐热合金 Heat Resistant Alloy																		★
	淬硬钢 Hardened Steel																		

★ 首选Preferred

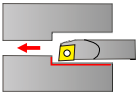
☆ 可选optional

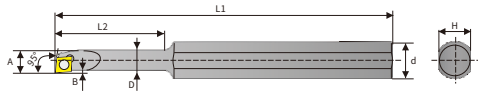
● 标准库存standard stock

○ 订单生产order production

内孔车刀杆(小径) Boring tool holder(Micro Diameter)
H-SCLCR/L







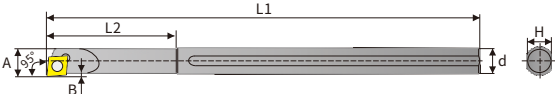
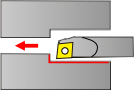
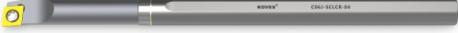
(STEEL 钢)

型号 Model		库存 Stock		尺寸 Size (mm)				Min Cutting Diameter 最小加工直径		 刀片 Insert	 螺钉 Clamp Screw	 扳手 Wrench		
 右刀 Right hand	 左刀 Left hand	R	L	d	Ød	L2	L1	A	B					
H1004K-SCLCR03-16	H1004K-SCLCL03-16	●	○	04	10	16	125	4.4	0.4	5	CC..03S	M1.6	T6	
H1005K-SCLCR03-20	H1005K-SCLCL03-20	●	○	05	10	20	125	5.4	0.4	6	CC..04T	M2.0		
H1005K-SCLCR04-20	H1005K-SCLCL04-20	●	○	05	10	20	125	5.4	0.4	6				

* 刀片需单独订购。Blades to be ordered separately.

●标准库存Standard inventory ○订单生产The order production

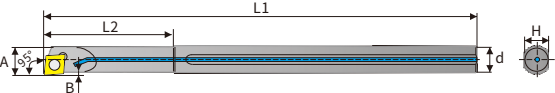
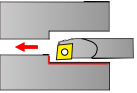
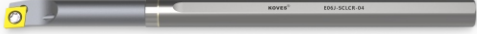
合金内孔车刀杆Carbide boring tool holder
C-SCLCR/L



型号 Model		库存 Stock		尺寸 Size (mm)				Min Cutting Diameter 最小加工直径		刀片 Insert	螺钉 Clamp Screw	扳手 Wrench
右刀 Right hand	左刀 Left hand	R	L	Ød	L1	A	B					
C04G-SCLCR-03	C04G-SCLCL-03	●	○	04	90	4.5	0.5		4.8	CC..03S1	M1.6x3.0	T6
C05H-SCLCR-03	C05H-SCLCL-03	●	○	05	100	5.5	0.5		5.8			
C06J-SCLCR-03	C06J-SCLCL-03	●	○	06	110	6.5	0.5		6.8			
C05H-SCLCR-04	C05H-SCLCL-04	●	○	05	100	5.5	0.5		5.8	CC..04T	M2.0x3.0	T6
C06J-SCLCR-04	C06J-SCLCL-04	●	○	06	110	6.5	0.5		6.8			
C07K-SCLCR-04	C07K-SCLCL-04	●	○	07	125	7.5	0.5		7.8			
C08K-SCLCR-04	C08K-SCLCL-04	●	○	08	125	8.5	0.5		8.8			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

合金内冷内孔车刀杆
Carbide boring tool holder with cooling hole
E-SCLCR/L

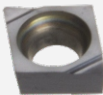


型号 Model		库存 Stock		尺寸 Size (mm)				Min Cutting Diameter 最小加工直径		刀片 Insert	螺钉 Clamp Screw	扳手 Wrench
右刀 Right hand	左刀 Left hand	R	L	Ød	L1	A	B					
E04G-SCLCR-03	E04G-SCLCL-03	●	○	04	90	4.5	0.5		4.8	CC..03S1	M1.6x3.0	T6
E05H-SCLCR-03	E05H-SCLCL-03	●	○	05	100	5.5	0.5		5.8			
E06J-SCLCR-03	E06J-SCLCL-03	●	○	06	110	6.5	0.5		6.8			
E06J-SCLCR-04	E06J-SCLCL-04	●	○	06	110	6.5	0.5		6.8	CC..04T	M2.0x3.0	T6
E07K-SCLCR-04	E07K-SCLCL-04	●	○	07	125	7.5	0.5		7.8			
E08K-SCLCR-04	E08K-SCLCL-04	●	○	08	125	8.5	0.5		8.8			

* 刀片需单独订购。Blades to be ordered separately. ●标准库存Standard inventory ○订单生产The order production

车削刀片(正型)
Turning Inserts (Positive)
CC..

型号 Model	尺寸 Size (mm)		
	d	s	d1
CC...0301...	3.5	1.4	1.9
CC...0401...	4.3	1.8	2.3

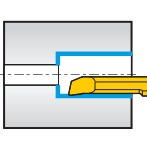
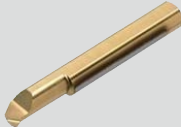
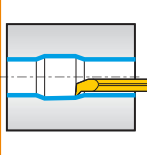
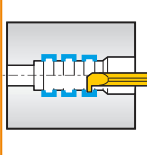
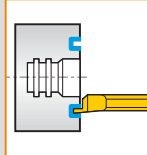
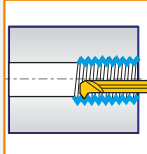
刀片外形 Insert shape	型号 Model	刀片材质及适用加工材料 Insert grades and application																
		r	进给fn mm/rev	切深ap mm	KCD10	KBN5010	KC1115	KC1125	KC1135	KP1110	KP2120	KP2130	KP6105	KP6110	KT20	KCT20	KW20	KCW20
	CCGT0301005R-F	0.05																
	CCGT0301005L-F	0.05									●				●			
	CCGT030101R-F	0.1																
	CCGT030101L-F	0.1									●				●		●	
	CCGT030102R-F	0.2																
	CCGT030102L-F	0.2									●				●		●	
	CCGT030104R-F	0.4																
	CCGT030104L-F	0.4									●				●		●	
	CCGT0401005L-F	0.05																
	CCGT040101R-F	0.1									●				●		●	
	CCGT040101L-F	0.1																
	CCGT040102R-F	0.2									●				●		●	
	CCGT040102L-F	0.2																
	CCGT040104R-F	0.4									●				●		●	
	CCGT040104L-F	0.4																
钢 Steel											☆				★			
不锈钢 Stainless Steel											★							
铸铁 Cast Iron																		
有色金属 Nonferrous Metal																		★
耐热合金 Heat Resistant Alloy																		
淬硬钢 Hardened Steel																		

★ 首选Preferred ☆ 可选optional

●标准库存standard stock

○订单生产order production

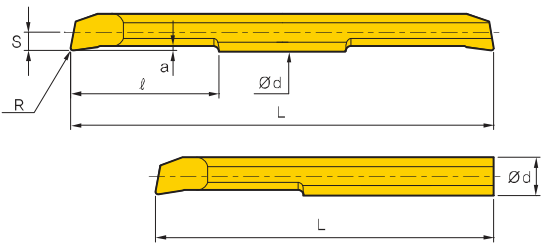
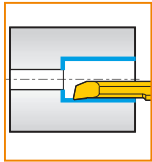
整体合金小径内孔车刀一览表
Solid carbide mini boring bar

型号 Size	刀片外形 Shape	应用范围 Applicable	特点 Features
PSBR			内孔加工 最小加工直径3.2mm Inner hole machining Minimum machining diameter 3.2 mm
PSCR			内孔倒拉加工 最小加工直径3.2mm Back turning machining for inner hole Minimum machining diameter is 3.2mm
PSGR			内孔切槽加工 最小加工直径3.2mm,槽宽1.0-2.5mm Internal grooving machining Minimum machining diameter is 3.2mm, Groove width is 1.0-2.5mm
PSGFR			端面槽加工 最小加工直径6.0mm 槽宽1.0-4.5mm Face grooving machining Minimum machining diameter 6.0mm Groove width 1.0-4.5mm
PSTR			内螺纹加工 最小加工直径3.3mm 螺距0.5-1.5mm Internal thread machining Minimum machining diameter 3.3mm Pitch 0.5-1.5mm

推荐切削条件表
Recommended Cutting Conditions

Material 被加工材料	VC (m/min)	孔径 boring bar Φ		
		Φ1.0-Φ2.0 (mm/rev)	Φ2.5-Φ4.0 (mm/rev)	Φ4.5-Φ5.5 (mm/rev)
Free-cutting steel 易削铁	60-100	0.02-0.03	0.02-0.08	0.03-0.10
Low alloyed steel 低合金钢	50-80	0.01-0.03	0.02-0.05	0.03-0.06
High alloyed steel 高合金钢	40-60	0.01-0.02	0.02-0.04	0.02-0.06
Stainless steel 不锈钢	40-90	0.01-0.03	0.02-0.05	0.03-0.08
Aluminium 铝合金	60-150	0.01-0.03	0.02-0.06	0.03-0.1
Titanium 钛合金	30-70	0.01-0.03	0.02-0.05	0.03-0.1
Copper 铜	60-150	0.01-0.03	0.02-0.05	0.03-0.08

镗孔
Boring

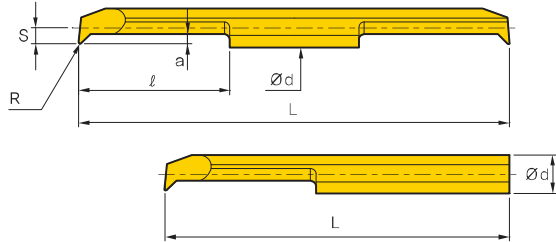
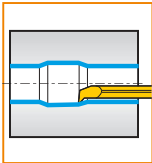


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		R	最小直径 Min Dia mm	d	l	L	w	a	s	KTX	KW20
	PSBR0310-1	0.05	3.2	3.0	10	35		0.5	1.4	●	●
	PSBR0315-1	0.05	3.2	3.0	15	45		0.5	1.4	●	●
	PSBR0410-1	0.05	4.2	4.0	10	35		0.6	1.9	●	●
	PSBR0415-1	0.05	4.2	4.0	15	45		0.6	1.9	●	●
	PSBR0420-1	0.05	4.2	4.0	20	50		0.6	1.9	●	●
	PSBR0610-1	0.05	6.2	6.0	10	40		0.75	2.9	●	●
	PSBR0615-1	0.05	6.2	6.0	15	45		0.75	2.9	●	●
	PSBR0620-1	0.05	6.2	6.0	20	50		0.75	2.9	●	●
	PSBR0310	0.05	3.2	3.0	10	40		0.5	1.4	●	●
	PSBR0315	0.05	3.2	3.0	15	50		0.5	1.4	●	●
	PSBR0410	0.05	4.2	4.0	10	40		0.6	1.9	●	●
	PSBR0415	0.05	4.2	4.0	15	50		0.6	1.9	●	●
	PSBR0420	0.05	4.2	4.0	20	60		0.6	1.9	●	●
	PSBR0610	0.05	6.2	6.0	10	45		0.75	2.9	●	●
	PSBR0615	0.05	6.2	6.0	15	55		0.75	2.9	●	●
	PSBR0620	0.05	6.2	6.0	20	65		0.75	2.9	●	●
钢 Steel											★
不锈钢 Stainless Steel											★
铸铁 Cast Iron											☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy											☆
淬硬钢 Hardened Steel											

★首选 ☆可选

○标准库存 ○订单生产

仿形
Copying

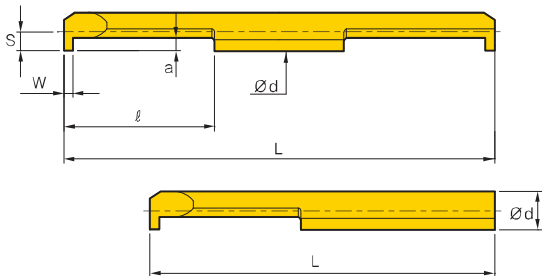
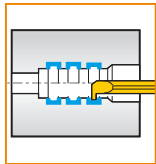


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		R	最小直径 Min Dia mm	d	l	L	w	a	s	KTX	KW20
	PSCR0410-1	0.05	4.2	4.0	10	35		1.0	1.9	●	●
	PSCR0415-1	0.05	4.2	4.0	15	45		1.0	1.9	●	●
	PSCR0420-1	0.05	4.2	4.0	20	50		1.0	1.9	●	●
	PSCR0610-1	0.05	6.2	6.0	10	40		1.3	2.9	●	●
	PSCR0615-1	0.05	6.2	6.0	15	45		1.3	2.9	●	●
	PSCR0620-1	0.05	6.2	6.0	20	50		1.3	2.9	●	●
	PSCR0410	0.05	4.2	4.0	10	40		1.0	1.9	●	●
	PSCR0415	0.05	4.2	4.0	15	50		1.0	1.9	●	●
	PSCR0420	0.05	4.2	4.0	20	60		1.0	1.9	●	●
	PSCR0610	0.05	6.2	6.0	10	45		1.3	2.9	●	●
	PSCR0615	0.05	6.2	6.0	15	55		1.3	2.9	●	●
	PSCR0620	0.05	6.2	6.0	20	65		1.3	2.69	●	●
钢 Steel											★
不锈钢 Stainless Steel											★
铸铁 Cast Iron											☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy											☆
淬硬钢 Hardened Steel											

★首选 ☆可选

○标准库存 ○订单生产

切槽
Square Grooving

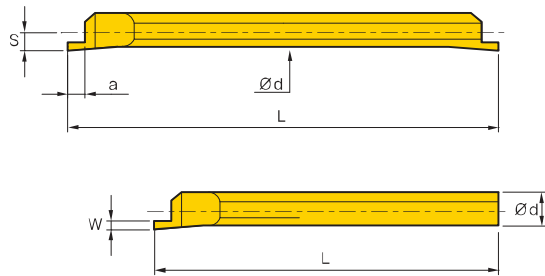
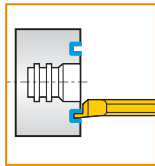


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		R	最小直径 Min Dia mm	d	l	L	w	a	s	KTX	KW20
	PSGR0310-1.0-1		3.2	3.0	10	35	1.0	0.8	1.4	●	●
	PSGR0315-1.0-1		3.2	3.0	15	45	1.0	0.8	1.4	●	●
	PSGR0310-1.5-1		3.2	3.0	10	35	1.5	0.8	1.4	●	●
	PSGR0315-1.5-1		3.2	3.0	15	45	1.5	0.8	1.4	●	●
	PSGR0410-1.0-1		4.2	4.0	10	35	1.0	1.4	1.9	●	●
	PSGR0420-1.0-1		4.2	4.0	20	50	1.0	1.4	1.9	●	●
	PSGR0410-1.5-1		4.2	4.0	10	35	1.5	1.4	1.9	●	●
	PSGR0420-1.5-1		4.2	4.0	20	50	1.5	1.4	1.9	●	●
	PSGR0410-2.0-1		4.2	4.0	10	35	2.0	1.4	1.9	●	●
	PSGR0420-2.0-1		4.2	4.0	20	50	2.0	1.4	1.9	●	●
	PSGR0610-1.0-1		6.2	6.0	10	40	1.0	1.8	2.9	●	●
	PSGR0620-1.0-1		6.2	6.0	20	50	1.0	1.8	2.9	●	●
	PSGR0610-1.5-1		6.2	6.0	10	40	1.5	1.8	2.9	●	●
	PSGR0620-1.5-1		6.2	6.0	20	50	1.5	1.8	2.9	●	●
	PSGR0610-2.0-1		6.2	6.0	10	40	2.0	1.8	2.9	●	●
	PSGR0620-2.0-1		6.2	6.0	20	50	2.0	1.8	2.9	●	●
	PSGR0610-2.5-1		6.2	6.0	10	40	2.5	2.0	2.9	●	●
	PSGR0620-2.5-1		6.2	6.0	20	50	2.5	2.0	2.9	●	●
	PSGR0310-1.0		3.2	3.0	10	40	1.0	0.8	1.4	●	●
	PSGR0315-1.0		3.2	3.0	15	50	1.0	0.8	1.4	●	●
	PSGR0310-1.5		3.2	3.0	10	40	1.5	0.8	1.4	●	●
	PSGR0315-1.5		3.2	3.0	15	50	1.5	0.8	1.4	●	●
	PSGR0410-1.0		4.2	4.0	10	40	1.0	1.4	1.9	●	●
	PSGR0420-1.0		4.2	4.0	20	60	1.0	1.4	1.9	●	●
	PSGR0410-1.5		4.2	4.0	10	40	1.5	1.4	1.9	●	●
	PSGR0420-1.5		4.2	4.0	20	60	1.5	1.4	1.9	●	●
	PSGR0410-2.0		4.2	4.0	10	40	2.0	1.4	1.9	●	●
	PSGR0420-2.0		4.2	4.0	20	60	2.0	1.4	1.9	●	●
	PSGR0610-1.0		6.2	6.0	10	45	1.0	1.8	2.9	●	●
	PSGR0620-1.0		6.2	6.0	20	65	1.0	1.8	2.9	●	●
	PSGR0610-1.5		6.2	6.0	10	45	1.5	1.8	2.9	●	●
	PSGR0620-1.5		6.2	6.0	20	65	1.5	1.8	2.9	●	●
	PSGR0610-2.0		6.2	6.0	10	45	2.0	1.8	2.9	●	●
	PSGR0620-2.0		6.2	6.0	20	65	2.0	1.8	2.9	●	●
	PSGR0610-2.5		6.2	6.0	10	45	2.5	2.0	2.9	●	●
	PSGR0620-2.5		6.2	6.0	20	65	2.5	2.0	2.9	●	●
钢 Steel											★
不锈钢 Stainless Steel											★
铸铁 Cast Iron											☆
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy											☆
淬硬钢 Hardened Steel											

★首选 ☆可选

○标准库存 ○订单生产

端面槽
Face Grooving

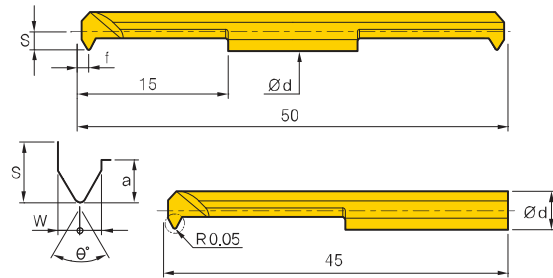
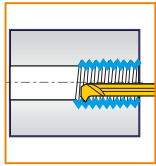


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		R	最小直径 Min Dia mm	d	l	L	w	a	s	KTX	KW20
	PSGFR0400-1.0-1		6.0	4.0		45	1.5	1.5	1.8	●	●
	PSGFR0400-1.5-1		6.0	4.0		45	2.0	2.0	1.8	●	●
	PSGFR0600-1.0-1		8.5	6.0		45	1.0	1.5	2.9	●	●
	PSGFR0600-1.5-1		8.5	6.0		45	1.5	2.0	2.9	●	●
	PSGFR0600-2.0-1		8.5	6.0		45	2.0	2.5	2.9	●	●
	PSGFR0800-1.0-1		10.4	8.0		60	1.0	2.0	3.9	●	●
	PSGFR0800-1.5-1		10.4	8.0		60	1.5	2.5	3.9	●	●
	PSGFR0800-2.0-1		10.4	8.0		60	2.0	3.0	3.9	●	●
	PSGFR1000-2.0-1		12.4	10.0		70	2.0	2.5	4.9	●	●
	PSGFR1000-2.5-1		12.4	10.0		70	2.5	3.0	4.9	●	●
	PSGFR1000-3.0-1		12.4	10.0		70	3.0	3.5	4.9	●	●
	PSGFR1000-3.5-1		12.4	10.0		70	3.5	4.0	4.9	●	●
	PSGFR1000-4.0-1		12.4	10.0		70	4.0	4.5	4.9	●	●
	PSGFR1000-4.5-1		12.4	10.0		70	4.5	5.0	4.9	●	●
	PSGFR0400-1.0		6.0	4.0		50	1.5	1.5	1.8	●	●
	PSGFR0400-1.5		6.0	4.0		50	2.0	2.0	1.8	●	●
	PSGFR0600-1.0		8.5	6.0		50	1.0	1.5	2.9	●	●
	PSGFR0600-1.5		8.5	6.0		50	1.5	2.0	2.9	●	●
	PSGFR0600-2.0		8.5	6.0		50	2.0	2.5	2.9	●	●
	PSGFR0800-1.0		10.4	8.0		70	1.0	2.0	3.9	●	●
	PSGFR0800-1.5		10.4	8.0		70	1.5	2.5	3.9	●	●
	PSGFR0800-2.0		10.4	8.0		70	2.0	3.0	3.9	●	●
	PSGFR1000-2.0		12.4	10.0		80	2.0	2.5	4.9	●	●
	PSGFR1000-2.5		12.4	10.0		80	2.5	3.0	4.9	●	●
	PSGFR1000-3.0		12.4	10.0		80	3.0	3.5	4.9	●	●
	PSGFR1000-3.5		12.4	10.0		80	3.5	4.0	4.9	●	●
	PSGFR1000-4.0		12.4	10.0		80	4.0	4.5	4.9	●	●
	PSGFR1000-4.5		12.4	10.0		80	4.5	5.0	4.9	●	●
钢 Steel					★						
不锈钢 Stainless Steel					★						
铸铁 Cast Iron					☆						
有色金属 Nonferrous Metal					★						
耐热合金 Heat Resistant Alloy					☆						
淬硬钢 Hardened Steel											

★首选 ☆可选

○标准库存 ○订单生产

内螺纹
Threading

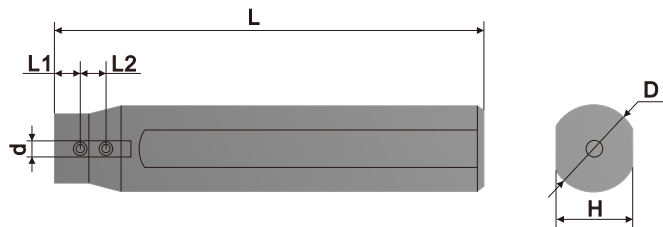


刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades										
		R	最小直径 Min Dia mm	d	l	L	w	螺距 P/t	θ°	KTX	KW20	
	PSTR0315-F60-1	0.05	3.3	3.0			1.2	0.5-1.0	60	●	●	
	PSTR0415-F60-1	0.05	4.3	4.0			1.2	0.5-1.0	60	●	●	
	PSTR0615-A60-1	0.05	6.2	6.0			2.0	0.5-1.5	60	●	●	
	PSTR0315-F55-1	0.05	3.3	3.0			1.2	48-24	55	●	●	
	PSTR0415-F55-1	0.05	4.3	4.0			1.2	48-24	55	●	●	
	PSTR0615-A55-1	0.05	6.2	6.0			2.0	28-16	55	●	●	
	PSTR0315-F60	0.05	3.3	3.0			1.2	0.5-1.0	60	●	●	
	PSTR0415-F60	0.05	4.3	4.0			1.2	0.5-1.0	60	●	●	
	PSTR0615-A60	0.05	6.2	6.0			2.0	0.5-1.5	60	●	●	
	PSTR0315-F55	0.05	3.3	3.0			1.2	48-24	55	●	●	
	PSTR0415-F55	0.05	4.3	4.0			1.2	48-24	55	●	●	
	PSTR0615-A55	0.05	6.2	6.0			2.0	28-16	55	●	●	
钢 Steel											★	
不锈钢 Stainless Steel											★	
铸铁 Cast Iron											☆	
有色金属 Nonferrous Metal												★
耐热合金 Heat Resistant Alloy											☆	
淬硬钢 Hardened Steel												

★首选 ☆可选

○标准库存 ○订单生产

刀套
Sleeve
SL

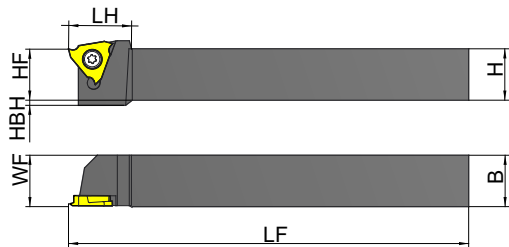
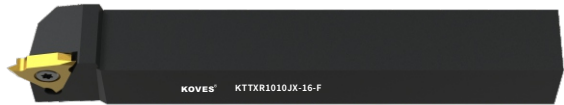


外形 shape	型号 Model	库存 Stock	尺寸 Size					
			D	d	L1	L2	H	L
	SL1603	●	16	3.0	6.0	6.0	15	100
	SL1604	●	16	4.0	6.0	6.0	15	100
	SL1605	●	16	5.0	6.0	6.0	15	100
	SL1606	●	16	6.0	6.0	6.0	15	100
	SL1607	●	16	7.0	6.0	6.0	15	100
	SL1608	●	16	8.0	6.0	6.0	15	100
	SL2003	●	20	3.0	6.0	6.0	19	100
	SL2004	●	20	4.0	6.0	6.0	19	100
	SL2005	●	20	5.0	6.0	6.0	19	100
	SL2006	●	20	6.0	6.0	6.0	19	100
	SL2007	●	20	7.0	6.0	6.0	19	100
	SL2008	●	20	8.0	6.0	6.0	19	100

● 标准库存standard stock ○ 订单生产order production

螺纹加工 Threading

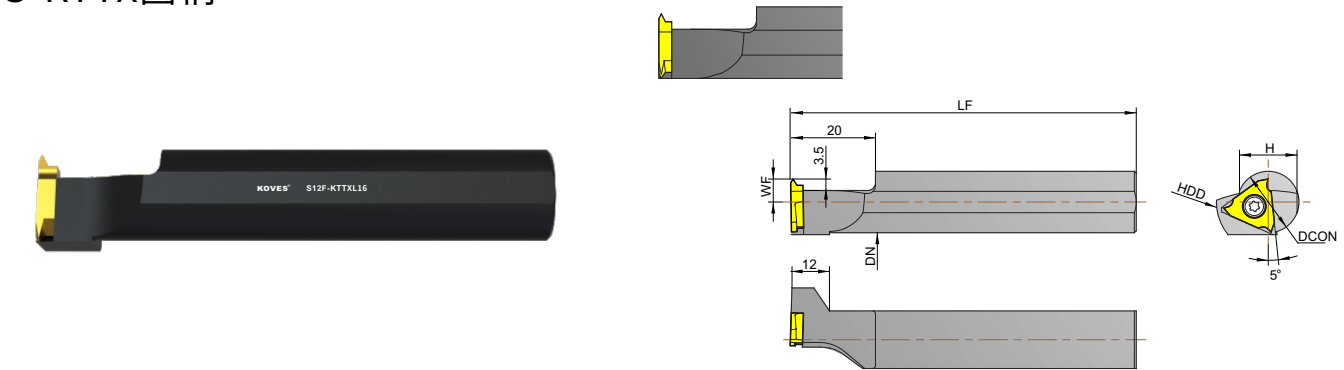
直立式螺纹刀杆 Threading Holder
KTTXR



型号 Model		库存 Stock		尺寸 (mm)							 螺钉 Screw	 扳手 Wrench
		R	L	H	HF	HBH	B	LF	LH	WF		
KTTXR1010K-16F	KTTXL1010K-16F	●	●	10	10	2	10	120	17.6	10	M4.0X7	T10
KTTXR1212K-16F	KTTXL1212K-16F	●	●	12	12	-	12	120	17.6	12		
KTTXR1616K-16F	KTTXL1616K-16F	●	●	16	16	-	16	120	17.6	16		
KTTXR2020K-16F	KTTXL2020K-16F	●	●	20	20	-	20	125	17.6	20		

* 刀片需单独订购。Blades to be ordered separately. ● 标准库存Standard inventory ○ 订单生产The order production

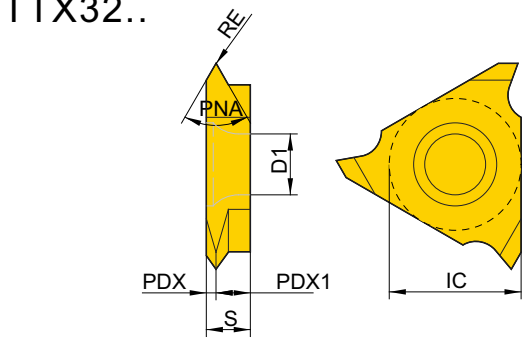
直立式螺纹刀杆 Threading Holder
S-KTTX圆柄



型号 Model	库存 Stock	尺寸 (mm)						螺钉 Screw	扳手 Wrench
		DCON	LF	WF	DN	HDD	H		
S12F-KTTXL16	○	12	80	6.0	11.0	27	11	M4.0X7	T10
S14H-KTTXL16	○	14	100		13.0		13		
S15F-KTTXL16	○	15.857	85		14.6		15		
S16F-KTTXL16	○	16	85		14.6		15		
S19G-KTTXL16	○	19.05	90		17.6		17		
S19.05K-KTTXL16	○	19.05	125		17.6		17		
S20K-KTTXL16	○	20	125		18.6		18		
S22K-KTTXL16	○	22	125		18.6		18		
S25.0K-KTTXL16	○	25	125	10.0	23.6	32	23		
S25.4-KTTXL16	○	25.4	125	10.0	23.6	32	23		

* 刀片需单独订购。Blades to be ordered separately. ●标准库存 Standard inventory ○订单生产 The order production

螺纹刀片
Threading inserts
TTX32..



型号 Model	尺寸 Size (mm)		
	LC	S	D1
TTX32R..	9.525	3.18	4.4

刀片外形 Insert shape	型号 Model	尺寸与材质 Size and Grades									
		mm	牙/英寸	RE	PDX	PDX1	PNA	CTX	KKX	KVX	KW20
	TTX32R6000	0.5~1.0	56~32	0.00	0.6	1.12	60°	●		●	●
	TTX32R60005	0.5~1.0	48~32	0.05	0.6	1.12	60°	●		●	●
	TTX32R6001	1.0~2.0	28~14	0.10	1.1	1.62	60°	●		●	●
	TTX32R6000S	1.0~2.0	56~48	0.00	0.3	1.12	60°	●		●	●
	TTX32R60005S	0.5	48	0.05	0.3	1.12	60°	●		●	●
	TTX32R5501	0.5	28~19 24~20	0.10	0.75	1.01	55°	●		●	●
	TTX32R55015	-	19~11 20~11	0.15	1.20	1.46	55°	●		●	●
钢 Steel								★		★	
不锈钢 Stainless Steel										★	
铸铁 Cast Iron								☆		☆	
有色金属 Nonferrous Metal											★
耐热合金 Heat Resistant Alloy										☆	
淬硬钢 Hardened Steel											

★ 首选 Preferred ☆ 可选 optional ●标准库存 standard stock ○订单生产 order production

CVD涂层刀片厂家牌号对照表
Grade table of CVD coating

加工类别 Machining Type	工件材料 Workpiece Material	分类代号 Code	各厂家牌号对照列表 Grade table of competitors and KOVES														
			科维丝 KOVES	山特维克 SANDVIK	伊斯卡 ISCAR	肯纳金属 KENNAMETAL	特固克 TAEGUTEK	瓦尔特 WALTER	三菱 MITSUBISHI	住友 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	黛杰 DAIJET	日立 HITACHI	科罗伊 KORLOY	山高 SECO	株洲钻石 ZCCCT
车削 Turning	P	P01		GC4005	IC9150	KC9105		WAP01	UE6050	AC700G	T9005	CA5505	JC110V	HC5000		TP1000 TK1000	
		P10	KC1115	GC4015	IC9150 IC9015	KC9110 TN7005 TN7010	TT1300	WAP10	UE6050 UE6110 UE6010 UC6020 UC6010	AC700G AC2000	T9005 T9015	CA5505 CA5515	JC110V JC215V	HG8010 GM8015 GM10	NC310 NC3015	TP1000 TK1000 TP2000 TK2000	YBC152 YBC151
		P20	KC1115 KC1125	GC4015 GC4225 GC4025 GC2015	IC9250 IC9025 IC9054	KC9125 KC9225 TN7015	TT1500	WAP20	UE6110 UE6010 UE6020 UC6010	AC2000 AC3000	T9015 T9025	CA5515 CA5525 CA5025 CR9025	JC110V JC215V	HG8025 GM8020	NC3020	TP2000 TK2000 TP200	YBC251 YBC252
		P30	KC1125 KC1135	GC4225 GC4025 GC2025 GC2135	IC9350 IC656	KC8050 TN7025	TT3500 TT5100	WAP30	UE6035 UH6400 US735	AC3000 AC630M	T9025 T9035	CA5535	JC215V JC325	GM25	NC330	TP3000 TP300	YBC252 YBC351
		P40		GC4035 GC235	IC635	KC9140 KC9040 KC9240 KX9245 TN7035 TPC35	TT450		UE6035 UH6400 US735	AC630M	T9035	CA5535	JC325V JC450V	GM8035 GX30		TP3000 TP400	YBC351
	M	M10		GC2015	IC9250	TN7010		WAM10	US7020	AC610M	T9015	CA6515 CA6015	JC110V	GM10		TP200	
		M20		GC2025	IC9250 IC9025 IC9054	KC9225 TN7015	TT2500	WAM20	US7020	AC610M AC630M	T6020 T9025	CA6525 CA6015	JC110V JC215V	GM8020	NC9020	TP200	YBM151
		M30		GC2135 GC235	IC9350 IC9025	KC8050 TN8025	TT3500	WAM30	US735	AC630M	T6030		JC215V JC325V	HG8025 GM25	NC330	TP300 TP400 TP40	YBM151 YBC251
		M40			IC656 IC635	KC9240 KC9245 TPC35	TT5100		US735				JC325V JC450V	GX30		TP400 TP40	
	K	K01		GC3205 GC3210	IC9150				UC5015	AC300G	T5010	CA4010	JC105V	GM3005		TK1000	YBD052
		K10	KC3110	GC3205 GC3210 GC3015	IC9150 IC9015 IC4010 IC418 IC428	KC9315 KC9110 TN5015	TT1300	WAK10	UC5115	AC700G	T5010	CA4010 AC4115	JC110V	HG8010 GM8015	N305K	TK1000 TK2000	YBD102 YBD151
		K20	KC3125	GC3215	IC9015	KC9320 TN5020	TT1500	WAK20	UC5115	AC700G	T5020	CA4120	JC110V JC215V	HG8025 GM8020	N315K	TK2000 TP200	YBD152 YBD252
	铣削 Milling	P	P01														
P10					IC9080 IC4100	TN2510 TN25M				ACP100			JC730U				
P20				GC4020	IC520M	TN7525		WAP25	FH7020 F7030	ACP100			JC730U			T200M T250M	YBM251
P30				GC4030	IC4050	KC930M	TT7300	WAP35	F7030	AC230	T3030				NCM335	T250M T350M T25M	YBM351
P40				GC4240 GC4040		KC935M TN7535				AC230				GF30 GX2030 GX30		T350M	
M		M01															
		M10				TN25M											
		M20			IC520M	TN7525			F7030				JC730U			T350M T25M	YBM251
		M30		GC2040	IC4050	KC930M TN7535		WTP35	F7030		T3030				NCM335	T250M T25M	YBM351
K		M40												GF30 GX30			
		K01			IC9080								JC600				
		K10			IC4100	TN5505 TN5515		WAK15	F5010	ACK200 AC211	T1015		JC600		NCM310		YBD152
		K20		GC3220 GC3020 K20D K21W	C520M DT7150	KC915M TN5520		WAK25	F5020	ACK200	T1015		JC610		NCM320	T150M T200M	YBD252
	K30		GC3040	IC4050	KC930M KC935M							JC610			T200M		

PVD涂层刀片厂家牌号对照表
Grade table of PVD coating

加工类别 Machining Type	工件材料 Workpiece Material	分类代号 Code	各厂家牌号对照列表 Grade table of competitors and KOVES														
			科维丝 KOVES	山特维克 SANDVIK	伊斯卡 ISCAR	肯纳金属 KENNAMETAL	特固克 TAEGUTEK	瓦尔特 WALTER	三菱 MITSUBISHI	住友 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	黛杰 DAIJET	日立 HITACHI	科罗伊 KORLOY	山高 SECO	株洲钻石 ZCCCT
车削 Turning	P	P01										PR915	JC5003				
		P10	KP1110		IC507	KC5010 KC5510			VP10MF		AH710	PR915 PR930	JC5003		CP200	YBG102	
		P20	KP2120 KTX	GC1020 GC1025	IC908 IC928 IC1008 IC1028	KC5025			VP15TF VP20MF		AH710 AH330	PR630 PR915 PR930 PR660	JC5015	PC230	CP250	YBG202	
		P30	KP2130 KVX	GC1025 GC4125	IC928 IC1008 IC1028	K7010 K7020 K7235			VP15TF VP20MF		GH330 GH730 AH120 AH330 AH740	PR630 PR660	JC5015		CP500	YBG202	
		P40		GC1020 GC2145	IC928 IC1008 IC1028	K7030			VP15TF VP20MF		AH120	PR660		PC240	CP500	YBG302	
	M	M01								EH510Z EH10Z		PR915					
		M10		GC1005 GC1025	IC507 IC907	KC5010 KC5510			VP10MF	EH510Z EH10Z		PR915 PR930	JC5003		CP200	YBG102	
		M20	KP2120 KKX	GC1020 GC1025 GC4125	IC354 IC3028	KC5025 KC730 KC5525			VP15TF VP20MF	EH520Z EH20Z	GH330 GH730	PR630 PR915 PR930	JC5015	PC9030	CP200 CP500	YBG202	
		M30	KP2130 KVX	GC1020 GC2035	IC908 IC928 IC1008 IC1028	KC5025 KC5525			VP15TF VP20MF		AH120	PR630 PR660	JC5015	PC9030	CP500	YBG302	
		M40		GC2145	IC228 IC328							PR660					
	K	K01								EA10Z	AH110		JC5003				
		K10				KC5010 KC5510				EA10Z	GH110 AH110		JC5003 JC5015	PC205K	CP200	YBG102	
		K20		GC1020	IC928 IC1008 IC908 IC22	KC7015			VP15TF	EH20Z	AH120		JC5015	PC205K	CP200 CP250	YBG202	
		K30		GC4125	IC928 IC1008 IC908 IC22	KC7225			VP15TF						CP500		
	S	S01	KP6105	GC1005					VP05RT		AH110	PR915	JC5003				
		S10	KP6105 KP6110	GC1005 GC1025		KC5410 KC5010			VP05RT VP10RT	EH510Z EH10Z	AH120	PR915	JC5015		CP200 CP250	YBG102	
		S20		GC4125		KC5025 KC5525			VP10RT VP15TF	EH20Z EH520Z		PR915			CP250 CP500		
		S30		GC2145					VP15TF								
铣削 Milling	P	P01							APC100			JC5003	PTH08M PAC08M TB6005 JX1005				
		P10	KP1210		IC903 IC950	KC715M		WXH15 WXM15		ACZ310 ACP100		PR730 PR830	JC5003 JC5030	CY9020 PCA12M TB6005 JX1020 PC20M			
		P20	KP1220	GC1025	IC950 IC900 IC908 IC910	KC522M KC525M			VP15TF	ACZ310 ACZ330 ACZ200		PR630 PR730 PR830 PR660	JC5015 JC5030 JC5040	TB6020 CY150 JX1015	PC230	F25M	YBG202
		P30	KP1230	GC1030	IC900 IC928 IC300 IC328	KC725M	TT7030 TT7070 TT9030	WXM35	VP15TF VP30RT	ACZ300 ACZ350 ACZ200	GH330 AH330 AH120 AH740	PR630 PR660 PR730 PR830	JC5015 JC5040	TB6020 CY250 HC844 JX1045 PTH30E	PC3530 PC130	F25M F30M	YBG302
		P40			IC900 IC928 IC300 IC328	KC735M	TT8020 TT8030	WXP45	VP30RT	ACZ350 ACP300	AH120	PA660	JC5040	PTH30E TB6060 PTH40H		F40M T60M	
	M	M01												PCS08M			
		M10		GC1025		KC715M		WXM15				PR630 PR730 PR830	JC5003	CY9020 JX1020			
		M20	KP2220	GC2030	IC900 IC903 IC908 IC928	KC522M KC525M	TT8020 TT9030		VP15TF VP20RT	ACZ310 EH20Z	GH330	PR630 PR730 PR830 PR660	JC5015 JC5030 JC5040	TB6020 CY150 JX1015		F25M	YBG202
		M30		GC2030	IC928 IC328	KC725M KC735M	TT8030	WXM35	VP15TF VP20RT VP30RT	ACZ330 EH20Z ACZ350	AH120	PR630 PR660 PR730 PR830	JC5015 JC5030 JC5040	TB6045 CY250 HC844	PC9530	F30M F40M	YBG302
		M40			IC928 IC328					VP30RT	ACZ350 ACP300	AH140	PR660	JC5015	TB6060 PTH40H JX1060		

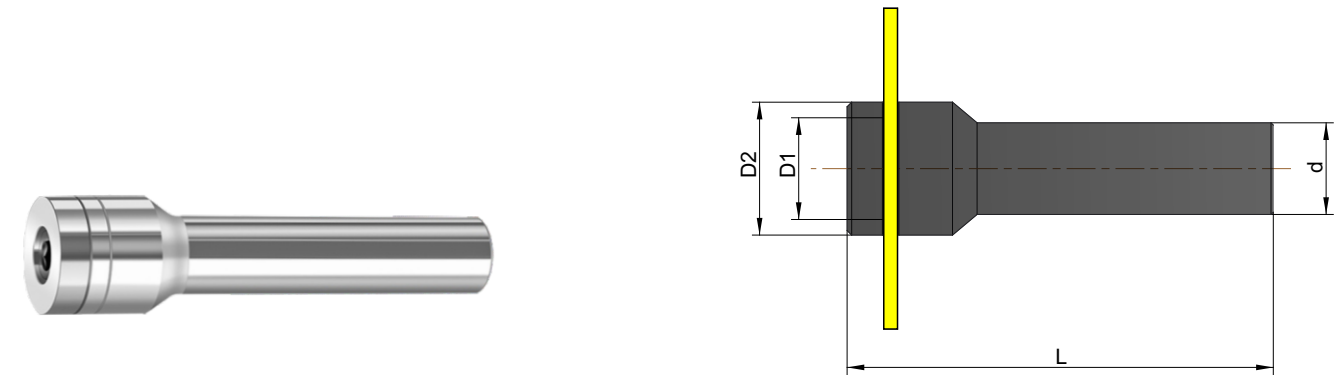
A型齿整体硬质合金锯铣刀
A-Tooth Type Tungsten Carbide Circular Saw blade Milling cutter



产品规格 | SPECIFICATIONS

unit:mm					
代码 code	D 外径 Outer diameter mm	H 厚度 Thickness mm	T 常用齿数 Commonly used teeth	齿形 Teeth Type	d 内孔 Inner hole mm
KAA	12	0.15-3.0	32,24,20,16	A-type	4
	16	0.15-3.0	40,32,24,20		5
	20	0.15-3.0	48,40,32,24		6
	25	0.20-3.0	64,48,40,32		8
	32	0.20-4.0	80,64,48,40,32		8
	40	0.20-6.0	100,80,64,48,40		10
	45	0.20-6.0	100,80,64,48,40		12.7.13
	50	0.20-6.0	100,80,64,48,40		13
	63	0.20-6.0	120,100,80,64,48		16
	70	0.20-6.0	120,100,80,64,48		12.7
	75	0.30-8.0	120,100,80,64,48		22.25.4
	80	0.50-8.0	120,100,80,64,48		22.25.4
	100	0.60-8.0	120,100,80,64		22.25.4
	125	1.00-8.0	160,120,100,80		22.25.4
	160	1.50-8.0	160,120,100,80		17.25.4
	200	2.00-8.0	200,160,120,100		32.31.75

锯片刀杆
Saw blade arbor



产品规格 | SPECIFICATIONS

unit:mm					
型号 model	D1 锯片内径 Saw blade Inner dia.	D2 刀头直径 Holder Head Diameter	d 刀柄直径 Shank Diameter	L 刀杆总长 Overall length	库存 STOCK
D3-D6-D6-L50	3	6	6	50	●
D4-D8-D8-L55	4	8	8	55	●
D5-D8-D8-L50	5	8	8	50	●
D5-D10-D10-L70	5	10	10	70	●
D6-D10-D10-L70	6	10	10	70	●
D8-D12-D12-L70	8	12	12	70	●
D8-D12-D8-45-L70	8	12	8	70	●
D8-D12-D12-L100	8	15	12	100	●
D10-D15-D10-L70	10	15	10	70	●
D10-D15-D8-L70	10	18	8	70	●
D13-D18-D12-L70	13	22	12	70	●
D16-D22-D16-L80	16	22	16	80	●
D16-D22-D12-L80	16	22	12	80	●
D16-D22-D16-L130	16	22	16	130	●
D16-D22-D20-L150	16	22	20	150	●
D16-D22-D20-L200	16	22	20	200	●
D22-D28-D20-L90	22	28	20	90	●
D22-D28-D16-L90	22	28	16	90	●
D25.4-D32-D20-L60	25.4	32	20	60	●
D27-D32-D20-L90	27	32	20	90	●
D27-D32-D20-L160	27	32	20	160	●

●标准库存 Standard inventory ○订单生产 The order production

加工材料 Work Material																	
碳素钢 S45C Carbon Steel	合金钢 SK・SCM Alloy Steel	不锈钢 S304L Stainless Steel	预热钢 Pre Hardened Steel 淬火钢 Hardness steel ~50 ~55 ~60 ~62 ~65 HRC HRC HRC HRC HRC	铸铁 Cast iron	钛合金 Titanium Alloy	高温 合金 Heat Resistant Alloy	铜合金 Copper Alloy	铝合金 Aluminum Alloy	树脂 Resin	工程 塑料 Plastics	玻璃 纤维 Glass Fiber	电木 Bakelite	石墨 Graphite	氧化锆 Zirconium oxide	单晶硅 Silicon	陶瓷 Ceramic	碳纤维 Carbon Fiber
○	○	○	○	○			○	○		○							

◎最适合 Fit best ○适合 Fit

硬质合金刀片厂家牌号对照表
Grade table of un coated carbide

加工类别 Machining type	工件材料 Workpiece Material	分类代号 Code	各厂家牌号对照列表 Grade table of competitors and KOVES														
			科维丝 KOVES	山特维克 SANDVIK	伊斯卡 ISCAR	肯纳金属 KENNAMETAL	特固克 TAEGUTEK	瓦尔特 WALTER	三菱 MITSUBISHI	住友 SUMITOMO	泰珂洛 TUNGALOY	京瓷 KYOCERA	黛杰 DAIJET	日立 HITACHI	科罗伊 COROIL	山高 SECO	株洲钻石 ZCC
车削 Turning	P	P01												ST05			
		P10		SIP	IC70	P10	P10			ST10P	TX10S		SRT	WS10	ST10		YC10
		P20		SMA	IC70 IC50M	K125M TTM	P20		UTi20t	ST20E	TX20 TX25		SRT DX30	EX35	ST20		
		P30		SM30	IC50M IC54	GK K600 TTR	P30		UTi20t	A30 A30N	TX30 UX30	PW30	SR30 DX30	EX35 EX40	ST30A		
		P40		S6	IC54	G13				ST40E	TX40		SR30 DX35	EX45			YC40
	M	M10		H10A		K313	M10			EH510 U10E	TU10		UMN	WA10B	U10	890	YC10
		M20		H13A	IC08	K68 KMF K125M TTM	M20		UTi20t	EH520 U2	TU20 UX30		DX25 UMS	EX35	U20	HX 883	
		M30		H19F SM30	IC08 IC28	K600 TTR			UTi20t	A30 A30N	UX30		DX25 UMS	EX40 EX45	ST30A		YC40
		M40		S6	IC128	G13	M40				TU40		UM40	EX45	U40		
	K	K01		H1P		K605			UTi05t	H1 H2	TH03 KS05F		KG03	WH05	H02		YD051
		K10		H1P H10 HM	IC20	K313 K110M THM THM-U	K10		HTi10	EH10 EH510	G1F TH10	KW10	KG10 KT9	WH10	H01	890	YD101
		K20		H13A	IC20 IC10	K715 KMF K600	K20		UTi20t	G10E EH20 EH520	G2F KS15F G2 KS20	GW10	CR1 KG20	WH20	G10	890 HX 883	YD201
		K30			IC10 IC28	THR			UTi20t	G10E	G3		KG30		G3	883	
	N	N01		H10 H13A		K605				H1 H2	KS05F		KG03				
		N10				K313 K110M THM THM-U	K10		HTi10	EH10 EH510	TH10 H10T		KG10 KT9		H01	890 H15	YD101
		N20		KW20		K715 KMF K600	K20			G10E EH20 EH520	KS15F		CR1 KG20			HX KX 883 H15 H25	YD201
		N30				G13 THR							KG30			H25	
	S	S01							RT9005				KG03				
		S10		H10 H10A H10F H13A		K10 K313 THM	K10		RT9005 RT9010	EH10 EH510	KS05F TH10		FZ05 KG10		H01	890	YD101
		S20				K715 KMF			RT9010 TF15	EH20 EH520	KS15F KS20		FZ15 KG20			890 883 HX H25	
		S30				G13 K600 THR			TF15				KG30				
铣削 Milling	P	P10		S1P									SRT				YC10
		P20			IC50M IC28	K125	P10		UTi20t	A30N	TX25		SRT DX30	EX35	ST20		
		P30			IC50M IC28	GX K600	P20		UTi20t	A30N	UX30	PW30	SR30 DX30	EX35 EX40	ST30A		
		P40			IC28		P30					PW30	SR30	EX45	ST40		YC40
	M	M10				K110M	M10						UMN		U10		YC10
		M20				K313	M20		UTi20t	A30N			DX25 UMS	EX35	U20		
		M30			IC28	KFM K600			UTi20t	A30N	UX30		DX25 UMS	EX40 EX45			YC40
		M40			IC28		M40				TU40			EX45	U40		
	K	K01							UTi05t				KG03		H01		YD051
		K10		H1P	IC20	K110M K313	K10	WK10	HTi10	G10E	TH10	KW10	KG10	WH10	H05 H10		YD101
		K20			IC20 IC10	KFM	K20		UTi20t	G10E			KT9 CR1 KG20	WH20	G10	HX	YD201
		K30			IC20 IC28				UTi20t				KG30				

PCBN刀片厂家牌号对照表
Grade table of PCBN

工件材料 Workpiece Material	分类代号 Code	各厂家牌号对照列表 Grade table of competitors and KOVES									
		科维丝 KOVES	住友 SUMITOMO	三菱 MITSUBISHI	泰珂洛 TUNGALOY	京瓷 KYOCERA	日本特 殊陶业 NTK	山特维克 SANDVIK	肯纳金属 KENNA METAL	伊斯卡 ISCAR	山高 SECO
K	K01	KBN980	NCB100 BNC500 BN7000 BN500	MB710 MB5015	BX910 BX930 BX870	KBN475 KBN60M	B30 B16	CB50 CB7525	KB1340	IB50 IB85	
	K10	KBN910 KBN900 KBN95N	BN7000 BN500	MB710. MB730 MB5015. MB4020	BX470. BX480. BX950	KBN60M KBN900	B23 B16	CB7925		IB55 IB90	CBN200. CBN300 CBN300P. CBN400C
	K20	KBN910 KBN900 KBN95N KBN800	BN7000 BNS800	MB730. MB4020 MB4120. MBS140	BX470. BX480 BXC90. BX90S	KBN900					
	K30	KBN800	BNS800	MB4120. MBS140 BC5030	BXC90 BX90S				KB5630		CBN500
S	S01	KBN980	NCB100 BN7000	MB730 MB4020 MB4120	BX904. BX950 BX470. BX480 M714B				KB5630 KB1340	IB85 IB05S IB10S	
H	H01	KBN10N	BNC2010 BNC100 BN1000 BN2000 BNX10	BC8105 BC8110 MBC010 MB810 MB8110	BXM10 BX310	KBN05M KBN10M KBN510	B5K B52	CB7105	KB5610	IB05H IB50 IB10HC	CH0550 CBN10 CBN100 CBN060K
	H10	KBN10N KBN20N KBN25N KBN5010	BNC2010 BNC2020 BNC160 BNC200 BN2000	BC8110 BC8120 MBC020 MB8025 MB8110 MB825	BXM10 BX330 BX530	KBN05M KBN25M KBN525	B5K B6K B52 B36	CB7015 CB7115 CB20	KBH20 KB5610 KB5625	IB10H IB55 IB25HA	CBN10 CBN100 CBN150 CBN060K CBN160C
	H20	KBN20N KBN25N KBN700 KBN610 KBN6020	BNC2020 BNC200 BNX20	BC8120. BC8020 MBC020 MB8025. MB8120	BXA20 BXM20 BX360	KBN30M KBN35M KBN900	B36 B40 B6K	CB7025 CB7125 CB50	KBH20 KB5625 KB5630	IB20H. IB20HC IB25H. IB25HC	CH2540 CBN150 CBN160C
	H30	KBN35N KBN610 KBN700 KBN710 KBN750 KBN7030	BNC300 BN350 BNX25	BC8130 MB8130 MB835	BXM20 BXA20 BXC50 BX380	KBN30M KBN35M KBN900	B40	CB7135 CB7525	KB5630	IB90	CH3515

PCD刀片厂家牌号对照表
Grade table of PCD

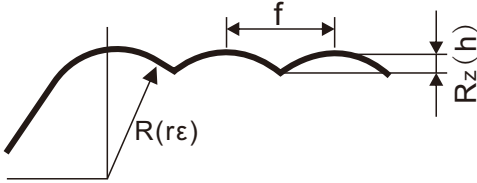
工件材料 Workpiece Material	分类代号 Code	各厂家牌号对照列表 Grade table of competitors and KOVES									
		科维丝 KOVES	住友 SUMITOMO	三菱 MITSUBISHI	泰珂洛 TUNGALOY	京瓷 KYOCERA	日本特 殊陶业 NTK	山特维克 SANDVIK	肯纳金属 KENNA METAL	伊斯卡 ISCAR	山高 SECO
N	N01	KPD01	DA1000 DA90	MD205	DX180 DX160	KPD001	PD1	CD05 CD01	KD1400	ID5	
	N10	KPD05 KCD05	DA1000 DA150	MD205 MD220	DX140	KPD001 KPD010 KPD230	PD2	CD1810	KD1400 KD1425	ID5	PCD05 PCD10
	N20	KPD10 KCD10	DA1000 DA2200	MD230 MD220	DX120 DX110	KPD230 KPD250	PD2		KD1400 KD1425		PCD05 PCD20
	N30	KPD25 KCD35	DA1000 DA2220	MD230 MD2030	DX110				KD1400		PCD05 PCD30 PCD30N

表面粗糙度
Surface Roughness

理论（几何）表面粗糙度
Theoretical(Geometrical) surface Roughness

$$-R_z[h]=\frac{f^2}{8XR[re]} \times 1,000$$

- R_z(h):理论表面粗糙度 Theoretical Surface Roughness(um)
- f:每旋转一周的进给量Feed Rare(mm/rev)
- R(re):刀尖圆弧半径Corner Radius of Insert (mm)



表面粗糙度的计算方法
How to Obtain Surface Roughness Values

种类 Type	记号 Symbol	计算方法 How to obtain	说明图 Explanation
最大粗糙度 Max.Height Roughness	R _z	从粗曲线上沿平均线方向选取基准长度 (l) ，在这部分中的最高峰高度与最低谷深度的和以微米表示的值，这个就是R _z 值。 $R_z=R_p+R_v$ R _y is a mean value in micron meter obtained from the distance of the highest peaks and the lowest valleys within the range of sampled reference lengths(l) in the direction of the center line of the roughness curve. $R_z=R_p+R_v$	
十点平均粗糙度 Ten Points Mean Roughness	R _{zJIS}	从粗曲线上沿平均线方向选取基准长度 (l) ，在此长度中，分别计算5个最高峰的平均值 (YP) 和5个最低谷的平均值 (YV) 。然后相加，以微米表示，就得到R _z 值。 $R_{zJIS}=\frac{(Yp1+Yp2+Yp3+Yp4+Yp5)+(Yv1+Yv2+Yv3+Yv4+Yv5)}{5}$ R _z is a mean value in micron meter obtained from the distance of 5 highest peaks (YP) and the 5 lowest valleys (YV) measured from the center line of the roughness curve within the range of sampled reference length(l) $R_{zJIS}=\frac{(Yp1+Yp2+Yp3+Yp4+Yp5)+(Yv1+Yv2+Yv3+Yv4+Yv5)}{5}$	Yp1,Yp2,Yp3,Yp4,Yp5: 基准长度 (l) 内的5个最高峰到中心线距离的和 Distance from the mean line to highest 5 peaks in the range of sampled reference length(l) Yv1,Yv2,Yv3,Yv4,Yv5: 在基准长度 (l) 内的5个最低谷到中心线距离的和 Distance from the mean line to the lowest 5 valleys in the range of sampled reference length(l)
算术平均粗糙度 Arithmetical Mean Roughness	R _a	从粗曲线上沿平均线方向选取基准长度 (l) ，把中心线方向看出X轴方向，与其垂直的为Y轴方向。若粗曲线可以有方程y=f(x)表示，则以微米表示RA值可以由以下方程式求出。 $Ra=\frac{1}{l}\int_0^l f(x) dx$ Ra is obtained from the following formula inmicron meter, the roughness curve is expressed by y=f(x),the X-axis is in the direction of the center line and the Y-axis is the vertical magnification of the roughness curve in the range of sampled reference lengths(l). $Ra=\frac{1}{l}\int_0^l f(x) dx$	

与三角记号的关系
Relationship with Triangle Symbol

算术平均粗糙度 Arithmetical Mean Roughness R _a (um)	最大粗糙度 Max.Height Roughness R _z (um)	十点平均粗糙度 Ten Points Mean Roughness R _z JIS(um)	三角记号 Triangle Note
0.025 0.05 0.1 0.2	0.1 0.2 0.3 0.4 0.8	0.1 0.2 0.4 0.8	
0.4 0.8 1.6	1.6 3.2 6.3	1.6 3.2 6.3	
3.2 6.3	12.5 25	12.5 25	
12.5 25	50 100	50 100	

JIS标准记号的表示例
Indication in JIS Standard

Ra的记号表示例 Example of Ra Indication	Rz的记号表示例 Example of Rz Indication
①仅表示上限的场合 (上限为6.3umRa时) When indication the upper limit only (when upper limit is 6.3umRa) ②表示上限和下限的场合 (上限为6.3umRa、下限为1.6umRa时) When indication both lower and upper limit (when upper limit is 6.3umRa,lower limit is 1.6umRa)	①仅表示上限的场合，在参数记号后面列出表面粗糙度 When indication upper limit only indicate surface roughness following the parameter symbol. ②表示上限和下限的场合，在参数记号后面，按照“上限~下限”的形式表示表面粗糙度。 When indication both lower and upper limit indication surface roughness as (upper limit ~lower limit) following the paramenter symbol.

请注意R_a和R_z的表示方式各不相同
Note:The indications of R_a and R_z are different.

■ 使用表面粗糙度标记的注意事项
Surface Roughness Symbol Caution

以上资料是根据 JIS B 0601-2001编制的。
为了与ISO标准一致，从JIS B 0601-2001版开始，变更为右表的记号。
The above information is based on JIS B 0601-2001.
However,some symbols were revised as shown in the right table in accordance with ISO standard from JIS B 0601-2001 version.

种类 Type	Symbol (JIS B 0601~1994)	Symbol (JIS B 0601~2001)
最大粗糙度 Max.Height Roughness	R _v	R _z
十点平均粗糙度 Ten Points Mean Roughness	R _z	(R _z jis)
算术平均粗糙度 Arithmetical Mean Roughness	R _a	R _a

车削加工的计算公式
Basic Formylas of Turning

所需功率
Power Requirement

$$P_c = \frac{K_s X V_c X a_p X f}{6120 X \eta}$$

- P_c : 所需功率 Power Requirement(KW)
- P_{HP} : 所需功率 Power Requirement(Horse Power)(HP)
- V_c : 切削速度 Cutting Speed(m/min)
- f : 每转进给量 Feed Rate(mm/rev)
- a_p : 切深 Depth pf Cut(mm)
- K_s : 比切削阻力 Specific Cutting Resistance(kgf/mm²)
- η : 机械效率 Mechanical Efficiency(0.7~0.8)

$$f = \frac{l}{n}$$

 l (mm/min):每分钟切削长度
Length of cut per minute

K_s 的概略值 approximate value of K_s

铝 Aluminum: 800MPa 普通钢 General Steel:2,500~3,000MPa			
--	--	--	--

软钢 (低碳钢) Low Carbon Steel	190	高碳合金钢 High Alloy Steel	245
中碳钢 Medium Carbon Steel	210	铸铁 Cast Iron	93
高碳钢 High Carbon Steel	240	可锻铸铁 Malleable Cast Iron	120
低碳合金钢 Low Alloy Steel	190	青铜/黄铜	70

切削速度
Cutting Speed

$$V_c = \frac{\pi X D_m X n}{1000}$$

- V_c : 切削速度 Cutting Speed(m/min)
- n : 转速 Spindle Revolution(min⁻¹)
- D_m : 工件外径 Workpiece Diameter(mm)

表面粗糙度
Surface Roughness

$$R_z = h = \frac{f^2}{8 X R(\gamma \epsilon)} \times 1000$$

- $R_z=h$:理论表面粗糙度 Theoretical Surface Roughness(um)
- f :每转进给量 Feed Rate(mm/rev)
- $R(\gamma\epsilon)$:刀尖半径 Corner Radius of Insert(mm)

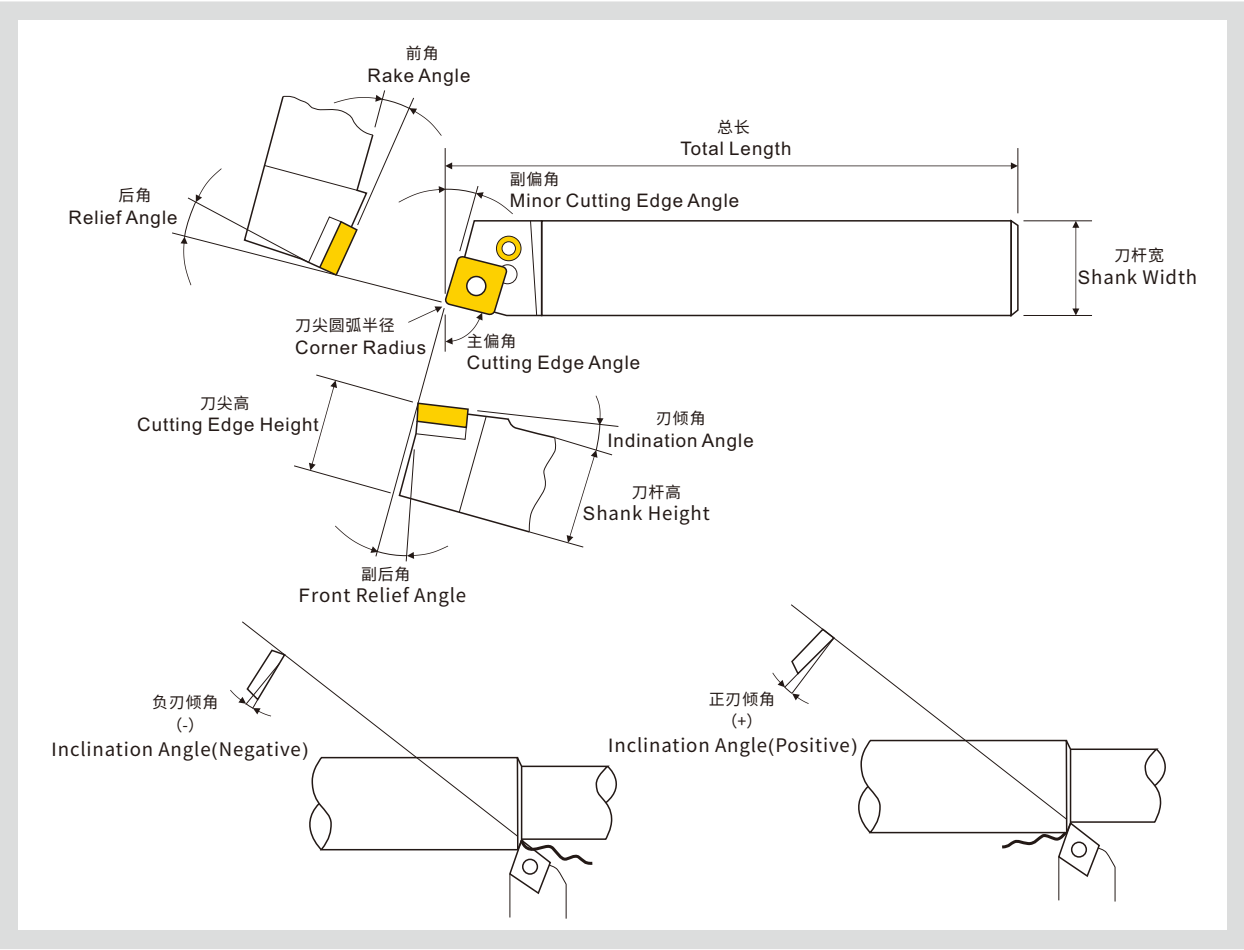
实际表面粗糙度 Actual Surface Roughness	钢的场合: 理论粗糙度 (R_z) X1.5~3 steel:Theoretical Surface Roughness(R_z)X1.5~3 铸铁的场合: 理论粗糙度 (R_z) X3~5 Cast Iron:Theoretical Surface Roughness(R_z)X3~5
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车削加工问题及对策
Trouble Shooting (Turning)

故障内容 Trouble			对策与检查要点 Measures		刀具材质 Insert Grade		切削条件 Cutting Conditions						刀具几何形状 Tool Geometry					机床装夹 Setting/ Machine					
主要原因 Trouble Item			硬度更高的材质 change to harder grade	韧性更大的材质 change to tougher grade	耐冲击性更好的材质 More thermal shock resistant grade	耐粘结性更好的材质 Change to more welding resistant grade	切削速度 Cutting speed Vc	进给量 Feed rate fz	切深 Depth of cut ap	改变走刀路线 Tool path review	切削液 Coolant	校正刀片断屑槽槽形 Chipbreaker review	前角 Rake angle	刀尖圆弧半径 Corner-R	余偏角 Approach angle	切削刃强度/钝化 Edge strength honing	提高刀片精度等级 Change to higher tolerance	提高刀杆刚度 Tool holder rigidity	工件/刀具的安装 Workpiece/tool installation	刀柄悬伸长度 Over hang length	动力, 机械松动情况 Power, rigidity		
			提高/增加 Higher(Larger) ↑	降低/减少 lower(Smaller) ↓	喷雾式 Usage of mist	干式 Dry	增大 Increase ↑	减少 Decrease ↓															
尺寸的不稳定 Unstable dimension	工件尺寸不稳定 Unstable workpiece dimension	刀片精度不当 Unsuitable insert tolerance																●					
		刀具或工件的逃隙 Tool or workpiece evacuation											●	●	↑	↓	●			●	●	●	
	切削中频繁偏心 Frequent offset during cutting	后刀面磨损增大 Flank wear increase	●												●	↑							
切削条件不当 Unsuitable cutting conditions						●	↓	●	↑														
刃口切削瘤 Built-up edge					●	●	↑																
表面粗糙度 Surface roughness	表面粗糙度差 Poor surface roughness	刀具磨损使切削性能不佳 Poor cutting by tool wear	●			●	●	↓			●		●	●	↑	●	↓	●					
		崩损 Chipping		●				●	↓	●	↓			●		↑	●	↑			●	●	●
		粘刀, 刃口积屑瘤 Welding, built-up edge				●	●	↑				●		●	●	↑		↓	●				
		切削条件不当 Unsuitable cutting conditions					●	↑	●	↓	●	↓		●									
		刀具材质/几何形状不当 Unsuitable tool geometry/geometry											●		●	↑		↓	●				
		振动, 振刀 Vibration, chattering		●				●	↓	↓	↓	↓		●	●	↑	●	↓	↓	↓	●	●	●
发热 Heat	切削发热使加工精度恶化或 刀具寿命降低 Deterioration of accuracy or tool life by cutting heat	切削条件不当 Unsuitable cutting conditions					●	↓	↓	↓	↓	●		●	↑		↓						
		刀具材质/几何形状不当 Unsuitable tool geometry/geometry	●										●	●	↑		↓						
		振动, 振刀 Vibration, chattering		●				●	↓	↓	↓	↓	●	●	↑	●	↓	↓	↓	●	●	●	
毛刺、欠损、毛边 Burr, Chipping, Scuffing	钢, 铝—毛刺 Steel, Aluminium - Burr	切削条件不当 Unsuitable cutting conditions					●	↓	●	↑		●	●										
		刀具材质/几何形状不当 Unsuitable tool geometry/geometry	●										●	●	↑	↓	↓	↓	↓				
	铸铁-欠损 Cast iron workpiece chip off	切削条件不当 Unsuitable cutting conditions						●	↓	↓	↓	●		●	↑	●	↑	↓	↓	●	●	●	
		刀具材质/几何形状不当 Unsuitable tool geometry/geometry	●										●	●	↑	●	↑	↓	↓	●	●	●	
	软钢-毛边 Mild steel scuffing	切削条件不当 Unsuitable cutting conditions					●	↑	●	↓		●		●	↑								
		刀具材质/几何形状不当 Unsuitable tool geometry/geometry	●		●								●	●	↑		↓						
切刃的损伤 Edge damage	后刀面和前刀面磨损增大 Wear increase at relief face rake face	后刀面的磨损 Flank wear	●				●	↓				●		●	↑	●	↓						
		前刀面的磨损 Rake face wear	●				●	↓	●	↓	↓	●		●	↑	●	↑						
	境界磨损 Notching				●	●	↓				●												
	崩损 Chipping		●				●	↓	↓	↓						↑	↑	●	●	●	●		
	崩裂 Crack		●	●			●	↓	↓	↓		●		●	↑	↑	↑		●	●	●		
	热龟裂 Thermal Crack			●			●	↓	↓	↓		●	●	↑		↓							
	切刃刀尖角部的变形 Edge nose deformation	继续加工时刀尖部变形 Edge nose deformation during interrupted cutting	●				●	↓	↓	↓		●	●	↓	↑	↑	↑						
	刃口积屑瘤 Built-up edge	刀具材质/切削条件不当 Unsuitable tool grade/cutting conditions				●	●	↑	↑		●		●	↑		↓	↓	●					
	切屑处理 Chip control	长切屑缠绕 Long, tangling chips	切削条件不当 Unsuitable cutting conditions					●	↓	↑	↑	●		●									
刀具切刃形状不当 Unsuitable tool geometry													●		↓	↓							
短切屑四处飞溅 Chips scattering		切削条件不当 Unsuitable cutting conditions						●	↓	↓			●										
		刀具切刃形状不当 Unsuitable tool geometry											●		↑	↑							
(1)为防止振刀, 可采用较大的进给量。To prevent chattering, the higher f may be suitable																							
(2)为避免毛边, 可采用较大的进给量。To prevent scuffing, the higher f may be suitable																							

(1)为防止振刀, 可采用较大的进给量。To prevent chattering, the higher f may be suitable
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车刀各部分的名称角度
Terms and Angles of Turning Toolholder



刀尖各角度的功能
Function of Tool Angle

刀尖角度 Tool Angle	作用 Function	效果 Effect
前角 Rake Angle	对切削阻力，切削热，切削排出，工具寿命产生影响。 ● Affects cutting force, cutting heat, chip evacuation and tool life.	正角时，可得到更锋利的切削效果，切削阻力减少，但刀尖强度降低。 加工料加工性好或细工件时，推荐使用正角。 若在黑皮或继续加工需要较强的刀尖强度时，推荐使用较小的前角或负角。 ● When it is positive (+) angle, sharper cutting performance is obtained, less cutting resistance but less edge strength. ● Positive (+) angle is recommended for easy to machine workpieces or thin workpieces. ● Smaller rake angle or negative (-) angle is recommended when a stronger edge is required like scale cutting or interrupted cutting.

刀尖角度 Tool Angle	作用 Function	效果 Effect
刃倾度 Inclination Angle	重切削时，切削开始点的刀尖上要承受很大的冲击力，为防止刀尖受此力而发生脆性损伤，故需有刃倾角。 ● The corner will bear a strong impact when heavy cutting ● It needs a suitable cutting edge inclination angle to prevent fracture	刃倾角为负时，切屑流向工件，为正时反向排出；刃倾角为正时，切削刃强度增大，但切削背分力也增加，易产生振动。 推荐车削时为3°~5°，铣削时10°~15°。 ● When it is negative---chip flows to the workpiece and vice versa. ● When it is positive---cutting edge strength improves, but the back cutting force also increases and it is inclined to produce vibration. ● Recommended values: Turning 3°~5°, Milling 10°~15°.
主后角 Relief Angle	避免切刃以外的部分与加工面接触。 ● Prevents the tool's contact to the workpiece surface, except the cutting edge	若后角小，刀尖强度变大，但后刀面磨损在短时间内变大，刀具寿命也会变短。 ● When it is small, the cutting edge strength improves, but the wear at relief face increases, and tool life may decrease.
主偏角 Cutting Edge Angle	影响切屑控制能力与切削力方向。 ● Affects chip control and the direction of cutting force	主偏角大时。切屑变厚且切屑控制能力提高 ● When it is large, chip thickness becomes thick and chip control improves.
副偏角 Minor Cutting Edge Angle	减少已加工表面与刀具摩擦。 ● Prevents friction between cutting edge and work surface	副偏角小，切削刃强度增加，但刀尖发热；副偏角小，背分力增加，切削时易产生振动；粗加工时副偏角宜小些，而精加工时则宜大些。一般为5°~15°。 ● When it is small, the cutting edge strength will improve, but the tip is heated. ● When it is small, back cutting force increases and it is inclined to produce cutting vibration. ● It should be smaller for rough finishing, while it can be larger for rough finishing. Recommended values: 5°~15°.
刀尖圆弧半径 Corner Radius	对刀尖的强度及加工表面粗糙度影响很大。 ● Affects tool nose strength and roughness of the finished surface	一般适宜值选进给量的2~3倍。 ● Recommended values: 2~3 times of feed rate.