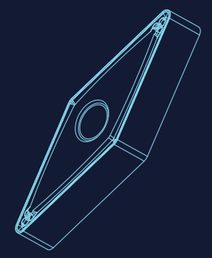
成都邦普切削刀具股份有限公司
Chengdu Bangpu Cutting Tools CO.,LTD

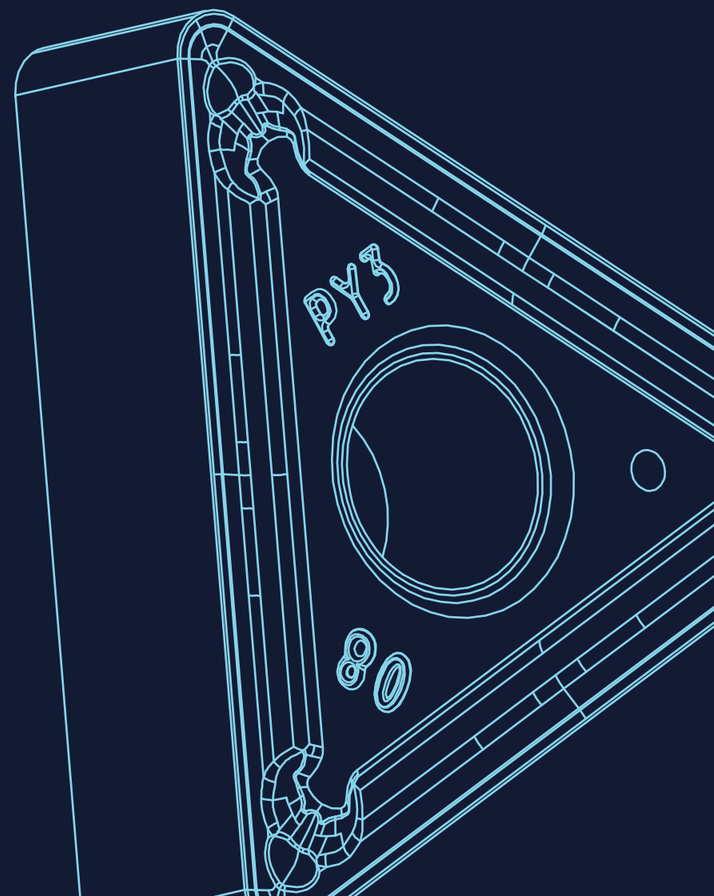
邦普刀具

PRODUCTS CATALOG

METAL CUTTING TOOLS 2024 Edition

2024综合产品目录





CDBPTools

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ENGINEER THE FUTURE
ADVANCE TOGETHER

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

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

硬质合金产品安全指南
SAFETY GUIDELINES FOR CARBIDE TOOLS

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

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

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

1.硬质合金刀具的基本特征
Basic characteristics of carbide cutting tools

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

2.硬质合金刀具使用预防事项
Cautions

① 硬质合金是硬而脆的材料，在用力地震动和夹持下可能引起刀具的破损和断裂。
Carbide tool materials are extremely both hard and brittle. Thus, it might be broken by shocks and tightening with excess force.

② 硬质合金材料因其比重大，在处理大型、数量较多的产品时，应作为重物处理，并且需要注意其处理事项。
Carbide tool materials have a large specific gravity. Thus, they require special attention as heavy materials when the size or quantity is large.

③ 硬质合金具有锋利的切削刃，因此在处理过程中需要戴手套，以防被刀刃割伤。
It is required to handle the carbide tool with gloves in case getting hurt from sharp cutting edge.

④ 存储刀具于腐蚀性气体中，将会导致刀具腐蚀，并降低其韧性。
Cutting tools stocked in corrosive gas will be corroded with decreased toughness.

⑤ 在使用刀具前请先认真阅读样本及安全指南。
Please read the catalog and safety guidelines carefully before application.

⑥ 在不良条件下禁止使用刀具。
It is forbidden to use the cutting tools under unfavorable conditions.

3.使用硬质合金刀具进行加工时注意事项
Attention to be paid in the process of application

① 硬质合金研磨时会产生烟雾和粉尘，它包含了有害成分如钴，因此在研磨过程中推荐使用防毒面具，吸排尘设备。假如不小心粉尘溅到手上或者飞入您的眼睛，请立即用清水清洗。
It is recommended to use local exhaust ventilation and respirators, a dust protective mask and dust-clean equipment when grinding and machining since cutting tool products generate harmful mist and dust containing cobalt. If dust makes contact with the hands or eyes,immediately wash the affected area with clean water. Washing hands or eyes with clean water immediately if dust splashed into those body part accidently.

② 表面状况会影响硬质合金工具的强度，所以推荐使用金刚石研磨砂轮进行加工。
Surface conditions affect toughness of cutting tools. Therefore, use a diamond grinding wheel for finishing.

③ 在硬质合金刀具上用激光标志或者电刻都会产生裂痕，而这种裂痕会严重影响刀具的使用寿命。
Cracks caused by lasering or electrograving on cutting tools will decrease tools life badly.

④ 焊接硬质合金材料时，因焊接熔点过高或过低，会导致刀具脱落或破损。
Cutting tools will fall off or break in the process of welding with extremely high or low melting point.

⑤ 由于加工温度过高或零件本身原因，使用油性切削液会引起火灾，因此在使用前请做好防火措施。
Fire prevention measures must be taken, as oily cutting fluids will cause fires at high temperature under process.

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

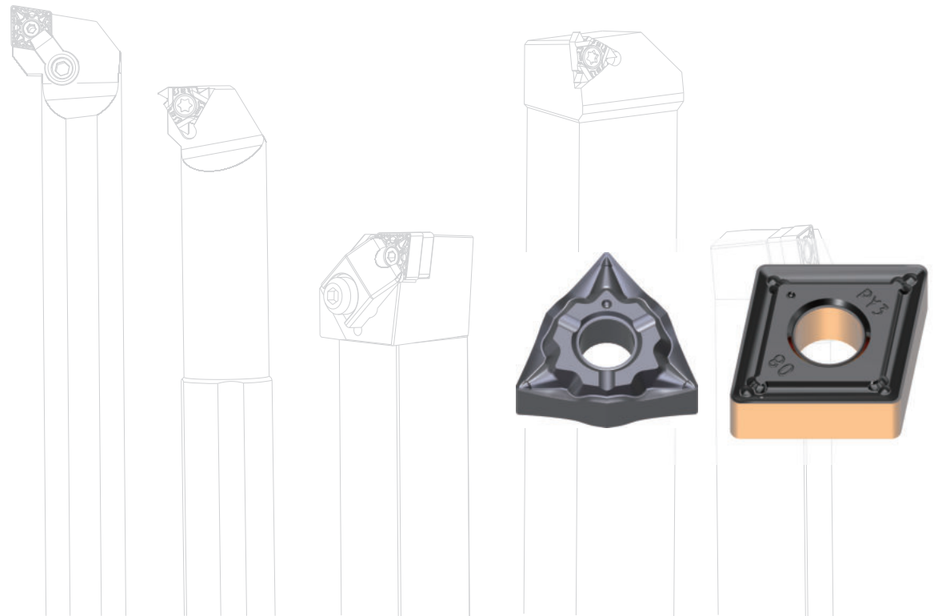
项目 Items	危险因素 Risk factors	应对措施 Solutions
切削刀具 Cutting tools	·如果不带手套，很容易被切削刀具锋利的刀刃所割伤 ·Easy to be cut without golves.	·从盒内取出或安装到设备上时，应使用防护疏导等防护工具 ·Put on protective equipment before taking out or installing the cutting tools.
	·在切削过程中产生的刀屑有热有锋利，有烫伤或割伤的危险 ·Easy to be burned or cut by sharp chips in the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

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车削
General Turning



车削/General Turning

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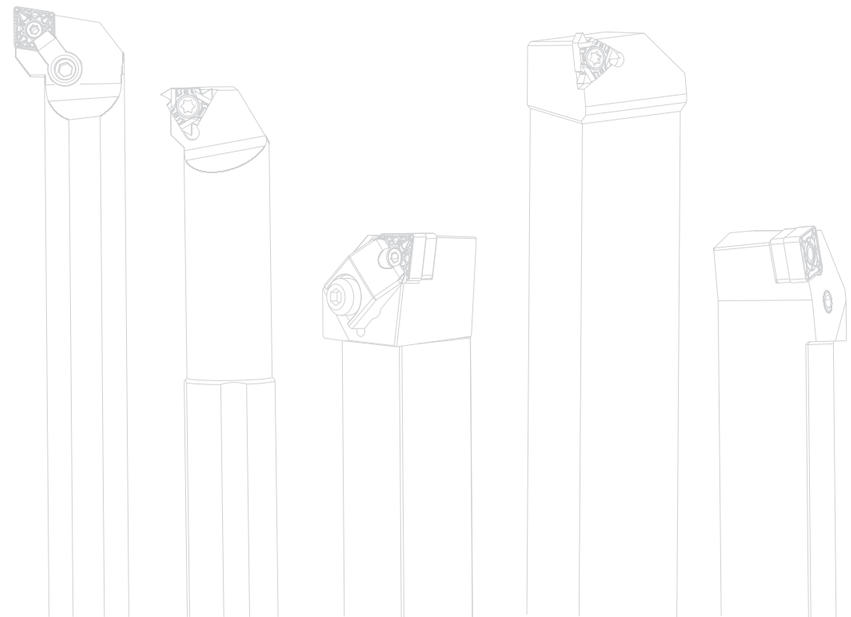
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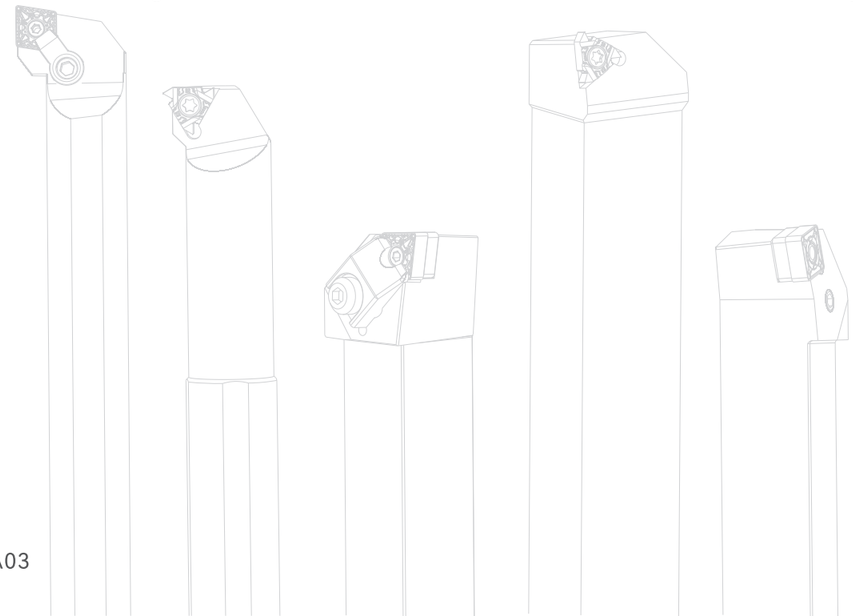
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车削牌号命名规则
Coating Grade Description



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

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

车削刀片命名规则
Code Key For Turning Inserts

C	N	M	G	12	04	04	E	N	—	PY3
1	2	3	4	5	6	7	8	9		10

1 刀片形状

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

2 刀片后角



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

3 精度代号

	d (±mm)	m (±mm)	s (±mm)	d=6.35/9.525	d=12.7	d=15.8/19.05
A	0.025	0.005	0.025	●	●	●
C	0.025	0.013	0.025	●	●	●
E	0.025	0.025	0.025	●	●	●
F	0.013	0.005	0.025	●	●	●
G	0.025	0.025	0.130	●	●	●
H	0.013	0.013	0.025	●	●	●
J	0.050	0.05	0.025	●		
	0.080	0.05	0.025		●	
	0.100	0.05	0.025			●
K	0.050	0.013	0.025	●		
	0.080	0.013	0.025		●	
	0.100	0.013	0.025			●
M	0.05	0.08	0.13	●		
	0.08	0.13	0.13		●	
	0.10	0.15	0.13			●
N	0.05	0.08	0.025	●		
	0.08	0.13	0.025		●	
	0.10	0.15	0.025			●
U	0.08	0.13	0.13	●		
	0.13	0.20	0.13		●	
	0.18	0.27	0.13			●



4 切削槽及夹固形式

R 无中心孔	Q 圆柱孔 + 双面倒角 40°- 60°
F 无中心孔	C 圆柱孔 + 双面倒角 70°- 90°
N 无中心孔	G 圆柱孔
A 圆柱孔	T 圆柱孔 + 单面倒角 40°- 60°
M 圆柱孔	H 圆柱孔 + 单面倒角 70°- 90°
U 圆柱孔 + 双面倒角 70°- 90°	W 圆柱孔 + 单面倒角 40°- 60°
J 圆柱孔 + 双面倒角 70°- 90°	B 圆柱孔 + 单面倒角 70°- 90°
X 特殊设计	

5 切削刃长度

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

3 内切圆

代号	内切圆直径（mm）
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

3 厚度

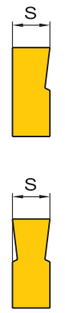
代号	厚度（mm）
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

3 刀尖圆弧半径 (inch)

代号	刀尖圆弧半径（mm）
0.5	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

· 厚度指刀片底面与切削刃最高部分之间的高度

6 刀片厚度 S(mm)



01	S=1.59
T1	S=1.98
02	S=2.38
03	S=3.18
T3	S=3.97
04	S=4.76
05	S=5.56
06	S=6.35
07	S=7.94
09	S=9.52

7 刀尖圆角半径 R



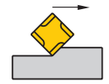
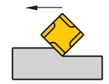
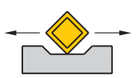
圆形刀片
00 内切圆（英制）
MO 内切圆（公制）

R (mm)
02 0.2
04 0.4
05 0.5
08 0.8
12 1.2
16 1.6
20 2.0
24 2.4
32 3.2

8 刃口钝化代号

F		尖刃
E		倒圆刃
T		倒棱刃口
S		倒圆且倒棱刃口

9 切削刃方向

R	
L	
N	

10 制造商选择代号（断屑槽型）

刀片的国际编号通常由前九位编号组成（包括 8 位， 9 位编号，仅在需要时标出）。此外，制造商根据需要可以增加编号

-P1 -P3 -P6 -S1 -S2 -N1 -N2

车削刀片材质推荐一览表

List of Grades Recommendations for Turning Insert

ISO使用 ISO Application		车削 Turning							螺纹 Threading		切槽切断 Grooving & Parting		
代号 Code		涂层 Coating		硬质合金 Cemented carbide	金属陶瓷 Cermet	涂层金属陶瓷 Cermet with coating	PCDBN	PCD	涂层 Coating	硬质合金 Cemented carbide	涂层 Coating		硬质合金 Cemented carbide
		CVD	PVD								CVD	PVD	
P 钢 Steel	01	BP6305											
	10	BP6315			BPJ6215	BPJ6315	BPC6115						
	20	BP6325									BG6225		
	30	BP6335											
	40												
M 不锈钢 Stainless steel	01		BP2205									BG2205	
	10		BP2215									BG2215	
	20		BP2225						BT2125	BT2225		BG2225	
	30												
	40												
K 铸铁 Cast iron	01												
	10	BP3205											
	20	BP3215					BPC3115					BG3215	
	30												
	40												
S 耐热合金、钛合金 Heat-resistant alloy, Titanium alloy	01												
	10		BP4205										
	20		BP4215						BT4215				
	30												
	40												
N 有色金属 Non-ferrous metal	01												
	10			BP5205			BPD5105			BTS205			BG5205
	20			BP5215			BPD5115						
	30												
	40												

材质说明

Grades Description

P类钢件材质说明

P-Steel material description

类别 Category		牌号 Grade		应用推荐 Application recommendation				
P	钢Steel	BP6305	P01-P10	·高速连续加工材质 ·出色的抗沟槽磨损和抗塑性变形能力 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3+TiN ·Grade for continuos cutting at high speed. ·Excellent performance of high notch resistance and resistance to plastic deformation. ·New coating technology, can withstand high temperature when machining with or without coolant; long tool life.	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
					连续加工 Continous cutting	★	☆	
					一般加工 Ordinary cutting	☆		
					断续加工 Interrupted cutting			
		BP6315	P10-P20	·精加工专用材质 ·具有出色抗热裂纹和抗塑性变形的基材，保证耐崩刃性 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3+TiN ·Grade for finish turning. ·Substrate having excellent resistance to thermal crack and plastic deformation, strong resistance to chipping. ·New coating technology, can withstand high temperature when machining with or without coolant; long tool life.	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
					连续加工 Continous cutting	★	★	☆
					一般加工 Ordinary cutting	★	☆	
					断续加工 Interrupted cutting			
		BP6325	P20-P30	·半精加工专用材质 ·超强的耐韧性基体和耐热的MTD涂层相结合，提高耐磨性和稳定性 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3 ·Grade for semi-finishing machining. ·Substrate having high resistance combined with heat resistance MTD coating, improves stability and wear resistance. ·New coating technology, can withstand high temperature when machining with or without cooling liquid; long tool life.	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
					连续加工 Continous cutting			
					一般加工 Ordinary cutting	☆	★	★
					断续加工 Interrupted cutting	★	★	☆
		BP6335	P30-P40	·粗加工材质 ·超强的耐韧性基体和耐热的MTD涂层相结合，提高耐磨性和耐冲击性 ·新型涂层技术，能够承受高温，干湿切削加工，延长刀具使用寿命 ·TiN+TiCN+Al2O3 ·Grade for rough machining. ·Substrate having high resistance combined with heat resistant MTD coating, improves resistance to impact and wear . ·New coating technology, can withstand high temperature when machining with or without coolant; long tool life.	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
					连续加工 Continous cutting			
					一般加工 Ordinary cutting		☆	★
					断续加工 Interrupted cutting	☆	★	★

材质说明
Grades Description

M类不锈钢材质说明
M-Stainless Steel Material Description

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

K类铸铁材质说明
K-Cast Iron Material Description

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

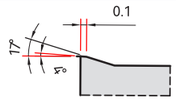
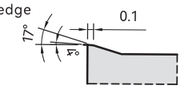
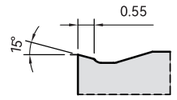
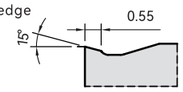
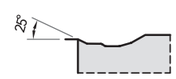
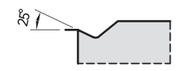
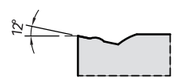
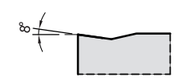
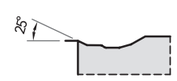
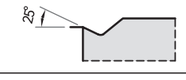
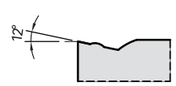
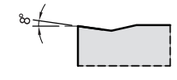
材质说明
Grades Description

S类不锈钢材质说明
S Heat-resistant alloy material description

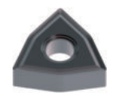
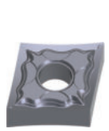
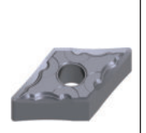
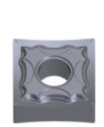
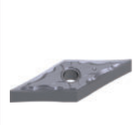
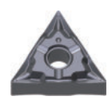
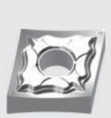
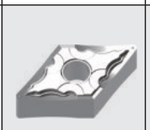
类别 Category		牌号 Grade		应用推荐 Application recommendation	加工类型 Processing types	精加工 Finishing	半精加工 Semi-finishing	粗加工 Rough machining
S	耐热合金 Heat-resistant alloy	BP4205	S01-P10	·精-半精加工专用材质 ·新型PSiX基纳米涂层，硬度高，抗高温氧化性强 ·亚微细晶粒材质确保刀片耐磨性 ·适用于钛合金、高温合金、镍基合金等难加工材料精到半精加工 ·Material for finish to semi-finish machining.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

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

负型精加工槽型
Geometries for Finish Turning of Negative Inserts

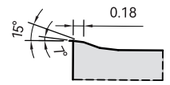
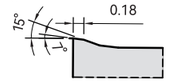
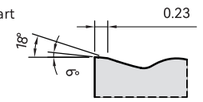
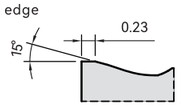
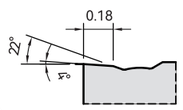
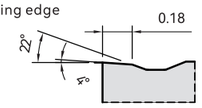
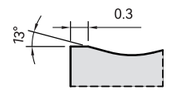
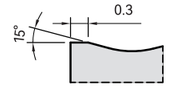
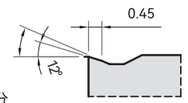
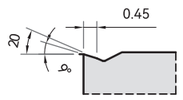
用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
精加工 Finish Machining	P1 	·钢件精加工专用 ·特殊断屑点设计，防止切削堵塞 ·轻切削槽型、低切削力 ·适用于加工细长轴、薄壁和不稳定夹紧零件 ·Specialized for finish machining of steel. ·Special designed chip breaking point which prevents blockage during cutting. ·Geometry for light cutting and low cutting force. ·Suitable for machining slender shaft, workpiece with thin wall and unstable clamping parts.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M1 	·不锈钢精加工专用 ·全周槽型设计，具有宽广的排屑空间 ·轻切削槽型、低切削力 ·适用于精-半精加工 ·Specialized for finish machining of stainless steel. ·Molded geometry design with wide chip evacuation space. ·Geometry for light cutting and low cutting force. ·Suitable for finish-semi finish machining.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	S1 	·波浪式容屑槽，分散切屑力 ·刃口大前角设计,降低切削力 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于难加工材料及不锈钢的高精度加工 ·Corrugated chip pocket can dissipate the chip cutting force. ·The cutting edge designed with large rake angle can lower the cutting force. ·Super grinding technology makes sure the positioning accuracy and the cutting edge quality. ·Suitable for high precision machining of stainless steel and difficult-to-cut materials.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	S2 	·闭合式断屑槽，小切深排屑更流畅 ·锋利切削刃，切削更轻快 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于难加工材料及钢、不锈钢精加工 ·Closed geometry with small depth of cut can evacuate the chips smoother. ·Sharp cutting edge makes cutting lighter and faster. ·Super grinding technology makes sure the positioning accuracy and the cutting edge quality. ·Suitable for finish machining of stainless steel and difficult-to-cut materials.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	N1 	·波浪式容屑槽&锋利切削刃-分散切削阻力，延长刀具使用寿命 ·表面采用抛光处理，使切削更流畅，防止黏刀 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于有色金属精-半精加工 ·Corrugated chip pocket & sharp cutting edge dessipate the cutting resistance and prolong tool service life. ·Polished surface makes cutting smoother and prevents adhesion. ·Super grinding technology makes sure the positioning accuracy and the cutting edge quality. ·Suitable for finish to semi-finish machining of non-ferrous metal.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	N2 	·闭合式断屑槽，小切深排屑更流畅 ·表面采用抛光处理，使切削更流畅，防止黏刀 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于有色金属精-半精加工 ·Closed geometry with small depth of cut can evacuate the chips smoother. ·Polished surface makes cutting smoother and prevents adhesion. ·Super grinding technology makes sure the positioning accuracy and the cutting edge quality. ·Suitable for finish machining of non-ferrous metal.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

负型刀片槽型一览表
List of Geometries for Negative Inserts

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

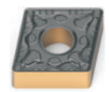
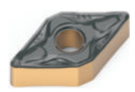
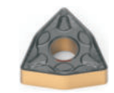
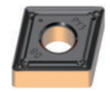
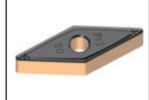
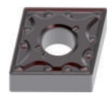
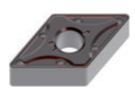
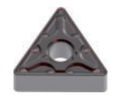
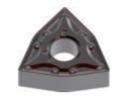
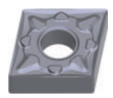
负型半精加工槽型

Geometries For Semi-Finish Turning of Negative Inserts

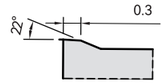
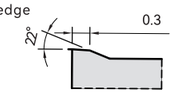
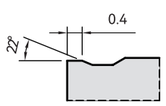
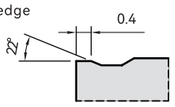
用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
半精加工 Semi-finishing Machining	P3 	·钢件半精加工专用 ·特殊断屑点设计，防止切削阻塞 ·仿形加工及内孔加工，具有稳定的切屑控制 ·适用于钢、合金钢等材料通用加工，具有宽广的应用范围 ·Specialized for semi-finish machining of steel. ·Special designed chip breaking point which prevents blockage during cutting. ·Profiled machining and boring machining with stable control of chips. ·Wider application ranges. Suitable for general machining of steel and steel alloy.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	PY3 	·钢件半精加工-粗加工 ·特殊断屑点设计，排屑更流畅 ·切深不稳定切屑条件下，切屑控制优异 ·适用于钢、合金钢等材料通用加工，搭配不同材质，实现连续和断续加工 ·Sem-finish to rough machining of steel. ·Special designed chip breaking point which can evacuate the chips more smoothly. ·Excellent chip control when the depth of cut is not stable. ·Suitable for general machining of steel and steel alloy; it can be used for continous and interrupted cutting when working with different materials.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M3 	·不锈钢半精加工专用 ·特殊槽型设计，通用性能更强 ·特殊材料配合，用于低-中-高速切削 ·适用于各种不锈钢通用加工，具有极好的切削性能 ·Specialized for semi-finish machining of stainless steel. ·Special geometry design for general application. ·Special material ingredient which can be used in low-medium-high speed. ·excellent cutting performance which is suitable for general machining of stainless steel.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K3 	·铸铁半精加工专用 ·全周槽型设计，具有宽广的容屑空间 ·特殊材料配合，用于低-中-高速切削 ·适用于各种铸铁通用加工，具有极好的切削性能 ·Specialized for semi-finish machining of cast iron. ·Molded geometry design with wide chip space. ·Special material ingredient which can be used in low-medium-high speed. ·Excellent cutting performance which is suitable for general machining of stainless steel.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	S3 	·难加工材料半精加工专用 ·特殊槽型设计，切削力更低 ·锋利切削刃设计，降低积屑瘤产生 ·适用于各种难加工材料半精-粗加工，具有极好的切削性能 ·Specialized for semi-finish machining of difficult-to-cut materials. ·Special geometry design with lower cutting force. ·Sharp cutting edge design reduces the formation of the built-up edge. ·It is with excellent cutting performance which is suitable for semi-finish to rough machining of various kinds of difficult-to-cut materials.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

负型刀片槽型一览表

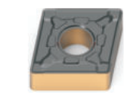
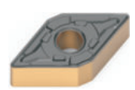
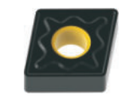
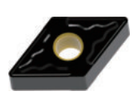
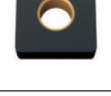
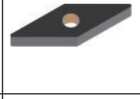
List of Geometries for Negative Inserts

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

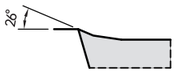
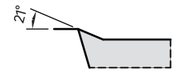
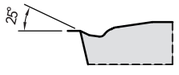
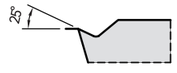
负型粗加工槽型
Geometries For Rough Turning of Negative Inserts

用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
粗加工 Rough Machining	P6 	·钢件粗加工专用 ·特殊槽型设计，刃口强度高，断屑更优异 ·大切深高进给加工，高金属去除率 ·适用于多种断续粗加工 ·Specialized for rough machining of steel. ·Special geometry design with strong cutting edge and good chip breaking performance. ·Big depth of cut at high feed rate and high metal removal rate. ·Suitable for various rough machining applications.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K6 	·铸铁粗加工专用 ·特殊槽型设计，刃口强度高 ·大切深高进给加工，高金属去除率 ·适用于多种断续粗加工 ·Specialized for rough machining of cast iron. ·Special geometry design with strong cutting edge. ·Big depth of cut at high feed rate and high metal removal rate. ·Suitable for various continous rough cutting.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	平板 No chipbreaker 	·铸铁粗加工 ·特殊刃口处理方式，刃口强度高 ·大切深高进给加工，高金属去除率 ·适用于多种强断续粗加工 ·Rough machining for cast iron. ·Special treatment with the cutting edge, strong cutting edge. ·Big depth of cut at high feed rate and high metal removal rate. ·Suitable for various strong interrupted machining applications.	刀尖部分 The tip part  主切削刃部分 Main cutting edge

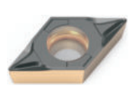
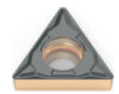
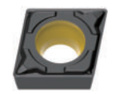
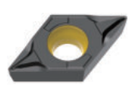
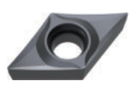
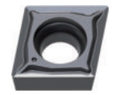
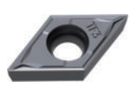
负型刀片槽型一览表
List of Geometries for Negative Inserts

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

正型精加工槽型
Geometry For Finish Turning of Positive Inserts

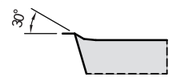
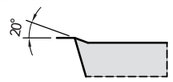
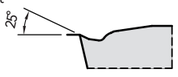
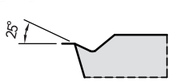
用途	断屑槽形状	特征·用途	剖面图
Purpose	Geometry	Features·Purpose	Profile drawing
精加工 Finish Machining	P1 	·钢件精加工专用 ·特殊断屑点位置设计，排屑更顺畅 ·高线速、小切深、低进给，具有出色的表面光洁度 ·适用于加工细长轴、薄壁和不稳定夹紧零件 ·Specialized for finish machining of steel. ·Special chip breaking point design which can evacuate the chips more smoothly. ·High speed, small depth of cut, low feed rate, excellent surface quality. ·Suitable for machining slender shaft, workpiece with thin wall and unstable clamping parts.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M1 	·不锈钢精加工专用 ·特殊断屑点位置设计，排屑更顺畅 ·轻切削槽型、低切削力 ·适用于加工细长轴、薄壁和不稳定夹紧零件 ·Specialized for finish machining of stainless steel. ·Special chip breaking point design which can evacuate the chips more smoothly. ·Geometry with low cutting force for light cutting. ·Suitable for machining slender shaft, workpiece with thin wall and unstable clamping parts.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K1 	·铸铁精加工专用 ·特殊断屑点位置设计，排屑更顺畅 ·正前角的轻型切削槽型可产生低切削力 ·适用于加工细长轴、薄壁和不稳定夹紧零件 ·Specialized for finish machining of cast iron. ·Special chip breaking point design which can evacuate the chips more smoothly. ·Geometry with positive rake angle for light cutting can generate low cutting force. ·Suitable for machining slender shaft, workpiece with thin wall and unstable clamping parts.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	S1 	·难加工材料专用 ·开放式断屑槽型，低切削力，排屑顺畅 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于难加工材料高精度加工 ·Specialized for difficult-to-cut materials. ·Open type geometry with low cutting force to evacuate the chips smoothly. ·Super grinded cutting edge makes sure the accuracy of location and the quality of the cutting edge. ·Suitable for high precision machining of difficult-to-cut materials.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	S2 	·闭合式断屑槽，小切深排屑更流畅 ·锋利切削刃，切削更轻快 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于难加工材料及钢、不锈钢精加工 ·Closed type geometry with small depth of cut to evacuate the chips more smoothly. ·Sharp cutting edge makes cutting lighter and faster. ·Supergrinded cutting edge makes sure the accuracy of location and the quality of the cutting edge. ·Suitable for finish machining of difficult-to-cut materials, steel and stainless steel.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

正型刀片槽型一览表
List of Geometries for Positive Inserts

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

正型精加工槽型

Geometries for Finish Turning of Positive Inserts

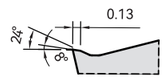
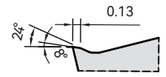
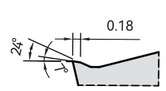
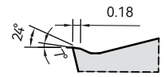
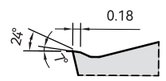
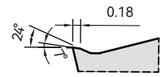
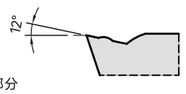
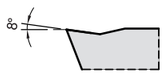
用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
精加工 Finish Machining	N1 	·波浪式容屑槽&锋利切削刃-分散切削阻力，延长刀具使用寿命 ·表面采用抛光处理，使切削更流畅，防止黏刀 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于有色金属精-半精加工 ·Corrugated chip pocket and sharp cutting edge can dissipate the chip cutting force and prolong tool service life. ·Polished surface makes cutting smoother and prevents adhesion. ·Super grinded cutting edge makes sure the accuracy of location and the quality of the cutting edge. ·Suitable for finish to semi-finish machining of non-ferrous metal.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	N2 	·闭合式断屑槽，小切深排屑更流畅 ·表面采用抛光处理，使切削更流畅，防止黏刀 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于有色金属精-精加工 ·Closed type geometry with small depth of cut to evacuate the chips more smoothly. ·Polished surface makes cutting smoother and prevents adhesion. ·Super grinded cutting edge makes sure the accuracy of location and the quality of the cutting edge. ·Suitable for finish machining of non-ferrous metal.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

正型刀片槽型一览表

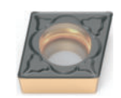
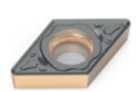
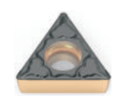
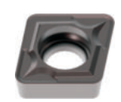
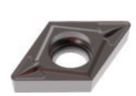
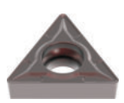
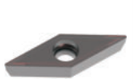
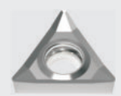
List of Geometries for Positive Inserts

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

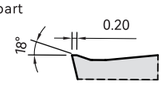
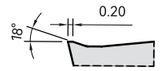
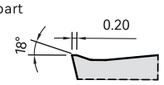
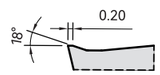
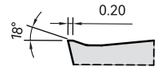
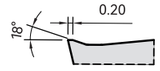
正型半精加工槽型
Geometry for Semi-finish Turning of Positive Inserts

用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
半精加工 Semi-finishing Machining	P3 	·钢件半精加工专用 ·特殊断屑点位置设计，排屑更顺畅 ·仿形、外圆、内孔及端面加工，具有稳定的切屑控制 ·适用于钢、合金钢等材料通用加工，具有宽广的应用范围 ·Specialized for semi-finish machining of steel. ·Special designed chip breaking point which can evacuate the chips more smoothly. ·Profiled machining, external turning, boring and end face turning with stable control of the chips. ·With wide application ranges. Suitable for general machining of steel and steel alloy.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M3 	·不锈钢半精加工专用 ·特殊槽型设计，切削力更低 ·锋利切削刃设计，降低积屑瘤产生 ·适用于不锈钢纵向车削、仿形车削及端面车削通用加工 ·Specialized for semi-finish machining of stainless steel. ·Special geometry design with lower cuttig force. ·Designed with sharp cutting edge to reduce the built-up edge. ·Suitable for longitudinal turning, profiled turning and end face turning of stainless steel.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K3 	·铸铁半精加工专用 ·特殊刃口设计，增加刃口强度同时降低切削力 ·特殊材料配合，用于低-中-高速切削 ·适用于各种铸铁通用加工，具有极好的切削性能 ·Specialized for semi-finish machining of cast iron. ·Special designed cutting edge can strenthen the cutting edge and lower the cutting force. ·Working with special materials which can be used in low-medium-high speed. ·Suitable for general machining of various cast iron, with excellent cutting performance.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	N3 	·有色金属半精加工专用 ·刃口锋利及宽大容屑槽，不稳定内径加工时可减小黏屑 ·超精磨刃磨技术，保证定位精度和刃口质量 ·适用于有色金属半精-粗加工 ·Specialized for semi-finish machining of the non-ferrous metal. ·Sharp cutting edge and wide chip pocket can reduce chips adhesion in unstable boring conditions. ·Super grinded cutting edge makes sure the accuracy of location and the quality of the cutting edge. ·Suitable for semi-finish to rough machining of non-ferrous metal.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

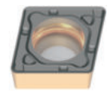
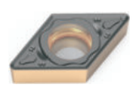
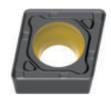
正型刀片槽型一览表
List of Geometries for Positive Inserts

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

正型粗加工槽型
Geometries for Rough Turning of Positive Inserts

用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
粗加工 Rough Machining	P6 	·钢件粗加工专用 ·特殊槽型设计，刃口强度高，断屑优异 ·大切深高进给加工，高金属去除率 ·适用于断续及强断续钢件粗加工 ·Specialized for rough machining of stainless steel. ·Special designed geometry with strong cutting edge and good chip breaking performance. ·Big depth of cut and high feed rate, high metal removal rate. ·Suitable for interrupted and strong interrupted rough machining of steel.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	M6 	·不锈钢粗加工专用 ·特殊槽型设计，刃口强度高，断屑优异 ·大切深高进给加工，高金属去除率 ·适用于断续及强断续不锈钢粗加工 ·Specialized for rough machining of stainless steel. ·Special designed geometry with strong cutting edge and good chip breaking performance. ·Big depth of cut and high feed rate, high metal removal rate. ·Suitable for interrupted and strong interrupted rough machining of steel.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	K6 	·铸铁粗加工 ·特殊刃口处理方式，刃口强度高 ·大切深高进给加工，高金属去除率 ·适用于多种强断续粗加工 ·Rough machining for cast iron. ·Special treatment with the cutting edge, strong cutting edge. ·Big depth of cut at high feed rate and high metal removal rate. ·Suitable for various strong interrupted machining applications.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

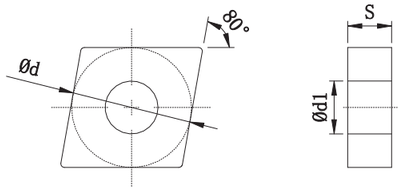
正型刀片槽型一览表
List of Geometries for Positive Inserts

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

A25

菱形80度负型
80°Rhombus Negative Insert

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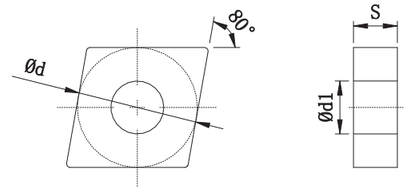
Size	尺寸Size(mm) d	s	d1
09	9.525	3.18	3.81
12	12.70	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	9.52	9.12

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P1	CNMG090304-P1		★	☆										0.07-0.30	0.25-1.00
		CNMG090308-P1		★	☆										0.10-0.30	0.30-1.00
		CNMG120404-P1		★	☆										0.07-0.30	0.25-1.00
		CNMG120408-P1		★	☆										0.10-0.40	0.30-1.20
		CNMG120412-P1		★	☆										0.15-0.50	0.35-1.20
	M1	CNMG120404-M1							★						0.10-0.40	0.50-2.00
		CNMG120408-M1							★						0.12-0.45	0.90-2.50
精加工 Finish Machining	S1	CNGG120402E-S1					★						☆		0.05-0.30	0.10-1.50
		CNGG120404E-S1					★						☆		0.05-0.30	0.20-1.50
		CNGG120408E-S1					★						☆		0.10-0.40	0.30-1.50
		CNGG120412E-S1					★						☆		0.15-0.50	0.40-2.00
	S2	CNGG120404E-S2					★						☆		0.05-0.30	0.20-1.50
		CNGG120408E-S2					★						☆		0.10-0.40	0.30-1.50
	N1	CNGG120402-N1										★			0.05-0.30	0.10-1.50
		CNGG120404-N1										★			0.05-0.30	0.20-1.50
		CNGG120408-N1										★			0.10-0.40	0.30-1.50
		CNGG120412-N1										★			0.15-0.50	0.40-2.00
	N2	CNGG120404-N2										★			0.05-0.30	0.20-1.50
		CNGG120408-N2										★			0.10-0.40	0.30-1.50

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形80度负型
80°Rhombus Negative Insert

•CN□□

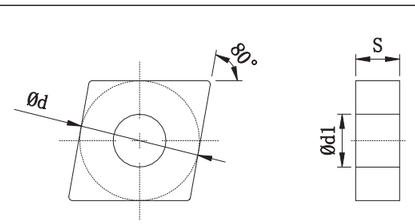


Size	尺寸Size(mm) d	s	d1
09	9.525	3.18	3.81
12	12.70	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	9.52	9.12

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P3	CNMG120404-P3		★	★										0.12-0.30	0.40-2.00
		CNMG120408-P3		★	★										0.15-0.60	0.50-2.50
		CNMG120412-P3		★	★										0.18-0.60	0.80-3.00
		CNMG160612-P3		★											0.18-0.60	0.80-5.00
		CNMG190608-P3			★										0.15-0.50	0.50-7.50
		CNMG190612-P3			★										0.18-0.60	0.80-7.50
		CNMG190616-P3			★										0.23-0.65	1.00-7.50
	PY3	CNMG120408-PY3		★	★										0.15-0.60	0.50-2.50
半精加工 Semi-finish machining	M3	CNMG120404-M3						☆	★						0.10-0.30	0.20-2.50
		CNMG120408-M3						☆	★						0.10-0.45	0.50-5.50
	K3	CNMG120404-K3								★	☆				0.15-0.35	0.40-3.50
		CNMG120408-K3								★	☆				0.15-0.40	0.50-3.50
		CNMG120412-K3								★	☆				0.20-0.50	0.50-4.00
		CNMG160612-k3								★	☆				0.30-0.60	0.60-6.50
		CNMG160616-K3								★	☆				0.30-0.65	0.60-7.00
	S3	CNMG120404-S3											☆	★	0.10-0.30	0.20-2.50
		CNMG120408-S3											☆	★	0.10-0.45	0.50-5.50
		CNMG120412-S3											☆	★	0.10-0.55	0.50-5.50
		CNMG160608-S3											☆	★	0.10-0.45	1.50-7.00
		CNMG190608-S3											☆	★	0.10-0.55	1.50-8.00
		CNMG190612-S3											☆	★	0.10-0.55	1.50-8.50

菱形80度负型
80°Rhombus Negative Insert

•CN□□



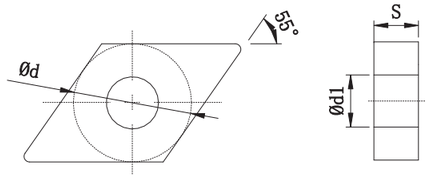
尺寸Size(mm)			
Size	d	s	d1
09	9.525	3.18	3.81
12	12.70	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.4	9.52	9.12

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	CNMG120408-P6		☆	★	☆									0.20-0.50	1.00-5.00
		CNMG120412-P6		☆	★	☆									0.25-0.70	1.50-5.00
		CNMG120416-P6		☆	★	☆									0.25-0.70	1.50-5.00
		CNMG160608-P6		☆	★	☆									0.30-0.70	1.50-7.00
		CNMG160612-P6		☆	★	☆									0.30-0.70	1.50-7.00
		CNMG190612-P6		☆	★	☆									0.35-0.75	2.00-8.00
		CNMG190616-P6		☆	★	☆									0.35-0.75	2.00-8.00
	K6	CNMG120408-K6								☆	★				0.20-0.60	1.50-6.00
		CNMG120412-K6								☆	★				0.25-0.60	1.50-6.00
		CNMG160612-K6								☆	★				0.35-0.60	2.00-7.00
	平板 No chipbreaker	CNMA120404								☆	★				0.25-0.45	2.00-6.00
		CNMA120408								☆	★				0.25-0.45	2.00-6.00
		CNMA120412								☆	★				0.25-0.45	2.00-6.00
		CNMA120416								☆	★				0.25-0.45	2.00-6.00
		CNMA160608								☆	★				0.35-0.60	2.00-7.00
		CNMA160612								☆	★				0.35-0.60	2.00-7.00
		CNMA160616								☆	★				0.35-0.60	2.00-7.00
		CNMA190608								☆	★				0.40-0.80	3.00-9.00
		CNMA190612								☆	★				0.40-0.80	3.00-9.00
		CNMA190616								☆	★				0.40-0.80	3.00-9.00
		CNMA190624								☆	★				0.40-0.80	3.00-9.00

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形55度负型
55°Rhombus Negative Insert

•DN□□



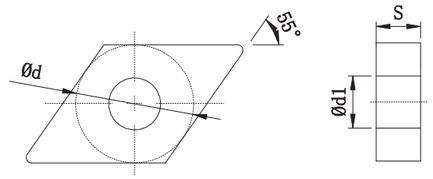
尺寸Size(mm)			
Size	d	s	d1
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15	12.70	4.76	5.16
15	12.70	6.35	5.16

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish Machining	P1	DNMG110404-P1		★	☆										0.07-0.40	0.20-1.50
		DNMG110408-P1		★	☆										0.07-0.40	0.20-1.50
		DNMG150404-P1		★	☆										0.10-0.40	0.30-1.50
		DNMG150604-P1		★	☆										0.10-0.40	0.30-1.50
		DNMG150408-P1		★	☆										0.10-0.45	0.35-1.50
		DNMG150608-P1		★	☆										0.10-0.45	0.35-1.50
		DNMG150412-P1		★	☆										0.10-0.50	0.40-1.50
		DNMG150612-P1		★	☆										0.10-0.50	0.40-1.50
	S1	DNGG150402E-S1					★						☆		0.05-0.30	0.10-1.50
		DNGG150602E-S1					★						☆		0.05-0.30	0.10-1.50
		DNGG150404E-S1					★						☆		0.10-0.40	0.20-1.50
		DNGG150604E-S1					★						☆		0.10-0.40	0.20-1.50
		DNGG150408E-S1					★						☆		0.15-0.40	0.40-1.50
		DNGG150608E-S1					★						☆		0.15-0.40	0.40-1.50
	N1	DNGG150402-N1										★			0.05-0.30	0.10-1.50
		DNGG150602-N1										★			0.05-0.30	0.10-1.50
		DNGG150404-N1										★			0.10-0.40	0.20-1.50
		DNGG150604-N1										★			0.10-0.40	0.20-1.50
		DNGG150408-N1										★			0.15-0.40	0.40-1.50
		DNGG150608-N1										★			0.15-0.40	0.40-1.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形55度负型
55°Rhombus Negative Insert

•DN□□



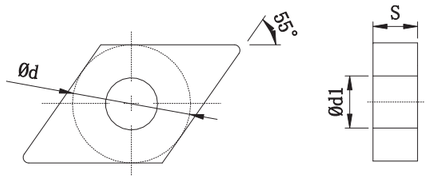
尺寸Size(mm)			
Size	d	s	d1
11	9.525	4.76	3.81
15	12.70	4.76	5.16
15	12.70	6.35	5.16	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3	DNMG110404-P3		★	★										0.12-0.30	0.20-2.50
		DNMG110408-P3		★	★										0.15-0.50	0.50-2.50
		DNMG150404-P3		★	★										0.18-0.60	0.40-4.00
		DNMG150604-P3		★	★										0.18-0.60	0.20-4.00
		DNMG150408-P3		★	★										0.18-0.60	0.40-5.00
		DNMG150608-P3		★	★										0.18-0.60	0.40-5.00
		DNMG150412-P3		★	★										0.18-0.60	0.60-6.00
		DNMG150612-P3		★	★										0.18-0.60	0.60-6.00
	M3	DNMG110408-M3						☆	★						0.15-0.30	0.40-2.50
		DNMG150404-M3						☆	★						0.15-0.45	0.30-5.00
		DNMG150604-M3						☆	★						0.15-0.45	0.30-5.00
		DNMG150408-M3						☆	★						0.15-0.55	0.50-5.50
		DNMG150608-M3						☆	★						0.15-0.55	0.50-5.50
	K3	DNMG150404-K3								★	☆				0.20-0.45	0.30-5.00
		DNGG150602-S1								★	☆				0.20-0.45	0.30-5.00
		DNGG150404-S1								★	☆				0.25-0.50	0.50-5.50
		DNGG150604-S1								★	☆				0.25-0.50	0.50-5.50
		DNGG150408-S1								★	☆				0.35-0.60	0.70-6.00
		DNGG150608-S1								★	☆				0.35-0.60	0.70-6.00
	S3	DNMG110408-S3											☆	★	0.15-0.30	0.20-2.50
		DNMG150408-S3											☆	★	0.15-0.45	0.50-5.50
		DNMG150608-S3											☆	★	0.15-0.55	0.50-5.50

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形55度负型
55°Rhombus Negative Insert

•DN□□



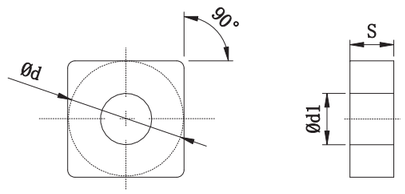
尺寸Size(mm)			
Size	d	s	d1
11	9.525	4.76	3.81
15	12.70	4.76	5.16
15	12.70	6.35	5.16	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	DNMG150408-P6		☆	★	☆									0.20-0.50	0.60-5.00
		DNMG150608-P6		☆	★	☆									0.07-0.40	0.60-5.00
		DNMG150412-P6		☆	★	☆									0.25-0.50	0.80-6.00
		DNMG150612-P6		☆	★	☆									0.30-0.70	0.80-6.00
	K6	DNMG150408-K6									☆	★			0.20-0.50	0.60-5.00
		DNMG150608-K6									☆	★			0.25-0.70	0.60-5.00
	平板 No chipbreaker	DNMA110404									☆	★			0.25-0.45	0.30-3.00
		DNMA110408									☆	★			0.25-0.45	0.30-3.50
		DNMA110412									☆	★			0.25-0.45	0.40-4.00
		DNMA150404									☆	★			0.20-0.60	0.40-4.00
		DNMA150604									☆	★			0.20-0.60	0.40-4.00
		DNMA150408									☆	★			0.25-0.70	0.60-5.00
		DNMA150608									☆	★			0.25-0.70	0.60-5.00
		DNMA150412									☆	★			0.30-0.70	0.80-6.00
		DNMA150612									☆	★			0.30-0.70	0.80-6.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

正方形90度负型
90°Square Negative Insert

•SN□□



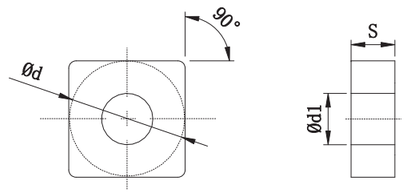
尺寸Size(mm)			
Size	d	s	d1
12	12.70	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.40	7.94	9.12
25	25.40	9.52	9.12

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	P1	SNMG120404-P1		★	☆										0.07-0.30	0.30-1.50
		SNMG120408-P1		★	☆										0.10-0.35	0.40-1.50
		SNMG120412-P1		★	☆										0.15-0.45	0.60-1.50
	M1	SNMG120404-M1							★						0.10-0.40	0.50-2.00
		SNMG120408-M1							★						0.12-0.45	0.90-2.50
	S1	SNGG120404E-S1					★						☆		0.05-0.30	0.20-1.50
		SNGG120408E-S1					★						☆		0.10-0.40	0.40-2.00
		SNGG120412E-S1					★						☆		0.15-0.50	0.60-2.50
	N1	SNGG120404-N1										★			0.05-0.30	0.20-1.50
		SNGG120408-N1										★			0.10-0.40	0.40-2.00
		SNGG120412-N1										★			0.15-0.50	0.60-2.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

正方形90度负型
90°Square Negative Insert

•SN□□



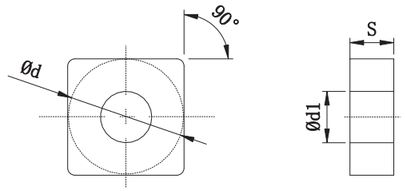
尺寸Size(mm)			
Size	d	s	d1
12	12.70	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.40	7.94	9.12
25	25.40	9.52	9.12

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3	SNMG120404-P3		★	★										0.15-0.30	0.40-3.00
		SNMG120408-P3		★	★										0.15-0.50	0.50-4.00
		SNMG120412-P3		★	★										0.18-0.60	0.80-5.00
		SNMG150608-P3		☆	★										0.18-0.60	0.80-6.00
		SNMG150612-P3		☆	★										0.25-0.60	1.00-6.00
		SNMG190608-P3		☆	★										0.30-0.60	1.50-7.50
		SNMG190612-P3		☆	★										0.35-0.65	2.00-7.50
		SNMG190616-P3		☆	★										0.35-0.70	2.00-7.50
	M3	SNMG120404-M3						☆	★						0.15-0.30	0.40-3.00
		SNMG120408-M3						☆	★						0.15-0.50	0.50-4.00
		SNMG120412-M3						☆	★						0.18-0.60	0.80-5.00
	K3	SNMG120408-K3								★	☆				0.15-0.40	0.40-4.00
		SNMG120412-K3								★	☆				0.20-0.50	0.60-4.50
	S3	SNMG120408-S3											☆	★	0.15-0.50	0.50-4.00
		SNMG120412-S3											☆	★	0.18-0.60	0.80-5.00
		SNMG150612-S3											☆	★	0.25-0.60	1.00-6.00
		SNMG190612-S3											☆	★	0.35-0.65	2.00-7.50
		SNMG190616-S3											☆	★	0.35-0.70	2.00-7.50

★为第一推荐牌号 Recommended grade ☆为第二推荐牌号Optional grade

正方形90度负型
90°Square Negative Insert

•SN□□



Size	d	s	d1
12	12.70	4.76	5.16
15	15.875	6.35	6.35
19	19.05	6.35	7.93
25	25.40	7.94	9.12
25	25.40	9.52	9.12

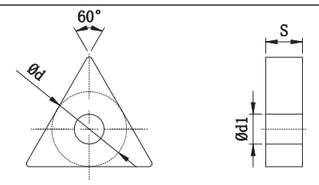
尺寸Size(mm)

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	SNMG120408-P6		☆	★	☆									0.20-0.50	1.00-5.00
		SNMG120412-P6		☆	★	☆									0.25-0.70	1.50-5.00
		SNMG150612-P6		☆	★	☆									0.30-0.70	1.50-7.00
		SNMG190612-P6		☆	★	☆									0.35-0.75	2.00-8.00
		SNMG190616-P6		☆	★	☆									0.35-0.75	2.00-9.00
		SNMG190624-P6		☆	★	☆									0.40-0.75	3.00-10.00
	平板 No chipbreaker	SNMA120404								☆	★				0.25-0.45	2.00-6.00
		SNMA120408								☆	★				0.25-0.45	2.00-6.00
		SNMA120412								☆	★				0.25-0.45	2.00-6.00
		SNMA120416								☆	★				0.25-0.45	2.00-6.00
		SNMG160608								☆	★				0.35-0.60	2.00-7.00
		SNMA160612								☆	★				0.35-0.60	2.00-7.00
		SNMA160616								☆	★				0.35-0.60	2.00-7.00
		SNMA190608								☆	★				0.40-0.80	3.00-9.00
		SNMA190612								☆	★				0.40-0.80	3.00-9.00
		SNMA190616								☆	★				0.40-0.80	3.00-9.00
		SNMA190624								☆	★				0.40-0.80	3.00-9.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

三角形60度负型
60°Triangle Negative Insert

•TN□□



Size	d	s	d1
16	9.525	3.18	3.81
22	12.70	4.76	5.16
27	15.875	6.35	6.35

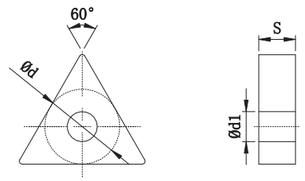
尺寸Size(mm)

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	P1	TNMG160404-P1		★	☆										0.07-0.30	0.25-1.00
		TNMG160408-P1		★	☆										0.10-0.40	0.30-1.50
		TNMG160412-P1		★	☆										0.15-0.50	0.35-1.50
		TNMG220404-P1		★	☆										0.10-0.40	0.30-1.50
		TNMG220408-P1		★	☆										0.15-0.50	1.00-6.00
	M1	TNMG160404-M1							★						0.10-0.40	0.20-1.50
		TNMG160408-M1							★						0.12-0.45	0.60-2.50
	S1	TNGG160402E-S1					★						☆		0.05-0.30	0.10-1.50
		TNGG160404E-S1					★						☆		0.05-0.30	0.20-1.50
		TNGG160408E-S1					★						☆		0.10-0.40	0.30-1.50
		TNGG160412E-S1					★						☆		0.15-0.50	0.60-2.00
		TNGG220408E-S1													0.15-0.50	0.40-2.00
	S2	TNGG160401E-S2					★						☆		0.03-0.15	0.05-0.60
		TNGG160402E-S2					★						☆		0.05-0.30	0.20-1.00
		TNGG160404E-S2					★						☆		0.05-0.30	0.20-1.50
		TNGG160408E-S2					★						☆		0.10-0.40	0.30-1.50
	N1	TNGG160402-N1										★			0.05-0.30	0.10-1.50
		TNGG160404-N1										★			0.05-0.30	0.20-1.50
		TNGG160408-N1										★			0.10-0.40	0.30-1.50
		TNGG160412-N1										★			0.15-0.50	0.60-2.00
		TNGG220408-N1										★			0.15-0.50	0.40-2.00
	N2	TNGG160401-N2										★			0.03-0.15	0.05-0.60
		TNGG160402-N2										★			0.05-0.30	0.20-1.50
		TNGG160404-N2										★			0.05-0.30	0.20-1.50
		TNGG160408-N2										★			0.10-0.40	0.30-1.50

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

三角形60度负型
60°Triangle Negative Insert

•TN□□



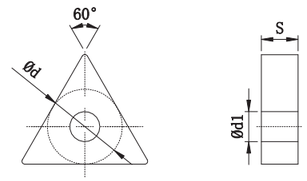
Size	尺寸Size(mm) d	s	d1
16	9.525	3.18	3.81
22	12.70	4.76	5.16
27	15.875	6.35	6.35

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3	TNMG160404-P3		★	★										0.15-0.30	0.20-1.50
		TNMG160408-P3		★	★										0.18-0.45	0.40-2.00
		TNMG160412-P3		☆	★										0.18-0.50	0.60-2.50
		TNMG220404-P3		☆	★										0.15-0.30	0.20-2.50
		TNMG220408-P3		☆	★										0.18-0.45	0.40-3.00
		TNMG220412-P3		☆	★										0.18-0.50	0.60-4.00
	PY3	TNMG160408-PY3		★	★										0.18-0.60	0.50-2.50
	M3	TNMG160404-M3						☆	★						0.18-0.40	0.20-2.50
		TNMG160408-M3						☆	★						0.18-0.45	0.50-3.00
	K3	TNMG160404-K3								★	☆				0.15-0.35	0.40-3.50
		TNMG160408-K3								★	☆				0.15-0.40	0.50-3.50
		TNMG160412-K3								★	☆				0.20-0.50	0.60-4.00
	S3	TNMG160408-S3											☆	★	0.15-0.45	0.50-3.50
		TNMG220408-S3											☆	★	0.20-0.55	0.50-4.50

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

三角形60度负型
60°Triangle Negative Insert

•TN□□



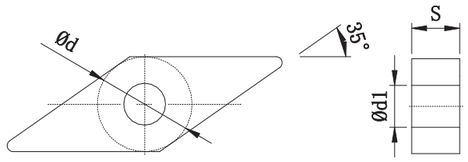
Size	尺寸Size(mm) d	s	d1
16	9.525	3.18	3.81
22	12.70	4.76	5.16
27	15.875	6.35	6.35

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	TNMG160408-P6		☆	★	☆									0.20-0.50	1.00-3.00
		TNMG160412-P6		☆	★	☆									0.25-0.70	1.50-3.50
		TNMG220408-P6		☆	★	☆									0.25-0.70	1.50-5.00
	K6	TNMG160408-K6									☆	★			0.20-0.60	1.50-4.00
		TNMG160412-K6									☆	★			0.25-0.60	1.50-4.50
		TNMG220408-K6									☆	★			0.30-0.60	1.50-6.00
		TNMG220412-K6									☆	★			0.35-0.60	1.50-6.00
		TNMG220416-K6									☆	★			0.35-0.60	2.00-6.00
	平板 No chipbreaker	TNMA160404									☆	★			0.25-0.45	2.00-4.00
		TNMA160408									☆	★			0.25-0.45	2.00-4.50
		TNMA160412									☆	★			0.25-0.50	2.00-5.00
		TNMA220404									☆	★			0.25-0.45	2.00-6.00
		TNMA220408									☆	★			0.35-0.60	2.00-6.50
		TNMA220412									☆	★			0.35-0.60	2.00-7.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度负型
35°Rhombus Negative Insert

•VN□□



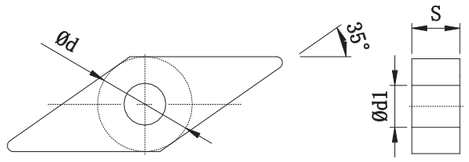
尺寸Size(mm)			
Size	d	s	d1
16	9.525	4.76	3.81

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	P1	VNMG160404-P1		★	☆										0.07-0.30	0.25-1.00
		VNMG160404-P1		★	☆										0.10-0.40	0.30-1.20
	M1	VNMG160404-M1							★						0.10-0.40	0.30-1.50
		VNMG160408-M1							★						0.12-0.45	0.50-2.00
	S1	VNGG160401E-S1					★						☆		0.03-0.15	0.05-0.50
		VNGG160402E-S1					★						☆		0.05-0.30	0.10-1.50
		VNGG160404E-S1					★						☆		0.05-0.30	0.20-1.50
		VNGG160408E-S1					★						☆		0.10-0.40	0.30-1.50
	N1	VNGG160401-N1										★			0.03-0.15	0.05-0.80
		VNGG160402-N1										★			0.05-0.30	0.20-1.50
		VNGG160404-N1										★			0.10-0.40	0.30-1.50
		VNGG160408-N1										★			0.15-0.50	0.40-2.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度负型
35°Rhombus Negative Insert

•VN□□



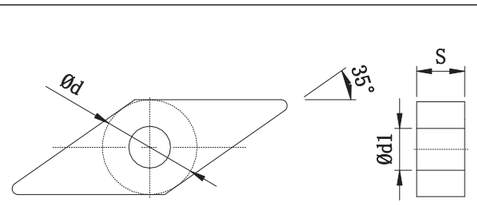
尺寸Size(mm)			
Size	d	s	d1
16	9.525	4.76	3.81

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3	VNMG160404-P3		★	★										0.12-0.30	0.40-2.00
		VNMG160408-P3		★	★										0.15-0.60	0.50-2.50
		VNMG160412-P3		★	★										0.18-0.60	0.80-3.00
	PY3	VNMG160408-PY3		★	★										0.15-0.60	0.50-2.50
	M3	VNMG160404-M3						☆	★						0.12-0.30	0.40-2.00
		VNMG160408-M3						☆	★						0.15-0.60	0.50-2.50
		VNMG160412-M3						☆	★						0.18-0.60	0.80-3.00
	K3	VNMG160408-K3								★	☆				0.15-0.40	0.50-3.50
	S3	VNMG160404-S3											☆	★	0.15-0.60	0.40-2.00
		VNMG160404-S3											☆	★	0.15-0.60	0.50-2.50
		VNMG160412-S3											☆	★	0.18-0.60	0.80-3.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度负型
35°Rhombus Negative Insert

•VN□□



Size	d	s	d1
16	9.525	4.76	3.81

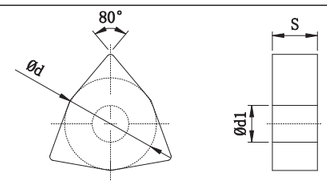
尺寸Size(mm)

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	K6	VNMG160408-K6								☆	★				0.25-0.50	1.50-4.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

凸三角形80度负型
80° Trigon Negative Insert

•WN□□



Size	d	s	d1
06	9.525	3.18	3.81
08	12.70	4.76	5.16

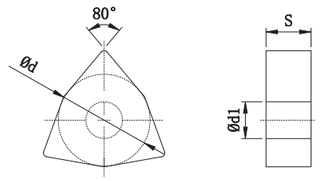
尺寸Size(mm)

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	P1	WNMG080404-P1		★	☆										0.07-0.30	0.25-1.50
		WNMG080408-P1		★	☆										0.10-0.40	0.30-1.50
		WNMG080412-P1		★	☆										0.15-0.50	0.35-1.50
	M1	WNMG080404-M1							★						0.10-0.40	0.20-1.50
		WNMG080408-M1							★						0.12-0.45	0.60-2.50
	S1	WNGG060404E-S1					★						☆		0.05-0.30	0.20-1.50
		WNGG060408E-S1					★						☆		0.10-0.40	0.40-1.50
		WNGG060412E-S1					★						☆		0.15-0.50	0.60-1.50
		WNGG080404E-S1					★						☆		0.05-0.30	0.20-1.50
		WNGG080408E-S1					★						☆		0.10-0.40	0.40-1.50
		WNGG080412E-S1					★						☆		0.15-0.45	0.60-2.00
	S2	WNGG080404E-S2					★						☆		0.05-0.30	0.20-1.00
		WNGG080408E-S2					★						☆		0.10-0.40	0.30-1.00
	N1	WNGG060404-N1										★			0.05-0.30	0.20-1.50
		WNGG060408-N1										★			0.10-0.40	0.40-1.50
		WNGG060412-N1										★			0.15-0.45	0.60-1.50
		WNGG080404-N1										★			0.05-0.30	0.20-1.50
		WNGG080408-N1										★			0.10-0.40	0.40-1.50
		WNGG080412-N1										★			0.15-0.45	0.60-2.00
	N2	WNGG080404-N2										★			0.05-0.30	0.20-1.00
		WNGG080408-N2										★			0.10-0.40	0.30-1.00

★为第一推荐牌号 Recommended grade ☆为第二推荐牌号Optional grade

凸三角形80度负型
80° Trigon Negative Insert

•WN□□



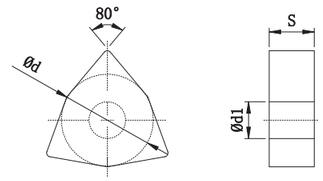
Size	尺寸Size(mm) d	s	d1
06	9.525	3.18	3.81
08	12.70	4.76	5.16

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P3	WNMG060408-P3		★	★										0.12-0.40	0.40-2.00
		WNMG080404-P3		★	★										0.12-0.50	0.40-2.50
		WNMG080408-P3		★	★										0.15-0.60	0.50-3.00
		WNMG080412-P3		★	★										0.18-0.60	0.80-4.00
	PY3	WNMG080404-PY3		★	★										0.12-0.50	0.40-2.50
		WNMG080408-PY3		★	★										0.15-0.60	0.50-3.00
		WNMG080412-PY3		★	★										0.18-0.60	0.80-4.00
半精加工 Semi-finish machining	M3	WNMG080404-M3						☆	★						0.12-0.30	0.20-2.50
		WNMG080408-M3						☆	★						0.15-0.45	0.50-4.00
		WNMG080412-M3						☆	★						0.18-0.55	0.80-5.00
	K3	WNMG080404-K3								★	☆				0.15-0.50	0.40-3.50
		WNMG080408-K3								★	☆				0.20-0.50	0.50-4.00
		WNMG080412-K3								★	☆				0.20-0.55	0.80-5.00
	S3	WNMG080404-S3											☆	★	0.12-0.30	0.20-2.50
		WNMG080408-S3											☆	★	0.15-0.45	0.40-4.00
		WNMG080412-S3											☆	★	0.18-0.50	0.60-4.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

凸三角形80度负型
80° Trigon Negative Insert

•WN□□



Size	尺寸Size(mm) d	s	d1
06	9.525	3.18	3.81
08	12.70	4.76	5.16

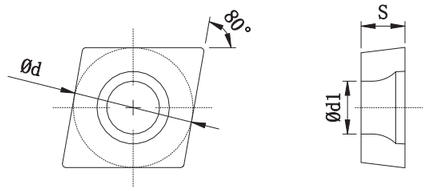
刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P6	WNMG080408-P6	☆	★	☆										0.20-0.50	1.00-5.00
		WNMG080412-P6	☆	★	☆										0.25-0.70	1.50-5.00
		WNMG080416-P6	☆	★	☆										0.32-0.70	2.00-5.00
	K6	WNMG080408-K6									☆	★			0.20-0.60	1.50-6.00
		WNMG080412-K6									☆	★			0.25-0.60	1.50-6.00
粗加工 Rough machining	平板 No chipbreaker	WNMA060404									☆	★			0.15-0.45	1.20-3.00
		WNMA060408									☆	★			0.15-0.45	1.20-3.00
		WNMA060412									☆	★			0.20-0.45	1.20-3.00
		WNMA080404									☆	★			0.25-0.45	1.50-4.00
		WNMA080408									☆	★			0.30-0.60	1.50-5.00
		WNMA080412									☆	★			0.35-0.60	1.50-5.00
		WNMA080416									☆	★			0.35-0.60	1.50-5.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形80度正型

80°Rhombus Positive Insert

•CC□□



尺寸Size(mm)			
Size	d	s	d1
06	6.35	2.38	2.80
09	9.525	3.97	4.40
12	12.70	4.76	5.50	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P1	CCMT060202-P1		★	☆										0.05-0.25	0.06-0.80
		CCMT060204-P1		★	☆										0.08-0.35	0.20-1.00
		CCMT060208-P1		★	☆										0.10-0.35	0.10-1.20
		CCMT09T302-P1		★	☆										0.06-0.30	0.20-1.00
		CCMT09T304-P1		★	☆										0.08-0.35	0.20-1.20
		CCMT09T308-P1		★	☆										0.10-0.35	0.40-1.50
		CCMT120404-P1		★	☆										0.08-0.35	0.20-1.50
		CCMT120408-P1		★	☆										0.10-0.35	0.40-1.50
	M1	CCMT060202-M1					☆	★							0.05-0.25	0.06-0.80
		CCMT060204-M1					☆	★							0.08-0.35	0.20-1.00
		CCMT060208-M1					☆	★							0.10-0.35	0.10-1.20
		CCMT09T302-M1					☆	★							0.06-0.30	0.20-1.00
		CCMT09T304-M1					☆	★							0.08-0.35	0.20-1.20
		CCMT09T308-M1					☆	★							0.10-0.35	0.40-1.50
		CCMT120404-M1					☆	★							0.08-0.35	0.20-1.50
		CCMT120408-M1					☆	★							0.10-0.35	0.40-1.50
	K1	CCMT060202-K1		☆					☆						0.05-0.25	0.06-0.80
		CCMT060204-K1		☆					☆						0.08-0.35	0.20-1.00
		CCMT060208-K1		☆					☆						0.10-0.35	0.10-1.20
		CCMT09T302-K1		☆					☆						0.06-0.30	0.20-1.00
		CCMT09T304-K1		☆					☆						0.08-0.35	0.20-1.20
		CCMT09T308-K1		☆					☆						0.10-0.35	0.40-1.50
		CCMT120404-K1		☆					☆						0.08-0.35	0.20-1.50
		CCMT120408-K1		☆					☆						0.10-0.35	0.40-1.50

精加工 Finish machining

•CC□□

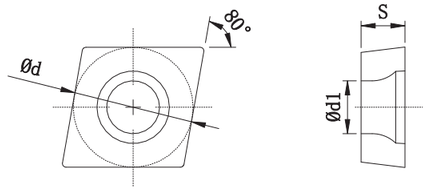
刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	S1	CCGT060201-S1					★						☆		0.02-0.10	0.02-1.00
		CCGT060202-S1					★						☆		0.03-0.11	0.10-1.70
		CCGT060204-S1					★						☆		0.05-0.17	0.10-1.70
		CCGT09T301-S1					★						☆		0.02-0.10	0.08-1.50
		CCGT09T302-S1					★						☆		0.04-0.15	0.10-2.00
		CCGT09T304-S1					★						☆		0.06-0.23	0.20-2.00
		CCGT09T308-S1					★						☆		0.08-0.30	0.40-2.00
		CCGT120402-S1					★						☆		0.07-0.27	0.11-2.40
		CCGT120404-S1					★						☆		0.07-0.30	0.20-2.40
		CCGT120408-S1					★						☆		0.07-0.35	0.40-2.40
	S2	CCGT060201E-S2					★						☆		0.02-0.10	0.02-1.00
		CCGT060202E-S2					★						☆		0.03-0.11	0.10-1.70
		CCGT060204E-S2					★						☆		0.05-0.17	0.10-1.70
		CCGT09T301E-S2					★						☆		0.02-0.10	0.08-1.50
		CCGT09T302E-S2					★						☆		0.04-0.15	0.10-2.00
		CCGT09T304E-S2					★						☆		0.06-0.23	0.20-2.00
		CCGT09T308E-S2					★						☆		0.08-0.30	0.40-2.00
		CPGT09T302E-S2					★						☆		0.04-0.15	0.10-2.00
		CPGT09T304E-S2					★						☆		0.06-0.23	0.20-2.00
	N1	CCGT060201-N1										★			0.01-0.10	0.05-1.00
		CCGT060202-N1										★			0.01-0.15	0.05-2.50
		CCGT060204-N1										★			0.02-0.18	0.10-3.00
		CCGT060208-N1										★			0.03-0.20	0.10-3.50
		CCGT09T301-N1										★			0.03-0.20	0.05-2.50
		CCGT09T302-N1										★			0.03-0.25	0.05-3.00
		CCGT09T304-N1										★			0.04-0.30	0.10-4.00
		CCGT09T308-N1										★			0.04-0.50	0.12-4.50
		CCGT120402-N1										★			0.05-0.25	0.10-4.00
		CCGT120404-N1										★			0.05-0.50	0.15-4.50
		CCGT120408-N1										★			0.08-0.70	0.15-5.50
		CCGT120412-N1										★			0.08-0.70	0.20-6.00
	N2	CCGT060201-N2										★			0.01-0.10	0.05-1.00
		CCGT060202-N2										★			0.01-0.15	0.05-2.50
		CCGT060204-N2										★			0.02-0.18	0.10-3.00
		CCGT09T301-N2										★			0.03-0.20	0.05-2.50
		CCGT09T302-N2										★			0.03-0.25	0.05-3.00
		CCGT09T304-N2										★			0.04-0.30	0.10-4.00
		CCGT09T308-N2										★			0.04-0.50	0.12-4.50

精加工 Finish machining

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形80度正型
80°Rhombus Positive Insert

•CC□□

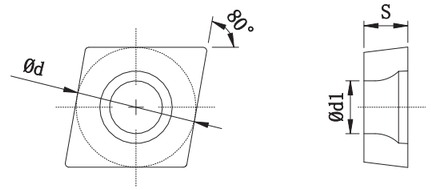


Size	尺寸Size(mm) d	s	d1
06	6.35	2.38	2.80
09	9.525	3.97	4.40
12	12.70	4.76	5.50

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3	CCMT060204-P3		★	★										0.08-0.25	0.20-1.50
		CCMT060208-P3		☆	★										0.10-0.30	0.40-1.50
		CCMT09T304-P3		★	★										0.10-0.30	0.35-2.00
		CCMT09T308-P3		★	★										0.10-0.35	0.50-2.50
		CCMT120404-P3		★	★										0.10-0.35	0.20-3.00
		CCMT120408-P3		★	★										0.10-0.35	0.20-3.00
		CCMT120412-P3		☆	★										0.10-0.40	0.20-3.00
	M3	CCMT060202-M3							★						0.08-0.25	0.20-1.50
		CCMT060204-M3							★						0.08-0.25	0.20-1.50
		CCMT060208-M3							★						0.10-0.30	0.40-1.50
		CCMT09T304-M3							★						0.10-0.30	0.35-2.00
		CCMT09T308-M3							★						0.10-0.35	0.50-2.50
		CCMT120404-M3							★						0.10-0.35	0.20-3.00
		CCMT120408-M3							★						0.10-0.35	0.20-3.00
	K3	CCMT060202-K3								☆	★				0.08-0.25	0.20-1.50
		CCMT060204-K3								☆	★				0.08-0.25	0.20-1.50
		CCMT060208-K3								☆	★				0.10-0.30	0.40-1.50
		CCMT09T304-K3								☆	★				0.10-0.30	0.35-2.00
		CCMT09T308-K3								☆	★				0.10-0.35	0.50-2.50
		CCMT120404-K3								☆	★				0.10-0.35	0.20-3.00
		CCMT120408-K3								☆	★				0.10-0.35	0.20-3.00

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形80度正型
80°Rhombus Positive Insert
•CC□□



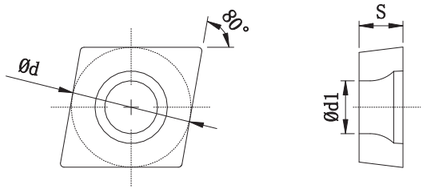
Size	尺寸Size(mm) d	s	d1
06	6.35	2.38	2.80
09	9.525	3.97	4.40
12	12.70	4.76	5.50

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	N3	CCGT060201-N3										★			0.01-0.10	0.05-1.00
		CCGT060202-N3										★			0.01-0.15	0.05-2.50
		CCGT060204-N3										★			0.02-0.18	0.10-3.00
		CCGT060208-N3										★			0.03-0.20	0.10-3.50
		CCGT09T301-N3										★			0.03-0.20	0.05-2.50
		CCGT09T302-N3										★			0.03-0.25	0.05-3.00
		CCGT09T304-N3										★			0.04-0.30	0.10-4.00
		CCGT09T308-N3										★			0.04-0.50	0.12-4.50
		CCGT120402-N3										★			0.05-0.25	0.10-4.00
		CCGT120404-N3										★			0.05-0.50	0.15-4.50
		CCGT120408-N3										★			0.08-0.70	0.15-5.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形80度正型
80°Rhombus Positive Insert

•CC□□



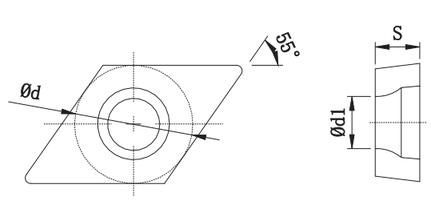
尺寸Size(mm)			
Size	d	s	d1
06	6.35	2.38	2.80
09	9.525	3.97	4.40
12	12.70	4.76	5.50

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	CCMT09T308-P6		☆	★	☆									0.15-0.35	1.00-4.00
		CCMT120408-P6		☆	★	☆									0.18-0.40	1.00-4.50
	M6	CCMT09T308-M6						☆	☆						0.15-0.35	1.00-4.00
		CCMT120408-M6						☆	☆						0.18-0.40	1.00-4.50
	K6	CCMT09T308-K6			★						☆				0.15-0.35	1.00-4.00
		CCMT120408-K6			★						☆				0.18-0.40	1.00-4.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形55度正型
55°Rhombus Positive Insert

•DC□□



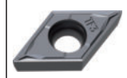
尺寸Size(mm)			
Size	d	s	d1
07	6.35	2.38	2.80
11	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	P1	DCMT070202-P1		★	☆										0.05-0.25	0.06-0.80
		DCMT070204-P1		★	☆										0.08-0.35	0.20-1.00
		DCMT11T302-P1		★	☆										0.06-0.30	0.20-1.00
		DCMT11T304-P1		★	☆										0.08-0.35	0.20-1.20
		DCMT11T308-P1		★	☆										0.10-0.35	0.40-1.50
	M1	DCMT070202-M1					☆	★							0.05-0.25	0.06-0.80
		DCMT070204-M1					☆	★							0.08-0.35	0.20-1.00
		DCMT11T302-M1					☆	★							0.06-0.30	0.20-1.00
		DCMT11T304-M1					☆	★							0.08-0.35	0.20-1.20
		DCMT11T308-M1					☆	★							0.10-0.35	0.40-1.50
	K1	DCMT070202-K1		☆							☆				0.05-0.25	0.06-0.80
		DCMT070204-K1		☆							☆				0.08-0.35	0.20-1.00
		DCMT11T302-K1		☆							☆				0.06-0.30	0.20-1.00
		DCMT11T304-K1		☆							☆				0.08-0.35	0.20-1.20
		DCMT11T308-K1		☆							☆				0.10-0.35	0.40-1.50
	S1	DCGT070201-S1					★						☆		0.02-0.10	0.02-1.00
		DCGT070202-S1					★						☆		0.03-0.11	0.10-1.70
		DCGT070204-S1					★						☆		0.05-0.17	0.10-1.70
		DCGT11T301-S1					★						☆		0.02-0.10	0.08-1.50
		DCGT11T302-S1					★						☆		0.04-0.15	0.10-2.00
		DCGT11T304-S1					★						☆		0.06-0.23	0.20-2.00
		DCGT11T308-S1					★						☆		0.08-0.30	0.40-2.00

★为第一推荐牌号 Recommended grade ☆为第二推荐牌号Optional grade

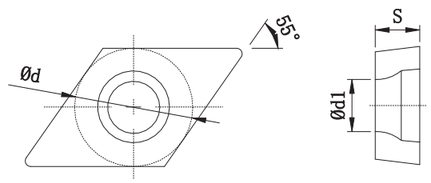
菱形55度正型
55°Rhombus Positive Insert

•DC□□

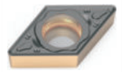
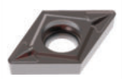
刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	S2 	DCGT070201E-S2					★						☆		0.02-0.10	0.02-1.00
		DCGT070202E-S2					★						☆		0.03-0.11	0.10-1.70
		DCGT070204E-S2					★						☆		0.03-0.11	0.10-1.70
		DCGT11T301E-S2					★						☆		0.02-0.10	0.08-1.50
		DCGT11T302E-S2					★						☆		0.04-0.15	0.10-2.00
		DCGT11T304E-S2					★						☆		0.06-0.23	0.20-2.00
		DCGT11T308E-S2					★						☆		0.08-0.30	0.40-2.00
	N1 	DCGT070201-N1										★			0.01-0.10	0.05-1.00
		DCGT070202-N1										★			0.01-0.15	0.05-2.50
		DCGT070204-N1										★			0.02-0.18	0.10-3.00
		DCGT070208-N1										★			0.03-0.20	0.10-3.50
		DCGT11T301-N1										★			0.03-0.20	0.05-2.50
		DCGT11T302-N1										★			0.03-0.25	0.05-3.00
		DCGT11T304-N1										★			0.04-0.30	0.10-4.00
		DCGT11T308-N1										★			0.04-0.50	0.12-4.50
		DCGT11T312-N1										★			0.04-0.50	0.12-4.50
	N2 	DCGT070201-N2										★			0.01-0.10	0.05-1.00
		DCGT070202-N2										★			0.01-0.15	0.05-2.50
		DCGT070204-N2										★			0.01-0.15	0.05-2.50
		DCGT11T301-N2										★			0.02-0.18	0.10-3.00
		DCGT11T302-N2										★			0.03-0.20	0.05-2.50
		DCGT11T304-N2										★			0.03-0.25	0.05-3.00
		DCGT11T308-N2										★			0.04-0.30	0.10-4.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形55度正型
55°Rhombus Positive Insert
•DC□□



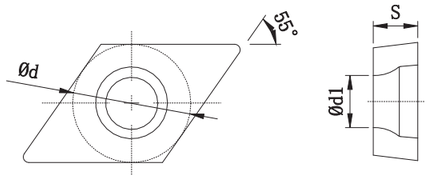
尺寸Size(mm)			
Size	d	s	d1
07	6.35	2.38	2.80
11	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3 	DCMT070204-P3		★	★										0.08-0.25	0.20-1.50
		DCMT070208-P3		☆	★										0.10-0.30	0.40-1.50
		DCMT11T302-P3		☆	★										0.10-0.30	0.20-1.50
		DCMT11T304-P3		★	★										0.10-0.30	0.35-2.00
		DCMT11T308-P3		★	★										0.10-0.35	0.50-2.50
	M3 	DCMT11T304-M3							★						0.10-0.30	0.35-2.00
		DCMT11T308-M3							★						0.10-0.35	0.50-2.50
	K3 	DCMT11T304-K3									★	★			0.10-0.30	0.35-2.00
		DCMT11T308-K3									★	★			0.10-0.35	0.50-2.50
	N3 	DCGT070201-N3										★			0.01-0.10	0.05-1.00
		DCGT070202-N3										★			0.01-0.15	0.05-2.50
		DCGT070204-N3										★			0.02-0.18	0.10-3.00
		DCGT070208-N3										★			0.03-0.20	0.10-3.50
		DCGT11T301-N3										★			0.03-0.20	0.05-2.50
		DCGT11T302-N3										★			0.03-0.25	0.05-3.00
		DCGT11T304-N3										★			0.04-0.30	0.10-4.00
		DCGT11T308-N3										★			0.04-0.30	0.12-4.50

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形55度正型
55°Rhombus Positive Insert

•DC□□



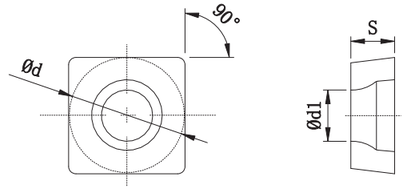
尺寸Size(mm)			
Size	d	s	d1
07	6.35	2.38	2.80
11	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	DCMT11T308-P6		☆	★	☆									0.15-0.35	1.00-4.00
	M6	DCMT11T308-M6						☆							0.15-0.35	1.00-4.00
	K6	DCMT11T308-K6		☆	☆						☆				0.15-0.35	1.00-4.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

正方形90度正型
90° Square Positive Insert

•SC□□



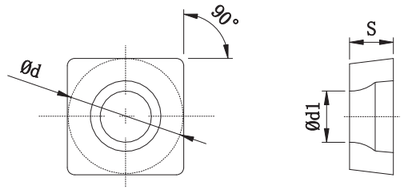
尺寸Size(mm)			
Size	d	s	d1
09	9.525	3.97	4.40
12	12.70	4.76	5.50

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	P1	SCMT09T304-P1		★	☆										0.08-0.35	0.20-1.20
		SCMT09T308-P1		★	☆										0.10-0.35	0.40-1.50
	M1	SCMT09T304-M1					☆	★							0.08-0.35	0.20-1.20
		SCMT09T308-M1					☆	★							0.10-0.35	0.40-1.50
	K1	SCMT09T304-K1		☆							☆				0.08-0.35	0.20-1.20
		SCMT09T308-K1		☆							☆				0.10-0.35	0.40-1.50
	S1	SCGT120404-S1					★						☆		0.07-0.30	0.20-2.40
		SCGT120408-S1					★						☆		0.07-0.35	0.40-2.40
	N1	SCGT09T302-N1										★			0.03-0.25	0.05-3.00
		SCGT09T304-N1										★			0.04-0.30	0.10-4.00
		SCGT09T308-N1										★			0.04-0.50	0.12-4.50
		SCGT120402-N1										★			0.05-0.25	0.10-4.00
		SCGT120404-N1										★			0.05-0.50	0.15-4.50
		SCGT120408-N1										★			0.08-0.70	0.15-5.50

★为第一推荐牌号 Recommended grade ☆为第二推荐牌号Optional grade

正方形90度正型
90° Square Positive Insert

•SC□□



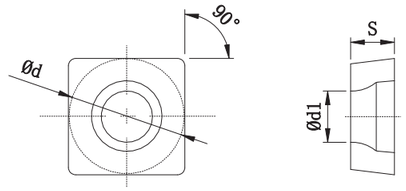
尺寸Size(mm)			
Size	d	s	d1
09	9.525	3.97	4.40
12	12.70	4.76	5.50	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P3 	SCMT09T304-P3		★	★										0.10-0.30	0.35-2.00
		SCMT09T308-P3		★	★										0.10-0.35	0.50-2.50
		SCMT120404-P3		☆	★										0.10-0.35	0.20-3.00
		SCMT120408-P3		★	★										0.10-0.35	0.20-3.00
半精加工 Semi-finish machining	N3 	SCGT09T302-N3										★			0.03-0.25	0.05-3.00
		SCGT09T304-N3										★			0.04-0.30	0.10-4.00
		SCGT09T308-N3										★			0.04-0.50	0.12-4.50
		SCGT120404-N3										★			0.05-0.50	0.15-4.50
		SCGT120404-N3										★			0.08-0.70	0.15-5.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

正方形90度正型
90° Square Positive Insert

•SC□□



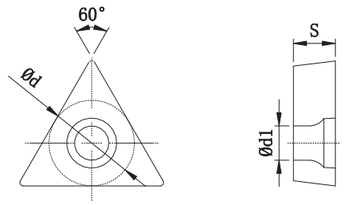
尺寸Size(mm)			
Size	d	s	d1
09	9.525	3.97	4.40
12	12.70	4.76	5.50	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P6 	SCMT09T308-P6		★	☆										0.15-0.35	1.00-4.00
		SCMT120412-P6		★	☆										0.18-0.40	1.00-4.50
粗加工 Rough machining	M6 	SCMT09T308-M6							☆						0.15-0.35	1.00-4.00
		SCMT120412-M6							☆						0.18-0.40	1.00-4.50
	K6 	SCMT09T308-K6									☆				0.15-0.35	1.00-4.00
		SCMT120412-K6									☆				0.18-0.40	1.00-4.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

三角形60度正型
60° Triangle Positive Insert

•TC□□



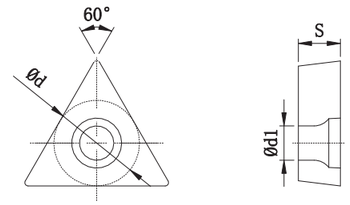
Size	尺寸Size(mm) d	s	d1
06	3.97	1.59	2.16
09	5.56	2.38	2.50
11	6.350	2.38	2.80
11	6.350	3.18	2.80
16	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P1	TCMT090204-P1		★	☆										0.03-0.25	0.20-1.00
		TCMT110204-P1		★	☆										0.08-0.35	0.20-1.20
		TCMT16T304-P1		★	☆										0.08-0.35	0.20-1.50
		TCMT16T308-P1		★	☆										0.10-0.35	0.40-1.50
	M1	TCMT090204-M1					☆	★							0.03-0.25	0.20-1.00
		TCMT110204-M1					☆	★							0.08-0.35	0.20-1.20
		TCMT16T304-M1					☆	★							0.08-0.35	0.20-1.50
		TCMT16T308-M1					☆	★							0.10-0.35	0.40-1.50
精加工 Finish machining	K1	TCMT090204-K1		☆						☆					0.03-0.25	0.20-1.00
		TCMT110204-K1		☆						☆					0.08-0.35	0.20-1.20
		TCMT16T304-K1		☆						☆					0.08-0.35	0.20-1.50
		TCMT16T308-K1		☆											0.10-0.35	0.40-1.50
	S1	TBGT060102-S1					★						☆		0.02-0.10	0.03-0.20
		TBGT060104-S1					★						☆		0.05-0.20	0.10-0.35
		TCGT090202-S1					★						☆		0.03-0.13	0.06-1.70
		TCGT090204-S1					★						☆		0.05-0.17	0.10-1.70
		TCGT110202-S1					★						☆		0.02-0.13	0.08-1.50
		TCGT110204-S1					★						☆		0.04-0.15	0.10-2.00
		TCGT110208-S1					★						☆		0.06-0.23	0.20-2.00
		TCGT16T304-S1					★						☆		0.07-0.27	0.11-2.40

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

三角形60度正型
60° Triangle Positive Insert

•TC□□



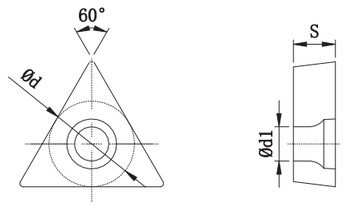
Size	尺寸Size(mm) d	s	d1
06	3.97	1.59	2.16
09	5.56	2.38	2.50
11	6.350	2.38	2.80
11	6.350	3.18	2.80
16	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	N1	TCGT090202-N1										★			0.03-0.25	0.20-1.00
		TCGT090204-N1										★			0.08-0.35	0.20-1.20
		TCGT090208-N1										★			0.08-0.35	0.20-1.50
		TCGT110201-N1										★			0.10-0.35	0.40-1.50
		TCGT110202-N1										★			0.03-0.25	0.20-1.00
		TCGT110204-N1										★			0.08-0.35	0.20-1.20
		TCGT110208-N1										★			0.08-0.35	0.20-1.50
		TCGT110302-N1										★			0.10-0.35	0.40-1.50
		TCGT110304-N1										★			0.03-0.25	0.20-1.00
		TCGT110308-N1										★			0.08-0.35	0.20-1.20
		TCGT16T302-N1										★			0.08-0.35	0.20-1.50
		TCGT16T304-N1										★			0.10-0.35	0.40-1.50
		TCGT16T308-N1										★			0.02-0.10	0.03-0.20

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

三角形60度正型
60° Triangle Positive Insert

• TC□□

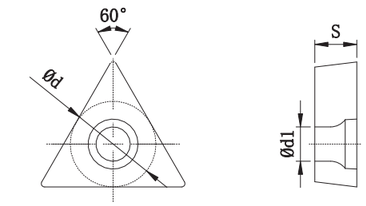


尺寸Size(mm)			
Size	d	s	d1
06	3.97	1.59	2.16
09	5.56	2.38	2.50
11	6.350	2.38	2.80
11	6.350	3.18	2.80
16	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
半精加工 Semi-finish machining	P3	TCMT090204-P3		★	☆										0.08-0.25	0.20-1.50
		TCMT110204-P3		★	★										0.10-0.30	0.35-2.00
		TCMT110304-P3		☆	★										0.10-0.35	0.40-2.50
		TCMT16T304-P3		★	★										0.12-0.35	0.20-3.00
		TCMT16T308-P3		★	★										0.15-0.35	0.40-3.00
		TCMT16T312-P3		☆	★										0.15-0.40	0.60-3.00
		TCMT220408-P3			☆										0.15-0.40	0.80-4.00
	M3	TCMT110204-M3							★						0.10-0.30	0.35-2.00
		TCMT110208-M3							★						0.10-0.30	0.45-2.00
		TCMT16T304-M3							★						0.12-0.35	0.20-3.00
		TCMT16T308-M3							★						0.15-0.35	0.40-3.00
	K3	TCMT110204-K3								★	★				0.10-0.30	0.35-2.00
		TCMT110208-K3								★	★				0.10-0.30	0.45-2.00
		TCMT16T304-K3								★	★				0.12-0.35	0.20-3.00
		TCMT16T308-K3								★	★				0.15-0.35	0.40-3.00
	N3	TCGT090202-N3										★			0.01-0.12	0.05-2.00
		TCGT090204-N3										★			0.02-0.15	0.10-3.00
		TCGT090208-N3										★			0.02-0.18	0.10-3.00
		TCGT110202-N3										★			0.03-0.20	0.10-3.50
		TCGT110204-N3										★			0.03-0.25	0.10-3.50
		TCGT110208-N3										★			0.04-0.30	0.15-4.00
		TCGT110302-N3										★			0.03-0.20	0.10-3.50
		TCGT110304-N3										★			0.03-0.25	0.10-3.50
		TCGT110308-N3										★			0.04-0.30	0.15-4.00
		TCGT16T302-N3										★			0.02-0.35	0.30-5.00
		TCGT16T304-N3										★			0.03-0.40	0.50-5.00
		TCGT16T308-N3										★			0.03-0.50	0.50-6.00

三角形60度正型
60° Triangle Positive Insert

• TC□□



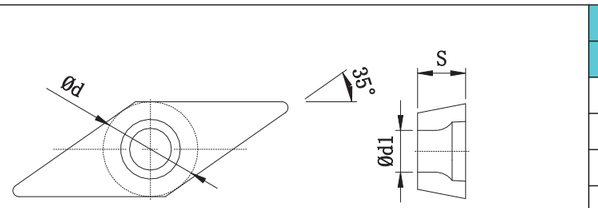
尺寸Size(mm)			
Size	d	s	d1
06	3.97	1.59	2.16
09	5.56	2.38	2.50
11	6.350	2.38	2.80
11	6.350	3.18	2.80
16	9.525	3.97	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
粗加工 Rough machining	P6	TCMT16T308-P6		☆	★	☆									0.15-0.35	1.00-3.00
	M6	TCMT16T308-M6						☆	☆						0.15-0.35	1.00-3.00
	K6	TCMT16T308-K6			★						☆				0.15-0.35	1.00-3.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度正型
35° Rhombus Positive Insert

•VB□□



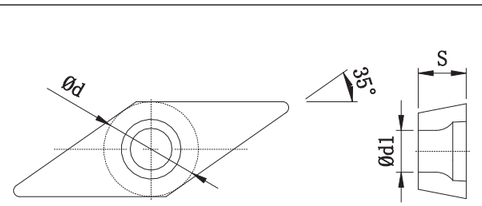
Size	尺寸Size(mm) d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P1	VBMT160404-P1		★	☆										0.08-0.35	0.20-1.20
		VBMT160408-P1		★	☆										0.10-0.35	0.40-1.50
	M1	VBMT160404-M1					☆	★							0.08-0.35	0.20-1.20
		VBMT160408-M1					☆	★							0.10-0.35	0.40-1.50
精加工 Finish machining	K1	VBMT160404-K1		☆						☆					0.08-0.35	0.20-1.20
		VBMT160408-K1		☆						☆					0.10-0.35	0.40-1.50
	S1	VBGT110301-S1					★						☆		0.02-0.10	0.02-1.00
		VBGT110302-S1					★						☆		0.03-0.11	0.10-1.50
		VBGT110304-S1					★						☆		0.05-0.17	0.10-1.50
		VBGT160402-S1					★						☆		0.04-0.15	0.10-1.80
		VBGT160404-S1					★						☆		0.06-0.23	0.20-1.80
		VBGT160408-S1					★						☆		0.08-0.30	0.40-1.80
	S2	VBGT110301E-S2					★						☆		0.02-0.10	0.20-1.00
		VBGT160404E-S2					★						☆		0.06-0.23	0.20-1.00
		VBGT160408E-S2					★						☆		0.08-0.30	0.20-1.00

★为第一推荐牌号 Recommended grade　☆为第二推荐牌号Optional grade

菱形35度正型
35° Rhombus Positive Insert

•VB□□



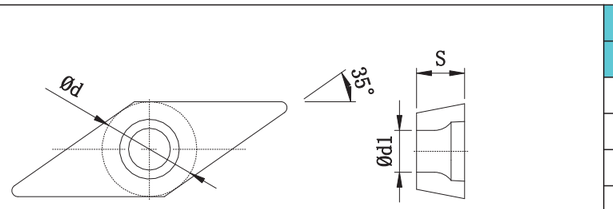
Size	尺寸Size(mm) d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
精加工 Finish machining	N1	VBGT110302-N1										★			0.01-0.15	0.05-2.50
		VBGT110304-N1										★			0.02-0.18	0.10-3.00
		VBGT110308-N1										★			0.02-0.18	0.10-3.00
		VBGT160402-N1										★			0.03-0.20	0.10-3.50
		VBGT160404-N1										★			0.03-0.20	0.05-2.50
		VBGT160408-N1										★			0.03-0.25	0.05-3.00
		VBGT160412-N1										★			0.03-0.25	0.05-3.00
	N2	VBGT110301-N2										★			0.01-0.15	0.05-1.00
		VBGT160404-N2										★			0.01-0.25	0.05-1.50
		VBGT160408-N2										★			0.01-0.25	0.05-1.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度正型
35° Rhombus Positive Insert

•VB□□



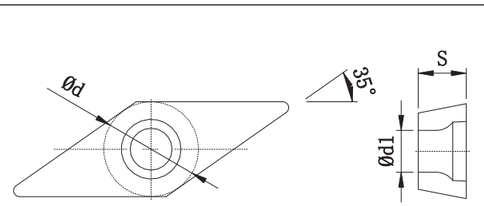
尺寸Size(mm)			
Size	d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P3	VBMT110304-P3		★	☆										0.08-0.25	0.20-1.50
		VBMT160404-P3		★	★										0.10-0.30	0.35-2.00
		VBMT160408-P3		★	★										0.10-0.35	0.50-2.50
半精加工 Semi-finish machining	N3	VBGT110301-N3										★			0.01-0.10	0.05-1.00
		VBGT110302-N3										★			0.01-0.15	0.05-2.50
		VBGT110304-N3										★			0.02-0.18	0.10-3.00
		VBGT110308-N3										★			0.03-0.20	0.10-3.50
		VBGT160401-N3										★			0.03-0.20	0.05-2.50
		VBGT160402-N3										★			0.03-0.25	0.05-3.00
		VBGT160404-N3										★			0.04-0.30	0.10-4.00
		VBGT160408-N3										★			0.04-0.50	0.12-4.50
		VBGT160412-N3										★			0.04-0.50	0.12-4.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度正型
35° Rhombus Positive Insert

•VB□□



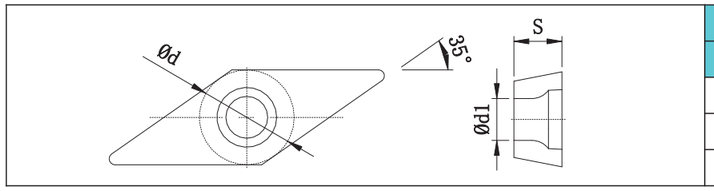
尺寸Size(mm)			
Size	d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P6	VBMT160408-P6		☆	★	☆									0.15-0.35	1.00-4.00
		VBMT160412-P6		☆	★	☆									0.15-0.35	1.00-4.00
粗加工 Rough machining	M6	VBMT160408-M6							☆						0.15-0.35	1.00-4.00
		VBMT160412-M6							☆						0.15-0.35	1.00-4.00
	K6	VBMT160408-K6			☆						☆				0.15-0.35	1.00-4.00
		VBMT160408-K6			☆						☆				0.15-0.35	1.00-4.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度正型
35° Rhombus Positive Insert

•VC□□

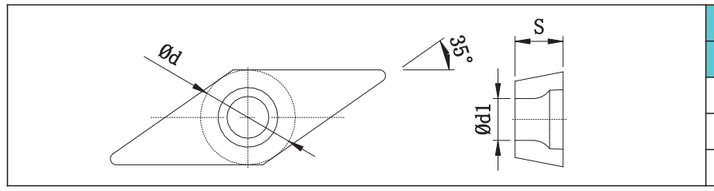


尺寸Size(mm)			
Size	d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade											切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P1	VCMT110302-P1		★	☆										0.03-0.20	0.06-1.00
		VCMT110304-P1		★	☆										0.05-0.20	0.18-1.00
		VCMT110308-P1		★	☆										0.05-0.20	0.35-1.00
		VCMT160404-P1		★	☆										0.08-0.35	0.20-1.20
		VCMT160408-P1		★	☆										0.10-0.35	0.40-1.50
	M1	VCMT110302-M1						☆	☆						0.03-0.20	0.06-1.00
		VCMT110304-M1						☆	☆						0.05-0.20	0.18-1.00
		VCMT110308-M1						☆	☆						0.05-0.20	0.35-1.00
		VCMT160404-M1						☆	☆						0.08-0.35	0.20-1.20
		VCMT160408-M1						☆	☆						0.10-0.35	0.40-1.50
精加工 Finish machining	K1	VCMT110302-K1		★						☆					0.03-0.20	0.06-1.00
		VCMT110304-K1		★						☆					0.05-0.20	0.18-1.00
		VCMT110308-K1		★						☆					0.05-0.20	0.35-1.00
		VCMT160404-K1		★						☆					0.08-0.35	0.20-1.20
		VCMT160408-K1		★						☆					0.10-0.35	0.40-1.50
	S1	VCGT080201-S1					★						☆		0.03-0.10	0.06-1.00
		VCGT080202-S1					★						☆		0.03-0.12	0.06-1.20
		VCGT080204-S1					★						☆		0.05-0.15	0.10-1.20
		VCGT110301-S1					★						☆		0.02-0.10	0.02-1.00
		VCGT110302-S1					★						☆		0.03-0.11	0.10-1.00
		VCGT110304-S1					★						☆		0.05-0.17	0.20-1.20
		VCGT110308-S1					★						☆		0.07-0.26	0.20-1.50
		VCGT160402-S1					★						☆		0.04-0.15	0.10-1.80
		VCGT160404-S1					★						☆		0.06-0.23	0.20-1.80
		VCGT160408-S1					★						☆		0.08-0.30	0.40-1.80

菱形35度正型
35° Rhombus Positive Insert

•VC□□



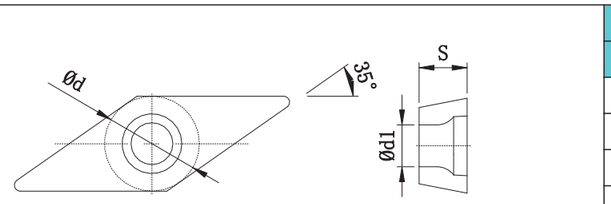
尺寸Size(mm)			
Size	d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade											切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	S2	VCGT080202E-S2					★						☆		0.03-0.12	0.06-1.20
		VCGT080204E-S2					★						☆		0.05-0.15	0.10-1.20
		VCGT110302E-S2					★						☆		0.03-0.13	0.10-1.00
		VCGT110304E-S2					★						☆		0.05-0.17	0.20-1.20
		VCGT160402E-S2					★						☆		0.04-0.20	0.12-1.80
		VCGT160404E-S2					★						☆		0.06-0.23	0.15-1.80
		VCGT160408E-S2					★						☆		0.08-0.30	0.20-1.80
精加工 Finish machining	N1	VCGT110301-N1										★			0.01-0.15	0.05-1.50
		VCGT110302-N1										★			0.01-0.15	0.05-2.50
		VCGT110304-N1										★			0.02-0.18	0.10-3.00
		VCGT110308-N1										★			0.02-0.18	0.10-3.00
		VCGT160401-N1										★			0.03-0.15	0.10-2.00
		VCGT160402-N1										★			0.03-0.20	0.10-3.50
		VCGT160404-N1										★			0.03-0.20	0.05-2.50
		VCGT160408-N1										★			0.03-0.25	0.05-3.00
		VCGT160412-N1										★			0.03-0.25	0.05-3.00
	N2	VCGT080202-N2										★			0.03-0.12	0.06-1.20
		VCGT080204-N2										★			0.05-0.15	0.10-1.20
		VCGT110302-N2										★			0.03-0.13	0.10-1.00
		VCGT110304-N2										★			0.05-0.17	0.20-1.20
		VCGT160402-N2										★			0.04-0.20	0.12-1.80
		VCGT160404-N2										★			0.06-0.23	0.15-1.80
		VCGT160408-N2										★			0.08-0.30	0.20-1.80

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

菱形35度正型
35° Rhombus Positive Insert

• VC□□



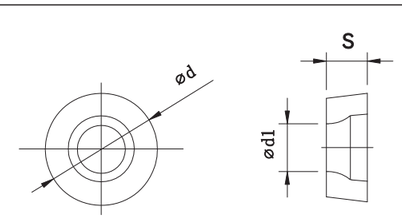
Size	尺寸Size(mm) d	s	d1
11	6.35	3.18	2.80
16	9.525	4.76	4.40

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P3	VCMT110304-P3		★	☆										0.08-0.25	0.20-1.50
		VCMT110308-P3		★	☆										0.08-0.30	0.20-1.50
		VCMT160404-P3		☆	★										0.12-0.30	0.35-2.00
		VCMT160408-P3		★	★										0.12-0.35	0.50-2.50
半精加工 Semi-finish machining	N3	VCGT110301-N3										★			0.01-0.10	0.05-1.00
		VCGT110302-N3										★			0.01-0.15	0.05-2.50
		VCGT110304-N3										★			0.02-0.18	0.10-3.50
		VCGT110308-N3										★			0.03-0.20	0.10-3.50
		VCGT160401-N3										★			0.03-0.20	0.05-2.50
		VCGT160402-N3										★			0.03-0.25	0.05-3.00
		VCGT160404-N3										★			0.04-0.30	0.10-4.00
		VCGT160408-N3										★			0.04-0.50	0.12-4.50
		VCGT160412-N3										★			0.04-0.50	0.12-4.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

圆形正型
Round Positive Insert

• RC□□



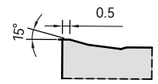
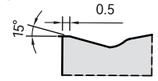
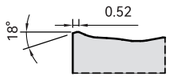
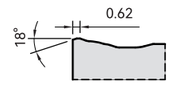
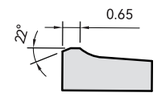
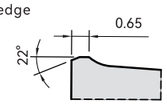
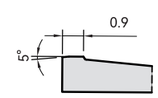
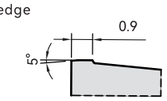
Size	尺寸Size(mm) d	s	d1
08	8.00	3.18	3.40
10	10.00	3.97	4.40
12	12.00	4.76	4.40
16	16.00	6.35	5.50
20	20.00	6.35	6.50

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
	P3	RCMT0803MOE-P3		☆	★				☆						0.10-0.35	0.50-2.00
		RCMT10T3MOE-P3		☆	★				☆						0.12-0.35	0.50-3.50
		RCMT1204MOE-P3		☆	★				☆						0.15-0.45	1.00-4.50
		RCMT1606MOE-P3		☆	★						☆				0.20-0.55	1.50-6.00
半精加工 Semi-finish machining		RCMT2006MOE-P3		☆	★										0.20-0.65	2.00-8.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

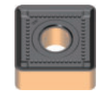
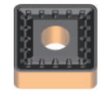
负型重载切削粗加工槽型

Geometry for Heavy Rough Turning of Negative Inserts

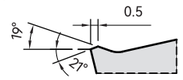
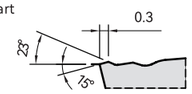
用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
重型加工 Heavy machining	RM 	·不锈钢重型加工专用 ·特殊槽型设计，刃口强度高，断屑更优异 ·大切深高进给加工，高金属去除率 ·适用于转子、大型法兰、轴类零件等重型切削 ·Specialized for heavy cutting of stainless steel. ·Special designed geometry with strong cutting edge and good chip breaking performance. ·Big depth of cut and high feed rate, high metal removal rate. ·Suitable for heavy cutting of rotor, large sized flange and parts of the shaft.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	RX 	·钢、不锈钢重型通用加工 ·直线型切削刃与负倒棱结合，切削锋利同时增加刃口强度 ·可变刃边与波浪型断屑槽设计，切屑更优异 ·适用于转子、大型法兰、轧辊、轴类零件等重型切削 ·General machining and heavy cutting of steel and stainless steel. ·Linear cutting edge combined with negative chamfer make sure a sharp cutting edge with improved strength . ·Corrugated geometry designed with variable cutting edge makes excellent chipping performance. ·Suitable for heavy cutting of rotor, large sized flange and parts of the shaft.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	RH 	·钢件重型加工专用 ·特殊刃口设计，切削锋利同时增加刃口强度 ·断屑槽凸点设计，散发加工热量，减少振动，增加耐磨性 ·适用于转子、大型法兰、轧辊、轴类零件等重载切削 ·Specialized for heavy cutting of steel. ·Sharp cutting edge which is specially designed with improved strength. ·The chipbreaker is designed with bumping point to dissipate heat, reduce vibration and improve wear resistance. ·Suitable for heavy cutting of rotor, large sized flange and parts of the shaft.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 
	RS 	·钢件超重载加工专用 ·特殊槽型设计，大进给大切深时，保证强度同时增加排屑更优异 ·断屑槽凸点设计，散发加工热量，减少振动，增加耐磨性 ·适用于转子、大型法兰、轧辊等超重载切削 ·Specialized for superheavy cutting of steel. ·Special designed geometry not only ensure strength but evacuate the chips more smoothly when working at high feed rate and big depth of cut. ·The chipbreaker is designed with bumping point to dissipate heat, reduce vibration and improve wear resistance. ·Suitable for heavy cutting of rotor, large sized flange and roller.	刀尖部分 The tip part  主切削刃部分 Main cutting edge 

负型刀片槽型一览表

List of Geometries for Negative Insert

80°菱形 80°Rhombus	55°菱形 55°Rhombus	90°正方形 90°Square	60°正三角形 60°Triangle	35°菱形 35°Rhombus	80°六角形 80°Hexagon	圆形 Round
CNMM-RM		SNMM-RM				
						
CNMM-RX		SNMM-RX				
						
CNMM-RH		SNMM-RH				
						
CNMM-RS		SNMM-RS				
						

正型重载切削粗加工槽型
Geometry for Heavy Rough Turning of Positive Inserts

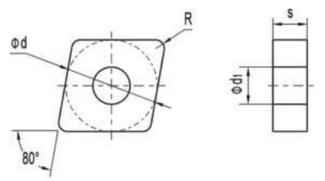
用途 Purpose	断屑槽形状 Geometry	特征·用途 Features·Purpose	剖面图 Profile drawing
重型加工 Heavy machining	HP 	·钢件仿形重载粗加工专用 ·全周通槽设计，排屑更顺畅 ·大切深高进给加工，高金属去除率 ·适用于轨道交通，大型法兰零件等仿形通用加工 ·Specialized for profiled heavy rough machining of steel. ·Molded chipbreaker design make chip evacuation more smoothly. ·Big depth of cut and high feed rate, high metal removal rate. ·Suitable for profiled general machining of railway, large sized flange parts.	刀尖部分 The tip part  主切削刃部分 Main cutting edge
	RP 	·钢件仿形重载粗加工专用 ·特殊断屑点设计，断屑更顺畅 ·大切深高进给加工，高金属去除率 ·适用于轨道交通，大型法兰零件等仿形通用加工 ·Specialized for profiled heavy rough machining of steel. ·Special chip breaking point design make the chip evacuation more smoothly. ·Big depth of cut and high feed rate, high metal removal rate. ·Suitable for profiled general machining of railway, large sized flange parts.	刀尖部分 The tip part  主切削刃部分 Main cutting edge

正型刀片槽型一览表
List of Geometries for Positive Insert

80°菱形 80°Rhombus	55°菱形 55°Rhombus	90°正方形 90°Square	60°正三角形 60°Triangle	35°菱形 35°Rhombus	80°六角形 80°Hexagon	圆形 Round
						RCGT-HP
						
						RCGT-RP
						

菱形80度负型
80° Rhombus Negative Insert

•CN□□



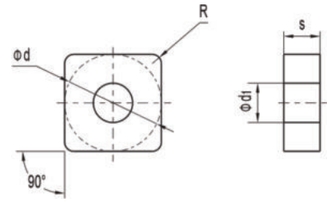
尺寸Size(mm)			
Size	d	s	d1
19	19.05	6.35	7.93
25	25.40	7.94	9.12
25	25.40	9.52	9.12	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
重载粗加工 Heavy rough machining	RM	CNMM190616-RM		★	★										0.40-0.70	5.00-10.00
		CNMM190624-RM		★	★										0.40-0.70	5.00-10.00
		CNMM250724-RM		★	★										0.40-0.80	5.00-12.00
		CNMM250924-RM		★	★										0.40-0.80	5.00-12.00
	RX	CNMM190624-RX		★	★										0.40-0.80	5.00-10.00
	RH	CNMM190616-RH		★	★										0.60-1.00	6.00-12.00
		CNMM190624-RH		★	★										0.60-1.00	6.00-12.00
		CNMM250724-RH		★	★										0.70-1.00	8.00-16.00
		CNMM250924-RH		★	★										0.70-1.00	8.00-16.00
	RS	CNMM250724-RS		★	★										0.80-1.50	10.00-21.00
		CNMM250924-RS		★	★										0.80-1.50	10.00-21.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

正方形90度负型
90° Square Negative Insert

•SN□□



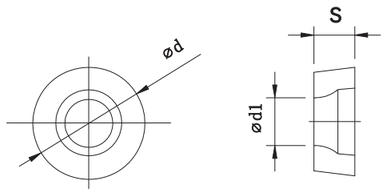
尺寸Size(mm)			
Size	d	s	d1
19	19.05	6.35	7.93
25	25.40	7.94	9.12
25	25.40	9.52	9.12	

刀片 Insert		型号 Specification	牌号 Grade												切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
重载粗加工 Heavy rough machining	RM	SNMM250724-RM		★	☆										0.40-0.80	5.00-12.00
		SNMM250924-RM		★	☆										0.40-0.80	5.00-12.00
	RX	SNMM250724-RX													0.40-1.00	5.00-13.00
		SNMM250924-RX													0.40-1.00	5.00-13.00
	RH	SNMM190616-RH													0.60-1.00	6.00-12.00
		SNMM190624-RH													0.60-1.00	6.00-12.00
		SNMM250724-RH													0.70-1.00	8.00-16.00
		SNMM250924-RH													0.70-1.00	8.00-16.00
	RS	SNMM250724-RS													0.80-1.50	10.00-21.00
		SNMM250924-RS													0.80-1.50	10.00-21.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

圆形正型
Round Positive Pnsert

• RC□□



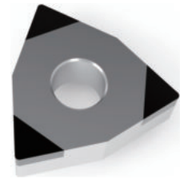
Size	d	s	d1
16	16	6.35	5.50
20	20	6.35	6.50
25	25	7.94	7.30
30	30	9.52	9.96
32	32	9.52	9.50

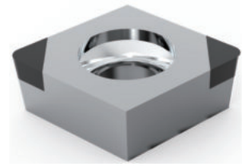
刀片 Insert		型号 Specification	牌号 Grade											切削条件 Cutting parameters	
			BP6305	BP6315	BP6325	BP6335	BP2205	BP2215	BP2225	BP3205	BP3215	BP5205	BP4205	BP4215	fn(mm/rev)	ap (mm)
重载粗加工 Heavy rough machining	HP 	RCGT2006MOS-HP	★	★							☆				0.15-0.60	1.50-6.00
		RCGT2507MOS-HP	★	★							★				0.20-0.80	2.00-8.00
		RCGT3009MOS-HP	★	★	☆						★				0.20-1.00	2.50-10.00
		RCGT3209MOS-HP	★	★							★				0.30-1.20	3.00-12.00
	RP 	RCGT1606MOS-RP	★	★							☆				0.15-0.60	1.50-6.00
		RCGT2006MOS-RP													0.20-0.80	2.00-8.00
		RCGT2507MOS-RP	★	★	☆						★				0.20-1.00	2.50-10.00
		RCGT3209MOS-RP													0.30-1.20	3.00-12.00

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

A

特殊切削材料
PCBN & PCD INSERTS





特殊切削材料
PCBN & PCD Inserts

- PCBN刀片命名规则
  Code key for general turning inserts — A78
- 负型车刀片
  Negative basic-shape inserts — A79
- 正型车刀片
  Positive basic-shape inserts — A82
- 车削材质说明
  Turning grades introduction — A85
- 切削参数推荐
  Cutting parameter recommandations — A85
- PCD刀片命名规则
  Code key for general turning inserts — A86
- 正型车刀片
  Positive basic-shape inserts — A87
- 车削材质说明
  Turning grades introduction — A90
- 切削参数推荐
  Cutting parameter recommandations — A90

PCBN命名规则
PCBN Code Key For General Turning Inserts

CNGA120404 – **N2** **S2**

1 2

参考ISO表为基准→（A05）页
Refer to the ISO table as a benchmark → Page A05

1 刃口形式 Edge types
N1
N2★
N3
N4
N5★
N6
N7
数字越大，抗冲击性越好 The higher number, the better impact resistance

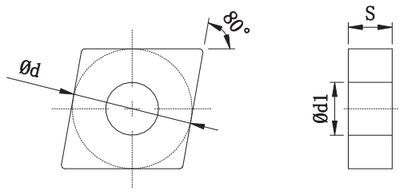
2 切刃数 Number of cutting edges
S 焊接式 Shielded Metal Arc Welding
E 镶嵌焊接式 Embedded welding
数字代表具体刃数 The number represents the specific cutting edges

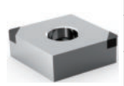
PCBN负型刀片-CN/DN

PCBN Negative Inserts-CN/DN

CN□□

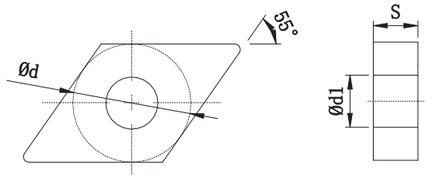
菱形80度负型CN -80°Rhombic negative



刀片 Inserts	型号 Designation	刃口类型 Edge type	切刃数 Number of cutting edges	牌号 Grade		尺寸(mm) Dimenstions		
				BPC6115	BPC3115	d	s	d1
	CNGA120402	N2 N5	S1 S2 S4 E2 E4	★	★	5.16	4.76	12.7
	CNGA120404			★	★			
	CNGA120408			★	★			
	CNGA120412			★	★			
	CNGA120416			★	★			

DN□□

菱形55度负型DN -55° Rhombic negative



刀片 Inserts	型号 Designation	刃口类型 Edge type	切刃数 Number of cutting edges	牌号 Grade		尺寸(mm) Dimenstions		
				BPC6115	BPC3115	d	s	d1
	DNGA110402	N2 N5	S1 S2 S4 E2 E4	★	★	3.81	4.76	9.525
	DNGA110404			★	★			
	DNGA110408			★	★			
	DNGA110412			★	★			
	DNGA150402			★	★	5.16	4.76	12.7
	DNGA150404			★	★			
	DNGA150408			★	★			
	DNGA150412			★	★			

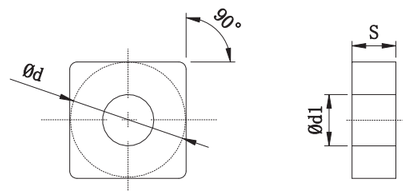
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

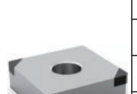
PCBN负型刀片-SN/TN

PCBN Negative Inserts-SN/TN

SN□□

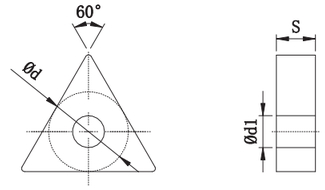
菱形90度负型SN -90° Rhombic negative



刀片 Inserts	型号 Designation	刃口类型 Edge type	切刃数 Number of cutting edges	牌号 Grade		尺寸(mm) Dimenstions		
				BPC6115	BPC3115	d	s	d1
	SNGA120402	N2 N5	S1 S4 S8 E4 E8	★	★	5.16	4.76	12.7
	SNGA120404			★	★			
	SNGA120408			★	★			
	SNGA120412			★	★			
	SNGA120416			★	★			

TN□□

三角形60度负型TN - 60°Triangle negative



刀片 Inserts	型号 Designation	刃口类型 Edge type	切刃数 Number of cutting edges	牌号 Grade		尺寸(mm) Dimenstions		
				BPC6115	BPC3115	d	s	d1
	TNGA160402	N2 N5	S1 S3 S6 E3 E6	★	★	3.81	4.76	9.525
	TNGA160404			★	★			
	TNGA160408			★	★			
	TNGA160412			★	★			

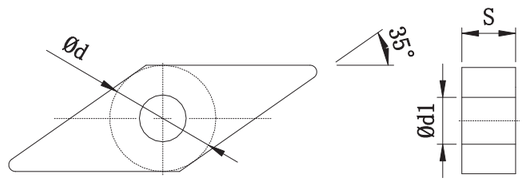
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

PCBN负型刀片-VN/WN

PCBN Negative Inserts-VN/WN

VN□□

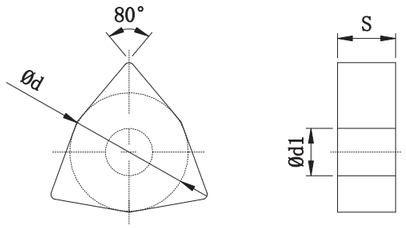
菱形35度负型VN -35°Rhombic negative

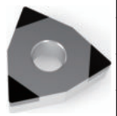


刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	VNGA160402	N2 N5	S1 S2 S4 E2 E4	★	★	3.81	4.76	9.525
	VNGA160404			★	★			
	VNGA160408			★	★			
	VNGA160412			★	★			

WN□□

三角形80°负型WN -80° Triangle negative



刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	WNGA080402	N2 N5	S1 S3 S6 E3 E6	★	★	5.16	4.76	12.7
	WNGA080404			★	★			
	WNGA080408			★	★			
	WNGA080412			★	★			

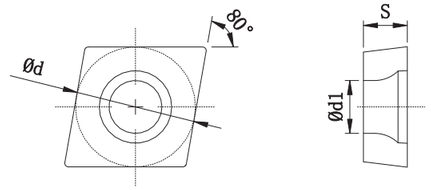
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

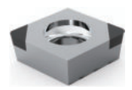
PCBN正型刀片-CC/DC

PCBN Positive Inserts-CC/DC

CC□□

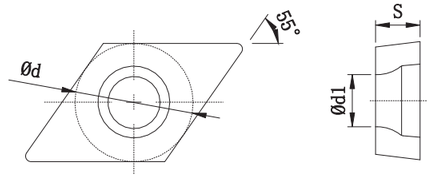
菱形80度正型CC - 80°Rhombic positive



刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	CCGW060202	N2 N5	S1 S2	★	★	2.80	2.38	6.35
	CCGW060204			★	★			
	CCGW060208			★	★			
	CCGW09T302			★	★	4.40	3.97	9.525
	CCGW09T304			★	★			
	CCGW09T308			★	★			
	CCGW120402			★	★	5.50	4.76	12.7
	CCGW120404			★	★			
	CCGW120408			★	★			

DC□□

菱形55度正型DC -55° Rhombic positive



刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	DCGW070202	N2 N5	S1 S2	★	★	2.80	2.38	6.35
	DCGW070204			★	★			
	DCGW070208			★	★			
	DCGW11T302			★	★	4.40	3.97	9.525
	DCGW11T304			★	★			
	DCGW11T308			★	★			

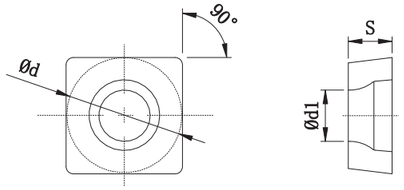
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

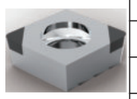
PCBN正型刀片-SC/VC

PCBN Positive Inserts-SC/VC

SC□ □

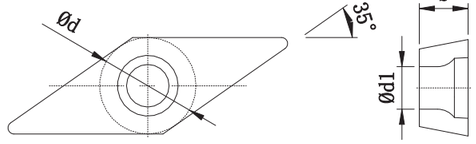
菱形90度正型SC - 90° Rhombic positive



刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	SCGW09T302	N2 N5	S1 S4	★	★	4.40	3.97	9.525
	SCGW09T304			★	★			
	SCGW09T308			★	★			
	SCGW120402			★	★	5.50	4.76	12.70
	SCGW120404			★	★			
	SCGW120408			★	★			

VB/VC□ □

菱形35度正型VC -35°Rhombic positive



刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	VBGW110302	N2 N5	S1 S2	★	★	6.35	3.18	2.80
	VBGW110304			★	★			
	VBGW110308			★	★			
	VBGW160402			★	★	9.525	4.76	4.40
	VBGW160404			★	★			
	VBGW160408			★	★			
	VCGW110302			★	★	6.35	3.18	2.80
	VCGW110304			★	★			
	VCGW110308			★	★			
	VCGW160402			★	★	9.525	4.76	4.40
	VCGW160404			★	★			
	VCGW160408			★	★			

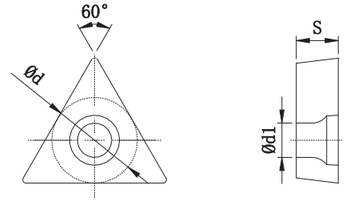
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

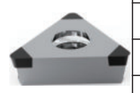
PCBN正型刀片-TC/TP

PCBN Positive Inserts-TC/TP

TC/TP□ □

三角形60度正型TC/TP - 60°Triangle positive



刀片	型号	刃口类型	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Edge type	Number of cutting edges	Grade		Dimenstions		
				BPC6115	BPC3115	d	s	d1
	TCGW080202	N2 N5	S1 S4	★	★	2.40	2.38	4.76
	TCGW080204			★	★			
	TCGW080208			★	★			
	TCGW090202			★	★	2.80	2.38	5.56
	TCGW090204			★	★			
	TCGW090208			★	★			
	TCGW110202			★	★	2.80	2.38	6.35
	TCGW110204			★	★			
	TCGW110208			★	★			
	TCGW110302			★	★	3.40	3.18	6.35
	TCGW110304			★	★			
	TCGW110308			★	★			
	TCGW160402			★	★	4.40	4.76	9.525
	TCGW160404			★	★			
	TCGW160408			★	★			
	TPGW080202			★	★	2.40	2.38	4.76
	TPGW080204			★	★			
	TPGW080208			★	★			
	TPGW090202			★	★	2.80	2.38	5.56
	TPGW090204			★	★			
	TPGW090208			★	★			
	TPGW110202			★	★	2.80	2.38	6.35
	TPGW110204			★	★			
	TPGW110208			★	★			
	TPGW110302			★	★	3.40	3.18	6.35
	TPGW110304			★	★			
	TPGW110308			★	★			
	TPGW160402			★	★	4.40	4.76	9.525
	TPGW160404			★	★			
	TPGW160408			★	★			

★为第一推荐牌号 Recommended grade ☆为第二推荐牌号Optional grade

材质说明
Material Description

材料分类 Material	ISO材料分类 ISO Classification	牌号 Grade	应用推荐 Features
P	P20(P15-P30)	BPC6115	淬火钢通用材质，兼顾耐磨性和耐崩性 Universal grade for hardened steel with good wear resistance and toughness
K	K10(K05-K20)	BPC5115	适合于铸铁加工，耐磨损性和耐崩性优异的材质 Suitable for cast iron machining with excellent wear resistance and high toughness

切削参数推荐
Recommended Cutting Parameters

被切削材料 Cutting material	被切削材料硬度 Material hardness	加工形态 Type of operation		切削参数 Cutting parameters		
				切削速度Vc(m/min)	切深ap(mm)	进给fn(mm/rev)
高硬度材 High hardness	55HRC以上 Above 55HRC	通用精加工 Finishing	连续~断续 Continuous cut ~interrupted cut	100-150-200	0.05-0.30-0.50	0.05-0.08-0.10
		高效稳定加工 Efficient and stable processing	轻断续~断续 Lightly interrupted cut~interrupted cut	80-120-160	0.05-0.30-0.50	0.05-0.08-0.10
		断续(小切深) Interrupted(small depth of cut)	断续~强断续 Interrupted cut~ heavily interrupted cut	60-100-150	0.05-0.20-0.40	0.05-0.08-0.10
		重切削 Heavy cutting	连续~断续 Continuous cut~interrupted cut	70-90-110	0.50-1.00-2.00	0.05-0.10-0.20
	55HRC以下 Below 55HRC	精加工 Finishing	连续 Continuous cut	60-80-120	0.20-0.50-0.70	0.05-0.10-0.15
灰口铸铁 Gray iron	250HB以下 Below 250H	精加工 Finishing	连续~轻断续 Continuous cut~ lightly interrupted cut	400-800-1200	0.05-0.20-0.50	0.10-0.20-0.30
		精加工 Finishing	连续~轻断续 Continuous cut~ lightly interrupted cut	300-500-700	0.05-0.20-0.50	0.10-0.20-0.30
		高效率精加工 Efficient finishing	连续~轻断续 Continuous cut~ lightly interrupted cut	500-900-1200	0.10-0.50-1.00	0.05-0.10-0.20
		重切削 Heavy cutting	连续~断续 Continuous cut~interrupted cut	500-700-900	0.50-1.50-3.00	0.10-0.30-0.50
冷硬铸铁 Chilled cast iron rolls	55HRC以上 Above 55HRC	精加工 Finishing	连续~断续 Continuous cut~interrupted cut	80-120-160	0.05-0.30-0.5	0.05-0.08-0.10
		重切削 Heavy cutting	连续~断续 Continuous cut ~interrupted cut	70-90-110	0.30-0.70-1.00	0.05-0.10-0.15
铁系烧结金属 Sintered iron		精加工 Finishing	连续~轻断续 Continuous cut ~lightly interrupted cut	50-150-250	0.05-0.15-0.25	0.03-0.10-0.20
		精加工 Finishing	连续~断续 Continuous cut ~interrupted cut	100-200-250	0.05-0.20-0.30	0.05-0.15-0.25

PCD命名规则
PCD Code Key For General Turning Inserts

CNGA120404 - **S2**

1

参考ISO表为基准→（A05）页
Refer to the ISO table as a benchmark → Page A05

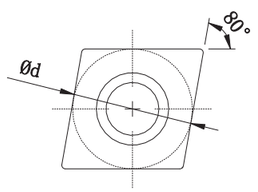
1 切刃数 Number of cutting edges
S焊接式 Shielded Metal Arc Welding
数字代表具体刃数 The number represents the specific cutting edges

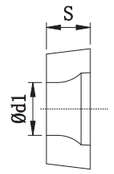
PCD正型刀片-CC/DC

PCD Positive Inserts-CC/DC

CC□□

菱形80度正型CC - 80°Rhombic positive

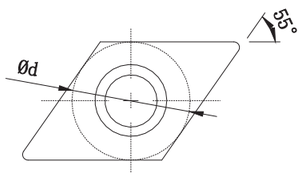


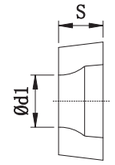


刀片	型号	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Number of cutting edges	Grade		Dimenstions		
			BPD5105	BPD5115	d	s	d1
	CCGW060202	S1 S2	★	★	2.80	2.38	6.35
	CCGW060204		★	★			
	CCGW060208		★	★			
	CCGW09T302		★	★	4.40	3.97	9.525
	CCGW09T304		★	★			
	CCGW09T308		★	★			
	CCGW120402		★	★	5.50	4.76	12.70
	CCGW120404		★	★			
	CCGW120408		★	★			

DC□□

菱形55度正型DC -55° Rhombic positive





刀片	型号	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Number of cutting edges	Grade		Dimenstions		
			BPD5105	BPD5115	d	s	d1
	DCGW070202	S1 S2	★	★	2.80	2.38	6.35
	DCGW070204		★	★			
	DCGW070208		★	★			
	DCGW11T302		★	★	4.40	3.97	9.525
	DCGW11T304		★	★			
	DCGW11T308		★	★			

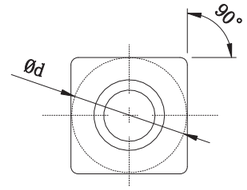
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

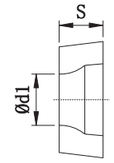
PCD正型刀片-SC/VC

PCD Positive Inserts-SC/VC

SC□□

菱形90度正型SC - 90° Rhombic positive

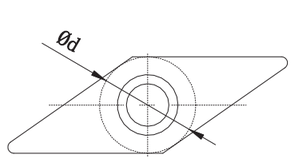


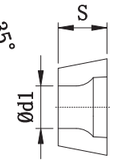


刀片	型号	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Number of cutting edges	Grade		Dimenstions		
			BPD5105	BPD5115	d	s	d1
	SCGW09T302	S1 S4	★	★	4.40	3.97	9.525
	SCGW09T304		★	★			
	SCGW09T308		★	★			
	SCGW120402		★	★	5.50	4.76	12.70
	SCGW120404		★	★			
	SCGW120408		★	★			

VB/VC□□

菱形35度正型VC -35°Rhombic positive



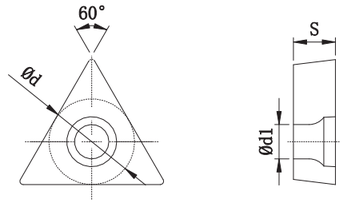


刀片	型号	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Number of cutting edges	Grade		Dimenstions		
			BPD5105	BPD5115	d	s	d1
	VBGW110302	S1 S2	★	★	6.35	3.18	2.80
	VBGW110304		★	★			
	VBGW110308		★	★			
	VBGW160402		★	★	9.525	4.76	4.40
	VBGW160404		★	★			
	VBGW160408		★	★			
	VCGW110302		★	★	6.35	3.18	2.80
	VCGW110304		★	★			
	VCGW110308		★	★			
	VCGW160402		★	★	9.525	4.76	4.40
	VCGW160404		★	★			
	VCGW160408		★	★			

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

PCD正型刀片-TC

PCD Positive Inserts-TCD



TC/TP□ □

三角形60度正型TC/TP - 60°Triangle positive

刀片	型号	切刃数	牌号		尺寸(mm)		
Inserts	Designation	Number of cutting edges	Grade		Dimenstions		
			BPD5105	BPD5115	d	s	d1
	TCGW080202		★	★	2.40	2.38	4.76
	TCGW080204		★	★			
	TCGW080208		★	★			
	TCGW090202		★	★	2.80	2.38	5.56
	TCGW090204		★	★			
	TCGW090208		★	★			
	TCGW110202		★	★	2.80	2.38	6.35
	TCGW110204		★	★			
	TCGW110208		★	★			
	TCGW110302		★	★	3.40	3.18	6.35
	TCGW110304		★	★			
	TCGW110308		★	★			
	TCGW160402		★	★	4.40	4.76	9.525
	TCGW160404		★	★			
	TCGW160408		★	★			
	TPGW080202	S1 S3	★	★	2.40	2.38	4.76
	TPGW080204		★	★			
	TPGW080208		★	★			
	TPGW090202		★	★	2.80	2.38	5.56
	TPGW090204		★	★			
	TPGW090208		★	★			
	TPGW110202		★	★	2.80	2.38	6.35
	TPGW110204		★	★			
	TPGW110208		★	★			
	TPGW110302		★	★	3.40	3.18	6.35
	TPGW110304		★	★			
	TPGW110308		★	★			
	TPGW160402		★	★	4.40	4.76	9.525
	TPGW160404		★	★			
	TPGW160408		★	★			



材质说明

Material Description

材料分类	ISO材料分类	牌号	应用推荐
Material	ISO Classification	Grade	Features
N	N05(N0-N10)	BPD5105	高密度金刚石，具有优异的耐磨损性和耐崩损性 High-density diamond with excellent wear resistance and toughness
	N15(N10-N20)	BPD5115	超微粒金刚石，兼具耐磨损性和耐崩损性 Ultra-fine diamond with excellent wear resistance and toughness

切削参数推荐

Recommended Cutting Parameters

被切削材料	切削参数				备注
Cutting material	Cutting parameters				Notes
	切削速度 Vc(m/min)	切深ap(mm)		进给fn(mm/rev)	
		正型刀片	负型刀片		
		Positive	Negative		
铝合金·锌合金 Aluminum alloys & Zinc alloys	~1.0	~1.0	~2.0	0.03-0.50	湿式干式均可 Wet and dry
铜·黄铜·青铜 Copper, brass and bronze	~1.0	~1.0	~2.0	0.03-0.50	
镁合金 Magnesium alloys	~1.0	~1.0	~2.0	0.03-0.50	
硬质合金 Carbide	~0.3	~0.3	~0.3	0.03-0.10	
钛合金 Titanium alloys	~1.0	~1.0	~2.0	0.05-0.20	湿式 Wet type
玻璃纤维强化塑料碳纤维 Glassfiber Reinforced Plastic & carbon fiber	~1.0	~1.0	~2.0	0.05-0.50	干式 Dry type
硅填充塑料·硬质纤维板 Silicone plastic hardboard	~1.0	~1.0	~2.0	0.05-0.50	

A

铝轮毂加工
Aluminum Wheel Processing



铝轮毂加工
Aluminum Wheel Processing

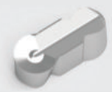
邦普切削解决方案-铝轮毂加工的领先者
Bangpu cutting tool solution-The leader of aluminum wheel processing

铝轮毂加工需要较高较高切削速度和极高硬度切削材料，加工期间会产生巨大的离心力，需要使用能够承受高转速和负载的稳定刀具，邦普切削解决方案在这一领域拥有数十年深厚经验积累，也一直在不断扩大和优化我们的可转为刀片系列。如今我们已成为能提供全方位服务的制造商，能够针对铝轮生产的每项工艺提供最佳刀具。目前应用于汽车、摩托车等铝轮。

Aluminum wheel hub machining requires high cutting speeds and extremely high hardness cutting materials, which generate huge centrifugal forces during the machining process. Stable cutting tools that can withstand high speeds and loads are required. Bangpu has decades of profound experience in this field and has been continuously expanding and optimizing the indexable insert series. Today we are a comprehensive manufacturer providing excellent tools for every processing in wheel hub manufacturing, At present, it is used for automobiles. motorcycles and other aluminum wheel machining.

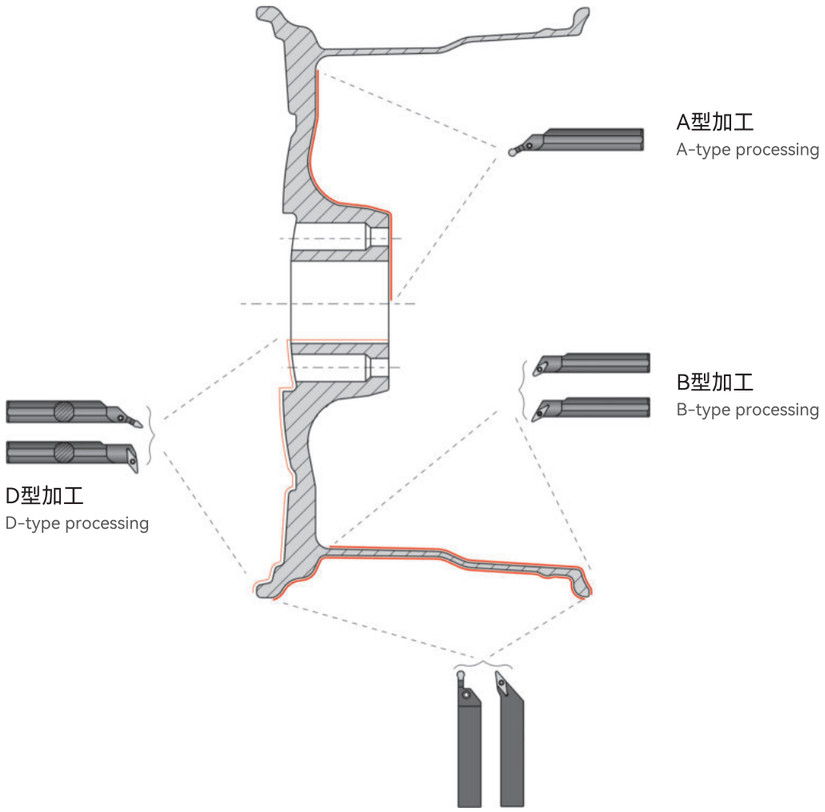


GDMA840-AF（一般加工General processing）	GDMA840-AL（半精加工Semi-finishing）	GDMA840-AN（半精加工Semi-finishing）
		
大前角、锋利切削刃、开放式断屑槽	大前角、锋利切削刃、闭合式断屑槽	大前角、锋利切削刃、闭合式断屑槽
Large rake angle, sharp cutting edge with open chip breaker	Large rake angle, sharp cutting edge with closed chip breaker	Large rake angle, sharp cutting edge with closed chip breaker

GIP600-300-LH（一般加工General processing）	GIP600E-300-AL（半精加工Semi-finishing）	GIPATYZ-35V-1.2-LHC
		
大前角、锋利切削刃、开放式断屑槽	大前角、锋利切削刃、闭合式断屑槽	大前角、大后角
Large rake angle, sharp cutting edge with open chip breaker	Large rake angle, sharp cutting edge with closed chip breaker	Large rake angle, large clearance angle

VCGT...-LHC（一般加工General processing）	VCGT...-AL（粗加工Roughing）	VCGT...-LHK（断屑加工Chip-breaking processing）
		
波浪式容屑槽&锋利切削刃	刃口锋利及宽大容屑槽	大前角、锋利切削刃、开放式断屑槽
Wave mode chip pocket, sharp cutting edge	Sharp cutting edge, wide chip pocket	Large rake angle, sharp cutting edge with open chip breaker

铝合金加工轮毂应用
Insert Application for Aluminum Wheel Hub Machining



● 推荐切削参数
Recommended cutting condition

ISO	材质Material	条件Condition	Kc(Mpa)	切削速度Cutting speed Vc(m/min)	
				牌号Grade	
				BP5205	BP5215
N	铝合金（锻造）Aluminum alloy (casting)	未硬化 Not-hardend	500-600	1000-2500	800-2200
			700-900	400-1200	400-1000
	铝合金（铸造）Aluminum alloy (forging)	淬硬 Hardend	700-800	1000-2500	800-2200
			800-950	400-1200	400-1000
	铜合金 Coper alloy	未硬化 Not-hardend	700-900	400-1000	400-1000
	镁合金 Magnesium alloy	淬硬 Hardend	700-800	300-1000	300-1000

刀片特征/优势
Characteristics/Advantages

● **AF槽形特征**
Geometry AF

·优异槽型设计，通用铝合金加工
·大前角和大后角设计，使切削更加轻快
·独特的刀片安装方式使刀片安装更加牢固

·Excellent geometry design for general machining of aluminum.
·Large rake angle and clearance angle design helps faster and smoother cutting.
·Unique installation mode makes it more stable.

● **20度顶面和底面夹角设计** ①
Designed with 20°
between the top and bottom side

● **开发式断屑槽设计** ②
Open geometry design

·特殊的前角和刃倾角设计，减小切削阻力
·切深/进给不稳定加工工况下，保障稳定切屑控制
·刃口锋利及宽大容屑槽，在不稳定的内径加工时减小粘屑的倾向

·Special rake angle and cutting edge inclination angle to reduce cutting resistance.
·Ensure stable chip control when cutting depth and feed are unstable.
·Sharp edge and wide chip pocket to reduce chip sticky tendency in unstable boring condition.



AF槽形
CHIPBREAKER AF

刀片特征/优势
Characteristics/Advantages

AL槽形特征
Geometry AL

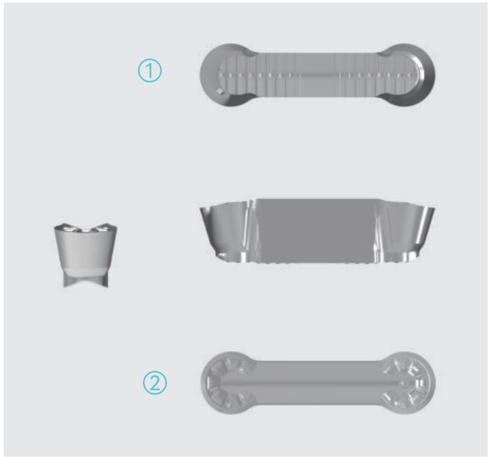
·最佳槽型设计刀片用于锻造铝轮毂加工
·大前角和大后角设计，使切削更加轻快
·独特的刀片安装方式使刀片安装更加牢固

·Excellent geometry design for forging aluminum wheel hub.
·Large rake angle and clearance angle design helps faster and smoother cutting.
·Unique installation mode makes it more stable.

● **创新防滑槽设计** ①
Innovative anti-skid slot design

·增大可转位刀片承受更高应力
·在离心负载情况下，保证安全良好的刀片定位
·高速加工中，更加安全

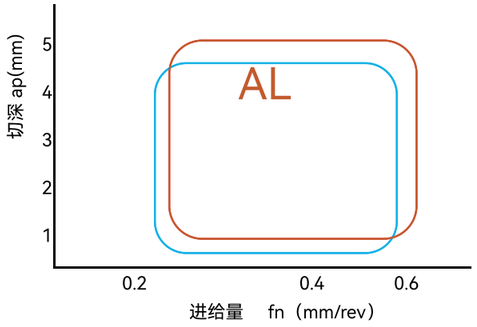
·Withstand higher stress.
·Ensure safe and good positioning under centrifugal load conditions.
·Improve safety during high speed machining.



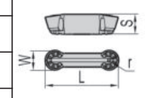
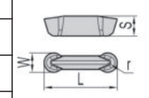
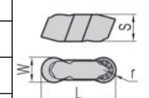
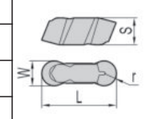
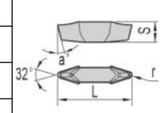
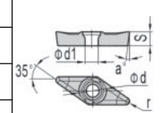
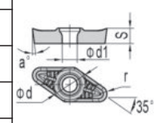
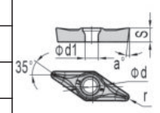
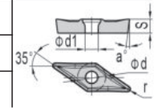
● **闭合式断屑槽设计** ②
Closed geometry design

·使切屑更快离开刀片，防止黏刀
·针对高强度铝合金加工专用设计，排屑更顺畅
·提高自动化生产效率

·The chips leaves the insert faster to prevent from sticking.
·Special design for machining high strength aluminum alloy with smoother chip evacuation.
·Improve automated efficiency.



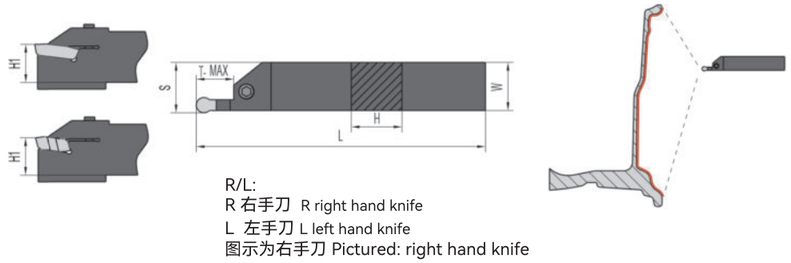
铝轮毂刀片系列
Inserts for Aluminum Alloy Wheel Turning

应用 Application	形状 Shape	型号 Specification	涂层硬质合金 Coated cemented carbide		尺寸(mm) Dimension							几何结构 Geometry
			BP5205	BP5215	L	W	d	s	d1	r	a°	
铝轮毂加工 Aluminum wheel hub machining		GDMA840E-AL	☆	★	30.00	8.00	-	6.89	-	4.00	-	
		GDMA840E-AF	☆	★	30.00	8.00	-	6.89	-	4.00	-	
		GIP600-300-AL	☆	★	18.00	6.00	-	6.50	-	3.00	-	
		GIP600-300-LH	★		18.00	6.00	-	6.50	-	3.00	-	
		GIPATYZ-35V-1.2-LH	★		30.00	6.00	-	7.00	-	1.20	-	
		VCGT160408-N3			-	-	9.525	4.76	4.40	0.80	7	
		VCGT160412-N3			-	-	9.525	4.76	4.40	1.20	7	
		VCGT220530-N3			-	-	12.70	5.56	5.50	3.00	7	
		VCGT220530E-N3			-	-	12.70	5.56	5.50	3.00	7	
		VCGT160408-N1			-	-	9.525	4.76	4.40	1.20	7	
		VCGT160412-N1					9.525	4.76	4.40	1.20	7	
		VCGT220520-N1					12.70	5.56	5.50	2.00	7	
		VCGT220530-N1					12.70	5.56	5.50	3.00	7	
		VCGT220530E-N1					12.70	5.56	5.50	3.00	7	
		VCGT160412-LHK			-	-	9.525	5.56	5.50	1.20	7	
		VCGT220530-LHK					12.70	5.56	5.50	3.00	7	
		VPGT220516-LHK					12.70	5.56	5.50	1.60	11	
		VPGT220612E-LHC			-	-	12.70	6.35	5.50	1.20	11	

铝轮毂刀杆系列

Tool Holders For Aluminum Alloy Wheel Turning

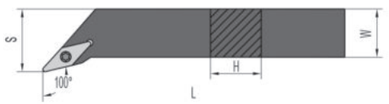




R/L:
R 右手刀 R right hand knife
L 左手刀 L left hand knife
图示为右手刀 Pictured: right hand knife

型号 Specification	尺寸(mm) Dimension					适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	B	H	T-MAX	S			
BUMPR/L 2525-R3-150	150	25	25	24	24	GIP600**	M6*30	L5.0
BUMPR/L 3232-R4-170	170	32	32	24	31.5	GDMA840**		
BUMPR/L 2525-R4-150	150	25	25	24	24			
BUMPR/L 3232-R4-170	170	32	32	24	31.5			

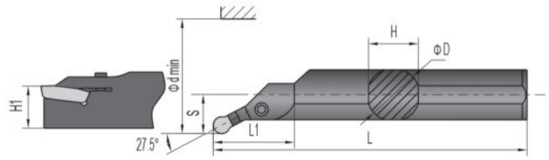


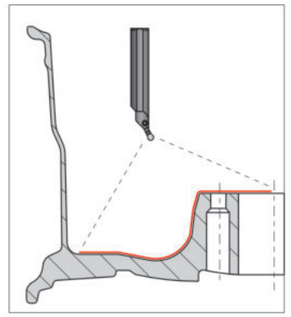


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型号 Specification	尺寸(mm) Dimension					适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	B	H	T-MAX	S			
SVJCR/L-2525-M16	150	25	25	-	32	VCGT16**	S040L09	HT15
SVHCR/L-2525-M16	150	25	25	-	32			

GDMA□□





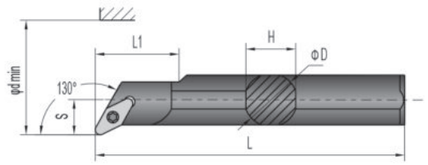
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型号 Specification	尺寸(mm) Dimension						适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	ΦD	H	L1	S	Φdmin			
BUMPR/L 50C-05A-R4-300	300	50	47	87	27	>65	GDMA840**	M6*30	L5.0
BUMPR/L 50C-08A-R4-300	300	50	47	87	27	>65			
BUMPR/L 50C-15A-R4-300	300	50	47	87	27	>65			
BUMPR/L 50C-05A-R4-350	350	50	47	87	27	>65			
BUMPR/L 50C-08A-R4-350	350	50	47	87	27	>65			
BUMPR/L 50C-15A-R4-350	350	50	47	87	27	>65			
BUMPR/L 40C-05A-230	230	40	37	87	22	>65			
BUMPR/L 40C-08A-230	230	40	37	87	22	>65			
BUMPR/L 40C-15A-230	230	40	37	87	22	>65			
BUMPR/L 40C-05A-250	250	40	37	87	22	>65			
BUMPR/L 40C-08A-250	250	40	37	87	22	>65			
BUMPR/L 40C-15A-250	250	40	37	87	22	>65			
BUMPR/L 40C-05A-300	300	40	37	87	22	>65			
BUMPR/L 40C-08A-300	300	40	37	87	22	>65			
BUMPR/L 40C-15A-300	300	40	37	87	22	>65			

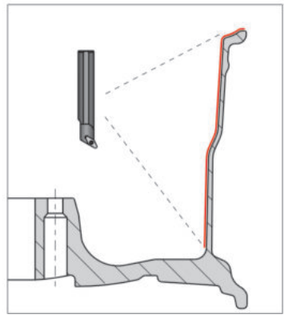
铝轮毂刀杆系列

Tool Holders For Aluminum Alloy Wheel Turning



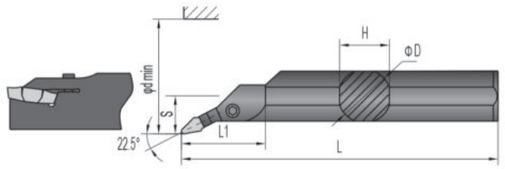


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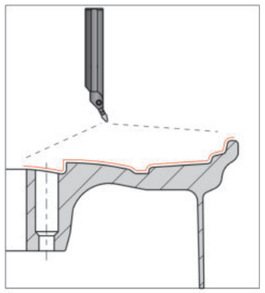


型号 Specification	尺寸(mm) Dimension						适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	ΦD	H	L1	S	Φdmin			
A40T-SVQCR/L22-300	300	40	37	80	27	45	VCGT2205**	S050L12	HT20
A40S-SVQCR/L22-230	230	40	37	80	27	45			
A40S-SVQCR/L22-250	250	40	37	80	27	45			
A40T-SVQCR/L22	300	40	37	80	27	45			
A50T-SVQCR/L22	300	50	47	80	32	45			
A50U-SVQCR/L22	350	50	47	80	32	45			



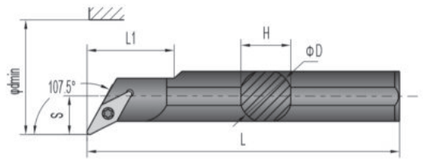


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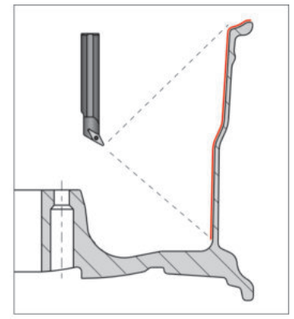


型号 Specification	尺寸(mm) Dimension					适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	ΦD	H	L1	S			
BUMPR/L 40C-112.5A-R1.2-300	300	40	37	87	27	GIPATYZ-35V**	M6*30	L5.0
BUMPR/L 50C-112.5A-R1.2-300	300	50	47	87	27			



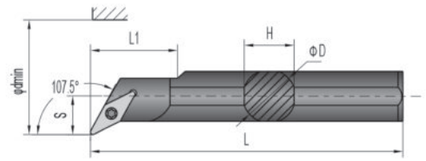


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图示为右手刀 Pictured: right hand knife

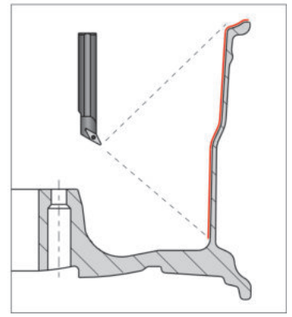


型号 Specification	尺寸(mm) Dimension						适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	ΦD	H	L1	S	Φdmin			
A40S-SVUCR/L 16-230	230	40	37	80	27	45	VCGT1604**	S040L09	HT15
A40S-SVUCR/L 16-250	250	40	37	80	27	45			
A40T-SVUCR/L 16	300	40	37	80	27	45			
A50T-SVUCR/L 16	300	50	47	80	32	55			
A50U-SVUCR/L 16	350	50	47	80	32	55			
A32S-SVUCR/L 16	230	32	30	60	20	38			





R/L:
R 右手刀 R right hand knife
L 左手刀 L left hand knife
图示为右手刀 Pictured: right hand knife



型号 Specification	尺寸(mm) Dimension						适用刀片 Available inserts	螺钉 Screw	扳手 Wrench
	L	ΦD	H	L1	S	Φdmin			
A40T-SVQCPR/L22-300	300	40	37	80	27	45	VPGT2206**	S040L09	HT15
A40S-SVQPR/L22-230	230	40	37	80	27	45			
A40S-SVQPR/L22-250	250	40	37	80	27	45			
A40T-SVQPR/L22	300	40	37	80	27	45			
A50T-SVQPR/L22	300	50	47	80	32	45			
A50U-SVQPR/L22	350	50	47	80	32	45			

切削参数推荐

Recommended Cutting Parameters

ISO	材料 Material	单位切削力 Cutting force	布氏硬度 Hardness	切削速度Cutting speed Vc(m/min) 涂层Coated grade			
		N/mm2	HB	BP6305	BP6315	BP6325	BP6335
P	**非合金钢Carbon steel**						
	C=0.1-0.25%	1500	125	220-550	200-480	180-380	150-350
	C=0.25-0.55%	1600	150	200-500	180-450	150-400	130-300
	C=0.55-0.80%	1700	170	180-480	160-430	130-350	110-300
	低合金钢（合金元素≤5%）Low carbon steel （alloy ≤5%）						
	非淬硬钢Not-hardended steel	1700	180	220-500	200-500	170-400	140-280
	轴承钢Bearing steel	1800	210	200-400	150-280	140-240	100-220
	调质Tempered steel	1850	275	150-300	130-260	120-230	800-200
	调质Tempered steel	2050	350	130-260	120-230	110-200	60-160
	高合金钢（合金元素 > 5%）High carbon steel（alloy > 5%）						
	退火Annealed steel	1950	200	200-380	190-380	140-280	100-220
	淬硬工具钢Hardended tool steel	3000	325	100-200	90-180	70-130	45-100
	铸钢Casting steel						
	非合金Non-alloy	1550	180	150-300	130-260	110-200	90-180
	低合金（合金元素≤5%）Low alloy （alloy ≤5%）	1600	200	130-280	130-260	120-200	100-180
	高合金（合金元素 > 5%）High alloy（alloy > 5%）	2050	225	115-230	110-200	90-160	65-130
M	**铁素体/马氏体/棒材/锻件Ferrite/Martensite/Bar/Forging**						
	非淬硬Not-hardended	1800	200				
	沉淀硬化Precipitation hardening	2850	330				
	淬硬钢Hardended	2350	330				
	奥氏体 棒材/锻件 Austenitic bars/forgings						
	奥氏体 Austenitic	1800	180				
	沉淀硬化Precipitation hardening	2850	300				
	超级奥氏体 Super austenitic	2250	200				
	奥氏体-铁素体（双相）棒材/锻件 Austenitic-ferrite (duplex) bars/forgings						
	不可焊接Unweldable≥0.05% C	2000	230				
	可焊接Weldable < 0.05% C	2450	260				
	铁素体/马氏体 铸件 Ferrite/Martensite Castings						
	非淬硬Not-hardended	1700	200				
	沉淀硬化Precipitation hardening	2450	330				
	淬硬钢Hardended	2150	330				
	奥氏体 铸件 Austenitic castings						
	奥氏体Austenitic	1700	180				
	沉淀硬化Precipitation hardening	2450	330				
	超级奥氏体Super austenitic	2150	200				
	奥氏体-铁素体（双相）铸件Austenitic-Ferrite (duplex)						
	不可焊接Unweldable≥0.05% C	1800	230				
	可焊接weldable < 0.05% C	2250	260				

切削速度Cutting speed Vc(m/min) 涂层Coated grade							
BP2205	BP2215	BP2225	BP3215	BP4205	BP4215	BP5205	BP5215
		100-300	200-400				
		100-270	170-390				
		80-200	130-350				
		80-200	140-370				
		40-120	110-220				
		40-90	90-200				
		30-90	80-170				
		60-160	110-250				
		40-80	40-100				
		80-200	180-350				
		50-140	150-260				
		40-100	100-200				
240-380	150-260	170-280					
225-350	100-140	100-155					
160-245	110-150	120-165					
260-410	120-200	135-220					
145-220	100-140	100-155					
160-245	120-160	130-185					
205-315	100-180	130-210					
185-280	100-160	110-190					
205-320	150-230	170-260					
95-160	80-110	80-130					
110-175	80-110	90-140					
170-280	130-200	140-220					
95-160	80-100	80-130					
150-210	110-145	120-160					
120-230	100-160	100-180					
110-205	90-140	90-160					

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

ISO	材料 Material	单位切削力 Cutting force N/MM2	布氏硬度 Hardness HB	切削速度Cutting speed Vc(m/min) 涂层Coated grade BP6305	BP6315	BP6325	BP6335
K	**可锻铸铁 Malleable iron**						
	铁素体（短切屑）Ferrite (short chip)	790	130		225-325	180-280	
	珠光体（长切屑）Pearlite (long chips)	900	230		200-285	150-240	
	灰口铸铁Grey cast iron						
	低抗拉强度Low tensile strength	890	180		220-330	200-280	
	高抗拉强度High tensile strength	970	220		200-285	180-240	
	球墨铸铁SG nodular cast iron						
	铁素体 Ferrite	900	160		180-280	120-240	
	珠光体 Pearlite	1350	250		150-260	100-220	
	马氏体 Martensite	2100	380		125-205	100-180	
N	**铝合金Aluminum alloy**						
	锻造或锻造+冷作，非时效处理 Forging or forging+cold work, non aging treatment	400	60				
	锻造或锻造加时效处理 Forging or forging+aging treatment	650	100				
	铝合金Aluminum alloy						
	铸造，非时效Casting, non Aging	600	75				
	铸造或铸造加时效处理Casting or casting + aging	700	90				
	铝合金Aluminum alloy						
	铸造，13-15% 硅Casting, 13-15% silicon	700	130				
	铸造，16-22% 硅Casting, 136-22% silicon	700	130				
	铜和铜合金Coper and coper alloy						
	易切合金，≥1% 铅Easy cutting alloy, lead ≥ 1%	550	110				
	黄铜，铅青铜，≤1%铅Brass, lead tung, lead ≤ 1%	550	90				
	青铜与无铅铜，包括电解铜 Bronze and lead-free copper, including electrolytic copper	1350	100				
S	**高温合金 铁基 High-temperature alloy steel based**						
	退火或固溶处理Annealing or solution treatment	2400	200		100-200		
	时效处理或固溶处理加时效处理 Aging treatment or solution treatment plus aging treatment	2500	280		80-185		
	镍基 Nickel based						
	退火或固溶处理Annealing or solution treatment	2650	250				
	时效处理或固溶处理加时效处理 Aging treatment or solution treatment plus aging treatment	2900	350				
	铸造或铸造加时效处理Casting or casting plus aging treatment	3000	320				
	钴基 Cobalt based						
	退火或固溶处理Annealing or solution treatment	2700	200				
	固溶处理加时效处理Solution treatment plus aging treatment	3000	300				
	铸造或铸造加时效处理Casting or casting plus aging treatment	3100	320				
	钛合金Titanium alloy 2） RM=最终的拉伸强度测量 UTS(MPa)		Rm[3])				
	商业纯Commercial pure（99.5% Ti）	1300	400				
	α，近α与α+β合金，退火 α, close to α and α+β Alloy, Annealed	1400	950				
	α+β合金时效处理，β合金，退火或时效处理 Alloy aging treatment, β Alloy, annealed or aged treatment	1400	1050				

切削速度Cutting speed Vc(m/min) 涂层Coated grade BP2205	BP2215	BP2225	BP3215	BP4205	BP4215	BP5205	BP5215
			280-360				
			220-340				
			300-420				
			270-360				
			240-360				
			220-330				
			150-260				
100-1000		100-900				260-2500	230-2200
50-350		40-330				260-2500	230-2200
100-1000		100-900				260-2500	230-2200
100-600		100-500				260-2500	230-2200
40-400		40-350				50-550	50-480
30-300		30-240				35-350	30-350
30-260		30-220				65-600	60-550
20-150		15-120				65-600	60-550
15-100		11-90				35-350	30-300
		45-75		70-150	40-70	50-80	45-75
		35-55		60-120	30-50	40-65	35-60
		25-45		30-90	20-40	30-50	28-45
		15-35		25-75	10-30	20-40	16-38
		12-23		22-60	10-20	15-25	11-22
		25-45		30-90	20-40	30-50	25-40
		15-35		25-75	10-20	20-40	18-35
		12-22		20-60	10-20	15-25	13-22
				145-200	100-150	135-190	125-175
				55-85	40-60	50-80	45-70
				50-80	35-60	45-75	40-65

A

车削刀具
TURNING TOOLS



A 车削
B 铣削
C 钻削
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车削刀具
Turning Tools

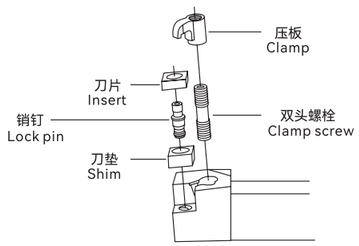
- 外圆车削刀具 External Turning Tools A106
- 内孔车削刀具 Internal Turning Tools A127
- PSC螺钉压紧式车削刀具 PSC Screw Clamping Turning Tools A149
- PSC杠杆压紧式车削刀具 PSC Lever Clamping Turning Tools A164
- PSC D型压紧式车削刀具 PSC D Rigid Clamping Turning Tools A169
- PSC QE车削刀具 PSC QE System A176
- PSC 刀具系统 PSC Tools System A178

外圆车刀概述
External Turning Tools

复合压紧式外圆车刀
Composite clamping type external turning tool

·采用销钉侧压与压板上压
·使用N 后角刀片（刀片后角为0°），刀片可双面使用
·坚固的切削刃和牢固的装夹方式为高效率切削提供了可靠的保障
·可用于立式车床作内孔车削加工

·Clampped by pin and locking press plate simultaneously.
·The insert without clearance angle (0° clearance angle), and it can be used on both sides.
·The strong cutting edge and firm clamping method provide a reliable guarantee for high-efficiency cutting.
·Can be used for vertical lathe for inner hole turning.

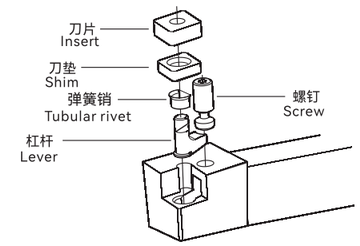


复合压紧式外圆车刀 - 刀片安装示意

杠杆压紧式外圆车刀
Lever clamping type external turning tool

·利用杠杆原理，采用螺钉压紧杠杆锁紧刀片
·使用N 后角刀片（刀片后角为0°），刀片可双面使用
·坚固的切削刃和牢固的装夹方式为高效率切削提供了可靠的保障
·可用于重型车削

·Utilizing the principle of leverage, a screw is used to compress the lever to lock the blade.
·With N clearance angle (0° clearance angle), the inserts can be used on both sides.
·The strong cutting edge and firm clamping method provide a reliable guarantee for high-efficiency cutting.
·Can be used for heavy turning.

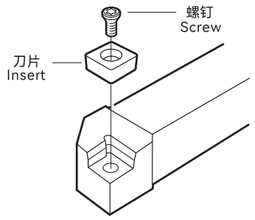


杠杆压紧式外圆车刀 - 刀片安装示意

螺钉压紧式外圆车刀
Screw calmping type external turning tool

·螺钉压紧式外圆车刀
·使用正前角刀片（刀片后角大于0°）
·简单可靠的刀片夹紧方式和极少的备件。
·切屑由前刀面通畅流出。

·Screw compression type external turning tool.
·Use positive inserts (insert clearance greater than 0°).
·Simple and reliable blade clamping and minimal spare parts.
·The chips flow out smoothly from flank.



螺钉压紧式外圆车刀 - 刀片安装示意

可转位外圆车刀型号编制规则
Code Key for External Turning Tools System

M	C	L	N	R	25	25	M	12	
1	2	3	4	5	6	7	8	9	10

1 压紧方式 Clamping System

C	上压紧式 Top Clamping
M	上压紧及孔压紧式 Top Wedge Lock
P	孔压紧式 Lever Lock
S	螺钉锁紧式 Screw Clamping

2 刀片形状 Insert Shape

C 80° · D 55° · K 55° · L 90° · R · S 90° · T 60° · V 35° · W 80°

3 刀具形式 Tool Style

A 90° · B 75° · C 90° · D 45° · E 60° · F 90° · G 90° · H 107°30′ · J 93° · K 75° · L 95° 95° · M 50° · N 62°30′ · P 117°30′ · R 75° · S 45° · T 60° · U 93° · V 72°30′ · W 60° · Y 85° · Z 100° · X 非标准主偏角 Special

4 刀片后角 Insert Clearance Angle

B	5°
C	7°
D	15°
E	20°
F	25°
N	0°
P	11°

5 切削方向 Cutting Direction

R · N · L

6 刀尖高度 Height of Insert Point

h

7 刀杆宽度 Tool Width

b

8 刀具长度 Tool Length

A	= 32	P	= 170
B	= 40	Q	= 180
C	= 50	R	= 200
D	= 60	S	= 250
E	= 70	T	= 300
F	= 80	U	= 350
G	= 90	V	= 400
H	= 100	W	= 450
J	= 110	Y	= 500
K	= 125	X	= 特殊
L	= 140		
M	= 150		
N	= 160		

9 刀片尺寸 Insert Size

C 80° · D 55° · K 55° · L 90° · R · S · T 60° · V 35° · W 80°

10 制造商代码 Manufacturer Code

F: 直头，无偏置
S: 单面定位设计
D: 刀垫式正前角车刀

负前角外圆车刀主偏角
Entering Angle of External Turning Tools for Negative Inserts

外圆 External / 端面 Face

90°主偏角 Entering Angle 90°

T型刀片
MTGNR/L

75°主偏角 Entering Angle 75°

C型刀片
MCBNR/L


S型刀片
MSBNR/L
PSBNR/L

95°主偏角 Entering Angle 95°

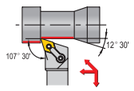
C型刀片
PCLNR/L

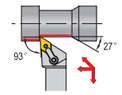

W型刀片
MWLNR/L

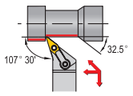
93°主偏角 Entering Angle 93°

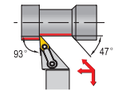
T型刀片
MTJNR/L

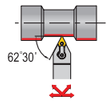
轮廓加工 Profile

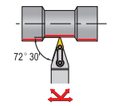
107°30′主偏角 Entering Angle 107°30′

D型刀片
MDQNR/L

93°主偏角 Entering Angle 93°

MDJNR/L
PDJNR/L

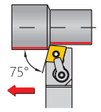
107°30′主偏角 Entering Angle 107°30′

V型刀片
MVQNR/L

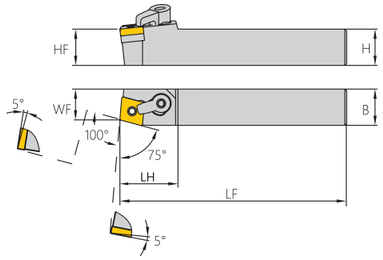
93°主偏角 Entering Angle 93°

MVJNR/L

62°30′主偏角 Entering Angle 62°30′

D型刀片
MDNNN

72°30′主偏角 Entering Angle 72°30′

V型刀片
MVVNN

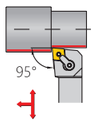
● 75° MCBNR/L

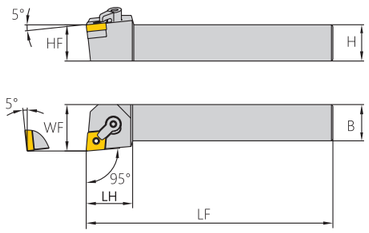




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MCBNR2020K12	MCBNL2020K12	20	20	125	20	17	32	CN□□1204□□	MC1204	CTM617	HL1814	ML0625	L2.5,L3.0
MCBNR2525M12	MCBNL2525M12	25	25	150	25	22	32						
MCBNR3232P12	MCBNL3232P12	32	32	170	32	27	32						
MCBNR3232P16	MCBNL3232P16	32	32	170	32	27	40	CN□□1606□□	MC1604	CTM822	HL2217	ML0830	L3.0,L4.0
MCBNR3232P19	MCBNL3232P19	32	32	170	32	27	40	CN□□1906□□	MC1904	CTM1022	HL2217	ML0830	L4.0

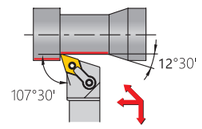
● 95° MCLNR/L

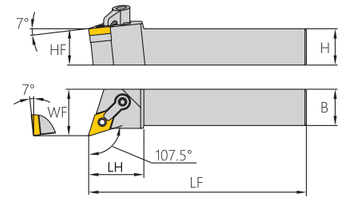




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MCLNR1616H12	MCLNL1616H12	16	16	100	16	20	32	CN□□1204□□	MC1204	CTM617	HL1814	ML0625	L2.5,L3.0
MCLNR2020K12	MCLNL2020K12	20	20	125	20	25	32						
MCLNR2525M12	MCLNL2525M12	25	25	150	25	32	32						
MCLNR3232P12	MCLNL3232P12	32	32	170	32	40	32						
MCLNR2525M16	MCLNL2525M16	25	25	150	25	32	35	CN□□1606□□	MC1606	CTM822	HL2217	ML0830	L3.0,L4.0
MCLNR3232P16	MCLNL3232P16	32	32	170	32	40	35						
MCLNR3232P19	MCLNL3232P19	32	32	170	32	40	36	CN□□1906□□	MC1906	CTM1022	HL2217	ML0830	L4.0
MCLNR4040R19	MCLNL4040L19	40	40	200	40	50	36						

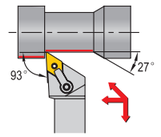
● 107°30′ MDQNR/L

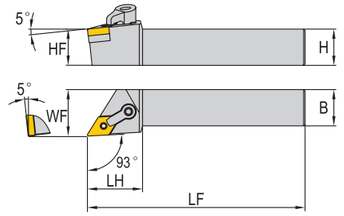




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MDQNR1616H11	MDQNL1616H11	16	16	100	16	20	31	DN□□1104□□	MD1103	CTM513	HL1814	ML0625	L2.0,L3.0
MDQNR2020K11	MDQNL2020K11	20	20	125	20	25	31				HL2114		
MDQNR2525M11	MDQNL2525M11	25	25	150	25	32	34						
MDQNR2020K15	MDQNL2020K15	20	20	125	20	25	37	DN□□1504□□ DN□□1506□□	MD1506 MD1504	CTM619	HL2114	ML0625	L2.5,L3.0
MDQNR2525M15	MDQNL2525M15	25	25	150	25	32	34						
MDQNR3232P15	MDQNL3232P15	32	32	170	32	40	37						

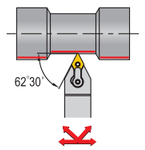
● 93° MDJNR/L

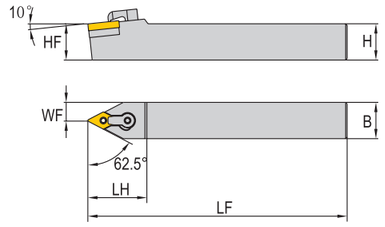




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MDJNR1616H11	MDJNL1616H11	16	16	100	16	20	34	DN□□1104□□	MD1103	CTM513	HL1814	ML0625	L2.0,L3.0
MDJNR2020K11	MDJNL2020K11	20	20	125	20	25	34						
MDJNR2525M1	MDJNL2525M11	25	25	150	25	32	34						
MDJNR2020K15	MDJNL2020K15	20	20	125	20	25	38	DN□□1504□□ DN□□1506□□	MD1506 MD1504	CTM619	HL2114	ML0625	L2.5,L3.0
MDJNR2525M15	MDJNL2525M15	25	25	150	25	32	38						
MDJNR3232P15	MDQNL3232P15	32	32	170	32	40	40						

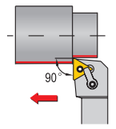
● 62°30′ MDPNN

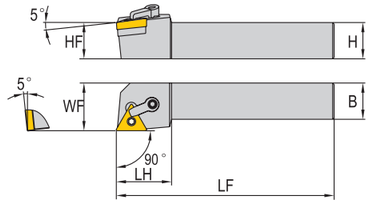




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MDPNN1616H11		16	16	100	16	8	38	DN□□1104□□	MD1103	CTM513	HL2114	ML0625	L2.0,L3.0
MDPNN1616H11		20	20	125	20	10	38						
MDPNN2020K15		20	20	125	20	10	43	DN□□1506□□	MD1506	CTM619	HL2114	ML0625	L2.5,L3.0
MDPNN2525M15		25	25	100	25	12.5	43						

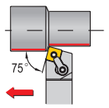
● 90° MTGNR/L

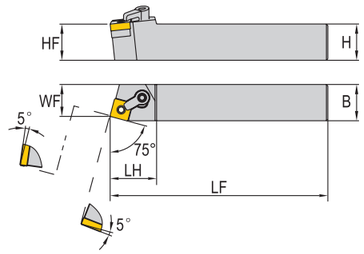




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MTGNR1616H16	MTGNL1616H16	16	16	100	16	20	28	TN□□1604□□	MT1603	CTM513	HL1814	ML0625	L2.0,L3.0
MTGNR2020K16	MTGNL2020K16	20	20	125	20	25	28						
MTGNR2525M16	MTGNL2525M16	25	25	150	25	32	30						
MTGNR2525M22	MTGNL2525M22	25	25	150	25	32	32	TN□□2204□□	MT2204	CTM617	HL1917	ML0830	L2.5,L4.0
MTGNR3232P22	MTGNL3232P22	32	32	170	32	40	32						

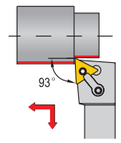
● 75° MSBNR/L

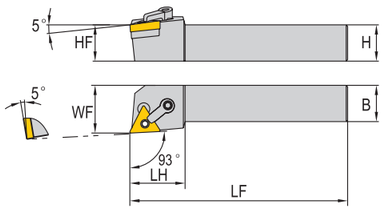




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MSBNR2020K12	MSBNL2020K12	20	20	125	20	17	32	SN□□1204□□	MS1204	CTM617	HL1814	ML0625	L2.5,L3.0
MSBNR2525M12	MSBNL2525M12	25	25	150	25	22	32						
MSBNR3232P12	MSBNL3232P12	32	32	170	32	29	32						
MSBNR3232P19	MSBNL3232P19	32	32	170	32	27	40	SN□□1906□□	MS1904	CTM1022	HL2217	ML0830	L4.0
MSBNR4040R19	MSBNL4040L19	40	40	200	40	35	40						

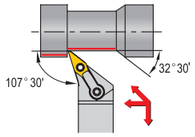
● 93° MTJNR/L

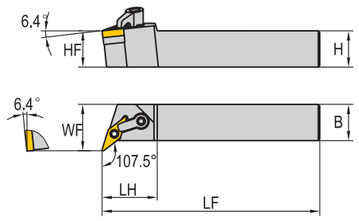




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MTJNR1616H16	MTJNL1616H16	16	16	100	16	20	30	TN□□1604□□	MT1603	CTM513	HL1814	ML0625	L2.0,L3.0
MTJNR2020K16	MTJNL2020K16	20	20	125	20	25	30						
MTJNR2525M16	MTJNL2525M16	25	25	150	25	32	32						
MTJNR3232P16	MTJNL3232P16	32	32	170	32	40	35						
MTJNR2525M22	MTJNL2525M22	25	25	150	25	32	34						
MTJNR3232P22	MTJNL3232P22	32	32	170	32	40	35	TN□□2204□□	MT2204	CTM617	HL1917	ML0830	L2.5,L4.0
MTJNR4040R22	MTJNL4040L22	40	40	200	40	50	38						

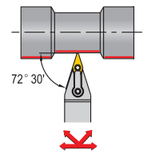
● 107°30′ MVQNR/L

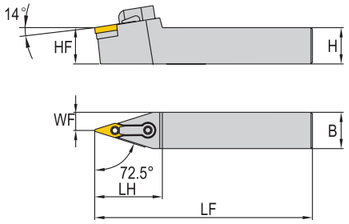




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MVQNR2020K16	MVQNL2020K16	20	20	125	20	25	40	VN□□1604□□	MV1603	CTM513	HI2114	ML0625	L2.0,L3.0
MVQNR2525M16	MVQNL2525M16	25	25	150	25	32	40						
MVQNR3232P16	MVQNL3232P16	32	32	170	32	40	40						

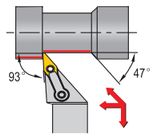
● 72°30′ MVVNN

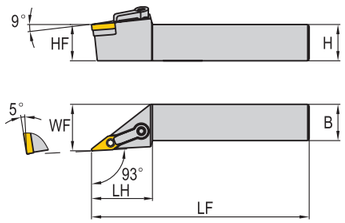




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
		H	B	LF	HF	WF	LH						
MVVNN2020K16		20	20	125	20	10	46	VN□□1604□□	MV1603	CTM513	HL2414	ML0625	L2.0,L3.0
MVVNN2525M16		25	25	150	25	12.5	47						

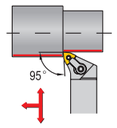
● 93° MVJNR/L

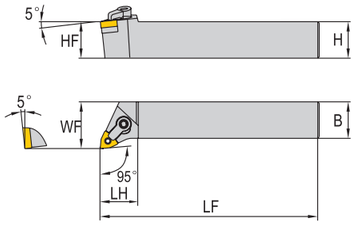




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MVJNR1616K16	MVJNL1616K16	16	16	125	16	20	44	VN□□1604□□	MV1603	CTM513	HL2414	ML0625	L2.0,L3.0
MVJNR2020K16	MVJNL2020K16	20	20	125	20	25	44						
MVJNR2525M16	MVJNL2525M16	25	25	150	25	32	44						
MVJNR3232P16	MVJNL3232P16	32	32	170	32	40	46						

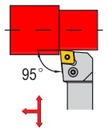
● 95°MWLNR/L

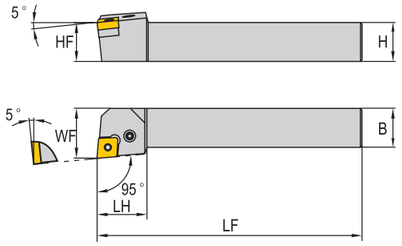




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
MWLNR1616H06	MWLNL1616H06	16	16	100	16	20	27	WN□□0604□□	MW0603	CTM513	HL1814	ML0625	L2.0,L3.0
MWLNR2020K06	MWLNL2020K06	20	20	125	20	25	27						
MWLNR2525M06	MWLNL2525M06	25	25	150	25	32	27						
MWLNR1616H08	MWLNL1616H08	16	16	100	16	20	27	WN□□0804□□	MW0804	CTM617	HL1814	ML0625	L2.5,L3.0
MWLNR2020K08	MWLNL2020K08	20	20	125	20	25	28						
MWLNR2525M08	MWLNL2525M08	25	25	150	25	32	30						
MWLNR3232P08	MWLNL3232P08	32	32	170	32	40	30						
MWLNR4040R08	MWLNL4040L08	40	40	200	40	50	38						

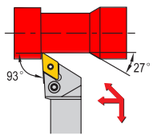
● 95° PCLNR/L

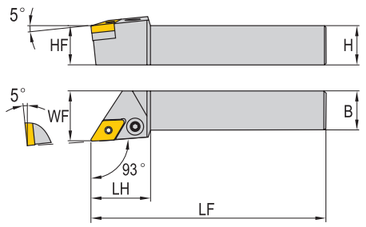




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
PCLNR1616H12	PCLNL1616H12	16	16	100	16	20	28	CN□□1204□□	SC42	LV4	VHX0821	SP4	L3.0
PCLNR2020K12	PCLNL2020K12	20	20	125	20	25	28						
PCLNR2525M12	PCLNL2525M12	25	25	150	25	32	28						
PCLNR3232P12	PCLNL3232P12	32	32	170	32	40	30						
PCLNR2525M16	PCLNL2525M16	25	25	150	25	32	34	CN□□1606□□	SC53	LV5	VHX0825	SP5	L3.0
PCLNR3232P16	PCLNL3232P16	32	32	170	32	40	34						
PCLNR3232P19	PCLNL3232P19	32	32	170	32	40	38	CN□□1906□□	SC63N	LV6	VHX1027	SP6	L4.0
PCLNR4040R19	PCLNL4040L19	40	40	200	40	50	38						

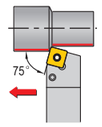
● 93° PDJNR/L

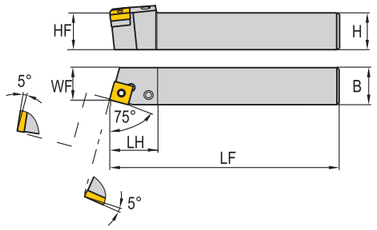




型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
PDJNR1616H11	PDJNL1616H11	16	16	100	16	20	26	DN□□1104□□	SD317	LV3	VHX0617	SP3	L2.5
PDJNR2020K11	PDJNL2020K11	20	20	125	20	25	26						
PDJNR2525M11	PDJNL2525M11	25	25	150	25	32	26						
PDJNR2020K1504	PDJNL2020K1504	20	20	125	20	25	35	DN□□1504□□	SD42	LV4	VHX0821	SP4	L3.0
PDJNR2525M1504	PDJNL2525M1504	25	25	150	25	32	35						
PDJNR3232P1504	PDJNL3232P1504	32	32	170	32	40	35						
PDJNR2020K1506	PDJNL2020K1506	20	20	125	20	25	35	DN□□1506□□	SD42	LV4B	VHX0821	SP4	L3.0
PDJNR2525M1506	PDJNL2525M1506	25	25	150	25	32	35						
PDJNR3232P1506	PDJNL3232P1506	32	32	170	32	40	35						

● 75° PSBNR/L





型号		尺寸						刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)						Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH						
PSBNR2020K12	PSBNL2020K12	20	20	125	20	17	30	SN□□1204□□	SS42	LV4	VHX0821	SP4	L3.0
PSBNR2525M12	PSBNL2525M12	25	25	150	25	22	30						
PSBNR3232P12	PSBNL3232P12	32	32	170	32	27	42						

正前角外圆车刀主偏角

Entering Angle of External Turning Tools for Positive Inserts

外圆 External / 端面 Face

90°主偏角 Entering Angle 90°



C型刀片

SCFCR/L



T型刀片

STFCR/L

75°主偏角 Entering Angle 75°



C型刀片

SCBCR/L



S型刀片

SSBCR/L

75°主偏角 Entering Angle 75°



S型刀片

SSKCR/L

95°主偏角 Entering Angle 95°



C型刀片

SCLCR/L

90°主偏角 Entering Angle 90°



C型刀片

SCACR/L



T型刀片

STGCR/L

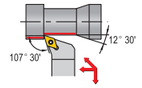
45°主偏角 Entering Angle 45°



S型刀片

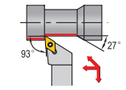
SSSCR/L

轮廓加工 Profile

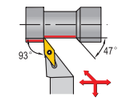


D型刀片

SDQCR/L

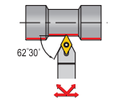


SDJCR/L



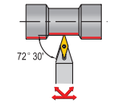
V型刀片

SVJCR/L
SVJBCR/L



D型刀片

SDNCN



V型刀片

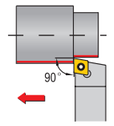
SVVBN
SVVCN

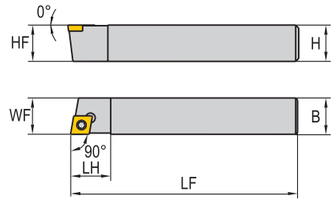


R型刀

SRDCN

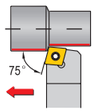
● 90° SCACR/L

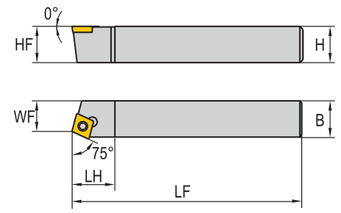




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SCACR0808F06	SCACL0808F06	8	8	80	8	8	10	CC□□0602□□	M2.5X6	T-8
SCACR1010H06	SCACL1010H06	10	10	100	10	10	10			
SCACR1212H06	SCACL1212H06	12	12	100	12	12	13			
SCACR1212H09	SCACL1212H09	12	12	100	12	12	13	CC□□09T3□□	M3.5X9	T-15

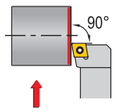
● 75° SCBCR/L

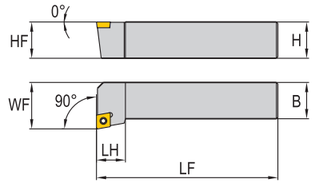




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SCBCR1212F06	SCBCL1212F06	12	12	80	12	12	13	CC□□0602□□	M2.5X6	T-8
SCBCR1616H06	SCBCL1616H06	16	16	100	16	14	13			
SCBCR1212F09	SCBCL1212F09	12	12	80	12	12	13	CC□□09T3□□	M3.5X9	T-15
SCBCR1616H09	SCBCL1616H09	16	16	100	16	14	20			
SCBCR2020K09	SCBCL2020K09	20	20	125	20	17	20			
SCBCR2525M09	SCBCL2525M09	25	25	150	25	22	20			
SCBCR2020K12	SCBCL2020K12	20	20	125	20	17	20	CC□□1204□□	M5X12	T-20
SCBCR2525M12	SCBCL2525M12	25	25	150	25	22	20			

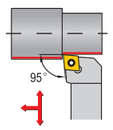
● 90° SCFCR/L

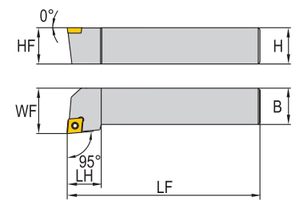




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SCFCR1010F06	SCFCL1010F06	10	10	80	10	12	14	CC□□0602□□	M2.5X6	T-8
SCFCR1212F06	SCFCL1212F06	12	12	80	12	16	14			
SCFCR1616H09	SCFCL1616H09	16	16	100	16	20	16	CC□□09T3□□	M3.5X9	T-15
SCFCR2020K09	SCFCL2020K09	20	20	125	20	25	16			
SCFCR2525M09	SCFCL2525M09	25	25	150	25	32	16			

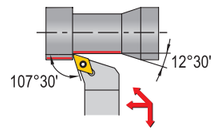
● 95° SCLCR/L

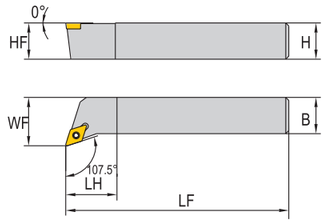




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SCLCR0808F06	SCLCL0808F06	8	8	80	8	10	12	CC□□0602□□	M2.5X6	T-8
SCLCR1010F06	SCLCL1010F06	10	10	80	10	12	12			
SCLCR1212F09	SCLCL1212F09	12	12	80	12	16	16	CC□□09T3□□	M3.5X9	T-15
SCLCR1616H09	SCLCL1616H09	16	16	100	16	20	16			
SCLCR2020K09	SCLCL2020K09	20	20	125	20	25	16			
SCLCR2525M09	SCLCL2525M09	25	25	150	25	32	16			
SCLCR2020K12	SCLCL2020K12	20	20	125	20	25	20	CC□□1204□□	M5X12	T-20
SCLCR2525M12	SCLCL2525M12	25	25	150	25	32	20			
SCLCR3232P12	SCLCL3232P12	32	32	170	32	40	20			

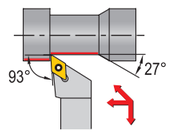
● 107°30′ SDQCR/L

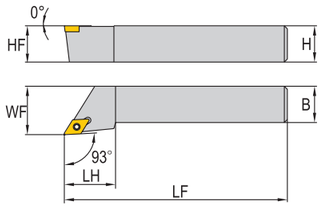




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SDQCR1010F07	SDQCL1010F07	10	10	80	10	12	5	DC□□0702□□	M2.5X8	T-8
SDQCR1212F07	SDQCL1212F07	12	12	80	12	16	13			
SDQCR1212F11	SDQCL1212F11	12	12	80	12	16	14	DC□□11T3□□	M3.5X9	T-15
SDQCR1616H11	SDQCL1616H11	16	16	100	16	20	14			
SDQCR2020K11	SDQCL2020K11	20	20	125	20	25	16			
SDQCR2525M11	SDQCL2525M11	25	25	150	25	32	22			

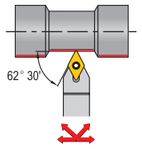
● 93° SDJCR/L

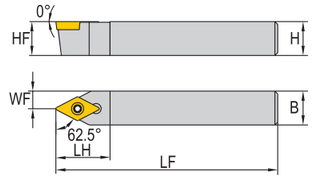




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SDJCR1010F07	SDJCL1010F07	10	10	80	10	12	14	DC□□0702□□	M2.5 X8	T-8
SDJCR1212F07	SDJCL1212F07	12	12	80	12	16	14			
SDJCR1616H07	SDJCL1616H07	16	16	100	16	20	14			
SDJCR1212F11	SDJCL1212F11	12	12	80	12	16	20	DC□□11T3□□	M3.5X9	T-15
SDJCR1616H11	SDJCL1616H11	16	16	100	16	20	20			
SDJCR2020K11	SDJCL2020K11	20	20	125	20	25	20			
SDJCR2525M11	SDJCL2525M11	25	25	150	25	32	22			
SDJCR3232P11	SDJCL3232P11	32	32	170	32	40	23			
SDJCR4040R11	SDJCL4040L11	40	40	200	40	50	25			

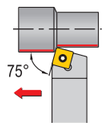
62°30′ SDNCN

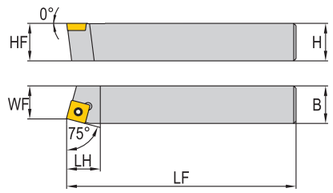




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
		H	B	LF	HF	WF	LH			
SDNCN0808F07		8	8	80	8	4	14	DC□□0602□□	M2.5X8	T-8
SDNCN1010F07		10	10	80	10	5	14			
SDNCN1212F07		12	12	80	12	6	14			
SDNCN1212H11		12	12	100	12	6	21	DC□□11T3□□	M3.5X9	T-15
SDNCN1616H11		16	16	100	16	8	21			
SDNCN2020K11		20	20	125	20	10	21			
SDNCN2525M11		25	25	150	25	12.5	21			

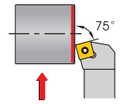
75° SSBCR/L

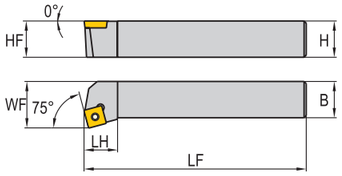




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SSBCR1212F09	SSBCL1212F09	12	12	80	12	9.5	18	SC□□09T3□□	M3.5X9	T-15
SSBCR1616H09	SSBCL1616H09	16	16	100	16	13	18			
SSBCR2020K09	SSBCL2020K09	20	20	125	20	17	18			
SSBCR2020K12	SSBCL2020K12	20	20	125	20	17	22	SCO□1204□□	M5X12	T-20
SSBCR2525M12	SSBCL2525M12	25	25	150	25	22	22			

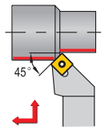
75° SSKCR/L

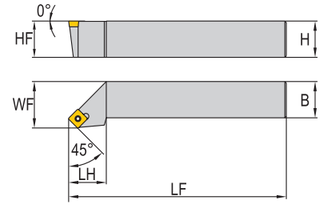




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SSKCR1212F09	SSKCL1212F09	12	12	80	12	16	16	SC□□09T3□□	M3.5X9	T-15
SSKCR1616H09	SSKCL1616H09	16	16	100	16	20	16			
SSKCR2020K09	SSKCL2020K09	20	20	125	20	25	18			
SSKCR2525M09	SSKCL2525M09	25	25	150	25	32	25			
SSKCR2525M12	SSKCL2525M12	25	25	150	25	32	25	SC□□1204□□	M3.5X12	T-20

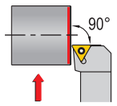
45° SSSCR/L

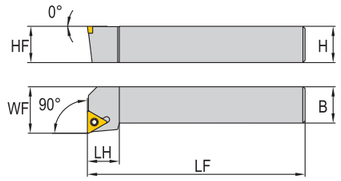




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SSSCR1212F09	SSSCL1212F09	12	12	80	12	16	16	SC□□09T3□□	M3.5X9	T-15
SSSCR1616H09	SSSCL1616H09	16	16	100	16	20	16			
SSSCR2020K09	SSSCL2020K09	20	20	125	20	25	18			
SSSCR2525M09	SSSCL2525M09	25	25	150	25	32	25			
SSSCR2525M12	SSSCL2525M12	25	25	150	25	32	25	SC□□1204□□	M5X12	T-20

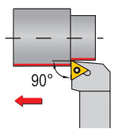
● 90° STFCR/L

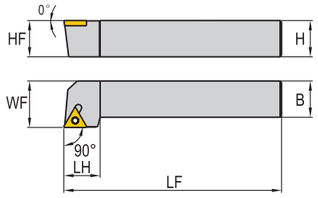




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
STFCR1212F09	STFCL1212F09	12	12	80	12	16	14	TC□□0902□□	M2.2X6	T-8
STFCR1212F11	STFCL1212F11	12	12	80	12	16	14	TC□□1102□□	M2.5X6	T-8
STFCR1616H11	STFCL1616H11	16	16	100	16	20	14			
STFCR1616H16	STFCL1616H16	16	16	100	16	20	22	TC□□16T3□□	M3.5X9	T-15
STFCR2020K16	STFCL2020K16	20	20	125	20	25	22			
STFCR2525M16	STFCL2525M16	25	25	150	25	32	22			
STFCR3232P16	STFCL3232P16	32	32	170	32	40	22			

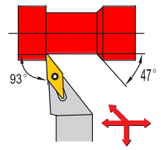
● 90° STGCR/L

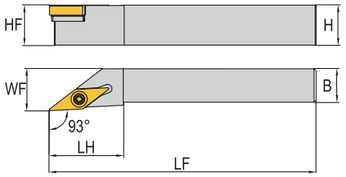




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
STGCR1616H11	STGCL1616H11	16	16	100	16	20	14	TC□□1102□□	M2.5X6	T-8
STGCR1616H16	STGCL1616H16	16	16	100	16	20	14	TC□□16T3□□	M3.5X9	T-15
STGCR2020K16	STGCL2020K16	20	20	125	20	25	20			
STGCR2525M16	STGCL2525M16	25	25	150	25	32	20			

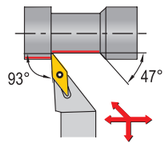
● 93° SVJBR/L

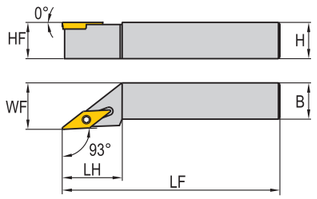




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SVJBR1212F11	SVJBL1212F11	12	12	80	12	16	22	VB□□1103□□	M2.5X8	T-8
SVJBR1616H11	SVJBL1616H11	16	16	100	16	20	25			
SVJBR2020K11	SVJBL2020K11	20	20	125	20	25	32			
SVJBR2525M11	SVJBL2525M11	25	25	150	25	32	38			
SVJBR1616H16	SVJBL1616H16	16	16	100	16	20	30	VB□□1604□□	M3.5X9	T-15
SVJBR2020K16	SVJBL2020K16	20	20	125	20	25	32			
SVJBR2525M16	SVJBL2525M16	25	25	150	25	32	40			
SVJBR3232P16	SVJBL3232P16	32	32	170	32	40	45			

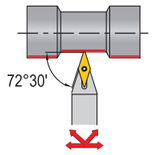
● 93° SVJCR/L

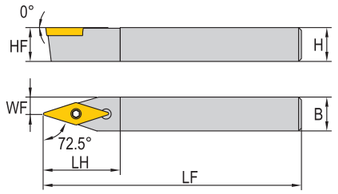




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Torx wrench
右刀Right hand	左刀Left hand	H	B	LF	HF	WF	LH			
SVJCR1212F11	SVJCL1212F11	12	12	80	12	16	22	VC□□1103□□	M2.5X8	T-8
SVJCR1616H11	SVJCL1616H11	16	16	100	16	20	25			
SVJCR2020K11	SVJCL2020K11	20	20	125	20	25	32			
SVJCR2525M11	SVJCL2525M11	25	25	150	25	32	38			
SVJCR1616H16	SVJCL1616H16	16	16	100	16	20	30	VC□□1604□□	M3.5X9	T-15
SVJCR2020K16	SVJCL2020K16	20	20	125	20	25	32			
SVJCR2525M16	SVJCL2525M16	25	25	150	25	32	40			
SVJCR3232P16	SVJCL3232P16	32	32	170	32	40	45			

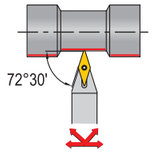
72°30′SVVBN

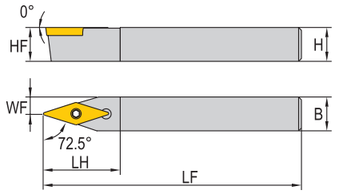




型号	尺寸						刀片	螺钉	扳手
Model	Size(mm)						Insert	Screw	Torx wrench
	H	B	LF	HF	WF	LH			
SVVBN1212F11	12	12	80	12	6	24	VB□□1103□□	M2.5X8	T-8
SVVBN1616H11	16	16	100	16	8	24			
SVVBN2020K11	20	20	125	20	10	24			
SVVBN2525M11	25	25	150	25	12.5	24			
SVVBN1616H16	16	16	100	16	8	34	VB□□1604□□	M3.5X9	T-15
SVVBN2020K16	20	20	125	20	10	34			
SVVBN2525M16	25	25	150	25	12.5	34			
SVVBN3232P16	32	32	170	32	16	34			

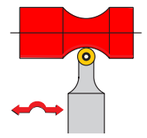
72°30′SVVCN

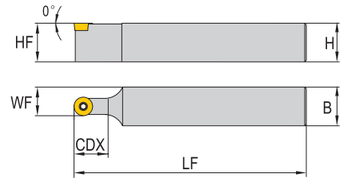




型号	尺寸						刀片	螺钉	扳手
Model	Size(mm)						Insert	Screw	Torx wrench
	H	B	LF	HF	WF	LH			
SVVCN1212F11	12	12	80	12	6	24	VB□□1103□□	M2.5X8	T-8
SVVCN1616H11	16	16	100	16	8	24			
SVVCN2020K11	20	20	125	20	10	24			
SVVCN2525M11	25	25	150	25	12.5	24			
SVVCN1616H16	16	16	100	16	8	34	VB□□1604□□	M3.5X9	T-15
SVVCN2020K16	20	20	125	20	10	34			
SVVCN2525M16	25	25	150	25	12.5	34			
SVVCN3232P16	32	32	170	32	16	34			

0° SRDCN





型号	尺寸						刀片	螺钉	扳手
Model	Size(mm)						Insert	Screw	Torx wrench
	H	B	LF	HF	WF	LH			
SRDCN1616H08	16	16	100	16	8	16	RC□□0803□□	M3X8	T-8
SRDCN2020K08	20	20	125	20	10	16			
SRDCN2525M08	25	25	150	25	12.5	16			
SRDCN1616H10	16	16	100	16	8	20.3	RC□□1003□□	M3.5X9	T-15
SRDCN2020K10	20	20	125	20	10	20.3			
SRDCN2525M10	25	25	150	25	12.5	20.3			

内孔车刀
Internal Turning Tools

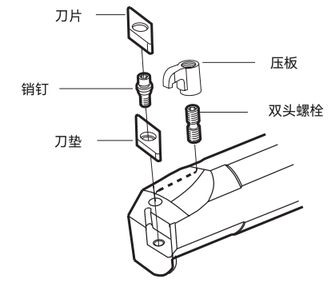


内孔车刀概述
Internal Turning Tools

复合压紧式内孔车刀
Composite Clamping Internal Turning Tools

·采用销钉侧压与压板上压
·使用N 后角刀片（刀片后角为0°），刀片可双面使用
·坚固的切削刃和牢固的装夹方式为高效率切削提供了可靠的保障

·Locking by pin and clamp simultaneously.
·Negative inserts (0° clearance angle), can be used on both sides.
·The strong cutting edge and firm clamping method provide a reliable guarantee for high-efficiency cutting.

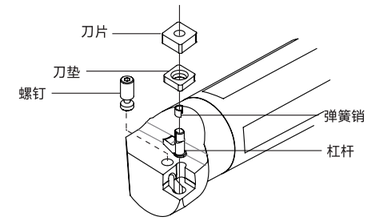


负前角内孔车刀 – 刀片安装示意

杠杆压紧式内孔车
Lever Clamping Internal Turning Tools

·利用杠杆原理，采用压紧杠杆锁紧刀片
·使用N 后角刀片（刀片后角为0°），刀片可双面使用
·切屑由前刀面通畅流出

·Using lever to lock insert.
·Negative inserts (0° clearance angle), can be used on both sides.
·The chips flow smoothly from rake face.

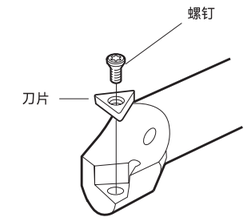


杠杆压紧式内孔车刀 – 刀片安装示意

螺钉压紧式内孔车刀
Screw Clamping Internal Turning Tool

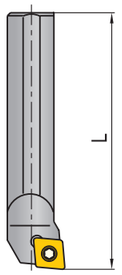
·简单可靠的刀片夹紧方式和极少的备件
·使用正前角刀片（刀片后角大于0°）
·切屑由前刀面通畅流出

·Simple and reliable insert clamping and simple spare parts.
·Use positive inserts (insert clearance greater than 0°).
·The chips flow smoothly from rake face.



螺钉压紧内孔车刀 – 刀片安装示意

内孔车刀型号编制说明
Code Key for Boring Bar System



1 刀具材料 Tool Material

S 钢制刀杆
H 硬质合金刀杆
A 内冷式钢制刀杆

3 刀具长度 Tool length

A = 32		P = 170	
B = 40		Q = 180	
C = 50		R = 200	
D = 60		S = 250	
E = 70		T = 300	
F = 80		U = 350	
G = 90		V = 400	
H = 100		W = 450	
J = 110		Y = 500	
K = 125		X = 特殊	
= 140			
M = 150			
N = 160			

5 刀片形状 Insert Shape

T
S
C 80°
D 55°
V 35°
W 80°

7 刀片后角 Insert Clearance angle

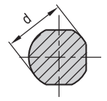
B 5°
C 7°
P 11°
N 0°

9 刀片尺寸 Insert size

T
S
P
D
V
W

S	32	U	-	S	T	F	C	R	16	-	
1	2	3		4	5	6	7	8	9		10

2 刀杆直径 Tool holder diameter



4 压紧方式 Clamping System

C 上压紧式
M 上压和孔压紧式
P 孔压紧式
S 螺钉压紧式

6 刀具形式 Tool Style

K 75°
F 90°
U 93°
L 95°
Q 107.5°
J 93°
N 62.5°
S 45°
X 其它 Special

8 切削方向 Cutting Direction

R
L

10 制造商代码 Manufacturer Code

D= 加大偏置 f+1.0mm
E= 加大偏置 f+2.0mm
X= 背镗

负前角内孔车刀主偏角
Entering Angle of Boring Tools for Positive Inserts

内孔加工 Internal

90°主偏角 Entering Angle 90°



T型刀片

S..MTFNR/L
A..MTFNR/L

75°主偏角 Entering Angle 75°



S型刀片

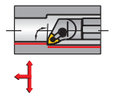
S..MSKNR/L
A..MSKNR/L

95°主偏角 Entering Angle 95°



C型刀片

S..MCLNR/L
A..MCLNR/L
S..PCLNR/L

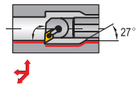


W型刀片

S..MWLNR/L
A..MWLNR/L

内孔加工 Internal

93°主偏角 Entering Angle 93°

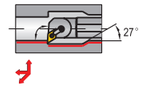


D型刀片

S..MDUNR/L
A..MDUNR/L
S..PDUNR/L

轮廓加工 Internal Profile

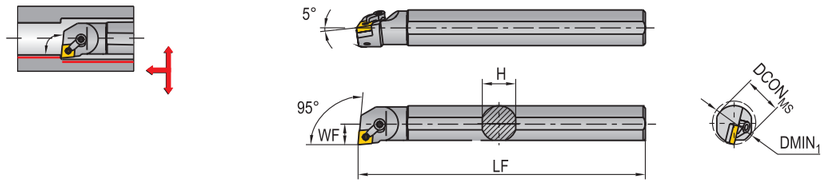
93°主偏角 Entering Angle 93°



D型刀片

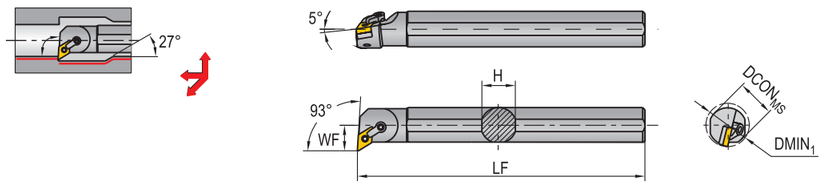
A..MDUNR/L

● 95° S..MCLNR/L



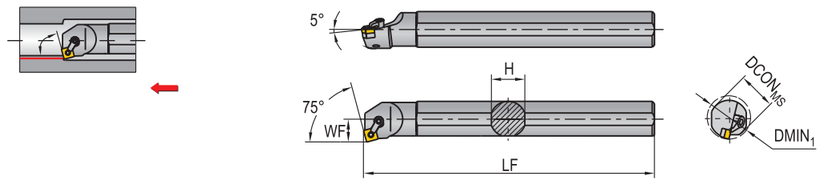
型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S16Q-MCLNR09	S16Q-MCLNL09	Φ22	16	11	180	15	CN□□0903□□	X	CTM509	HL1511	ML0519	L2.0,L2.5
S20Q-MCLNR09	S20Q-MCLNL09	Φ26	20	13	180	18		MC0903				
S20Q-MCLNR12	S20Q-MCLNL12	Φ26	20	13	180	18	CN□□1204□□	X	CTM613	HL1812	ML0622	L2.0,L3.0
S25R-MCLNR12	S25L-MCLNL12	Φ34	25	17	200	23				HL1814	ML0625	
S32S-MCLNR12	S32S-MCLNL12	Φ45	32	22.5	250	30		MC1204	CTM617	HL1814	ML0625	L2.5,L3.0
S40T-MCLNR12	S40T-MCLNL12	Φ54	40	27	300	38						
S50U-MCLNR12	S50U-MCLNL12	Φ62	50	31	350	48						
S60V-MCLNR12	S60V-MCLNL12	Φ72	60	36	400	58						
S32S-MCLNR16	S32S-MCLNL16	Φ45	32	22.5	250	30	CN□□1606□□	MC1604	CTM822	HL2217	ML0830	L4.0
S40T-MCLNR16	S40T-MCLNL16	Φ52	40	27	300	38						
S50U-MCLNR19	S50U-MCLNL19	Φ62	50	31	350	48	CN□□1906□□	MC1904	CTM1022	HL2217	ML0830	L4.0

● 93° S..MDUNR/L



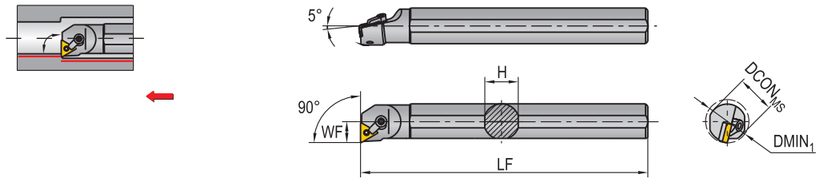
型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S25R-MDUNR11	S25R-MDUNL11	Φ34	25	17	200	23	DN□□1104□□	X	CTM510	HL2114	ML0625	L2.5,L3.0
S25R-MDUNR15	S25R-MDUNL15	Φ34	25	17	200	23	DN□□1504□□	X	CTM613			
S32S-MDUNR15	S32S-MDUNL15	Φ44	32	22	250	30		MD1504	CTM617			
S4DT-MDUNR15	S4DT-MDUNL15	Φ54	40	27	300	38						
S50U-MDUNR15	S50U-MDUNL15	Φ62	50	32	350	48						

● 75° S..MSKNR/L



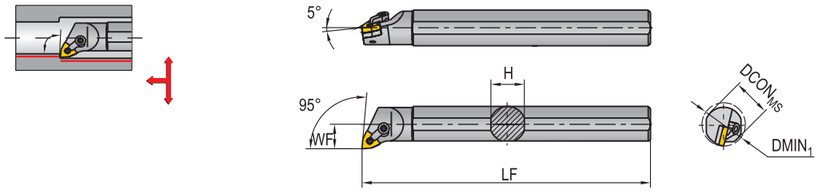
型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S20Q-MSKNR12	S20Q-MSKNL12	Φ28	20	13	180	18	SN□□1204□□	X	CTM613	HL1812	ML0622	L2.5,L3.0
S25R-MSKNR12	S25R-MSKNL12	Φ34	25	17	200	23				HL1814	ML0625	
S32S-MSKNR12	S32S-MSKNL12	Φ44	32	22	250	30		MS1204	CTM617	HL1814	ML0625	L2.5,L3.0
S40T-MSKNR12	S40T-MSKNL12	Φ54	40	27	300	38						
S50U-MSKNR12	S50U-MSKNL12	Φ62	50	34	350	48						

● 90° S..MTFNR/L



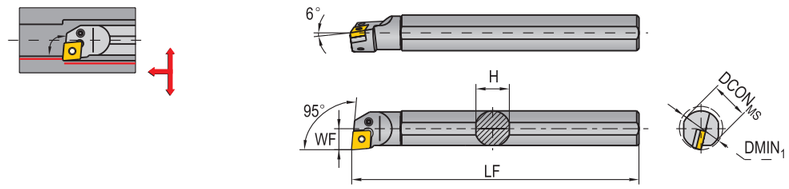
型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S20Q-MTFNR16	S20Q-MTFNL16	Φ28	20	13	180	18	TN□□1604□□	X	CTM510	HL1812	ML0622	L2.0,L3.0
S25R-MTFNR16	S25R-MTFNL16	Φ34	25	17	200	23				HL1814	ML0625	
S32S-MTFNR16	S32S-MTFNL16	Φ45	32	22	250	30		MT1603	CTM513			
S40T-MTFNR16	S40T-MTFNL16	Φ52	40	27	300	38						
S50U-MTFNR16	S50U-MTFNL16	Φ62	50	31	350	48						
S40T-MTFNR22	S40T-MTFNL22	Φ52	40	27	300	38	TN□□2204□□	MT2204	CTM617	HL1917	ML0830	L2.5,L4.0
S50U-MTFNR22	S50U-MTFNL22	Φ62	50	31	350	48						

● 95° S..MWLNR/L



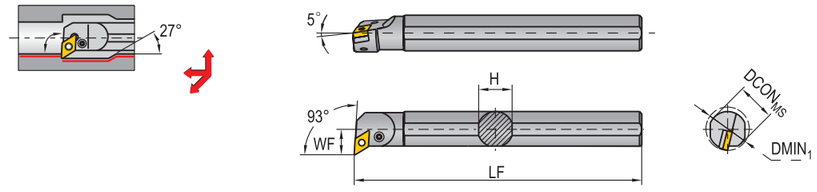
型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S16Q-MWLNR06	S16Q-MWLNL06	Φ25	16	11	180	15	WN□□0604□□	X	CTM510	HL1511	ML0519	L2.0,L2.5
S20Q-MWLNR06	S20Q-MWLNL06	Φ30	20	13	180	18						
S25R-MWLNR06	S25R-MWLNL06	Φ34	25	17	200	23				HL1814	ML0625	L2.0,3.0
S20Q-MWLNR08	S20Q-MWLNL08	Φ30	20	13	180	18	WN□□0804□□	X	CTM613	HL1812	ML0622	L2.5,3.0
S25R-MWLNR08	S25R-MWLNL08	Φ34	25	17	200	23				HL1814	ML0625	
S32S-MWLNR08	S32S-MWLNL08	Φ44	32	22	250	30		MW0804	CTM617			
S40T-MWLNR08	S40T-MWLNL08	Φ52	40	27	300	38						
S50U-MWLNR08	S50U-MWLNL08	Φ62	50	31	350	48						

● 95° S..PCLNR/L



型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S16Q-PCLNR-09	S16Q-PCLNL-09	Φ20	16	11	180	15	CN□□0903□□	LV3C	VHX0509B	X	X	L2.0
S20Q-PCLNR-09	S20Q-PCLNL-09	Φ26	20	13	180	18						
S25R-PCLNR-09	S25R-PCLNL-09	Φ32	25	17	200	23						
S25R-PCLNR-12	S25R-PCLNL-12	Φ34	25	17	200	23	CN□□1204□□	LV4A	VHX0613A	SC42	SP4	L2.5
S32S-PCLNR-12	S32S-PCLNL-12	Φ44	32	22	250	30		LV4	VHX0821			L3.0
S40T-PCLNR-12	S40T-PCLNL-12	Φ54	40	27	300	38						
S50U-PCLNR-12	S50U-PCLNL-12	Φ62	50	35	350	48						
S50U-PCLNR-19	S50U-PCLNL-19	Φ62	50	35	350	48	CN□□1906□□	LV6N	VHX1207	SC63	SP6	L4.0

● 93° S..PDUNR/L



型号		尺寸					刀片	刀垫	销钉	压板	双头螺栓	扳手
Model		Size(mm)					Insert	Shim	Lock pin	Clamp	Clamp screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H						
S20Q-PDUNR-11	S20Q-PDUNL-11	Φ26	20	13	180	18	DN□□1104□□	LV3D	VHX0512B	X	X	L2.0
S25R-PDUNR-11	S25R-PDUNL-11	Φ34	25	17	200	23						
S32S-PDUNR-11	S32S-PDUNL-11	Φ44	32	22	250	30		LV3	VHX0617	SD317	SP3	L2.5
S32S-PDUNR-1506	S32S-PDUNL-1506	Φ44	32	22	250	30	DN□□1506□□	LV4B	VHX0821	SD42	SP4	L3.0
S40T-PDUNR-1506	S40T-PDUNL-1506	Φ54	40	27	300	38						
S50U-PDUNR-1506	S50U-PDUNL-1506	Φ64	50	32	350	48						

正前角内孔车刀主偏角

Entering Angle of Internal Boring Tools for Positive Inserts

内孔加工 Internal

90°主偏角 Entering Angle 90°



T型刀片

S..STFCR/L

75°主偏角 Entering Angle 75°



S型刀片

S..SSKCR/L

95°主偏角 Entering Angle 95°



C型刀片

S..SCLCR/L
A..SCLCR/L

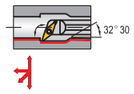
内孔加工 Internal

107°30′ 主偏角 Entering Angle 107°30′



D型刀片

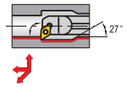
S..SDQCR/L



V型刀片

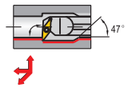
S..SVQCR/L
A..SVQCR/L

93°主偏角 Entering Angle 93°



D型刀片

S..SDUCR/L
A..SDUCR/L

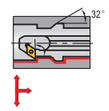


V型刀片

S..SVUCR/L
A..SVUCR/L

背镗 Back Boring

93°主偏角 Entering Angle 93°



D型刀片

S..SDUCR/L-*X
A..SDUCR/L-*X

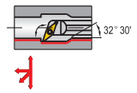
轮廓加工 Internal Profile

107° 30′主偏角 Entering Angle 107°30′



D型刀片

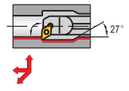
S..SDQCR/L



V型刀片

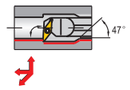
S..SVQCR/L
A..SVQCR/L

93°主偏角 Entering Angle 93°



D型刀片

S..SDUCR/L
A..SDUCR/L



V型刀片

S..SVUCR/L
A..SVUCR/L

内球面车削 Internal Spherical

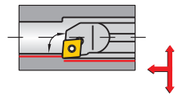
93°主偏角 Entering Angle 93°

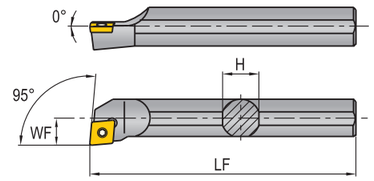


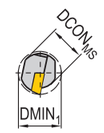
V型刀片

S..SVJCR/L
A..SVJCR/L

● 95°S..SCLCR/L

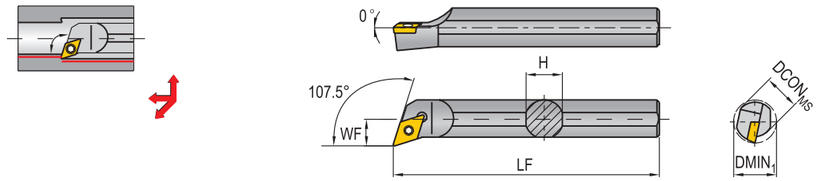






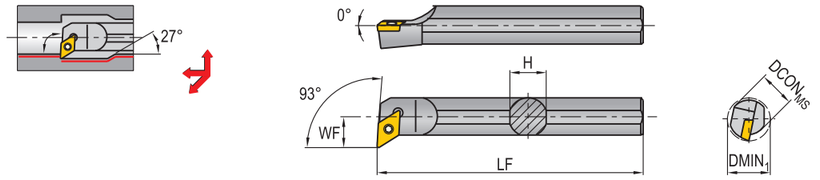
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S07K-SCLCR06B	S07K-SCLCL06B	Φ9	8	4.2	125	7	CC□□0602□□	M2.5X5	T-8
S08K-SCLCR06B	S08K-SCLCL06B	Φ10	8	5	125	7			
508K-SCLCR06-A16B	S08K-SCLCL06-A16B	Φ10	16	5	125	15			
S10K-5CLCR06B	S10K-5CLCL06B	Φ12	10	6	125	9		M2.5X6	
SIOK-SCLCR06-A16B	SIOK-SCLCL06-A16B	Φ12	16	6	125	15			
S12M-SCLCR06B	S12M-SCLCL06B	Φ14	12	7	150	11			
S12M-SCLCR09B	S12M-SCLCL09B	Φ15	12	8	150	11	CC□□09T3□□	M3.5X9	T-15
S14M-SCLCR09B	S14M-SCLCL09B	Φ16	14	8	150	13			
S16Q-SCLCR09B	S16Q-SCLCL09B	Φ19	16	9.5	180	15			
S20Q-SCLCR09B	S20Q-SCLCL09B	Φ23	20	11.5	180	18			
S25R-SCLCR09B	S25R-SCLCL09B	Φ28	25	14	200	23			
S32S-SCLCR09B	S32S-SCLCL09B	Φ36	32	18	250	30			
S20Q-SCLCR12B	S20Q-SCLCL12B	Φ24	20	12	180	18	CC□□1204□□	M5X12	T-20
S25R-SCLCR12B	S25R-SCLCL12B	Φ34	25	14.5	200	23			
S32S-SCLCR12B	S32S-SCLCL12B	Φ36	32	18	250	30			
S40T-SCLCR12B	S40T-SCLCL12B	Φ44	40	22	300	38			

107°30'S..SDQCR/L



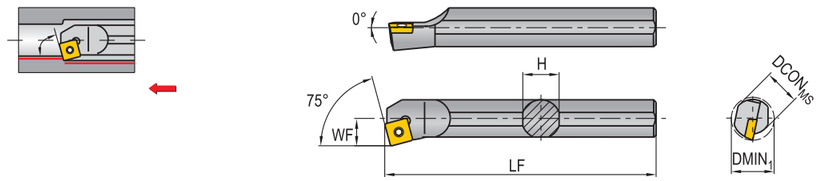
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	DMIN$_1$	DCON$_{MS}$	WF	LF	H			
SO8K-SDQCR07	SO8K-SDQCL07	Φ12	8	6	125	7	DC□□0702□□	M2.5X5	T-8
S10K-SDQCR07	S10K-SDQCL07	Φ13	10	7	125	9		M2.5X6	
S12M-SDQCR07	S12M-SDQCL07	Φ16	12	9	150	11			
S16Q-SDQCR07	S16Q-SDQCL07	Φ20	16	11	180	15			
S20Q-SDQCR07	S20Q-SDQCL07	Φ25	20	13	180	18			
S16Q-SDQCR11	S16Q-SDQCL11	Φ20	16	11	180	15	DC□□11T3□□	M3.5X9	T-15
S20Q-SDQCR11	S20Q-SDQCL11	Φ25	20	13	180	18			
S25R-SDQCR11	S25R-SDQCL11	Φ32	25	17	200	23			
S25R-SDQCR11	S25R-SDQCL11	Φ40	32	22	250	30			

93°S..SDUCR/L



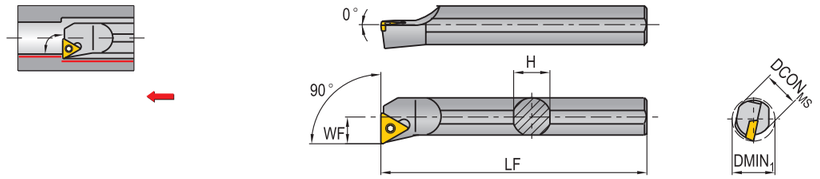
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	DMIN$_1$	DCON$_{MS}$	WF	LF	H			
S08K-SDUCR07	S08K-SDUCL07	Φ12	8	8	125	7	DC□□0702□□	M2.5X5	T-8
S10K-SDUCR07	S10K-SDUCL07	Φ15	10	8	125	9		M2.5X6	
S12M-SDUCR07	S12M-SDUCL07	Φ16	12	9	150	11			
S16Q-SDUCR07	S16Q-SDUCL07	Φ20	16	11	180	15			
S16Q-SDUCR11	S16Q-SDUCL11	Φ20	16	13	180	15	DC□□11T3□□	M3.5X9	T-15
S20Q-SDUCR11	S20Q-SDUCL11	Φ25	20	14.5	180	18			
S25R-SDUCR11	S25R-SDUCL11	Φ32	25	17	200	23			
S32S-SDUCR11	S32S-SDUCL11	Φ40	32	22	250	30			
S40T-SDUCR11	S40T-SDUCL11	Φ46	40	25	300	38			
S50U-SDUCR11	S50U-SDUCL11	Φ58	50	31	350	48			

75°S..SSKCR/L



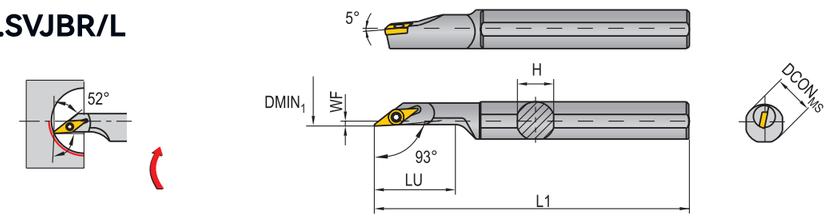
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	DMIN$_1$	DCON$_{MS}$	WF	LF	H			
S12M-SSKCR09	S12M-SSKCL09	Φ15	12	8.5	150	11	SC□□09T3□□	M3.5X9	T-15
S16Q-SSKCR09	S16Q-SSKCL09	Φ19	16	10.5	180	15			
S20Q-SSKCR09	S20Q-SSKCL09	Φ25	20	13	180	18			
S25R-SSKCR09	S25R-SSKCL09	Φ28	25	15	200	23			

90°S..STFCR/L



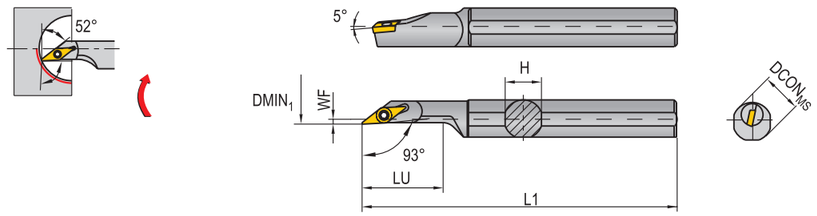
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S08K-STFCR09B	S08K-STFCL09B	Φ10	8	5.5	125	7	TC□□0902□□	M2.2X5	T6
S10K-STFCRO9B	S10K-STFCLO9B	Φ12	10	6	125	9			
S12M-STFCR09B	S12M-STFCL09B	Φ14	12	7	150	11			
S10K-STFCR11B	S10K-STFCL11B	Φ12	10	6	125	9	TC□□1102□□	M2.5X6	T-8
S12M-STFCR11B	S12M-STFCL11B	Φ14	12	7	150	11			
S16Q-STFCR11B	S16Q-STFCL11B	Φ18	16	9	180	15			
S20Q-STFCR11B	S20Q-STFCL11B	Φ21	20	11	180	18			
S16Q-STFCR16B	S16Q-STFCL16B	Φ18	16	9.5	180	15	TC□□160T3□□	M3.5X9	T-15
S20Q-STFCR16B	S20Q-STFCL16B	Φ22	20	11.5	180	18			
S25R-STFCR16B	S25R-STFCL16B	Φ27	25	14	200	23			
S32S-STFCR16B	S32S-STFCL16B	Φ34	32	17.5	250	30			
S40T-STFCR16B	S40T-STFCL16B	Φ42	40	21.5	300	38			
S50U-STFCR16B	S50U-STFCL16B	Φ52	50	26.5	350	48			

93°S..SVJBR/L



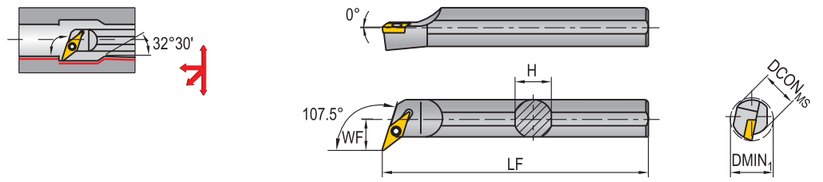
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S10K-SVJBR11B	S10K-SVJBL11B	Φ11	10	6	125	9	VB□□1103□□	M2.5X6	T-8
S12M-SVJBR11B	S12M-SVJBL11B	Φ14	12	7	150	11			
S16Q-SVJBR11B	S16Q-SVJBL11B	Φ18	16	9.5	180	15			
S20Q-SVJBR11B	S20Q-SVJBL11B	Φ22	20	11.5	180	18		M2.5X8	
S16Q-SVJBR16B	S16Q-SVJBL16B	Φ22	16	11.5	180	15	VB□□1604□□	M3.5X9	T-15
S20Q-SVJBR16B	S20Q-SVJBL16B	Φ22	20	11.5	180	18			
S25R-SVJBR16B	S25R-SVJBL16B	Φ27	25	14	200	23			

93°S..SVJCR/L



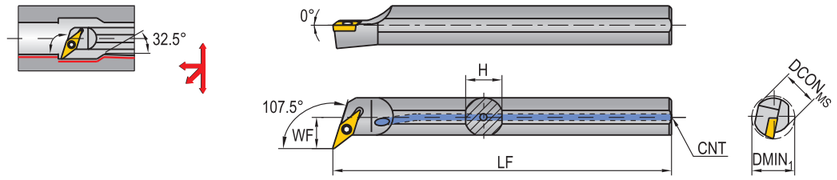
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S10K-SVJCR11	S10K-SVJCL11	Φ12	10	6	125	9	VC□□1103□□	M2.5X6	T-8
S12M-SVJCR11	S12M-SVJCL11	Φ14	12	7	150	11			
S16Q-SVJCR11	S16Q-SVJCL11	Φ18	16	9.5	180	15			
S20Q-SVJCR11	S20Q-SVJCL11	Φ22	20	11.5	180	18		M2.5X8	
S16Q-SVJCR16	S16Q-SVJCL16	Φ18	16	9.5	180	15	VC□□1604□□	M3.5X9	T-15
S20Q-SVJCR16	S20Q-SVJCL16	Φ22	20	11.5	180	18			
S25R-SVJCR16	S25R-SVJCL16	Φ27	25	14	200	23			

107°30'S..SVQBR/L



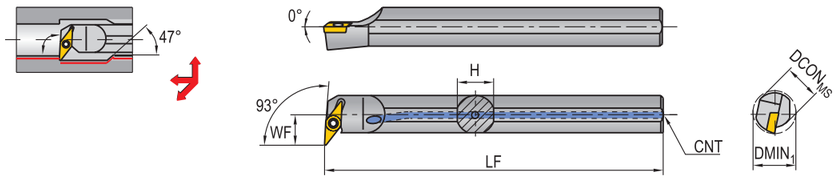
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S12M-SVQBR11	S12M-SVQBL11	Φ18	12	10	150	11	VB□□1103□□	M2.5X6	T-8
S16Q-SVQBR11	S16Q-SVQBL11	Φ20	16	11.5	180	15			
S20Q-SVQBR11	S20Q-SVQBL11	Φ24	20	14	180	18		M2.5X8	
S20Q-SVQBR16	S20Q-SVQBL16	Φ27	20	14	180	18	VB□□1604□□	M3.5X9	T-15
S25R-SVQBR16	S25R-SVQBL16	Φ32	25	17	200	23			
S32S-SVQBR16	S32S-SVQBL16	Φ40	32	22.5	250	30			
S40T-SVQBR16	S40T-SVQBL16	Φ50	40	27	300	38			
S50U-SVQBR16	S50U-SVQBL16	Φ57	50	32	350	48			

107°30'S..SVQCR/L



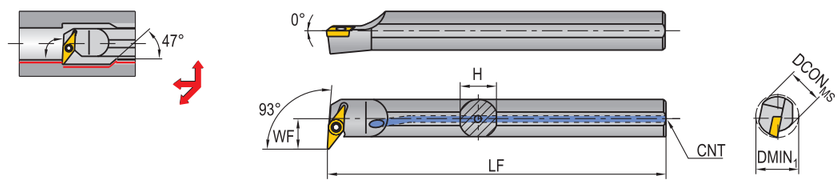
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S12M-SVQCR11	S12M-SVQCL11	Φ16	12	10	150	11	VC□□1103□□	M2.5X6	T-8
S16Q-SVQCR11	S16Q-SVQCL11	Φ20	16	11.5	180	15		M2.5X8	
S20Q-SVQCR11	S20Q-SVQCL11	Φ27	20	14	180	18			
S20Q-SVQCR16	S20Q-SVQCL16	Φ27	20	14	180	18	VC□□1604□□	M3.5X9	T-15
S25R-SVQCR16	S25R-SVQCL16	Φ32	25	17	200	23			
S32S-SVQCR16	S32S-SVQCL16	Φ42	32	22.5	250	30			
S40T-SVQCR16	S40T-SVQCL16	Φ50	40	27	300	38			
S5OU-SVQCR16	S5OU-SVQCL16	Φ57	50	32	350	48			

93°S..SVUBR/L



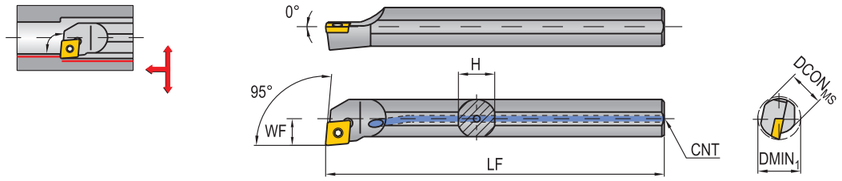
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S16Q-SVUBR11	S16Q-SVUBL11	Φ22	16	12	180	15	VB□□1103□□	M2.5X6	T-8
S20Q-SVUBR11	S20Q-SVUBL11	Φ27	20	14	180	18		M2.5X8	
S20R-SVUBR16	S20R-SVUBL16	Φ34	20	19	200	18	VB□□1604□□	M3.5X9	T-15
S25R-SVUBR16	S25R-SVUBL16	Φ36	25	20	200	23			
S32R-SVUBR16	S32R-SVUBL16	Φ40	32	22.5	200	30			
S40T-SVUBR16	S40T-SVUBL16	Φ50	40	27	300	38			

93°S..SVUCR/L



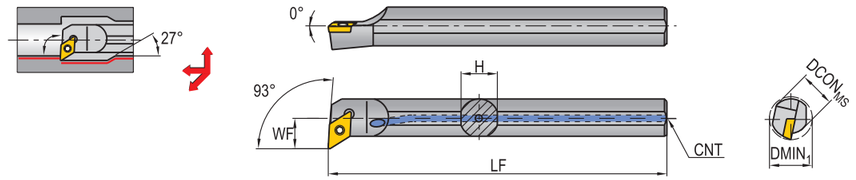
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
S16Q-SVUCR11	S16Q-SVUCL11	Φ20	16	11.5	180	15	VC□□1103□□	M2.5X6	T-8
S20Q-SVUCR11	S20Q-SVUCL11	Φ25	20	14	180	18		M2.5X8	
S20R-SVUCR16	S20R-SVUCL16	Φ29	20	19	200	18	VC□□1604□□	M3.5X9	T-15
S25R-SVUCR16	S25R-SVUCL16	Φ36	25	20	200	23			
S32R-SVUCR16	S32R-SVUCL16	Φ42	32	22.5	250	30			
S40T-SVUCR16	S40T-SVUCL16	Φ50	40	27	300	38			

95°A..SCLCR/L



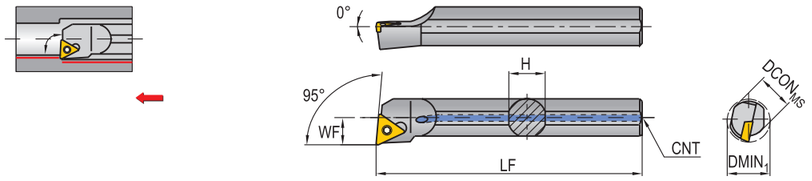
型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
A08K-SCLCR06-AV	A08K-SCLCL06-AV	Φ10	8	5	125	7	CC□□0602□□	M2.5X5	T-8
A10K-SCLCR06-AV	A10K-SCLCL06-AV	Φ11	10	6	125	9		M2.5X6	
A12M-SCLCR06-AV	A12M-SCLCL06-AV	Φ13	12	7	150	11			
A16Q-SCLCR09-AV	A16Q-SCLCL09-AV	Φ17	16	9.5	180	15	CC□□09T3□□	M3.5X9	T-15
A20R-SCLCR09-AV	A20R-SCLCL09-AV	Φ21	20	11	200	19			
A25S-SCLCR09-AV	A25S-SCLCL09-AV	Φ27	25	13.5	250	24			

93°A..SDUCR/L



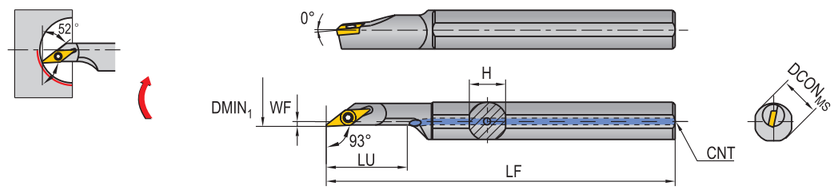
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
A16Q-SDUCR07-14AV	A16Q-SDUCL07-14AV	Φ14	16	10.8	180	15	DC□□0702□□	M2.5X6	T-8
A20R-SDUCR11-20AV	A20R-SDUCL11-20AV	Φ20	20	15.6	200	19	DC□□11T3□□	M3.5X9	T-15
A10K-SDUCR07AV	A10K-SDUCL07AV	Φ14	10	8.7	125	9	DC□□0702□□	M2.5X6	T-8
A12M-SDUCR07AV	A12M-SDUCL07AV	Φ16	12	9.7	150	11			
A16Q-SDUCR07AV	A16Q-SDUCL07AV	Φ20	16	11.7	180	15			
A16Q-SDUCR11AV	A16Q-SDUCL11AV	Φ23	16	14.5	180	15	DC□□11T3□□	M3.5X9	T-15
A20R-SDUCR11AV	A20R-SDUCL11AV	Φ27	20	16.5	200	19			
A25S-SDUCR11AV	A25S-SDUCL11AV	Φ32	25	19	250	23			

95°A..STUCR/L



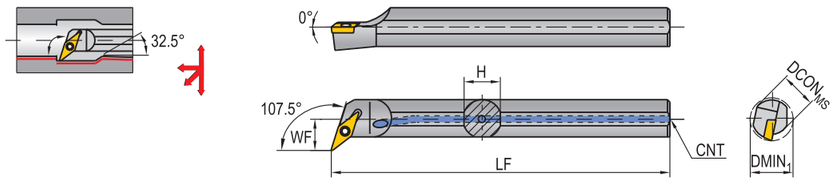
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
A08K-STUCR09AV	A08K-STUCL09AV	Φ9	8	5	125	7	TC□□0902□□	M2.2X5	T-6
A10K-STUCR09AV	A10K-STUCL09AV	Φ12	10	6.2	125	9			
A10K-STUCR11AV	A10K-STUCL11AV	Φ12	10	6.2	125	9	TC□□1102□□	M2.5X6	T-8
A12M-STUCR11AV	A12M-STUCL11AV	Φ14	12	7.2	150	11			
A16Q-STUCR11AV	A16Q-STUCL11AV	Φ18	16	9.2	180	15			
A20R-STUCR11AV	A20R-STUCL11AV	Φ22	20	11.2	200	19			

93°A..SVJ(C)(B)R/L



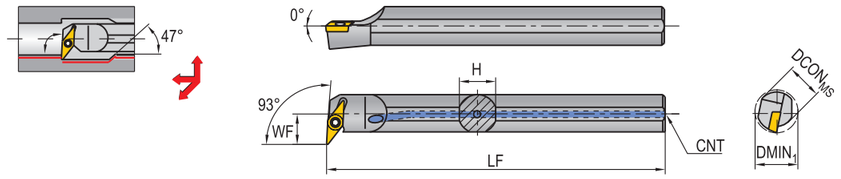
型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
A12M-SVJCR08AV	A12M-SVJCL08AV	Φ16	12	2	150	11	VC□□0802□□	M2.0X5	T-6
A16Q-SVJCR08AV	A16Q-SVJCL08AV	Φ20	16	2	180	15			
A20R-SVJBR11AV	A20R-SVJBL11AV	Φ25	20	2	200	19	VB□□1103□□	M2.5X8	T-8
A25S-SVJBR11AV	A25S-SVJBL11AV	Φ30	25	3.5	250	23			
A32S-SVJBR16AV	A32S-SVJBL16AV	Φ40	32	3.5	250	30	VB□□1604□□	M3.5X9	T-15
A40S-SVJBR16AV	A40S-SVJBL16AV	Φ50	40	4.5	250	38			

107°30′A..SVQ(C)(B)R/L



型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
A10K-SVQCR08AV	A10K-SVQCL08AV	Φ14	10	8.5	125	9	VC□□0802□□	M2.0X5	T-6
A12M-SVQBR11AV	A12M-SVQBL11AV	Φ17	12	10	150	11	VB□□1103□□	M2.5X8	T-8
A16Q-SVQBR11AV	A16Q-SVQBL11AV	Φ22	16	11.5	180	15			
A20R-SVQBR11AV	A20R-SVQBL11AV	Φ26	20	14	200	18			
A25S-SVQBR16AV	A25S-SVQBL16AV	Φ31	25	17	250	23	VB□□1604□□	M3.5X9	T-15
A32S-SVQBR16AV	A32S-SVQBL16AV	Φ39	32	22.5	250	30			

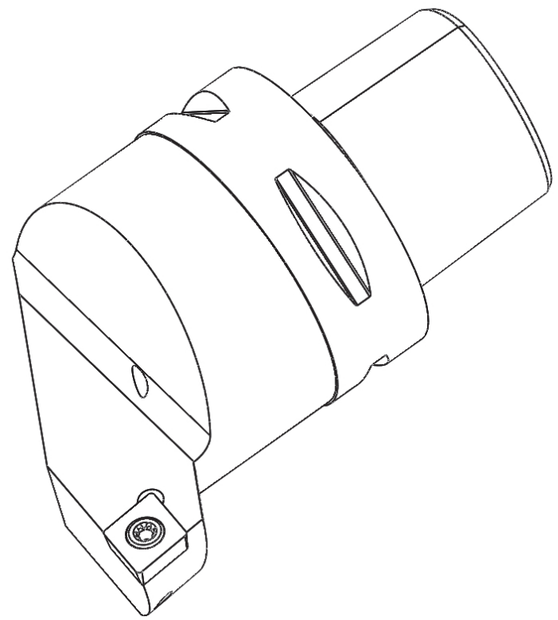
93°A..SVU(C)(B)R/L



型号		尺寸					刀片	螺钉	扳手
Model		Size(mm)					Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	WF	LF	H			
A12M-SVUCR08AV	A12M-SVUCL08AV	Φ18	12	11.5	150	11	VC□□0802□□	M2.0X5	T-6
A16Q-SVUBR11AV	A16Q-SVUBL11AV	Φ24	16	12	180	15	VB□□1103□□	M2.5X8	T-8
A20R-SVUBR11AV	A20R-SVUBL11AV	Φ28	20	14	200	18			
A25S-SVUBR16AV	A25S-SVUBL16AV	Φ34	25	20.5	250	23	VB□□1604□□	M3.5X9	T-15
A32S-SVUBR16AV	A32S-SVUBL16AV	Φ44	32	28	250	30			

多棱锥柄车刀

Multi Pyramid Handle Turning Tool



当您需要时 .....

一切为了满足客户需求，当您需要符合 ISO26623 标准的 C4、C5、C6、C8 接口多棱锥柄车刀时， 请向成都邦普公司销售经理询问有关情况。

When you need C4, C5, C6, and C8 interface multi-pyramid handle turning tools that meet the ISO26623 standard, please inquire with the sales engineer.

PSC

带法兰接触的多棱锥接口 (GB/T 32557/ISO 26623)

Multi-pyramid Interface With Flange

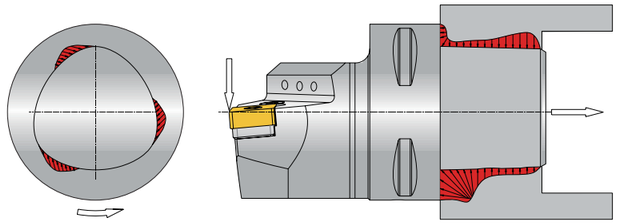


PSC产品整体解决案助您的效切削加工!

PSC comprehensive product solution helps you achieve efficient cutting processing!

PSC 工具接口介绍

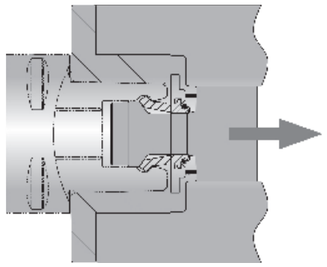
PSC Interface Introduction



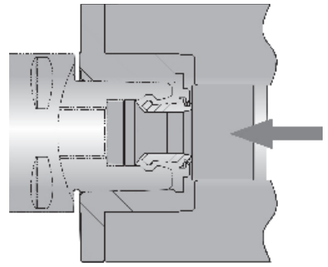
- PSC 是一种采用三棱锥定位，并实现棱锥与法兰端面同时定位与夹紧的工具接口，现已纳入 ISO 及国家标准。其具有以下特点：
  PSC is a tool interface that uses a triangular pyramid positioning and achieves simultaneous positioning and clamping of the pyramid and flange ends.It has been incorporated into ISO and national standards. It has the following characteristics:

高刚性 **High rigidity**	·三棱锥与端　同时定位与夹紧，使其具有极佳的抗弯与抗扭能　，可以提升刀具的切削性能，获得更高的加工效率。 ·The simultaneous positioning and clamping of the triangular pyramid and the end face provide excellent bending and torsion resistance, which can improve the cutting performance of the tool and achieve higher machining efficiency.
高精度 **High precision**	·采用三棱锥的定位　式，可以提供 X、Y、Z 三个　向 ±0.002mm 的重复定位精度，是理想的车削工具接口，可以实现线下对刀线上直接加工，省去试切对刀环节。 ·The positioning method triangular pyramid can provide repeated positioning accuracy of ± 0.002mm in X, Y, and Z directions. It is an ideal turning tool interface and can achieve direct machining with the on-site setting, leaving out the need for trial cutting and tool setting.
换刀迅速 **Quick tool change**	·PSC 工具接口采用涨爪式夹紧，能够将换刀时间压缩至一分钟内，有效提升机床的利用率。 ·The PSC tool interface adopts a claw-type clamp, which can shorten the tool change time to within one minute, effectively improving the utilization rate of the machine tool.
易于实现模块化 **Easy to achieve modularity**	·可以通过用各种接长杆组合成需要的刀具，减少刀具库存。 ·It is possible to combine various extension rods to form the required cutting tools, reducing stock.

PSC 夹紧原理（涨爪式）
PSC Clamping principle (claw type)



- 夹紧时， 拉杆向右移动,夹爪张开， 夹爪外弧面顶在 PSC 锥柄内弧面上，带动 PSC 锥柄向右移动，锥柄 发生变形， 最终实现三棱锥面与法兰端面同时定位与夹紧。
  When clamping, the pull rod moves to the right and the gripper opens. The outer arc of the gripper is pressed against the inner arc of the PSC handle, driving the PSC handle to move to the right and causing deformation of the handle. Ultimately, the triangular pyramid handle and the flange end are positioned and clamped simultaneously.

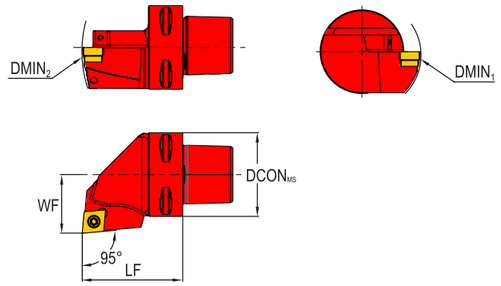


- 松开时， 拉杆向左移动夹爪收缩， 夹爪外弧面离开 PSC 锥柄内弧面，拉杆左端面将 PSC 锥柄推出接纳 器，实现松刀。
  When released, the lever moves to the left and the gripper retracts. The outer arc of the gripper leaves the inner arc of the PSC handle, and the left end of the lever pushes the PSC handle out of the receiver to achieve tool release.

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

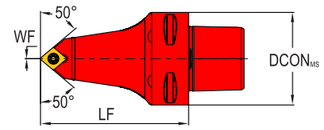


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	DMIN1	DMIN2	DCONMS	LF	WF						
PSC3-SCLCR-22040-09HP	PSC3-SCLCL-22040-09HP	265	700	32	40	22	CC□□ 09T3□□	SKCP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC4-SCLCR-27050-09HP	PSC4-SCLCL-27050-09HP	272	600	40	50	27						
PSC4-SCLCR-27050-12HP	PSC4-SCLCL-27050-12HP	210	600	40	50	27	CC□□ 1204□□	SKCP-453	SRS-4	F040A14IP	T15IP	S4
PSC5-SCLCR-35060-12HP	PSC5-SCLCL-35060-12HP	210	550	50	60	35						
PSC6-SCLCR-45065-12HP	PSC6-SCLCL-45065-12HP	210	800	63	65	45						

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

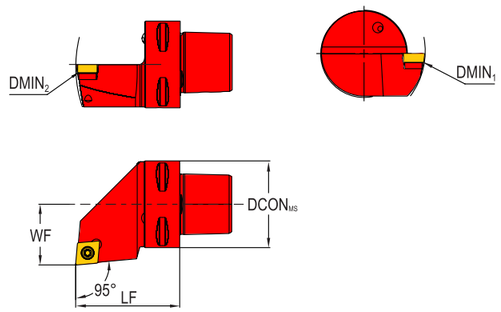


型号	尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model	Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
	DMIN1	DMIN2	DCONMS	LF	WF						
PSC6-SCMCN-00090-12	-	-	63	90	0	CC□□1204□□	SKCP-453	SRS-4	F040A14IP	T15IP	S4

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

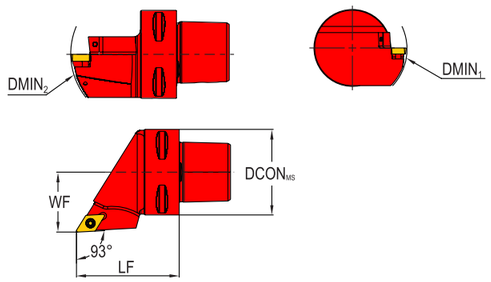


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	DMIN1	DMIN2	DCONMS	LF	WF						
PSC3-SCLCR-22040-09	PSC3-SCLCL-22040-09	130	116	32	40	22	CC□□ 09T3□□	SKCP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC4-SCLCR-27050-09	PSC4-SCLCL-27050-09	130	140	40	50	27						
PSC5-SCLCR-35060-09	PSC5-SCLCL-35060-09	130	165	50	60	35						
PSC6-SCLCR-45065-09	PSC6-SCLCL-45065-09	130	190	63	65	45						
PSC3-SCLCR-22040-12	PSC3-SCLCL-22040-12	125	116	32	40	22	CC□□ 1204□□	SKCP-453	SRS-4	F040A14IP	T15IP	S4
PSC4-SCLCR-27050-12	PSC4-SCLCL-27050-12	125	140	40	50	27						
PSC5-SCLCR-35060-12	PSC5-SCLCL-35060-12	125	165	50	60	35						
PSC6-SCLCR-45065-12	PSC6-SCLCL-45065-12	125	190	63	65	45						

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

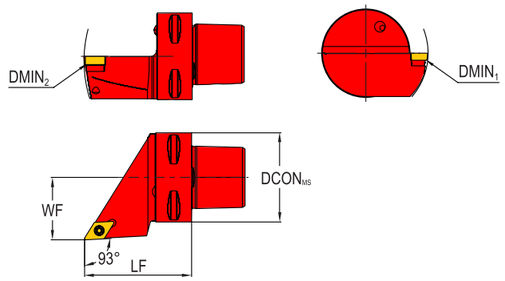


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	DMIN1	DMIN2	DCONMS	LF	WF						
PSC3-SDJCR-22040-11HP	PSC3-SDJCL-22040-11HP	244	135	32	40	22	DC□□ 11T3□□	SKDP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC4-SDJCR-27050-11HP	PSC4-SDJCL-27050-11HP	246	140	40	50	27						
PSC5-SDJCR-35060-11HP	PSC5-SDJCL-35060-11HP	250	165	50	60	35						
PSC6-SDJCR-45065-11HP	PSC6-SDJCL-45065-11HP	250	190	63	65	45						

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

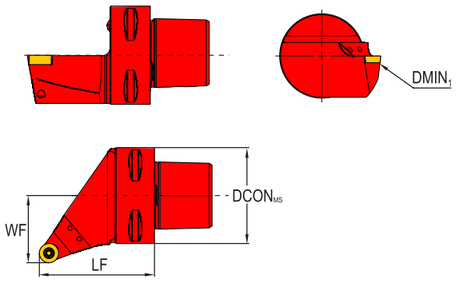


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC3-SDJCR-22040-07	PSC3-SDJCL-22040-07	70	116	32	40	22	DC□□ 0702□□	-	-	C025A05IP	T8IP	-
PSC4-SDJCR-27050-07	PSC4-SDJCL-27050-07	70	116	40	50	27						
PSC3-SDJCR-22040-11	PSC3-SDJCL-22040-11	244	135	32	40	22	DC□□ 11T3□□	SKDP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC4-SDJCR-27050-11	PSC4-SDJCL-27050-11	246	140	40	50	27						
PSC5-SDJCR-35060-11	PSC5-SDJCL-35060-11	250	165	50	60	35						
PSC6-SDJCR-45065-11	PSC6-SDJCL-45065-11	250	190	63	65	45						

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

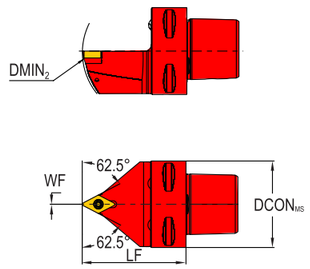


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC5-SRSCR-35060-10HP	PSC5-SRSCL-35060-10HP	130	270	50	60	35	RC□□ 1003MO	-	-	C035A08IP	T15IP	-
PSC6-SRSCR-45065-10HP	PSC6-SRSCL-45065-10HP	140	300	63	65	45						
PSC5-SRSCR-35060-12 HP	PSC5-SRSCL-35060-12 HP	130	270	50	60	35	RC□□ 1204MO	-	-	C040A11IP	T15IP	-
PSC5-SRSCR-35060-12 HPA	PSC5-SRSCL-35060-12 HPA	150	165	50	60	35						
PSC6-SRSCR-45065-12 HP	PSC6-SRSCL-45065-12 HP	120	195	63	65	45						
PSC6-SRSCR-45065-12 HPA	PSC6-SRSCL-45065-12 HPA	150	190	63	65	45						
PSC5-SRSCR-35060-16 HPA	PSC5-SRSCL-35060-16 HPA	175	165	50	60	35	RC□□ 1606MO	-	-	C050A18IP	T20IP	-
PSC6-SRSCR-45065-16HPA	PSC6-SRSCL-45065-16HPA	175	190	63	65	45						

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

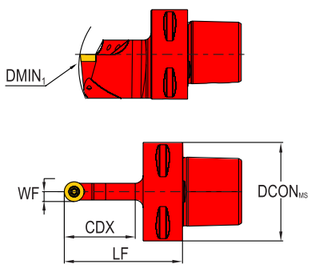


型号	尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model	Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC3-SDNCN-00040-11	-	116	32	40	0	DC□□11T3□□	SKDP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC4-SDNCN-00050-11	-	140	40	50	0						
PSC5-SDNCN-00060-11	-	165	50	60	0						

● 螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

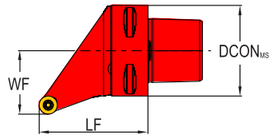


型号	尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model	Size(mm)					Insert	Shim		Screw	Torx wrench	Hex wrench
	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC5-SRDCN-00060-10HP	165	50	25	60	5	RC□□1003MO	-	-	C035A08IP	T15IP	-
PSC4-SRDCN-00050-12HP	140	40	28	50	6	RC□□1204MO	-	-	C040A11IP	T15IP	-
PSC5-SRDCN-00060-12HP	165	50	28	60	6						
PSC6-SRDCN-00065-12HP	190	63	28	65	6						
PSC6-SRDCN-00065-16HP	190	63	35	65	8	RC□□1606MO	-	-	C050A18IP	T20IP	-

螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤10bar
·Coolant pressure ≤ 10bar

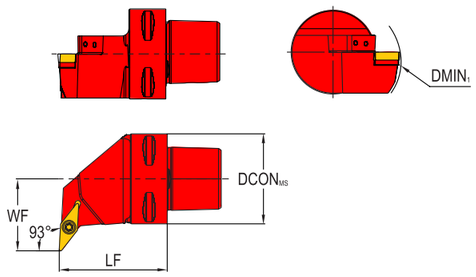


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	DMIN1	DMIN2	DCONMS	LF	WF						
PSC3-SRSCR-22040-10	PSC3-SRSCL-22040-10	32	-	-	40	22	RC□□ 1003MO	-	-	C035A08IP	T15IP	-
PSC4-SRSCR-27050-10	PSC4-SRSCL-27050-10	40	-	-	50	27						
PSC5-SRSCR-35060-10	PSC5-SRSCL-35060-10	50	-	-	60	35						
PSC6-SRSCR-45065-10	PSC6-SRSCL-45065-10	63	-	-	65	45						
PSC4-SRSCR-27050-12	PSC4-SRSCL-27050-12	40	-	-	50	27	RC□□ 1204MO	-	-	C040A11IP	T15IP	-
PSC5-SRSCR-35060-12	PSC5-SRSCL-35060-12	50	-	-	60	35						
PSC6-SRSCR-45065-12	PSC6-SRSCL-45065-12	63	-	-	65	45						
PSC5-SRSCR-35060-16	PSC5-SRSCL-35060-16	50	-	-	60	35	RC□□ 1606MO	-	-	C050A18IP	T20IP	-
PSC6-SRSCR-45065-16	PSC6-SRSCL-45065-16	63	-	-	65	45						

螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

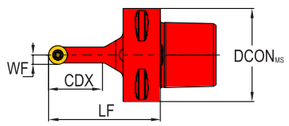


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	DMIN1	DMIN2	DCONMS	LF	WF						
PSC6-SVUBR-45065-16HP	PSC6-SVUBL-45065-16HP	80	-	63	65	45	VB□□ 1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC6-SVUBR-55080-16HP	PSC6-SVUBL-55080-16HP	100	-	85	80	55						

螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

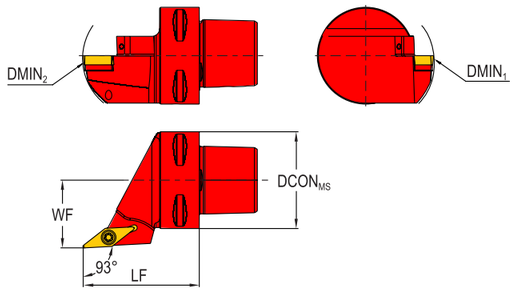


型号	尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model	Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
	DMIN1	DCONMS	CDX	LF	WF						
PSC4-SRDCN-00050-10A	-	40	25	50	5	RC□□1003MO	-	-	C035A08IP	T15IP	-
PSC5-SRDCN-00060-10A	-	50	25	60	5						
PSC6-SRDCN-00065-10A	-	63	25	65	5						
PSC4-SRDCN-00050-12A	-	40	28	50	6	RC□□1204MO	-	-	C040A11IP	T15IP	-
PSC5-SRDCN-00060-12A	-	50	28	60	6						
PSC6-SRDCN-00065-12A	-	63	28	65	6						
PSC5-SRDCN-00060-16A	-	50	35	60	8	RC□□1606MO	-	-	C050A18IP	T20IP	-
PSC6-SRDCN-00065-16A	-	63	35	65	8						

螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

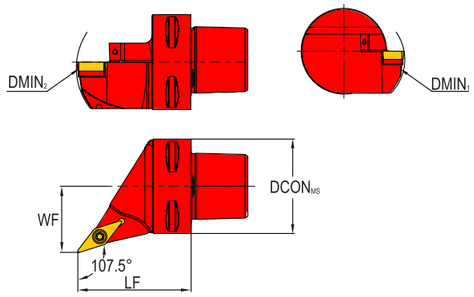


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	DMIN1	DMIN2	DCONMS	LF	WF						
PSC3-SVJBR-22040-11HP	PSC3-SVJBL-22040-11HP	368	116	32	40	22	VB□□ 1103□□	-	-	C025A07IP	T8IP	-
PSC4-SVJBR-27050-11HP	PSC4-SVJBL-27050-11HP	434	140	40	50	27						
PSC4-SVJBR-27050-16HP	PSC4-SVJBL-27050-16HP	270	140	40	50	27	VB□□ 1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SVJBR-35060-16HP	PSC5-SVJBL-35060-16HP	270	165	50	60	35						
PSC6-SVJBR-45065-16HP	PSC6-SVJBL-45065-16HP	270	190	63	65	45						
PSC8-SVJBR-55080-16HP	PSC8-SVJBL-55080-16HP	270	248	80	80	55						

螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

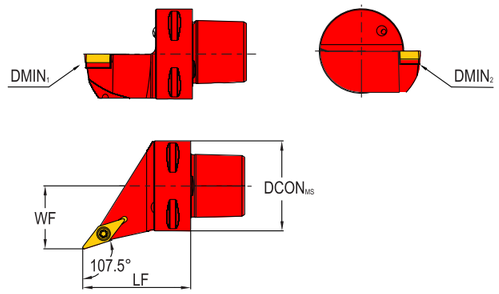


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-SVHBR-27050-16HP	PSC4-SVHBL-27050-16HP	124	140	40	50	27	VB□□ 1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SVHBR-35060-16HP	PSC5-SVHBL-35060-16HP	124	165	50	60	35						
PSC6-SVHBR-45065-16HP	PSC6-SVHBL-45065-16HP	134	190	63	65	45						

螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤10bar
· Coolant pressure ≤ 10bar

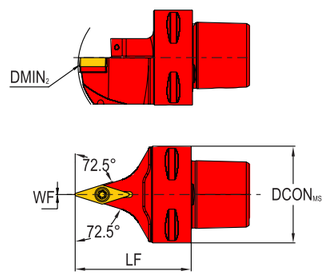


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC3-SVHBR-22040-11	PSC3-SVHBL-22040-11	55	116	32	40	22	VB□□ 1103□□	-	-	C025A07IP	T8IP	-
PSC4-SVHBR-27050-11	PSC4-SVHBL-27050-11	55	140	40	50	27						
PSC5-SVHBR-35060-11	PSC5-SVHBL-35060-11	65	165	50	60	35						
PSC4-SVHBR-27050-16	PSC4-SVHBL-27050-16	95	140	40	50	27	VB□□ 1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SVHBR-35060-16	PSC5-SVHBL-35060-16	95	165	50	60	35						
PSC6-SVHBR-45065-16	PSC6-SVHBL-45065-16	95	190	63	65	45						

螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

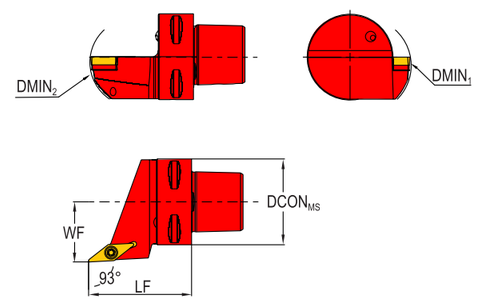


型号	尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model	Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-SVVBN-00055-16HP	-	165	50	60	0	VB□□1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SVVBN-00060-16HP	-	165	50	60	0						
PSC6-SVVBN-00065-16HP	-	190	63	65	0						

螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

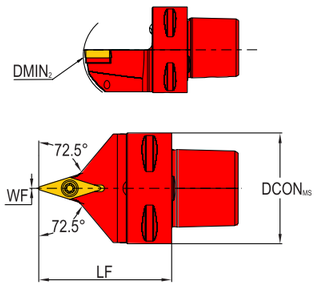


型号		尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)					Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC3-SVJBR-22040-11	PSC3-SVJBL-22040-11	105	116	32	40	22	VB□□ 1103□□	-	-	C025A07IP	T8IP	-
PSC4-SVJBR-27050-11	PSC4-SVJBL-27050-11	105	140	40	50	27						
PSC5-SVJBR-35060-11	PSC5-SVJBL-35060-11	125	165	50	60	35						
PSC4-SVJBR-27050-16	PSC4-SVJBL-27050-16	155	140	40	50	27	VB□□ 1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SVJBR-35060-16	PSC5-SVJBL-35060-16	155	165	50	60	35						
PSC6-SVJBR-45065-16	PSC6-SVJBL-45065-16	155	190	63	65	45						

螺钉压紧式外圆车刀
M Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

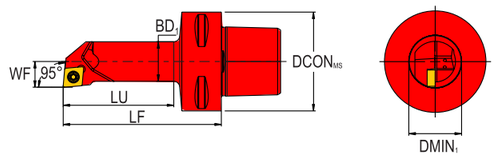


型号	尺寸					刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model	Size(mm)					Insert	Shim		Screw	Torx wrench	Hex wrench
	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-SVVBN-00050-16	-	140	40	50	0	VB□□1604□□	SKVN-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SVVBN-00060-16	-	165	50	60	0						
PSC6-SVVBN-00065-16	-	190	63	65	0						

螺钉压紧式外圆车刀
M Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

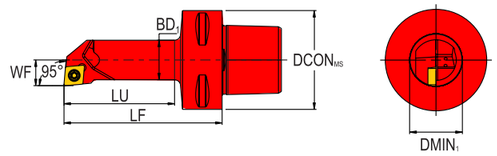


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_2$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC3-SCLCR-11065-09HP	PSC3-SCLCL-11065-09HP	21.5	32	16	48	65	11	CC□□ 09T3□□	-	-	C035A08IP	T15IP	-
PSC4-SCLCR-11070-09HP	PSC4-SCLCL-11070-09HP	21.5	40	16	47	70	11						
PSC4-SCLCR-13080-09HP	PSC4-SCLCL-13080-09HP	25	40	20	57	80	13						
PSC5-SCLCR-11070-09H	PSC5-SCLCL-11070-09HP	21.5	50	16	46	70	11	CC□□ 1204□□	-	-	C050A12IP	T20IP	-
PSC5-SCLCR-13080-09HP	PSC5-SCLCL-13080-09HP	25	50	20	56	80	13						
PSC4-SCLCR-17090-12HP	PSC4-SCLCL-17090-12HP	32	40	25	69	90	17						
PSC5-SCLCR-17090-12HP	PSC5-SCLCL-17090-12HP	32	50	25	67	90	17						

螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

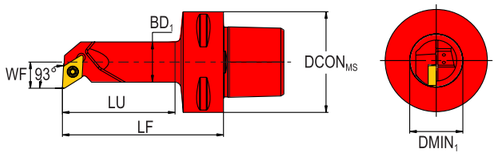


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC3-SCLCR-11065-09	PSC3-SCLCL-11065-09	20	32	16	48	65	11	CC□□ 09T3□□	-	-	C035A08IP	-	-
PSC3-SCLCR-13075-09	PSC3-SCLCL-13075-09	25	32	20	58	75	13						
PSC3-SCLCR-17090-09	PSC3-SCLCL-17090-09	32	32	25	74	90	13						
PSC4-SCLCR-11070-09	PSC4-SCLCL-11070-09	20	40	16	47	70	11						
PSC4-SCLCR-13080-09	PSC4-SCLCL-13080-09	25	40	20	57	80	13						
PSC4-SCLCR-17090-09	PSC4-SCLCL-17090-09	32	40	25	68	90	17						
PSC4-SCLCR-27080-09	PSC4-SCLCL-27080-09	50	40	40	60	80	27		SKCP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SCLCR-11070-09	PSC5-SCLCL-11070-09	20	50	16	46	70	11		-	-	C035A08IP	-	-
PSC5-SCLCR-13080-09	PSC5-SCLCL-13080-09	25	50	20	56	80	13						
PSC5-SCLCR-17090-09	PSC5-SCLCL-17090-09	32	50	25	67	90	17						
PSC3-SCLCR-17090-12	PSC3-SCLCL-17090-12	32	32	25	74	90	17	CC□□ 1204□□	-	-	C050A12IP	T20IP	-
PSC3-SCLCR-22096-12	PSC3-SCLCL-22096-12	40	32	32	81	96	22		SKCP-453	SRS-4	F040A14IP	T15IP	S4
PSC4-SCLCR-22110-12	PSC4-SCLCL-22110-12	40	40	32	89	110	22						
PSC5-SCLCR-22110-12	PSC5-SCLCL-22110-12	40	50	32	88	110	22						
PSC5-SCLCR-27140-12	PSC5-SCLCL-27140-12	50	50	40	119	140	27						
PSC5-SCLCR-35100-12	PSC5-SCLCL-35100-12	63	50	50	80	100	35						

螺钉压紧式内孔车刀
S Type Internal Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

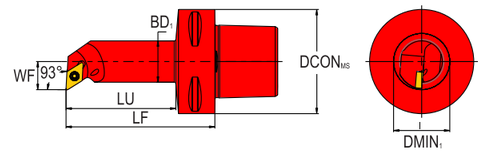


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-SDUCR-13080-07HP	PSC4-SDUCL-13080-07HP	25	40	20	58	80	13	DC□□ 0702□□	-	-	C025A05IP	T8IP	-
PSC4-SDUCR-13080-11HP	PSC4-SDUCL-13080-11HP	25	40	20	58	80	13	DC□□ 11T3□□	-	-	C035A08IP	T15IP	-
PSC4-SDUCR-17090-11HP	PSC4-SDUCL-17090-11HP	32	40	25	69	90	17						
PSC5-SDUCR-13080-11HP	PSC5-SDUCL-13080-11HP	25	50	20	56	80	13						
PSC5-SDUCR-17090-11HP	PSC5-SDUCL-17090-11HP	32	50	25	67	90	17						

螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

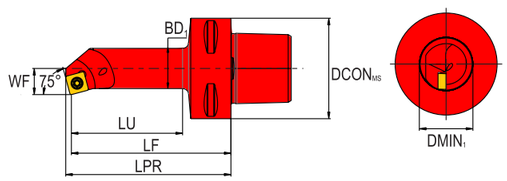


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC3-SDUCR-11065-07	PSC3-SDUCL-11065-07	20	32	16	48	65	11	DC□□ 0702□□	-	-	C025A05IP	T8IP	-
PSC4-SDUCR-11070-07	PSC4-SDUCL-11070-07	20	40	16	47	70	11						
PSC5-SDUCR-11070-07	PSC5-SDUCL-11070-07	20	50	16	46	70	11						
PSC3-SDUCR-13075-11	PSC3-SDUCL-13075-11	25	32	20	58	75	13	DC□□ 11T3□□	-	-	C035A08IP	T15IP	-
PSC3-SDUCR-17090-11	PSC3-SDUCL-17090-11	32	32	25	73	90	17						
PSC4-SDUCR-13080-11	PSC4-SDUCL-13080-11	25	40	20	57	80	13						
PSC4-SDUCR-17090-11	PSC4-SDUCL-17090-11	32	40	25	68	90	17						
PSC4-SDUCR-22110-11	PSC4-SDUCL-22110-11	40	40	32	89	110	22		SKDP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC4-SDUCR-27080-11	PSC4-SDUCL-27080-11	50	40	40	60	80	27						
PSC5-SDUCR-13080-11	PSC5-SDUCL-13080-11	25	50	20	56	80	13		-	-	C035A08IP	T15IP	-
PSC5-SDUCR-17090-11	PSC5-SDUCL-17090-11	32	50	25	67	90	17						
PSC5-SDUCR-22110-11	PSC5-SDUCL-22110-11	40	50	32	88	110	22		SKDP-343	SRS-3	C035A12IP	T15IP	S3.5
PSC5-SDUCR-35100-11	PSC5-SDUCL-35100-11	63	50	50	80	100	35						

螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

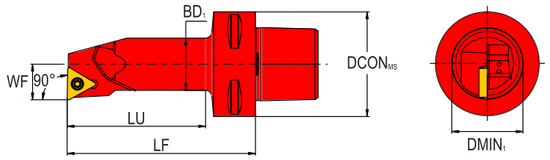


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-SSKCR-13080-09	PSC4-SSKCL-13080-09	25	40	20	58	82.2	13	SC□□ 09T3□□	-	-	C035A08IP	T15IP	-
PSC5-SSKCR-13080-09	PSC5-SSKCL-13080-09	25	50	20	56	82.2	13						

● 螺钉压紧式内孔车刀
S Type Internal Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

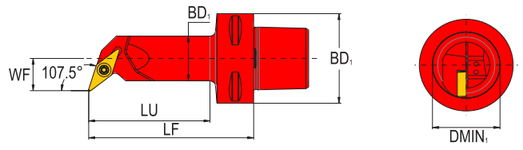


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-STFCR-11070-11HP	PSC4-STFCL-11070-11HP	20	40	16	47	70	11	TC□□ 1102□□	-	-	C025A05IP	T8IP	-
PSC4-STFCR-13080-11HP	PSC4-STFCL-13080-11HP	25	40	20	57	80	13						
PSC4-STFCR-17090-16HP	PSC4-STFCL-17090-16HP	32	40	25	69	90	17	TC□□ 16T3□□	-	-	C035A08IP	T15IP	-
PSC5-STFCR-17090-16HP	PSC5-STFCL-17090-16HP	32	50	25	67	90	17						
PSC5-STFCR-22110-16HP	PSC5-STFCL-22110-16HP	40	50	32	88	110	22		SKDP-343	SRS-3	C035A12IP	T15IP	S3.5

● 螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

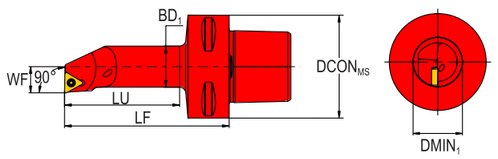


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-SVQBR-13070-11HP	PSC4-SVQBL-13070-11HP	25	40	20	47	70	13	VB□□ 1103□□	-	-	C025A07IP	T8IP	-
PSC4-SVQBR-18090-16HP	PSC4-SVQBL-18090-16HP	33	40	25	68	90	18	VB□□ 1604□□	-	-	C035A08IP	T15IP	-
PSC5-SVQBR-18090-16HP	PSC5-SVQBL-18090-16HP	33	50	25	67	90	18						
PSC6-SVQBR-22120-16HP	PSC6-SVQBL-22120-16HP	40	63	32	94	120	22		SKVN-343	SRS-3	C035A12IP	T15IP	S3.5

● 螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力10bar
·Coolant pressure ≤ 10bar

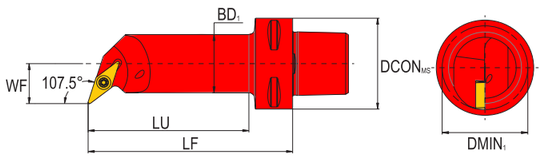


型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-STFCR-11070-11	PSC4-STFCL-11070-11	20	40	16	47	70	11	TC□□ 1102□□	-	-	C025A05IP	T8IP	-
PSC4-STFCR-13080-11	PSC4-STFCL-13080-11	25	40	20	57	80	13						
PSC5-STFCR-11070-11	PSC5-STFCL-11070-11	20	50	16	46	70	11						
PSC5-STFCR-13080-11	PSC5-STFCL-13080-11	25	50	20	56	80	13						
PSC4-STFCR-22110-16	PSC4-STFCL-22110-16	40	40	32	89	110	22	TC□□ 16T3□□	SKDP-343	SRS-3	C035A12IP	T15IP	S3.5

● 螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

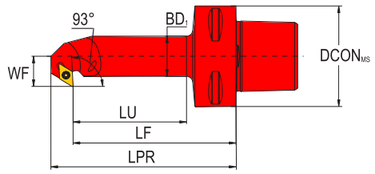


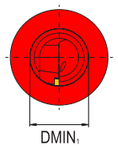
型号		尺寸						刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)						Insert	Shim		Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-SVQBR-13070-11	PSC4-SVQBL-13070-11	25	40	20	48	70	13	VB□□ 1103□□	-	-	C025A07IP	T8IP	-
PSC4-SVQBR-15080-11	PSC4-SVQBL-15080-11	27	40	20	58	80	15						
PSC5-SVQBR-15080-11	PSC5-SVQBL-15080-11	27	50	20	56	80	15						
PSC4-SVQBR-18090-16	PSC4-SVQBL-18090-16	33	40	25	68	90	18	VB□□ 1604□□	-	-	C035A08IP	T15IP	-
PSC4-SVQBR-22110-16	PSC4-SVQBL-22110-16	40	40	32	89	110	22		SKVN-343	SRS-3	C035A12IP	T15IP	-
PSC4-SVQBR-27120-16	PSC4-SVQBL-27120-16	50	40	40	100	120	27						
PSC5-SVQBR-22110-16	PSC5-SVQBL-22110-16	40	50	32	88	110	22						
PSC5-SVQBR-27140-16	PSC5-SVQBL-27140-16	50	50	40	119	140	27						
PSC5-SVQBR-18090-16	PSC5-SVQBL-18090-16	33	50	25	67	90	18		-	-	C035A08IP	T15IP	-
PSC5-SVQBR-35150-16	PSC5-SVQBL-35150-16	63	50	50	130	150	35		SKVN-343	SRS-3	C035A12IP	T15IP	-
PSC6-SVQBR-27145-16	PSC6-SVQBL-27145-16	50	63	40	120	145	27						
PSC6-SVQBR-35175-16	PSC6-SVQBL-35175-16	63	63	50	151	175	35						

螺钉压紧式内孔车刀
S Type Internal Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar



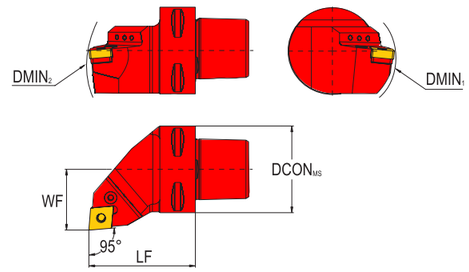


型号		尺寸							刀片	刀垫	刀垫螺钉	螺钉	扳手	扳手
Model		Size(mm)							Insert	Shim	Shim screw	Screw	Torx wrench	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LPR	LF	WF						
PSC4-SDUCR-13070-07X	PSC4-SDUCL-13070-07X	22	40	16	47.3	81.5	70	13	DC□□ 0702□□	-	-	C025A05IP	T8IP	-
PSC4-SDUCR-15080-07X	PSC4-SDUCL-15080-07X	27	40	20	57.9	91.5	80	15						
PSC4-SDUCR-18090-07X	PSC4-SDUCL-18090-07X	32	40	25	68.5	101.5	90	18						
PSC5-SDUCR-18090-07X	PSC5-SDUCL-18090-07X	32	50	25	67.2	101.5	90	18						
PSC5-SDUCR-15080-07X	PSC5-SDUCL-15080-07X	27	50	20	56.5	91.5	80	15						

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

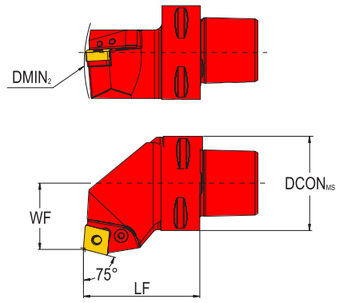


型号		尺寸					刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)					Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-PCLNR-27050-12HP	PSC4-PCLNL-27050-12HP	90	140	40	50	27	CN□□ 1204□□	PC1203	PL-4	PS0820B	SP06	S3
PSC5-PCLNR-35060-12HP	PSC5-PCLNL-35060-12HP	110	165	50	60	35						
PSC6-PCLNR-45065-12HP	PSC6-PCLNL-45065-12HP	110	195	63	65	45						
PSC8-PCLNR-55080-12HP	PSC8-PCLNL-55080-12HP	200	250	80	80	55						
PSC5-PCLNR-35060-16HP	PSC5-PCLNL-35060-16HP	110	165	50	60	35	CN□□ 1606□□	PC1604	PL-5	PS0820A	SP08	S3
PSC6-PCLNR-45065-16HP	PSC6-PCLNL-45065-16HP	110	195	63	65	45						
PSC8-PCLNR-55080-16HP	PSC8-PCLNL-55080-16HP	200	250	80	80	55						
PSC6-PCLNR-45065-19HP	PSC6-PCLNL-45065-19HP	260	195	63	65	45	CN□□ 1906□□	PC1904	PL-6	PS1027	SP10	S4
PSC8-PCLNR-55080-19HP	PSC8-PCLNL-55080-19HP	150	250	80	80	55						
PSC10-PCLNR-68110-19HP	PSC10-PCLNL-68110-19HP	220	315	100	110	68						

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

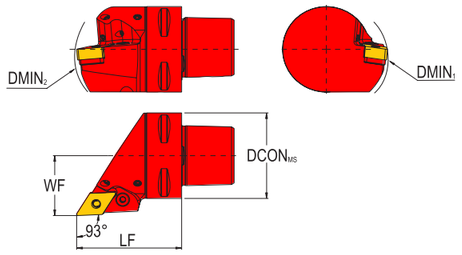


型号		尺寸					刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)					Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC6-PCRNR-35065-16HP	PSC6-PCRNL-35065-16HP	-	190	63	65	35	CN□□ 1606□□	PC1604	PL-5	PS0820A	SP08	S3
PSC6-PCRNR-35065-19HP	PSC6-PCRNL-35065-19HP	-	190	63	65	35	CN□□ 1906□□	PC1904	PL-6	PS1027	SP10	S4

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

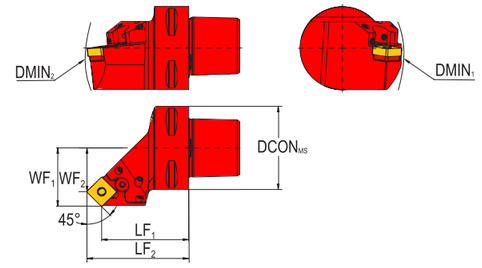


型号		尺寸					刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)					Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-PDJNR-27050-11HP	PSC4-PDJNL-27050-11HP	90	145	40	50	27	DN□□ 1104□□	PD1104	PL-3	PS0617	SP05	S2.5
PSC5-PDJNR-35060-11HP	PSC5-PDJNL-35060-11HP	110	165	50	60	35						
PSC4-PDJNR-27055-15HP	PSC4-PDJNL-27055-15HP	65	145	40	55	27	DN□□ 1506□□	PD1503	PL-5M	PS0821	SP06	S3
PSC5-PDJNR-35060-15HP	PSC5-PDJNL-35060-15HP	65	165	50	60	35						
PSC6-PDJNR-45065-15HP	PSC6-PDJNL-45065-15HP	95	195	63	65	45						
PSC8-PDJNR-55080-15HP	PSC8-PDJNL-55080-15HP	130	250	80	80	55						
PSC10-PDJNR-68110-15HP	PSC10-PDJNL-68110-15HP	180	280	100	110	68						

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

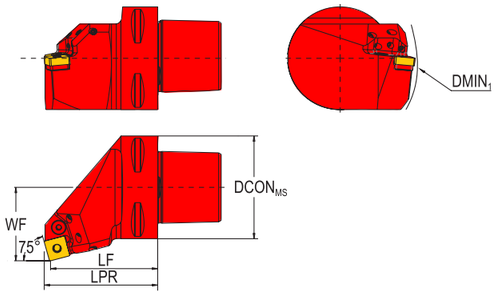


型号		尺寸							刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)							Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF_1	LF_2	WF_1	WF_2						
PSC4-PSSNR-27042-12HP	PSC4-PSSNL-27042-12HP	90	145	40	45	50.3	27	18.7	SN□□ 1204□□	PS1203	PL-4	PS0820B	SP06	S3
PSC5-PSSNR-35052-12HP	PSC5-PSSNL-35052-12HP	110	165	50	52	60.3	35	26.7						
PSC6-PSSNR-45056-12HP	PSC6-PSSNL-45056-12HP	110	200	63	56	64.3	45	36.7						
PSC8-PSSNR-55080-12HP	PSC8-PSSNL-55080-12HP	200	260	80	80	88.3	55	46.7						
PSC6-PSSNR-45054-15HP	PSC6-PSSNL-45054-15HP	110	200	63	54	64.2	45	34.8	SN□□ 1506□□	PS1504	PL-5	PS0820A	SP08	S3
PSC6-PSSNR-45052-19HP	PSC6-PSSNL-45052-19HP	110	180	63	52	64.5	45	32.5	SN□□ 1906□□	PS1904	PL-6	PS1027	SP10	S4
PSC8-PSSNR-55080-19HP	PSC8-PSSNL-55080-19HP	200	260	80	80	92.5	55	42.5						
PSC10-PSSNR-68092-19HP	PSC10-PSSNL-68092-19HP	260	315	100	92	104.5	68	55.5						

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

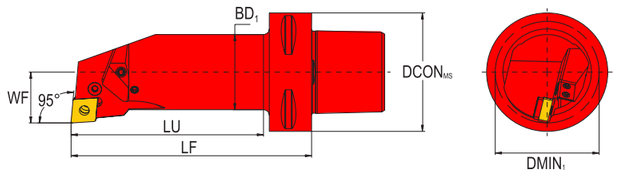


型号		尺寸					刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)					Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	LPR	LF	WF						
PSC6-PSKNR-45065-15HP	PSC6-PSKNL-45065-15HP	125	63	68.8	65	45	SN□□ 1606□□	PC1504	PL-5	PS0820A	SP08	S3
PSC6-PSKNR-45065-19HP	PSC6-PSKNL-45065-19HP	125	63	69.6	65	45	SN□□ 1906□□	PC1904	PL-6	PS1027	SP10	S4

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

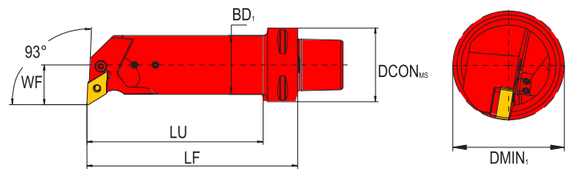


型号		尺寸						刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)						Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC3-PCLNR-22064-12HP	PSC3-PCLNL-22064-12HP	40	32	32	48	64	22	CN□□ 1204□□	PC1203	PL-4	PS0820B	SP06	S3
PSC3-PCLNR-22096-12HP	PSC3-PCLNL-22096-12HP	40	32	32	80	96	22						
PSC4-PCLNR-22110-12HP	PSC4-PCLNL-22110-12HP	40	40	32	86.6	110	22						
PSC4-PCLNR-27080-12HP	PSC4-PCLNL-27080-12HP	50	40	40	59	80	27						
PSC4-PCLNR-27120-12HP	PSC4-PCLNL-27120-12HP	50	40	40	99	120	27						
PSC5-PCLNR-22110-12HP	PSC5-PCLNL-22110-12HP	40	50	32	82.2	110	22						
PSC5-PCLNR-27140-12HP	PSC5-PCLNL-27140-12HP	50	50	40	115.6	140	27						
PSC5-PCLNR-35100-12HP	PSC5-PCLNL-35100-12HP	63	50	50	79	100	35						
PSC6-PCLNR-22110-12HP	PSC6-PCLNL-22110-12HP	40	63	32	78.5	110	22						
PSC5-PCLNR-35150-16HP	PSC5-PCLNL-35150-16HP	63	50	50	129	150	35	CN□□ 1606□□	PC1604	PL-5	PS0825	SP08	S3
PSC6-PCLNR-27140-16HP	PSC6-PCLNL-27140-16HP	50	63	40	109.5	140	27						
PSC6-PCLNR-35175-16HP	PSC6-PCLNL-35175-16HP	63	63	50	146.7	175	35						

杠杆压紧式外圆车刀
P Type External Turing Tool



·精准冷却设计
·Precise cooling design
·冷却液设计压力≤ 150bar
·Coolant pressure ≤ 150bar

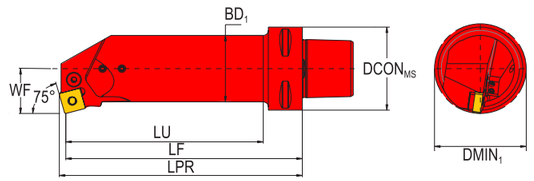


型号		尺寸						刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)						Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LF	WF						
PSC4-PDUNR-22110-11HP	PSC4-PDUNL-22110-11HP	40	40	32	86.6	110	22	DN□□ 1104□□	PD1104	PL-3	PS0617	SP05	S2.5
PSC5-PDUNR-22110-11HP	PSC5-PDUNL-22110-11HP	40	50	32	82.2	110	22						
PSC4-PDUNR-27080-15HP	PSC4-PDUNL-27080-15HP	50	40	40	59	80	27	DN□□ 1506□□	PD1503	PL-5M	PS0821	SP06	S3
PSC4-PDUNR-27120-15HP	PSC4-PDUNL-27120-15HP	50	40	40	99	120	27						
PSC5-PDUNR-27140-15HP	PSC5-PDUNL-27140-15HP	50	50	40	115.6	140	27						
PSC5-PDUNR-35100-15HP	PSC5-PDUNL-35100-15HP	63	50	50	79	100	35						
PSC5-PDUNR-35150-15HP	PSC5-PDUNL-35150-15HP	63	50	50	129	150	35						
PSC6-PDUNR-22110-15HP	PSC6-PDUNL-22110-15HP	40	63	32	78.5	110	22						
PSC6-PDUNR-27140-15HP	PSC6-PDUNL-27140-15HP	50	63	40	109.5	140	27						
PSC6-PDUNR-35175-15HP	PSC6-PDUNL-35175-15HP	63	63	50	146.7	175	35						

杠杆压紧式外圆车刀
P Type External Turing Tool



准冷却设计
recise cooling design
却液设计压力≤ 10bar
oolant pressure ≤ 10bar

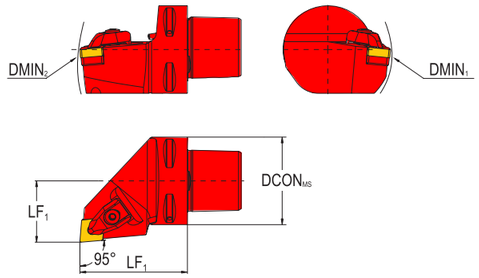


型号		尺寸							刀片	刀垫	杠杆	螺钉	弹簧销	扳手
Model		Size(mm)							Insert	Shim	Lever	Screw	Tubular rivet	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	BD_1	LU	LPR	LF	WF						
PSC4-PSKNR-22110-12HP	PSC4-PSKNL-22110-12HP	40	40	32	86.6	113.1	110	22	SN□□ 1204□□	PS1203	PL-4	PS0820B	SP06	S3
PSC5-PSKNR-22110-12HP	PSC5-PSKNL-22110-12HP	40	50	32	82.2	113.1	110	22						
PSC5-PSKNR-27140-12HP	PSC5-PSKNL-27140-12HP	50	50	40	115.6	143.1	140	27						
PSC6-PSKNR-22110-12HP	PSC6-PSKNL-22110-12HP	40	63	32	78.5	113.1	110	22						
PSC6-PSKNR-35175-15HP	PSC6-PSKNL-35175-15HP	63	63	50	146.7	178.8	175	32	DN□□ 1506□□	PS1504	PL-5	PS0820A	SP08	S3

● D 型压紧式外圆车刀
D Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

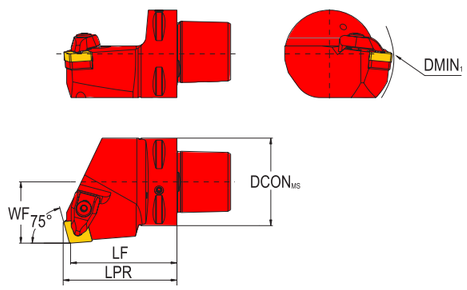


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF_1	WF_1						
PSC3-DCLNR-22045-12	PSC3-DCLNL-22045-12	60	121	32	45	22	CN□□ 1204□□	DL-04	S3	DCSN-444	C040A09IP	T15IP
PSC4-DCLNR-27050-12	PSC4-DCLNL-27050-12	110	140	40	50	27						
PSC5-DCLNR-35060-12	PSC5-DCLNL-35060-12	110	165	50	60	35						
PSC6-DCLNR-45065-12	PSC6-DCLNL-45065-12	110	190	63	65	45						
PSC8-DCLNR-55080-12	PSC8-DCLNL-55080-12	110	250	80	80	55						
PSC4-DCLNR-27055-16	PSC4-DCLNL-27055-16	125	145	40	55	27	CN□□ 1606□□	DL-05	S4	DCSN-544	C050A12IP	T20IP
PSC5-DCLNR-35060-16	PSC5-DCLNL-35060-16	125	165	50	60	35						
PSC6-DCLNR-45065-16	PSC6-DCLNL-45065-16	125	190	63	65	45						
PSC8-DCLNR-55080-16	PSC8-DCLNL-55080-16	125	250	80	80	55						
PSC5-DCLNR-35060-19	PSC5-DCLNL-35060-19	80	165	50	60	35	CN□□ 1906□□	DL-06	S4	DCSN-634	C050A12IP	T20IP
PSC6-DCLNR-45065-19	PSC6-DCLNL-45065-19	81	190	63	65	45						
PSC8-DCLNR-55080-19	PSC8-DCLNL-55080-19	100	250	80	80	55						

● D 型压紧式外圆车刀
D Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

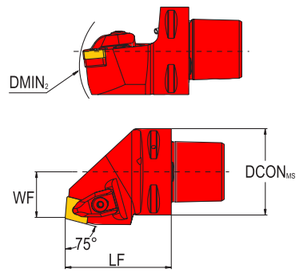


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	LPR	LF	WF						
PSC4-DCKNR-27050-12	PSC4-DCKNL-27050-12	110	40	53.1	50	27	CN□□ 1204□□	DL-04	S3	DCSN-444	C040A09IP	T15IP
PSC5-DCKNR-35060-12	PSC5-DCKNL-35060-12	110	50	63.1	60	35						
PSC6-DCKNR-45065-12	PSC6-DCKNL-45065-12	110	63	68.1	65	45						
PSC5-DCKNR-35060-16	PSC5-DCKNL-35060-16	125	50	63.8	60	35	CN□□ 1606□□	DL-05	S4	DCSN-544	C050A12IP	T20IP
PSC6-DCKNR-45065-16	PSC6-DCKNL-45065-16	125	63	68.8	65	45						
PSC6-DCKNR-45065-19	PSC6-DCKNL-45065-19	81	63	74.6	65	45	CN□□ 1906□□	DL-06	S4	DCSN-634	C050A12IP	T20IP
PSC8-DCKNR-55080-19	PSC8-DCKNL-55080-19	100	80	89.6	80	55						

● D 型压紧式外圆车刀
D Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

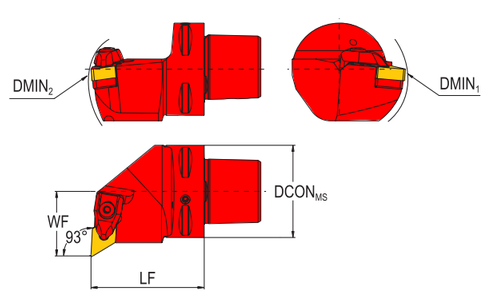


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	LPR	LF	WF						
PSC4-DCRNR-22050-12	PSC4-DCRNL-22050-12	-	140	40	50	22	CN□□ 1204□□	DL-04	S3	DCSN-444	C040A09IP	T15IP
PSC5-DCRNR-27060-12	PSC5-DCRNL-27060-12	-	165	50	60	27						
PSC6-DCRNR-35065-12	PSC6-DCRNL-35065-12	-	190	63	65	35						
PSC5-DCRNR-27060-16	PSC5-DCRNL-27060-16	-	165	50	60	27	CN□□ 1606□□	DL-05	S3	DCSN-544	C050A12IP	T20IP
PSC6-DCRNR-35065-16	PSC6-DCRNL-35065-16	-	190	63	65	35						
PSC8-DCRNR-55080-16	PSC8-DCRNL-55080-16	-	250	80	80	55						
PSC6-DCRNR-35065-19	PSC6-DCRNL-35065-19	-	190	63	65	35	CN□□ 1906□□	DL-06	S4	DCSN-634	C050A12IP	T20IP
PSC8-DCRNR-55080-19	PSC8-DCRNL-55080-19	-	250	80	80	55						

● D 型压紧式外圆车刀
D Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

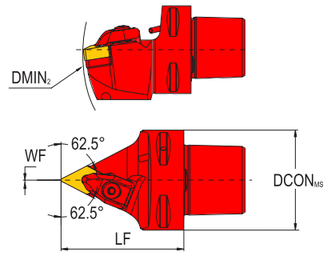


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-DDUNR-27050-15	PSC4-DDUNL-27050-15	110	40	86.6	110	22	DN□□ 1506□□	DL-04	S3	DDSN-434	C040A09IP	T15IP
PSC5-DDUNR-35060-15	PSC5-DDUNL-35060-15	110	50	82.2	110	22						
PSC6-DDUNR-45065-15	PSC6-DDUNL-45065-15	110	50	115.6	140	27						
PSC8-DDUNR-55080-15	PSC8-DDUNL-55080-15	110	63	78.5	110	22						

D 型压紧式外圆车刀
D Type External Turing Tool



- 普通冷却设计
- General cooling design
- 冷却液设计压力≤ 10bar
- Coolant pressure ≤ 10bar

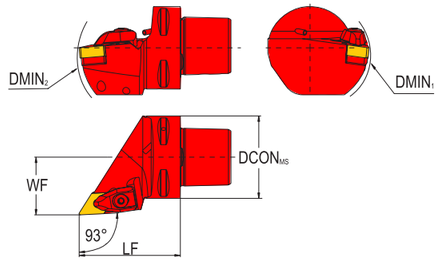


型号	尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model	Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
	$DMIN_1$	$DCON_{MS}$	LPR	LF	WF						
PSC4-DDNNN-00050-11	-	140	40	50	0	DN□□ 1104□□	DL-03	S2.5	DDSN-322	C030A07IP	T9IP
PSC4-DDNNN-00055-15	-	145	40	55	0	DN□□ 1506□□	DL-04	S3	DCSN-434	C040A09IP	T15IP
PSC5-DDNNN-00060-15	-	165	50	60	0						
PSC6-DDNNN-00065-15	-	190	63	65	0						
PSC8-DDNNN-00080-15	-	250	80	85	0						

D 型压紧式外圆车刀
D Type External Turing Tool



- 普通冷却设计
- General cooling design
- 冷却液设计压力≤ 10bar
- Coolant pressure ≤ 10bar

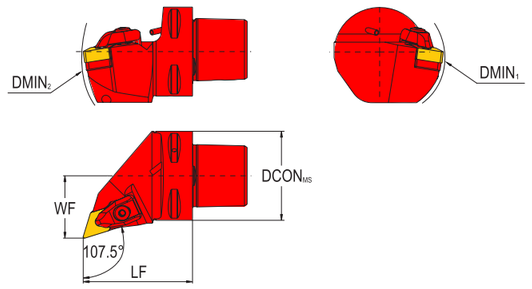


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC3-DDJNR-22045-11	PSC3-DDJNL-22045-11	60	121	32	45	22	DN□□ 1104□□	DL-03	S2.5	DDSN-322	C030A07IP	T9IP
PSC4-DDJNR-27050-11	PSC4-DDJNL-27050-11	60	140	40	50	27						
PSC5-DDJNR-35060-11	PSC5-DDJNL-35060-11	65	165	50	60	35						
PSC4-DDJNR-27055-15	PSC4-DDJNL-27055-15	110	145	40	55	27	DN□□ 1506□□	DL-04	S3	DDSN-434	C040A09IP	T15IP
PSC5-DDJNR-35060-15	PSC5-DDJNL-35060-15	110	165	50	60	35						
PSC6-DDJNR-45065-15	PSC6-DDJNL-45065-15	110	190	63	65	45						
PSC8-DDJNR-55080-15	PSC8-DDJNL-55080-15	110	250	80	80	55						

D 型压紧式外圆车刀
D Type External Turing Tool



- 普通冷却设计
- General cooling design
- 冷却液设计压力≤ 10bar
- Coolant pressure ≤ 10bar

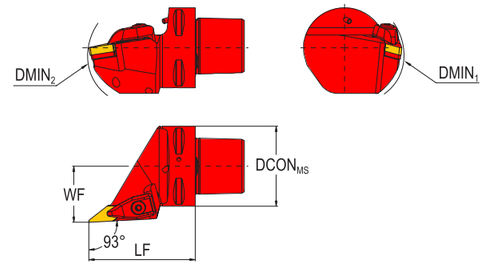


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-DDHNR-27055-15	PSC4-DDHNL-27055-15	110	145	40	55	27	DN□□ 1506□□	DL-04	S3	DDSN-434	C040A0IP	T15IP
PSC5-DDHNR-35060-15	PSC5-DDHNL-35060-15	110	165	50	60	35						
PSC6-DDHNR-45065-15	PSC6-DDHNL-45065-15	110	190	63	65	45						
PSC8-DDHNR-55080-15	PSC8-DDHNL-55080-15	110	250	80	80	55						

D 型压紧式外圆车刀
D Type External Turing Tool



- 普通冷却设计
- General cooling design
- 冷却液设计压力≤ 10bar
- Coolant pressure ≤ 10bar

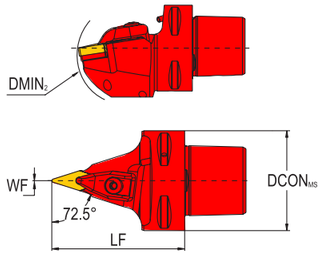


型号		尺寸					刀片	压板组件	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)					Insert	Clamp set	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-DVJNR-27062-16	PSC4-DVJNL-27062-16	60	152	40	62	27	VN□□ 1604□□	DL-03L	S3	DVSN-322	C035A08IP	T15IP
PSC5-DVJNR-35065-16	PSC5-DVJNL-35065-16	65	170	50	65	35						
PSC6-DVJNR-45065-16	PSC6-DVJNL-45065-16	81	190	63	65	45						
PSC8-DVJNR-55080-16	PSC8-DVJNL-55080-16	100	250	80	80	55						

D 型压紧式外圆车刀
D Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

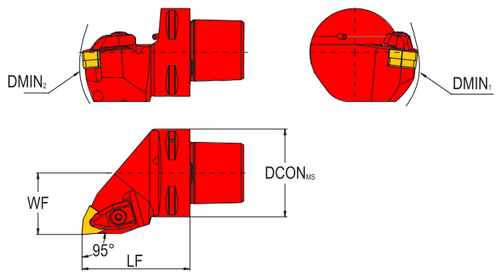


型号 Model	尺寸 Size(mm)					刀片 Insert	压板组件 Clamp set	扳手 Hex wrench	刀垫 Shim	刀垫螺钉 Shim screw	扳手 Hex wrench
	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC4-DVVNN-00062-16	-	152	40	62	0.6	VN□□ 1604□□	DL-03L	S3	DVSN-322	C035A08IP	T15IP
PSC5-DVVNN-00065-16	-	170	50	65	0.6						
PSC6-DVVNN-00065-16	-	190	63	65	0.6						
PSC8-DVVNN-00080-16	-	250	80	80	0.6						

D 型压紧式外圆车刀
D Type External Turing Tool



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

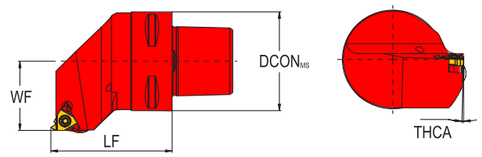


型号 Model		尺寸 Size(mm)					刀片 Insert	压板组件 Clamp set	扳手 Hex wrench	刀垫 Shim	刀垫螺钉 Shim screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DMIN_2$	$DCON_{MS}$	LF	WF						
PSC3-DWLNR-22040-06	PSC3-DWLNL-22040-06	60	116	32	40	22	WN□□ 0604□□	DL-03	S2.5	DDSN-322	C030A07IP	T9IP
PSC4-DWLNR-27050-06	PSC4-DWLNL-27050-06	60	140	40	50	27						
PSC5-DWLNR-35060-06	PSC5-DWLNL-35060-06	65	165	50	60	35						
PSC6-DWLNR-45065-06	PSC6-DWLNL-45065-06	81	190	63	65	45						
PSC4-DWLNR-27050-08	PSC4-DWLNL-27050-08	110	140	40	50	27	WN□□ 0804□□	DL-04	S3	DDSN-434	C040A09IP	T15IP
PSC5-DWLNR-35060-08	PSC5-DWLNL-35060-08	110	165	50	60	35						
PSC6-DWLNR-45065-08	PSC6-DWLNL-45065-08	110	190	63	65	45						
PSC8-DWLNR-55080-08	PSC8-DWLNL-55080-08	110	250	80	80	55						

PSC螺纹外圆车刀
PSC External Thread Turing Tools



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

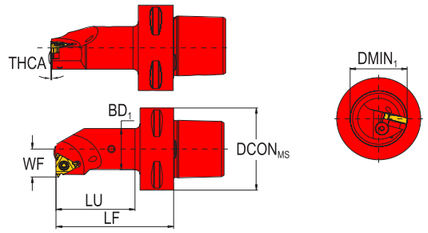


型号 Model		尺寸 Size(mm)					刀片 Insert	螺钉 Screw	扳手 Hex wrench	刀垫 Shim	刀垫螺钉 Shim screw	扳手 Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	$DCON_{MS}$	LF	WF	THCA						
PSC3-SER-22040-16	PSC3-SEL-22040-16	-	32	40	22	1.5°	16ER□□	C035A12IP	T15IP	LT16/1.75	SS04008	S2.5
PSC4-SER-27050-16	PSC4-SEL-27050-16	-	40	50	27	1.5°						
PSC5-SER-35060-16	PSC5-SEL-35060-16	-	50	60	35	1.5°						
PSC6-SER-45065-16	PSC6-SEL-45065-16	-	63	65	45	1.5°						
PSC8-SER-55080-16	PSC8-SEL-55080-16	-	80	80	55	1.5°						
PSC4-SER-27050-22	PSC4-SEL-27050-22	-	40	50	27	1.5°	22ER□□ 22EL□□	C040A12IP	T15IP	LT22	SS04008	S2.5
PSC5-SER-35060-22	PSC5-SEL-35060-22	-	50	60	35	1.5°						
PSC6-SER-45065-22	PSC6-SEL-45065-22	-	63	65	45	1.5°						
PSC8-SER-55080-22	PSC8-SEL-55080-22	-	80	80	55	1.5°						

PSC 螺纹外圆车刀
PSC External Thread Turning Tools



· 普通冷却设计
· General cooling design
· 冷却液设计压力≤ 10bar
· Coolant pressure ≤ 10bar

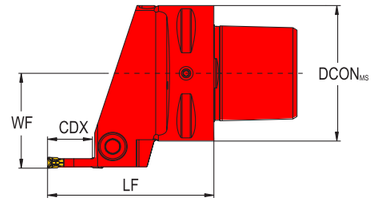


型号		尺寸							刀片	螺钉	扳手	刀垫	刀垫螺钉	扳手
Model		Size(mm)							Insert	Screw	Hex wrench	Shim	Shim screw	Hex wrench
右刀Right hand	左刀Left hand	$DMIN_1$	LU	$DCON_{MS}$	BD_1	LF	WF	THCA						
PSC3-SNR-14060-16	PSC3-SNL-14060-16	32	44	32	20	60	14	1.5°	16IL□□ 16IR□□	C035A08IP	T15IP	-	SS04008	S2.5
PSC4-SNR-14060-16	PSC4-SNL-14060-16	40	38	40	20	60	14	110						
PSC4-SNR-17070-16	PSC4-SNL-17070-16	40	48	40	25	70	17	1.5°		C035A12IP		LT16/0.5		
PSC4-SNR-22090-16	-	40	69	40	32	90	22	1.5°				LT16/1.75		
PSC5-SNR-14060-16	PSC5-SNL-14060-16	50	36	50	20	60	14	1.5°		C035A08IP		-		
PSC5-SNR-17070-16	PSC5-SNL-17070-16	50	47	50	25	70	17	1.5°		C035A12IP		LT16/0.5 LT16/1.75		
PSC5-SNR-22090-16	PSC5-SNL-22090-16	50	68	50	32	90	22	1.5°						
PSC5-SNR-27105-16	PSC5-SNL-27105-16	50	84	50	40	105	27	1.5°						
PSC6-SNR-14070-16	PSC6-SNL-14070-16	63	42	63	20	70	14	1.5°		C035A08IP		-		
PSC6-SNR-17075-16	PSC6-SNL-17075-16	63	48	63	25	75	17	1.5°		C035A12IP		LT16/0.5 LT16/1.75		
PSC6-SNR-22090-16	PSC6-SNL-22090-16	63	64	63	32	90	22	1.5°						
PSC6-SNR-27105-16	PSC6-SNL-27105-16	63	80	63	40	105	27	1.5°						
PSC4-SNR-19070-22	PSC4-SNL-19070-22	40	48	40	25	70	19	1.5°	22IR□□ 22IL□□	C040A12IP		LT22	SS04008	S2.5
PSC4-SNR-22090-22	PSC4-SNL-22090-22	40	69	40	32	90	22	1.5°						
PSC4-SNR-27080-22	PSC4-SNL-27080-22	40	60	63	39.5	80	27	1.5°						
PSC5-SNR-27105-22	PSC5-SNL-27105-22	50	84	50	40	105	26.9	1.5°						
PSC5-SNR-19070-22	PSC5-SNL-19070-22	50	47	50	25	70	19	1.5°						
PSC5-SNR-22090-22	PSC5-SNL-22090-22	50	68	50	32	90	22	1.5°						
PSC6-SNR-27105-22	PSC6-SNL-27105-22	63	80	63	40	105	26.9	1.5°						
PSC6-SNR-19075-22	PSC6-SNL-19075-22	63	48	63	25	75	19	1.5°						
PSC6-SNR-22090-22	PSC6-SNL-22090-22	63	64	63	32	90	22	1.5°						

QE 外圆切断（槽）刀
QE Parting And Groving Toolders



· 普通冷却设计
· General cooling design
· 冷却液设计压力≤ 10bar
· Coolant pressure ≤ 10bar



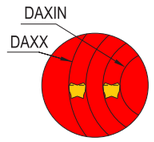
型号		尺寸				刀片	螺钉	扳手
Model		Size(mm)				Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DCON_{MS}$	LF	WF	CDX			
PSC3-QE03R16-22055	PSC3-QE03L16-22055	32	55	22	16	BTD*3	MS05016	S4
PSC4-QE03R16-27060	PSC4-QE03L16-27060	40	60	27	16			
PSC5-QE03R16-35060	PSC5-QE03L16-35060	50	60	35	16			
PSC6-QE03R16-45065	PSC6-QE03L16-45065	63	65	45	16			
PSC3-QE04R16-22055	PSC3-QE04L16-22055	32	55	22	16	BTD*4	MS05016	S4
PSC4-QE04R16-27060	PSC4-QE04L16-27060	40	60	27	16			
PSC5-QE04R16-35060	PSC5-QE04L16-35060	50	60	35	16			
PSC6-QE04R16-45065	PSC6-QE04L16-45065	63	65	45	16			
PSC4-QE05R16-27065	PSC4-QE05L16-27065	40	60	27	20	BTD*5	MS05016	S5
PSC5-QE05R16-35065	PSC5-QE05L16-35065	50	60	35	20			
PSC6-QE05R16-45070	PSC6-QE05L16-45070	63	65	45	20			
PSC8-QE05R16-42080	PSC8-QE05L16-42080	80	80	45	20			

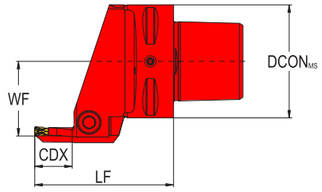
D 型压紧式外圆车刀

D Type External Turing Tool



- 普通冷却设计
- General cooling design
- 冷却液设计压力≤ 10bar
- Coolant pressure ≤ 10bar

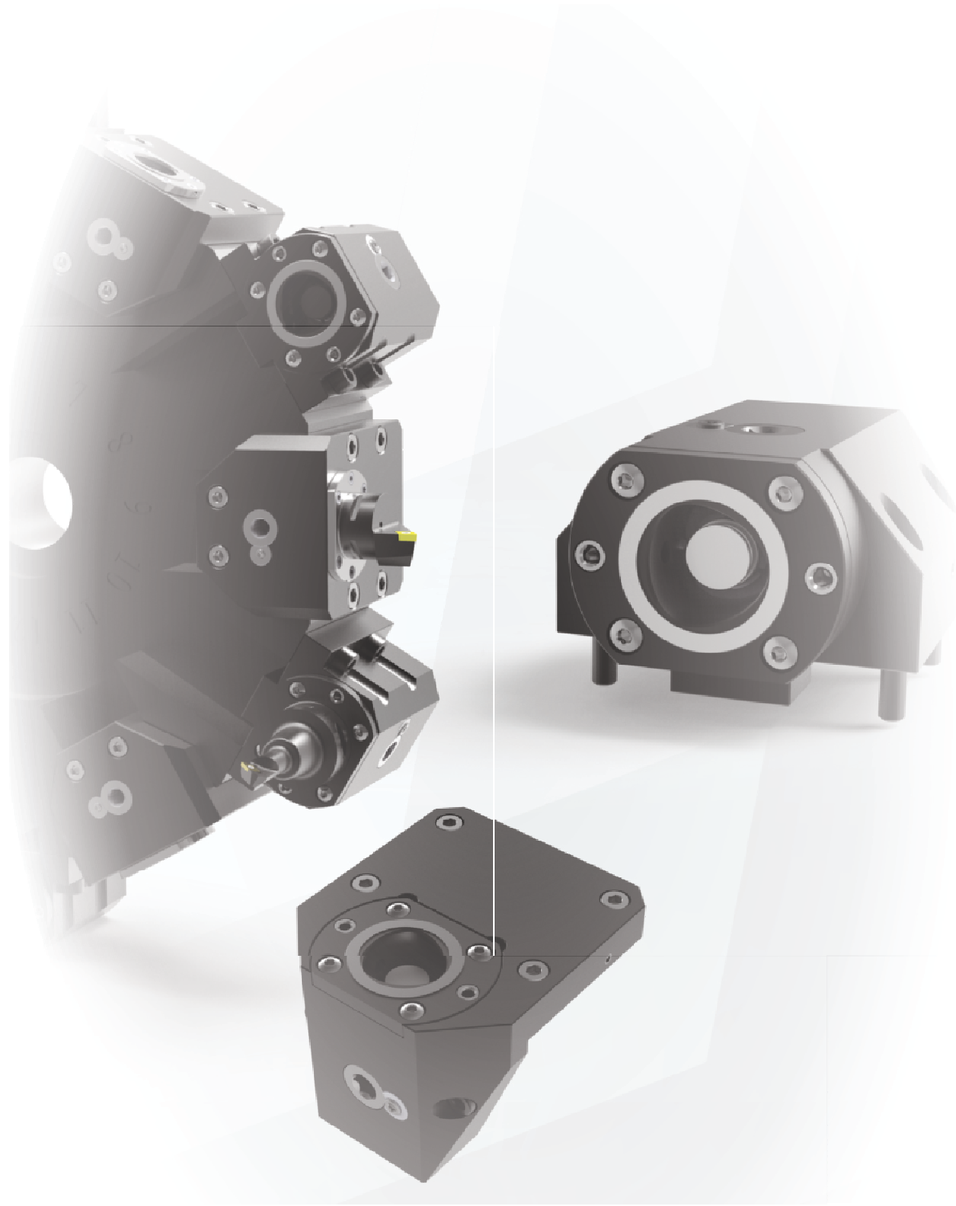




型号		尺寸						刀片	螺钉	扳手
Model		Size(mm)						Insert	Screw	Hex wrench
右刀Right hand	左刀Left hand	$DCON_{MS}$	LF	WF	DAXIN	DAXX	CDX			
PSC4-QE03R16-27060H075100	PSC4-QE03L16-27060H075100	40	60	27	75	100	16	BTD*3	MS05016	S4
PSC5-QE03R16-35060H075100	PSC5-QE03L16-35060H075100	50	60	35	75	100	16			
PSC4-QE04R16-27060H048060	PSC4-QE04L16-27060H048060	40	60	27	48	60	16	BTD*4	MS05016	S4
PSC4-QE04R16-27060H060075	PSC4-QE04L16-27060H060075	40	60	27	60	75	16			
PSC4-QE04R16-27060H075100	PSC4-QE04L16-27060H075100	40	60	27	75	100	16			
PSC4-QE04R16-27060H100140	PSC4-QE04L16-27060H100140	40	60	27	100	140	16			
PSC4-QE04R16-27060H140240	PSC4-QE04L16-27060H140240	40	60	27	140	240	16			
PSC4-QE04R16-27060H240480	PSC4-QE04L16-27060H240480	40	60	27	240	480	16			
PSC5-QE04R16-33060H048060	PSC5-QE04L16-33060H048060	50	60	33	48	60	16			
PSC5-QE04R16-33060H060075	PSC5-QE04L16-33060H060075	50	60	33	60	75	16			
PSC5-QE04R16-33060H075100	PSC5-QE04L16-33060H075100	50	60	33	75	100	16			
PSC5-QE04R16-33060H100140	PSC5-QE04L16-33060H100140	50	60	33	100	140	16			
PSC5-QE04R16-33060H140240	PSC5-QE04L16-33060H140240	50	60	33	140	240	16			
PSC5-QE04R16-33060H240480	PSC5-QE04L16-33060H240480	50	65	39	240	480	16			
PSC6-QE04R16-39065H048065	PSC6-QE04L16-39065H048065	63	65	39	48	60	16			
PSC6-QE04R16-39065H065075	PSC6-QE04L16-39065H065075	63	65	39	60	75	16			
PSC6-QE04R16-39065H075100	PSC6-QE04L16-39065H075100	63	65	39	75	100	16			
PSC6-QE04R16-39065H100140	PSC6-QE04L16-39065H100140	63	65	39	100	140	16			
PSC6-QE04R16-39065H140240	PSC6-QE04L16-39065H140240	63	65	39	140	240	16			
PSC6-QE04R16-39065H240480	PSC6-QE04L16-39065H240480	63	65	39	240	480	16			
PSC4-QE05R16-27065H054070	PSC4-QE05L16-27065H054070	40	65	27	54	70	16	BTD*5	MS06020	S5
PSC4-QE05R16-27065H070095	PSC4-QE05L16-27065H070095	40	65	27	70	95	16			
PSC4-QE05R16-27065H095130	PSC4-QE05L16-27065H095130	40	65	27	95	130	16			
PSC4-QE05R16-27065H130180	PSC4-QE05L16-27065H130180	40	65	27	130	180	16			
PSC4-QE05R16-27065H140240	PSC4-QE05L16-27065H140240	40	65	27	140	240	16			
PSC4-QE05R16-27065H240000	PSC4-QE05L16-27065H240000	40	65	27	240	1000	16			
PSC5-QE05R16-33065H054070	PSC5-QE05L16-33065H054070	50	65	33	54	70	16			
PSC5-QE05R16-33065H070095	PSC5-QE05L16-33065H070095	50	65	33	70	95	16			
PSC5-QE05R16-33065H095130	PSC5-QE05L16-33065H095130	50	65	33	95	130	16			
PSC5-QE05R16-33065H130180	PSC5-QE05L16-33065H130180	50	65	33	130	180	16			
PSC5-QE05R16-33065H140240	PSC5-QE05L16-33065H140240	50	65	33	140	240	16			
PSC5-QE05R16-33065H240000	PSC5-QE05L16-33065H240000	50	65	33	240	1000	16			
PSC6-QE05R16-39070H054070	PSC6-QE05L16-39070H054070	63	70	39	54	70	16			
PSC6-QE05R16-39070H070095	PSC6-QE05L16-39070H070095	63	70	39	70	95	16			
PSC6-QE05R16-39070H095130	PSC6-QE05L16-39070H095130	63	70	39	95	130	16			
PSC6-QE05R16-39070H130180	PSC6-QE05L16-39070H130180	63	70	39	130	180	16			
PSC6-QE05R16-39070H140240	PSC6-QE05L16-39070H140240	63	70	39	140	240	16			
PSC6-QE05R16-39070H240000	PSC6-QE05L16-39070H240000	63	70	39	240	1000	16			

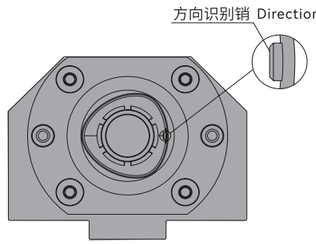
PSC机床适配加紧单元

PSC Machine Adapted Clamping Units

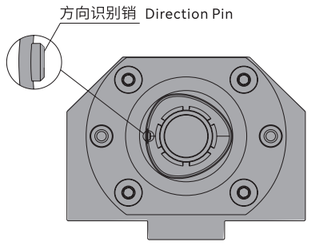


如何正确选择PSC刀具系统
How To Select PSC Tool System

刀座选择　例 Example to Choose PSC Adaptive Units

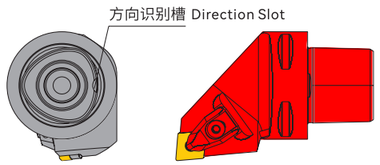


右刀座示例 Right Hand Unit

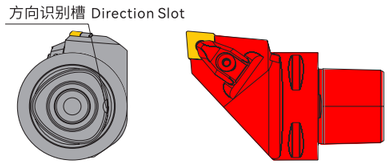


左刀座示例 Left Hand Unit

刀具选择　例 Example to Choose Tools

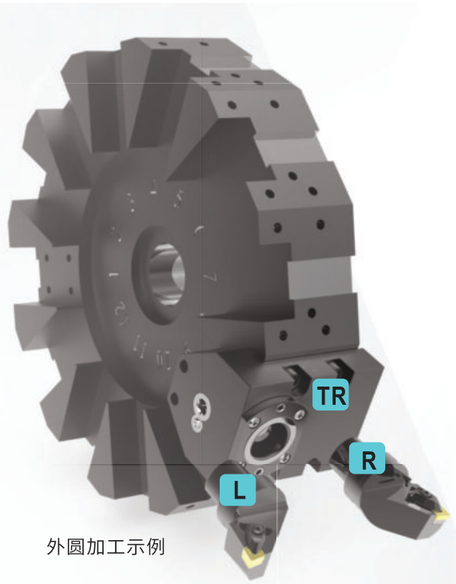


右手刀示例 Right Hand Tool

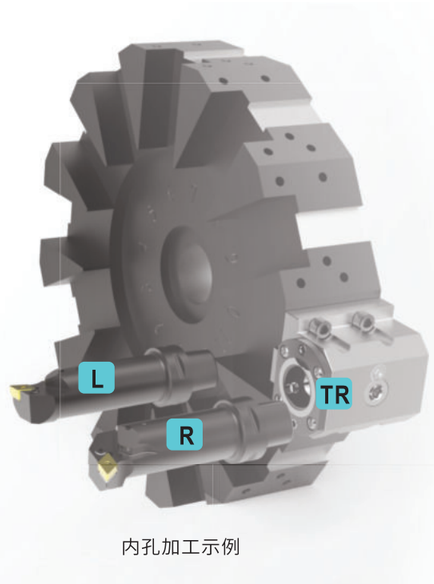


左手刀示例 Left Hand Tool

刀具匹配　例 Example to Choose PSC Tools



外圆加工示例



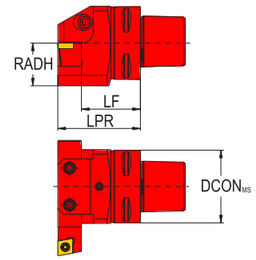
内孔加工示例

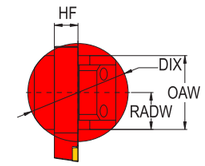
TR 右刀座 Right Hand Unit　　R 右手刀 Right Hand Tool　　L 左手刀 Left Hand Tool

垂直接柄
Vertical Adaptor



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar



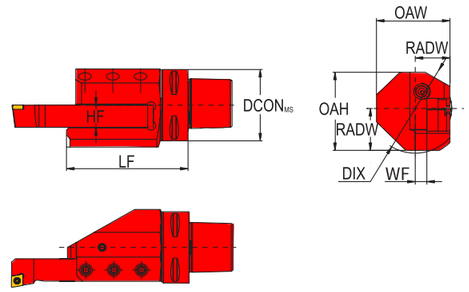


型号	尺寸										
Model	Size(mm)										
	CZC_{WS}	$DCON_{MS}$	LPR	LF	WF	HF	OAW	OAH	RADH	RADW	DIX
PSC5-EGHA-065-20	20x20	50	65	45	32	20	64	69	37	32	85
PSC6-EGHA-070-20	20x20	63	70	50	32	20	64	69	37	32	85
PSC6-EGHA-080-25	25x25	63	80	55	38	25	76	78	46	38	100
PSC6-EGHA-075-25	25x25	80	75	50	38	25	80	86	46	38	103

水平接柄
Horizontal Adaptor



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

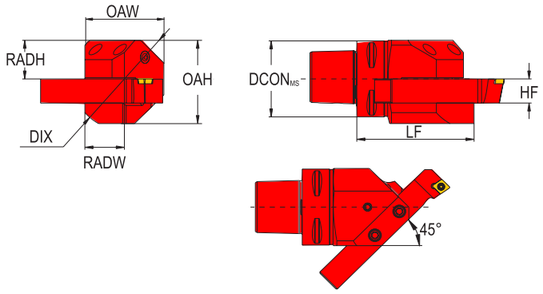


型号		尺寸									
Model		Size(mm)									
右刀Right hand	左刀Left hand	CZC_{WS}	$DCON_{MS}$	LF	WF	HF	OAW	OAH	RADH	RADW	DIX
PSC5-EGHR-095-20	PSC5-EGHL-095-20	20x20	50	95	10	20	55.5	69	37	30	85
PSC6-EGHR-105-2	PSC6-EGHL-105-2	20x20	63	105	10	20	63.5	69	37	30	85
PSC6-EGHR-122-25	PSC6-EGHL-122-25	25x25	63	122	13	25	70	78	46	38	100
PSC8-EGHR-122-25	PSC8-EGHL-122-25	25x25	80	122	15	25	80	86	46	40	103

倾斜接柄
Tilt Adaptor



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

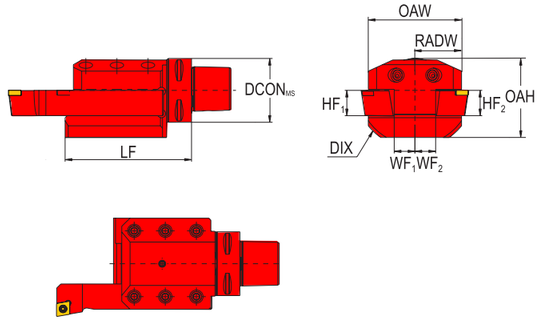


型号		尺寸								
Model		Size(mm)								
右刀Right hand	左刀Left hand	CZC_{WS}	$DCON_{MS}$	LF	HF	OAW	OAH	RADH	RADW	DIX
PSC5-EGHR45-085-20	PSC5-EGHL45-085-20	60	121	45	22	64	64	37	32	85
PSC6-EGHR45-095-20	PSC6-EGHL45-095-20	60	140	50	27	64	64	37	32	85
PSC6-EGHR45-114-25	PSC6-EGHL45-114-25	65	165	60	35	72	72	46	36	100

双工位接柄
Double-Position Adaptor



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

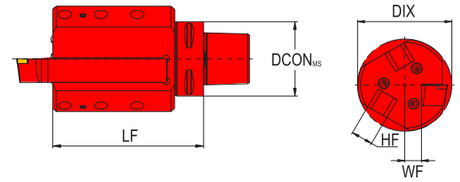


型号	尺寸									
Model	Size(mm)									
	CZC_{WS}	$DCON_{MS}$	LF	WF_1	WF_2	HF_1	HF_2	OAW	OAH	RADW	DIX
PSC6-EGHS-122-25	25x25	63	122	27	27	25	25	90	78	45	114
PSC8-EGHS-122-25	25x25	80	122	35	35	25	25	110	78	55	128

三工位接柄
Three-Position Adaptor



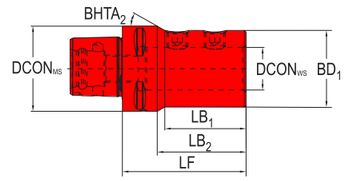
·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar



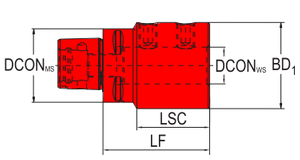
型号		尺寸					
Model		Size(mm)					
右刀Right hand	左刀Left hand	CZC_{WS}	$DCON_{MS}$	LF	WF	HF	DIX
PSC5-EGHA-065-20	PSC5-EGHL3-36123-20	20x20	50	123	16	20	90
PSC6-EGHA-070-20	PSC6-EGHL3-36125-20	20x20	63	125	16	20	90

水平接柄
Horizontal Adaptor

·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar



1



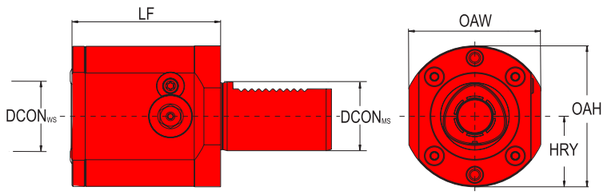
2

型号	尺寸								
Model	Size(mm)								
	$DCON_{MS}$	$DCON_{WS}$	LSC	LF	LB_1	LB_2	BD_1	$BHTA_2$	DSGN
PSC3-EGHI-20 060	32	20	51	60	60	-	40	-	2
PSC3-EGHI-25 080	32	25	57	80	80	-	45	-	2
PSC4-EGHI-20 060	40	20	51	60	60	-	40	-	2
PSC4-EGHI-25 077	40	25	57	77	77	-	45	-	2
PSC4-EGHI-32 088	40	32	61	88	77	-	52	-	2
PSC5-EGHI-20.060	50	20	51	60	37.7	40	40	65°	1
PSC5-EGHI-25 071	50	25	57	71	46.7	51	45	30°	1
PSC5-EGHI-32 075	50	32	61	75	75	-	52	-	2
PSC5-EGHI-40 100	50	40	71	100	100	-	65	-	2
PSC6-EGHI-20 070	63	20	51	70	43.8	48	40	75°	1
PSC6-EGHI-25 070	63	25	57	72	45.8	50	45	65°	1
PSC6-EGHI-32 075	63	32	61	75	49.8	53	52	60°	1
PSC6-EGHI-40 085	63	40	71	85	85	-	65	-	2

VDI接纳器
VDI Clamping Units



·高压冷却设计
· High-pressure cooling design
·冷却液设计压力≤ 80bar
·Coolant pressure ≤ 80bar

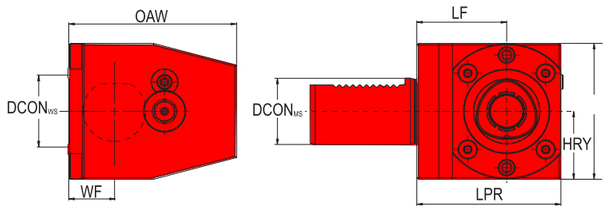


型号		尺寸					
Model		Size(mm)					
右刀Right hand	左刀Left hand	$DCON_{MS}$	$DCON_{WS}$	LF	OAW	OAH	HRY
PSC3-RC2030-00060M	PSC3-LC2030-00060M	30	32	60	50	61	34
PSC4-RC2040-00075M	PSC4-LC2040-00075M	40	40	75	75	75	41
PSC5-RC2040-00085M	PSC5-LC2040-00085M	40	50	85	75	82	41
PSC4-RC2050-00065M	PSC4-LC2050-00065M	50	40	65	70	83	49
PSC5-RC2050-00085M	PSC5-LC2050-00085M	50	50	85	83	90	49
PSC5-RC2060-00075M	PSC5-LC2060-00075M	60	50	75	80	100	58
PSC6-RC2060-00095	PSC6-LC2060-00095	60	63	95	84	111	58

VDI接纳器
VDI Clamping Units



高压冷却设计
High-pressure cooling design
冷却液设计压力≤ 80bar
Coolant pressure ≤ 80bar

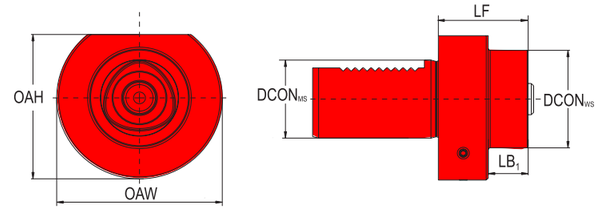


型号		尺寸							
Model		Size(mm)							
右刀Right hand	左刀Left hand	$DCON_{MS}$	$DCON_{WS}$	LPR	LF	WF	OAW	HRY	OAH
PSC3-RC2030-41020M	PSC3-LC2030-41020M	30	32	60	41	20	74	30	57
PSC3-RC2030-41030M	PSC3-LC2030-41030M	30	32	60	41	30	74	30	57
PSC4-RC2040-51030M	PSC4-LC2040-51030M	40	40	75	51	30	86	38	75
PSC4-RC2040-51040M	PSC4-LC2040-51040M	40	40	75	51	40	86	38	75
PSC5-RC2040-53030M	PSC5-LC2040-53030M	40	50	85	53	30	99	41	82
PSC5-RC2040-53040M	PSC5-LC2040-53040M	40	50	85	53	40	99	41	82
PSC5-RC2050-53030M	PSC5-LC2050-53030M	50	50	85	53	30	99	43	86
PSC5-RC2050-53040M	PSC5-LC2050-53040M	50	50	85	53	40	99	43	86
PSC5-RC2060-43040M	PSC5-LC2060-43040M	60	50	75	43	40	99	53	94
PSC6-RC2060-53040	PSC6-LC2060-53040	60	63	95	53	40	122	53	105

VDI接纳器
VDI Clamping Units



·高压冷却设计
· High-pressure cooling design
·冷却液设计压力≤ 80bar
·Coolant pressure ≤ 80bar

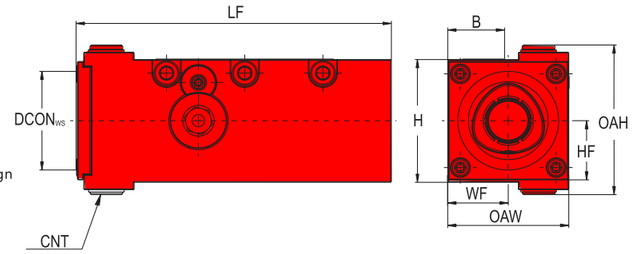


型号	尺寸					
Model	Size(mm)					
	$DCON_{MS}$	$DCON_{WS}$	LB_1	LF	OAW	OAH
PSC3-NC3000-V30-035	30	32	15	35	68	62
PSC4-NC3000-V30-060	30	40	40	60	68	62
PSC3-NC3000-V40-030	40	32	40	30	83	74
PSC4-NC3000-V40-030	40	40	5	30	83	74
PSC5-NC3000-V40-045	40	50	20	45	83	74
PSC6-NC3000-V40-090	40	63	70	90	83	74
PSC3-NC3000-V50-035	50	32	10	35	98	84
PSC4-NC3000-V50-040	50	40	15	40	98	84
PSC5-NC3000-V50-050	50	50	25	50	98	84
PSC6-NC3000-V50-070	50	63	45	70	98	84
PSC8-NC3000-V50-100	50	80	75	100	98	90
PSC5-NC3000-V60-050	60	50	20	50	123	104
PSC6-NC3000-V60-050	60	63	20	50	123	104
PSC8-NC3000-V60-085	60	80	55	85	123	104

方柄接纳器
Rectangular Clamping Units

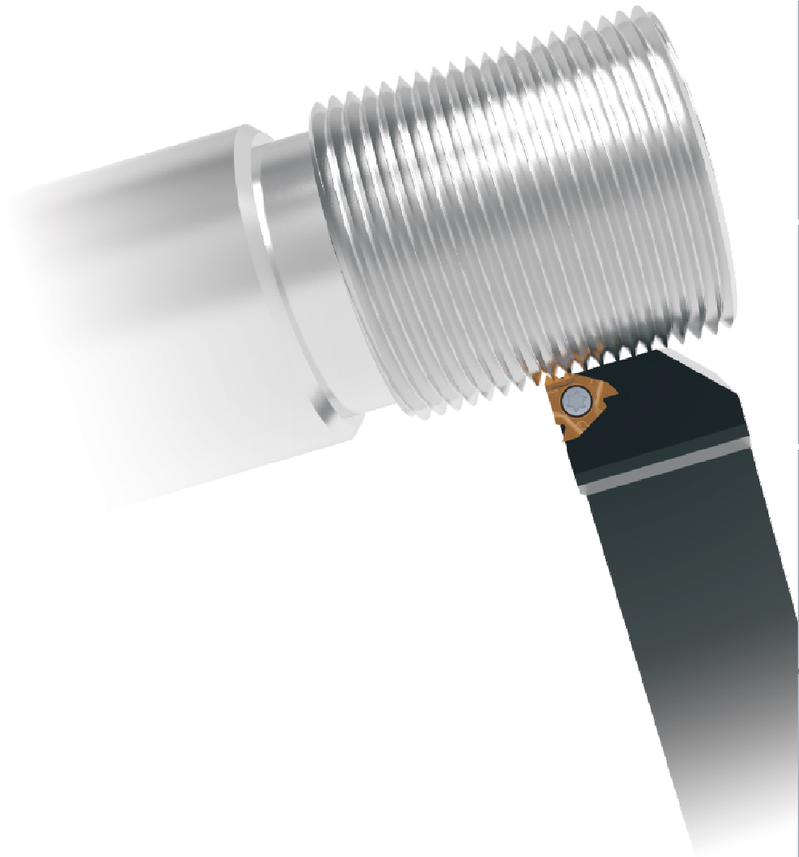


·高压冷却设计
·High-pressure cooling design
·冷却液设计压力≤ 80bar
·Coolant pressure ≤ 80bar

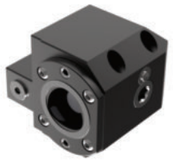


型号		尺寸								
Model		Size(mm)								
右刀Right hand	左刀Left hand	$DCON_{WS}$	B	H	LF	WF	HF	OAW	OAH	CNT
PSC3-RC2085-4038M	PSC3-LC2085-4038M	32	20	40	95	19	20	38	62	G 1/8-28
PSC4-RC2085-5048	PSC4-LC2085-5048	40	25	50	125	24	25	48	58	G 1/8-28
PSC5-RC2085-6464	PSC5-LC2085-6464	50	32	64	146	32	32	64	72	G 1/8-28

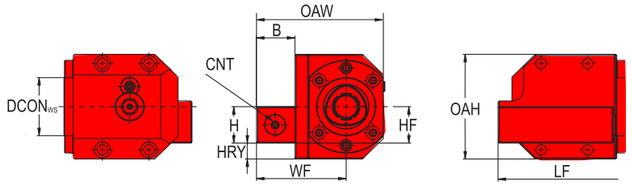
螺纹车削刀具
THREAD TURNING



方柄接纳器
Rectangular Clamping Units



·普通冷却设计
·General cooling design
·冷却液设计压力≤ 10bar
·Coolant pressure ≤ 10bar

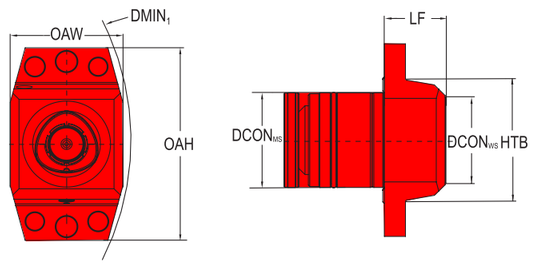


型号		尺寸								
Model		Size(mm)								
右刀Right hand	左刀Left hand	$DCON_{WS}$	B	H	LF	WF	HF	OAW	OAH	CNT
PSC4-RC2080-59110A	PSC4-LC2080-59110A	40	26	25	110	59	25	83	13	G 1/4-19
PSC5-RC2080-77110A	PSC5-LC2080-77110A	50	33	32	110	77	32	109	14	G 1/4-19
PSC6-RC2080-93140	PSC6-LC2080-93140	63	40	40	140	93	40	135	13	G 1/4-19

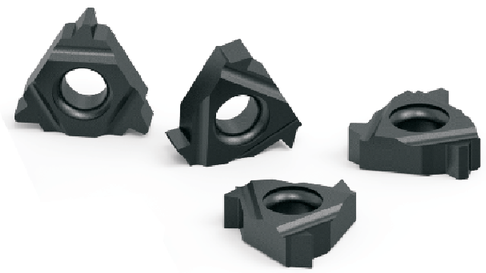
液压法兰接纳器
Hydraulic Clamping Units



·高压冷却设计
·High-pressure cooling design
·冷却液设计压力≤ 80bar
·Coolant pressure ≤ 80bar



型号	尺寸						
Model	Size(mm)						
	$DCON_{WS}$	$DCON_{MS}$	LF	HTB	OAW	OAH	$DMIN_1$
PSC5-NC5030-00035	50	55	35	70	64	112	300
PSC6-NC5030-00040	63	70	40	90	84	143	400
PSC8-NC5030-00050	80	90	50	110	100	180	500



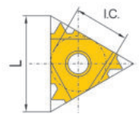
螺纹车削刀具
Thread Turning

- 螺纹刀片命名规则 Code Key for Thread Inserts A187
- 螺纹车削刀片 Thread Turning Inserts A188
- 螺纹车削刀杆命名规则 Code Key for Thread Turning Tools A208
- 螺纹车削刀杆 Thread Turning Tools A209
- 切削参数推荐 Cutting Parameter Recommendations A212

螺纹刀片命名规则
Code Key for Thread Inserts

16	I	R	1.75	ISO
①	②	③	④	⑤

① 刀片尺寸 Insert Size	
L（mm）	I.C
6	3.97mm=5/32"
8	4.76mm=3/16"
11	6.35mm=1/4"
16	9.525mm=3/8"
22	12.7mm=1/2"
27	15.875mm=5/8"



② 切削类型 Cutting Type	
	
E	外螺纹切削 External
I	内螺纹切削 Internal

③ 螺纹旋向 RH/LH Insert	
R	右旋 Right Hand Insert
L	左旋 Left Hand Insert

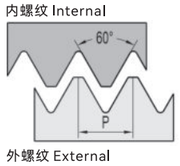
④ 螺距代号 Pitch Code
全牙型 Fulll Thread Profile
（每英寸牙数 Number of Pitch Per Inch）
0.35-9.0mm
72-2 TPI(牙/英寸)
72-2TPI (Tooth/Inch)
V牙型 V Profile
（范围以字母表示 Range by Letter）
mm TPI(牙/英寸)
mm TPI (Tooth/Inch)
A 0.5-1.5 48-16
AG 0.5-3.0 48-8
G 1.75-3.0 14-8
N 3.5-5.0 7-5
U 5.5-9.0 4.5-2.75
Q 5.5-6.0 4.5-4

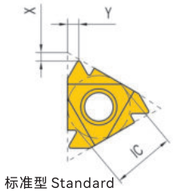
⑤ 螺纹刀片牙型 Thread Profile	
60	通用型螺纹60° Partial Profile 60°
55	通用型螺纹55° Partial Profile 55°
ISO	ISO米制标准螺纹 ISO metric
UN	美 制UN标准螺纹 American UN
NPT	60°美国标准锥管螺纹 NPT
NPTF	60°美国干密封螺纹 NPTF
BSPT	55°英制标准锥管螺纹 British Standard Pipe Thread
ACME	美制29°梯形螺纹 American ACME
UNJ	美制航空航天螺纹 Aemrican Stub ACME
MJ	公制航天螺纹 Metric Aerospace ISO5855
TR	梯形螺纹（DIN103）Trapeze
ABUT	美制锯齿螺纹 American Buttress
SAGE	公制锯齿螺纹 Metric Buttress
RD	圆螺纹 Round (DIN405) Round(DIN405)
API	美制石油管螺纹 American Petroleum Pipe Thread

60°通用型螺纹刀片

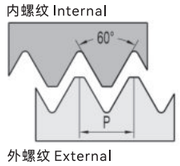
Partial Profile 60°

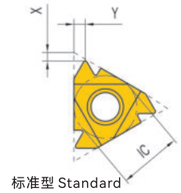
外螺纹 External





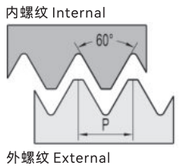
刀片外形	内接圆直径	导程&螺距		型号		尺寸(mm)		
Shape of insert	IC	Lead&Pitch		Type		Dimensions		
		mm	TPI	右旋螺纹 Right hand	左旋螺纹 Left hand	X	Y	T
	1/4"	0.5~1.5	48~16	11ER A 60	11EL A 60	0.80	0.90	
	3/8"	0.5~1.5	48~8	16ER A 60	16EL A 60	1.20	1.70	
		1.75~3.0	14~8	16ER G 60	16EL G 60	1.20	1.70	
		0.5~3.0	48~8	16ER AG 60	16EL AG 60	1.10	1.20	
	1/2"	3.5~5.0	7~5	22ER N 60	22EL N 60	1.60	2.40	
	5/8"	5.5~6.0	4.5~4	27ER Q 60	27EL Q 60	2.30	3.10	

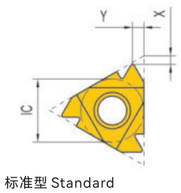




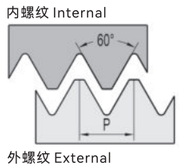
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★					☆									★	
	★			★					☆									★	
	★			★					☆									★	
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	☆			☆					☆									★	
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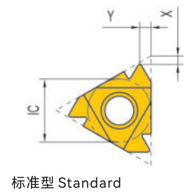
内螺纹 Internal





刀片外形	内接圆直径	导程&螺距		型号		尺寸(mm)		
Shape of insert	IC	Lead&Pitch		Type		Dimensions		
		mm	TPI	右旋螺纹 Right hand	左旋螺纹 Left hand	X	Y	T
	1/4"	0.5~1.5	48~16	11IR A 60	11IL A 60	0.80	0.90	
	3/8"	0.5~1.5	48~16	16IR A 60	16IL A 60	0.80	0.90	
		0.5~3.0	48~8	16IR AG 60	16IL AG 60	1.20	1.70	
		14~8	48~8	16IR G 60	16IL G 60	1.20	1.70	
	1/2"	3.5~5.0	7~5	22IR N 60	22IL N 60	1.60	2.40	





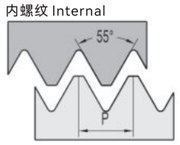
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★					☆									★	
	★			★					☆						★			★	
	★			★					☆						★			★	
	★			★					☆									★	
	☆			☆					☆									★	

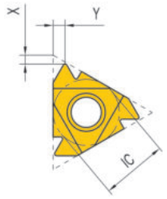
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

55°通用型螺纹刀片

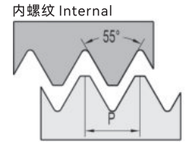
Partial Profile 55°

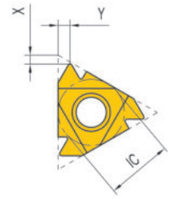
外螺纹 External





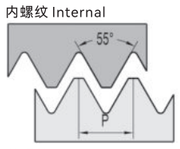
刀片外形	内接圆直径	导程&螺距		型号		尺寸(mm)		
Shape of insert	IC	Lead&Pitch		Type		Dimensions		
		mm	TPI	右旋螺纹 Right hand	左旋螺纹 Left hand	X	Y	T
	1/4"	0.5~1.5	48~16	11ER A 60	11EL A 60	0.80	0.90	
	3/8"	0.5~1.5	48~16	16ER A 55	16EL A 55	0.80	0.90	
		0.5~3.0	48~8	16ER AG 55	16EL AG 55	1.20	1.70	
		1.75~3.0	14~8	16ER G 55	16EL G 55	1.20	1.70	
	1/2"	3.5~5.0	7~5	22ER AG 55	22EL AG 55	1.70	2.50	
		3.5~5.0	7~5	22ER N 55	22EL AG 55	1.70	2.50	

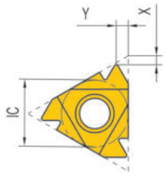




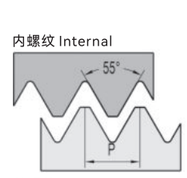
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	☆			☆	☆				☆									★	
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	☆			☆	☆				☆									★	

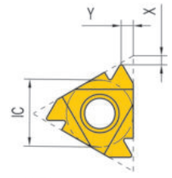
内螺纹 Internal





刀片外形	内接圆直径	导程&螺距		型号		尺寸(mm)		
Shape of insert	IC	Lead&Pitch		Type		Dimensions		
		mm	TPI	右旋螺纹 Right hand	左旋螺纹 Left hand	X	Y	T
	1/4"	0.5~1.5	48~16	11IR A 55	11IL A 55	0.80	0.90	
	3/8"	0.5~1.5	48~16	16IR A 55	16IL A 55	0.80	0.90	
		0.5~3.0	48~8	16IR AG 55	16IL AG 55	1.20	1.70	
		1.75~3.0	14~8	16IR G 55	16IL G 55	1.20	1.70	
	1/2"	3.5~5.0	7~5	22IR N 55	22IL N 55	1.70	2.50	





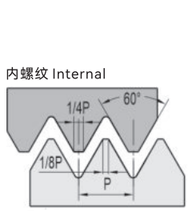
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	☆			☆	☆				☆									★	

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

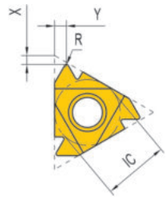
ISO米制60°标准螺纹刀片

ISO Metric 60°

外螺纹 External



外螺纹 External



标准型 Standard

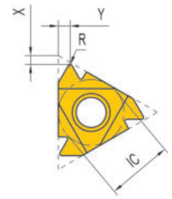
刀片外形	内接圆直径	螺距	型号		尺寸(mm)				
Shape of insert	IC	Pitch	Type		Dimensions				
			右旋螺纹	左旋螺纹	hmin	X	Y	R	T
			Right hand	Left hand					
	1/4"	0.50	11ER 0.50ISO	11EL 0.50ISO	0.29	0.60	0.40	0.072	
		0.75	11ER 0.75ISO	11EL 0.75ISO	0.45	0.60	0.60	0.11	
		0.80	11ER 0.80ISO	11EL 0.80ISO	0.49	0.60	0.60	0.12	
		1.00	11ER 1.00ISO	11EL 1.00ISO	0.60	0.60	0.70	0.14	
		1.25	11ER 1.25ISO	11EL 1.25ISO	0.74	0.60	0.90	0.18	
		1.50	11ER 1.50ISO	11EL 1.50ISO	0.90	0.60	1.00	0.22	
	3/8"	0.50	16ER 0.50ISO	16EL 0.50ISO	0.29	0.60	0.60	0.072	
		0.75	16ER 0.75ISO	16EL 0.75ISO	0.45	0.60	0.60	0.11	
		1.00	16ER 1.00ISO	16EL 1.00ISO	0.60	0.70	0.70	0.14	
		1.25	16ER 1.25ISO	16EL 1.25ISO	0.74	0.80	0.90	0.18	
		1.50	16ER 1.50ISO	16EL 1.50ISO	0.90	0.80	1.00	0.22	
		1.75	16ER 1.75ISO	16EL 1.75ISO	1.06	0.90	1.20	0.25	
		2.00	16ER 2.00ISO	16EL 2.00ISO	1.21	1.00	1.30	0.29	
		2.50	16ER 2.50ISO	16EL 2.50ISO	1.51	1.10	1.50	0.36	
		3.00	16ER 3.00ISO	16EL 3.00ISO	1.83	1.20	1.60	0.43	
	1/2"	3.50	22ER 3.50ISO	22EL 3.50ISO	2.13	1.60	2.30	0.505	
		4.00	22ER 4.00ISO	22EL 4.00ISO	2.44	1.60	2.30	0.577	
		4.50	22ER 4.50ISO	22EL 4.50ISO	2.74	1.70	2.40	0.65	
		5.00	22ER 5.00ISO	22EL 5.00ISO	3.05	1.70	2.50	0.722	
	5/8"	5.50	27ER 5.50ISO	27EL 5.50ISO	3.34	1.90	2.70	0.79	
		6.00	27ER 6.00ISO	27EL 6.00ISO	3.65	2.00	2.90	0.866	



★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

内螺纹 Internal
1/4P
60°
1/8P
P

外螺纹 External



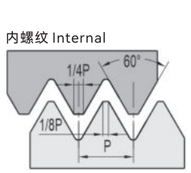
标准型 Standard

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	☆			☆	☆				☆									★	
	☆			☆	☆				☆									★	
	☆			☆	☆				☆									★	
	☆			☆	☆				☆									★	
	☆			☆	☆				☆									★	
	☆			☆	☆				☆									★	
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	★			★	☆				☆									★	
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	★			★	☆				☆									★	
	★			★	☆				☆							★		★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
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	★			★	☆				☆									★	
	★			★	☆				☆									★	

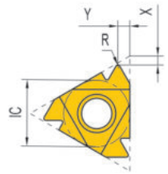
ISO米制60°标准螺纹刀片

ISO Metric 60°

内螺纹 Internal

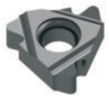


外螺纹 External

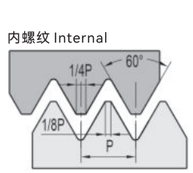


标准型 Standard

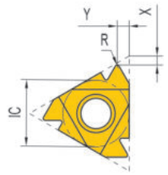
刀片外形	内接圆直径	螺距	型号		尺寸(mm)				
Shape of insert	IC	Pitch	Type		Dimensions				
			右旋螺纹	左旋螺纹	hmin	X	Y	R	T
			Right hand	Left hand					
	1/4"	0.50	11IR 0.50ISO	11IL 0.50ISO	0.29	0.60	0.60	0.04	
		0.75	11IR 0.75ISO	11IL 0.750ISO	0.43	0.60	0.60	0.05	
		1.00	11IR 1.00ISO	11IL 1.00ISO	0.58	0.60	0.60	0.07	
		1.25	111IR 1.25ISO	11IL 1.250ISO	0.72	0.70	0.70	0.09	
		1.50	11IR 1.50ISO	11IL 1.50ISO	0.87	0.80	0.90	0.11	
		1.75	11IR 1.75ISO	11EL 1.50ISO	1.00	0.80	1.00	0.13	
		2.00	11IR 2.00 ISO	11IL 2.00ISO	1.15	0.90	1.20	0.14	
	3/8"	0.50	16IR 0.50ISO	16IL 0.50ISO	0.29	1.00	1.30	0.04	
		0.75	16IR 0.75ISO	16IL 0.75ISO	0.43	0.60	0.60	0.05	
		1.00	16IR 1.00ISO	16IL 1.00ISO	0.58	0.70	0.70	0.07	
		1.25	16IR 1.25ISO	16IL 1.25ISO	0.72	0.80	0.90	0.09	
		1.50	16IR 1.50ISO	16IL 1.50ISO	0.87	0.80	1.00	0.11	
		1.75	16IR 1.75ISO	16IL 1.75ISO	1.00	0.90	1.20	0.13	
		2.00	16IR 2.00ISO	16IL 2.00ISO	1.15	1.00	1.30	0.14	
		2.50	16IR2.50ISO	16IL 2.50ISO	1.43	1.10	1.50	0.18	
		3.00	16IR 3.00ISO	16IL 3.00ISO	1.73	1.10	1.50	0.22	
	1/2"	3.50	22IR 3.50ISO	22IL 3.50ISO	1.98	1.60	2.30	0.25	
		4.00	22IR 4.00ISO	22IL 4.00ISO	2.26	1.60	2.30	0.29	
		4.50	22IR 4.50ISO	22IL 4.50ISO	2.56	1.60	2.40	0.33	
		5.00	22IR 5.00ISO	22IL 5.00ISO	2.83	1.60	2.50	0.36	
	5/8"	5.50	27IR 5.50ISO	27IL 5.50ISO	3.14	1.60	2.30	0.40	
		6.00	27IR 6.00ISO	27IL 6.00ISO	3.39	1.80	2.50	0.43	



★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade



外螺纹 External



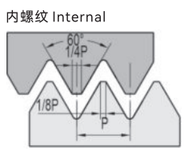
标准型 Standard

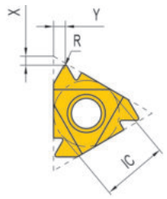
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	☆			☆	☆				☆									★	
	☆			☆	☆				☆									★	
	☆			☆	☆				☆						★			★	
	☆			☆	☆				☆									★	
	☆			☆	☆				☆						★			★	
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	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	

UN美制60°统一标准螺纹刀片

American UN 60°

外螺纹 External

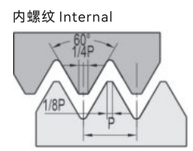


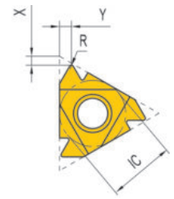


刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
			Type		Dimensions			
Shape of insert	IC	Pitch	右旋螺纹 Right hand	左旋螺纹 Left hand	X	Y	R	T
	1/4"	18	11ER 18UN	11EL 18UN	0.80	1.00	0.203	
	3/8"	32	16ER 32UN	16EL 32UN	0.60	0.60	0.115	
		28	16ER 28UN	16EL 28UN	0.60	0.70	0.131	
		24	16ER 24UN	16EL 24UN	0.70	0.80	0.153	
		20	16ER 20UN	16EL 20UN	0.80	0.90	0.183	
		18	16ER 18UN	16EL 18UN	0.80	1.00	0.203	
		16	16ER 16UN	16EL 16UN	0.90	1.10	0.229	
		14	16ER 14UN	16EL 14UN	1.00	1.20	0.262	
		12	16ER 12UN	16EL 12UN	1.10	1.40	0.306	
		11	16ER 11UN	16EL 11UN	1.10	1.50	0.333	
		10	16ER 10UN	16EL 10UN	1.20	1.50	0.366	
		9	16ER 9UN	16EL 9UN	1.20	1.70	0.407	
		8	16ER 8UN	16EL 8UN	1.20	2.00	0.458	
	1/2"	7	22ER 7UN	22EL 7UN	1.60	2.30	0.524	
		6	22ER 6UN	22EL 6UN	1.60	2.30	0.611	
	5/8"	4.5	27ER 4.5UN	27EL 4.5UN	1.90	2.70	0.815	
		4	27ER 4UN	27EL 4UN	2.10	3.00	0.917	



★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade



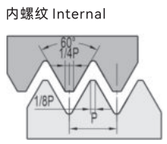


P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
																		★	
	★			★	☆				☆										
	★			★	☆				☆									★

UN美制60°统一标准螺纹刀片

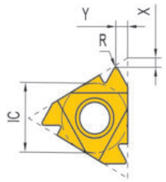
American UN 60°

内螺纹 Internal



内螺纹 Internal

外螺纹 External

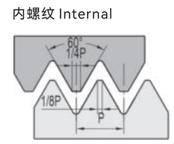


标准型 Standard

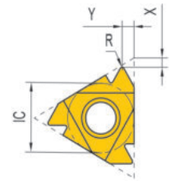
刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
			Type		Dimensions			
Shape of insert	IC	Pitch	右旋螺纹 Right hand	左旋螺纹 Left hand	X	Y	R	T
	1/4"	20	11IR 20UN	11IL 20UN	0.80	0.90	0.09	
		18	11IR 18UN	11IL 18UN	0.80	1.00	0.10	
	3/8"	24	16IR 24UN	16IL 24UN	0.70	0.80	0.08	
		20	16IR 20UN	16IL 20UN	0.80	0.90	0.09	
		18	16IR 18UN	16IL 18UN	0.80	1.00	0.10	
		16	16IR 16UN	16IL 16UN	0.90	1.10	0.12	
		14	16IR 14UN	16IL 14UN	1.00	1.20	0.13	
		12	16IR 12UN	16IL 12UN	1.10	1.40	0.15	
		11	16IR 11UN	16IL 11UN	1.10	1.50	0.17	
		10	16IR 10UN	16IL 10UN	1.10	1.50	0.18	
		8	16IR 8UN	16IL 8UN	1.20	1.50	0.23	
	1/2"	7	22IR 7UN	22IL 7UN	1.60	2.30	0.26	
		6	22IR 6UN	22IL 6UN	1.60	2.30	0.31	
	5/8"	4.5	27IR 4.5UN	27IL 4.5UN	1.90	2.40	0.41	

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

内螺纹 Internal



外螺纹 External



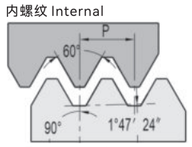
标准型 Standard

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
☆																		★	
☆																			
																		★	
★				★	☆				☆									★	
★				★	☆				☆									★	
★				★	☆				☆									★	
★				★	☆				☆									★	
★				★	☆				☆										
★				★	☆				☆									★	
★				★	☆				☆									★	
																		★	
																		★	
																		★	

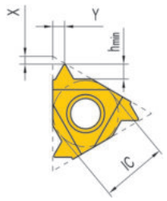
60°美国标准锥管螺纹刀片

NPT 60°

外螺纹 External



外螺纹 External

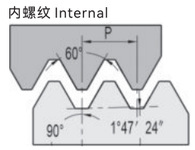


标准型 Standard

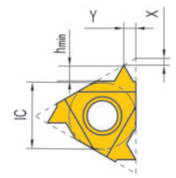
刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
			Type		Dimensions			
Shape of insert	IC	Pitch	右旋螺纹 Right hand	左旋螺纹 Left hand	hmin	X	Y	T
	3/8"	27	16ER 27NPT	16EL 27NPT	0.66	0.70	0.80	
		18	16ER 18NPT	16EL 18NPT	1.01	0.80	1.00	
		14	16ER 14NPT	16EL 14NPT	1.33	0.90	1.20	
		11.5	16ER 11.5NPT	16EL 11.5NPT	1.64	1.10	1.50	
		8	16ER 8NPT	16EL 8NPT	2.42	1.30	1.80	

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★	☆				★										
	★			★	☆				★									★	
	★			★	☆				★									★	
	★			★	☆				★									★	
	★			★	☆				★									★	

内螺纹 Internal



外螺纹 External



标准型 Standard

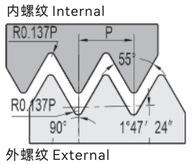
刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
			Type		Dimensions			
Shape of insert	IC	Pitch	右旋螺纹 Right hand	左旋螺纹 Left hand	hmin	X	Y	T
	1/4"	18	11IR 18NPT	11IL 18NPT	1.01	0.80	1.00	
		14	11IR 14NPT	11IL 14NPT	1.33	0.80	1.00	
	3/8"	27	16IR 27NPT	16IL 27NPT	0.66	0.70	0.80	
		18	16IR 18NPT	16IL 18NPT	1.01	0.80	1.00	
		14	16IR 14NPT	16IL 14NPT	1.33	0.90	1.20	
		11.5	16IR 11.5NPT	16IL 11.5NPT	1.64	1.10	1.50	
		8	16IR 8NPT	16IL 8NPT	2.42	1.30	1.80	

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★	☆				☆									★	
	★			★	☆				☆										
	★																	★	
	★			★	☆				☆										
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	

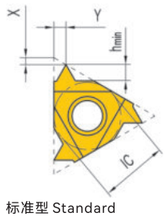
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

55°英制标准锥管螺纹刀片
BSPT 55°

外螺纹 External



外螺纹 External

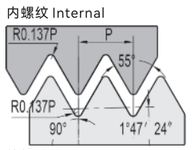


标准型 Standard

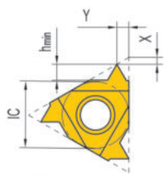
刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
Shape of insert	IC	Pitch	Type		Dimensions			
			右旋螺纹	左旋螺纹	hmin	X	Y	T
			Right hand	Left hand				
	3/8"	28	16ER 28BSPT	16EL 28BSPT	0.58	0.60	0.60	
		19	16ER 19BSPT	16EL 19BSPT	0.86	0.80	0.90	
		14	16ER 14BSPT	16EL 14BSPT	1.16	1.00	1.20	
		11	16ER 11BSPT	16EL 11BSPT	1.48	1.10	1.50	

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★	☆				☆										
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	

内螺纹 Internal



外螺纹 External



标准型 Standard

刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
Shape of insert	IC	Pitch	Type		Dimensions			
			右旋螺纹	左旋螺纹	hmin	X	Y	T
			Right hand	Left hand				
	1/4"	19	11IR 19BSPT	11IL 19BSPT	0.86	0.80	0.90	
		14	11IR 14BSPT	11IL 14BSPT	1.16	0.90	1.00	
	3/8"	19	16IR 19BSPT	16IL 19BSPT	0.86	0.80	0.90	
		14	16IR 14BSPT	16IL 14BSPT	1.16	1.00	1.20	
		11	16IR 11BSPT	16IL 11BSPT	1.48	1.10	1.50	

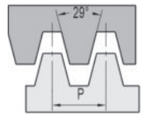
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
	★			★	☆				☆						★			★	
	★			★	☆				☆										
	★			★	☆				☆						★			★	
	★			★	☆				☆						★			★	
	★			★	☆				☆						★			★	

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

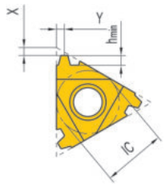
美制29°梯形螺纹刀片
American ACME 29°

外螺纹 External

内螺纹 Internal



外螺纹 External



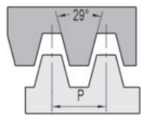
标准型 Standard

刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
			Type		Dimensions			
Shape of insert	IC	Pitch	右旋螺纹	左旋螺纹	hmin	X	Y	T
			Right hand	Left hand				
	3/8"	12	16ER 12ACME	16EL 12ACME	1.20	1.10	1.20	
		10	16ER 10ACME	16EL 10ACME	1.50	1.30	1.40	
		8	16ER 8ACME	16EL 8ACME	1.81	1.40	1.50	
	1/2"	6	22ER 6ACME	22EL 6ACME	2.35	1.70	1.90	
		5	22ER 5ACME	22EL 5ACME	3.20	1.80	2.10	
	5/8"	4	27ER 4ACME	27EL 4ACME	3.55	2.00	2.30	

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
																		★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
	★			★	☆				☆									★	
																		★	
																		★	
																		★	

内螺纹 Internal

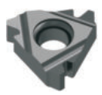
内螺纹 Internal



外螺纹 External



标准型 Standard

刀片外形	内接圆直径	螺距	型号		尺寸(mm)			
			Type		Dimensions			
Shape of insert	IC	Pitch	右旋螺纹	左旋螺纹	hmin	X	Y	T
			Right hand	Left hand				
	3/8"	12	16IR 12ACME	16IL 12ACME	1.20	1.10	1.20	
		10	116IR 10ACME	16IL 10ACME	1.50	1.30	1.40	
		8	16IR 8ACME	16IL 8ACME	1.81	1.40	1.50	
	1/2"	6	22IR 6ACME	22IL 6ACMET	2.35	1.70	1.90	
		5	22IR 5ACME	22IL 5ACME	3.20	1.80	2.10	
	5/8"	4	27IR 4ACME	27IL 4ACME	3.55	2.00	2.30	

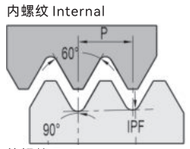
P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
																		★	
	★			★	☆				☆										
	★			★	☆				☆									★	
	★			★	☆				☆									★	
																		★	
																		★	
																		★	

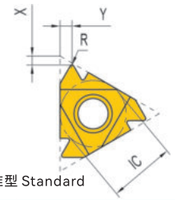
★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

60°API美制石油管螺纹

API 60°

外螺纹 External

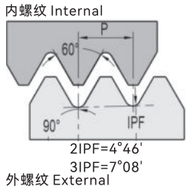


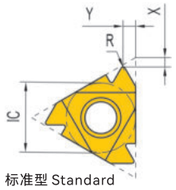


刀片外形	内接圆直径	螺距	型号		锥度	API代码	尺寸(mm)		
Shape of insert	IC	Pitch	Type		Taper		Dimensions		
			右旋螺纹	左旋螺纹			X	Y	T
			Right hand	Left hand					
	1/2"	4	22ER 4API384	22EL 4API384	3	V-0.038R	2.10	2.80	0.965
		4	22ER 4API386	22EL 4API386	2	V-0.038R	2.10	2.80	0.965
		4	22ER 4API504	22EL 4API504	3	V-0.050	2.00	2.90	0.635
		4	22ER 4API506	22EL 4API506	2	V-0.050	2.00	2.90	0.635
		5	22ER 5API404	22EL 5API404	3	V-0.040	1.80	2.60	0.508
	5/8"	4	27ER 4API384	27EL 4API384	3	V-0.038R	2.10	2.80	0.965
		4	27ER 4API386	27EL 4API386	2	V-0.038R	2.10	2.80	0.965
		4	27ER 4API504	27EL 4API504	3	V-0.050	2.10	3.10	0.635
		4	27ER 4API506	27EL 4API506	2	V-0.050	2.10	3.10	0.635
		5	27ER 5API404	27EL 5API404	3	V-0.040	1.90	2.70	0.508

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	

内螺纹 Internal





刀片外形	内接圆直径	螺距	型号		锥度	API代码	尺寸(mm)		
Shape of insert	IC	Pitch	Type		Taper		Dimensions		
			右旋螺纹	左旋螺纹			X	Y	T
			Right hand	Left hand					
	1/2"	4	22IR 4API386	22IL 4API386	2	V-0.038R	2.10	2.80	0.965
		4	22IR 4API506	22IL 4API506	2	V-0.050	2.10	3.10	0.635
		5	22IR 5API404	22IL 5API404	3	V-0.040	1.80	2.60	0.508
	5/8"	4	27IR 4API384	27IL 4API384	3	V-0.038R	2.10	2.80	0.965
		4	27IR 4API386	27IL 4API386	2	V-0.038R	2.10	2.80	0.965
		4	27IR 4API504	27IL 4API504	3	V-0.050	2.10	3.10	0.635
		4	27IR 4API506	27IL 4API506	2	V-0.050	2.10	3.10	0.635
		5	27IR 5API404	27IL 5API404	3	V-0.040	1.90	2.70	0.508

P				M				K				N				S			
BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205	BT2125	BT2225	BT4215	BT5205
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	
		☆				☆				☆								★	

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

螺纹刀杆命名规则
Code Key for Thread Turning Tools

S	U	E	R	25	25	M	16
①	②	③	④	⑤	⑥	⑦	⑧

① 压紧方式	
Clamping	
C	压板压紧式 Rigid clamping
S	螺钉压紧式 Screw

② 刀片形式
Insert Form

V:立装刀片 Vertical

U:U形刀片 U Type


③ 螺纹形式	
External / Internal	
E	外螺纹 External
I	内螺纹 Internal

④ 切削方向	
Cutting Direction	
R	□□□ Internal
	□□□ External
L	□□□ Internal
	□□□ External

⑤ 刀体高度
Tool Height
圆刀杆用00表示 Round tool holder is expressed by 00

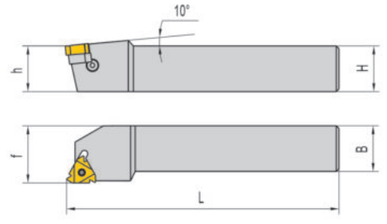
⑥ 刀体宽度
Tool width
圆刀杆用直径表示 Round tool holder is expressed by diameter

⑦ 刀杆长度	
Tool Length	
代号 Code	长度 Length
F	80
H	100
K	125
M	150
P	170
R	200

⑧ 刀片尺寸			
Insert Dimension			
图例 Legend	代号 Code	三角形边长 Triangel side L	内切圆 Incircle
	8	4.76	8
	11	6.35	11
	16	9.525	16
	22	12.7	22
	27	15.875	27

螺钉压紧式外螺纹车刀杆
Screw Clamping Holders For External Threading





型号		库存		适用刀片	尺寸(mm)					刀垫	刀片螺钉	刀垫螺钉	板手
Type		Stock Item		Availabie inserts	Dimensions					Shim	Screw	Shim Screw	Torx Key
右刀 Right hand	左刀 Left hand	R	L		h	L	H	B	f				
SER1212F11	SEL1212F11			11ER/L...	12	125	12	12	12	-	M2.5*8	-	T8
SER1212F16	SEL1212F16			16ER/L...	16	80	12	12	16	ANE/I16	M3.5*9	M3*6N	T15
SER1616H16	SEL1616H16				16	100	16	16	16		M3.5*9		
SER2020K16	SEL2020K16				20	125	20	20	20				
SER2525M16	SEL2525M16				25	150	25	25	25				
SER3232P16	SEL3232P16				32	170	32	32	32				
SER2525M22	SEL2525M22			22ER/L...	25	150	25	25	25	ANE/I22	M4*16	M4*6N	T15
SER3232P22	SEL3232P22				32	170	32	32	32				
SER4040R22	SEL4040R22				40	200	40	40	40				
SER3232P27	SEL3232P27			27ER/L...	32	170	32	32	32		M5*20	M4*6N	
SER4040R27	SEL4040R27				40	200	40	40	40				

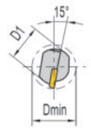
注：以上刀杆均有1.5°螺旋角，请参考技术资料选择不同刀垫以形成不同的螺旋角。

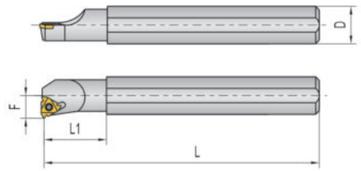
Note: All the tool holders above have a 1.5°helix angle,Please choose proper shim for different helix angle reference to the technical documents.

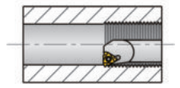
螺钉压紧式内螺纹车刀杆

Screw Clamping Holder For Internal Threading









型号		库存		适用刀片	尺寸(mm)						刀片螺钉	扳手	刀垫
Type		Stock Item		Availabie inserts	Dimensions						Screw	Torx Key	Shim
右刀	左刀	R	L		D	D1	L	L1	F	Dmin			
Right hand	Left hand												
SIR0008K08	SIL0008K08			08IR/L...	8	7	125	20	5.50	9.90	M2.5*5	T6	-
SIR0010K11	SIL0010K11			11IR/L...	10	9	125	25	7.30	13	M2.5*5	T8	-
SIR0012K11	SIL0012K11				12	11	125	28	8.40	15			
SIR0013M16	SIL0013M16				13	15	150	32	10.20	17	M3.5*9	T15	-
SIR0016Q16	SIL0016Q16				16	15	180	40	11.5	20			-
SIR0020Q16	SIL0020Q16			16IR/L...	20	20	180	-	13.70	40	M3.5*12		ANI/E16
SIR0025R16	SIL0025R16				25	25	200	-	16.20	45			
SIR0032S16	SIL0032S16				32	32	250	-	19.70	50			
SIR0040T16	SIL0040T16				40	400	300	-	23.70	55			
SIR0050U16	SIL0050U16				50	50	350	-	28.70	60			
SIR0020Q22	SIL0020Q22			22IR/L...	20	20	180	-	15.60	24	M4*16	T20	-
SIR0025R22	SIL0025R22				25	25	200	-	18.10	29			ANI/E22
SIR0032S22	SIL0032S22				32	32	250	-	21.60	38			
SIR0040T22	SIL0040T22				40	40	300	-	25.60	46			
SIR0050U22	SIL0050U22				50	50	350	-	30.60	56			
SIR0032S27	SIL0032S27			27IR/L...	32	32	250	-	22.60	40	M5*20	T20	ANI/E27
SIR0040T27	SIL0040T27				40	40	300	-	26.60	48			
SIR0050U27	SIL0050U27				50	50	350	-	31.60	58			

注：以上刀杆均有1.5°螺旋角，请参考技术资料选择不同刀垫以形成不同的螺旋角。

Note: All the tool holders above have a 1.5°helix angle,Please choose proper shim for different helix angle reference to the technical documents.

螺纹刀垫

Shim For Threading Inserts



ER/IL



IR/EL



UE/UI

刀片尺寸		刀杆	刀垫编号						
Insert size		Tool holder	Shim Dimension						
IC.	L		β=4.5°	β=3.5°	β=2.5°	β=1.5°	β=0.5°	β=-0.5°	β=-1.5°
3/8"	16	ER/IL16	ANE16-3P	ANE16-2P	ANE16-2P	ANE16	ANE16-1N	ANE16-2N	ANE16-3N
		IR/EL16	ANI16-3P	ANI16-2P	ANI16-2P	ANI16	ANI16-1N	ANI16-2N	ANI16-3N
1/2"	22	ER/IL22	ANE22-3P	ANE22-2P	ANE22-2P	ANE22	ANE22-1N	ANE22-2N	ANE22-3N
		IR/EL22	ANI22-3P	ANI22-2P	ANI22-2P	ANI22	ANI22-1N	ANI22-2N	ANI22-3N
		UE22	AUE22-3P	AUE22-2P	AUE22-2P	AUE22	AUE22-1N	AUE22-2N	AUE22-3N
		UI22	AUI22-3P	AUI22-2P	AUI22-2P	AUI22	AUI22-1N	AUI22-2N	AUI22-3N
5/8"	27	ER/IL27	ANE27-3P	ANE27-2P	ANE27-2P	ANE27	ANE27-1N	ANE27-2N	ANE27-3N
		IR/EL27	ANI27-3P	ANI27-2P	ANI27-2P	ANI27	ANI27-1N	ANI27-2N	ANI27-3N
		UE27	AUE27-3P	AUE27-2P	AUE27-2P	AUE27	AUE27-1N	AUE27-2N	AUE27-3N
		UI27	AUI27-3P	AUI27-2P	AUI27-2P	AUI27	AUI27-1N	AUI27-2N	AUI27-3N

刀垫 标准内外螺纹刀杆的螺旋升角为1.5°

Shim The helix angle of the standard internal and external thread tool holder is 1.5°

切削参数推荐

Recommended Cutting Parameters

ISO	材料 Materials	单位切削力 Cutting force N/mm2	布氏硬度 Hardness HB	切削速度Vc(m/min) 涂层 Coated BT2125	涂层 Coated BT2225	涂层 Coated BT4215	未涂层 Uncoated BT5205
P	非合金钢 Carbon steel						
	C=0.1-0.25%	1500	125		140-250		
	C=0.25-0.55%	1600	150		130-220		
	C=0.55-0.80%	1700	170		130-220		
	低合金钢（合金元素≤5%）Low alloy steel						
	非淬硬钢 Non-hardened	1700	180		90-200		
	轴承钢 Bearing steel	1800	210		70-170		
	调质 Tempering steel	1850	275		90-120		
	调质 Tempering steel	2050	350		80-170		
	高合金钢（合金元素 > 5%）High alloy steel						
	退火 Anneal	1950	200		50-120		
	淬硬工具钢 Quenched tool steel	3000	325		60-140		
	铸钢 Cast steel						
	非合金 Non-alloy	1550	180		50-120		
	低合金（合金元素≤5%）Low alloy	1600	200		120-210		
	高合金（合金元素 > 5%）High alloy	2050	225		90-120		
M	铁素体/马氏体/棒材/锻件 Ferrite/Martensite forged						
	非淬硬 Non-hardened	1800	200	70-170			
	沉淀硬化 Precipitation hardening	2850	330	90-180			
	淬硬 Hardened	2350	330	60-150			
	奥氏体 棒材/锻件 Austenite forged						
	奥氏体 Austenite	1800	180	90-180			
	沉淀硬化 Precipitation hardening	2850	330	60-150			
	超级奥氏体 Super austenite	2250	200	60-150			
	奥氏体-铁素体（双相）棒材/锻件 Duplex forged						
	不可焊接≥0.05% C Unweldable	2000	230	40-70			
	可焊接 < 0.05% C Welding	2450	260	30-50			
	铁素体/马氏体 铸件 Ferrite/Martensite cast-on						
	非淬硬 Non-hardened	1700	200	30-40			
	沉淀硬化 Precipitation hardening	2450	330	15-25			
	淬硬钢 Hardened	2150	330	15-30			
	奥氏体 铸件 Austenite cast-on						
	奥氏体 Austenite	1700	180	25-45			
	沉淀硬化 Precipitation hardening	2450	330	15-30			
	超级奥氏体 Super austenite	2150	200	15-30			
	奥氏体-铁素体（双相）铸件 Duplex cast-on						
	不可焊接≥0.05% C Unweldable	1800	230	15-30			
	可焊接 < 0.05% C Welding	2250	260	15-30			

ISO	材料 Materials	单位切削力 Cutting force N/mm2	布氏硬度 Hardness HB	切削速度Vc(m/min) 涂层 Coated BT2125	涂层 Coated BT2225	涂层 Coated BT4215	未涂层 Uncoated BT5205
K	可锻铸铁 Malleable cast-iron						
	铁素体（短切屑）Ferrite (short chip)	790	130		100-200		
	珠光体（长切屑）Pearlite (long chip)	900	230		90-180		
	灰口铸铁 Gray cast iron						
	低抗拉强度 Low tensile strength	890	180		190-300		
		970	220		120-220		
	球墨铸铁 SG Nodular cast iron						
	铁素体 Ferrite	900	160		190-300		
	珠光体 Pearlite	1350	250		120-220		
	马氏体 Martensite	2100	380		140-240		
N	铝合金 Aluminium alloy						
		400	60				600-1000
	锻造或锻造加时效处理 Forging with aging treatment	650	100				400-600
	铝合金 Aluminium alloy						
	铸造，非时效 Cast-on, non-aging	600	75				280-830
	铸造或铸造加时效处理Cast on with aging treatment	700	90				300-510
	铝合金 Aluminium alloy						
	铸造，13-15% 硅 Cast-on,13-15% silicon	700	130				200-400
	铸造，16-22% 硅 Cast-on,16-22% silicon	700	130				120-200
	铜和铜合金 Copper and copper alloy						
	易切合金，≥1% 铅 Easy to cut，≥1% lead	550	110				90-150
	黄铜，铅青铜，≤1%铅 Brass ≤1% lead	550	90				200-510
		1350	100				130-300
S	高温合金 铁基 Superalloy，iron-based						
		2400	200			50-70	
		2500	280			30-50	
	镍基 Nickel base						
	退火或固溶处理 Annealing	2650	250			30-50	
		2900	350			20-40	
		3000	320			20-40	
	钴基 Cobalt base						
	退火或固溶处理 Annealing	2700	200			30-50	
		3000	300			20-40	
		3100	320			20-40	
	钛合金2）Titanium alloy		Rm3)				
	商业纯（99.5% Ti）Unalloyed Titanium	1300	400				
	α，近α与α+β合金，退火 Annealing （α+β）	1400	950			120-140	
		1400	1050			40-60	

A

小径镗刀
SMALL HOLE BORING TOOLS



- 高性能合金基体材料
  High performance HM grade .
- 高品质的涂层
  High-quality coating.
- M系列镗刀市场流通最多，通用型，普遍接受度比较好
  M series boring tools have the most circulation in the market, are general-purpose, and are generally accepted.
- HX系列后定位高精度镗刀针对小零件的高质量加工而优化，高精度加工，重复性好（免对刀），加工尺寸稳定
  HX series high-precision boring tools are optimized for high-quality machining of small parts, high-precision, good repeatability (no tool setting), and stable dimensions.
- 接受非标定制
  Accept specific customization.

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

小径镗刀
Small Boring Tool Overview

- **M型侧固式小径镗刀命名规则**
  Code Key For M-Type Side Fixed Small-Diameter Boring Tools A216
- MTR 通用车削小径镗刀
  MTR General Purpose Boring Bars A220
- MPR 仿形车削小径镗刀
  MPR Profiling Boring Bars A222
- MXR 反向车削小径镗刀
  MXR Back Turning Bars A224
- MUR 平底仿形车削小径镗刀
  MUR Profiling, 90° Face Cutting Bars A225
- MQR 仿形车削小径镗刀
  MQR Profiling Boring Bars A226
- MGR 内孔径向槽刀
  MGR Internal Grooving Bars A227
- MKR 内孔圆头径向槽刀
  MKR Full Radius Grooving Bars A229
- MFR 内孔轴向槽刀
  MKR Full Radius Grooving Bars A230
- MFL 内孔轴向槽刀
  MFR Internal Face Grooving Bars A231
- MZR 内孔轴向圆头槽刀
  MZR Internal Face Round Grooving Bars A232
- MZL 内孔轴向圆头槽刀
  MZL Internal Face Round Grooving Bars A233
- MIR 微型内孔泛牙螺纹镗刀
  MIR Micro Hole Threading Bars A234

- **HX型镗刀编码规则**
  HX Type Boring Tool Coding Rules A236
- HX型后定位式高精度合金车削镗刀
  HX Type Rear Positioning High-Precision Alloy Turning Boring Tool A236
- HXC 高精度通用车削小径镗刀
  HXC High-Precision Boring Bars A238
- HXD 高精度仿形车削小径镗刀
  HXD High-Precision Profiling And Boring Bars A241
- HXF 高精度内孔径向槽刀
  HXF High-Precision Grooving Bars A244
- HXR 高精度内孔径向圆头槽刀
  HXR High-Precision Full Radius Grooving Bars A249
- HXFG 高精度内孔轴向槽刀
  HXFG High-Precision Grooving Bars A251
- HXRG 高精度内孔轴向圆头槽刀
  HXRG High-Precision Face Grooving Bars A252
- HXT 微型高精度螺纹镗刀
  HXT Micro Hole High-Precision Threading Bars A253
- SHB 变径套及配件
  SHB Reducing Sleeve And Accessories A255
- HXO 变径套及配件
  HXO Reducing Sleeve And Accessories A256
- 切削参数推荐
  Cutting Parameter Recommandations A257

小径镗刀
Small Boring Tool Overview

MIR系列产品
MIR series products

MTR-通用车镗刀
MIR series products



最小加工孔径：0.7MM
Minimum machining aperture: 0.7MM

MXR-反向车镗刀
MXR-Back Turning Bars



最小加工孔径：4.1MM
Minimum machining aperture: 4.1MM

MQR-仿形车镗加工
MQR-Profiling and Boring Bars



最小加工孔径：4.1MM
Minimum machining aperture: 4.1MM

MKR-内孔径向圆头槽刀
MKR-Full Radius Grooving Bars



最小加工孔径：4.1MM
Minimum machining aperture: 4.1MM

MZL,MZR-内孔轴向圆头槽刀
MZL, MZR-Face Grooving Bars



最小加工孔径：5.0MM
Minimum machining aperture: 5.0MM

MPR-仿形车镗刀
MPR-Profiling and Boring Bars



最小加工孔径：1.0MM
Minimum machining aperture: 1.0MM

MUR-仿形平底车镗刀
MUR-Profiling, 90° Face Cutting Bars



最小加工孔径：3.1MM
Minimum machining aperture: 3.1MM

MGR-内孔径向槽刀
MGR-Grooving Bars



最小加工孔径：3.1MM
Minimum machining aperture: 3.1MM

MFR,MFL-内孔轴向槽刀
MFR, MFL- Face Grooving Bars



最小加工孔径：5.0MM
Minimum machining aperture: 5.0MM

MIR-微型内孔泛牙螺纹镗刀
MIR-Micro Hole Threading Bars



最小加工孔径：3.2MM
Minimum machining aperture: 3.2MM

HX系列产品
HX series products

HXC-高精度通用车削镗刀
HXC-High-Precision Boring Bars



最小加工孔径：0.5MM
Minimum machining aperture: 0.5MM

HXF-高精度内孔径向槽刀
HXF-High-Precision Grooving Bars



最小加工孔径：4.2MM
Minimum machining aperture: 4.2MM

HXFG-高精度内孔轴向槽刀
HXFG-High-Precision Grooving Bars



最小加工孔径：6.2MM
Minimum machining aperture: 6.2MM

HXT-微型高精度螺纹镗刀
HXT-Micro High-Precision
Thread Boring Bars



最小加工孔径：2.0MM
Minimum machining aperture: 2.0MM

HXD-高精度仿形车削镗刀
HXD-High-Precision Profiling
And Boring Bars



最小加工孔径：0.5MM
Minimum machining aperture: 0.5MM

HXR-高精度内孔径向圆头槽刀
HXR-High-Precision Full Radius
Grooving Bars



最小加工孔径：4.2MM
Minimum machining aperture: 4.2MM

HXRG-高精度内孔轴向圆头槽刀
HXRG-High-Precision Full Radius
Grooving Bars



最小加工孔径：6.2MM
Minimum machining aperture: 6.2MM

M 系列镗刀编号规则

Code Key For M Series Boring Tools

M	T	R	D4	R0.2	d4	L22	50
①	②	③	④	⑤	⑥	⑦	⑧

型号表示规则中各代号表示如下:

The codes in the model indication rules are expressed as follows:

① 压紧方式 Clamping method	
M	侧压固定式 Side pressure fixed

② 加工方式 Machining method	
T	侧压固定式 Side pressure fixed
P	98°切入角仿形车削 98° Approach angle profile turning
X	反向车削 Back turning
U	90°切入角仿形车削 90° Approach angle profiling turning
Q	98°切入角深仿形车削 98° Approach angle deep profile turning
G	径向切槽 Radial grooving
K	径向圆头切槽 Radial ball grooving
F	轴向切槽 Axial grooving
Z	轴向圆头切槽 Axial ball grooving
I	螺纹车削 Thread turning

③刀具刃口方向 Tool cutting edge direction	
R	右手刀 Right hand knife
L	左手刀 Left hand knife

④刀具柄部直径 Tool shank diameter	
D4	柄径4mm Shank diameter 4mm
D5	□□5mm Shank diameter 5mm
...	.....

⑤刀尖圆角 Tool radius	
R0.1	刀尖圆角R0.1 Corner radius R0.1
R0.2	刀尖圆角R0.2 Corner radius R0.2
A55	特殊尺寸 Special size
...	.....

⑦有效切削长度 effective cutting length	
L10	有效切削长度10mm Effective cutting length 10mm
L22	有效切削长度22mm Effective cutting length 22mm
...	.....

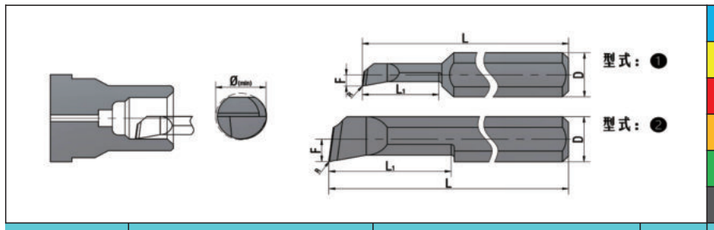
⑧刀具总长 overall tool length	
40	总长40mm Overall length 40mm
50	□□50mm Overall length 50mm
...	.....

⑥理论最小加工孔径 minimum hole diameter	
d0.1	理论最小加工孔径Ø0.7mm Minimum machining hole Ø0.7mm
d1.5	理论最小加工孔径Ø1.5mm Minimum machining hole Ø1.5mm
d2.0	理论最小加工孔径Ø2.0mm Minimum machining hole Ø2.0mm
d3.0	理论最小加工孔径Ø3.0mm Minimum machining hole Ø3.0mm
d4.0	理论最小加工孔径Ø4.0mm Minimum machining hole Ø4.0mm
d5.0	理论最小加工孔径Ø5.0mm Minimum machining hole Ø5.0mm
...	.....



MTR 通用车削小径镗刀

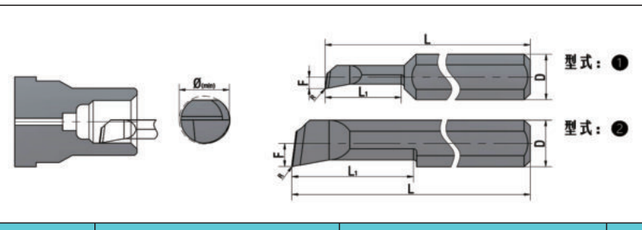
MTR General Purpose Boring Bars



P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
3	MTR-D3-R0.05-d0.7-L3-40	40.00	3.00	0.05	0.25	①	0.70	☆	☆	☆
	MTR-D3-R0.05-d0.7-L5-40	40.00	5.00	0.05	0.25	①	0.70	☆	☆	☆
	MTR-D3-R0.05-d1-L4-40	40.00	4.00	0.05	0.35	①	1.00	★	★	☆
	MTR-D3-R0.05-d1-L6-40	40.00	6.00	0.05	0.35	①	1.00	★	★	☆
	MTR-D3-R0.1-d1.5-L6-40	40.00	6.00	0.10	0.65	①	1.50	★	★	☆
4	MTR-D4-R0.05-d2-L5-50	50.00	5.00	0.05	0.90	①	2.10	★	★	☆
	MTR-D4-R0.05-d2-L10-50	50.00	10.00	0.05	0.90	①	2.10	★	★	☆
	MTR-D4-R0.05-d3-L15-50	50.00	5.00	0.10	0.90	①	2.10	★	★	☆
	MTR-D4-R0.1-d2-L10-50	50.00	10.00	0.10	0.90	①	2.10	★	★	☆
4	MTR-D4-R0.05-d3.1-L10-50	50.00	10.00	0.05	1.40	①	3.10	★	★	☆
	MTR-D4-R0.05-d3.1-L15-50	50.00	15.00	0.05	1.40	①	3.10	★	★	☆
	MTR-D4-R0.1-d3.1-L10-50	50.00	10.00	0.10	1.40	①	3.10	★	★	☆
	MTR-D4-R0.1-d3.1-L15-50	50.00	15.00	0.10	1.40	①	3.10	★	★	☆
	MTR-D4-R0.2-d3.1-L10-50	50.00	10.00	0.20	1.40	①	3.10	★	★	☆
	MTR-D4-R0.2-d3.1-L15-50	50.00	15.00	0.20	1.40	①	3.10	★	★	☆
4	MTR-D4-R0.05-d4.1-L10-50	50.00	10.00	0.05	1.90	②	4.10	★	★	☆
	MTR-D4-R0.05-d4.1-L15-50	50.00	15.00	0.05	1.90	②	4.10	★	★	☆
	MTR-D4-R0.1-d4.1-L10-50	50.00	10.00	0.10	1.90	②	4.10	★	★	☆
	MTR-D4-R0.1-d4.1-L15-50	50.00	15.00	0.10	1.90	②	4.10	★	★	☆
	MTR-D4-R0.1-d4.1-L22-50	50.00	22.00	0.10	1.90	②	4.10	★	★	☆
	MTR-D4-R0.1-d4.1-L30-60	60.00	30.00	0.10	1.90	②	4.10	☆	☆	☆
	MTR-D4-R0.2-d4.1-L10-50	50.00	10.00	0.20	1.90	②	4.10	★	★	☆
	MTR-D4-R0.2-d4.1-L15-50	50.00	15.00	0.20	1.90	②	4.10	★	★	☆
	MTR-D4-R0.2-d4.1-L22-50	50.00	22.00	0.20	1.90	②	4.10	★	★	☆
	MTR-D4-R0.2-d4.1-L30-60	60.00	30.00	0.20	1.90	②	4.10	☆	☆	☆
5	MTR-D5-R0.05-d5.1-L15-50	50.00	15.00	0.05	2.40	②	5.10	★	★	☆
	MTR-D5-R0.1-d5.1-L15-50	50.00	15.00	0.10	2.40	②	5.10	★	★	☆
	MTR-D5-R0.1-d5.1-L22-50	50.00	22.00	0.10	2.40	②	5.10	★	★	☆
	MTR-D5-R0.1-d5.1-L30-60	60.00	30.00	0.10	2.40	②	5.10	★	★	☆
	MTR-D5-R0.2-d5.1-L15-50	50.00	15.00	0.20	2.40	②	5.10	★	★	☆
	MTR-D5-R0.2-d5.1-L22-50	50.00	22.00	0.20	2.40	②	5.10	★	★	☆
	MTR-D5-R0.2-d5.1-L30-60	60.00	30.00	0.20	2.40	②	5.10	★	★	☆

图示：右手刀 Pictured: right hand knife
订货示例：MTR-D4-R0.1-d1.5-L6-40 BB2105 Ordering example: MTR-D4-R0.1-d1.5-L6-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock



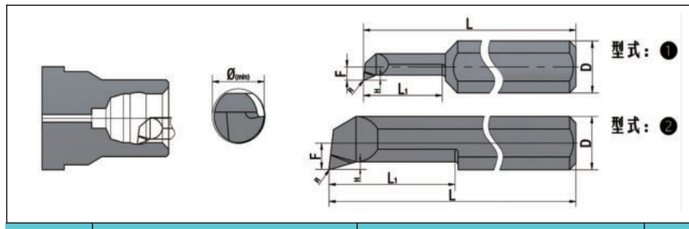
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
6	MTR-D6-R0.05-d6.1-L15-50	50.00	15.00	0.05	2.90	②	6.10	★	★	☆
	MTR-D6-R0.05-d6.1-L22-50	50.00	22.00	0.05	2.90	②	6.10	★	★	☆
	MTR-D6-R0.1-d6.1-L15-50	50.00	15.00	0.10	2.90	②	6.10	★	★	☆
	MTR-D6-R0.1-d6.1-L22-50	50.00	22.00	0.10	2.90	②	6.10	★	★	☆
	MTR-D6-R0.1-d6.1-L30-60	60.00	30.00	0.10	2.90	②	6.10	★	★	☆
	MTR-D6-R0.1-d6.1-L35-75	75.00	35.00	0.10	2.90	②	6.10	☆	☆	☆
	MTR-D6-R0.2-d6.1-L15-50	50.00	15.00	0.20	2.90	②	6.10	★	★	☆
	MTR-D6-R0.2-d6.1-L22-50	50.00	22.00	0.20	2.90	②	6.10	★	★	☆
	MTR-D6-R0.2-d6.1-L30-60	60.00	30.00	0.20	2.90	②	6.10	★	★	☆
	MTR-D6-R0.2-d6.1-L35-75	75.00	35.00	0.20	2.90	②	6.10	☆	☆	☆
7	MTR-D7-R0.1-d7.1-L22-60	60.00	22.00	0.10	3.40	②	7.10	☆	☆	☆
	MTR-D7-R0.1-d7.1-L30-60	60.00	30.00	0.10	3.40	②	7.10	☆	☆	☆
	MTR-D7-R0.2-d7.1-L22-60	60.00	22.00	0.20	3.40	②	7.10	☆	☆	☆
	MTR-D7-R0.2-d7.1-L30-60	60.00	30.00	0.20	3.40	②	7.10	☆	☆	☆
8	MTR-D8-R0.1-d8.1-L15-60	60.00	15.00	0.10	3.90	②	8.10	★	★	☆
	MTR-D8-R0.1-d8.1-L22-60	60.00	22.00	0.10	3.90	②	8.10	★	★	☆
	MTR-D8-R0.1-d8.1-L30-60	60.00	30.00	0.10	3.90	②	8.10	★	★	☆
	MTR-D8-R0.1-d8.1-L35-75	75.00	35.00	0.10	3.90	②	8.10	☆	☆	☆
	MTR-D8-R0.1-d8.1-L45-75	75.00	45.00	0.10	3.90	②	8.10	☆	☆	☆
	MTR-D8-R0.2-d8.1-L15-60	60.00	15.00	0.20	3.90	②	8.10	★	★	☆
	MTR-D8-R0.2-d8.1-L22-60	60.00	22.00	0.20	3.90	②	8.10	★	★	☆
	MTR-D8-R0.2-d8.1-L30-60	60.00	30.00	0.20	3.90	②	8.10	★	★	☆
	MTR-D8-R0.2-d8.1-L35-75	75.00	35.00	0.20	3.90	②	8.10	☆	☆	☆
	MTR-D8-R0.2-d8.1-L45-75	75.00	45.00	0.20	3.90	②	8.10	☆	☆	☆
10	MTR-D10-R0.2-d10.1-L35-75	75.00	35.00	0.20	4.90	②	10.10	☆	☆	☆
	MTR-D10-R0.2-d10.1-L45-100	100.00	45.00	0.20	4.90	②	10.10	☆	☆	☆
	MTR-D10-R0.2-d10.1-L55-100	100.00	55.00	0.20	4.90	②	10.10	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MTR-D4-R0.1-d1.5-L6-40 BB2105 Ordering example: MTR-D4-R0.1-d1.5-L6-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MPR 仿形车削小径镗刀

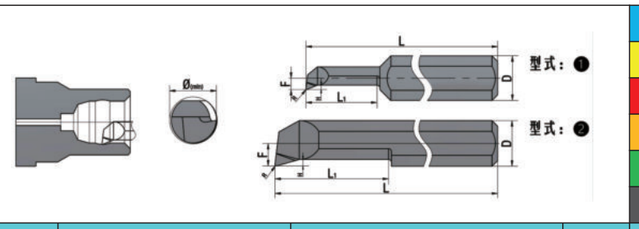
MPR Profiling Boring Bars



P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	H	F			BB2105	BB2110	BB2115
3	MPR-D3-R0.05-d1-L4-40	40.00	4.00	0.05	0.20	0.35	①	1.00	☆	☆	☆
	MPR-D3-R0.05-d1-L8-40	40.00	8.00	0.05	0.20	0.35	①	1.00	☆	☆	☆
	MPR-D3-R0.05-d1.5-L10-40	40.00	10.00	0.05	0.30	0.65	①	1.50	☆	☆	☆
	MPR-D3-R0.05-d1.5-L6-40	40.00	6.00	0.05	0.30	0.65	①	1.50	☆	☆	☆
	MPR-D3-R0.1-d1.5-L10-40	40.00	10.00	0.10	0.30	0.65	①	1.50	☆	☆	☆
4	MPR-D4-R0.05-d2.1-L5-50	50.00	5.00	0.05	0.50	0.90	①	2.10	★	★	☆
	MPR-D4-R0.05-d2.1-L10-50	50.00	10.00	0.05	0.50	0.90	①	2.10	★	★	☆
	MPR-D4-R0.1-d2.1-L5-50	50.00	5.00	0.10	0.50	0.90	①	2.10	★	★	☆
	MPR-D4-R0.1-d2.1-L10-50	50.00	10.00	0.10	0.50	0.90	①	2.10	★	★	☆
4	MPR-D4-R0.05-d3.1.1-L10-50	50.00	10.00	0.05	0.70	1.40	①	3.10	★	★	☆
	MPR-D4-R0.05-d3.1-L15-50	50.00	15.00	0.05	0.70	1.40	①	3.10	★	★	☆
	MPR-D4-R0.1-d3.1-L10-50	50.00	10.00	0.10	0.70	1.40	①	3.10	★	★	☆
	MPR-D4-R0.1-d3.1-L15-50	50.00	15.00	0.10	0.70	1.40	①	3.10	★	★	☆
	MPR-D4-R0.2-d3.1-L10-50	50.00	10.00	0.20	0.70	1.40	①	3.10	★	★	☆
	MPR-D4-R0.2-d3.1-L15-50	50.00	15.00	0.20	0.70	1.40	①	3.10	★	★	☆
4	MPR-D4-R0.05-d4.1-L10-50	50.00	10.00	0.05	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.05-d4.1-L15-50	50.00	15.00	0.05	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.1-d4.1-L10-50	50.00	10.00	0.10	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.1-d4.1-L15-50	50.00	15.00	0.10	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.1-d4.1-L22-50	50.00	22.00	0.10	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.1-d4.1-L30-60	60.00	30.00	0.10	0.80	1.90	②	4.10	☆	☆	☆
	MPR-D4-R0.2-d4.1-L10-50	50.00	10.00	0.20	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.2-d4.1-L15-50	50.00	15.00	0.20	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.2-d4.1-L22-50	50.00	22.00	0.20	0.80	1.90	②	4.10	★	★	☆
	MPR-D4-R0.2-d4.1-L30-60	60.00	30.00	0.20	0.80	1.90	②	4.10	☆	☆	☆
5	MPR-D5-R0.05-d5.1-L15-50	50.00	15.00	0.05	1.20	2.40	②	5.10	★	★	☆
	MPR-D5-R0.1-d5.1-L15-50	50.00	15.00	0.10	1.20	2.40	②	5.10	★	★	☆
	MPR-D5-R0.1-d5.1-L22-50	50.00	22.00	0.10	1.20	2.40	②	5.10	★	★	☆
	MPR-D5-R0.1-d5.1-L30-60	60.00	30.00	0.10	1.20	2.40	②	5.10	★	★	☆
	MPR-D5-R0.2-d5.1-L15-50	50.00	15.00	0.20	1.20	2.40	②	5.10	★	★	☆
	MPR-D5-R0.2-d5.1-L22-50	50.00	22.00	0.20	1.20	2.40	②	5.10	★	★	☆
	MPR-D5-R0.2-d5.1-L30-60	60.00	30.00	0.20	1.20	2.40	②	5.10	★	★	☆

图示：右手刀 Pictured: right hand knife
订货示例：MPR-D3-R0.05-d1-L4-40 BB2105 Ordering example: MPR-D3-R0.05-d1-L4-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock



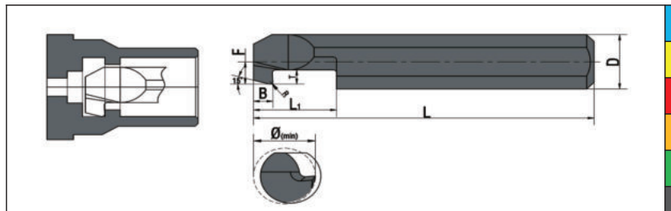
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	H	F			BB2105	BB2110	BB2115
6	MPR-D6-R0.05-d6.1-L15-50	50.00	15.00	0.05	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.05-d6.1-L22-50	50.00	22.00	0.05	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.1-d6.1-L15-50	50.00	15.00	0.10	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.1-d6.1-L22-50	50.00	22.00	0.10	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.1-d6.1-L30-60	60.00	30.00	0.10	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.1-d6.1-L35-75	75.00	35.00	0.10	1.40	2.90	②	6.10	☆	☆	☆
	MPR-D6-R0.2-d6.1-L15-50	50.00	15.00	0.20	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.2-d6.1-L22-50	50.00	22.00	0.20	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.2-d6.1-L30-60	60.00	30.00	0.20	1.40	2.90	②	6.10	★	★	☆
	MPR-D6-R0.2-d6.1-L35-75	75.00	35.00	0.20	1.40	2.90	②	6.10	☆	☆	☆
7	MPR-D7-R0.1-d7.1-L22-60	60.00	22.00	0.10	1.50	3.40	②	7.10	☆	☆	☆
	MPR-D7-R0.1-d7.1-L30-60	60.00	30.00	0.10	1.50	3.40	②	7.10	☆	☆	☆
	MPR-D7-R0.2-d7.1-L22-60	60.00	22.00	0.20	1.50	3.40	②	7.10	☆	☆	☆
	MPR-D7-R0.2-d7.1-L30-60	60.00	30.00	0.20	1.50	3.40	②	7.10	☆	☆	☆
8	MPR-D8-R0.1-d8.1-L15-60	60.00	15.00	0.10	1.60	3.90	②	8.10	★	★	☆
	MPR-D8-R0.1-d8.1-L22-60	60.00	22.00	0.10	1.60	3.90	②	8.10	★	★	☆
	MPR-D8-R0.1-d8.1-L30-60	60.00	30.00	0.10	1.60	3.90	②	8.10	★	★	☆
	MPR-D8-R0.1-d8.1-L35-75	75.00	35.00	0.10	1.60	3.90	②	8.10	☆	☆	☆
	MPR-D8-R0.1-d8.1-L45-75	75.00	45.00	0.10	1.60	3.90	②	8.10	☆	☆	☆
	MPR-D8-R0.2-d8.1-L15-60	60.00	15.00	0.20	1.60	3.90	②	8.10	★	★	☆
	MPR-D8-R0.2-d8.1-L22-60	60.00	22.00	0.20	1.60	3.90	②	8.10	★	★	☆
	MPR-D8-R0.2-d8.1-L30-60	60.00	30.00	0.20	1.60	3.90	②	8.10	★	★	☆
	MPR-D8-R0.2-d8.1-L35-75	75.00	35.00	0.20	1.60	3.90	②	8.10	☆	☆	☆
	MPR-D8-R0.2-d8.1-L45-75	75.00	45.00	0.20	1.60	3.90	②	8.10	☆	☆	☆
10	MPR-D10-R0.2-d10.1-L35-75	75.00	35.00	0.20	2.00	4.90	②	10.10	☆	☆	☆
	MPR-D10-R0.2-d10.1-L45-100	100.0	45.00	0.20	2.00	4.90	②	10.10	☆	☆	☆
	MPR-D10-R0.2-d10.1-L55-100	100.0	55.00	0.20	2.00	4.90	②	10.10	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MPR-D3-R0.05-d1-L4-40 BB2105 Ordering example: MPR-D3-R0.05-d1-L4-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MXR 反向车削小径镗刀

MXR Back Turning Bars



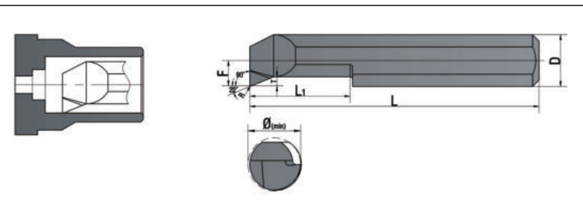
P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	B	R	T	F		BB2105	BB2110	BB2115
4	MXR-D4-R0.1-d3.1-L10-50	50.00	10.00	1.30	0.10	0.80	1.80	4.10	☆	☆	☆
	MXR-D4-R0.1-d3.1-L15-50	50.00	15.00	1.30	0.10	0.80	1.80	4.10	☆	☆	☆
	MXR-D4-R0.2-d4.1-L10-50	50.00	10.00	1.30	0.20	0.80	1.80	4.10	☆	★	☆
	MXR-D4-R0.2-d4.1-L15-50	50.00	15.00	1.30	0.20	0.80	1.80	4.10	★	★	☆
5	MXR-D5-R0.1-d3.1-L15-50	50.00	15.00	1.50	0.10	1.00	2.30	5.10	★	★	☆
	MXR-D5-R0.1-d3.1-L22-50	50.00	22.00	1.50	0.10	1.00	2.30	5.10	☆	☆	☆
	MXR-D5-R0.2-d4.1-L15-50	50.00	15.00	1.50	0.20	1.00	2.30	5.10	★	★	☆
	MXR-D5-R0.2-d4.1-L22-50	50.00	22.00	1.50	0.20	1.00	2.30	5.10	★	★	☆
6	MXR-D6-R0.1-d6.1-L15-50	50.00	15.00	1.50	0.10	1.80	2.80	6.10	★	★	☆
	MXR-D6-R0.1-d6.1-L22-50	50.00	22.00	1.50	0.10	1.80	2.80	6.10	☆	☆	☆
	MXR-D6-R0.2-d6.1-L15-50	50.00	15.00	1.50	0.20	1.80	2.80	6.10	☆	☆	☆
	MXR-D6-R0.2-d6.1-L22-50	50.00	22.00	1.50	0.20	1.80	2.80	6.10	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MXR-D4-R0.1-d3.1-L10-50 BB2105 Ordering example: MXR-D4-R0.1-d3.1-L10-50 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MUR 平底仿形车削小径镗刀

MUR Profiling 90° Face Cutting Bars



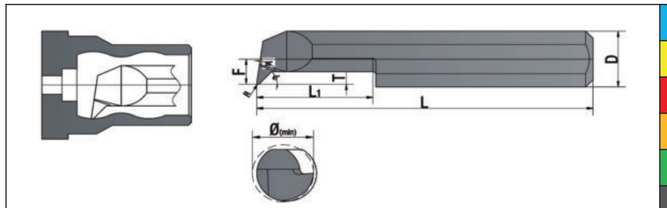
P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	T	F		BB2105	BB2110	BB2115
3	MUR-D3-R0.05-d3.1-L10-40	40.00	10.00	0.05	0.40	1.40	3.10	★	★	☆
	MUR-D3-R0.05-d3.1-L15-40	40.00	15.00	0.05	0.40	1.40	3.10	★	★	☆
	MUR-D3-R0.1-d3.1-L10-40	40.00	10.00	0.10	0.40	1.40	3.10	★	★	☆
	MUR-D3-R0.1-d3.1-L10-40	40.00	15.00	0.10	0.40	1.40	3.10	★	★	☆
4	MUR-D4-R0.1-d4.1-L10-50	50.00	10.00	0.10	0.50	1.90	4.10	★	★	☆
	MUR-D4-R0.1-d4.1-L15-50	50.00	15.00	0.10	0.50	1.90	4.10	★	★	☆
	MUR-D4-R0.2-d4.1-L10-50	50.00	10.00	0.20	0.50	1.90	4.10	★	★	☆
	MUR-D4-R0.2-d4.1-L15-50	50.00	15.00	0.20	0.50	1.90	4.10	★	★	☆
5	MUR-D5-R0.1-d5.1-L15-50	50.00	10.00	0.10	0.70	2.40	5.10	★	★	☆
	MUR-D5-R0.1-d5.1-L22-50	50.00	15.00	0.10	0.70	2.40	5.10	★	★	☆
	MUR-D5-R0.2-d5.1-L15-50	50.00	10.00	0.20	0.70	2.40	5.10	★	★	☆
	MUR-D5-R0.2-d5.1-L22-50	50.00	15.00	0.20	0.70	2.40	5.10	★	★	☆
6	MUR-D6-R0.1-d6.1-L15-50	50.00	10.00	0.10	0.90	2.90	6.10	★	★	☆
	MUR-D6-R0.1-d6.1-L22-50	50.00	15.00	0.10	0.90	2.90	6.10	★	★	☆
	MUR-D6-R0.2-d6.1-L15-50	50.00	10.00	0.20	0.90	2.90	6.10	★	★	☆
	MUR-D6-R0.2-d6.1-L22-50	50.00	15.00	0.20	0.90	2.90	6.10	★	★	☆
8	MUR-D8-R0.1-d8.1-L22-60	60.00	22.00	0.10	1.10	3.90	8.10	★	★	☆
	MUR-D8-R0.1-d8.1-L30-60	60.00	30.00	0.10	1.10	3.90	8.10	★	★	☆
	MUR-D8-R0.2-d8.1-L22-60	60.00	22.00	0.20	1.10	3.90	8.10	★	★	☆
	MUR-D8-R0.2-d8.1-L30-60	60.00	30.00	0.20	1.10	3.90	8.10	★	★	☆

图示：右手刀 Pictured: right hand knife
订货示例：MUR-D3-R0.05-d3.1-L10-40 BB2105 Ordering example: MUR-D3-R0.05-d3.1-L10-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MQR 仿形车削小径镗刀

MQR Profiling Boring Bars



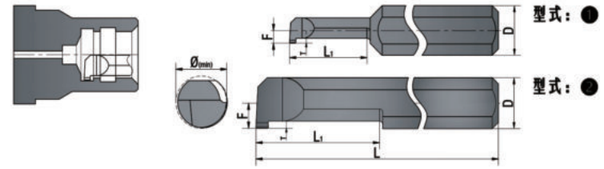
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	T	F		BB2105	BB2110	BB2115
3	MQR-D3-R0.05-d3.1-L10-40	40.00	10.00	0.05	0.50	1.40	3.10	☆	☆	☆
	MQR-D3-R0.05-d3.1-L15-40	40.00	15.00	0.05	0.50	1.40	3.10	☆	☆	☆
	MQR-D3-R0.1-d3.1-L10-40	40.00	10.00	0.10	0.50	1.40	3.10	★	★	☆
	MQR-D3-R0.1-d3.1-L15-40	40.00	15.00	0.10	0.50	1.40	3.10	★	★	☆
4	MQR-D4-R0.1-d4.1-L10-50	50.00	10.00	0.10	0.80	1.90	4.10	★	★	☆
	MQR-D4-R0.1-d4.1-L15-50	50.00	15.00	0.10	0.80	1.90	4.10	★	★	☆
	MQR-D4-R0.2-d4.1-L10-50	50.00	10.00	0.20	0.80	1.90	4.10	★	★	☆
	MQR-D4-R0.2-d4.1-L15-50	50.00	15.00	0.20	0.80	1.90	4.10	★	★	☆
5	MQR-D5-R0.1-d5.1-L15-50	50.00	15.00	0.10	1.00	2.40	5.10	★	★	☆
	MQR-D5-R0.1-d5.1-L22-50	50.00	22.00	0.10	1.00	2.40	5.10	★	★	☆
	MQR-D5-R0.2-d5.1-L15-50	50.00	15.00	0.20	1.00	2.40	5.10	★	★	☆
	MQR-D5-R0.2-d5.1-L22-50	50.00	22.00	0.20	1.00	2.40	5.10	★	★	☆
6	MQR-D6-R0.1-d6.1-L15-50	50.00	15.00	0.10	1.40	2.90	6.10	★	★	☆
	MQR-D6-R0.1-d6.1-L22-50	50.00	22.00	0.10	1.40	2.90	6.10	★	★	☆
	MQR-D6-R0.1-d6.1-L30-60	60.00	30.00	0.10	1.40	2.90	6.10	☆	☆	☆
	MQR-D6-R0.2-d6.1-L15-50	50.00	15.00	0.20	1.40	2.90	6.10	★	★	☆
	MQR-D6-R0.2-d6.1-L22-50	50.00	22.00	0.20	1.40	2.90	6.10	★	★	☆
	MQR-D6-R0.2-d6.1-L30-60	60.00	30.00	0.20	1.40	2.90	6.10	☆	☆	☆
8	MQR-D8-R0.1-d8.1-L22-60	60.00	22.00	0.10	1.60	3.90	8.10	★	★	☆
	MQR-D8-R0.1-d8.1-L30-60	60.00	30.00	0.10	1.60	3.90	8.10	★	★	☆
	MQR-D8-R0.2-d8.1-L22-60	60.00	22.00	0.20	1.60	3.90	8.10	★	★	☆
	MQR-D8-R0.2-d8.1-L30-60	60.00	30.00	0.20	1.60	3.90	8.10	★	★	☆
	MQR-D8-R0.1-d8.1-L40-75	75.00	40.00	0.10	1.60	3.90	8.10	☆	☆	☆
	MQR-D8-R0.2-d8.1-L40-75	75.00	40.00	0.20	1.60	3.90	8.10	☆	☆	☆
10	MQR-D10-R0.1-d10.1-L45-100	100.00	45.00	0.10	1.80	4.90	10.10	☆	☆	☆
	MQR-D10-R0.2-d10.1-L45-100	100.00	45.00	0.20	1.80	4.90	10.10	☆	☆	☆
	MQR-D10-R0.1-d10.1-L55-100	100.00	55.00	0.10	1.80	4.90	10.10	☆	☆	☆
	MQR-D10-R0.2-d10.1-L55-100	100.00	55.00	0.20	1.80	4.90	10.10	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MQR-D3-R0.05-d3.1-L10-40 BB2105 Ordering example: MQR-D3-R0.05-d3.1-L10-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MGR 内孔径向槽刀

MGR Internal Grooving Bars



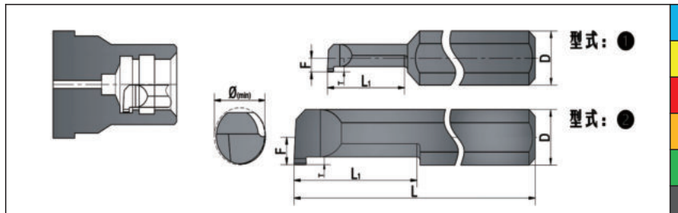
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	B	T	F			BB2105	BB2110	BB2115
3	MGR-D4-B0.5-d3.1-L10-50	50.00	10.00	0.50	0.50	1.30	①	3.10	☆	☆	☆
	MGR-D4-B0.5-d3.1-L15-50	50.00	15.00	0.05	0.50	1.30	①	3.10	☆	☆	☆
	MGR-D4-B0.7-d3.1-L10-50	50.00	10.00	0.70	0.60	1.30	①	3.10	★	★	☆
	MGR-D4-B0.7-d3.1-L15-50	50.00	15.00	0.70	0.60	1.30	①	3.10	★	★	☆
4	MGR-D4-B0.5-d4.1-L10-50	50.00	10.00	0.50	0.50	1.80	②	4.10	☆	☆	☆
	MGR-D4-B0.5-d4.1-L15-50	50.00	15.00	0.50	0.50	1.80	②	4.10	☆	☆	☆
	MGR-D4-B0.7-d4.1-L10-50	50.00	10.00	0.70	0.60	1.80	②	4.10	★	★	☆
	MGR-D4-B0.7-d4.1-L15-50	50.00	15.00	0.70	0.60	1.80	②	4.10	★	★	☆
	MGR-D4-B1.0-d4.1-L10-50	50.00	10.00	1.00	1.00	1.80	②	4.10	★	★	☆
	MGR-D4-B1.0-d4.1-L15-50	50.00	15.00	1.00	1.00	1.80	②	4.10	★	★	☆
	MGR-D4-B1.0-d4.1-L22-50	50.00	22.00	1.00	1.00	1.80	②	4.10	★	★	☆
	MGR-D4-B1.5-d4.1-L10-50	50.00	10.00	1.50	1.00	1.80	②	4.10	★	★	☆
	MGR-D4-B1.5-d4.1-L15-50	50.00	15.00	1.50	1.00	1.80	②	4.10	★	★	☆
	MGR-D4-B1.5-d4.1-L22-50	50.00	22.00	1.50	1.00	1.80	②	4.10	★	★	☆
5	MGR-D5-B1.0-d5.1-L15-50	50.00	15.00	1.00	1.20	2.30	②	5.10	★	★	☆
	MGR-D5-B1.0-d5.1-L22-50	50.00	22.00	1.00	1.20	2.30	②	5.10	★	★	☆
	MGR-D5-B1.0-d5.1-L30-60	60.00	30.00	1.00	1.20	2.30	②	5.10	☆	☆	☆
	MGR-D5-B1.5-d5.1-L15-50	50.00	15.00	1.50	1.20	2.30	②	5.10	★	★	☆
	MGR-D5-B1.5-d5.1-L22-50	50.00	22.00	1.50	1.20	2.30	②	5.10	★	★	☆
	MGR-D5-B1.5-d5.1-L30-60	60.00	30.00	1.50	1.20	2.30	②	5.10	☆	☆	☆
	MGR-D5-B2.0-d5.1-L15-50	50.00	15.00	2.00	1.20	2.30	②	5.10	★	★	☆
	MGR-D5-B2.0-d5.1-L22-50	50.00	22.00	2.00	1.20	2.30	②	5.10	★	★	☆
	MGR-D5-B2.0-d5.1-L30-60	60.00	30.00	2.00	1.20	2.30	②	5.10	☆	☆	☆
6	MGR-D6-B1.0-d6.1-L15-50	50.00	15.00	1.00	1.40	2.80	②	6.10	★	★	☆
	MGR-D6-B1.0-d6.1-L22-50	50.00	22.00	1.00	1.40	2.80	②	6.10	★	★	☆
	MGR-D6-B1.0-d6.1-L30-60	60.00	30.00	1.00	1.40	2.80	②	6.10	☆	☆	☆
	MGR-D6-B1.5-d6.1-L15-50	50.00	15.00	1.50	1.40	2.80	②	6.10	★	★	☆
	MGR-D6-B1.5-d6.1-L22-50	50.00	22.00	1.50	1.40	2.80	②	6.10	★	★	☆
	MGR-D6-B1.5-d6.1-L30-60	60.00	30.00	1.50	1.40	2.80	②	6.10	☆	☆	☆
	MGR-D6-B2.0-d6.1-L15-50	50.00	35.00	2.00	1.40	2.80	②	6.10	★	★	☆
	MGR-D6-B2.0-d6.1-L22-50	50.00	45.00	2.00	1.40	2.80	②	6.10	★	★	☆

图示：右手刀 Pictured: right hand knife
订货示例：MGR-D3-B0.5-d3.1-L10-40 BB2105 Ordering example: MGR-D3-B0.5-d3.1-L10-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MGR 内孔径向槽刀

MGR Internal Grooving Bars



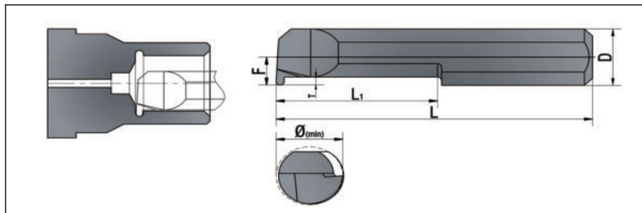
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	B	T	F			BB2105	BB2110	BB2115
6	MGR-D6-B2.0-d5.1-L30-60	60.00	30.00	2.00	1.40	2.80	②	6.10	★	★	☆
7	MGR-D7-B1.0-d7.1-L15-60	60.00	15.00	1.00	1.50	3.30	②	7.10	☆	☆	☆
	MGR-D7-B1.0-d7.1-L22-60	60.00	22.00	1.00	1.50	3.30	②	7.10	☆	☆	☆
	MGR-D7-B1.0-d7.1-L30-60	60.00	30.00	1.00	1.50	3.30	②	7.10	☆	☆	☆
	MGR-D7-B1.5-d7.1-L15-60	60.00	15.00	1.50	2.00	3.30	②	7.10	☆	☆	☆
	MGR-D7-B1.5-d7.1-L22-60	60.00	22.00	1.50	2.00	3.30	②	7.10	☆	☆	☆
	MGR-D7-B1.5-d7.1-L30-60	60.00	30.00	1.50	2.00	3.30	②	7.10	☆	☆	☆
	MGR-D7-B2.0-d7.1-L15-60	60.00	15.00	2.00	2.50	3.30	②	7.10	☆	☆	☆
	MGR-D7-B2.0-d7.1-L22-60	60.00	22.00	2.00	2.50	3.30	②	7.10	☆	☆	☆
	MGR-D7-B2.0-d7.1-L30-60	60.00	30.00	2.00	2.50	3.30	②	7.10	☆	☆	☆
8	MGR-D8-B1.0-d8.1-L15-60	60.00	15.00	1.00	1.50	3.80	②	8.10	★	★	☆
	MGR-D8-B1.0-d8.1-L22-60	60.00	22.00	1.00	1.50	3.80	②	8.10	★	★	☆
	MGR-D8-B1.0-d8.1-L30-60	60.00	30.00	1.00	1.50	3.80	②	8.10	★	★	☆
	MGR-D8-B1.0-d8.1-L40-75	75.00	40.00	1.00	1.50	3.80	②	8.10	☆	☆	☆
	MGR-D8-B1.5-d8.1-L15-60	60.00	15.00	1.50	2.00	3.80	②	8.10	★	★	☆
	MGR-D8-B1.5-d8.1-L22-60	60.00	22.00	1.50	2.00	3.80	②	8.10	★	★	☆
	MGR-D8-B1.5-d8.1-L30-60	60.00	30.00	1.50	2.00	3.80	②	8.10	★	★	☆
	MGR-D8-B1.5-d8.1-L40-75	75.00	40.00	1.50	2.00	3.80	②	8.10	☆	☆	☆
	MGR-D8-B2.0-d8.1-L15-60	60.00	15.00	2.00	2.60	3.80	②	8.10	★	★	☆
	MGR-D8-B2.0-d8.1-L22-60	60.00	22.00	2.00	2.60	3.80	②	8.10	☆	☆	☆
	MGR-D8-B2.0-d8.1-L30-60	60.00	30.00	2.00	2.60	3.80	②	8.10	★	★	☆
	MGR-D8-B2.0-d8.1-L40-75	75.00	40.00	2.00	2.60	3.80	②	8.10	☆	☆	☆
10	MGR-D10-B1.0-d10.1-L30-75	75.00	30.00	1.00	1.50	4.80	②	10.10	☆	☆	☆
	MGR-D10-B1.0-d10.1-L40-75	75.00	40.00	1.00	1.50	4.80	②	10.10	☆	☆	☆
	MGR-D10-B1.0-d10.1-L50-100	100.0	50.00	1.00	1.50	4.80	②	10.10	☆	☆	☆
	MGR-D10-B1.5-d10.1-L30-75	75.00	30.00	1.50	2.00	4.80	②	10.10	☆	☆	☆
	MGR-D10-B1.5-d10.1-L40-75	75.00	40.00	1.50	2.00	4.80	②	10.10	☆	☆	☆
	MGR-D10-B1.5-d10.1-L50-100	100.0	50.00	1.50	2.00	4.80	②	10.10	☆	☆	☆
	MGR-D10-B2.0-d10.1-L30-75	75.00	30.00	2.00	2.60	4.80	②	10.10	☆	☆	☆
	MGR-D10-B2.0-d10.1-L40-75	75.00	40.00	2.00	2.60	4.80	②	10.10	☆	☆	☆
	MGR-D10-B2.0-d10.1-L50-100	100.0	50.00	2.00	2.60	4.80	②	10.10	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MGR-D6-B2.0-d5.1-L30-60 BB2105 Ordering example: MGR-D6-B2.0-d5.1-L30-60 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MKR 内孔圆头径向槽刀

MKR Full Radius Grooving Bars



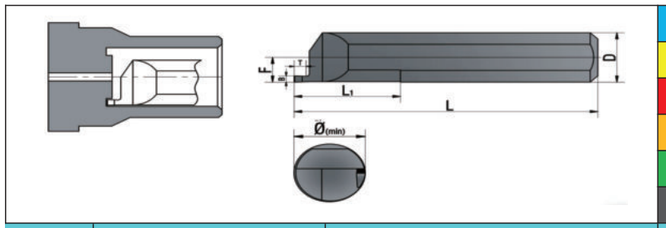
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimumhole size Φ (min)	牌号 Grade		
		L	L1	R	B	T	F		BB2105	BB2110	BB2115
4	MKR-D4-R0.3-d4.1-L10-50	50.00	10.00	0.30	0.60	0.50	1.80	4.10	★	★	☆
	MKR-D4-R0.3-d4.1-L15-50	50.00	15.00	0.30	0.60	0.50	1.80	4.10	☆	☆	☆
	MKR-D4-R0.4-d4.1-L10-50	50.00	10.00	0.40	0.80	0.70	1.80	4.10	★	★	☆
	MKR-D4-R0.4-d4.1-L15-50	50.00	15.00	0.40	0.80	0.70	1.80	4.10	☆	☆	☆
	MKR-D4-R0.5-d4.1-L10-50	50.00	10.00	0.50	1.00	1.00	1.80	4.10	★	★	☆
	MKR-D4-R0.5-d4.1-L15-50	50.00	15.00	0.50	1.00	1.00	1.80	4.10	★	★	☆
	MKR-D4-R0.75-d4.1-L10-50	50.00	10.00	0.75	1.50	1.00	1.80	4.10	★	★	☆
	MKR-D4-R0.75-d4.1-L15-50	50.00	15.00	0.75	1.50	1.00	1.80	4.10	★	★	☆
5	MKR-D5-R0.5-d5.1-L10-50	50.00	10.00	0.50	1.00	1.20	2.30	5.10	☆	☆	☆
	MKR-D5-R0.5-d5.1-L15-50	50.00	15.00	0.50	1.00	1.20	2.30	5.10	☆	☆	☆
	MKR-D5-R0.5-d5.1-L22-50	50.00	22.00	0.50	1.00	1.20	2.30	5.10	☆	☆	☆
	MKR-D5-R0.75-d5.1-L10-50	50.00	10.00	0.75	1.50	1.20	2.30	5.10	★	★	☆
	MKR-D5-R0.75-d5.1-L15-50	50.00	15.00	0.75	1.50	1.20	2.30	5.10	★	★	☆
	MKR-D5-R0.75-d5.1-L22-50	50.00	22.00	0.75	1.50	1.20	2.30	5.10	★	★	☆
	MKR-D5-R1.0-d5.1-L10-50	50.00	10.00	1.00	2.00	1.20	2.30	5.10	★	★	☆
	MKR-D5-R1.0-d5.1-L15-50	50.00	15.00	1.00	2.00	1.20	2.30	5.10	★	★	☆
	MKR-D5-R1.0-d5.1-L22-50	50.00	22.00	1.00	2.00	1.20	2.30	5.10	★	★	☆
6	MKR-D6-R0.5-d6.1-L15-50	50.00	15.00	0.50	1.00	1.20	2.80	6.10	☆	☆	☆
	MKR-D6-R0.5-d6.1-L22-50	50.00	22.00	0.50	1.00	1.20	2.80	6.10	☆	☆	☆
	MKR-D6-R0.75-d6.1-L15-50	50.00	15.00	0.75	1.50	1.60	2.80	6.10	★	★	☆
	MKR-D6-R0.75-d6.1-L22-50	50.00	22.00	0.75	1.50	1.60	2.80	6.10	★	★	☆
	MKR-D6-R1.0-d6.1-L15-50	50.00	15.00	1.00	2.00	1.60	2.80	6.10	★	★	☆
	MKR-D6-R1.0-d6.1-L22-50	50.00	22.00	1.00	2.00	1.60	2.80	6.10	★	★	☆
8	MKR-D8-R0.5-d8.1-L22-60	60.00	22.00	0.50	1.00	1.20	3.80	8.10	☆	☆	☆
	MKR-D8-R0.5-d8.1-L30-60	60.00	30.00	0.50	1.00	1.20	3.80	8.10	☆	☆	☆
	MKR-D8-R0.6-d8.1-L22-60	60.00	22.00	0.60	1.20	1.50	3.80	8.10	☆	☆	☆
	MKR-D8-R0.6-d8.1-L30-60	60.00	30.00	0.60	1.20	1.50	3.80	8.10	☆	☆	☆
	MKR-D8-R0.75-d8.1-L22-60	60.00	22.00	0.75	1.50	2.00	3.80	8.10	★	★	☆
	MKR-D8-R0.75-d8.1-L30-60	60.00	30.00	0.75	1.50	2.00	3.80	8.10	★	★	☆
	MKR-D8-R1.0-d8.1-L22-60	60.00	22.00	1.00	2.00	2.50	3.80	8.10	★	★	☆
	MKR-D8-R1.0-d8.1-L30-60	60.00	30.00	1.00	2.00	2.50	3.80	8.10	★	★	☆

图示：右手刀 Pictured: right hand knife
订货示例：MKR-D4-R0.3-d4.1-L10-50 BB2105 Ordering example: MKR-D4-R0.3-d4.1-L10-50 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MFR 内孔轴向槽刀

MFR Internal Face Grooving Bars



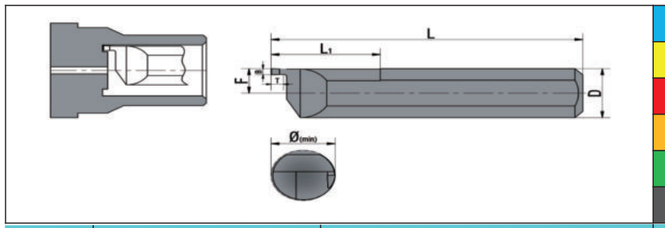
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	B	T	F		BB2105	BB2110	BB2115
4	MFR-D4-B0.5-d5.0-L10-50	40.00	10.00	0.50	0.80	1.95	5.00	★	★	☆
	MFR-D4-B0.5-d5.0-L15-50	40.00	15.00	0.50	0.80	1.95	5.00	☆	☆	☆
	MFR-D4-B0.75-d5.0-L10-50	40.00	10.00	0.75	1.20	1.95	5.00	★	★	☆
	MFR-D4-B0.75-d5.0-L15-50	40.00	15.00	0.75	1.20	1.95	5.00	☆	☆	☆
	MFR-D4-B0.75-d5.0-L10-50	50.00	10.00	0.75	1.50	1.95	5.00	★	★	☆
	MFR-D4-B0.75-d5.0-L15-50	50.00	15.00	0.75	1.50	1.95	5.00	☆	☆	☆
	MFR-D4-B1.5-d5.0-L10-50	50.00	10.00	1.50	2.50	1.95	5.00	★	★	☆
	MFR-D4-B1.5-d5.0-L15-50	50.00	15.00	1.50	2.50	1.95	5.00	☆	☆	☆
5	MFR-D5-B0.5-d6.0-L10-50	50.00	10.00	0.50	0.80	2.45	6.00	★	★	☆
	MFR-D5-B0.5-d6.0-L15-50	50.00	15.00	0.50	0.80	2.45	6.00	☆	☆	☆
	MFR-D5-B0.75-d6.0-L10-50	50.00	10.00	0.75	1.20	2.45	6.00	★	★	☆
	MFR-D5-B0.75-d6.0-L15-50	50.00	15.00	0.75	1.20	2.45	6.00	☆	☆	☆
	MFR-D5-B1.0-d6.0-L10-50	50.00	10.00	1.00	1.50	2.45	6.00	★	★	☆
	MFR-D5-B1.0-d6.0-L15-50	50.00	15.00	1.00	1.50	2.45	6.00	★	★	☆
	MFR-D5-B1.5-d6.0-L10-50	50.00	10.00	1.50	2.50	2.45	6.00	★	★	☆
	MFR-D5-B1.5-d6.0-L15-50	50.00	15.00	1.50	2.50	2.45	6.00	★	★	☆
	MFR-D5-B2.0-d6.0-L10-50	50.00	10.00	2.00	3.50	2.45	6.00	★	★	☆
	MFR-D5-B2.0-d6.0-L15-50	50.00	15.00	2.00	3.50	2.45	6.00	★	★	☆
6	MFR-D6-B1.0-d8.0-L15-50	50.00	15.00	1.00	1.50	2.95	8.00	★	★	☆
	MFR-D6-B1.0-d8.0-L22-50	50.00	22.00	1.00	1.50	2.95	8.00	★	★	☆
	MFR-D6-B1.5-d8.0-L15-50	50.00	15.00	1.50	2.50	2.95	8.00	★	★	☆
	MFR-D6-B1.5-d8.0-L22-50	50.00	22.00	1.50	2.50	2.95	8.00	★	★	☆
	MFR-D6-B2.0-d8.0-L15-50	50.00	15.00	2.00	3.50	2.95	8.00	★	★	☆
	MFR-D6-B2.0-d8.0-L22-50	50.00	22.00	2.00	3.50	2.95	8.00	★	★	☆
	MFR-D6-B2.5-d8.0-L15-50	50.00	15.00	2.50	4.50	2.95	8.00	★	★	☆
	MFR-D6-B2.5-d8.0-L22-50	50.00	22.00	2.50	4.50	2.95	8.00	★	★	
	MFR-D6-B3.0-d8.0-L15-50	50.00	15.00	3.00	5.50	2.95	8.00	★	★	
	MFR-D6-B3.0-d8.0-L22-50	50.00	22.00	3.00	5.50	2.95	8.00	★	★	
8	MFR-D8-B2.5-d10.0-L22-60	60.00	22.00	2.50	4.50	3.95	10.00	★	★	☆
	MFR-D8-B3.0-d10.0-L22-60	60.00	22.00	3.00	5.50	3.95	10.00	★	★	☆
	MFR-D8-B3.0-d10.0-L30-60	60.00	30.00	3.00	5.50	3.95	10.00	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MFR-D4-B0.5-d5.0-L10-50 BB2105 Ordering example:MFR-D4-B0.5-d5.0-L10-50 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MFL 内孔轴向槽刀

MFL Internal Face Grooving Bars



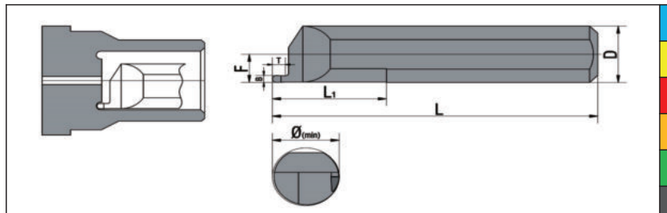
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	B	T	F		BB2105	BB2110	BB2115
4	MFL-D4-B0.5-d5.0-L10-50	50.00	10.00	0.50	0.80	1.95	5.00	★	★	☆
	MFL-D4-B0.5-d5.0-L15-50	50.00	15.00	0.50	0.80	1.95	5.00	☆	☆	☆
	MFL-D4-B0.75-d5.0-L10-50	50.00	10.00	075	1.20	1.95	5.00	★	★	☆
	MFL-D4-B0.75-d5.0-L15-50	50.00	15.00	075	1.20	1.95	5.00	☆	☆	☆
	MFL-D4-B1.0-d5.0-L10-50	50.00	10.00	1.00	1.50	1.95	5.00	★	★	☆
	MFL-D4-B1.0-d5.0-L15-50	50.00	15.00	1.00	1.50	1.95	5.00	☆	☆	☆
	MFL-D4-B1.5-d5.0-L10-50	50.00	10.00	1.50	2.50	1.95	5.00	★	★	☆
	MFL-D4-B1.5-d5.0-L15-50	50.00	15.00	1.50	2.50	1.95	5.00	☆	☆	☆
5	MFL-D5-B0.5-d6.0-L10-50	50.00	10.00	0.50	0.80	2.45	6.00	★	★	☆
	MFL-D5-B0.5-d6.0-L15-50	50.00	15.00	0.50	0.80	2.45	6.00	☆	☆	☆
	MFL-D5-B0.75-d6.0-L10-50	50.00	10.00	075	1.20	2.45	6.00	★	★	☆
	MFL-D5-B0.75-d6.0-L15-50	50.00	15.00	075	1.20	2.45	6.00	☆	☆	☆
	MFL-D5-B1.0-d6.0-L10-50	50.00	10.00	1.00	1.50	2.45	6.00	★	★	☆
	MFL-D5-B1.0-d6.0-L15-50	50.00	15.00	1.00	1.50	2.45	6.00	★	★	☆
	MFL-D5-B1.5-d6.0-L10-50	50.00	10.00	1.50	2.50	2.45	6.00	★	★	☆
	MFL-D5-B1.5-d6.0-L15-50	50.00	15.00	1.50	2.50	2.45	6.00	★	★	☆
	MFL-D5-B2.0-d6.0-L10-50	50.00	10.00	2.00	3.50	2.45	6.00	★	★	☆
	MFL-D5-B2.0-d6.0-L15-50	50.00	15.00	2.00	3.50	2.45	6.00	★	★	☆
6	MFL-D6-B1.0-d8.0-L15-50	50.00	15.00	1.00	1.50	2.95	8.00	★	★	☆
	MFL-D6-B1.0-d8.0-L22-50	50.00	22.00	1.00	1.50	2.95	8.00	★	★	☆
	MFL-D6-B1.5-d8.0-L15-50	50.00	15.00	1.50	2.50	2.95	8.00	★	★	☆
	MFL-D6-B1.5-d8.0-L22-50	50.00	22.00	1.50	2.50	2.95	8.00	★	★	☆
	MFL-D6-B2.0-d8.0-L15-50	50.00	15.00	2.00	3.50	2.95	8.00	★	★	☆
	MFL-D6-B2.0-d8.0-L22-50	50.00	22.00	2.00	3.50	2.95	8.00	★	★	☆
	MFL-D6-B2.5-d8.0-L15-50	50.00	15.00	2.50	4.50	2.95	8.00	★	★	☆
	MFL-D6-B2.5-d8.0-L22-50	50.00	22.00	2.50	4.50	2.95	8.00	★	★	☆
	MFL-D6-B3.0-d8.0-L15-50	50.00	15.00	3.00	5.50	2.95	8.00	★	★	☆
	MFL-D6-B3.0-d8.0-L22-50	50.00	22.00	3.00	5.50	2.95	8.00	★	★	☆
8	MFL-D8-B2.5-d100-L22-60	60.00	22.00	2.50	4.50	3.95	10.00	★	★	☆
	MFL-D8-B3.0-d10.0-L22-60	60.00	22.00	3.00	5.50	3.95	10.00	★	★	☆
	MFL-D8-B3.0-d10.0-L30-60	60.00	30.00	3.00	5.50	3.95	10.00	☆	☆	☆

图示：左手刀 Pictured: left hand knife
订货示例：MFL-D4-B0.5-d5.0-L10-50 BB2105 Ordering example: MFL-D4-B0.5-d5.0-L10-50 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MZR 内孔轴向圆头槽刀

MZR Internal Face Round Grooving Bars



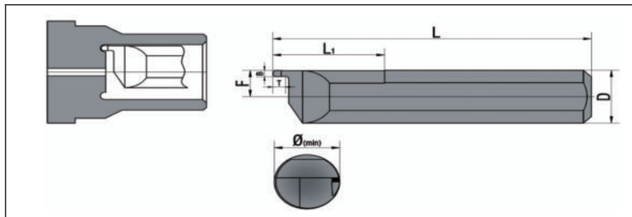
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	B	T	F		BB2105	BB2110	BB2115
4	MZR-D4-R0.3-d5.0-L15-50	50.00	22.00	0.30	0.60	0.60	1.95	5.00	☆	☆	☆
	MZR-D4-R0.4-d5.0-L15-50	50.00	15.00	0.40	0.80	0.80	1.95	5.00	☆	☆	☆
	MZR-D4-R0.5-d5.0-L15-50	50.00	22.00	0.50	1.00	1.00	1.95	5.00	★	★	☆
	MZR-D4-R0.75-d5.0-L15-50	50.00	15.00	0.75	1.50	1.50	1.95	5.00	★	★	☆
	MZR-D4-R1.0-d5.0-L15-50	50.00	22.00	1.00	2.00	2.00	1.95	5.00	★	★	☆
5	MZR-D5-R0.3-d6.0-L22-50	50.00	22.00	0.30	0.60	0.60	2.45	6.00	☆	☆	☆
	MZR-D5-R0.4-d6.0-L22-50	50.00	22.00	0.40	0.80	0.80	2.45	6.00	☆	☆	☆
	MZR-D5-R0.5-d6.0-L22-50	50.00	22.00	0.50	1.00	1.00	2.45	6.00	★	★	☆
	MZR-D5-R0.75-d6.0-L22-50	50.00	22.00	0.75	1.50	1.50	2.45	6.00	★	★	☆
	MZR-D5-R1.0-d6.0-L22-50	50.00	22.00	1.00	2.00	2.00	2.45	6.00	★	★	☆
	MZR-D5-R1.25-d6.0-L22-50	50.00	22.00	1.25	2.50	2.50	2.45	6.00	★	★	☆
	MZR-D5-R1.5-d6.0-L22-50	50.00	22.00	1.50	3.00	3.00	2.45	6.00	☆	☆	☆
6	MZR-D6-R0.3-d8.0-L22-50	50.00	22.00	0.30	0.60	0.60	2.95	8.00	☆	☆	☆
	MZR-D6-R0.4-d8.0-L22-50	50.00	22.00	0.40	0.80	0.80	2.95	8.00	☆	☆	☆
	MZR-D6-R0.5-d8.0-L22-50	50.00	22.00	0.50	1.00	1.00	2.95	8.00	★	★	☆
	MZR-D6-R0.75-d8.0-L22-50	50.00	22.00	0.75	1.50	1.50	2.95	8.00	★	★	☆
	MZR-D6-R1.0-d8.0-L22-50	50.00	22.00	1.00	2.00	2.00	2.95	8.00	★	★	☆
	MZR-D6-R1.25-d8.0-L22-50	50.00	22.00	1.25	2.50	2.50	2.95	8.00	★	★	☆
	MZR-D6-R1.5-d8.0-L22-50	50.00	22.00	1.50	3.00	3.00	2.95	8.00	☆	☆	☆
8	MZR-D8-R0.5-d10.0-L30-60	60.00	30.00	0.50	1.00	1.20	3.95	10.00	★	★	☆
	MZR-D8-R0.75-d10.0-L30-60	60.00	30.00	0.75	1.50	1.50	3.95	10.00	★	★	☆
	MZR-D8-R1.0-d10.0-L30-60	60.00	30.00	1.00	2.00	2.00	3.95	10.00	★	★	☆
	MZR-D8-R1.25-d10.0-L30-60	60.00	30.00	1.25	2.50	2.50	3.95	10.00	☆	☆	☆
	MZR-D8-R1.5-d10.0-L30-60	60.00	30.00	1.50	3.00	3.00	3.95	10.00	★	★	☆
	MZR-D8-R2.0-d10.0-L30-60	60.00	30.00	2.00	4.00	4.00	3.95	10.00	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MZR-D4-R0.3-d5.0-L15-50 BB2105 Ordering example: MZR-D4-R0.3-d5.0-L15-50 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MZL 内孔轴向圆头槽刀

MZL Internal Face Round Grooving Bars



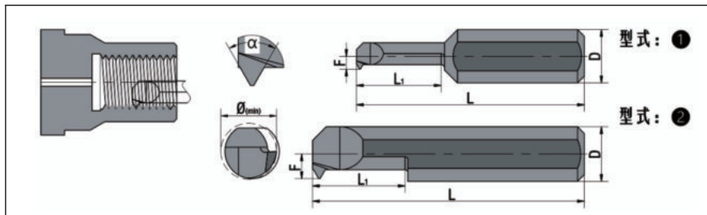
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	B	T	F		BB2105	BB2110	BB2115
4	MZL-D4-R0.3-d5.0-L15-50	50.00	15.00	0.30	0.60	0.60	1.95	5.00	☆	☆	☆
	MZL-D4-R0.4-d5.0-L15-50	50.00	15.00	0.40	0.80	0.80	1.95	5.00	☆	☆	☆
	MZL-D4-R0.5-d5.0-L15-50	50.00	15.00	0.50	1.00	1.00	1.95	5.00	★	★	☆
	MZL-D4-R0.75-d5.0-L15-50	50.00	15.00	0.75	1.50	1.50	1.95	5.00	★	★	☆
	MZL-D4-R1.0-d5.0-L15-50	50.00	15.00	1.00	2.00	2.00	1.95	5.00	★	★	☆
5	MZL-D5-R0.3-d6.0-L22-50	50.00	22.00	0.30	0.60	0.60	2.45	6.00	☆	☆	☆
	MZL-D5-R0.4-d6.0-L22-50	50.00	22.00	0.40	0.80	0.80	2.45	6.00	☆	☆	☆
	MZL-D5-R0.5-d6.0-L22-50	50.00	22.00	0.50	1.00	1.00	2.45	6.00	★	★	☆
	MZR-D5-R0.75-d6.0-L22-50	50.00	22.00	0.75	1.50	1.50	2.45	6.00	★	★	☆
	MZL-D5-R1.0-d6.0-L22-50	50.00	22.00	1.00	2.00	2.00	2.45	6.00	★	★	☆
	MZL-D5-R1.25-d6.0-L22-50	50.00	22.00	1.25	2.50	2.50	2.45	6.00	★	★	☆
	MZL-D5-R1.5-d6.0-L22-50	50.00	22.00	1.50	3.00	3.00	2.45	6.00	☆	☆	☆
6	MZL-D6-R0.3-d8.0-L22-50	50.00	22.00	0.30	0.60	0.60	2.95	8.00	☆	☆	☆
	MZL-D6-R0.4-d8.0-L22-50	50.00	22.00	0.40	0.80	0.80	2.95	8.00	☆	☆	☆
	MZL-D6-R0.5-d8.0-L22-50	50.00	22.00	0.50	1.00	1.00	2.95	8.00	★	★	☆
	MZL-D6-R0.75-d8.0-L22-50	50.00	22.00	0.75	1.50	1.50	2.95	8.00	★	★	☆
	MZL-D6-R1.0-d8.0-L22-50	50.00	22.00	1.00	2.00	2.00	2.95	8.00	★	★	☆
	MZL-D6-R1.25-d8.0-L22-50	50.00	22.00	1.25	2.50	2.50	2.95	8.00	★	★	☆
	MZL-D6-R1.5-d8.0-L22-50	50.00	22.00	1.50	3.00	3.00	2.95	8.00	☆	☆	☆
8	MZL-D8-R0.5-d10.0-L30-60	60.00	30.00	0.50	1.00	1.20	3.95	10.00	★	★	☆
	MZL-D8-R0.75-d10.0-L30-60	60.00	30.00	0.75	1.50	1.50	3.95	10.00	★	★	☆
	MZL-D8-R1.0-d10.0-L30-60	60.00	30.00	1.00	2.00	2.00	3.95	10.00	★	★	☆
	MZL-D8-R1.25-d10.0-L30-60	60.00	30.00	1.25	2.50	2.50	3.95	10.00	☆	☆	☆
	MZL-D8-R1.5-d10.0-L30-60	60.00	30.00	1.50	3.00	3.00	3.95	10.00	★	★	☆
	MZL-D8-R2.0-d10.0-L30-60	60.00	30.00	2.00	4.00	4.00	3.95	10.00	☆	☆	☆

图示：左手刀 Pictured: left hand knife
订货示例：MZL-D4-R0.3-d5.0-L15-50 BB2105 Ordering example: MZL-D4-R0.3-d5.0-L15-50 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

MIR 微型内孔泛牙螺纹镗刀

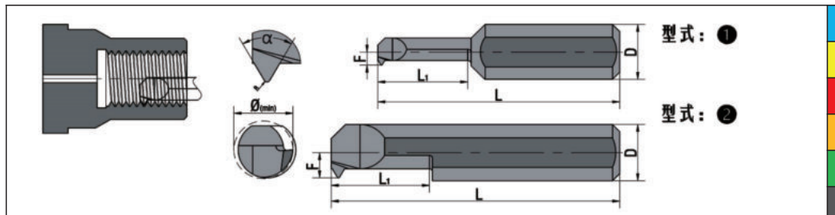
MIR-Micro Hole Threading Bars



P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				螺距 Pitch		型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	α	F	mm	牙数/英寸 Number of teeth/In			BB2105	BB2110	BB2115
4	MIR-D4-A55-d3.2-L10-50	50.00	10.00	55°	1.40	0.635-0.794	40-32	②	3.20	☆	☆	☆
	MIR-D4-A55-d3.2-L15-50	50.00	15.00	55°	1.40	0.635-0.794	40-32	②	3.20	★	★	☆
4	MIR-D4-A55-d4.1-L10-50	50.00	10.00	55°	1.80	0.907-0.977	28-26	②	4.10	★	★	☆
	MIR-D4-A55-d4.1-L15-50	50.00	15.00	55°	1.80	0.907-0.977	28-26	②	4.10	☆	☆	☆
5	MIR-D5-A55-d5.1-L15-50	50.00	15.00	55°	2.30	1.058-1.154	24-22	②	5.10	★	★	☆
	MIR-D5-A55-d5.1-L22-50	50.00	22.00	55°	2.30	1.058-1.154	24-22	②	5.10	★	★	☆
6	MIR-D6-A55-d6.0-L15-50	50.00	15.00	55°	2.60	1.27-1.411	20-18	②	6.00	★	★	☆
	MIR-D6-A55-d6.0-L22-50	50.00	22.00	55°	2.60	1.27-1.411	20-18	②	6.00	★	★	☆
8	MIR-D8-A55-d8.0-L22-60	60.00	22.00	55°	3.80	1.588-1.814	16-14	②	8.00	★	★	☆
	MIR-D8-A55-d8.0-L30-60	60.00	30.00	55°	3.80	1.588-1.814	16-14	②	8.00	★	★	☆
3	MIR-D3-A60-d1.2-L5-40	40.00	5.00	60°	0.55	0.25-0.35	100-72	①	1.20	★	★	☆
	MIR-D3-A60-d1.4-L6-40	40.00	6.00	60°	0.65	0.35-0.45	72-56	①	1.40	☆	☆	☆
4	MIR-D4-A60-d2.1-L8-40	40.00	8.00	60°	1.00	0.45-0.7	56-32	①	2.10	☆	☆	☆
4	MIR-D4-A60-d3.2-L10-40	40.00	10.00	60°	1.30	0.7-1.0	32-24	①	3.20	☆	☆	☆
	MIR-D4-A60-d3.2-L15-40	40.00	15.00	60°	1.30	0.7-1.0	32-24	①	3.20	★	★	☆
4	MIR-D4-A60-d4.1-L10-50	50.00	10.00	60°	1.80	0.8-1.0	32-24	②	4.10	★	★	☆
	MIR-D4-A60-d4.1-L15-50	50.00	15.00	60°	1.80	0.8-1.0	32-24	②	4.10	★	★	☆
5	MIR-D5-A60-d5.1-L15-50	50.00	15.00	60°	2.30	1.0-1.25	24-20	②	5.10	★	★	☆
	MIR-D5-A60-d5.1-L22-50	50.00	22.00	60°	2.30	1.0-1.25	24-20	②	5.10	★	★	☆
6	MIR-D6-A60-d6.0-L15-50	50.00	15.00	60°	2.60	1.0-1.5	24-16	②	6.00	★	★	☆
	MIR-D6-A60-d6.0-L22-50	50.00	22.00	60°	2.60	1.0-1.5	24-16	②	6.00	★	★	☆
8	MIR-D8-A60-d8.0-L22-60	60.00	22.00	60°	3.60	1.25-1.75	20-14	②	8.00	★	★	☆
	MIR-D8-A60-d8.0-L30-60	60.00	30.00	60°	3.60	1.25-1.75	20-14	②	8.00	★	★	☆
10	MIR-D10-A60-d10.0-L30-75	75.00	30.00	60°	4.60	1.5-2.0	16-13	②	10.00	☆	☆	☆
	MIR-D10-A60-d10.0-L40-75	75.00	40.00	60°	4.60	1.5-2.0	16-13	②	10.00	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MIR-D3-A55-d3.2-L10-40 BB2105 Ordering example: MIR-D3-A55-d3.2-L10-40 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock



P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				螺距 Pitch		型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	α	F	mm	牙数/英寸 Number of teeth/In			BB2105	BB2110	BB2115
4	MIR-D4-A60-d2.0-L8-50 MJ2.5*0.35	50.00	8.00	60°	0.95	MJ2.5*0.35	/	①	2.00	☆	☆	☆
	MIR-D4-A60-d2.0-L8-50 MJ2.5*0.45	50.00	8.00	60°	0.95	MJ2.5*0.45	/	①	2.00	☆	☆	☆
4	MIR-D4-A60-d2.5-L10-50 MJ3*0.35	50.00	10.00	60°	1.15	MJ3*0.35	/	①	2.50	★	★	☆
	MIR-D4-A60-d2.5-L10-50 MJ3*0.50	50.00	15.00	60°	1.15	MJ3*0.50	/	①	2.50	★	★	☆
4	MIR-D4-A60-d3.0-L15-50 MJ4*0.50	50.00	10.00	60°	1.45	MJ4*0.50	/	①	3.00	★	★	☆
	MIR-D4-A60-d3.0-L15-50 MJ4*0.70	50.00	15.00	60°	1.45	MJ4*0.70	/	①	3.00	★	★	☆
4	MIR-D4-A60-d4.0-L22-50 MJ5*0.50	50.00	15.00	60°	1.95	MJ5*0.50	/	②	4.00	★	★	☆
	MIR-D4-A60-d4.0-L22-50 MJ5*0.80	50.00	22.00	60°	1.95	MJ5*0.80	/	②	4.00	★	★	☆
5	MIR-D5-A60-d5.0-L22-50 MJ6*0.75	50.00	15.00	60°	2.45	MJ6*0.75	/	②	5.00	★	★	☆
	MIR-D5-A60-d5.0-L22-50 MJ6*1.00	50.00	22.00	60°	2.45	MJ6*1.00	/	②	5.00	★	★	☆
6	MIR-D6-A60-d6.0-L22-50 MJ8*1.00	50.00	22.00	60°	2.95	MJ8*1.00	/	②	6.00	★	★	☆
	MIR-D6-A60-d6.0-L22-50 MJ8*1.25	50.00	22.00	60°	2.95	MJ8*1.25	/	②	6.00	★	★	☆
8	MIR-D8-A60-d8.0-L30-60 MJ10*1.25	60.00	30.00	60°	3.95	MJ10*1.25	/	②	8.00	☆	☆	☆
	MIR-D8-A60-d8.0-L30-60 MJ10*1.5	60.00	30.00	60°	3.95	MJ10*1.50	/	②	8.00	☆	☆	☆
3	MIR-D3-A60-d2.6-L10-40 UNJ	40.00	10.00	60°	1.25	/	6#-32UNJ	①	2.60	☆	☆	☆
	MIR-D3-A60-d2.6-L10-40 UNJF	40.00	10.00	60°	1.25	/	6#-40UNJF	①	2.60	☆	☆	☆
3	MIR-D3-A60-d3.0-L15-40 UNJ	40.00	15.00	60°	1.45	/	8#-32UNJ	②	3.00	★	★	☆
	MIR-D3-A60-d3.0-L15-40 UNJF	40.00	15.00	60°	1.45	/	8#-36UNJF	②	3.00	★	★	☆
4	MIR-D4-A60-d3.5-L15-50 UNJ	50.00	15.00	60°	1.70	/	10#-24UNJ	①	3.50	★	★	☆
	MIR-D4-A60-d3.5-L15-50 UNJF	50.00	15.00	60°	1.70	/	10#-32UNJF	①	3.50	★	★	☆
4	MIR-D4-A60-d4.0-L22-50 UNJ	50.00	22.00	60°	1.95	/	12#-24UNJ	②	400	★	★	☆
	MIR-D4-A60-d4.0-L22-50 UNJF	50.00	22.00	60°	1.95	/	12#-28UNJF	②	4.00	★	★	☆
5	MIR-D5-A60-d5.0-L22-50 UNJ	50.00	22.00	60°	2.45	/	1/4-20UNJ	②	5.00	★	★	☆
	MIR-D5-A60-d5.0-L22-50 UNJF	50.00	22.00	60°	2.45	/	1/4-28UNJF	②	5.00	★	★	☆
6	MIR-D6-A60-d6.0-L22-50 UNJ	50.00	22.00	60°	2.95	/	5/16-18UNJ	②	6.00	☆	☆	☆
	MIR-D6-A60-d6.0-L22-50 UNJF	50.00	22.00	60°	2.95	/	5/16-24UNJF	②	6.00	☆	☆	☆
stock8	MIR-D8-A60-d7.5-L30-60 UNJ	60.00	30.00	60°	3.70	/	3/8-16UNJ	①	7.50	☆	☆	☆
	MIR-D8-A60-d7.5-L30-60 UNJF	60.00	30.00	60°	3.70	/	3/8-24UNJF	①	7.50	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：MIR-D3-A60-d2.0-L8-40 MJ2.5*0.35 BB2105 Order example: MIR-D3-A60-d2.0-L8-40 MJ2.5*0.35 BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HX 系列后定位镗刀编号规则

HX Series Rear Positioning Boring Tool Numbering Rules

KX	C	D4	T095	R0.1	d4.2	L10	50
①	②	③	④	⑤	⑥	⑦	⑧

型号表示规则中各代号表示如下:

The codes in the model indication rules are expressed as follows:

① 压紧方式 Clamping method	
HX	30°后斜面定位+侧压紧 30° rear bevel positioning + side pressing

② 加工方式 Machining method	
C	通用车削 General turning
D	仿形车削 Profile turning
F	径向切槽 Radial grooving
R	径向圆头切槽 Radial Corner grooving
FG	轴向切槽 Axial grooving
RG	轴向圆头切槽 Axial ball grooving
T	螺纹车削Thread turning

④刀具牙型 Cutter profile	
T095	主切入角95° Main appoach angle 95°
T095	主切入角98° Main appoach angle 98°
G100	宽度为1mm的径向槽刀 Radial grooving cutter with width of 1mm
R050	圆头0.5mm的圆头槽刀 Round head grooving cutter with width of 0.5mm
F100	宽度为1mm的轴向槽刀 Axial grooving cutter with width of 1mm
TH050MM	公制螺纹，螺距0.5mm Metric thread, pitch 0.5mm
TH400UN	美标螺纹，螺距40牙 American standard thread, pitch 40 teeth
TH050MJ	公制航标螺纹，螺距0.5mm Metric navigation mark thread, pitch 0.5mm

③刀具柄部直径 Tool shank diameter	
D5	柄径5mm Shank diameter 5mm
D6	□□6mm Shank diameter 6mm
...	.....

⑤刀尖圆角 Tool radius	
R0.1	刀尖圆角R0.1 Corner radius R0.1
R0.2	刀尖圆角R0.2 Corner radius R0.2
...	.....

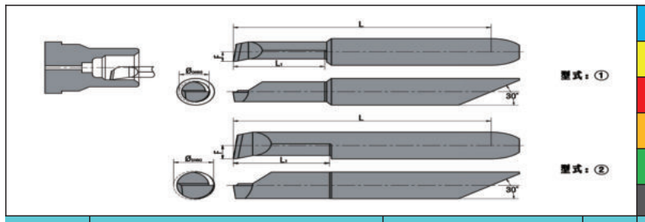
⑦有效切削长度 effective cutting length	
L10	有效切削长度10mm Effective cutting length 10mm
L22	有效切削长度22mm Effective cutting length 22mm
...	.....

⑥理论最小加工孔径 minimum hole diameter	
d4.2	理论最小加工孔径Ø4.2mm Theoretical minimum machining aperture Ø4.2mm
d5.2	理论最小加工孔径Ø5.2mm Theoretical minimum machining aperture Ø5.2mm
d6.2	理论最小加工孔径Ø6.2mm Theoretical minimum machining aperture Ø6.2mm
...	.....

⑧刀具总长 overall tool length	
40	总长40mm Overall length 40mm
50	□□50mm Overall length 50mm
...	.....

HXC　高精度通用车削小径镗刀

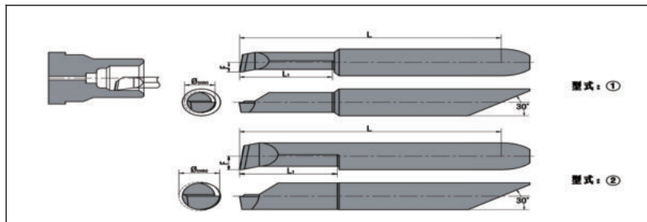
HXC High-Precision Boring Bars



P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
4	HXC-D4-T095-R0.05-d0.5-L2-27.5 R	27.50	2.00	0.05	0.20	①	0.50	☆	☆	☆
	HXC-D4-T095-R0.05-d0.5-L2-27.5 L	27.50	2.00	0.05	0.20	①	0.50	☆	☆	☆
	HXC-D4-T095-R0.05-d0.6-L3-27.5 R	27.50	3.00	0.05	0.25	①	0.60	☆	☆	☆
	HXC-D4-T095-R0.05-d0.6-L3-27.5L	27.50	3.00	0.05	0.25	①	0.60	☆	☆	☆
	HXC-D4-T095-R0.05-d0.8-L4-27.5 R	27.50	4.00	0.05	0.35	①	0.80	☆	☆	☆
	HXC-D4-T095-R0.05-d0.8-L4-27.5 L	27.50	4.00	0.05	0.35	①	0.80	☆	☆	☆
	HXC-D4-T095-R0.05-d1.0-L6-27.5 R	27.50	6.00	0.05	0.45	①	1.00	★	★	☆
	HXC-D4-T095-R0.05-d1.0-L6-27.5 L	27.50	6.00	0.05	0.45	①	1.00	☆	☆	☆
	HXC-D4-T095-R0.05-d1.5-L10-27.5 R	27.50	10.00	0.05	0.70	①	1.50	★	★	☆
	HXC-D4-T095-R0.05-d1.5-L10-27.5 L	27.50	10.00	0.05	0.70	①	1.50	☆	☆	☆
	HXC-D4-T095-R0.1-d2.2-L10-27.5 R	27.50	10.00	0.10	1.00	①	2.20	★	★	☆
	HXC-D4-T095-R0.1-d2.2-L10-27.5 L	27.50	10.00	0.10	1.00	①	2.20	☆	☆	☆
	HXC-D4-T095-R0.1-d2.7-L10-27.5 R	27.50	10.00	0.10	1.20	①	2.70	☆	☆	☆
	HXC-D4-T095-R0.1-d2.7-L10-27.5 L	27.50	10.00	0.10	1.20	①	2.70	☆	☆	☆
	HXC-D4-T095-R0.1-d2.7-L15-32.5 R	32.50	15.00	0.10	1.20	①	2.70	☆	☆	☆
	HXC-D4-T095-R0.1-d2.7-L15-32.5 L	32.50	15.00	0.10	1.20	①	2.70	☆	☆	☆
	HXC-D4-T095-R0.05-d3.2-L10-27.5 R	27.50	10.00	0.05	1.45	①	3.20	★	★	☆
	HXC-D4-T095-R0.05-d3.2-L10-27.5 L	27.50	10.00	0.05	1.45	①	3.20	☆	☆	☆
	HXC-D4-T095-R0.05-d3.2-L15-32.5 R	32.50	15.00	0.05	1.45	①	3.20	★	★	☆
	HXC-D4-T095-R0.05-d3.2-L15-32.5 L	32.50	15.00	0.05	1.45	①	3.20	☆	☆	☆
	HXC-D4-T095-R0.05-d3.2-L20-37.5 R	37.50	20.00	0.05	1.45	①	3.20	★	★	☆
	HXC-D4-T095-R0.05-d3.2-L20-37.5 L	37.50	20.00	0.05	1.45	①	3.20	☆	☆	☆
	HXC-D4-T095-R0.15-d3.2-L10-27.5 R	27.50	10.00	0.15	1.45	①	3.20	★	★	☆
	HXC-D4-T095-R0.15-d3.2-L10-27.5 L	27.50	10.00	0.15	1.45	①	3.20	☆	☆	☆
	HXC-D4-T095-R0.15-d3.2-L15-32.5 R	32.50	15.00	0.15	1.45	①	3.20	★	★	☆
	HXC-D4-T095-R0.15-d3.2-L15-32.5 L	32.50	15.00	0.15	1.45	①	3.20	☆	☆	☆
	HXC-D4-T095-R0.15-d3.2-L20-37.5 R	37.50	20.00	0.15	1.45	①	3.20	★	★	☆
	HXC-D4-T095-R0.15-d3.2-L20-37.5 L	37.50	20.00	0.15	1.45	①	3.20	☆	☆	☆
	HXC-D4-T095-R0.15-d4.2-L10-27.5 R	27.50	10.00	0.15	1.95	②	4.20	★	★	☆
	HXC-D4-T095-R0.15-d4.2-L10-27.5 L	27.50	10.00	0.15	1.95	②	4.20	☆	☆	☆
	HXC-D4-T095-R0.15-d4.2-L15-32.5 R	32.50	15.00	0.15	1.95	②	4.20	★	★	☆
	HXC-D4-T095-R0.15-d4.2-L15-32.5 L	32.50	15.00	0.15	1.95	②	4.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXC-D4-T095-R0.05-d0.5-L2-27.5 R BB2105 Order example: HXC-D4-T095-R0.05-d0.5-L2-27.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★ Standing stock ☆ Not standing stock



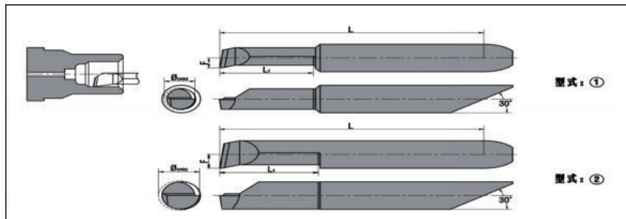
P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
4	HXC-D4-T095-R0.15-d4.2-L20-37.5 R	37.50	20.00	0.15	1.95	②	4.20	★	★	☆
	HXC-D4-T095-R0.15-d4.2-L20-37.5 L	37.50	20.00	0.15	1.95	②	4.20	☆	☆	☆
	HXC-D4-T095-R0.15-d4.2-L25-42.5 R	42.50	25.00	0.15	1.95	②	4.20	★	★	☆
	HXC-D4-T095-R0.15-d4.2-L25-42.5 L	42.50	25.00	0.15	1.95	②	4.20	☆	☆	☆
5	HXC-D5-T095-R0.2-d5.2-L10-32.5 L	32.50	10.00	0.20	2.45	②	5.20	★	★	☆
	HXC-D5-T095-R0.2-d5.2-L10-32.5 R	32.50	10.00	0.20	2.45	②	5.20	☆	☆	☆
	HXC-D5-T095-R0.2-d5.2-L15-37.5 L	37.50	15.00	0.20	2.45	②	5.20	★	★	☆
	HXC-D5-T095-R0.2-d5.2-L15-37.5 R	37.50	15.00	0.20	2.45	②	5.20	☆	☆	☆
	HXC-D5-T095-R0.2-d5.2-L20-42.5 L	42.50	20.00	0.20	2.45	②	5.20	★	★	☆
	HXC-D5-T095-R0.2-d5.2-L20-42.5 R	42.50	20.00	0.20	2.45	②	5.20	☆	☆	☆
	HXC-D5-T095-R0.2-d5.2-L25-47.5 L	47.50	25.00	0.20	2.45	②	5.20	★	★	
	HXC-D5-T095-R0.2-d5.2-L25-47.5 R	47.50	25.00	0.20	2.45	②	5.20	☆	☆	☆
	HXC-D5-T095-R0.2-d5.2-L25-52.5 L	52.50	30.00	0.20	2.45	②	5.20	★	★	☆
	HXC-D5-T095-R0.2-d5.2-L25-52.5 R	52.50	30.00	0.20	2.45	②	5.20	☆	☆	☆
6	HXC-D6-T095-R0.2-d6.2-L15-37.5 R	37.50	15.00	0.20	2.95	②	6.20	★	★	☆
	HXC-D6-T095-R0.2-d6.2-L15-37.5 L	37.50	15.00	0.20	2.95	②	6.20	☆	☆	☆
	HXC-D6-T095-R0.2-d6.2-L20-42.5 R	42.50	20.00	0.20	2.95	②	6.20	★	★	☆
	HXC-D6-T095-R0.2-d6.2-L20-42.5 L	42.50	20.00	0.20	2.95	②	6.20	☆	☆	☆
	HXC-D6-T095-R0.2-d6.2-L25-47.5 R	47.50	25.00	0.20	2.95	②	6.20	★	★	☆
	HXC-D6-T095-R0.2-d6.2-L25-47.5 L	47.50	25.00	0.20	2.95	②	6.20	☆	☆	☆
	HXC-D6-T095-R0.2-d6.2-L30-52.5 R	52.50	30.00	0.20	2.95	②	6.20	★	★	☆
	HXC-D6-T095-R0.2-d6.2-L30-52.5L	52.50	30.00	0.20	2.95	②	6.20	☆	☆	☆
	HXC-D6-T095-R0.2-d6.2-L35-57.5 R	57.50	35.00	0.20	2.95	②	6.20	★	★	☆
	HXC-D6-T095-R0.2-d6.2-L35-57.5L	57.50	35.00	0.20	2.95	②	6.20	☆	☆	☆
	HXC-D6-T095-R0.2-d6.2-L40-62.5 R	62.50	40.00	0.20	2.95	②	6.20	★	★	☆
	HXC-D6-T095-R0.2-d6.2-L40-62.5L	62.50	40.00	0.20	2.95	②	6.20	☆	☆	☆
7	HXC-D7-T095-R0.2-d7.2-L25-47.5 R	47.50	25.00	0.20	3.45	②	7.20	★	★	☆
	HXC-D7-T095-R0.2-d7.2-L25-47.5 L	47.50	25.00	0.20	3.45	②	7.20	☆	☆	☆
	HXC-D7-T095-R0.2-d7.2-L30-52.5 R	52.50	30.00	0.20	3.45	②	7.20	★	★	☆
	HXC-D7-T095-R0.2-d7.2-L30-52.5 L	52.50	30.00	0.20	3.45	②	7.20	☆	☆	☆
	HXC-D7-T095-R0.2-d7.2-L40-62.5 R	62.50	40.00	0.20	3.45	②	7.20	★	★	☆
	HXC-D7-T095-R0.2-d7.2-L40-62.5 L	62.50	40.00	0.20	3.45	②	7.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXC-D4-T095-R0.15-d4.2-L20-37.5 R BB2105 Ordering example: HXC-D4-T095-R0.15-d4.2-L20-37.5 R BB2105
★ 常备库存 ☆不常备库存 ★Standing stock ☆Not standing stock

HXC 高精度通用车削小径镗刀

HXC High-Precision Boring Bars



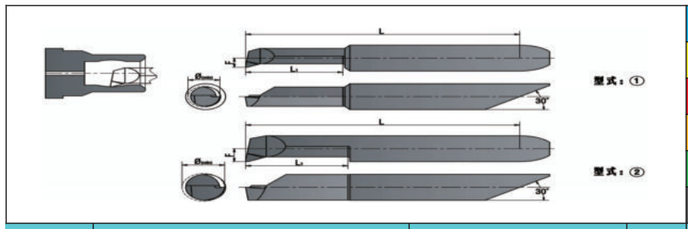
P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
7	HXC-D7-T095-R0.2-d7.2-L45-67.5 R	67.50	45.00	0.20	3.45	②	7.20	★	★	☆
	HXC-D7-T095-R0.2-d7.2-L45-67.5 L	67.50	45.00	0.20	3.45	②	7.20	☆	☆	☆
	HXC-D7-T095-R0.2-d7.2-L50-72.5 R	72.50	50.00	0.20	3.45	②	7.20	★	★	☆
	HXC-D7-T095-R0.2-d7.2-L50-72.5 L	72.50	50.00	0.20	3.45	②	7.20	☆	☆	☆
8	HXC-D8-T095-R0.2-d8.2-L30-57.5 R	57.50	30.00	0.20	3.95	②	8.20	★	★	☆
	HXC-D8-T095-R0.2-d8.2-L30-57.5 L	57.50	30.00	0.20	3.95	②	8.20	☆	☆	☆
	HXC-D8-T095-R0.2-d8.2-L40-67.5 R	67.50	40.00	0.20	3.95	②	8.20	★	★	☆
	HXC-D8-T095-R0.2-d8.2-L40-67.5 L	67.50	40.00	0.20	3.95	②	8.20	☆	☆	☆
	HXC-D8-T095-R0.2-d8.2-L50-77.5	77.50	50.00	0.20	3.95	②	8.20	★	★	☆
	HXC-D8-T095-R0.2-d8.2-L50-77.5 L	77.50	50.00	0.20	3.95	②	8.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXC-D7-T095-R0.2-d7.2-L45-67.5 R BB2105 Order example: HXC-D7-T095-R0.2-d7.2-L45-67.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXD 高精度仿形车削小径镗刀

HXD High-Precision Profiling And Boring Bars



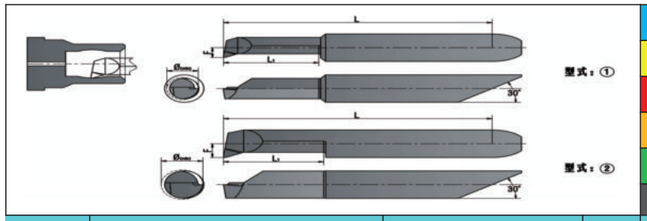
P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
4	HXD-D4-T098-R0.05-d0.5-L2-27.5 R	27.50	2.00	0.05	0.20	①	0.50	☆	☆	☆
	HXD-D4-T098-R0.05-d0.5-L2-27.5 L	27.50	2.00	0.05	0.20	①	0.50	☆	☆	☆
	HXD-D4-T098-R0.05-d0.6-L3-27.5 R	27.50	3.00	0.05	0.25	①	0.60	☆	☆	☆
	HXD-D4-T098-R0.05-d0.6-L3-27.5 L	27.50	3.00	0.05	0.25	①	0.60	☆	☆	☆
	HXD-D4-T098-R0.05-d0.8-L4-27.5 R	27.50	4.00	0.05	0.35	①	0.80	☆	☆	☆
	HXD-D4-T098-R0.05-d0.8-L4-27.5 L	27.50	4.00	0.05	0.35	①	0.80	☆	☆	☆
	HXD-D4-T098-R0.05-d1.0-L6-27.5 R	27.50	6.00	0.05	0.45	①	1.00	★	★	☆
	HXD-D4-T098-R0.05-d1.0-L6-27.5 L	27.50	6.00	0.05	0.45	①	1.00	☆	☆	☆
	HXD-D4-T098-R0.05-d1.5-L10-27.5 R	27.50	10.00	0.05	0.70	①	1.50	★	★	☆
	HXD-D4-T098-R0.05-d1.5-L10-27.5 L	27.50	10.00	0.05	0.70	①	1.50	☆	☆	☆
	HXD-D4-T098-R0.1-d2.2-L10-27.5 R	27.50	10.00	0.10	1.0	①	2.20	★	★	☆
	HXD-D4-T098-R0.1-d2.2-L10-27.5 L	27.50	10.00	0.10	1.0	①	2.20	☆	☆	☆
	HXD-D4-T098-R0.1-d2.7-L10-27.5 R	27.50	10.00	0.10	1.20	①	2.70	☆	☆	☆
	HXD-D4-T098-R0.1-d2.7-L10-27.5 L	27.50	10.00	0.10	1.20	①	2.70	☆	☆	☆
	HXD-D4-T098-R0.1-d2.7-L15-32.5 R	32.50	15.00	0.10	1.20	①	2.70	☆	☆	☆
	HXD-D4-T098-R0.1-d2.7-L15-32.5 L	32.50	15.00	0.10	1.20	①	2.70	☆	☆	☆
	HXD-D4-T098-R0.05-d3.2-L10-27.5 R	27.50	10.00	0.05	1.45	①	3.20	★	★	☆
	HXD-D4-T098-R0.05-d3.2-L10-27.5 L	27.50	10.00	0.05	1.45	①	3.20	☆	☆	☆
	HXD-D4-T098-R0.05-d3.2-L15-32.5 R	32.50	15.00	0.05	1.45	①	3.20	★	★	☆
	HXD-D4-T098-R0.05-d3.2-L15-32.5 L	32.50	15.00	0.05	1.45	①	3.20	☆	☆	☆
	HXD-D4-T098-R0.05-d3.2-L20-37.5 R	37.50	20.00	0.05	1.45	①	3.20	★	★	☆
	HXD-D4-T098-R0.05-d3.2-L20-37.5 L	37.50	20.00	0.05	1.45	①	3.20	☆	☆	☆
	HXD-D4-T098-R0.15-d3.2-L10-27.5 R	27.50	10.00	0.15	1.45	①	3.20	★	★	☆
	HXD-D4-T098-R0.15-d3.2-L10-27.5 L	27.50	10.00	0.15	1.45	①	3.20	☆	☆	☆
	HXD-D4-T098-R0.15-d3.2-L15-32.5 R	32.50	15.00	0.15	1.45	①	3.20	★	★	☆
	HXD-D4-T098-R0.15-d3.2-L15-32.5 L	32.50	15.00	0.15	1.45	①	3.20	☆	☆	☆
	HXD-D4-T098-R0.15-d3.2-L20-37.5 R	37.50	20.00	0.15	1.45	①	3.20	★	★	☆
	HXD-D4-T098-R0.15-d3.2-L20-37.5 L	37.50	20.00	0.15	1.45	①	3.20	☆	☆	☆
	HXD-D4-T098-R0.15-d4.2-L10-27.5 R	27.50	10.00	0.15	1.95	②	4.20	★	★	☆
	HXD-D4-T098-R0.15-d4.2-L10-27.5 L	27.50	10.00	0.15	1.95	②	4.20	☆	☆	☆
	HXD-D4-T098-R0.15-d4.2-L15-32.5 R	32.50	15.00	0.15	1.95	②	4.20	★	★	☆
	HXD-D4-T098-R0.15-d4.2-L15-32.5 L	32.50	15.00	0.15	1.95	②	4.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXD-D4-T098-R0.05-d0.5-L2-27.5 R BB2105 example:HXD-D4-T098-R0.05-d0.5-L2-27.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXD 高精度仿形车削小径镗刀

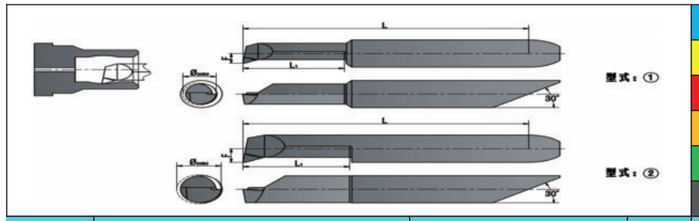
HXD High-Precision Profiling And Boring Bars



P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
4	HXD-D4-T098-R0.15-d4.2-L20-37.5 R	37.50	20.00	0.15	1.95	②	4.20	★	★	☆
	HXD-D4-T098-R0.15-d4.2-L20-37.5 L	37.50	20.00	0.15	1.95	②	4.20	☆	☆	☆
	HXD-D4-T098-R0.15-d4.2-L25-42.5 R	42.50	25.00	0.15	1.95	②	4.20	★	★	☆
	HXD-D4-T098-R0.15-d4.2-L25-42.5 L	42.50	25.00	0.15	1.95	②	4.20	☆	☆	☆
5	HXD-D5-T098-R0.2-d5.2-L10-32.5 L	32.50	10.00	0.20	2.45	②	5.20	★	★	☆
	HXD-D5-T098-R0.2-d5.2-L10-32.5 R	32.50	10.00	0.20	2.45	②	5.20	☆	☆	☆
	HXD-D5-T098-R0.2-d5.2-L15-37.5 L	37.50	15.00	0.20	2.45	②	5.20	★	★	☆
	HXD-D5-T098-R0.2-d5.2-L15-37.5 R	37.50	15.00	0.20	2.45	②	5.20	☆	☆	☆
	HXD-D5-T098-R0.2-d5.2-L20-42.5 L	42.50	20.00	0.20	2.45	②	5.20	★	★	☆
	HXD-D5-T098-R0.2-d5.2-L20-42.5 R	42.50	20.00	0.20	2.45	②	5.20	☆	☆	☆
	HXD-D5-T098-R0.2-d5.2-L25-47.5 L	47.50	25.00	0.20	2.45	②	5.20	★	★	☆
	HXD-D5-T098-R0.2-d5.2-L25-47.5 R	47.50	25.00	0.20	2.45	②	5.20	☆	☆	☆
	HXD-D5-T098-R0.2-d5.2-L25-52.5 L	52.50	30.00	0.20	2.45	②	5.20	★	★	☆
	HXD-D5-T098-R0.2-d5.2-L25-52.5 R	52.50	30.00	0.20	2.45	②	5.20	☆	☆	☆
6	HXD-D6-T098-R0.2-d6.2-L15-37.5 R	37.50	15.00	0.20	2.95	②	6.20	★	★	☆
	HXD-D6-T098-R0.2-d6.2-L15-37.5 L	37.50	15.00	0.20	2.95	②	6.20	☆	☆	☆
	HXD-D6-T098-R0.2-d6.2-L20-42.5 R	42.50	20.00	0.20	2.95	②	6.20	★	★	☆
	HXD-D6-T098-R0.2-d6.2-L20-42.5 L	42.50	20.00	0.20	2.95	②	6.20	☆	☆	☆
	HXD-D6-T098-R0.2-d6.2-L20-42.5 R	47.50	25.00	0.20	2.95	②	6.20	★	★	☆
	HXD-D6-T098-R0.2-d6.2-L25-47.5 L	47.50	25.00	0.20	2.95	②	6.20	☆	☆	☆
	HXD-D6-T098-R0.2-d6.2-L25-47.5 R	52.50	30.00	0.20	2.95	②	6.20	★	★	☆
	HXD-D6-T098-R0.2-d6.2-L30-52.5 L	52.50	30.00	0.20	2.95	②	6.20	☆	☆	☆
	HXD-D6-T098-R0.2-d6.2-L30-52.5 R	57.50	35.00	0.20	2.95	②	6.20	★	★	☆
	HXD-D6-T098-R0.2-d6.2-L40-62.5L	57.50	35.00	0.20	2.95	②	6.20	☆	☆	☆
	HXD-D6-T098-R0.2-d6.2-L40-62.5 R	62.50	40.00	0.20	2.95	②	6.20	★	★	☆
	HXD-D6-T098-R0.2-d6.2-L40-62.5 L	62.50	40.00	0.20	2.95	②	6.20	☆	☆	☆
7	HXD-D7-T098-R0.2-d7.2-L25-47.5 R	47.50	25.00	0.20	3.45	②	7.20	★	★	☆
	HXD-D7-T098-R0.2-d7.2-L25-47.5 L	47.50	25.00	0.20	3.45	②	7.20	☆	☆	☆
	HXD-D7-T098-R0.2-d7.2-L30-52.5 R	52.50	30.00	0.20	3.45	②	7.20	★	★	☆
	HXD-D7-T098-R0.2-d7.2-L30-52.5 L	52.50	30.00	0.20	3.45	②	7.20	☆	☆	☆
	HXD-D7-T098-R0.2-d7.2-L40-62.5 R	62.50	40.00	0.20	3.45	②	7.20	★	★	☆
	HXD-D7-T098-R0.2-d7.2-L40-62.5 L	62.50	40.00	0.20	3.45	②	7.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXD-D4-T098-R0.15-d4.2-L20-37.5 R BB2105 Order example:HXD-D4-T098-R0.15-d4.2-L20-37.5 R BB2105
★ 常备库存 ☆不常备库存 ★Standing stock ☆Not standing stock



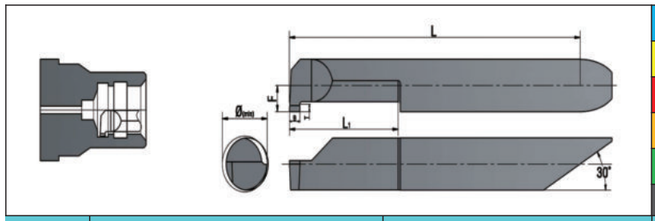
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	R	F			BB2105	BB2110	BB2115
7	HXD-D7-T098-R0.2-d7.2-L45-67.5 R	67.50	45.00	0.20	3.45	②	7.20	★	★	☆
	HXD-D7-T098-R0.2-d7.2-L45-67.5 L	67.50	45.00	0.20	3.45	②	7.20	☆	☆	☆
	HXD-D7-T098-R0.2-d7.2-L50-72.5 R	72.50	50.00	0.20	3.45	②	7.20	★	★	☆
	HXD-D7-T098-R0.2-d7.2-L50-72.5 L	72.50	50.00	0.20	3.45	②	7.20	☆	☆	☆
8	HXD-D8-T098-R0.2-d8.2-L30-57.5 R	57.50	30.00	0.20	3.95	②	8.20	★	★	☆
	HXD-D8-T098-R0.2-d8.2-L30-57.5 L	57.50	30.00	0.20	3.95	②	8.20	☆	☆	☆
	HXD-D8-T098-R0.2-d8.2-L40-67.5 R	67.50	40.00	0.20	3.95	②	8.20	★	★	☆
	HXD-D8-T098-R0.2-d8.2-L40-67.5 L	67.50	40.00	0.20	3.95	②	8.20	☆	☆	☆
	HXD-D8-T098-R0.2-d8.2-L50-77.5 R	77.50	50.00	0.20	3.95	②	8.20	★	★	☆
	HXD-D8-T098-R0.2-d8.2-L50-77.5 L	77.50	50.00	0.20	3.95	②	8.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXD-D7-T098-R0.2-d7.2-L45-67.5 R BB2105 Order example:HXD-D7-T098-R0.2-d7.2-L45-67.5 R BB2105
★ 常备库存 ☆不常备库存 ★Standing stock ☆Not standing stock

HXF 高精度内孔径向槽刀

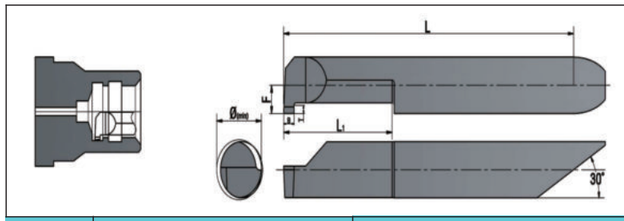
HXF High-Precision Grooving Bars



P	★	★
M	★	★
K	★	☆
S	★	★
N		☆
H	★	☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	B	F		BB2105	BB2110	BB2115
4	HXF-D4-G078-d4.2-L10-27.5 R	27.50	10.00	0.80	0.78	1.95	4.20	★	★	☆
	HXF-D4-G078-d4.2-L10-27.5 L	27.50	10.00	0.80	0.78	1.95	4.20	☆	☆	☆
	HXF-D4-G078-d4.2-L15-32.5 R	32.50	15.00	0.80	0.78	1.95	4.20	★	★	☆
	HXF-D4-G078-d4.2-L15-32.5 L	32.50	15.00	0.80	0.78	1.95	4.20	☆	☆	☆
	HXF-D4-G078-d4.2-L20-37.5 R	37.50	20.00	0.80	0.78	1.95	4.20	★	★	☆
	HXF-D4-G078-d4.2-L20-37.5 L	37.50	20.00	0.80	0.78	1.95	4.20	☆	☆	☆
	HXF-D4-G100-d4.2-L10-27.5 R	27.50	10.00	1.00	1.00	1.95	4.20	★	★	☆
	HXF-D4-G100-d4.2-L10-27.5 L	27.50	10.00	1.00	1.00	1.95	4.20	☆	☆	☆
	HXF-D4-G100-d4.2-L15-32.5 R	32.50	15.00	1.00	1.00	1.95	4.20	★	★	☆
	HXF-D4-G100-d4.2-L15-32.5 L	32.50	15.00	1.00	1.00	1.95	4.20	☆	☆	☆
	HXF-D4-G100-d4.2-L20-37.5 R	37.50	20.00	1.00	1.00	1.95	4.20	★	★	☆
	HXF-D4-G100-d4.2-L20-37.5 L	37.50	20.00	1.00	1.00	1.95	4.20	☆	☆	☆
5	HXF-D5-G078-d5.2-L10-32.5 R	32.50	10.00	1.00	0.78	2.45	5.20	★	★	☆
	HXF-D5-G078-d5.2-L10-32.5 L	32.50	10.00	1.00	0.78	2.45	5.20	☆	☆	☆
	HXF-D5-G078-d5.2-L15-37.5 R	37.50	15.00	1.00	0.78	2.45	5.20	★	★	☆
	HXF-D5-G078-d5.2-L15-37.5 L	37.50	15.00	1.10	0.78	2.45	5.20	☆	☆	☆
	HXF-D5-G078-d5.2-L20-42.5 R	42.50	20.00	1.00	0.78	2.45	5.20	★	★	☆
	HXF-D5-G078-d5.2-L20-42.5 L	42.50	20.00	1.00	0.78	2.45	5.20	☆	☆	☆
	HXF-D5-G078-d5.2-L25-47.5 R	47.50	25.00	1.00	0.78	2.45	5.20	★	★	☆
	HXF-D5-G078-d5.2-L25-47.5 L	47.50	25.00	1.00	0.78	2.45	5.20	☆	☆	☆
	HXF-D5-G078-d5.2-L30-52.5 R	52.50	30.00	1.00	0.78	2.45	5.20	★	★	☆
	HXF-D5-G078-d5.2-L30-52.5 L	52.50	30.00	1.00	0.78	2.45	5.20	☆	☆	☆
	HXF-D5-G120-d5.2-L10-32.5 R	32.50	10.00	1.20	1.00	2.45	5.20	★	★	☆
	HXF-D5-G120-d5.2-L10-32.5 L	32.50	10.00	1.20	1.00	2.45	5.20	☆	☆	☆
	HXF-D5-G120-d5.2-L15-37.5 R	37.50	15.00	1.20	1.00	2.45	5.20	★	★	☆
	HXF-D5-G120-d5.2-L15-37.5 L	37.50	15.00	1.20	1.00	2.45	5.20	☆	☆	☆
	HXF-D5-G120-d5.2-L20-42.5 R	42.50	20.00	1.20	1.00	2.45	5.20	★	★	☆
	HXF-D5-G120-d5.2-L20-42.5 L	42.50	20.00	1.20	1.00	2.45	5.20	☆	☆	☆
	HXF-D5-G120-d5.2-L25-47.5 R	47.50	25.00	1.20	1.00	2.45	5.20	★	★	☆
	HXF-D5-G120-d5.2-L25-47.5 L	47.50	25.00	1.20	1.00	2.45	5.20	☆	☆	☆
	HXF-D5-G120-d5.2-L30-52.5 R	52.50	30.00	1.20	1.00	2.45	5.20	★	★	☆
	HXF-D5-G120-d5.2-L30-52.5 L	52.50	30.00	1.20	1.00	2.45	5.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXF-D4-G078-d4.2-L10-27.5 R Bb2105 Order example:HXF-D4-G078-d4.2-L10-27.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock



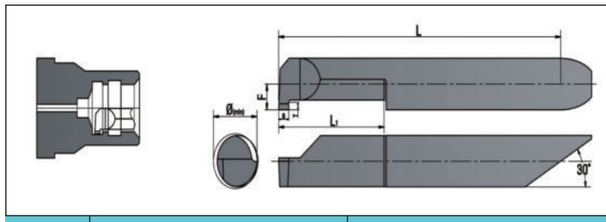
P	★	★
M	★	★
K	★	☆
S	★	★
N		☆
H	★	☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	B	F		BB2105	BB2110	BB2115
5	HXF-D5-G130-d5.2-L10-32.5 R	32.50	10.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L10-32.5 L	32.50	10.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L15-37.5 R	37.50	15.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L15-37.5 L	37.50	15.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L20-42.5 R	42.50	20.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L20-42.5 L	42.50	20.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L25-47.5 R	47.50	25.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L25-47.5 L	47.50	25.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L30-52.5 R	52.50	30.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G130-d5.2-L30-52.5 L	52.50	30.00	1.20	1.30	2.45	5.20	☆	☆	☆
	HXF-D5-G150-d5.2-L10-32.5 R	32.50	10.00	1.20	1.50	2.45	5.20	★	★	☆
	HXF-D5-G150-d5.2-L10-32.5 L	32.50	10.00	1.20	1.50	2.45	5.20	☆	☆	☆
	HXF-D5-G150-d5.2-L15-37.5 R	3750	15.00	1.20	1.50	2.45	5.20	★	★	☆
	HXF-D5-G150-d5.2-L15-37.5 L	37.50	15.00	1.20	1.50	2.45	5.20	☆	☆	☆
	HXF-D5-G150-d5.2-L20-42.5 R	42.50	20.00	1.20	1.50	2.45	5.20	★	★	☆
	HXF-D5-G150-d5.2-L20-42.5 L	42.50	20.00	1.20	1.50	2.45	5.20	☆	☆	☆
	HXF-D5-G150-d5.2-L25-47.5 R	47.50	25.00	1.20	1.50	2.45	5.20	★	★	☆
	HXF-D5-G150-d5.2-L25-47.5 L	47.50	25.00	1.20	1.50	2.45	5.20	☆	☆	☆
	HXF-D5-G150-d5.2-L30-52.5 R	52.50	30.00	1.20	1.50	2.45	5.20	★	★	☆
	HXF-D5-G150-d5.2-L30-52.5 L	52.50	30.00	1.20	1.50	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L10-32.5 R	32.50	10.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L10-32.5 L	32.50	10.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L15-37.5 R	37.50	15.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L15-37.5 L	37.50	15.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L20-42.5 R	42.50	20.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L20-42.5 L	42.50	20.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L25-47.5 R	47.50	25.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L25-47.5 L	47.50	25.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L30-52.5 R	52.50	30.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G170-d5.2-L30-52.5 L	52.50	30.00	1.20	1.70	2.45	5.20	☆	☆	☆
	HXF-D5-G200-d5.2-L10-32.5 R	32.50	10.11	1.20	2.00	2.45	5.20	★	★	☆
	HXF-D5-G200-d5.2-L10-32.5 L	32.50	10.11	1.20	2.00	2.45	5.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXF-D5-G130-d5.2-L10-32.5 R BB2105 Order example:HXF-D5-G130-d5.2-L10-32.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXF 高精度内孔径向槽刀

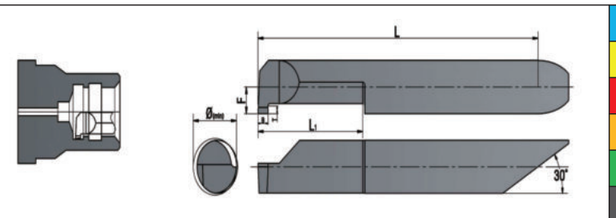
HXF High-Precision Grooving Bars



P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	B	F		BB2105	BB2110	BB2115
5	HXF-D5-G200-d5.2-L15-37.5 R	37.50	15.00	1.20	2.00	2.45	5.20	★	★	☆
	HXF-D5-G200-d5.2-L15-37.5 L	37.50	15.00	1.20	2.00	2.45	5.20	☆	☆	☆
	HXF-D5-G200-d5.2-L20-42.5 R	42.50	20.00	1.20	2.00	2.45	5..20	★	★	☆
	HXF-D5-G200-d5.2-L20-42.5 L	42.50	20.00	1.20	2.00	2.45	5.20	☆	☆	☆
6	HXF-D6-G078-d6.2-L15-37.5 R	37.50	15.00	1.20	0.78	2.95	6.20	★	★	☆
	HXF-D6-G078-d6.2-L15-37.5 L	37.50	15.00	1.20	0.78	2.95	6.20	☆	☆	☆
	HXF-D6-G078-d6.2-L25-47.5 R	47.50	25.00	1.20	0.78	2.95	6.20	★	★	☆
	HXF-D6-G078-d6.2-L25-47.5 L	47.50	25.00	1.20	0.78	2.95	6.20	☆	☆	☆
	HXF-D6-G078-d6.2-L35-57.5 R	57.50	35.00	1.20	0.78	2.95	6.20	★	★	☆
	HXF-D6-G078-d6.2-L35-57.5 L	57.50	35.00	1.20	0.78	2.95	6.20	☆	☆	☆
	HXF-D6-G100-d6.2-L15-37.5 R	37.50	15.00	1.60	1.00	2.95	6.20	★	★	☆
	HXF-D6-G100-d6.2-L15-37.5 L	37.50	15.00	1.60	1.00	2.95	6.20	☆	☆	☆
	HXF-D6-G100-d6.2-L25-47.5 R	47.50	25.00	1.60	1.00	2.95	6.20	★	★	☆
	HXF-D6-G100-d6.2-L25-47.5 L	47.50	25.00	1.60	1.00	2.95	6.20	☆	☆	☆
	HXF-D6-G100-d6.2-L35-57.5 R	57.50	35.00	1.60	1.00	2.95	6.20	★	★	☆
	HXF-D6-G100-d6.2-L35-57.5 L	57.50	35.00	1.60	1.00	2.95	6.20	☆	☆	☆
	HXF-D6-G130-d6.2-L15-37.5-R	37.50	15.00	1.60	1.30	2.95	6.20	☆	☆	☆
	HXF-D6-G130-d6.2-L15-37.5 L	37.50	15.00	1.60	1.30	2.95	6.20	☆	☆	☆
	HXF-D6-G130-d6.2-L25-47.5 R	47.50	25.00	1.60	1.30	2.95	6.20	☆	☆	☆
	HXF-D6-G130-d6.2-L25-47.5 R	47.50	25.00	1.60	1.30	2.95	6.20	☆	☆	☆
	HXF-D6-G130-d6.2-L35-57.5 R	57.50	35.00	1.60	1.30	2.95	6.20	☆	☆	☆
	HXF-D6-G130-d6.2-L35-57.5 L	57.50	35.00	1.60	1.30	2.95	6.20	☆	☆	☆
	HXF-D6-G150-d6.2-L15-37.5 R	37.50	15.00	1.80	1.50	2.95	6.20	★	★	☆
	HXF-D6-G150-d6.2-L15-37.5 L	37.50	15.00	1.80	1.50	2.95	6.20	☆	☆	☆
	HXF-D6-G150-d6.2-L25-47.5 R	47.50	25.00	1.80	1.50	2.95	6.20	★	★	☆
	HXF-D6-G150-d6.2-L25-47.5 L	47.50	25.00	1.80	1.50	2.95	6.20	☆	☆	☆
	HXF-D6-G150-d6.2-L35-57.5 R	57.50	35.00	1.80	1.50	2.95	6.20	★	★	☆
	HXF-D6-G150-d6.2-L35-57.5 L	57.50	35.00	1.80	1.50	2.95	6.20	☆	☆	☆
	HXF-D6-G170-d6.2-L15-37.5 R	37.50	15.00	1.80	1.70	2.95	6.20	☆	☆	☆
	HXF-D6-G170-d6.2-L15-37.5 L	37.50	15.00	1.80	1.70	2.95	6.20	☆	☆	☆
	HXF-D6-G170-d6.2-L25-47.5 R	47.50	25.00	1.80	1.70	2.95	6.20	☆	☆	☆
	HXF-D6-G170-d6.2-L25-47.5 L	47.50	25.00	1.80	1.70	2.95	6.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXF-D5-G200-d6.2-L15-37.5 R BB2105 Order example:HXF-D5-G200-d6.2-L15-37.5 R Bb2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock



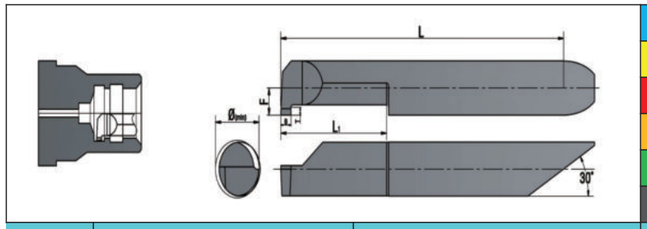
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	B	F		BB2105	BB2110	BB2115
6	HXF-D6-G170-d6.2-L35-57.5 L	57.50	35.00	1.80	1.70	2.95	6.20	☆	☆	☆
	HXF-D6-G170-d6.2-L35-57.5 R	57.50	35.00	1.80	1.70	2.95	6.20	☆	☆	☆
	HXF-D6-G200-d6.2-L15-37.5 R	37.50	15.00	1.80	2.00	2.95	6.20	★	★	☆
	HXF-D6-G200-d6.2-L15-37.5 L	37.50	15.00	1.80	2.00	2.95	6.20	☆	☆	☆
	HXF-D6-G200-d6.2-L25-47.5 R	47.50	25.00	1.80	2.00	2.95	6.20	★	★	☆
	HXF-D6-G200-d6.2-L25-47.5 L	47.50	25.00	1.80	2.00	2.95	6.20	☆	☆	☆
	HXF-D6-G200-d6.2-L35-57.5 R	57.50	35.00	1.80	2.00	2.95	6.20	★	★	☆
	HXF-D6-G200-d6.2-L35-57.5 L	57.50	35.00	1.80	2.00	2.95	6.20	☆	☆	☆
7	HXF-D7-G078-d7.2-L15-37.5 R	37.50	15.00	1.20	0.78	3.45	7.20	★	★	☆
	HXF-D7-G078-d7.2-L15-37.5 L	37.50	15.00	1.20	0.78	3.45	7.20	☆	☆	☆
	HXF-D7-G078-d7.2-L25-47.5 R	47.50	25.00	1.20	0.78	3.45	7.20	★	★	☆
	HXF-D7-G078-d7.2-L25-47.5 L	47.50	25.00	1.20	0.78	3.45	7.20	☆	☆	☆
	HXF-D7-G078-d7.2-L35-57.5 R	57.50	35.00	1.20	0.78	3.45	7.20	★	★	☆
	HXF-D7-G078-d7.2-L35-57.5 L	57.50	35.00	1.20	0.78	3.45	7.20	☆	☆	☆
	HXF-D7-G078-d7.2-L45-67.5 R	67.50	45.00	1.20	0.78	3.45	7.20	☆	☆	☆
	HXF-D7-G078-d7.2-L45-67.5 L	67.50	45.00	1.20	0.78	3.45	7.20	☆	☆	☆
	HXF-D7-G100-d7.2-L15-37.5 R	37.50	15.00	1.80	1.00	3.45	7.20	★	★	☆
	HXF-D7-G100-d7.2-L15-37.5 L	37.50	15.00	1.80	1.00	3.45	7.20	☆	☆	☆
	HXF-D7-G100-d7.2-L25-47.5 R	47.50	25.00	1.80	1.00	3.45	7.20	★	★	☆
	HXF-D7-G100-d7.2-L25-47.5 L	47.50	25.00	1.80	1.00	3.45	7.20	☆	☆	☆
	HXF-D7-G100-d7.2-L35-57.5 R	57.50	35.00	1.80	1.00	3.45	7.20	★	★	☆
	HXF-D7-G100-d7.2-L35-57.5 L	57.50	35.00	1.80	1.00	3.45	7.20	☆	☆	☆
	HXF-D7-G100-d7.2-L45-67.5 R	67.50	45.00	1.80	1.00	3.45	7.20	☆	☆	☆
	HXF-D7-G100-d7.2-L45-67.5 L	67.50	45.00	1.80	1.00	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L15-37.5 R	37.50	15.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L15-37.5 L	37.50	15.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L25-47.5 R	47.50	25.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L25-47.5 L	47.50	25.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L35-57.5 R	57.50	35.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L35-57.5 L	57.50	35.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L45-67.5 R	67.50	45.00	2.00	1.30	3.45	7.20	☆	☆	☆
	HXF-D7-G130-d7.2-L45-67.5 L	67.50	45.00	2.00	1.30	3.45	7.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXF-D6-G170-d6.2-L35-57.5 L Bb2105 Order example:HXF-D6-G170-d6.2-L35-57.5 L BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXF 高精度内孔径向槽刀

HXF High-Precision Grooving Bars



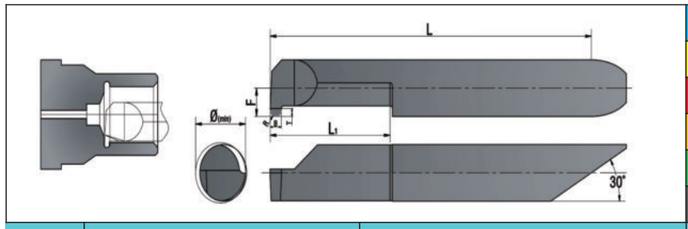
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	B	F		BB2105	BB2110	BB2115
7	HXF-D7-G150-d7.2-L15-37.5 R	37.50	15.00	2.30	1.50	3.45	7.20	★	★	☆
	HXF-D7-G150-d7.2-L15-37.5 L	37.50	15.00	2.30	1.50	3.45	7.20	☆	☆	☆
	HXF-D7-G150-d7.2-L25-47.5 R	47.50	25.00	2.30	1.50	3.45	7.20	★	★	☆
	HXF-D7-G150-d7.2-L25-47.5 L	47.50	25.00	2.30	1.50	3.45	7.20	☆	☆	☆
	HXF-D7-G150-d7.2-L35-57.5 R	57.50	35.00	2.30	1.50	3.45	7.20	★	★	☆
	HXF-D7-G150-d7.2-L35-57.5 L	57.50	35.00	2.30	1.50	3.45	7.20	☆	☆	☆
	HXF-D7-G200-d7.2-L15-37.5 R	37.50	15.00	2.50	2.00	3.45	7.20	★	★	☆
	HXF-D7-G200-d7.2-L15-37.5 L	37.50	15.00	2.50	2.00	3.45	7.20	☆	☆	☆
	HXF-D7-G200-d7.2-L25-47.5 R	47.50	25.00	2.50	2.00	3.45	7.20	★	★	☆
	HXF-D7-G200-d7.2-L25-47.5 L	47.50	25.00	2.50	2.00	3.45	7.20	☆	☆	☆
	HXF-D7-G200-d7.2-L35-57.5 R	57.50	35.00	2.50	2.00	3.45	7.20	★	★	☆
	HXF-D7-G200-d7.2-L35-57.5 L	57.50	35.00	2.50	2.00	3.45	7.20	☆	☆	☆
8	HXF-D8-G100-d8.2-L25-52.5 R	52.50	25.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L25-52.5 L	52.50	25.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L35-62.5 R	62.50	35.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L35-62.5 L	62.50	35.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L45-72.5 R	72.50	45.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L45-72.5 L	72.50	45.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L55-82.5 R	82.50	55.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G100-d8.2-L55-82.5 L	82.50	55.00	1.50	1.00	3.95	8.20	☆	☆	☆
	HXF-D8-G150-d8.2-L25-52.5 R	52.50	25.00	2.00	1.50	3.95	8.20	☆	☆	☆
	HXF-D8-G150-d8.2-L25-52.5 L	52.50	25.00	2.00	1.50	3.95	8.20	☆	☆	☆
	HXF-D8-G150-d8.2-L35-62.5 R	62.50	35.00	2.00	1.50	3.95	8.20	☆	☆	☆
	HXF-D8-G150-d8.2-L35-62.5 L	62.50	35.00	2.00	1.50	3.95	8.20	☆	☆	☆
	HXF-D8-G150-d8.2-L45-72.5 R	72.50	45.00	2.00	1.50	3.95	8.20	☆	☆	☆
	HXF-D8-G150-d8.2-L45-72.5 L	72.50	45.00	2.00	1.50	3.95	8.20	☆	☆	☆
	HXF-D8-G200-d8.2-L25-52.5 R	52.50	25.00	2.50	2.00	3.95	8.20	☆	☆	☆
	HXF-D8-G200-d8.2-L25-52.5 L	52.50	25.00	2.50	2.00	3.95	8.20	☆	☆	☆
	HXF-D8-G200-d8.2-L35-62.5 R	62.50	35.00	2.50	2.00	3.95	8.20	☆	☆	☆
	HXF-D8-G200-d8.2-L35-62.5 L	62.50	35.00	2.50	2.00	3.95	8.20	☆	☆	☆
	HXF-D8-G200-d8.2-L40-67.5 R	67.50	40.00	2.50	2.00	3.95	8.20	☆	☆	☆
	HXF-D8-G200-d8.2-L40-67.5 L	67.50	40.00	2.50	2.00	3.95	8.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXF-D5-G130-d5.2-L10-32.5 R BB2105 Order example:HXF-D5-G130-d5.2-L10-32.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXR 高精度内孔径向圆头槽刀

HXR High-Precision Full Radius Grooving Bars



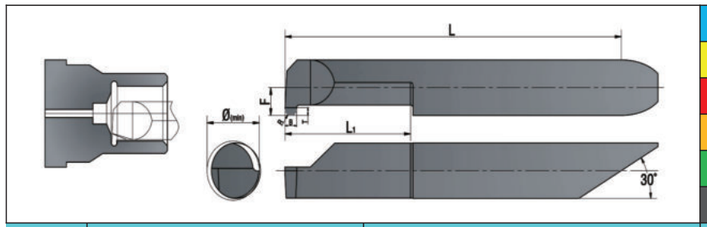
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	R	B	F		BB2105	BB2110	BB2115
4	HXR-D4-R030-B0.6-d4.2-L10-27.5 R	27.50	10.00	0.50	0.30	0.60	1.95	4.20	★	★	☆
	HXR-D4-R030-B0.6-d4.2-L10-27.5 L	27.50	10.00	0.50	0.30	0.60	1.95	4.20	☆	☆	☆
	HXR-D4-R030-B0.6-d4.2-L15-32.5 R	32.50	15.00	0.50	0.30	0.60	1.95	4.20	★	★	☆
	HXR-D4-R030-B0.6-d4.2-L15-32.5 L	32.50	15.00	0.50	0.30	0.60	1.95	4.20	☆	☆	☆
	HXR-D4-R040-B0.8-d4.2-L10-27.5 R	27.50	10.00	0.70	0.40	0.80	1.95	4.20	★	★	☆
	HXR-D4-R040-B0.8-d4.2-L10-27.5 L	27.50	10.00	0.70	0.40	0.80	1.95	4.20	☆	☆	☆
	HXR-D4-R040-B0.8-d4.2-L15-32.5 R	32.50	15.00	0.70	0.40	0.80	1.95	4.20	★	★	☆
	HXR-D4-R040-B0.8-d4.2-L15-32.5 L	32.50	15.00	0.70	0.40	0.80	1.95	4.20	☆	☆	☆
	HXR-D4-R050-B1.0-d4.2-L10-27.5 R	27.50	10.00	0.90	0.50	1.00	1.95	4.20	★	★	☆
	HXR-D4-R050-B1.0-d4.2-L10-27.5 L	27.50	10.00	0.90	0.50	1.00	1.95	4.20	☆	☆	☆
	HXR-D4-R050-B1.0-d4.2-L15-32.5 R	32.50	15.00	0.90	0.50	1.00	1.95	4.20	★	★	☆
	HXR-D4-R050-B1.0-d4.2-L15-32.5 L	32.50	15.00	0.90	0.50	1.00	1.95	4.20	☆	☆	☆
5	HXR-D5-R030-B0.6-d5.2-L15-37.5 R	37.50	15.00	0.50	0.30	0.60	2.45	5.20	★	★	☆
	HXR-D5-R030-B0.6-d5.2-L15-37.5 L	37.50	15.00	0.50	0.30	0.60	2.45	5.20	☆	☆	☆
	HXR-D5-R030-B0.6-d5.2-L20-42.5 R	42.50	20.00	0.50	0.30	0.60	2.45	5.20	★	★	☆
	HXR-D5-R030-B0.6-d5.2-L20-42.5 L	42.50	20.00	0.50	0.30	0.60	2.45	5.20	☆	☆	☆
	HXR-D5-R040-B0.8-d5.2-L15-37.5 R	37.50	15.00	0.70	0.40	0.80	2.45	5.20	★	★	☆
	HXR-D5-R040-B0.8-d5.2-L15-37.5 L	37.50	15.00	0.70	0.40	0.80	2.45	5.20	☆	☆	☆
	HXR-D5-R040-B0.8-d5.2-L20-42.5 R	42.50	20.00	0.70	0.40	0.80	2.45	5.20	★	★	☆
	HXR-D5-R040-B0.8-d5.2-L20-42.5 L	42.50	20.00	0.70	0.40	0.80	2.45	5.20	☆	☆	☆
	HXR-D5-R050-B1.0-d5.2-L15-37.5 R	37.50	15.00	0.90	0.50	1.00	2.45	5.20	★	★	☆
	HXR-D5-R050-B1.0-d5.2-L15-37.5 L	37.50	15.00	0.90	0.50	1.00	2.45	5.20	☆	☆	☆
	HXR-D5-R050-B1.0-d5.2-L20-42.5 R	42.50	20.00	0.90	0.50	1.00	2.45	5.20	★	★	☆
	HXR-D5-R050-B1.0-d5.2-L20-42.5 L	42.50	20.00	0.90	0.50	1.00	2.45	5.20	☆	☆	☆
	HXR-D5-R075-B1.5-d5.2-L15-37.5 R	37.50	15.00	1.10	0.75	1.50	2.45	5.20	★	★	☆
	HXR-D5-R075-B1.5-d5.2-L15-37.5 L	37.50	15.00	1.10	0.75	1.50	2.45	5.20	☆	☆	☆
	HXR-D5-R075-B1.5-d5.2-L20-42.5 R	42.50	20.00	1.10	0.75	1.50	2.45	5.20	★	★	☆
	HXR-D5-R075-B1.5-d5.2-L20-42.5 L	42.50	20.00	1.10	0.75	1.50	2.45	5.20	☆	☆	☆
	HXR-D5-R100-B2.0-d5.2-L15-37.5 R	37.50	15.00	1.30	1.00	2.00	2.45	5.20	★	★	☆
	HXR-D5-R100-B2.0-d5.2-L15-37.5 L	37.50	15.00	1.30	1.00	2.00	2.45	5.20	☆	☆	☆
	HXR-D5-R100-B2.0-d5.2-L20-42.5 R	42.50	20.00	1.30	1.00	2.00	2.45	5.20	★	★	☆
	HXR-D5-R100-B2.0-d5.2-L20-42.5 L	42.50	20.00	1.30	1.00	2.00	2.45	5.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXR-D4-R030-B0.6-d4.2-L10-27.5 R BB2105 Order example:HXR-D4-R030-B0.6-d4.2-L10-27.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXR 高精度内孔径向圆头槽刀

HXR High-Precision Full Radius Grooving Bars



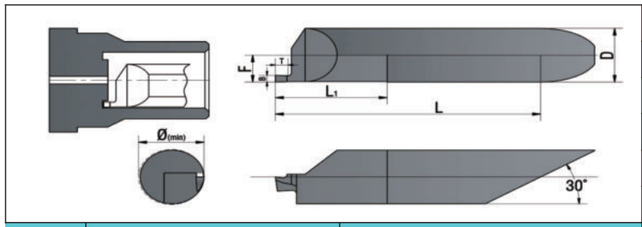
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	R	B	F		BB2105	BB2110	BB2115
6	HXR-D6-R040-B0.8-d6.2-L20-42.5 R	42.50	20.00	0.70	0.40	0.80	2.95	6.20	★	★	☆
	HXR-D6-R040-B0.8-d6.2-L20-42.5 L	42.50	20.00	0.70	0.40	0.80	2.95	6.20	☆	☆	☆
	HXR-D6-R040-B0.8-d6.2-L25-47.5 R	47.50	25.00	0.70	0.40	0.80	2.95	6.20	★	★	☆
	HXR-D6-R040-B0.8-d6.2-L25-47.5 L	47.50	25.00	0.70	0.40	0.80	2.95	6.20	☆	☆	☆
	HXR-D6-R050-B1.0-d6.2-L20-42.5 R	42.50	20.00	0.90	0.50	1.00	2.95	6.20	★	★	☆
	HXR-D6-R050-B1.0-d6.2-L20-42.5 L	42.50	20.00	0.90	0.50	1.00	2.95	6.20	☆	☆	☆
	HXR-D6-R050-B1.0-d6.2-L25-47.5 R	47.50	25.00	0.90	0.50	1.00	2.95	6.20	★	★	☆
	HXR-D6-R050-B1.0-d6.2-L25-47.5 L	47.50	25.00	0.90	0.50	1.00	2.95	6.20	☆	☆	☆
	HXR-D6-R075-B1.5-d6.2-L20-42.5 R	42.50	20.00	1.10	0.75	1.50	2.95	6.20	★	★	☆
	HXR-D6-R075-B1.5-d6.2-L20-42.5 L	42.50	20.00	1.10	0.75	1.50	2.95	6.20	☆	☆	☆
	HXR-D6-R075-B1.5-d6.2-L25-47.5 R	47.50	25.00	1.10	0.75	1.50	2.95	6.20	★	★	☆
	HXR-D6-R075-B1.5-d6.2-L25-47.5 L	47.50	25.00	1.10	0.75	1.50	2.95	6.20	☆	☆	☆
	HXR-D6-R100-B2.0-d6.2-L20-42.5 R	42.50	20.00	1.30	1.00	2.00	2.95	6.20	★	★	☆
	HXR-D6-R100-B2.0-d6.2-L20-42.5 L	42.50	20.00	1.30	1.00	2.00	2.95	6.20	☆	☆	☆
	HXR-D6-R100-B2.0-d6.2-L25-47.5 R	47.50	25.00	1.30	1.00	2.00	2.95	6.20	★	★	☆
	HXR-D6-R100-B2.0-d6.2-L25-47.5 L	47.50	25.00	1.30	1.00	2.00	2.95	6.20	☆	☆	☆
7	HXR-D7-R040-B0.8-d7.2-L30-52.5 R	52.50	30.00	0.70	0.40	0.80	3.45	7.20	★	★	☆
	HXR-D7-R040-B0.8-d7.2-L30-52.5 L	52.50	30.00	0.70	0.40	0.80	3.45	7.20	☆	☆	☆
	HXR-D7-R040-B0.8-d7.2-L40-62.5 R	62.50	40.00	0.70	0.40	0.80	3.45	7.20	★	★	☆
	HXR-D7-R040-B0.8-d7.2-L40-62.5 L	62.50	40.00	0.70	0.40	0.80	3.45	7.20	☆	☆	☆
	HXR-D7-R050-B1.0-d7.2-L30-52.5 R	52.50	30.00	0.90	0.50	1.00	3.45	7.20	★	★	☆
	HXR-D7-R050-B1.0-d7.2-L30-52.5 L	52.50	30.00	0.90	0.50	1.00	3.45	7.20	☆	☆	☆
	HXR-D7-R050-B1.0-d7.2-L40-62.5 R	62.50	40.00	0.90	0.50	1.00	3.45	7.20	★	★	☆
	HXR-D7-R050-B1.0-d7.2-L40-62.5 L	62.50	40.00	0.90	0.50	1.00	3.45	7.20	☆	☆	☆
	HXR-D7-R075-B1.5-d7.2-L30-52.5 R	52.50	30.00	1.10	0.75	1.50	3.45	7.20	★	★	☆
	HXR-D7-R075-B1.5-d7.2-L30-52.5 L	52.50	30.00	1.10	0.75	1.50	3.45	7.20	☆	☆	☆
	HXR-D7-R075-B1.5-d7.2-L40-62.5 R	62.50	40.00	1.10	0.75	1.50	3.45	7.20	★	★	☆
	HXR-D7-R075-B1.5-d7.2-L40-62.5 L	62.50	40.00	1.10	0.75	1.50	3.45	7.20	☆	☆	☆
	HXR-D7-R100-B2.0-d7.2-L30-52.5 R	52.50	30.00	1.30	1.00	2.00	3.45	7.20	★	★	☆
	HXR-D7-R100-B2.0-d7.2-L30-52.5 L	52.50	30.00	1.30	1.00	2.00	3.45	7.20	☆	☆	☆
	HXR-D7-R100-B2.0-d7.2-L40-62.5 R	62.50	40.00	1.30	1.00	2.00	3.45	7.20	★	★	☆
	HXR-D7-R100-B2.0-d7.2-L40-62.5 L	62.50	40.00	1.30	1.00	2.00	3.45	7.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXR-D6-R040-B0.8-d6.2-L20-42.5 R BB2105 Order example:HXR-D6-R040-B0.8-d6.2-L20-42.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXFG 高精度内孔轴向槽刀

HXFG High-Precision Grooving Bars



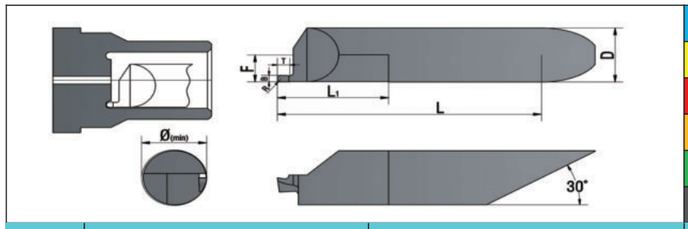
P	★	★	
M	★	★	
K	★	☆	
S		☆	★
N	★	★	
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size					最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	B	F		BB2105	BB2110	BB2115
6	HXFG-D6-F100-d6.2-L10-32.5 R	32.50	10.00	1.50	1.00	2.95	6.20	★	★	☆
	HXFG-D6-F100-d6.2-L10-32.5 L	32.50	10.00	1.50	1.00	2.95	6.20	☆	☆	☆
	HXFG-D6-F100-d6.2-L15-37.5 R	37.50	15.00	1.50	1.00	2.95	6.20	★	★	☆
	HXFG-D6-F100-d6.2-L15-37.5 L	37.50	15.00	1.50	1.00	2.95	6.20	☆	☆	☆
	HXFG-D6-F150-d6.2-L10-32.5 R	32.50	10.00	2.30	1.50	2.95	6.20	★	★	☆
	HXFG-D6-F150-d6.2-L10-32.5 L	32.50	10.00	2.30	1.50	2.95	6.20	☆	☆	☆
	HXFG-D6-F150-d6.2-L15-37.5 R	37.50	15.00	2.30	1.50	2.95	6.20	★	★	☆
	HXFG-D6-F150-d6.2-L15-37.5 L	37.50	15.00	2.30	1.50	2.95	6.20	☆	☆	☆
	HXFG-D6-F200-d6.2-L10-32.5 R	32.50	10.00	3.00	2.00	2.95	6.20	★	★	☆
	HXFG-D6-F200-d6.2-L10-32.5 L	32.50	10.00	3.00	2.00	2.95	6.20	☆	☆	☆
	HXFG-D6-F200-d6.2-L15-37.5 R	37.50	15.00	3.00	2.00	2.95	6.20	★	★	☆
	HXFG-D6-F200-d6.2-L15-37.5 L	37.50	15.00	3.00	2.00	2.95	6.20	☆	☆	☆
7	HXFG-D7-F100-d7.2-L15-37.5 R	37.50	15.00	1.50	1.00	3.45	7.20	★	★	☆
	HXFG-D7-F100-d7.2-L15-37.5 L	37.50	15.00	1.50	1.00	3.45	7.20	☆	☆	☆
	HXFG-D7-F100-d7.2-L20-42.5 R	42.50	20.00	1.50	1.00	3.45	7.20	★	★	☆
	HXFG-D7-F100-d7.2-L20-42.5 L	42.50	20.00	1.50	1.00	3.45	7.20	☆	☆	☆
	HXFG-D7-F150-d7.2-L15-37.5 R	37.50	15.00	2.30	1.50	3.45	7.20	★	★	☆
	HXFG-D7-F150-d7.2-L15-37.5 L	37.50	15.00	2.30	1.50	3.45	7.20	☆	☆	☆
	HXFG-D7-F150-d7.2-L20-42.5 R	42.50	20.00	2.30	1.50	3.45	7.20	★	★	☆
	HXFG-D7-F150-d7.2-L20-42.5 L	42.50	20.00	2.30	1.50	3.45	7.20	☆	☆	☆
	HXFG-D7-F200-d7.2-L15-37.5 R	37.50	15.00	3.00	2.00	3.45	7.20	★	★	☆
	HXFG-D7-F200-d7.2-L15-37.5 L	37.50	15.00	3.00	2.00	3.45	7.20	☆	☆	☆
	HXFG-D7-F200-d7.2-L20-42.5 R	42.50	20.00	3.00	2.00	3.45	7.20	★	★	☆
	HXFG-D7-F200-d7.2-L20-42.5 L	42.50	20.00	3.00	2.00	3.45	7.20	☆	☆	☆
8	HXFG-D8-F150-d8.2-L20-47.5 R	47.50	20.00	2.30	1.50	3.95	8.20	★	★	☆
	HXFG-D8-F150-d8.2-L20-47.5 L	47.50	20.00	2.30	1.50	3.95	8.20	☆	☆	☆
	HXFG-D8-F150-d8.2-L25-52.5 R	52.50	25.00	2.30	1.50	3.95	8.20	★	★	☆
	HXFG-D8-F150-d8.2-L25-52.5 L	52.50	25.00	2.30	1.50	3.95	8.20	☆	☆	☆
	HXFG-D8-F200-d8.2-L20-47.5 R	47.50	20.00	3.00	2.00	3.95	8.20	★	★	☆
	HXFG-D8-F200-d8.2-L20-47.5 L	47.50	20.00	3.00	2.00	3.95	8.20	☆	☆	☆
	HXFG-D8-F200-d8.2-L25-52.5 R	52.50	25.00	3.00	2.00	3.95	8.20	★	★	☆
	HXFG-D8-F200-d8.2-L25-52.5 L	52.50	25.00	3.00	2.00	3.95	8.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXFG-D6-F100-d6.2-L10-32.5 R BB2105 Order example:HXFG-D6-F100-d6.2-L10-32.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXRG 高精度内孔轴向圆头槽刀

HXRG High-Precision Full Radius Grooving Bars



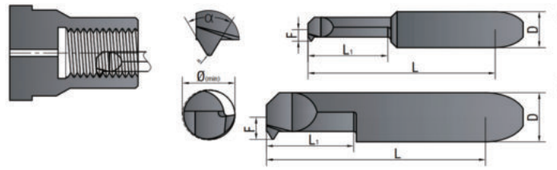
P	★ ★
M	★ ★
K	★ ☆
N	☆ ★
S	★ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	T	R	B	F		BB2105	BB2110	BB2115
6	HXRG-D6-R050-B1.0-d6.2-L10-32.5 R	32.50	10.00	1.00	0.50	1.00	2.95	6.20	★	★	☆
	HXRG-D6-R050-B1.0-d6.2-L10-32.5 L	32.50	10.00	1.00	0.50	1.00	2.95	6.20	☆	☆	☆
	HXRG-D6-R050-B1.0-d6.2-L15-37.5 R	37.50	15.00	1.00	0.50	1.00	2.95	6.20	★	★	☆
	HXRG-D6-R050-B1.0-d6.2-L15-37.5 L	37.50	15.00	1.00	0.50	1.00	2.95	6.20	☆	☆	☆
	HXRG-D6-R075-B1.5-d6.2-L10-32.5 R	32.50	10.00	1.50	0.75	1.50	2.95	6.20	★	★	☆
	HXRG-D6-R075-B1.5-d6.2-L10-32.5 L	32.50	10.00	1.50	0.75	1.50	2.95	6.20	☆	☆	☆
	HXRG-D6-R075-B1.5-d6.2-L15-37.5 R	37.50	15.00	1.50	0.75	1.50	2.95	6.20	★	★	☆
	HXRG-D6-R075-B1.5-d6.2-L15-37.5 L	37.50	15.00	1.50	0.75	1.50	2.95	6.20	☆	☆	☆
	HXRG-D6-R100-B2.0-d6.2-L10-32.5 R	32.50	10.00	2.00	1.00	2.00	2.95	6.20	★	★	☆
	HXRG-D6-R100-B2.0-d6.2-L10-32.5 L	32.50	10.00	2.00	1.00	2.00	2.95	6.20	☆	☆	☆
	HXRG-D6-R100-B2.0-d6.2-L15-37.5 R	37.50	15.00	2.00	1.00	2.00	2.95	6.20	★	★	☆
	HXRG-D6-R100-B2.0-d6.2-L15-37.5 L	37.50	15.00	2.00	1.00	2.00	2.95	6.20	☆	☆	☆
7	HXRG-D7-R050-B1.0-d7.2-L15-37.5 R	37.50	15.00	1.00	0.50	1.00	3.45	7.20	★	★	☆
	HXRG-D7-R050-B1.0-d7.2-L15-37.5 L	37.50	15.00	1.00	0.50	1.00	3.45	7.20	☆	☆	☆
	HXRG-D7-R050-B1.0-d7.2-L20-42.5 R	42.50	20.00	1.00	0.50	1.00	3.45	7.20	★	★	☆
	HXRG-D7-R050-B1.0-d7.2-L20-42.5 L	42.50	20.00	1.00	0.50	1.00	3.45	7.20	☆	☆	☆
	HXRG-D7-R075-B1.5-d7.2-L15-37.5 R	37.50	15.00	1.50	0.75	1.50	3.45	7.20	★	★	☆
	HXRG-D7-R075-B1.5-d7.2-L15-37.5 L	37.50	15.00	1.50	0.75	1.50	3.45	7.20	☆	☆	☆
	HXRG-D7-R075-B1.5-d7.2-L20-42.5 R	42.50	20.00	1.50	0.75	1.50	3.45	7.20	★	★	☆
	HXRG-D7-R075-B1.5-d7.2-L20-42.5 L	42.50	20.00	1.50	0.75	1.50	3.45	7.20	☆	☆	☆
	HXRG-D7-R100-B2.0-d7.2-L15-37.5 R	37.50	15.00	2.00	1.00	2.00	3.45	7.20	★	★	☆
	HXRG-D7-R100-B2.0-d7.2-L15-37.5 L	37.50	15.00	2.00	1.00	2.00	3.45	7.20	☆	☆	☆
	HXRG-D7-R100-B2.0-d7.2-L20-42.5 R	42.50	20.00	2.00	1.00	2.00	3.45	7.20	★	★	☆
	HXRG-D7-R100-B2.0-d7.2-L20-42.5 L	42.50	20.00	2.00	1.00	2.00	3.45	7.20	☆	☆	☆
8	HXRG-D8-R075-B1.5-d8.2-L20-47.5 R	47.50	20.00	1.50	0.75	1.50	3.95	8.20	★	★	☆
	HXRG-D8-R075-B1.5-d8.2-L20-47.5 L	47.50	20.00	1.50	0.75	1.50	3.95	8.20	☆	☆	☆
	HXRG-D8-R075-B1.5-d8.2-L25-52.5 R	52.50	25.00	1.50	0.75	1.50	3.95	8.20	★	★	☆
	HXRG-D8-R075-B1.5-d8.2-L25-52.5 L	52.50	25.00	1.50	0.75	1.50	3.95	8.20	☆	☆	☆
	HXRG-D8-R100-B2.0-d8.2-L20-47.5 R	47.50	20.00	2.00	1.00	2.00	3.95	8.20	★	★	☆
	HXRG-D8-R100-B2.0-d8.2-L20-47.5 L	47.50	20.00	2.00	1.00	2.00	3.95	8.20	☆	☆	☆
	HXRG-D8-R100-B2.0-d8.2-L25-52.5 R	52.50	25.00	2.00	1.00	2.00	3.95	8.20	★	★	☆
	HXRG-D8-R100-B2.0-d8.2-L25-52.5 L	52.50	25.00	2.00	1.00	2.00	3.95	8.20	☆	☆	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXRG-D6-R050-B1.0-d6.2-L10-32.5 R BB2105 Order example:HXRG-D6-R050-B1.0-d6.2-L10-32.5 R BB2105
★ 常备库存 ☆ 不常备库存 ★Standing stock ☆Not standing stock

HXT 微型高精度螺纹镗刀

HXT Micro Hole High-Precision Threading Bars



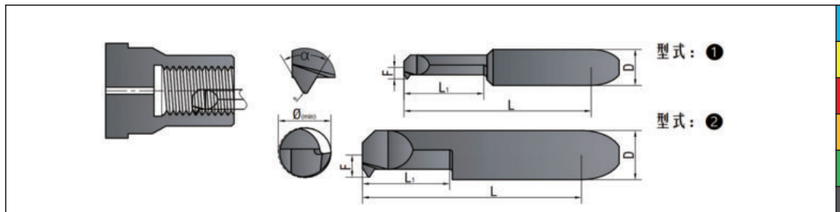
P	★ ★
M	★ ★
K	★ ☆
S	★ ★
N	☆ ★
H	★ ☆

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				螺距 Pitch		型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	α	F	mm	牙数/英寸 Number of teeth/In			BB2105	BB2110	BB2115
4	HXT-D4-A60-d2.0-L8-27.5 R M2.5*0.35	27.50	8.00	60°	0.95	M2.5*0.35	/	①	2.00	★	★	☆
	HXT-D4-A60-d2.0-L8-27.5 R M2.5*0.45	27.50	8.00	60°	0.95	M2.5*0.45	/	①	2.00	★	★	☆
	HXT-D4-A60-d2.3-L10-27.5 R M3*0.45	27.50	10.00	60°	1.15	M3*0.35	/	①	2.30	★	★	☆
	HXT-D4-A60-d2.3-L15-32.5 R M3*0.5	32.50	15.00	60°	1.15	M3*0.5	/	①	2.30	★	★	☆
	HXT-D4-A60-d3.2-L10-27.5 R M4*0.5	27.50	10.00	60°	1.45	M4*0.5	/	①	3.20	★	★	☆
	HXT-D4-A60-d3.2-L15-32.5 R M4*0.7	32.50	15.00	60°	1.45	M4*0.7	/	①	3.20	★	★	☆
	HXT-D4-A60-d4.0-L15-32.5 R M5*0.5	32.50	15.00	60°	1.85	M5*0.5	/	②	4.00	★	★	☆
	HXT-D4-A60-d4.0-L15-37.5 R M5*0.8	37.50	20.00	60°	1.85	M5*0.8	/	②	4.00	★	★	☆
5	HXT-D5-A60-d5.0-L20-42.5 R M6*0.75	42.50	20.00	60°	2.30	M6*0.75	/	②	5.00	★	★	☆
	HXT-D5-A60-d5.0-L25-47.5 R M6*1.0	47.50	25.00	60°	2.30	M6*1.0	/	②	5.00	★	★	☆
6	HXT-D6-A60-d6.2-L25-47.5 R M8*1.0	47.50	25.00	60°	2.95	M8*1.0	/	②	6.20	★	★	☆
	HXT-D6-A60-d6.2-L30-52.5 R M8*1.25	52.50	30.00	60°	2.95	M8*1.25	/	②	6.20	★	★	☆
8	HXT-D8-A60-d8.2-L30-57.5 R M10*1.25	57.50	30.00	60°	3.95	M10*1.25	/	②	8.20	★	★	☆
	HXT-D8-A60-d8.2-L35-62.5 R M10*1.5	62.50	35.00	60°	3.95	M10*1.50	/	②	8.20	★	★	☆
4	HXT-D4-A60-d2.6-L10-27.5 R 32UN	27.50	10.00	60°	1.25	/	6#-32UN	①	2.60	★	★	☆
	HXT-D4-A60-d2.6-L10-27.5 R 40UNF	27.50	10.00	60°	1.25	/	6#-40UNF	①	2.60	★	★	☆
	HXT-D4-A60-d3.2-L15-32.5 R 32UN	32.50	15.00	60°	1.45	/	3.48#-32UN5	②	3.20	★	★	☆
	HXT-D4-A60-d3.2-L15-32.5 R 36UNF	32.50	15.00	60°	1.45	/	8#-36UNF	②	3.20	★	★	☆
	HXT-D4-A60-d3.7-L15-32.5 R 24UN	32.50	15.00	60°	1.70	/	10#-24UN	①	3.70	★	★	☆
	HXT-D4-A60-d3.7-L15-32.5 R 32UNF	32.50	15.00	60°	1.70	/	10#-32UNF	①	3.70	★	★	☆
	HXT-D4-A60-d4.2-L20-37.5 R 24UN	37.50	20.00	60°	1.95	/	12#-24UN	②	4.20	★	★	☆
	HXT-D4-A60-d4.2-L20-37.5 R 28UNF	37.50	20.00	60°	1.95	/	12#-28UNF	②	4.20	★	★	☆
5	HXT-D5-A60-d5.0-L20-42.5 R 20UN	42.50	20.00	60°	2.40	/	1/4-20UN	②	5.00	★	★	☆
	HXT-D5-A60-d5.0-L20-42.5 R 28UNF	42.50	20.00	60°	2.40	/	1/4-28UNF	②	5.00	★	★	☆
6	HXT-D6-A60-d6.2-L20-47.5 R 18UN	47.50	20.00	60°	2.95	/	5/16-18UN	②	6.20	★	★	☆
	HXT-D6-A60-d6.2-L20-47.5 R 24UNF	47.50	20.00	60°	2.95	/	5/16-24UNF	②	6.20	★	★	☆
8	HXT-D8-A60-d7.8-L30-62.5 R 16UN	62.50	30.00	60°	3.70	/	3/8-16UN	①	7.80	★	★	☆
	HXT-D8-A60-d7.8-L30-62.5 R 24UNF	62.50	30.00	60°	3.70	/	3/8-24UNF	①	7.80	★	★	☆

图示：右手刀 Pictured: right hand knife
订货示例：HXT-D4-A60-d2.0-L8-27.5 R M2.5*0.35 BB2105 Order example:HXT-D4-A60-d2.0-L8-27.5 R M2.5*0.35 BB2105
★ 常备库存 ☆ 不常备库存★Standing stock ☆Not standing stock

HXT 微型高精度航标螺纹镗刀

HXT Micro Hole High-Precision Threading Bars



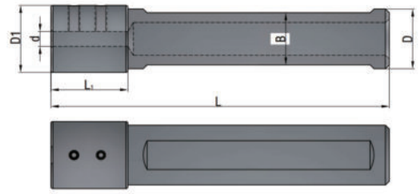
P	★	★	
M	★	★	
K	★	☆	
S	★	★	
N		☆	★
H	★	☆	

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size				螺距 Pitch		型式 Type	最小加工孔径 Minimum hole size Φ (min)	牌号 Grade		
		L	L1	α	F	mm	牙数/英寸 Number of teeth/In			BB2105	BB2110	BB2115
4	HXT-D4-A60-d2.0-L8-27.5 R MJ2.5*0.35	27.50	8.00	60°	0.95	MJ2.5*0.35	/	①	2.00	★	★	☆
	HXT-D4-A60-d2.0-L8-27.5 R MJ2.5*0.45	27.50	8.00	60°	0.95	MJ2.5*0.45	/	①	2.00	★	★	☆
	HXT-D4-A60-d2.3-L10-27.5 R MJ3*0.45	27.50	10.00	60°	1.15	MJ3*0.35	/	①	2.30	★	★	☆
	HXT-D4-A60-d2.3-L15-32.5 R MJ3*0.5	32.50	15.00	60°	1.15	MJ3*0.5	/	①	2.30	★	★	☆
	HXT-D4-A60-d3.2-L10-27.5 R MJ4*0.5	27.50	10.00	60°	1.45	MJ4*0.5	/	①	3.20	★	★	☆
	HXT-D4-A60-d3.2-L15-32.5 R MJ4*0.7	32.50	15.00	60°	1.45	MJ4*0.7	/	①	3.20	★	★	☆
	HXT-D4-A60-d4.0-L15-32.5 R MJ5*0.5	32.50	15.00	60°	1.85	MJ5*0.5	/	②	4.00	★	★	☆
	HXT-D4-A60-d4.0-L15-37.5 R MJ5*0.8	37.50	20.00	60°	1.85	MJ5*0.8	/	②	4.00	★	★	☆
5	HXT-D5-A60-d5.0-L20-42.5 R MJ6*0.75	42.50	20.00	60°	2.45	MJ6*0.75	/	②	5.00	★	★	☆
	HXT-D5-A60-d5.0-L25-47.5 R MJ6*1.0	47.50	25.00	60°	2.45	MJ6*1.0	/	②	5.00	★	★	☆
6	HXT-D6-A60-d6.2-L25-47.5 R MJ8*1.0	47.50	25.00	60°	2.95	MJ8*1.0	/	②	6.00	★	★	☆
	HXT-D6-A60-d6.2-L30-52.5 R MJ8*1.25	52.50	30.00	60°	2.95	MJ8*1.25	/	②	6.00	★	★	☆
8	HXT-D8-A60-d8.2-L30-57.5 R MJ10*1.25	57.50	30.00	60°	3.95	MJ10*1.25	/	②	8.00	★	★	☆
	HXT-D8-A60-d8.2-L35-62.5 R MJ10*1.5	62.50	35.00	60°	3.95	MJ10*1.50	/	②	8.00	★	★	☆
4	HXT-D4-A60-d2.6-L10-27.5 R 32UNJ	27.50	10.00	60°	1.25	/	6#-32UNJ	①	2.60	★	★	☆
	HXT-D4-A60-d2.6-L10-27.5 R 40UNJF	27.50	10.00	60°	1.25	/	6#-40UNJF	①	2.60	★	★	☆
	HXT-D4-A60-d3.2-L15-32.5 R 32UNJ	32.50	15.00	60°	1.45	/	8#-32UNJ	②	3.20	★	★	☆
	HXT-D4-A60-d3.2-L15-32.5 R 36UNJF	32.50	15.00	60°	1.45	/	8#-36UNJF	②	3.20	★	★	☆
	HXT-D4-A60-d3.7-L15-32.5 R 24UNJ	32.50	15.00	60°	1.70	/	10#-24UNJ	①	3.70	★	★	☆
	HXT-D4-A60-d3.7-L15-32.5 R 32UNJF	32.50	15.00	60°	1.70	/	10#-32UNJF	①	3.70	★	★	☆
	HXT-D4-A60-d4.2-L20-37.5 R 24UNJ	37.50	20.00	60°	1.95	/	12#-24UNJ	②	4.20	★	★	☆
	HXT-D4-A60-d4.2-L20-37.5 R 28UNJF	37.50	20.00	60°	1.95	/	12#-28UNJF	②	4.20	★	★	☆
5	HXT-D5-A60-d5.0-L20-42.5 R 20UNJ	42.50	20.00	60°	2.40	/	1/4-20UNJ	②	5.00	★	★	☆
	HXT-D5-A60-d5.0-L20-42.5 R 28UNJF	42.50	20.00	60°	2.40	/	1/4-28UNJF	②	5.00	★	★	☆
6	HXT-D6-A60-d6.2-L20-47.5 R 18UNJ	47.50	20.00	60°	2.95	/	5/16-18UNJ	②	6.20	★	★	☆
	HXT-D6-A60-d6.2-L20-47.5 R 24UNJF	47.50	20.00	60°	2.95	/	5/16-24UNJF	②	6.20	★	★	☆
8	HXT-D8-A60-d7.8-L30-62.5 R 16UNJ	62.50	30.00	60°	3.70	/	3/8-16UNJ	①	7.80	★	★	☆
	HXT-D8-A60-d7.8-L30-62.5 R 24UNJF	62.50	30.00	60°	3.70	/	3/8-24UNJF	①	7.80	★	★	☆

图示：右手刀 Pictured: right hand knife
exa订货示例：HXT-D4-A60-d2.0-L8-27.5 R MJ2.5*0.35 BB2105 Order example:HXT-D4-A60-d2.0-L8-27.5 R MJ2.5*0.35 BB2105
★ 常备库存 ☆ 不常备库存★Standing stock ☆Not standing stock

SHB变径套

SHB Reducing Sleeve



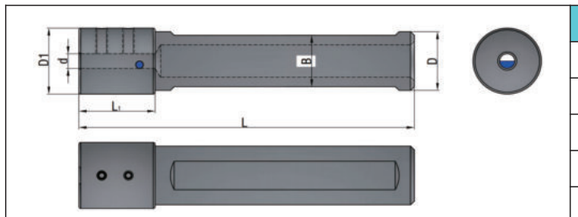
适配镗刀系列				
MTR ☐☐	MGR ☐☐	MZL ☐☐		
MPR ☐☐	MKR ☐☐	MIR ☐☐		
MXR ☐☐	MFR ☐☐			
MUR ☐☐	MFL ☐☐			
MQR ☐☐	MZR ☐☐			

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						扳手 Hex wrench	夹紧螺丝 Cramp screw	库存 Inventory
		L	L1	D	D1	B	d			
12	SHB-D12-d3.0	75.00	15.00	12.00	14.00	10.50	3.00	S2	SHB-M4*6	☆
	SHB-D12-d4.0	75.00	15.00	12.00	14.00	10.50	4.00	S2	SHB-M4*6	☆
	SHB-D12-d5.0	75.00	15.00	12.00	14.00	10.50	5.00	★S2	SHB-M4*6	☆
	SHB-D12-d6.0	75.00	15.00	12.00	14.00	10.50	6.00	S2	SHB-M4*6	☆
16	SHB-D16-d3.0	88.00	20.00	16.00	18.00	14.00	3.00	S2	SHB-M4*6	☆
	SHB-D16-d4.0	88.00	20.00	16.00	18.00	14.00	4.00	S2	SHB-M4*6	★
	SHB-D16-d5.0	88.00	20.00	16.00	18.00	14.00	5.00	S2	SHB-M4*6	★
	SHB-D16-d6.0	88.00	20.00	16.00	18.00	14.00	6.00	S2	SHB-M4*6	★
	SHB-D16-d7.0	88.00	20.00	16.00	18.00	14.00	7.00	S2	SHB-M4*6	★
	SHB-D16-d8.0	88.00	20.00	16.00	18.00	14.00	8.00	S2	SHB-M4*6	★
20	SHB-D20-d3.0	88.00	20.00	20.00	22.00	18.00	3.00	S2	SHB-M4*8	☆
	SHB-D20-d4.0	88.00	20.00	20.00	22.00	18.00	4.00	S2	SHB-M4*8	★
	SHB-D20-d5.0	88.00	20.00	20.00	22.00	18.00	5.00	S2	SHB-M4*8	★
	SHB-D20-d6.0	88.00	20.00	20.00	22.00	18.00	6.00	S2	SHB-M4*8	★
	SHB-D20-d7.0	88.00	20.00	20.00	22.00	18.00	7.00	S2	SHB-M4*8	★
	SHB-D20-d8.0	88.00	20.00	20.00	22.00	18.00	8.00	S2	SHB-M4*8	★
	SHB-D20-d10.0	88.00	20.00	20.00	22.00	18.00	10.00	S2	SHB-M4*8	☆
25	SHB-D25-d5.0	100.00	25.00	25.00	27.00	23.00	5.00	S2	SHB-M4*8	☆
	SHB-D25-d6.0	100.00	25.00	25.00	27.00	23.00	6.00	S2	SHB-M4*8	☆
	SHB-D25-d7.0	100.00	25.00	25.00	27.00	23.00	7.00	S2	SHB-M4*8	☆
	SHB-D25-d8.0	100.00	25.00	25.00	27.00	23.00	8.00	S2	SHB-M4*8	☆
	SHB-D25-d10.0	100.00	25.00	25.00	27.00	23.00	10.00	S2	SHB-M4*8	☆
	SHB-D25-d12.0	100.00	25.00	25.00	27.00	23.00	12.00	S2	SHB-M4*8	☆

订货示例：SHB-D16-d3.0 Order example:SHB-D16-d3.0
★ 常备库存 ☆ 不常备库存★Standing stock ☆Not standing stock

HXO 变径套

HXO Reducing Sleeve



适配镗刀系列				
KEC-ff	KERG-ff			
KED-ff	KET-ff			
KEF-ff				
KER-ff				
KEFG-ff				

柄部直径 Shank Diameter (D)	订货编号 Ordering Code	基本尺寸 Basic Size						扳手 Hex wrench	夹紧螺丝 Cramp screw	库存 Inventory
		L	L1	D	D1	B	d			
12	HXO-D12-04	70.00	15.00	12.00	14.00	10.50	4.00	S2	HXO-M4*6	☆
	HXO-D12-05	70.00	15.00	12.00	14.00	10.50	5.00	S2	HXO-M4*6	☆
	HXO-D12-06	70.00	15.00	12.00	14.00	10.50	6.00	S2	HXO-M4*6	☆
16	HXO-D16-04	75.00	20.00	16.00	18.00	14.00	4.00	S2	HXO-M4*6	★
	HXO-D16-05	75.00	20.00	16.00	18.00	14.00	5.00	S2	HXO-M4*6	★
	HXO-D16-06	75.00	20.00	16.00	18.00	14.00	6.00	S2	HXO-M4*6	★
	HXO-D16-07	75.00	20.00	16.00	18.00	14.00	7.00	S2	HXO-M4*6	★
	HXO-D16-08	75.00	20.00	16.00	18.00	14.00	8.00	S2	HXO-M4*6	★
20	HXO-D20-04	90.00	22.00	20.00	22.00	18.00	4.00	S2	HXO-M4*8	★
	HXO-D20-05	90.00	22.00	20.00	22.00	18.00	5.00	S2	HXO-M4*8	★
	HXO-D20-06	90.00	22.00	20.00	22.00	18.00	6.00	S2	HXO-M4*8	★
	HXO-D20-07	90.00	22.00	20.00	22.00	18.00	7.00	S2	HXO-M4*8	★
	HXO-D20-08	90.00	22.00	20.00	22.00	18.00	8.00	S2	HXO-M4*8	★
	HXO-D20-10	90.00	22.00	20.00	22.00	18.00	10.00	S2	HXO-M4*8	☆
25	HXO-D25-05	110.00	25.00	25.00	27.00	23.00	5.00	S2	HXO-M4*8	☆
	HXO-D25-06	110.00	25.00	25.00	27.00	23.00	6.00	S2	HXO-M4*8	☆
	HXO-D25-07	110.00	25.00	25.00	27.00	23.00	7.00	S2	HXO-M4*8	☆
	HXO-D25-08	110.00	25.00	25.00	27.00	23.00	8.00	S2	HXO-M4*8	☆
	HXO-D25-10	110.00	25.00	25.00	27.00	23.00	10.00	S2	HXO-M4*8	☆
	HXO-D25-12	110.00	25.00	25.00	27.00	23.00	12.00	S2	HXO-M4*8	☆

订货示例:HXO-D12-04 Order example:HXO-D12-04
★ 常备库存 ☆ 不常备库存★Standing stock ☆Not standing stock

牌号介绍

Grades Introduction

材料分类 Material classification	牌号 Grade	应用推荐 Applicaion recommendations
P	BB2105	PVD涂层硬质合金牌号，适合在中低速条件下加工高碳钢、合金钢、PH不锈钢、马氏体不锈钢、钛合金、高温合金等硬度大于HRC45以上的材料加工。 PVD coated grade, suitable for more than HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
	BB2110	PVD涂层硬质合金牌号，适合在中速条件下 加工中碳钢、奥氏体不锈钢、部分有色金属、软磁合金、钛合金、高温合金等硬度介于HRC45-HRC30之间的材料加工。 PVD coated grade, suitable for HRC30 to HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
M	BB2105	PVD涂层硬质合金牌号，适合在中低速条件下加工高碳钢、合金钢、PH不锈钢、马氏体不锈钢、钛合金、高温合金等硬度大于HRC45以上的材料加工。 PVD coated grade, suitable for more than HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
	BB2110	PVD涂层硬质合金牌号，适合在中速条件下 加工中碳钢、奥氏体不锈钢、部分有色金属、软磁合金、钛合金、高温合金等硬度介于HRC45-HRC30之间的材料加工。 PVD coated grade, suitable for HRC30 to HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
K	BB2105	PVD涂层硬质合金牌号，适合在中低速条件下加工高碳钢、合金钢、PH不锈钢、马氏体不锈钢、钛合金、高温合金等硬度大于HRC45以上的材料加工。 PVD coated grade, suitable for more than HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
N	BB2115	PVD涂层硬质合金牌号，适合在中高速条件下 加工低碳钢、铁素体不锈钢、有色金属、部分软磁合金、聚酯纤维、橡胶等硬度低于HRC30以下的材料加工。 PVD coated grade, suitable for less than HRC30 hardness materials, like low carbon steel, ferritic stainless steel, non-ferrous metals, some soft magnetic alloys, polyester fiber, rubber etc., medium to high cutting speed.
S	BB2105	PVD涂层硬质合金牌号，适合在中低速条件下加工高碳钢、合金钢、PH不锈钢、马氏体不锈钢、钛合金、高温合金等硬度大于HRC45以上的材料加工。 PVD coated grade, suitable for more than HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
	BB2110	PVD涂层硬质合金牌号，适合在中速条件下 加工中碳钢、奥氏体不锈钢、部分有色金属、软磁合金、钛合金、高温合金等硬度介于HRC45-HRC30之间的材料加工。 PVD coated grade, suitable for HRC30 to HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.
H	BB2105	PVD涂层硬质合金牌号，适合在中低速条件下加工高碳钢、合金钢、PH不锈钢、马氏体不锈钢、钛合金、高温合金等硬度大于HRC45以上的材料加工。 PVD coated grade, suitable for more than HRC45 hardness materials,like alloy steel, PH stainless steel, martensitic stainless steel, titanium alloy, super alloy, low to medium cutting speed.

切削参数推荐

Cutting Parameters Recommendations

材料 Materials			布氏硬度 (HB) Brinell Hardness (HB)	切削速度 Cutting Speed (Vc m/min)		
				BB2105	BB2110	BB2115
P	非合金钢 Non-alloy steel	C=0.10-0.25%	125	30-80	20-60	
		C=0.25-0.55%	150	30-80	20-60	
		C=0.55-0.80%	170	30-80	20-60	
		其它 Other	210	30-80	20-60	
		其它 Other	300	30-80	20-60	
	低合金钢 Low-alloy steel		180	30-80	20-60	
		调质处理 Tempering	275	30-80	20-60	
		调质处理 Tempering	350	30-80	20-60	
	高合金钢 High alloy steel	非淬硬 Non-hardened	200	30-80	20-60	
		淬硬工具钢 Hardened tool steel	325	30-80	20-60	
	铸钢 Cast steel	非合金 Unalloyed	180	30-80	20-60	
		低合金（合计元素<5%） Low alloy (total elements <5%)	200	30-80	20-60	
M	不锈钢 Stainless steel	非淬火/铁素体/马氏体 Unquenched/ferritic/martensitic	200	20-60	20-40	
		奥氏体 Austenitic	200	20-60	20-40	
		奥氏体_沉淀硬化不锈钢 Austenitic_precipitation hardening stainless steel	300	20-60	20-40	
		奥氏体_铁素体，双相不锈钢 Austenitic_ferritic, duplex stainless steel	230	20-60	20-40	
K	可锻铸铁 Malleable cast iron	铁素体 Ferrite	8.00	★	★	☆
		珠光体 Pearlite	8.00	★	★	☆
	灰口铸铁 Gray cast iron	低抗拉强度 Low tensile strength	8.00	☆	☆	☆
		高抗拉强度 High tensile strength	10.00	★	★	☆
	球墨铸铁 Ductile Iron	铁素体 Ferrite	10.00	★	★	☆
		珠光体 Pearlite	10.00	★	★	☆
	蠕墨铸铁 Compacted Graphite Iron	GGV (CGI)	10.00	☆	☆	☆

材料 Materials			布氏硬度 (HB) Brinell Hardness (HB)	切削速度 Cutting Speed (Vc m/min)		
				BB2105	BB2110	BB2115
N	锻造铝合金 Wrought aluminum alloy	非时效处理 Non-aging treatment	30			200-600
		可时效处理，时效处理 Aging treatment, aging treatment	100			200-600
	铸造铝合金 Cast aluminum alloy	≤ 12 % 硅，非时效处理 ≤ 12 % silicon, non-aging treatment	75			200-600
		≤ 12 % 硅，时效处理 ≤ 12 % silicon，aging treatment	90			200-600
		> 12 % 硅，非时效处理 > 12 % silicon, non-aging treatment	130			200-600
	镁合金 Magnesium alloy		70			200-600
	铜和铜合金 Copper and Copper Alloys	非合金、电解铜 Unalloyed, electrolytic copper	100			200-600
	(青铜 / 黄铜) (Bronze / Brass)	黄铜，青铜，红黄铜 Brass, Bronze, Red Brass	90			200-600
		铜合金，短切屑 Copper alloy, short chips	110			200-600
		高强度的 Ampco 合金 High Strength Ampco Alloy	300			200-600
S	耐热合金 Heat resistant alloy	铁基-退火 Iron-based – annealed	200	20-40	15-35	
		铁基-时效处理 Iron-based – aging treatment	280	20-40	15-35	
		镍基或钴基-退火或固溶 Nickel-based or Cobalt-based – annealed or solutionized	250	20-40	15-35	
		镍基或钴基-时效处理 Nickel-based or cobalt-based – aging treatment	350	20-40	15-35	
		镍基或钴基-铸造 Nickel or cobalt base – casting	320	20-40	15-35	
	钛合金 Titanium alloy	纯钛 Pure titanium	200	20-40	15-35	
		α 相合金 α phase alloy	375	20-40	15-35	
		α+β相合金 α+β phase alloy	375	20-40	15-35	
		β相合金 β phase alloy	410	20-40		
H	超硬钢 Super hard steel	调质处理 Tempering	43-47 HRC	10-30	20-40	
	冷硬铸铁 Chilled cast iron		47- 60 HRC	10-30	20-40	

A

切断切槽刀具
PARTING & GROOVING



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

切断切槽刀具
Parting & Grooving

- 槽刀选择指南
  Parting & grooving selection guide — A261
- 浅切槽刀命名规则
  Code key for shallow grooving inserts — A262
- TGF浅切槽刀片
  TGF series shallow grooving inserts — A264
- TGF浅切槽刀杆
  TGF series shallow grooving holders — A265
- 切断刀命名规则
  Code key for parting inserts — A266
- BP切断刀片
  BP series parting inserts — A267
- BP切断刀刀板刀座
  BP series parting inserts' blade and locator — A269
- 切槽切断刀命名规则
  Code key for parting & grooving inserts — A270
- BD切槽切断刀片
  BD series parting & grooving inserts — A273
- BD切槽刀杆
  parting & grooving inserts' holders — A275
- 其他切断切槽刀具
  Other parting & grooving tools — A279
- 切削参数推荐
  Cutting parameter recommended — A286
- 技术指南
  Technical guide — A289

槽刀选择指南
Parting & Grooving Selection Guide

系列 Series			浅切槽刀TGF系列 Shallow grooving TGF series	切槽刀BP系列 Single edge grooving BP series	槽刀BD系列 General grooving BD series
					
槽刀片宽度 Diameter range(mm)			0.5-2.0	2.18-6.34	2.0-6.0
最大切深 Max. depth of cut(mm)			2.0-6.0	16-35（方刀杆 square holders） 34-60（刀板 blades）	12.0-32.0
刀片刃口数 Insert edges			3	1	2
刀片类型 Insert			TGF	BP	BD
刀方尺寸 Shank holder dimensions			1616 2020 2525	1616 2020 2525 (方刀杆 square holders) 16 20 25 32（locator）	1616 2020 2525
圆柄刀杆尺寸 Round holder dimesios					16 20 25 32
应用 Application	外圆切槽 Grooving，external		●		●
	外圆切断 Parting,external		●	●	●●
	外圆槽刀仿形加工 Profiling,external				●
	端面切槽 Face grooving				●
	内孔切槽 Grooving internal				●
	内孔槽刀仿形加工 Profiling,internal				●
	大直径切断 Big dia. parting			●●	●

浅切槽TGF命名规则

Code Key For Shallow Grooving Inserts

T	G	F	32	R/L	100	010
1	2	3	4	5	6	7

1 通用加工
General

2 磨制刀
Grinded inserts

3 浅切槽
Shallow grooving

4 内切圆尺寸	
Inscribed circle dimension	
32	9.525
43	12.70
52	15.875

5 刀片方向	
Cutting direction	
R	L
右 Right	左 left

6 刀片宽度	
Insert width	
050	0.50mm
075	0.75mm
100	1.00mm
125	1.25mm
150	1.50mm
175	1.75mm
200	2.00mm
320	3.20mm

7 刀尖圆角	
Nose radius	
005	0.0.5
010	0.1
020	0.2

浅切槽技术指南

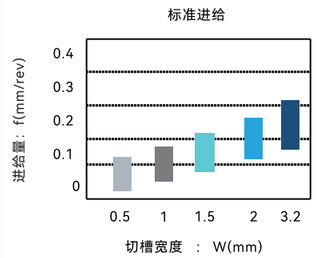
Technical Guide For Shallow Grooving Inserts

刀片外形 Profile	断屑槽特征 Geometry Feature	应用范围 Application scope
TGF(三刃尖 Three radius)		



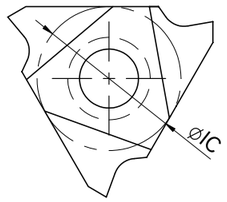
·用于浅槽加工
·大的正前角、锋利切削刃设计，降低切削阻力
·适用于钢、不锈钢、铸铁等加工

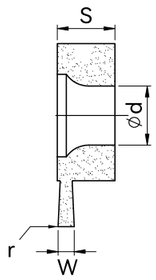
·For shallow groove machining.
·Large positive-rake angle and sharp cutting edge design to reduce cutting resistance.
·Suitable for steel, stainless steel and cast iron processing.



TGF浅切槽刀片

TGF Series Shallow Grooving Inserts





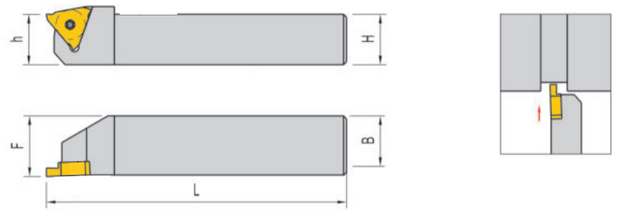
公差 Tolerance	
宽度(W) Width	W=±0.025
圆角(r) Radius	r=±0.05

应用 Application	刀片外形 Profile	型号 Type	尺寸(mm) Dimension					牌号 Grades					
			ΦIC	S	Φd	W	r	BG6225	BG2205	BG2215	BG2225	BG2225	BG5205
浅切槽刀 shallow grooving inserts		TGF32R/L-050-005	9.525	3.18	4.4	0.50	0.05				★		
		TGF32R/L-065-010	9.525	3.18	4.4	0.65	0.10				★		
		TGF32R/L-075-010	9.525	3.18	4.4	0.75	0.10				★		
		TGF32R/L-100-010	9.525	3.18	4.4	1.00	0.10				★		
		TGF32R/L-125-010	9.525	3.18	4.4	1.25	0.10				★		
		TGF32R/L-150-010	9.525	3.18	4.4	1.50	0.10				★		
		TGF32R/L-175-010	9.525	3.18	4.4	1.75	0.10				★		
		TGF32R/L-200-010	9.525	3.18	4.4	2.00	0.10				★		
		TGF43R/L-200-020	12.70	4.76	5.5	2.00	0.20		☆		★		
		TGF43R/L-320-020	12.70	4.76	5.5	2.00	0.20		☆		★		
		TGF53R/L-150-010	15.875	6.35	5.5	1.50	0.10		☆		★		
		TGF53R/L-200-010	15.875	6.35	5.5	2.00	0.10		☆		★		

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

TGF浅切槽外圆切槽刀杆

TGF Shallow Grooving External Holders



型号 Type		适用刀片 Insert	尺寸(mm) Dimension				螺钉 Screw	板手 Wrench
			H=h	B	L	F		
JSTGR/L	1212-H16C	TGF32R/L-□□□	12	12	100	16	M3.5*9	T15
	1616-H16C		16	16	100	20		
	2020-K16C		20	20	125	25		
	2525-M16C		25	25	150	32		
	2020-K2CC	TGF43R/L-□□□	20	25	125	25	M5*12	T20
	2525-M22C		20	25	150	32		

切断刀命名规则
Code Key For Parting Inserts

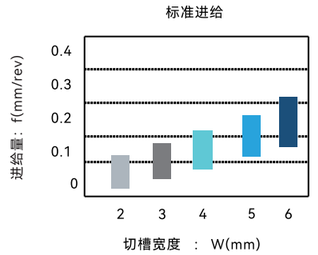
B	P	200
1	2	3

1 邦普
CDBP TOOLS

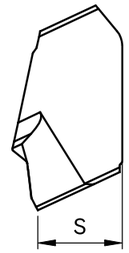
2 切断
Parting

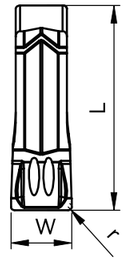
3 刀片宽度	
Insert width	
200	2.18mm
300	3.14mm
400	4.14mm
500	5.12mm
600	6.34mm

切断刀技术指南
Technical guide for parting inserts

刀片外形 Profile	断屑槽特征 Geometry Feature	应用范围 Application scope
BP(单头 Single head)		
	·用于深槽和切断 ·低切削力前角设计，延长刀具使用寿命 ·特殊的断屑点，切屑排出性能良好 ·适用于钢、不锈钢、铸铁等加工 ·For deep grooving and parting. ·Low cutting force rake angle design to extend tool life. ·Special chip breaking point make good chip discharge performance. ·Suitable for steel, stainless steel and cast iron processing.	

BP切断刀片
BP series parting inserts





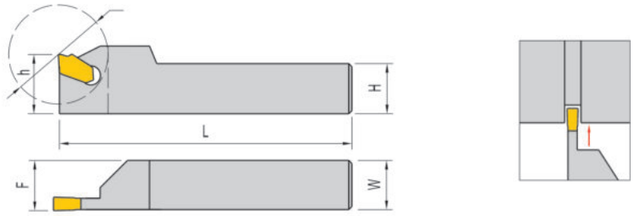
公差 Tolerance	
宽度(W) Width	W=±0.03
圆角(r) Radius	r=±0.05

	刀片形状 Profile	型号 Code	尺寸(mm) Dimension			牌号 Grade					
			W	r	L	BG6225	BG2205	BG2215	BG2225	BG2225	BG5205
切断刀片 parting inserts		BP200	2.18	0.20	8.90	☆		☆	★		
		BP300	3.14	0.20	11.00	☆		☆	★		
		BP400	4.14	0.25	11.00	☆		☆	★		
		BP500	5.12	0.30	11.04	☆		☆	★		
		BP600	6.34	0.40	11.05	☆		☆	★		

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

BP切断刀杆

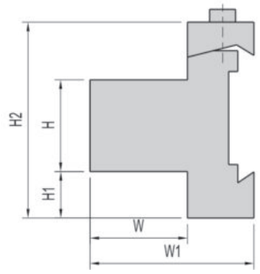
BP series insert holders



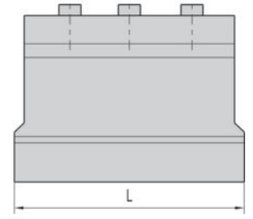
型号 Type		适用刀片 Insert	尺寸(mm) Dimension					板手 Wrench
			H=h	W	L	ϕd	F	
SPH	316R/L	BP300	16	16	100	32	16.3	SW80-S
	320R/L		20	20	120	40	20.3	
	420R/L	BP400	20	20	120	50	20.4	
	520R/L	BP500	20	20	120	60	20.5	
	325R/L	BP300	25	25	150	50	25.3	
	425R/L	BP400	25	25	150	60	25.4	
	525R/L	BP500	25	25	150	70	25.5	

BP切断刀座

BP series parting insert locators





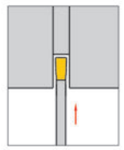


型号 Type		适用刀片 Insert	尺寸(mm) Dimension							板手 Wrench
			H	W	W1	H1	H2	H3	L	
SMBB	1626	SPB26-	16	12	30	13	43	26	86	L5.0
	2026		20	19	38	9	43	26	86	
	2526		25	23	42	4	43	26	86	
	2032	SPB32-	20	19	38	13	50	32	100	
	2532		25	23	42	8	50	32	110	
	3232		32	30	48	5	54	32	110	

BP切断刀板

BP series parting blades





型号 Type		适用刀片 Insert	尺寸(mm) Dimension				板手 Wrench
			H	h	W	L	
SPB	226-S	BP200	26	21	1.6	110	SW80-S
	326-S	BP300	26	21	2.4	110	
	426-S	BP400	26	21	3.2	110	
	526-S	BP500	26	21	4	110	
	232-S	BP200	32	25	1.6	150	
	332-S	BP300	32	25	2.4	150	
	432-S	BP400	32	25	3.2	150	
	532-S	BP500	32	25	4	150	
	632-S	BP600	32	25	5.2	150	

切槽切断刀命名规则
Code Key For Parting & Grooving Inserts

B	D	J	(R)	- 3	- 0.3	- (6D)
①	②	③	④	⑤	⑥	⑦

① 邦普
CDBP TOOLS

② 刀头类型	
Insert head	
S	D
单头刀片	双头刀片

③ 断屑槽型					
Geometry					
J	C	T	F	X	R
轻加工	中等加工	钢、铸铁	通用	通用	仿形

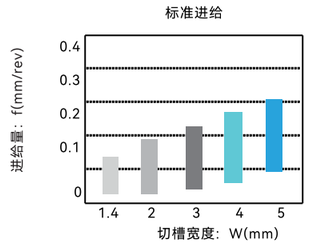
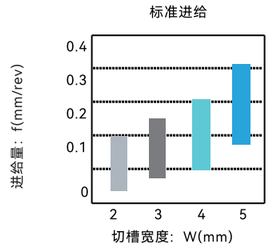
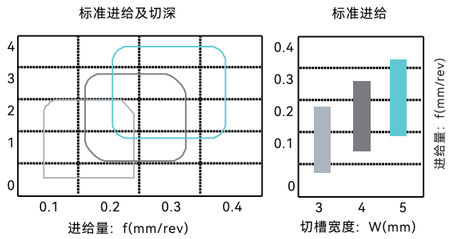
④ 刀片方向	
Insert Direction	
R	L
右 Right	左 left

⑤ 刀片宽度	
Insert Width	
3	3.0mm

⑥ 刀尖圆角	
Nose Radius	
0.3	R=0.3

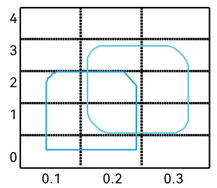
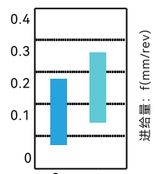
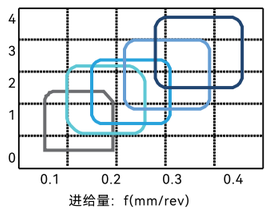
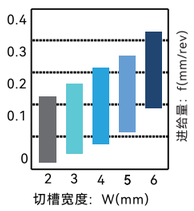
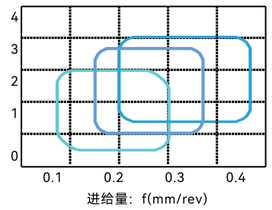
⑦ 倾斜角	
Inclined angle	
6D	6°

切槽刀技术指南
Technical Guide For Parting & Grooving Inserts

刀片外形 Profile	断屑槽特征 Geometry Feature	应用范围 Application scope
BDJ□□□(双刀尖 Double head)		
	·正前角刀片，具有锋利切削刃，低切削阻力 ·优先用于管材切断、软金属材料和小直径薄壁件 ·低、中速进给加工 ·用于CNC，多主轴 ·Positive rake angel with sharp cutting edge make low cutting resistance. ·Preferred for pipe, soft metal materials and small diameter thin-walled parts. ·For Low and medium speed feed processing. ·For CNC, multi-spindle.	
BDC□□□(双刀尖 Double head)		
	·正前角的刀片，前刀面的圆弧型断屑槽，切削刃负倒棱和其两侧加强筋的设计，保证了刀片具有足够的切削刃强度 ·优先用于切断棒料、硬材料和坚韧材料加工 ·中、高速进给加工 ·适用于恶劣的加工条件或断续切 ·Positive rake angel insert with arc geometry, negative chamfering of cutting edge and reinforcing bars on both sides design insure sufficient cutting edge strength on insert. ·Priority for bar parting, hard and tough material processing. ·Medium and high speed feed processing. ·Suitable for harsh working conditions or intermittent cutting.	
BDT□□□(双刀尖 Double head)		
	·车削加工首选刀片 ·应用于外圆、内孔切槽和车削加工 ·独特槽型设计，实现低切削阻力和卓越的切屑控制 ·高进给率 ·适用于钢、不锈钢和铸铁加工 ·Preferred for turning processing. ·Applied to external, internal grooving and turning processing. ·Special Geometry design to achieve low cutting resistance and excellent chip control. ·High feed rate. ·Suitable for steel, stainless steel and cast iron processing.	

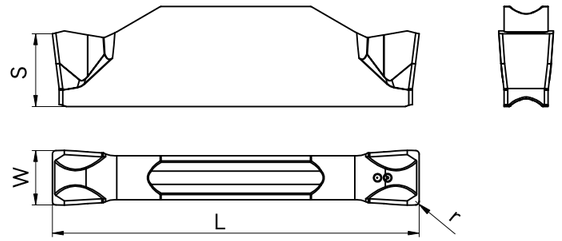
切槽刀技术指南

Technical Guide For Parting & Grooving Inserts

刀片外形 Profile	断屑槽特征 Geometry Feature	应用范围 Application scope
BDF□□□(双刀尖 Double head)		
	·正大前角设计，适用于管件的切断、薄壁件和小直径工件的加工 ·在轴承钢和不锈钢加工方面表现优异 ·在低-中速进给下，加工表现不凡 ·锋利的切削刃能减少切削力 ·Big positive rake angle design suitable for parting, thin wall parts and small diameter workpiece processing. ·Excellent performance in bearing steel and stainless steel processing. ·Excellent processing performance under low to medium speed feed. ·Sharp cutting edge can reduce cutting.	标准进给及切深  进给量：f(mm/rev) 标准进给  切槽宽度 W(mm)
BDX□□□(双刀尖 Double head)		
	·通用车削和切槽加工首选 ·独特断屑槽设计，降低切削力，切屑控制良好 ·用于外圆、内孔及端面加工 ·适用于钢件、不锈钢等加工 ·Preferred for general turning and grooving. ·Special geometry design to reduce cutting force and good chip control. ·For external, internal and end face processing. ·Suitable for steel and stainless steel processing.	标准进给及切深  进给量：f(mm/rev) 标准进给  切槽宽度：W(mm)
BDR□□□(双刀尖 Double head)		
	·全半径型 ·钢件、铸铁的仿形加工 ·高进给率和小切深 ·卓越的排屑性能 ·Full radius type ·For steel and cast iron profiling ·High feed rate and small cutting depth ·Excellent chip removal performance	标准进给及切深  进给量：f(mm/rev) 切槽宽度：W(mm) 2 3 4

BD切槽切断刀片

BD Series Parting & Grooving Inserts

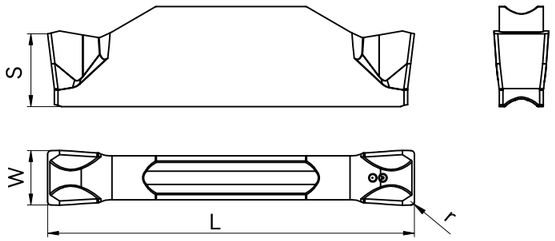


公差 Tolerance	
宽度(W) Width	$W^{+0.05}_{-0.025}$
圆角(r) Radius	r=±0.05

应用 Application	刀片外形 Profile	型号 Type	尺寸(mm) Dimension					牌号 Grades					
			W	L	r	s	a°	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
切槽·切断加工 Grooving · Parting		BDJ1.4-0.16	1.40	16.00	0.16	4.42	-			☆	★		
		BDJ2-0.2	2.00	20.00	0.20	3.90	-			☆	★		
		BDJ3-0.3	3.00	20.00	0.20	4.00	-			☆	★		
		BDJ4-0.3	4.00	20.00	0.30	4.05	-			☆	★		
		BDJ5-0.3	5.00	20.00	0.30	4.95	-			☆	★		
切槽加工 Grooving		BDC2-0.2	2.00	20.00	0.20	4.00	-			☆	★		
		BDC3-0.2	3.00	20.00	0.20	4.10	-			☆	★		
		BDC4-0.3	4.00	20.00	0.30	4.15	-			☆	★		
		BDC5-0.3	5.00	25.00	0.30	5.05	-			☆	★		
切槽·车削加工 Grooving · Turning		BDT3-0.4	3.00	20.00	0.40	4.00	-		☆	☆	★		
		BDT4-0.4	4.00	20.00	0.40	4.05	-		☆	☆	★		
		BDT5-0.4	5.00	25.00	0.40	4.95	-		☆	☆	★		
切槽·切断加工 Grooving · Parting		BDF2-0.2	2.00	20.00	0.20	3.90	-			☆	★		
		BDF3-0.2	3.00	20.00	0.20	4.00	-			☆	★		
											★		
											★		
切槽·车削加工 Grooving · Turning		BDX2-0.2	2.00	20.00	0.20	3.90	-			☆	★		
		BDX3-0.2	3.00	20.00	0.20	4.00	-			☆	★	☆	
		BDX4-0.4	4.00	20.00	0.40	4.05	-			☆	★	☆	
		BDX4-0.8	4.00	20.00	0.80	4.05	-			☆	★	☆	
		BDX5-0.8	5.00	25.00	0.80	4.95	-			☆	★		
		BDX6-0.8	5.00	25.00	0.80	4.95	-			☆	★		

BD切槽切断刀片

BD Series Parting & Grooving Inserts



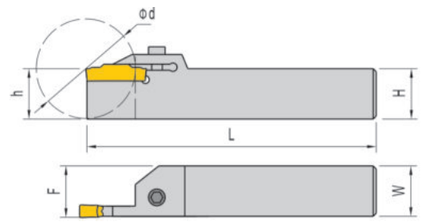
公差 Tolerance	
宽度(W) Width	$W^{+0.05}_{-0.025}$
圆角(r) Radius	r=±0.05

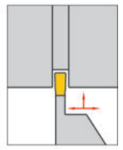
应用 Applications	刀片形状 Inserts	型号 Type	尺寸(mm) Dimension					牌号 Grade					
			W	L	r	s	a°	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
仿形加工 Profiling		BDR2-1.0	2.00	20.00	1.00	4.00	-			☆	★		
		BDR3-1.5	3.00	20.00	1.50	4.10	-			☆	★		
		BDR4-2.0	4.00	20.00	2.00	4.15	-			☆			
切断加工 Parting		BDJR2-0.2-6D	2.00	20.00	0.20	3.90	6				★		
		BDJR3-0.2-8D	3.00	20.00	0.20	4.00	8				★		
切断加工 Parting		BDCR2-0.2-6D	2.00	20.00	0.20	4.00	6				★		
		BDCR3-0.2-8D	3.00	20.00	0.20	4.10	8				★		

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

BD外圆切槽刀杆

BD Series External Grooving Insert Holders

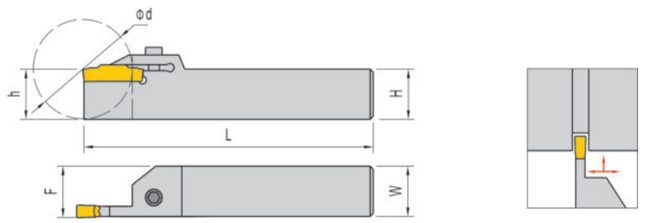




型号 Type		适用刀片 Insert	尺寸(mm) Dimension					螺钉 Screw	板手 Wrench
			H=h	L	F	W	Φd		
TTER/L	1616-2T08	BDJ/C/T/X2□□□	16	110	16.1	16	8.0	M5*16N	L-W4
	2020-2T08		20	125	20.1	20			
	2525-2T08		25	150	25.1	25			
	1616-2		16	110	16.1	16	12.0		
	2020-2		20	125	20.1	20			
	2525-2		25	150	25.1	25			
	1616-2T17		16	110	16.1	16	17.0		
	2020-2T17		20	125	20.1	20			
	2525-2T17		25	150	25.1	25			
	1616-3T09	BDJ/C/T/X3□□□	16	110	16.3	16	9.0		
	2020-3T09		20	125	20.3	20			
	2525-3T09		25	150	25.3	25			
	1616-3		16	110	16.3	16	12.0		
	2020-3		20	125	20.3	20			
	2525-3		25	150	25.3	25			
	1616-3T20		16	110	16.3	16	20.0		
	2020-3T20		20	125	20.3	20			
	2525-3T20		25	150	25.3	25			
	2525-3T25		25	150	25.3	25	25.0		

BD外圆切槽刀杆

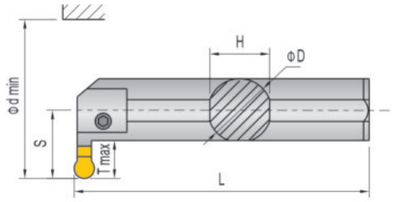
BD Series External Grooving Insert Holders

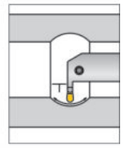


型号 Type		适用刀片 Insert	尺寸(mm) Dimension					螺钉 Screw	板手 Wrench
			H=h	L	F	W	φd		
TTER/L	1616-4T10	BDJ/C/T/X4□□□	16	110	16.5	16	10.0	M6*16N	L-W5
	2020-4T10		20	125	20.5	20			
	2525-4T10		25	150	25.5	25			
	1616-4		16	110	16.5	16	15.0		
	2020-4		20	125	20.5	20			
	2525-4		25	150	25.5	25			
	1616-4T25		16	110	16.5	16	25.0		
	2020-4T25		20	125	20.5	20			
	2525-4T25		25	150	25.5	25			
	2020-5T12	BDJ/C/T/X5□□□	20	125	20.6	20	12.0		
	2525-5T12		25	150	25.6	25			
	2020-5		20	125	20.6	20	20.0		
	2525-5		25	150	25.6	25			
	2020-5T32		25	150	25.6	25	32.0		

BD内孔切槽刀杆

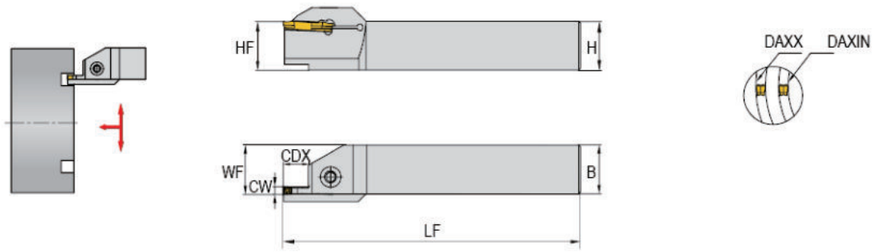
BD Series Internal Grooving Insert Holders





型号 Type		适用刀片 Insert	尺寸(mm) Dimension					螺钉 Screw	板手 Wrench
			D	L	S	Tmax	φdmin		
TTIR/L	16-2	BDJ/C/X2□□□	16	180	16.5	8.5	25	M5*10N	L4.0
	20-2		20	180	15.8	6.0	25	M5*12N	
	25-2		25	200	17.5	5.0	25	M5*16N	
	20-3	BDJ/C/X3□□□	20	180	15.8	6	25	M5*12N	
	25-3		25	200	17.5	5.1	25	M5*16N	
	32-3		32	250	19.8	4.7	31	M5*16N	
	20-4	BDJ/C/X4□□□	20	180	15.8	6.0	25	M5*12N	
	25-4		25	200	17.5	5.2	25	M5*16N	
	32-4		32	250	20.8	4.7	31	M5*16N	
	25-5	BDJ/C/X5□□□	25	200	17.3	5.2	31	M5*16N	L5.0
	32-5		32	250	20.8	4.7	31	M5*16N	

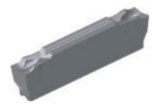
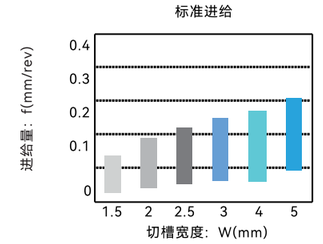
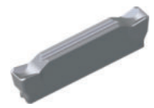
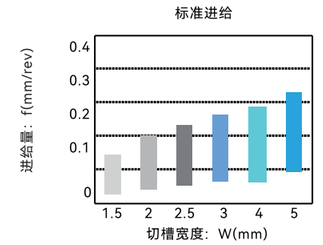
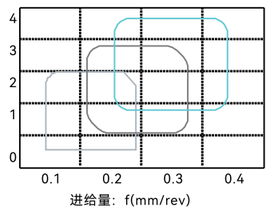
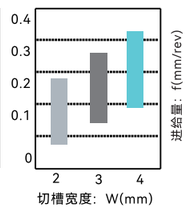
BD端面切槽刀杆
BD End Face Grooving Tool Holders



型号		适用刀片	尺寸(mm)							螺钉	板手
Type		Insert	Dimension							Screw	Wrench
			H=HF	B	LF	WF	CDX	DAXN	DAXX		
TTFR/L	25-30-3	BDJ/C/T/X3□□□	25	25	150	24	10	24	35	M5×0.8×25	L-W4
	25-35-3		25	25	150	24	10	29	40		
	25-40-3		25	25	150	24	10	34	50		
	25-50-3		25	25	150	24	15	44	60		
	25-60-3		25	25	150	24	15	54	85		
	25-30-4	BDJ/C/T/X4□□□	25	25	150	23.6	12	22	40	M6×1×25	L-W5
	25-35-4		25	25	150	23.6	15	32	50		
	25-40-4		25	25	150	23.6	15	42	60		
	25-50-4		25	25	150	23.6	15	52	85		
	25-60-4		25	25	150	23.6	20	50	80		
	25-80-5	BDJ/C/T/X5□□□	25	25	150	23.1	20	70	110	M8×1.25×25	
	25-110-5		25	25	150	23.1	20	110	150		
	25-150-5		25	25	150	23.1	20	140	200		
	25-60-6	BDX6□□□	25	25	150	22.6	20	48	85	M8×1.25×25	
	25-85-6		25	25	150	22.6	20	73	150		
	25-150-6		25	25	150	22.6	20	138	250		

其他切槽切断刀具
Other Grooving & Parting Tools

切槽刀BG技术指南
Technical guide forBG series grooving inserts

刀片外形	断屑槽特征	应用范围
Profile	Geometry Feature	Application scope
BGMN□□□-L(双刃尖 Double head)		
	·软材料切断加工首选 ·锋利切削刃，低切削阻力 ·低、中速进给加工 ·管件、薄壁件和小零件加工 ·适用于不锈钢、碳钢和耐热钢加工 ·Preferred for soft material machining ·Sharp cutting edge with low cutting resistance ·Low and medium speed feed machining ·Suitable for Pipe, thin-wall parts and small parts machining ·Suitable for stainless steel, carbon steel and heat-resistant steel machining	标准进给 
BGMN□□□-H(双刃尖 Double head)		
	·切外圆深槽加工首选 ·高强度切削刃，适合断续切削 ·中、高速进给加工 ·适用于碳钢、合金钢和铸铁 ·适用于硬材料加工 ·Preferred for external deep grooving machining ·High strength cutting edge suitable for interrupted cutting ·Medium and high speed feed machining ·Suitable for carbon steel, alloy steel and cast iron machining ·Suitable for hard material machining	标准进给 
BGMN□□□- T(双刃尖 Double head)		
	·切槽通用加工首选 ·应用于外圆、内孔切槽和车削加工 ·独特槽型设计，实现低切削阻力 ·低、中速进给加工 ·适用于硬材料加工 ·适用于钢、不锈钢和耐热钢加工 ·Preferred for general grooving ·Applied to external, internal grooving and turning processing ·Special geometry design to achieve low cutting resistance ·Low and medium speed feed machining ·Suitable for hard material processing ·Suitable for steel, stainless steel and heat-resistant steel machining	标准进给及切深  标准进给 

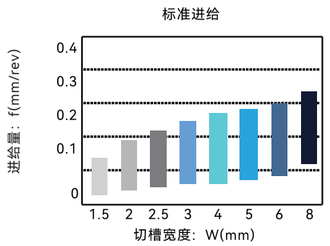
其他切槽切断刀具
Other Grooving & Parting Tools

刀片外形 Profile	断屑槽特征 Geometry Feature	应用范围 Application scope
BGGN□□□-LH(双刀尖 Double head)		



·大的正前角，锋利的切削刃
·用于软材料、细长件和通用型切槽切断

·Large positive rake Angle and sharp cutting edge
·For soft materials, slender parts and general grooving & parting



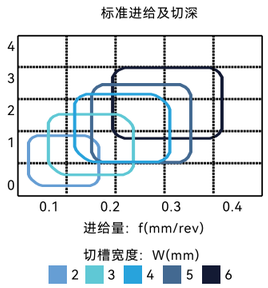
● 切槽刀BR技术指南
Technical guide for BR series grooving inserts

刀片外形 Profile	断屑槽特征 Geometry Feature	应用范围 Application scope
BRMN□□□-M(双刀尖 Double head)		

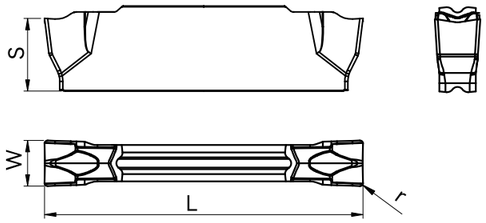


·改善切屑控制，使排屑更优异
·高进给率和小切深
·适用于钢、不锈钢和铸铁加工

·Improved chip control for superior chip removal
·High feed rate and lowl cutting depth
·Suitable for steel, stainless steel and cast iron machining



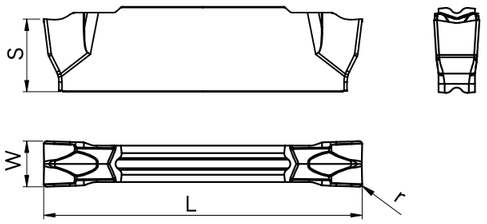
切槽刀片BG
BG Series Grooving Insert



公差 Tolerance	
宽度(W) Width	$W^{+0.05}_{-0.025}$
圆角(r) Radius	r=±0.05

应用 Application	刀片形状 Profile	型号 Type	尺寸(mm) Dimension					牌号 Grade					
			W	L	r	s	a°	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
切槽·切断加工 Grooving·Parting		BGMN150-L	1.50	16.00	0.20	3.50	-				★		
		BGMN200-L	2.00	16.00	0.20	3.50	-				★		
		BGMN250-L	2.50	18.50	0.20	3.80	-				★		
		BGMN300-L	3.00	21.00	0.20	4.80	-				★		
		BGMN400-L	4.00	21.00	0.30	4.80	-				★		
		BGMN500-L	5.00	26.00	0.30	5.80	-				★		
切槽加工 Parting		BGMN150-H	1.50	16.00	0.20	3.60	-				★		
		BGMN200-H	2.00	16.00	0.20	3.50	-				★		
		BGMN250-H	2.50	18.50	0.20	3.95	-				★		
		BGMN300-H	3.00	21.00	0.40	4.90	-				★		
		BGMN400-H	4.00	21.00	0.40	4.89	-				★		
		BGMN500-H	5.00	26.00	0.30	5.90	-				★		
切槽·车削加工 Grooving·Turning		BGMN200-T	2.00	16.00	0.20	3.50	-				★		
		BGMN300-T	3.00	21.00	0.40	4.80	-				★		
		BGMN400-T	4.00	21.00	0.40	4.80	-				★		
切槽加工 Parting		BGMN150-G	1.50	16.00	0.15	3.50	-	☆			★		
		BGMN200-G	2.00	16.00	0.20	3.50	-	☆			★		
		BGMN250-G	2.50	18.50	0.40	3.85	-	☆			★		
		BGMN300-G	3.00	21.00	0.40	4.80	-	☆			★		
		BGMN400-G	4.00	21.00	0.40	4.80	-	☆			★		
切槽·车削加工 Grooving·Turning		BGMN200-M	2.00	16.00	0.20	3.50	-	★			★		
		BGMN250-M	2.50	18.50	0.20	3.85	-	★			★		
		BGMN300-M	3.00	21.00	0.40	4.80	-	★			★		
		BGMN400-M	4.00	21.00	0.40	4.80	-	★			★		
		BGMN500-M	5.00	26.00	0.80	5.80	-	★			★		
		BGMN600-M	6.00	26.00	0.80	5.80	-	★			★		
		BGMN800-M	8.00	31.00	0.80	6.50	-	★			★		

切槽刀片BG
BG Series Grooving Insert

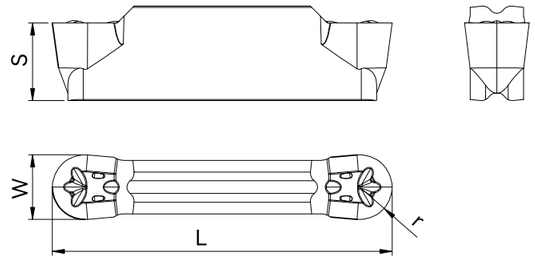


公差 Tolerance	
宽度(W) Width	$W^{+0.05}_{-0.025}$
圆角(r) Radius	r=±0.05

应用 Application	刀片形状 Profile	型号 Type	尺寸(mm) Dimension					牌号 Grade					
			W	L	r	s	a°	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
切断加工 Parting		BGMR1502-6D	1.50	16.00	0.20	3.50	6				★		
		BGMR2002-6D	2.00	16.00	0.20	3.50	6				★		
		BGMR3002-6D	3.00	21.00	0.20	4.80	6				★		
切槽加工 Grooving		BGGN150E-LH	1.50	16.00	0.10	3.50	-		★		☆		
		BGGN200E-LH	2.00	16.00	0.20	3.50	-		★		☆		
		BGGN250E-LH	2.50	18.40	0.20	3.95	-		★		☆		
		BGGN300E-LH	3.00	21.00	0.40	4.80	-		★		☆		
		BGGN400E-LH	4.00	21.00	0.40	4.80	-		★		☆		
		BGGN500E-LH	5.00	26.00	0.80	5.80	-		★		☆		
切槽·切断加工 Grooving·Parting		BGGN150-LH	1.50	16.00	0.10	3.50	-						★
		BGGN200-LH	2.00	16.00	0.20	3.50	-						★
		BGGN250-LH	2.50	18.40	0.20	3.95	-						★
		BGGN300-LH	3.00	21.00	0.40	4.80	-						★
		BGGN400-LH	4.00	21.00	0.40	4.80	-						★
		BGGN500-LH	5.00	26.00	0.80	5.80	-						★
		BGGN600-LH	6.00	26.00	0.80	5.80	-						★
		BGGN800-LH	8.00	31.00	0.80	6.53	-						★

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

切槽刀片BR
BR Series Grooving Insert

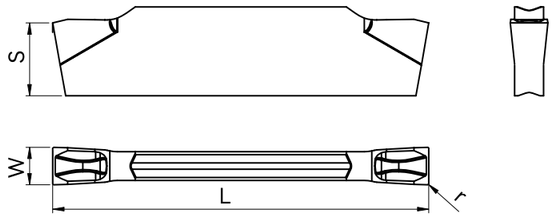


公差 Tolerance	
宽度(W) Width	$W^{+0.05}_{-0.025}$
圆角(r) Radius	r=±0.05

应用 Application	刀片形状 Profile	型号 Type	基本尺寸(mm) Dimension					牌号 Grade					
			W	L	r	s	a°	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
仿形加工 Profiling		BRMN200-M	2.00	16.00	1.00	3.50	-	★			★		
		BRMN300-M	3.00	21.00	1.50	4.80	-	★			★		
		BRMN400-M	4.00	21.00	2.00	4.80	-	★			★		
		BRMN500-M	5.00	25.85	2.50	5.80	-	★			★		
		BRMN600-M	6.00	26.00	3.00	5.80	-	★			★		

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

切槽刀片MG
MG Series Grooving Inserts

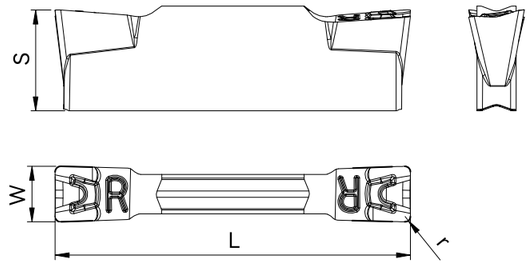


公差 Tolerance	
宽度(W) Width	W=±0.03
圆角(r) Radius	r=±0.05

应用 Application	刀片形状 Profile	型号 Type	尺寸(mm) Dimension					牌号 Grade					
			W	L	r	s	a°	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
切槽·切断加工 Grooving·Parting		MGMM15005-MT	1.50	20.00	0.05	4.05	-				★		
		MGMM20005-MT	2.00	20.00	0.05	4.07	-				★		
		MGMM30005-MT	3.00	20.00	0.05	4.30	-				★		
切槽加工 Parting		MGGM15005R-MT-15D	1.50	20.00	0.05	4.05	15				★		
		MGGM20005R-MT-15D	2.00	20.00	0.05	4.07	15				★		
		MGGM30005R-MT-15D	3.00	20.00	0.05	4.30	15				★		

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

切槽刀片BR
BR Series Grooving Inserts



公差 Tolerance	
宽度(W) Width	W=±0.03
圆角(r) Radius	r=±0.05

应用 Application	刀片形状 Profile	型号 Type	尺寸(mm) Dimension				牌号 Grade					
			W	L	r	s	BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
切槽加工 Grooving		BRIP3003-F	3.00	16.00	0.30	5.40			☆	★		
		BRIP4004-F	4.00	19.00	0.40	5.75			☆	★	★	
		BRIP6005-F	6.00	19.00	0.60	5.90	☆		☆	★		
切槽·车削加工 Grooving·Turning		BRIP3003-M	3.00	19.00	0.30	5.40	☆		☆	★		
		BRIP5004-M	5.00	19.00	0.40	5.75			☆	★	★	
		BRIP6004-M	6.00	19.00	0.40	5.90			☆	★	★	

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

切槽切断刀材质说明

Grade Instructions For Grooving & Parting Inserts

材料分类 Workpiece material	ISO材料分类 ISO	牌号 Grade	应用推荐 Application recommended
P	P25(P15-P30)	BG6225	CVD涂层硬质合金牌号。钢件切槽、切断加工专用牌号，出色的耐月牙洼磨损和抗塑性变形能力，更好的刀具使用寿命。 CVD coated grade，for steel grooving & parting, excellent wear resistance to cratering and plastic deformation, better tool life.
M	M05(M05-M15)	BG2205	PVD涂层硬质合金牌号。具有高的热硬度和良好的抗塑性变形能力。适用于不锈钢、钛合金、高温合金等加工。 PVD coated grade. It has high thermal hardness and good resistance to plastic deformation. Suitable for stainless steel, titanium alloy, super alloy, etc.
	M15(M10-M20)	BG2215	PVD涂层硬质合金牌号。良好的耐热冲击和耐机械冲击性提供了良好的切削刃安全性，确保更高的刀具寿命。 PVD coated grade. Good resistance to heat impact and mechanical impact, providing good cutting edge safety, ensuring longer tool life.
	M25(M15-M30)	BG2225	PVD涂层硬质合金牌号。高韧性材质，不稳定工况下的首选。通用加工材质，适合于钢、不锈钢、铸铁等加工。 PVD coated grade. High toughness, first choice for unstable conditions. Generall machining material, suitable for steel, stainless steel, cast iron, etc.
K	K15(K10-K20)	BG3215	PVD涂层硬质合金牌号。韧性与耐磨性的最佳平衡选择，获得极佳的生产效率和刀具寿命，适用于铸铁的专用加工牌号。 PVD coated grade. The best balance of toughness and wear resistance for excellent productivity and tool life, specific grade for cast iron machining
N	N(N05-N25)	BG5205	未涂层硬质合金牌号。亚微细晶粒材质确保刀片耐磨性能和抗微崩性，适用于铝、铜、镁等有色金属。 Uncoated grade. Subfine grain material to ensure insert wear resistance and micro-collapse resistance, Suitable for aluminum, copper, magnesium and other non-ferrous metals.

切削参数推荐

Cutting Parameters Recommended

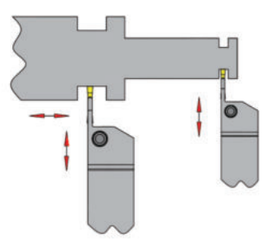
ISO	材料 Materials	单位切削力 N/mm2	布氏硬度 HB	切削速度Vc(m/min) 涂层 Coated					未涂层 Uncoated
				BG6225	BG2205	BG2215	BG2225	BG3215	BG5205
P	**非合金钢 Carbon steel**								
	C=0.1-0.25%	1500	125	120-300		140-250	140-250		
	C=0.25-0.55%	1600	150	120-280		130-220	130-220		
	C=0.55-0.80%	1700	170	110-260		130-220	130-220		
	低合金钢（合金元素≤5%）Low alloy steel								
	非淬硬钢 Non-hardened	1700	180	110-260		90-200	90-200		
	轴承钢 Bearing steel	1800	210	100-180		70-170	70-170		
	调质 Tempering steel	1850	275	100-200		90-120	90-120		
	调质 Tempering steel	2050	350	120-220		80-170	80-170		
	高合金钢（合金元素 > 5%）High alloy steel								
	退火 Anneal	1950	200	100-200		50-120	50-120		
	淬硬工具钢 Quenched tool steel	3000	325	120-220		60-140	60-140		
	铸钢 Cast steel								
	非合金 Non-alloy	1550	180	100-220		50-120	50-120		
	低合金（合金元素≤5%）Low alloy	1600	200	80-180		120-210	120-210		
	高合金（合金元素 > 5%）High alloy	2050	225	80-140		90-120	90-120		
M	**铁素体/马氏体/棒材/锻件 Ferrite/Martensite forged**								
	非淬硬 Non-hardened	1800	200			70-170	70-170		
	沉淀硬化 Precipitation hardening	2850	330			90-180	90-180		
	淬硬 Hardened	2350	330			60-150	60-150		
	奥氏体 棒材/锻件 Austenite forged								
	奥氏体 Austenite	1800	180			90-180	90-180		
	沉淀硬化 Precipitation hardening	2850	330			60-150	60-150		
	超级奥氏体 Super austenite	2250	200			60-150	60-150		
	奥氏体-铁素体（双相）棒材/锻件 Duplex forged								
	不可焊接≥0.05% C Unweldable	2000	230			40-70	40-70		
	可焊接 < 0.05% C Welding	2450	260			30-50	30-50		
	铁素体/马氏体 铸件 Ferrite/Martensite cast-on								
	非淬硬 Non-hardened	1700	200			30-40	30-40		
	沉淀硬化 Precipitation hardening	2450	330			15-25	15-25		
	淬硬钢 Hardened	2150	330			15-30	15-30		
	奥氏体 铸件 Austenite cast-on								
	奥氏体 Austenite								
	沉淀硬化 Precipitation hardening								
	超级奥氏体 Super austenite								
	奥氏体-铁素体（双相）铸件 Duplex cast-on								
	不可焊接≥0.05% C Unweldable								
	可焊接 < 0.05% C Welding								

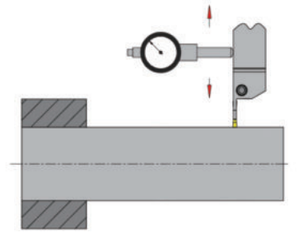
ISO	材料 Materials	单位切削力 N/mm2	布氏硬度 HB	切削速度Vc(m/min) 涂层 Coated BG6225	BG2205	BG2215	BG2225	BG3215	未涂层 Uncoated BG5205
K	**可锻铸铁 Malleable cast-iron**								
	铁素体（短切屑）Ferrite (short chip)	790	130	100-200				120-350	
	珠光体（长切屑）Pearlite (long chip)	900	230	90-180				100-260	
	灰口铸铁 Gray cast iron								
	低抗拉强度 Low tensile strength	890	180	190-300				120-330	
	高抗拉强度 高抗拉强度	970	220	120-220				120-300	
	球墨铸铁SG Nodular cast iron								
	铁素体 Ferrite	900	160	190-300				120-300	
	珠光体 Pearlite	1350	250	120-220				120-300	
	马氏体 Martensite	2100	380	140-240				100-260	
N	**铝合金 Aluminium alloy**								
	锻造或锻造+冷作，非时效处理 forged	400	60						300-800
	锻造或锻造加时效处理	650	100						230-310
	铝合金 Aluminium alloy								280-830
	铸造，非时效 Cast-on, non-aging	600	75						200-510
	铸造或铸造加时效处理	700	90						130-300
	铝合金 Aluminium alloy								
	铸造，13-15% 硅 Cast-on,13-15% silicon	700	130						120-200
	铸造，16-22% 硅 Cast-on,16-22% silicon	700	130						90-150
	铜和铜合金 Copper and copper alloy								200-510
	易切合金，≥1% 铅 Easy to cut，≥1% lead	550	110						130-300
	黄铜，铅青铜，≤1%铅 Brass ≤1% lead	550	90						
	青铜与无铅铜，包括电解铜 Bronze	1350	100						
S	**高温合金 铁基 Superalloy，iron-based**								
	退火或固溶处理 Annealing	2400	200		30-50				
	时效处理或固溶处理加时效处理 Aged	2500	280		20-40				
	镍基 Nickel base								
	退火或固溶处理 Annealing	2650	250		20-30				
	时效处理或固溶处理加时效处理 Aged	2900	350		15--20				
	铸造或铸造加时效处理 Cast-on	3000	320		15-25				
	钴基 Cobalt base								
	退火或固溶处理 Annealing	2700	200		20-30				
	固溶处理加时效处理 Aged	3000	300		15--20				
	铸造或铸造加时效处理 Cast-on	3100	320		15-25				
	（钛合金2）Titanium alloy		Rm3)						
	商业纯（99.5% Ti）Unalloyed Titanium	1300	400		15-20				
	α，近α与α+β合金，退火 Annealing	1400	950		15-20				
	α+β合金时效处理，β合金，退火或时效处理 Aged （α+β）	1400	1050		40-70				

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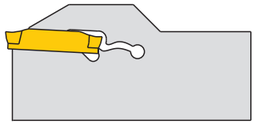
如何选择合适的刀具
How to choose right tools

刀片选择 Insert selection	刀板或刀杆尺寸 Size of blade & holder
根据加工选择刀片时，需考虑下列各项参数 **When selecting insert，below parameters should be considered**	**为尽可能减少振动和偏移应做到：** **To minimize vibration and deviation, following should be considered:**
切削宽度（刀片宽度） Cutting width (insert width)	刀板或刀杆悬伸尽可能小 The blade or holder's overhang should be small
断屑槽类型 Geometry type	刀杆尽可能选择大尺寸 Holder's size shouleb be as large as possiblee
圆角半径 Nose radius	推荐的Tmax应小于刀板高度的B The recommended Tmax should be less than blade height B size.
硬质合金牌号 Carbide gradde	应选尽可能宽的刀板或刀杆 The widest blade or holder possible should be chosen
主偏角 Cutting edge Angle	
整体型刀杆刚性最好 Integral holder's rigidity is best	为得到垂直加工表面，减少振动，刀具和工件中心线成90°安装十分重要 In order to obtain a vertical machining surface and reduce vibration, it is important to make insert and the workpiece center line at 90° when clamping
螺钉式夹紧推荐为轴向和径向浅槽切削 Screw clamping holder is recommended for axial and radial shallow grooving	

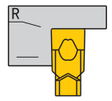
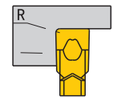
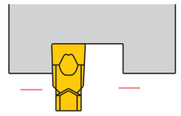


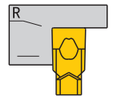
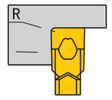


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Technical Guide

安装 Install	加工 Machining
刀片的中心高度应保证在±0.1mm以内 切断时刀具安装应尽可能减短刀具悬伸长度 The insert center height should be ensured within ±0.1mm The tool overhang length should be reduced as much as possiblemuch as possible for parting machining..	稳定的速度和进给可提高切削性能 Stable speed and feed improve cutting performance
	冷却供应要充足 The cooling supply should be adequate
优先选择 **Preferred**	装刀槽要清理干净 The knife slot should be cleaned
选用0°主偏角的刀尽量选用最大的刀板选用最小的切削深度 Choose 0° cutting edge angle insert should choose the largest blade and the smallest cutting depth	用塑料锤轻敲刀片进入装刀槽 Tap the insert with a plastic mallet into the loading slot
	在普通车床上加工时要注意观察刀架，防止切断时出现轴向移动 Watch the tool holder carefully when machining on a regular lathe to prevent axial movement when cutting
应用 **Applications**	**断屑槽** **Geometry**
及时更换磨损的刀片 Replace worn insert promptly	断屑槽的功能在于使铁屑在切削刃的高温区变形和断裂 The function of insert geometry is to deform and break the iron chips in the high temperature area of the cutting edge
这样做比连续用一个刀片直到破损更划算 Doing so is more cost effective than using one insert till broken	**形成槽窄的断屑时，有以下优点：** **When forming a narrow chips, there are the following advantages:**
及时更换磨损的刀板 Replace worn blade promptly	消除了槽壁的摩擦 The friction of the groove wall is eliminated
不要试图自己修复刀板 Do not attempt to repair the blade yourself	防止了因切屑堵塞而过载 Prevents overloading due to chip clogging
	允许更大的进给量 Allow for a larger feed
	避免划伤加工表面，消除了额外的加工面 Avoid scratching the machined surface and eliminate additional machined surfaces
	形成紧凑的卷屑或短屑，更容易排屑 Form compact rolls or short chips for easier chip removal
	卷屑的形成受断屑的类型及加工条件的影响 The formation of rolling chips is affected by the type of chip breaking and the machining conditions
	正确选用特定用途的断屑槽将使切削更容易 The correct selection of the chip breaker for the specific purpose will make cutting easier

刀片选择原理 Principle of insert selection
刀片宽度 Insert width
刀片宽度影响强度 Insert width affects strength
为高效切削，应选择尽可能宽的刀片 For efficient cutting, choose the widest insert if possible
断屑范围在于刀片宽度 The chip breaking range is decided by the insert width
较窄的刀片宽度意味着低进给率下断屑更好 A narrower insert means better chip breaking at lower feed rates
更宽的刀片，强度更高的刃口，可承受更大切削力与更大的进给速度，但刀具挠度加大，同时易产生振动 Wider insert and higher strength on cutting edge can withstand greater cutting force and big feed speed, but the tool deflection will be increased and will easy cause vibration

切深 Cutting Depth	
	
最小的切深等于刀尖圆弧半径 The minimum cut depth is equal to the nose radius	
最大的切深取决于承载能力 The maximum cut depth depends on the load capacity	
切削速度较大时引起的刀具挠度较大，而使前沿间隙加大 The tool deflection is larger when the cutting speed is larger,and the leading edge gap increases	
切深取决于断屑范围 The cutting depth depends on the chip breaking range	
切削速度较小时，前沿间隙和刀具挠度都很小 When the cutting speed is small,the front clearance and tool deflection are small	
车削进给 Turning feed	

切深 Cutting Depth		
进给取决于刀片的断屑范围 The feed depends on the insert chip breaking range		
最大进给取决于刀片的宽度，以及最大承载能力 The maximum feed depends on the insert width and the maximum load capacity	小的圆弧半径 Small arc radius: 大的侧向力 large lateral force	大的圆弧半径 Large arc radius: 小的侧向力 small lateral force
用太小刀尖圆弧半径的刀片进行大进给切削将缩短刀片的使用寿命 Large feed cutting with small radius insert will reduce insert life		
最大的进给量不适合于较小的刀尖半径刀具 The maximum feed is not suitable for small radius insert		
为了在切槽时成屑更好，进给可以在每段小间距内中断 For better chipping when grooving, the feed can be interrupted within each small interval		

技术指南
Technical Guide

外圆切槽用户指南
User's Guide for external grooving

为了提高加工表面质量提高切削速度
To improve the quality of the machined surface can through improve the cutting speed

用0°主偏角刀片
With 0°cutting edge angle

正确选择断屑槽达到最佳切削流向控制.
Select the chip breaker correctly to achieve the best cutting flow control

用涂层硬质合金
With coated carbide

提供充分的冷却液
Provide adequate coolan

消除振动
Eliminate vibration



特定用途的通用规则
General rules for specific uses

难题解析
Puzzle resolution

切断偏心管
Cut off the eccentric tube

在管料切断时,通常推荐使用4°主偏角刀片，空的偏心与设备的弹性结合效果，会使进给速度变化大，切削刃可能会被破坏。
When the pipe material is cut off, it is usually recommended to use a 4° cutting edge angle insert, and the eccentricity generated by the hollow bar and the elastic combination of the equipment will make the feed speed change greatly

当更换用8°主偏角刀片将减缓刀片切削刃的破坏。
If change to 8°cutting edge angle the insert cutter edge damage will be slow down

另外，强化切削刃的负前角刀片可根据客户要求定做。
In addition, strengthening the insert cutting edge negative rake Angle can be customized according to customer requirements.

减少毛刺解决方案
Burr reduction solutions

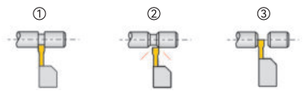
检查切削刃中心高。
Check the cutting edge center height.

用带主偏角刀片
Use the insert with cutting edge angle

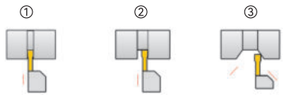
如果必须用0°主偏角刀片，应用刀片宽度小于切削宽度的刀片
If you must use a 0°cutting edge angel insert, apply a insert that width is less than the cutting width

应用中心架（或调整同心）
Apply center rack (or adjust concentric)

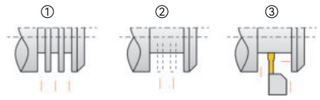
在空棒料内倒角时，使刀片倒角处与切断工件排成同线。
When chamfering inside the empty bar,line the insert chamfer with the cut workpiece.



V-型皮带轮槽加工
V-type pulley groove processing



颈形凹槽加工
Neck groove machining

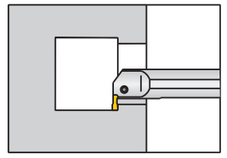


内圆切槽用户指南
User's guide for internal grooving

长距深槽内圆切削
Internal long deep grooving

排屑更为流畅，减小了双刃同时参加切削时间，提高了单刃使用寿命。
The chip discharge is more smooth, the cutting time of the two edges is reduced and the service life of the single edge is increased.

常见盲孔切削加工方案
Common blind hole cutting processing practice

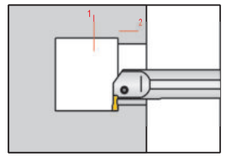


在盲孔加工时，排屑不畅容易使刀片崩刃，解决方案如下：
In the blind hole machinine, the chipping not smooth will easy to make insert collapse, detail solution is as follows:

方案一：图示走刀路线
Solution 1: Show the cutting route

第一步：在孔底切槽
Step 1: Cut grooves at the bottom of the hole

第二步：由孔底向外走刀
Step 2: Cuting outward from the bottom of the hole

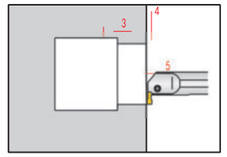


方案二：图示走刀路线
Solution 2: Show the cutting route

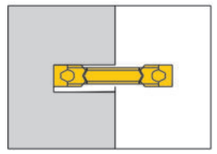
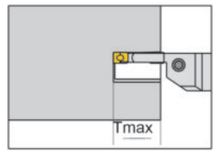
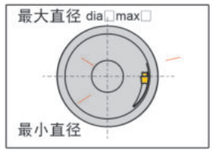
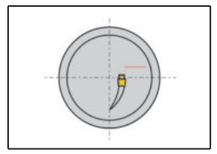
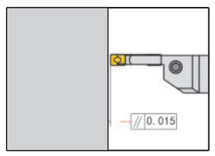
第一步：在孔底切槽
Step 1: Cut grooves at the bottom of the hole

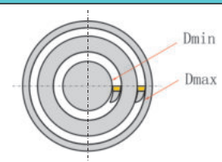
第二步：刀具退到孔外
The tool backs out of the hol

第三步：由孔外向孔底轴向走刀（推）
Step 3: Axial insert go (push) from hole bottom outside the hole

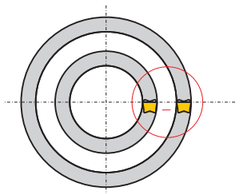


技术指南
Technical Guide

端面切槽用户指南 Face grooving User Guide		
		
根据切削宽度与加工形状，选择尽可能宽的刀片。 Choose the widest insert as possible according to the cutting width and the shape of the machining.	根据所要求的最大加工深度，选择最短的悬深刀杆 According to the maximum machining depth required, choose the shortest hanging holder	在切端面时，根据加工直径范围，及刀具首次切削直径，选择正确刀具。 When end face cutting, according to the machining diameter range, and the tool first cutting diameter, select the correct tool
		
加工前对刀时应使刀尖略低于工件中心线。 When setting the tool before machining, the tool tip should be slightly lower than the workpiece center line.	检查切削刃与加工平面，正确的位置能保证在端面两个方向上车削的表面的加工质量 Check the cutting edge and machining plane, the correct position can ensure the machining quality of the surface turned in both directions of the end face	

端面切槽车削应用指南 Application guide for end face grooving turning		
	**问题 Problems**	**切槽加工中的应用方案解决办法 Application solution in grooving machining**
刀具选择 Tool selection 当选择刀杆时，在可能的情况下尽量从端面槽的最大直径外切入， 逐渐切向小的直径 。 When selecting holder, cut from the maximum diameter of the end groove where possible, gradually tangential small straight diameter. 这样，刀具使用效果最好。 In this way, the tool use the best effect.	毛刺 Burr	1、调整刀尖高度 Adjust the insert tip height 2、使用锋利的刀具（常换刃口） Use a sharp insert (often change the cutting edge) 3、使用正前角的 PVD涂层刀片 Use PVD-coated insert with positive rake angel 4、加工不同的工件材料时，应使用正确的刀片材质 When machining different workpiece, the correct insert grade should be used 5 、使用正确的刀片断屑槽型（例如：在加工硬化的工件材质时，应使用正前角刀片） Select correct geometry(Exaple: when machining hardened workpiece, a positive rake Angle insert should be used) 6、 改变刀具路径 Change tool route
端面槽车削的首切 End groove turning for the first cut 端面槽首切槽的外径必须在车刀杆所允许切入的最大直径和最小直径值之间（参见上面的图示）。这样能使刀杆切入时在刀具和工件之间有间隙。 The outer diameter's first cut groove must be between the maximum and minimum diameter allowed by the tool bar (see figure above). In this way, there is a gap between the tool and the workpiece when the holder cutting	表面质量差 Poor surface quality	1、提高车削速度 Improve the turning speed 2、使用锋利的刀具（常换刃口） use a sharp insert (often change the cutting edge) 3、最多在底部顿刀1-3转 Maximum 1-3 turns at the bottom 4、使用正确的断屑槽 Select correct geometry 5、提高冷却液流量 Increase coolant flow 6、调整刀具设置（悬伸、 刀杆尺寸） Adjust tool Settings (overhang, holder size) 7、使用正确的刀片断屑槽型（例如：在加工硬化的工件材质时，应使用正前角刀片） Select correct geometry(Exaple: when machining hardened workpiece, a positive rake Angle insert should be used)
切屑控制 Chips control 调整切削速度和进给量，以获得最好的铁屑成形，并保证铁屑从槽中排出。 Adjust the cutting speed and feed rate to obtain the best iron chips forming and ensure that the iron chips are discharged from the groove. 挤屑会造成槽表面加工质量差，刀具折断并缩减刀具寿命。 Chip extrusion can cause poor machining quality of the groove surface, break the tool and shorten the tool life	槽的底部不平 Slot bottow uneven	1、使用锋利的刀具（常换刃口） Use a sharp insert (often change the cutting edge) 2、最多在槽底部顿刀1-3转 Maximum 1-3 turns at the bottom 3、减少刀杆悬伸（提高刚性）。 Reduce holder's overhang (increase rigidity). 4、在到达槽底时，减少刀具的进刀量 When reaching the groove bottom, reduce the insert feed 5、使用修光刃口刀片 Use whisper insert 6、调整刀尖中心高 Adjust the insert tip center height

技术指南
Technical Guide

端面切槽车削应用指南 Application guide for end face grooving turning		
刀具设置 **Tool Setup**	铁屑控制差 Iron chips controlled poorly	1、使用锋利的刀具（常换刃口） Use a sharp insert (often change the cutting edge)
应当尽量对准刀尖高，从而避免产生大的毛刺 The tip should be as high as possible to avoid large burrs 将刀杆与工件表面摆成 90° Position the holder at 90° to the surface of the workpiece		2、提高冷却液浓度 Increase coolant concentration
		3、调整进给率（通常先尝试提高） Adjust feed rate (usually try to increase first)
	振动 Vibration	1、减少刀具和工件的悬伸量 Reduce overhang rate of holder and workpiece
		2、调整切削速度（通常先尝试提高） Adjust cutting speed (usually try to increase first)
		3、调整进给量（通常先尝试提高a） Adjust feed rate (usually try to increase the rate a first)
		4、调整刀尖高度 Adjust the insert tip height
	刀片崩刃 Insert cutter edge broken	1、针对不同的工件材料，使用正确的刀片材质 Choose correct insert grade for different workpiece materials
		2、提高切削速度 Increase cutting speed
		3、降低进给 Lower feed
		4、使用韧性更好的刀片材质 Use a more ductile insert grade
		5、提高刀具和工件装夹的刚性 Increase the rigidity of tool and workpiece clamping
扩宽面槽 **Widen the surface groove**	积屑瘤 Chip nodules	1、使用正前角PVD涂层刀片 Use positive rake angle PVD coated insert
当首刀切入后，可以使用相同的刀具向工件中心或外径进刀将面槽扩宽，最好的加工方法是从外径向内径切去 When make the first cut in, the same tool can be used to widen the surface groove from the center of the workpiece or the outside diameter. The best machining method is to cut from external to internal.		2、提高切削速度 Increase cutting speed
		3、加大冷却水流量/浓度 Increase cooling water flow/concentration
		5、降低进给 Lower feed
	槽屑不直 Chips out of straight	1、检查刀具是否与工件垂直安放 Check that if the tool is positioned vertically with the workpiece
		2、减少工件和刀具的悬伸量 Reduce overhang rate of holder and workpiece
		3、使用锋利的刀具（常换刃口） Use sharp cutting edge insert (changing cutting edge frequently)

切槽车疑难解析 Solutions for parting, grooving and turning	
1 .为了改善切削控制 **To improve cutting control**	**5 .为了减少毛刺** **To reduce burrs**
更换磨损的刀片 Replace worn inserts	CNC设备上，切削直径=切削宽度，在中心处的进给量应减少50% On CNC machine, cutting diameter = cutting width, the feed at the center should be reduced by 50%
选择更合适的断屑槽 Choose a more suitable chip breaker	
使用左右手通用刀片 Use a right-left-handed general insert	检查切削中心高 Check the cutting center height
检查刀具的校正基准和垂直度 Check the correction reference and verticality of insert	应用中心架（或调整同心） Apply center rack (or adjust concentric)
使用大流量冷却 Use big-flow cooling	在空棒料内倒角时，应把刀片倒角处与切断工件表面排成一线 When chamfering in the empty bar, the insert's chamfering should be lined up with the cutting workpiece surface
提高进给 Raise the feed rate	
在最开始割槽时，间歇进给，使切屑控制在沟槽内 At the beginning of the groove, intermittent feed so that the chip is controlled in the slot	**6.为了提高平面平面度** **In order to improve the flatness**
2. 减少啸叫声 **Reduce whistling**	检查刀片，更换磨损，崩刃刀片 Check the insert and replace worn, chipped one
尽可能靠近夹具进行切断减少刀杆悬伸提高夹紧，检查刀具安装改变转速提高进给 Cut as close as possible to the fixture, reduce the rod overhang to improve clamping, check the tool installation, change the speed, improve the feed	使用左右手通用刀片 Use a right-left-handed general insert
	尽可能使用大的刀板 Use as large insert as possible
3.防止或减少积屑瘤 **Prevent or reduce chip buildup**	提高刀板的厚度和宽度 Increase the insert thickness and width
选用适合的牌号和槽形 Choose the appropriate grade and geometry	减少刀板的悬伸 Reduce the insert overhang
提高切削速度 Increase cutting speed	检查刀具的校正基准和垂直度 Check the correction reference and verticality of the tool
减少进给速度 Reduce feed speed	优化工件的夹紧 Optimize the clamping of the workpiece
采用大流量冷却，采用油基冷却液 Use large flow cooling with oil-based coolant	在手动车床上，应夹紧刀夹 On a hand lathe, the tool clamp should be clamped
4 .防止崩刃 **Prevent cutting edge breakage**	采用大流量冷却（不包括陶瓷刀片） Use high flow cooling (excluding ceramic insert)
选用适合的牌号和槽形 Choose the appropriate grade and geometry	降低进给 Lower feed
使用更大的刀尖圆角刀片 Use a larger nose radius insert	**7.为了提高表面加工质量** **For improved finish quality**
切削边界减少进给速度 Cutting boundaries reduce feed speed	提高切削速度 Increase cutting speed
消除振动 Eliminate vibration	正确选择断屑槽达到最佳切屑流向控制 Proper selection of geometry to achieve the best chip flow control
提高切削速度 Increase cutting speed	用涂层硬质合金 Use coated carbide grade
使用更好的牌号 Use a better grade	提供冷却液 Provide coolant
增大刀杆的安装刚性 Increase the install rigidity of holder	消除振动 Eliminate vibration
消除或减少积屑瘤 Eliminate or reduce debris buildup	

B

铣削
GENERAL MILLING



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

铣削
GENERAL MILLING

- **铣刀命名规则 Code Key for Milling Cutters** B03
- **铣刀选择指南 Mill Selection Guide** B05
- **铣削材质说明 Milling Grades Introduction** B08
- **面铣刀具 Face Mill**
  - FM45-SN B11
  - FM75-SN B12
  - FM88-SN B12
  - FM45-SE B14
  - FM45-HN B17
  - FM45-ON B19
- **快进给铣刀具 High Feed Mill**
  - HF15-LN B20
  - HF15-SD B27
- **方肩铣刀具 Square Shoulder Mill**
  - SM90-AO B33
  - SM90-SO B41
  - SM90-AN B45
  - SM90-ZN B49
  - SM90-SD B52
  - SM90-AD B55
  - SM90-XP B60
  - SM90-VC B64
- **仿形铣刀具 Profile Mill**
  - PM00-RP B66
  - PM00-XO B69
  - PM00-RO B72
- **倒角铣刀 Chamfer Mill** B75
- **CM-SD & CM-TC系列** B77
- **三面刃刀具 Full Side and Face Mill**
  - SF90-MN B78
- **可调式精铣面铣刀 Adjustable Finish Mill**
  - FF90-AN&LN B87
- **其它常用铣削刀片 Commonly Used Milling Inserts** B89
- **切削参数推荐 Cutting Parameters Recommendation** B99
- **芯轴铣刀接口尺寸 Demision of Milling Cutter Arbor** B107

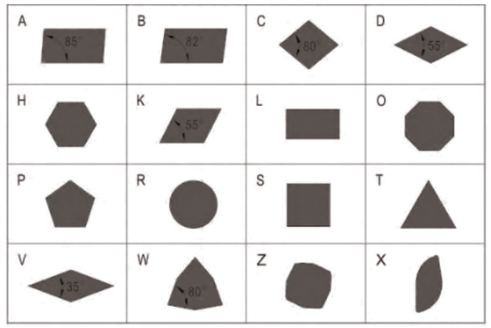
铣刀命名规则
Code Key for Milling Cutters

FM45	-125	B	40	S	N	12			-Z09	1
1	2	3	4	5	6	7	8	9	10	11
Face milling 45°	刀具直径	接口型式	接口尺寸	刀片形状	刀片后角	切削刃长度	螺钉空白 C：刀卡式 W：楔块式	标准空白 特质标明长度	刀具齿数	R空白 左手标注L

● 1 铣刀类型和主偏角
Mill Type and Cutting Edge Angle

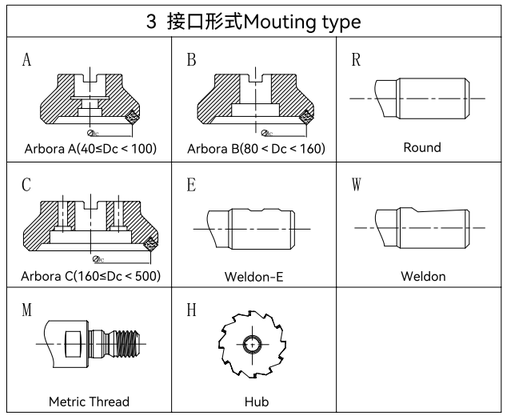
FMxx	Face milling (xx:45°/60°/75°/88°)
HFxx	High feed milling(xx:10°/12°/13°/15°/20°)
SM90	Shoulder milling 90°
SF90	Slot & Face milling 90°
PM00	Profile milling
PG10	Plunge milling 10°
CMxx	Chamfer milling(xx:15°/30°/45°/60°/75°)
LE90	Long edge milling 90 玉米铣刀
FF90	Fine face mill 90°

● 5 刀片形状 Insert Shape



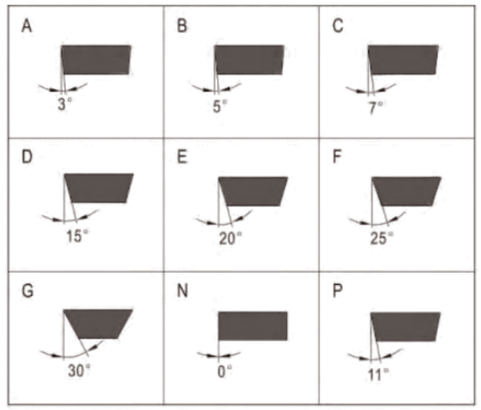
● 2 铣刀盘的直径 Mill Diameter

● 3 接口型式 Mouting Type

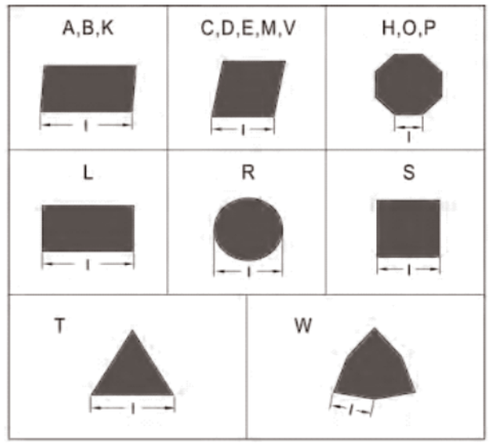


● 4 接口尺寸 Mouting Size

● 6 刀片后角 Insert Relief Angle



● 5 刀片形状 Insert Shape



● 10 齿数 Tooth Number

● 8 可选编号 Optional Number

空白(blank)	螺钉压紧型式 Screw clamping
C (Cartridge)	带刀夹的设计 Cartridge design
W(Wedge)	楔块式设计 Wedge design

● 9 可选编号 Optional Number

空白(blank)	标准长度 Standard length
L(length)	特殊长度 Special length

● 11 可选编号 Optional Number

空白(blank)	标准长度
L(left)	左手设计

铣刀选择指南 Milling Cutter Selection Guides

系列 Serie		FM45-SN	FM75-SN	FM88-SN	FM45-SE	FM45-HN	FM45-ON	HF10-LN	HF10-SD	SM90-AO
										
主偏角 Cutting edge angle		45°	75°	88°	45°	45°	45°	15°	15°	90°
最大切深 Max. depth of cut(mm)		6.5	6.5	6.5	6	5	3.8	0.7-1.0	1.3 1.7 3.2	10.1 15.7
直径范围 Diameter range(mm)		50-250	40-250	50-250	50-250	50-250	50-250	16-63	22-125	16-125
刀片刃口数 Insert edges		8	8	8	4	14	16	4	4	2
刀片类型 Insert		SN12	SN12	SN12	SE13	HN09	ON08	LN06	SD09 SD13 SD15	AO07 AO11 AO17 AO18
应用 Application	面铣 Face milling	●	●	●	●	●	●	●	●	●
	快进给铣削 High feed milling							●	●	
	方肩铣 Shoulder milling			○						●
	槽铣 Slotting			○				●	●	●
	坡走铣 Straight ramping							●	●	●
	螺旋插补铣 Helical ramping							●	●	●
	倒角铣 Chamfer milling	●			●	●	●			
	插铣 Plunging									○
	仿形铣 Profiling							●	●	●
	螺旋镗孔铣 Counter boring									○
	镜面铣 Mirror milling	●			●					
	长悬伸铣削 Long overhang							●	●	
	背铣 Back face milling									

系列 Serie	SM90-SO	SM90-AN	SM90-ZN	SM90-SD	SM90-AD	SM90-XC	SM90-VC	PM00-RP	PM00-XO	PM00-RO	CM	SF90-MN	FF90-AN&LN
													
主偏角 Cutting edge angle	90°	90°	90°	90°	90°	90°	90°	/	/	/	15° 30° 45° 60°	/	90°
最大切深 Max. depth of cut(mm)	5.5 10	8 11	7	9.2	10 13 18	16	16	4 5 6	10 14 18	/	/	7.9-26.5 (槽宽)	0.5
直径范围 Diameter range(mm)	20-160	20-160	40-160	50-200	16-125	25-63	32-80	20-160	12-20	10-20	0-43.3	80-315	100-250
刀片刃口数 Insert edges	4	4	6	4	2	2	2	/	1	1	4	2	/
刀片类型 Insert	SO08 SO14	AN08 AN11	ZN08	SD12	AD11 AD15 AD19	XP16	VC22	RP08 RP10 RP12	XO12 XO15 XO19	RO10 RO12 RO16 RO20	SD11 TC16	05 08 11 14	AN11 & LN15
面铣 Face milling	●	●	●	●	●	●	●	●	●	○		●	●
快进给铣削 High feed milling					●	●	●	●	●	●			
方肩铣 Shoulder milling	●	●	●	●	●	●	●						
槽铣 Slotting	●	●	●	●	●	●	●					●	
坡走铣 Straight ramping		○			●	●	●	●	●				
螺旋插补铣 Helical ramping		○			●	●	●	●	●				
倒角铣 Chamfer milling											●		
插铣 Plunging	●			●	●	●							
仿形铣 Profiling					●	●		●	●	●			
螺旋镗孔铣 Counter boring	○											●	
镜面铣 Mirror milling	○				●	●							●
长悬伸铣削 Long overhang													
背铣 Back face milling												●	

铣刀选择指南 Milling Cutter Selection Guides

铣削刀片材质推荐一览表
List of material recommendations for milling insert

ISO使用 ISO Application		主推牌号 Main Grade			补充牌号 Supplementary Grade	
代号 Code		涂层 Coating		未涂层硬质合金 Un-coated Cemented carbide	补充涂层牌 Coating	
		CVD	PVD		CVD	PVD
P 钢 Steel	01					
	10		BM4120		BM6220	BM4130
	20	BM6230	BM2220			
	30		BM4230			
	40					
M 不锈钢 Stainless steel	01					
	10		BM412			
	20		BM2220			BM2230
	30		BM4230			BM4130
	40					
K 铸铁 Cast iron	01					
	10	BM3210				
	20		BM2220			BM4120
	30	BM3230				
	40					
N 有色金属 Non-ferrous metal	01					
	10			BM5210		
	20					
	30			BM5220		
	40					
S 耐热合金、钛合金 Heat-resistant alloy	01					
	10		BM4230			BM4120
	20					
	30					BM4130
	40					

铣削材质说明 Milling Grades Introduction

材料分类 Material classification	ISO材料分类 ISO Material classification	牌号 Grade	应用推荐 Applicaion recommendations
P	P20 (P05-P30)	BM6220	·CVD涂层硬质合金牌号，补充钢件铣削牌号。高线速度加工，推荐干切。 ·CVD coated milling grade, supplymentary grade for steel milling. High cutting speed, dry milling.
	P30 (P15-P35)	BM6230	·CVD涂层硬质合金牌号，钢件铣削首选。高金属去除率，可获得极佳生产效率和刀具使用寿命，推荐干切。 ·CVD coated milling grade, first choice for steel milling. High metal removal rate,achieves high productivity and tool life, dry milling.
M	M20 (M15-M35)	BM2220	·PVD涂层硬质合金牌号。不锈钢铣削首选。高金属去除率下确保铣削的安全性。也可以用于大部分钢件和铸铁的加工。 ·PVD coated milling grade，first choice for stainless steel. Safety milling in high metal removalcondition. Also be used to most steel and cast iron machining.
	M30 (M15-M35)	BM2230	·CVD涂层硬质合金牌号，推荐用于铸铁高线速度，高进给加工。 ·CVD coated milling grade. First choice cast iron milling in high cutting speed and high feed rates condition.
K	K10 (K05-25)	BM3210	·CVD涂层硬质合金牌号，推荐用于铸铁高线速度，高进给加工。 ·CVD coated milling grade. First choice cast iron milling in high cutting speed and high feed rates condition.
	K30 (K15-K40)	KM3230	·CVD涂层硬质合金牌号，推荐用于铸铁中等切削速度，高进给加工。 ·CVD coated milling grade. First choice cast iron milling in medium cutting speed and high feed rates condition.
N	N10 (N05-N25)	BM5210	·非涂层牌号，表面抛光处理可降低积屑瘤，从而获得高表面质量。适于铝、镁、铜、黄铜、塑料等的精加工到粗加工，最高铝合金加工线速度的牌号。 ·Uncoated milling grade.Surface polishing process can reduce BUE, achivevs high surface quality. Suitable for aluminum, magnesium, copper, brass, plastic finishing to roughing processing. Highest cutting speed grade for aluminum.
	N20 (N15-N30)	BM5220	·非涂层牌号，表面抛光处理可降低积屑瘤，从而获得高表面质量。适于铝、镁、铜、黄铜、塑料等的精加工到粗加工。 ·Uncoated milling grade.Surface polishing process can reduce BUE, achivevs high surface quality. Suitable for aluminum, magnesium, copper, brass, plastic finishing to roughing processing.
S	S20 (S05-S30)	BM4120	·PVD涂层硬质合金牌号。耐热合金铣削补充牌号。高金属去除率，可获得极佳生产效率和刀具使用寿命，也可以用于钢件，不锈钢，铸铁的高速铣削。 ·PVD coated, Supplymentary grade for heat-resistant alloy milling. High metal removal rate,achieves high productivity and tool life.It can be used to steel,cast iron and stainless steel high speed milling.
	S30 (S05-S40)	BM4130	·PVD涂层硬质合金牌号，综合性能优异的耐热合金加工补充牌号，用于耐热合金中等线速度加工,寿命良好。也可以用于钢件，不锈钢的中速铣削。 ·PVD coated milling grade, supplymentary grade for heat-resistant alloy milling. Excellent overall performance, medium cutting speed, excellent tool life. It can be used to steel and stainless steel medium speed milling.
	S30 (S05-S40)	BM4230	·PVD涂层硬质合金牌号，综合性能优异的耐热合金加工首选牌号，用于耐热合金中等到高线速度加工,耐崩刃能力强，寿命良好。也可以用于钢件，不锈钢的高速铣削。 ·PVD coated milling grade, first choice for heat-resistant alloy milling. Excellent overall performance, medium to high cutting speed, high resistance to edge break, excellent tool life. It can be used to steel and stainless steel high speed milling.

面铣刀FM45-SN
Face Mill FM45-SN

45°通用面铣刀
General purpose 45° face mill

生产率、经济性及安全性
Productivity ,economy and safety

刀片8个切削刃,最大切深6.5mm
8 edges insert, Apmax. 6.5mm

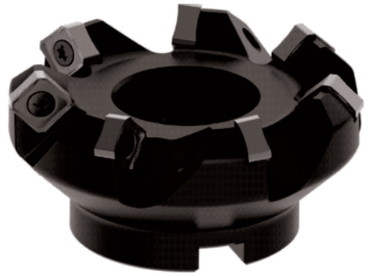
适合钢件、铸铁粗到精加工
Suitable for steel,cast iron parts, rough to finish machining

修光刃刀片无需预调
Wiper insert without pre-adjusting

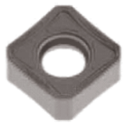
D100直径以下刀盘带内冷（含D100）
Mill with internal coolant under D100(including D100)

可定制左手刀盘
Left-hand mill can be made

75°和88°主偏角的刀盘，使用和45°刀盘相同刀片
Approach 75°and 88° milling cutters use same inserts as 45° cutters



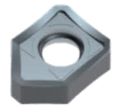
直径范围：40-250mm
Diameter range:40-250mm



F 槽型
F Geometry



M 槽型
M Geometry



E-W 槽型
E-W Geometry



面铣
Face milling

刀片槽型

F 槽型：精磨刀片，低至中等进给，精加工首选
F geometry: fine grinding insert, low to medium feed rates, first choice for finish machining

M 槽型：通用槽型,用于半精加工
M geometry: general purpose face milling， for semi-finish machining

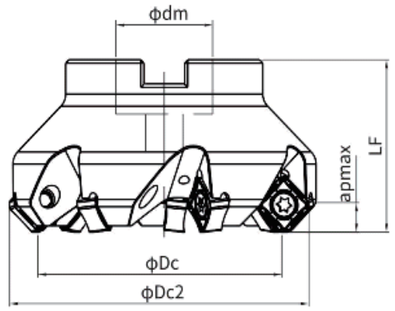
E-W 槽型：修光刃槽型，可搭配所有SNMX12刀片槽型使用
E-W geometry: wiper insert, can be used with all SNMX12 inserts

刀片进给切削参数推荐
Feed recommendations

刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
12	F	0.15	0.10	0.25
12	M (r=0.8)	0.18	0.10	0.25
12	M (r=1.8)	0.25	0.10	0.40
12	R	0.30	0.12	0.50

面铣刀FM45-SN
Face Mill FM45-SN

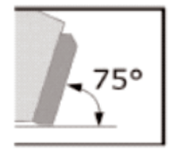




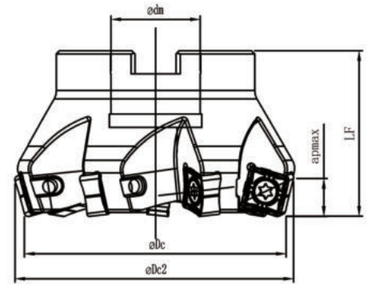
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
40	FM45-040A16SN12-Z04	●	53	16	6.5	40					A	4	+	0.40
50	FM45-050A22SN12-Z04	○	63	22	6.5	40					A	4	+	0.40
50	FM45-050A22SN12-Z05	●	63	22	6.5	40					A	5	+	0.40
50	FM45-050A22SN12-Z06	○	63	22	6.5	40					A	6	+	0.40
63	FM45-063A22SN12-Z05	●	76	22	6.5	40					A	5	+	0.60
63	FM45-063A22SN12-Z06	●	76	22	6.5	40					A	6	+	0.60
63	FM45-063A22SN12-Z08	○	76	22	6.5	40					A	8	+	0.60
80	FM45-080A27SN12-Z05	○	93	27	6.5	50					A	5	+	1.40
80	FM45-080A27SN12-Z06	●	93	27	6.5	50					A	6	+	1.40
80	FM45-080A27SN12-Z07	●	93	27	6.5	50					A	7	+	1.40
100	FM45-100A32SN12-Z07	●	113	32	6.5	50					A	7	+	1.90
100	FM45-100A32SN12-Z08	●	113	32	6.5	50					A	8	+	1.90
100	FM45-100A32SN12-Z10	○	113	32	6.5	50					A	10	+	1.90
125	FM45-125B40SN12-Z08	○	138	40	6.5	63					B	8		3.20
125	FM45-125B40SN12-Z10	●	138	40	6.5	63					B	10		3.20
125	FM45-125B40SN12-Z14	○	138	40	6.5	63					B	14		3.20
160	FM45-160C40SN12-Z10	○	173	40	6.5	63					C	10		5.90
160	FM45-160C40SN12-Z12	●	173	40	6.5	63					C	12		5.90
160	FM45-160C40SN12-Z16	○	173	40	6.5	63					C	12		5.90
200	FM45-200C60SN12-Z12	○	213	60	6.5	63					C	14		9.10
200	FM45-200C60SN12-Z14	○	213	60	6.5	63					C	14		9.10
200	FM45-200C60SN12-Z16	○	213	60	6.5	63					C	18		9.10
250	FM45-250C60SN12-Z16	○	263	60	6.5	63					C	16		9.10
250	FM45-250C60SN12-Z20	○	263	60	6.5	63					C	20		9.10

● 常备库存In stock ○按订单生产Make to order

面铣刀FM75-SN
Face Mill FM75-SN



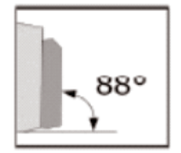




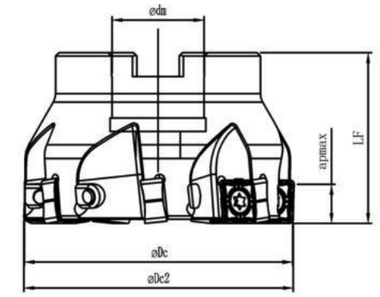
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
63	FM75-063A27SN12-Z05	●	68.52	27	8	40					A	5	+	0.60
63	FM75-063A27SN12-Z06	○	68.52	27	8	40					A	6	+	0.60
80	FM75-080A27SN12-Z06	●	85.52	27	8	50					A	6	+	1.40
100	FM75-100A32SN12-Z07	●	105.52	32	8	50					A	7	+	1.90
125	FM75-125B40SN12-Z09	●	130.52	40	8	63					B	10		3.20
160	FM45-160C40SN12-Z10	●	165.52	40	8	63					C	10		5.90

● 常备库存In stock ○按订单生产Make to order

面铣刀FM88-SN
Face Mill FM88-SN



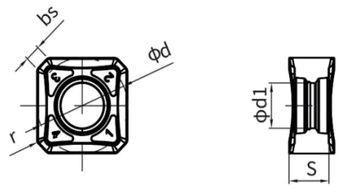




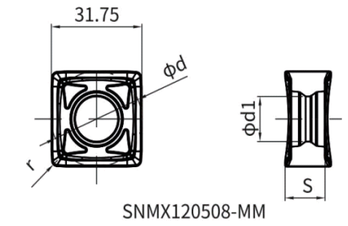
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
63	FM88-063A27SN12-Z05	●	-	27	8	40					A	5	+	0.60
63	FM88-063A27SN12-Z06	○	-	27	8	40					A	6	+	0.60
80	FM88-080A27SN12-Z06	●	-	27	8	50					A	6	+	1.40
100	FM88-100A32SN12-Z07	●	-	32	8	50					A	7	+	1.90
125	FM88-125B40SN12-Z09	●	-	40	8	63					B	10		3.20
160	FM45-160C40SN12-Z10	●	-	40	8	63					C	10		5.90

● 常备库存In stock ○按订单生产Make to order

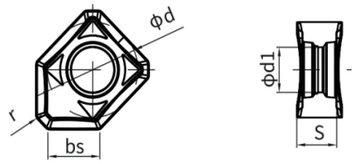
面铣刀FM45-SN刀片
Face Mill FM45-SN Insert



SNMX1205ANTN



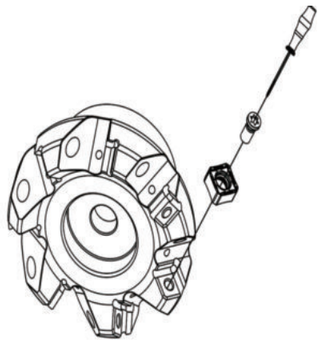
SNMX120508-MM



SNMX1205ANTN-W

刀片	型号	基本尺寸						P				M			K			N		S			
Insert	Type	Dimension（mm）						BM6220	BM6230	BM2220	BM2230	BM2210	BM2220	BM2230	BM3210	BM2220	BM3230	BM5210	BM5220	BM4210	BM4220	BM4130	BM4230
		d	s	d1	r	bs																	
	SNMX1205ANEN-F（*）	12.7	5.56	6	0.8	1.5			★	★			★		☆	☆	★					☆	
	SNMX1205ANTN-M	12.7	5.56	6	0.8				★	★			★		☆	☆	★						
	SNMX120508-M	12.7	5.56	6	0.8				★	★			★		☆	☆	★						
	SNMX120512-M	12.7	5.56	6	1.2				★	★			★		★	☆	★						
	SNMX120508E-W（*）	12.7	5.56	6	0.8	6.7				★			★			☆			☆				

*SNMX1205ANEN-F为磨制刀片，用于精面铣
*SNMX1205ANEN-F is fine grinding insert, first choice for finish milling
*SNMX1205ANTN-W为修光刃刀片
*SNMX1205ANTN-W is wiper insert
首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸	刀具直径	刀片夹紧螺钉	刀片螺钉扳手
Insert size	Diameter	Clamping srew	Screw Wrench
12	50-250	S01-045120	D01-115

面铣刀FM45-SE13
Face Mill FM45-SE13

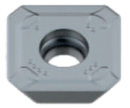
轻型切削45°面铣刀
Light cutting 45° face mill

4个切削刃,最大切深可达6mm
4 edges insert, Apmax. 6mm
刀体双前角设计，切削轻快
Dual-positie rake angle designing to make sure light cutting
可提供修光刃刀片用于精面铣到镜面精铣
Wiper insert can be used in face milling to mirror finish face milling
适用于钢件、不锈钢、耐热合金、铸铁和铝合金等各种材料的加工
Suitable for machining steel,stainless steel,heat resitant alloy,cast iron and aluminium alloy materials
广泛应用于通用机械、工程机械和汽车零部件等加工领域
Widely used in general engineering,construction and automotive components machining

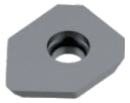
刀片槽型

PM 槽型：钢件通用面铣
PM geometry: general purpose for steel face milling
KM 槽型：钢件通用面铣
KM geometry: general purpose for cast iron face milling
W 修光刃槽形：镜面铣削
W wiper geometry: mirror finish face milling


直径范围：50-250mm
Diameter range:50-250mm


PM 槽型
PM Geometry


KM 槽型
KM Geometry


W 修光刃槽型
W wiper Geometry


镜面铣
Mirror finish face milling


面铣
Face milling

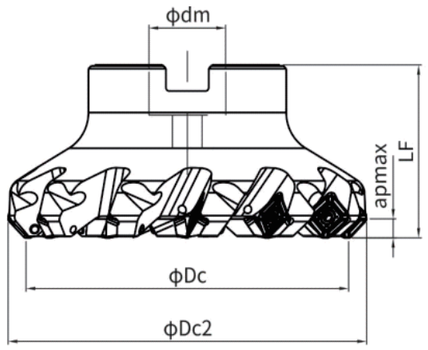

大悬伸面铣
Long overhang face milling

刀片进给切削参数推荐
Feed recommendations

刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
13	PM	0.34	0.14	0.40
13	KM	0.34	0.14	0.40

面铣刀FM45-SE13
Face Mill FM45-SE13

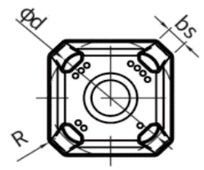


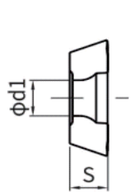


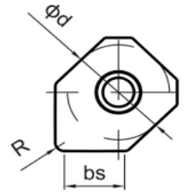
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
50	FM45-050A22SE13-Z03	○	62.5	22	6	40					A	3	+	0.40
50	FM45-050A22SE13-Z04	●	62.5	22	6	40					A	4	+	0.40
50	FM45-050A22SE13-Z05	○	62.5	22	6	40					A	5	+	0.40
63	FM45-063A22SE13-Z04	○	75.5	22	6	40					A	4	+	0.50
63	FM45-063A22SE13-Z05	●	75.5	22	6	40					A	5	+	0.50
63	FM45-063A22SE13-Z06	○	75.5	22	6	40					A	6	+	0.50
80	FM45-080A27SE13-Z04	○	92.5	27	6	50					A	4	+	0.90
80	FM45-080A27SE13-Z06	●	92.5	27	6	50					A	6	+	0.90
80	FM45-080A27SE13-Z08	○	92.5	27	6	50					A	8	+	0.90
100	FM45-100A32SE13-Z05	○	112.5	32	6	50					A	5	+	1.40
100	FM45-100A32SE13-Z07	●	112.5	32	6	50					A	7	+	1.40
100	FM45-100A32SE13-Z10	○	112.5	32	6	50					A	10	+	1.40
125	FM45-125B40SE13-Z06	○	137.5	40	6	63					B	6		2.50
125	FM45-125B40SE13-Z08	●	137.5	40	6	63					B	8		2.50
125	FM45-125B40SE13-Z12	○	137.5	40	6	63					B	12		2.50
160	FM45-160C40SE13-Z07	○	172.5	40	6	63					C	7		5.00
160	FM45-160C40SE13-Z10	●	172.5	40	6	63					C	10		5.00
160	FM45-160C40SE13-Z16	○	172.5	40	6	63					C	16		5.00
200	FM45-200C60SE13-Z08	○	212.5	60	6	63					C	8		6.70
200	FM45-200C60SE13-Z12	○	212.5	60	6	63					C	12		6.70
200	FM45-200C60SE13-Z20	○	212.5	60	6	63					C	20		6.70
250	FM45-250C60SE13-Z10	○	262.5	60	6	63					C	10		8.50
250	FM45-250C60SE13-Z14	○	262.5	60	6	63					C	14		8.50
250	FM45-250C60SE13-Z24	○	262.5	60	6	63					C	24		8.50

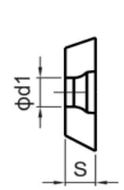
● 常备库存In stock ○按订单生产Make to order

面铣刀FM45-SE13刀片
Face Mill FM45-SE13 Insert



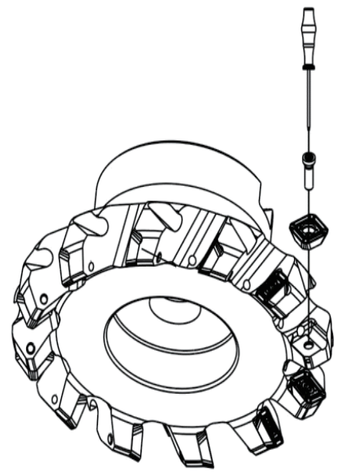






刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M				K			N		S			
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM2230	BM2210	BM2220	BM2230	BM3210	BM2220	BM3230	BM5210	BM5220	BM4210	BM4220	BM4130	BM4230
	SEGT13T3AGSN-PM	13.4	3.97	5.5	1.5	2				★			★			☆					★		
	SEGT13T3AGSN-KM	13.4	3.97	5.5	1.5	2				★			★			☆					★		
	SEGT13T3-W	13.4	3.97	5.5	1.5	8.2				★			★			☆		☆					

首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸/Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
13	50-250	S01-035120	D01-115

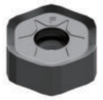
面铣刀FM45-HN
Face Mill FM45-HN

45°经济型面铣刀
Economical 45° face mill

高每齿进给与密齿结合以取得最大的金属去除率
High feed rate and close pitch to get maximum metal removal rate
刀片12个切削刃,最大切深5mm
12 edges insert, Apmax. 5mm
适合钢件、铸铁粗到半精加工
Suitable for steel,cast iron parts, rough to semi-finish machining
广泛应用于通用机械、工程机械和汽车零部件等加工领域
D100直径以下刀盘带内冷（含D100）
Mill with internal coolant under D100(including D100)

刀片槽型

F 槽型：低至中等进给，软材料，良好工况首选
F Geometry: low to medium feed rates,first choice for soft materials and good machining condition
M 槽型：通用槽型，中等进给。
M Geometry: general purpose face milling, medium feed rates
R 槽型：高进给，恶劣工况首选
R Geometry: high feed rates,first choice for difficult machining condition



F 槽型
F Geometry



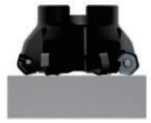
直径范围：50-250mm
Diameter range:50-250mm



R 修光刃槽型
R Geometry



M 槽型
M Geometry



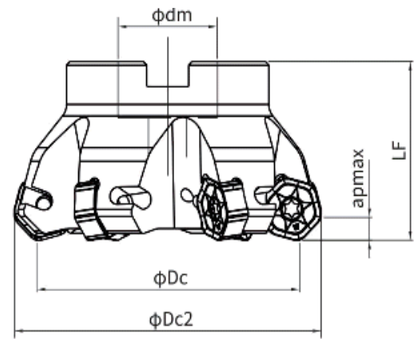
面铣
Face milling

刀片进给切削参数推荐
Feed recommendations

刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
09	F	0.15	0.10	0.25
09	M	0.20	0.10	0.30
09	R	0.25	0.12	0.40

面铣刀FM45-HN
Face Mill FM45-HN



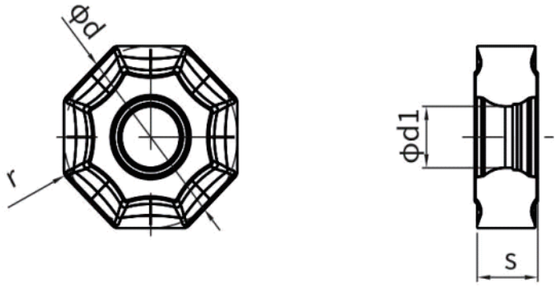


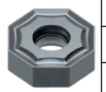
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
50	FM45-050A22HN09-Z04	●	62.4	22	5	40					A	04	+	0.35
63	FM45-063A22HN09-Z05	●	75.4	22	5	40					A	05	+	0.49
80	FM45-080A27HN09-Z06	●	92.4	27	5	50					A	06	+	1.06
100	FM45-100A32HN09-Z07	○	112.4	32	5	50					A	07	+	1.74
100	FM45-100A32HN09-Z08	●	112.4	32	5	50					A	08	+	1.74
125	FM45-125B40HN09-Z08	○	137.4	40	5	63					B	08		3.24
125	FM45-125B40HN09-Z10	●	137.4	40	5	63					B	10		3.24
160	FM45-160C40HN09-Z09	○	172.4	40	5	63					C	09		5.70
160	FM45-160C40HN09-Z12	●	172.4	40	5	63					C	12		5.70
200	FM45-200C60HN09-Z12	○	212.4	60	5	63					C	12		9.00
250	FM45-250C60HN09-Z14	○	262.4	60	5	63					C	14		12.80
80	FM45-080A27HN09W-Z09	○	92.4	27	5	50					A	Z0	+	1.06
100	FM45-100A32HN09W-Z12	○	112.4	32	5	50					A	Z1	+	1.74
125	FM45-125B40HN09W-Z16	○	137.4	40	5	63					B	Z1		3.24
160	FM45-160C40HN09W-Z20	○	172.4	40	5	63					C	Z2		5.70
160	FM45-160C40HN09W-Z20-L	○	172.4	40	5	63					C	Z2		5.70
200	FM45-200C60HN09W-Z26	○	212.4	60	5	63					C	Z2		9.00
200	FM45-200C60HN09W-Z26-L	○	212.4	60	5	63					C	Z2		12.80

● 常备库存In stock　○按订单生产Make to order

面铣刀FM45-ON 刀片

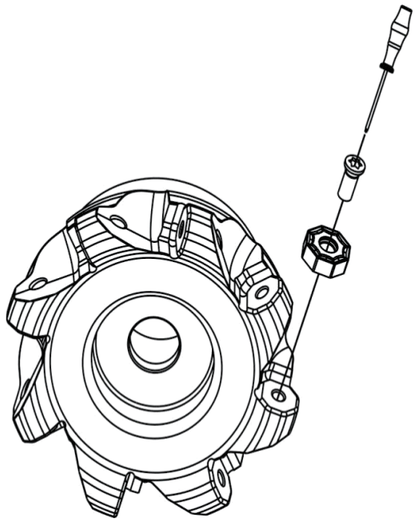
Face Mill FM45-ON Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M			K			N		S			
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM2230	BM2210	BM2220	BM2230	BM3210	BM2220	BM3230	BM5210	BM5220	BM4210	BM4120	BM4130	BM4230
	ONGU08TX08-F	20.2	6	5.4	0.8					★			★			☆			★			☆	
	ONMU08TX08-M	20.2	6	5.3	0.8					★			★			☆							

首选★ 备选☆

First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸/Insert	刀具直径/Diameter	刀片夹紧螺钉/Clamping Screw	刀片螺钉扳手/Screw Wrench
08	50-160	S02-045110	D01-120

快进给铣刀HF15-LN

High Feed Mill HF15-LN

小直径快进给铣刀首选

First choice for small dia. mill cutter

极小的切深和极高的每齿进给量进行切削

Extremely high feed rate with low depth of cut

卓越的刀片几何槽型设计，配合优异的刀片材质，确保了安全及优异的切削性能

Outstanding design of insert geometry combining unique insert grades,secures safe and excellent cutting performance

四个刃口4 edges insert适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工

Suitable for machining steel,stainless steel,heat resitant alloy,cast iron materials

适用于高进给面铣,斜面加工 螺旋插补铣

Suitable for high feed milling,inclined plane machining, helix interpolation milling

广泛应用于大多数种加工领域

Widely used in most industries



L槽型
L Geometry



M槽型
M Geometry

L槽型：软材料加工首选。

L geometry: first choice for sticky materials.

M槽型：通用槽型。

M geometry: general purpose geometry.



直径16-35mm
Dia.16-35mm
直柄铣刀图



直径16-40mm
Dia.16-40mm
螺纹接口铣刀图



直径40-63mm
Dia.40-63mm
心轴铣刀图



面铣



插铣



坡走铣



螺旋差补铣



仿形加工

推荐的切深 Cutting epth recommendations

刀片尺寸	刀片槽形	最小切深(mm)	推荐切深ap(mm)	最大切深(mm
Insert size	Geometry	Min. ap	Rec. ap	Max. ap
06	L	0.1	0.3-0.6	1.0
06	M	0.1	0.3-0.6	1.0

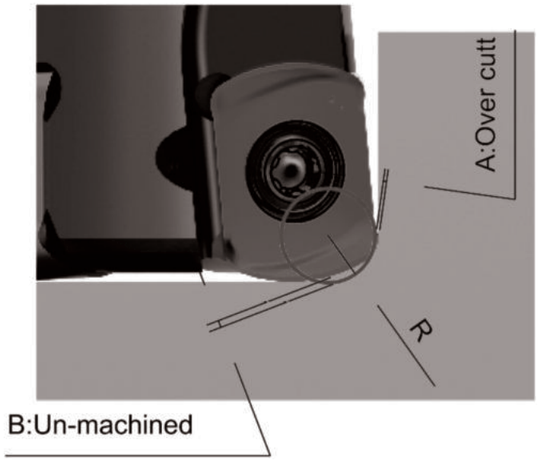
推荐的进给 Cutting feed rates recommendations

刀片尺寸	刀片槽形	最小进给(mm/r)	推荐进给f/z(mm/tooth)	最大进给(mm/r)
Insert size	Geometry	Min. fz	Rec. fz	Max. fz
06	L	0.3	0.6-1.5	2.5
06	M	0.3	0.8-2.0	2.5

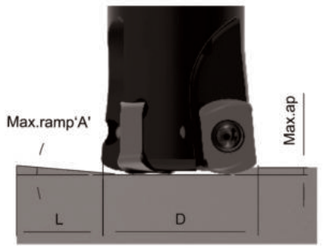
编程圆角，过切量及欠切量
Programming R，over cut and un-machined thickness

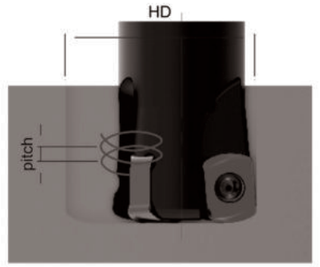
铣刀直径	编程圆角R	A 过切量	B 欠切量
Cutter dia.	Programming radius R	Over cut A	Un-machined B
16,17,18	1.5	0	0.35
	2	0.1	0.22
	2.5	0.27	0.1
>20	2	0	0.42
	2.5	0.12	0.26
	3	0.29	0.17

Programming Technical Data



坡走铣及螺旋插补铣参数推荐 Ramping date recommendation



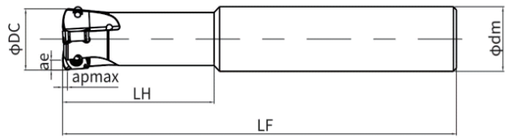


	坡走铣 Straight ramping			螺旋插补铣 Helical ramping		
铣刀直径	最大坡铣角度(A°)	最大切深(mm)	最小长度(L)	最小直径	最大直径	最大螺距/转
Cutter dia.	Max. ramp(A°)	Max. ap	Min. length(L)	Min. dia.	Max. Dia.	Max. pitch/rev.
16.0	2.0	0.7	13.0	23.0	32.0	0.7
17.0	2.0	0.7	15.0	25.0	34.0	0.7
18.0	2.3	0.7	16.0	27.0	36.0	0.7
20.0	1.5	1.0	38.0	31.0	/	0.8
20.0	1.5	1.0	38.0	/	40.0	1.0
21.0	1.5	1.0	38.0	33.0	/	0.8
21.0	1.5	1.0	38.0	/	42.0	1.0
25.0	1.3	1.0	41.0	41.0	50.0	1.0
26.0	1.2	1.0	44.0	43.0	52.0	1.0
32.0	0.9	1.0	57.0	55.0	64.0	1.0
33.0	0.9	1.0	57.0	57.0	66.0	1.0
35.0	0.8	1.0	57.0	61.0	70.0	1.0
40.0	0.7	1.0	64.0	71.0	80.0	1.0
50.0	0.6	1.0	96.0	91.0	100.0	1.0
52.0	0.6	1.0	96.0	95.0	104.0	1.0
63.0	0.5	1.0	115.0	117.0	126.0	1.0

快进给铣刀HF15-LN

High Feed Mill HF15-LN

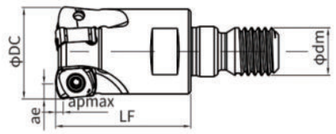




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			DC2	dm	apmax	ae	LF	LH						
16	HF15-016R16LN06-Z02	●	/	16	0.7	3.3	30	100			R	2	+	0.12
17	HF15-017R16LN06-Z02	○	/	16	0.7	3.45	40	150			R	2	+	0.15
20	HF15-020R20LN06-Z03	●	/	20	0.7	3.8	50	130			R	3	+	0.32
21	HF15-021R20LN06-Z03	○	/	20	1.0	3.8	20	160			R	3	+	0.39
25	HF15-025R25LN06-Z03	●	/	25	1.0	3.85	60	140			R	3	+	0.57
26	HF15-026R25LN06-Z03	○	/	25	1.0	3.85	30	180			R	3	+	0.68
32	HF15-032R32LN06-Z04	○	/	32	1.0	3.85	70	150			R	4	+	0.97
33	HF15-033R32LN06-Z04	○	/	32	1.0	3.85	40	200			R	4	+	0.99
35	HF15-035R32LN06-Z05	○	/	32	1.0	3.85	50	200			R	5	+	0.99

● 常备库存In stock ○按订单生产Make to order





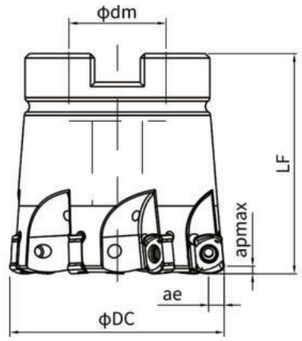
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			DC2	dm	apmax	ae	LF	LH						
16	HF15-016M08LN06-Z02	●	/	08	0.7	3.3	25	42.5			M	2	+	0.10
17	HF15-017M08LN06-Z02	○	/	08	0.7	3.45	25	42.5			M	2	+	0.11
20	HF15-020M10LN06-Z03	●	/	10	1.0	4.3	30	50			M	3	+	0.12
21	HF15-021M10LN06-Z03	○	/	10	1.0	3.8	30	50			M	3	+	0.12
25	HF15-025M12LN06-Z04	●	/	12	1.0	3.85	35	57			M	4	+	0.22
26	HF15-026M12LN06-Z03	○	/	12	1.0	3.85	35	57			M	3	+	0.22
26	HF15-026M12LN06-Z04	○	/	12	1.0	3.85	35	57			M	4	+	0.22
32	HF15-032M16LN06-Z04	○	/	16	1.0	3.85	43	65			M	4	+	0.25
32	HF15-032M16LN06-Z05	○	/	16	1.0	3.85	43	65			M	5	+	0.27
33	HF15-033M16LN06-Z05	○	/	16	1.0	3.85	43	65			M	5	+	0.27
35	HF15-035M16LN06-Z05	○	/	16	1.0	3.85	43	68			M	5	+	0.27
40	HF15-040M16LN06-Z06	○	/	16	1.0	3.9	43	68			M	6	+	0.29

● 常备库存In stock ○按订单生产Make to order

快进给铣刀HF15-LN

High Feed Mill HF15-LN



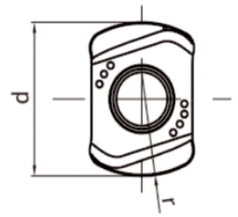


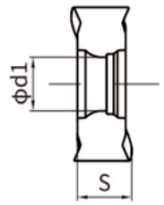
直径 Dc	型号 Type	库存状态	尺寸(mm) DC2	dm	apmax	ae	LF				接口类型	齿数 (Z)	内冷状态	重量 (kg)
40	HF15-040A16LN06-Z06	○	/	16	1.0	3.9	40				A	6	+	0.25
50	HF15-050A22LN06-Z07	○	/	22	1.0	3.9	40				A	7	+	0.35
52	HF15-052A22LN06-Z07	●	/	22	1.0	3.9	40				A	7	+	0.40
63	HF15-063A22LN06-Z08	○	/	22	1.0	3.9	40				A	8	+	0.60

● 常备库存In stock ○按订单生产Make to order

快进给铣刀HF15-LN刀片

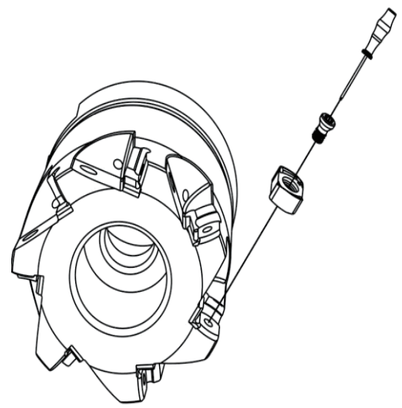
High Feed Mill HF15-LN Insert





刀片 Insert	型号 Type	基本尺寸 Dimension (mm) d	s	d1	r	bs		P BM6220	BM6230	BM2220	BM2230	M BM2210	BM2220	BM2230	K BM3210	BM2220	BM3230	N BM5210	BM5220	S BM4210	BM4120	BM4130	BM4230
	LNMU0603R-L	9	3.73	3.2	6																★	★	
	LNMU0603R-M	9	3.73	3.2	6					★			★			☆							

首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

安装形式	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
06	16-32	S01-025060	D01-108
06	32-63	S01-025073	D01-108

快进给铣刀HF15-SD
High Feed Mill HF15-SD

生产率，安全性和多用途性
Productivity, safety and versatility
高每齿进给与密齿结合以取得最大的金属去除率。
High feed rate and close pitch to get maximum metal removal rate.
卓越的刀片几何槽型设计，配合优异的刀片材质，确保了安全及优异的切削性能。
Outstanding design of insert geometry combining unique insert grades,secures safe and excellent cutting performance.
精于各种铣削方式:面铣、插铣、坡走铣、螺旋差补铣、仿形加工、大悬伸加工。
Proficient in wide variety of milling applications:face milling,plunge milling,ramping,helical interpolation,profile milling,long overhang machining
适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工。
Suitable for machining steel,stainless steel,heat resitant alloy,cast iron materials.
广泛应用于航空航天、石油天然气、模具等领域。
Widely used in Aerospace,Oil and Gas,Die and Mould industries.


SF


SM

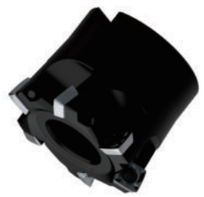

SH

刀片槽型

SF槽型：不锈钢、耐热合金材料加工首选
SF geometry: first choice for stainless steel,heat resitant alloy materials
SM槽型：通用槽型
SM geometry: general purpose geometry
SH槽形：耐冲击重载加工首选
SH geometry: first choice for impact-resistant and heavy-duty machining


直径22-40mm
Dia.22-40mm


直径20-40mm
Dia.20-40mm


直径40-125mm
Dia.40-125mm


面铣


插铣


坡走铣


螺旋差补铣


仿形铣

刀片进给切削参数推荐
Feed Recommendations

推荐的切深 Cutting depth recommendations

刀片尺寸	刀片槽形	最小切深(mm)	推荐切深ap(mm)	最大切深(mm)
Insert size	Geometry	Min. ap	Rec. ap	Max. ap
09	SF	0.1	0.5-1.2	1.3
13	SF	0.1	0.5-1.6	1.7
09	SM	0.2	0.5-1.2	1.3
13	SM	0.2	0.5-1.6	1.7
09	SH	0.1	0.5-1.2	1.3
13	SH	0.2	0.5-1.6	1.7

*09刀片型腔铣削编程圆角R为2.0
Programming R of insert 09 is 2.0 for cavity or pocketing machining

*13刀片型腔铣削编程圆角R为3.5
Programming R of insert 13 is 3.5 for cavity or pocketing machining

ap=0.5mm	不同切宽(ae)百分比情况下的推荐每齿进给fz fz recommendations for different ae %					
刀片尺寸	刀片槽形	5% ae	10% ae	20% ae	30% ae	40%-100% ae
Insert size	Geometry					
09	SF	1.58(0.50-2.00)	1.10(0.38-1.64)	0.81(0.28-1.22)	0.70(0.25-1.05)	0.7(0.23-0.92)
09	SM	1.58(0.52-2.00)	1.10(0.40-1.64)	0.81(0.30-1.22)	0.70(0.30-1.05)	0.7(0.25-0.92)
09	SH	1.58(0.52-2.00)	1.10(0.40-1.64)	0.81(0.30-1.22)	0.70(0.30-1.05)	0.7(0.25-0.92)

ap=0.8mm	不同切宽(ae)百分比情况下的推荐每齿进给fz fz recommendations for different ae %					
刀片尺寸	刀片槽形	5% ae	10% ae	20% ae	30% ae	40%-100% ae
Insert size	Geometry					0
09	SF	1.42(0.48-2.00)	1.00(0.35-1.52)	0.74(0.26-1.11)	0.64(0.23-0.96)	0.6(0.21-0.88)
09	SM	1.42(0.52-2.00)	1.00(0.40-1.52)	0.74(0.30-1.11)	0.64(0.30-0.96)	0.6(0.25-0.88)
09	SH	1.42(0.52-2.00)	1.00(0.40-1.52)	0.74(0.30-1.11)	0.64(0.30-0.96)	0.6(0.25-0.88)
13	SF	1.79(0.55-2.80)	1.26(0.38-2.10)	0.94(0.30-1.45)	0.80(0.26-1.22)	0.72(0.23-1.14)
13	SM	1.79(0.60-2.80)	1.26(0.42-2.10)	0.94(0.33-1.45)	0.80(0.29-1.22)	0.72(0.25-1.14)
13	SH	2.00(0.78-3.00)	1.44(0.57-2.18)	1.06(0.43-1.55)	0.93(0.37-1.32)	0.84(0.33-1.23)

刀片进给切削参数推荐

Feed Recommendations

ap=1.0mm	不同切宽(ae)百分比情况下的推荐每齿进给fz fz recommendations for different ae %					
刀片尺寸	刀片槽形	5% ae	10% ae	20% ae	30% ae	40%-100% ae
Insert size	Geometry					0
09	SF	1.28(0.44-2.00)	0.90(0.32-1.37)	0.67(0.24-1.00)	0.58(0.21-0.87)	0.45(0.19-0.80)
09	SM	1.28(0.50-2.00)	0.90(0.36-1.37)	0.67(0.30-1.00)	0.58(0.26-0.87)	0.45(0.22-0.80)
09	SH	1.28(0.50-2.00)	0.90(0.36-1.37)	0.67(0.30-1.00)	0.58(0.26-0.87)	0.45(0.22-0.80)
13	SF	1.59(0.49-2.50)	1.13(0.35-1.78)	0.84(0.26-1.31)	0.73(0.23-1.14)	0.67(0.21-1.04)
13	SM	1.59(0.53-2.50)	1.13(0.40-1.78)	0.84(0.30-1.31)	0.73(0.26-1.14)	0.67(0.25-1.04)
13	SH	1.80(0.70-2.70)	1.28(0.51-1.94)	0.95(0.38-1.41)	0.83(0.33-1.22)	0.76(0.30-1.12)

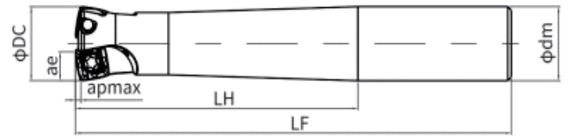
ap=1.2mm	不同切宽(ae)百分比情况下的推荐每齿进给fz fz recommendations for different ae %					
刀片尺寸	刀片槽形	5% ae	10% ae	20% ae	30% ae	40%-100% ae
Insert size	Geometry					0
09	SF	1.10(0.38-1.70)	0.80(0.27-1.10)	0.58(0.20-0.87)	0.50(0.18-0.75)	0.46(0.16-0.69)
09	SM	1.10(0.40-1.70)	0.80(0.30-1.20)	0.58(0.23-0.87)	0.50(0.20-0.75)	0.46(0.20-0.70)
09	SH	1.10(0.40-1.70)	0.80(0.30-1.20)	0.58(0.23-0.87)	0.50(0.20-0.75)	0.46(0.20-0.70)
13	SF	1.39(0.43-2.20)	1.00(0.31-1.56)	0.74(0.23-1.15)	0.64(0.20-1.00)	0.59(0.19-0.92)
13	SM	1.39(0.50-2.20)	1.00(0.36-1.29)	0.74(0.26-1.15)	0.64(0.25-1.00)	0.59(0.24-0.92)
13	SH	1.57(0.62-2.41)	1.12(0.45-1.70)	0.84(0.33-1.26)	0.73(0.29-1.10)	0.67(0.27-1.00)

ap=1.6mm	不同切宽(ae)百分比情况下的推荐每齿进给fz fz recommendations for different ae %					
刀片尺寸	刀片槽形	5% ae	10% ae	20% ae	30% ae	40%-100% ae
Insert size	Geometry					1
13	SF	1.15(0.36-1.81)	0.83(0.26-1.29)	0.62(0.20-0.96)	0.54(0.17-0.83)	0.45(0.15-0.76)
13	SM	1.15(0.40-1.81)	0.83(0.30-1.29)	0.62(0.23-0.96)	0.54(0.20-0.83)	0.45(0.20-0.76)
13	SH	1.30(0.51-1.99)	0.93(0.37-1.41)	0.70(0.28-1.05)	0.61(0.24-0.91)	0.55(0.22-0.83)

快进给铣刀HF15-SD

High Feed Mill HF15-SD

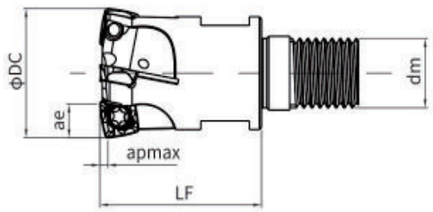




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			DC2	dm	apmax	ae	LF	LH						
22	HF15-022R20SD09-Z02	●	/	20	1.3	7	140	65			R	2	+	0.35
25	HF15-025R25SD09-Z03	●	/	25	1.3	7	145	80			R	3	+	0.50
30	HF15-030R25SD09-Z04	○	/	25	1.3	7	145	80			R	4	+	0.75
32	HF15-032R32SD09-Z04	●	/	32	1.3	7	145	80			R	4	+	0.80
40	HF15-040R32SD09-Z05	○	/	32	1.3	7	145	80			R	5	+	1.30

● 常备库存In stock ○按订单生产Make to order





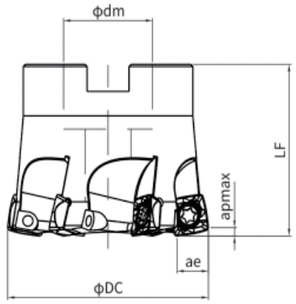
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			DC2	dm	apmax	ae	LF							
20	HF15-020M08SD09-Z02	○	/	M08	1.3	7	30				M	2	+	0.10
22	HF15-022M10SD09-Z02	○	/	M10	1.3	7	30				M	2	+	0.11
25	HF15-025M12SD09-Z02	○	/	M12	1.3	7	35				M	2	+	0.12
25	HF15-025M12SD09-Z03	●	/	M12	1.3	7	35				M	3	+	0.12
32	HF15-032M16SD09-Z03	●	/	M16	1.3	7	43				M	3	+	0.22
32	HF15-032M16SD09-Z04	○	/	M16	1.3	7	43				M	4	+	0.25
40	HF15-040M16SD09-Z05	○	/	M16	1.3	7	43				M	2	+	0.27

● 常备库存In stock ○按订单生产Make to order

快进给铣刀HF15-SD

High Feed Mill HF15-SD



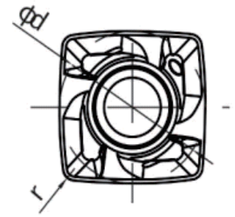


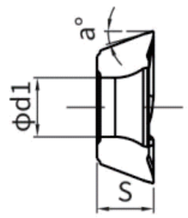
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			DC2	dm	apmax	ae	LF							
40	HF15-040A16SD09-Z04	○	/	16	1.3	7	35				A	4	+	0.30
40	HF15-040A16SD09-Z05	●	/	16	1.3	7	35				A	5	+	0.30
50	HF15-050A22SD09-Z04	○	/	22	1.3	7	40				A	4	+	0.40
50	HF15-050A22SD09-Z06	●	/	22	1.3	7	40				A	6	+	0.40
63	HF15-063A22SD09-Z05	○	/	22	1.3	7	40				A	5	+	0.70
63	HF15-063A22SD09-Z07	○	/	22	1.3	7	40				A	7	+	0.60
63	HF15-063A22SD09-Z08	○	/	22	1.3	7	40				A	8	+	0.60
80	HF15-080B27SD09-Z07	○	/	27	1.3	7	50				B	7	+	1.20
80	HF15-080B27SD09-Z09	○	/	27	1.3	7	50				B	9	+	1.10
80	HF15-080B27SD09-Z10	○	/	27	1.3	7	50				B	0	+	1.10
50	HF15-050A22SD13-Z04	○	/	22	1.7	10	40				A	4	+	0.50
50	HF15-050A22SD13-Z05	●	/	22	1.7	10	40				A	5	+	0.40
52	HF15-052A22SD13-Z05	●	/	22	1.7	10	40				A	5	+	0.40
50	HF15-050A22SD13-Z06	○	/	22	1.7	10	40				A	6	+	0.40
63	HF15-063A22SD13-Z05	●	/	22	1.7	10	40				A	5	+	0.70
63	HF15-063A22SD13-Z06	○	/	22	1.7	10	40				A	6	+	0.60
63	HF15-063A22SD13-Z07	●	/	22	1.7	10	40				A	7	+	0.60
80	HF15-080A27SD13-Z05	○	/	27	1.7	10	50				A	5	+	1.20
80	HF15-080A27SD13-Z06	●	/	27	1.7	10	50				A	6	+	1.20
80	HF15-080A27SD13-Z08	●	/	27	1.7	10	50				A	8	+	1.20
80	HF15-080A27SD13-Z09	○	/	27	1.7	10	50				A	9	+	1.10
100	HF15-100A32SD13-Z07	●	/	32	1.7	10	50				A	7	+	1.60
100	HF15-100A32SD13-Z09	●	/	32	1.7	10	50				A	9	+	1.60
100	HF15-100A32SD13-Z11	○	/	32	1.7	10	50				A	1	+	1.60
125	HF15-125B40SD13-Z08	○	/	40	1.7	10	63				B	8	+	3.30
125	HF15-125B40SD13-Z10	●	/	40	1.7	10	63				B	10		3.30
125	HF15-125B40SD13-Z12	○	/	40	1.7	10	63				B	12		3.30

● 常备库存In stock ○按订单生产Make to order

快进给铣刀HF15-SD 刀片

High Feed Mill HF15-SD Insert

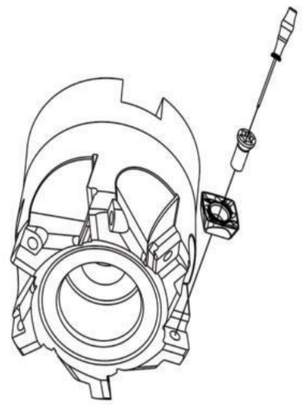




刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M				K			N	S			
		d	s	d1	r	bs	α	BM6220	BM6230	BM2220	BM2230	BM2210	BM2220	BM4230	BM2230	BM3210	BM2220	BM3330	BM5210	BM5220	BM4210	BM4120	BM4130	BM4230
	SDGT090307-SF	9	3.5	3.5	0.7		15°			☆				★									★	★
	SDMT130512-SF	13.0	5.0	5.5	1.2		15°			☆				★									★	★
	SDMT090307-SM	9.0	3.5	3.5	0.7		15°			★				★	☆								★	★
	SDMT130512-SM	13.0	5.0	5.5	1.2		15°			★				★	☆								★	★
	SDMW090307-SH	9	3.5	3.5	0.7		15°		★					★			★							
	SDGW130512-SH	13.0	5.0	5.5	1.2		15°		☆					☆			☆							

首选★ 备选☆

First choice ★ Second choice☆



配件/SPARE PARTS

刀片/Insert	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
09	20-80	S01-030072	D01-109
13	40-125	S01-045110	D01-120

方肩铣刀SM90-AO

Square Shoulder Mill SM90-AO

全能的深/浅方肩铣刀
Comprehensive deep/shallow shoulder milling cutter
加工精度和多用途性
Precision and versatility
卓越的切削刃几何形状设计，配合锋利的刀片槽型，确保了优异的加工表面质量和光洁度
Outstanding design of insert geometry combining sharp insert edge,secures high precision and surface finish
精于各种铣削方式:面铣、方肩铣、槽铣、插铣、坡走铣、螺旋差补铣、等高分层铣加工
Proficient in wide variety of milling applications:face milling,square shoulder milling,slot milling,plunge milling,ramping,helical interpolation and contour milling
适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工
Suitable for machining steel,stainless steel,heat resitant alloy,cast iron materials
广泛应用于航空航天、汽车零部件、能源、模具、通用机械等领域
Widely used in aerospace,automotive components,energy,die and mould,general engineering industries



直径范围：16-40mm
Diameter range：16-40mm



直径范围：40-125mm
Diameter range：40-125mm



直径范围：30-40mm
Diameter range：30-40mm



直径范围：40-100mm
Diameter range：40-100mm



面铣
Face milling



插铣
Plunge milling



坡走铣
Ranping



螺旋差补铣
Helical interpolation



槽铣
Slot milling



方肩铣
Square shoulder milling



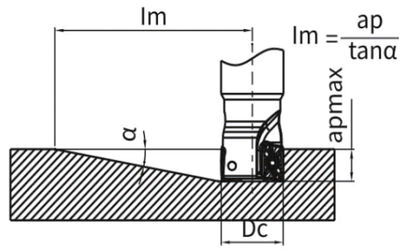
等高分层铣
Contour milling

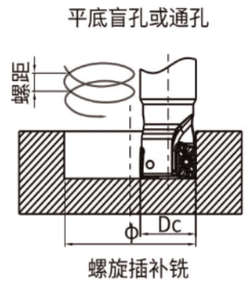
刀片进给切削参数推荐 Feed recommendations

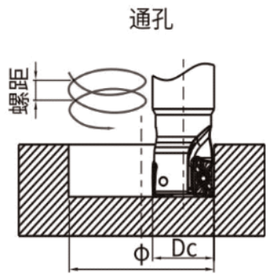
刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
11 (r=0.8)	PL	0.08	0.05	0.12
17 (r=0.8)	PL	0.08	0.05	0.12
11 (r=0.8)	PM	0.10	0.08	0.15
17 (r=0.8)	PM	0.10	0.08	0.15

坡走铣螺旋插补铣参数推荐（立铣刀）

Ramping and helical interpolation cutting data recommendations







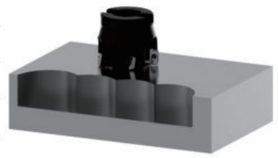
基本信息 Basic info.			坡走限制 Ramping limit		平底盲孔或通孔 Blind hole with flat bottom or through hole				无平底要求盲孔或通孔 Blind hole without flat bottom or through hole	
刀片尺寸	刀具直径	最大切深	最大坡走角α°	最小距离lmin	平底孔最大直径	最大螺距	平底孔最小直径	最大螺距	最小孔径	最大螺距
Insert size	DC	apmax	Max ramping angle α°	Minimum distance lmin	Max Φ with flat bottom	Max pitch	Min Φ	Max pitch	Min Φ	Max pitch
11（r=0.8）	16	10.3	10.5	54	30.0	9.0	28.0	7.0	21.0	2.0
17（r=0.8）	20	10.2	5.5	103.9	38.0	5.0	36.0	4.5	29.0	2.0
	25	10.1	5.0	114.3	48.0	6.0	46.0	5.0	39.0	3.0
	32	10.0	3.6	158.9	62.0	4.5	60.0	4.0	53.0	2.0
	40	10.0	2.0	286.4	78.0	4.0	76.0	3.5	69.0	2.0
	25	16.0	15.5	57.7	48.0	15.5	45.4	14.0	33.0	6.0
	32	15.9	6.7	135.4	62.0	11.5	59.4	10.0	47.0	4.5
	40	15.8	3.9	231.8	78.0	8.0	75.4	7.5	63.0	4.0

方肩铣和插铣参数推荐

Square shoulder milling and plunge milling cutting data recommendations

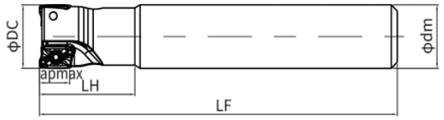
刀片尺寸 Insert size	刀具直径 DC	方肩铣最大切深 Square shoulder milling apmax	插铣最大切宽 Plunge milling aemax
11（r=0.8）	16	9.5	5.5
17（r=0.8）	20	9.4	5.5
	25	9.3	5.5
	32	9.2	5.5
	40-80	5.9	5.5
	25	15.2	5.5
	32	15.1	5.5
	40	15.0	5.5
	50	14.9	5.5
	63-125	9.6	5.5





方肩铣刀SM90-AO
Square Shoulder Mill SM90-AO



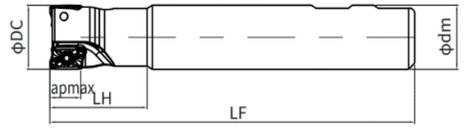


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	L	LH							
16	SM90-016R16AO11-Z02	●	/	16	10	145	25				R	2	+	0.38
20	SM90-020R20AO11-Z02	○	/	20	10	170	40				R	2	+	0.50
20	SM90-020R20AO11-Z03	●	/	20	10	110	25				R	3	+	0.38
25	SM90-025R25AO11-Z02	○	/	25	10	210	50				R	2	+	0.54
25	SM90-025R25AO11-Z03	●	/	25	10	120	32				R	3	+	0.54
32	SM90-032R32AO11-Z02	○	/	32	10	250	65				R	2	+	1.45
32	SM90-032R32AO11-Z03	●	/	32	10	130	40				R	3	+	0.82
25	SM90-025R25AO17-Z02	●	/	25	15.7	210	50				R	2	+	0.50
32	SM90-032R32AO17-Z02	○	/	32	15.7	250	65				R	2	+	1.50
32	SM90-032R32AO17-Z03	●	/	32	15.7	130	40				R	3	+	0.80
40	SM90-040R32AO17-Z02	○	/	32	15.7	250	65				R	2	+	1.70
40	SM90-040R32AO17-Z03	○	/	32	15.7	170	50				R	3	+	1.10
40	SM90-040R32AO17-Z04	●	/	32	15.7	170	50				R	4	+	1.10

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AO
Square Shoulder Mill SM90-AO



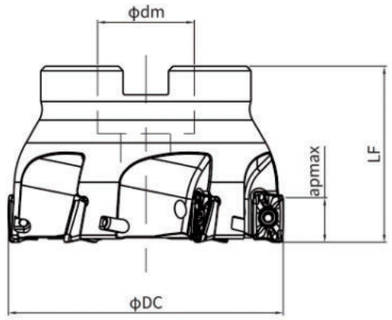


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
16	SM90-016E16AO11-Z02	●	/	16	10	73	25				E	2	+	0.22
20	SM90-020E20AO11-Z02	●	/	20	10	81	25				E	2	+	0.29
20	SM90-020E20AO11-Z03	○	/	20	10	81	25				E	3	+	0.29
25	SM90-025E25AO11-Z02	●	/	25	10	88	32				E	2	+	0.40
25	SM90-025E25AO11-Z03	○	/	25	10	88	32				E	3	+	0.38
32	SM90-032E32AO11-Z02	●	/	32	10	100	40				E	2	+	0.65
32	SM90-032E32AO11-Z03	○	/	32	10	100	40				E	3	+	0.68
25	SM90-025E25AO17-Z02	○	/	25	15.7	88	32				E	2	+	0.41
32	SM90-032E32AO17-Z02	●	/	32	15.7	100	40				E	2	+	0.64
32	SM90-032E32AO17-Z03	○	/	32	15.7	100	40				E	3	+	0.62
40	SM90-040E32AO17-Z02	○	/	32	15.7	110	/				E	2	+	0.82
40	SM90-040E32AO17-Z03	●	/	32	15.7	110	/				E	3	+	0.80
40	SM90-040E32AO17-Z04	○	/	32	15.7	110	/				E	4	+	0.80

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AO
Square Shoulder Mill SM90-AO





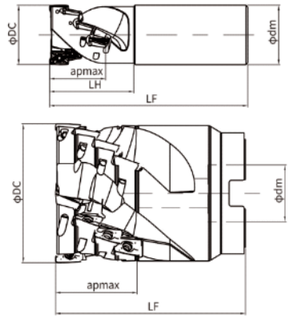
直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
40	SM90-040A16AO11-Z04	●	/	16	10	40					A	4	+	0.38
40	SM90-040A16AO11-Z06	●	/	16	10	40					A	6	+	0.38
50	SM90-050A22AO11-Z05	○	/	22	10	40					A	5	+	0.48
50	SM90-050A22AO11-Z07	●	/	22	10	40					A	7	+	0.48
63	SM90-063A22AO11-Z06	○	/	22	10	40					A	6	+	0.58
63	SM90-063A22AO11-Z08	●	/	22	10	40					A	8	+	0.59
80	SM90-080A27AO11-Z07	○	/	27	10	50					A	7	+	0.99
80	SM90-080A27AO11-Z10	●	/	27	10	50					A	10	+	0.86
40	SM90-040A16AO17-Z02	○	/	16	15.7	40					A	2	+	0.38
40	SM90-040A16AO17-Z03	○	/	16	15.7	40					A	3	+	0.46
40	SM90-040A16AO17-Z04	●	/	16	15.7	40					A	4	+	0.44
50	SM90-050A22AO17-Z03	○	/	22	15.7	40					A	3	+	0.54
50	SM90-050A22AO17-Z04	●	/	22	15.7	40					A	4	+	0.59
50	SM90-050A22AO17-Z05	○	/	22	15.7	40					A	5	+	0.54
63	SM90-063A22AO17-Z04	○	/	22	15.7	40					A	4	+	0.72
63	SM90-063A22AO17-Z05	●	/	22	15.7	40					A	5	+	0.72
63	SM90-063A22AO17-Z06	○	/	22	15.7	40					A	6	+	0.68
80	SM90-080A27AO17-Z04	○	/	27	15.7	50					A	4	+	0.96
80	SM90-080A27AO17-Z06	●	/	27	15.7	50					A	6	+	0.96
80	SM90-080A27AO17-Z08	○	/	27	15.7	50					A	8	+	0.94
100	SM90-100A32AO17-Z05	○	/	32	15.7	50					A	5	+	1.77
100	SM90-100A32AO17-Z07	●	/	32	15.7	50					A	7	+	1.73
100	SM90-100A32AO17-Z09	○	/	32	15.7	50					A	9	+	1.57
125	SM90-125B40AO17-Z06	○	/	40	15.7	63					B	6		2.71
125	SM90-125B40AO17-Z08	●	/	40	15.7	63					B	8		2.70
125	SM90-125B40AO17-Z11	○	/	40	15.7	63					B	11		2.74

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AO
Square Shoulder Mill SM90-AO





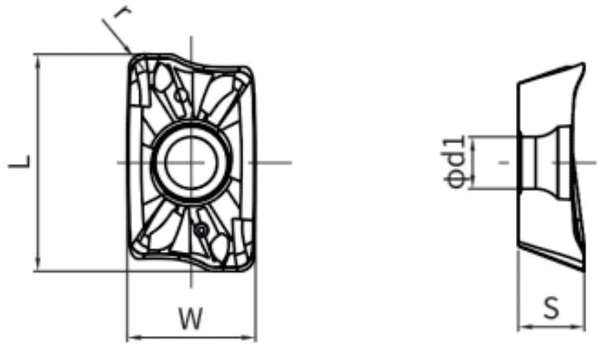


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
32	LE90-032E25AO11-Z02	○	/	25	32	109	/				E	2/8	+	0.60
32	LE90-032E25AO11-Z03	○	/	32	32	113	48				E	2/8	+	0.90
40	LE90-040E25AO11-Z04	○	/	40	39	131	58				E	3/15	+	1.40
40	LE90-040A16AO11-Z03	○	/	16	36	57	/				A	3/12	+	0.80
40	LE90-040A16AO11-Z04	○	/	16	36	57	/				A	4/16	+	0.80
44	LE90-044A16AO11-Z03	○	/	16	45	65	/				A	3/15	+	0.90
50	LE90-050A22AO11-Z03	●	/	22	54	74	/				A	3/18	+	1.10
50	LE90-050A22AO11-Z04	○	/	22	36	57	/				A	4/16	+	1.00
50	LE90-050A22AO11-Z05	○		22	36	57	/				A	5/20	+	1.00
54	LE90-054A22AO11-Z04	○	/	22	36	57	/				A	4/16	+	1.10
44	LE90-044A16AO17-Z02	○	/	16	40	65	/				A	2/6	+	0.91
50	LE90-050A22AO17-Z02	○	/	22	52	82	/				A	2/8	+	1.30
63	LE90-063A27AO17-Z03	●	/	27	52	82	/				A	3/12	+	1.58
80	LE90-080A32AO17-Z03	●	/	32	65	96	/				A	3/15	+	2.88
100	LE90-100A40AO17-Z04	○	/	40	52	82	/				A	4/16	+	3.37

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AO

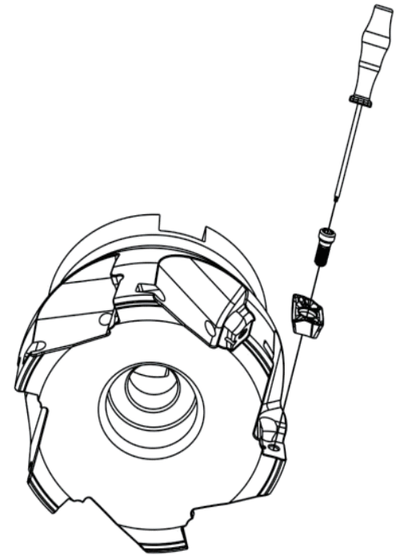
Square Shoulder Mill SM90-AO



刀片	型号	基本尺寸						P				M				K			N		S			
Insert	Type	Dimension（mm）																						
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM4120	BM2210	BM2220	BM4120	BM4130	BM3210	BM2220	BM4120	BM5210	BM5220	BM4210	BM4120	BM4130	BM4230
	AOGX11T304-PL	11	6.8	3.59	2.8	0.4				☆	★		☆	★			☆	★					☆	★
	AOGX11T304-NL	11	6.8	3.59	2.8	0.4														★				
	AOGX11T308-PL	11	6.8	3.59	2.8	0.8				☆	★		☆	★			☆	★					☆	★
	AOGX11T308-NL	11	6.8	3.59	2.8	0.8														★				
	AOGX170408-PL	17	9.6	4.76	4.1	0.8				☆	★		☆	★			☆	★					☆	★
	AOGX11T304-PM	11	6.8	3.59	2.8	0.4				☆	★		☆	★			☆	★					☆	★
	AOGX11T308-PM	11	6.8	3.59	2.8	0.8				☆	★		☆	★			☆	★					☆	★
	AOGX11T312-PM	11	6.8	3.59	2.8	1.2				☆	★		☆	★			☆	★					☆	★
	AOGX11T320-PM	11	6.8	3.59	2.8	2.0				☆	★		☆	★			☆	★					☆	★
	AOGX11T331-PM	11	6.8	3.59	2.8	3.1				☆	★		☆	★			☆	★					☆	★
	AOGX170408-PM	17	9.6	4.76	4.1	0.8				☆	★		☆	★			☆	★					☆	★
	AOGX170412-PM	17	9.6	4.76	4.1	1.2				☆	★		☆	★			☆	★					☆	★
	AOGX170416-PM	17	9.6	4.76	4.1	1.6				☆	★		☆	★			☆	★					☆	★
	AOGX170420-PM	17	9.6	4.76	4.1	2.0				☆	★		☆	★			☆	★					☆	★
	AOGX170440-PM	17	9.6	4.76	4.1	4.0				☆	★		☆	★			☆	★					☆	★
	AOGX170464-PM	17	9.6	4.76	4.1	6.4				☆	★		☆	★			☆	★					☆	★
	AOGX180612-PM	18	11.1	5.35	4.2	1.2				☆	★		☆	★			☆	★					☆	★
	AOGX180631-PM	18	11.1	5.35	4.2	3.1				☆	★		☆	★			☆	★					☆	★

首选★ 备选☆
First choice ★ Second choice☆

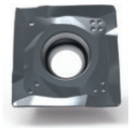
配件/SPARE PARTS



刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrenc
16-20	S01-025060	D01-108
20-80	S01-025073	D01-108
25	S01-040070	D01-115
32-125	S01-040090	D01-115

方肩铣刀SM90-SO
Square Shoulder Mill SM90-SO

通用四刃方肩铣刀
General purpose 4 edges shoulder milling cutter
优异的加工表面质量和光洁度
High precision and surface finish
适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工
Suitable for machining steel,stainless steel,heat resitant alloy,cast iron materials
广泛应用于航空航天、汽车零部件、能源、模具、通用机械等领域
Widely used in aerospace,automotive components,energy,die and mould,general engineering industries


PL


PM

刀片槽型

PL 槽型：轻型加工，高表面质量要求首选
PL geometry: first choice for light cutting,high precision and surface finish request
PM 槽型：通用槽型
PM geometry: general purpose geometry


直径范围：20-40mm
Diameter range：20-40mm


直径范围：20-40mm
Diameter range：20-40mm

直径范围：40-160mm
Diameter range：40-160mm


插铣
Plunge milling


槽铣
Slot milling

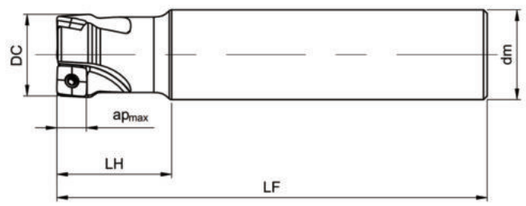

方肩铣
Square shoulder milling

刀片进给切削参数推荐 Feed recommendations

刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
08 (r=0.4)	PL	0.08	0.05	0.12
08 (r=0.8)	PM	0.12	0.08	0.15
14 (r=0.8)	PM	0.12	0.08	0.16

方肩铣刀SM90-SO
Square Shoulder Mill SM90-SO

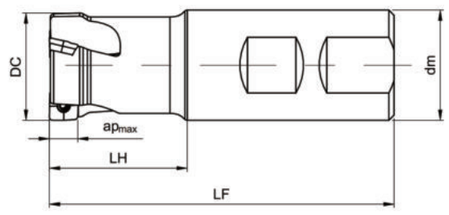




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
20	SM90-020R16SO08-Z02	●	/	16	5.5	110	25				R	2	+	0.10
20	SM90-020R20SO08-Z02	●	/	20	5.5	110	25				R	2	+	0.20
22	SM90-022R20SO08-Z02	●	/	20	5.5	170	30				R	2	+	0.30
25	SM90-025R20SO08-Z02	●	/	20	5.5	120	32				R	2	+	0.40
25	SM90-025R25SO08-Z03	●	/	25	5.5	120	32				R	3	+	0.40
28	SM90-028R25SO08-Z03	●	/	25	5.5	210	35				R	3	+	0.70
32	SM90-032R25SO08-Z03	●	/	25	5.5	130	40				R	3	+	0.70
32	SM90-032R32SO08-Z04	●	/	32	5.5	130	40				R	4	+	0.70
40	SM90-040R32SO08-Z04	●	/	32	5.5	170	50				R	4	+	1.10
40	SM90-040R32SO14-Z03	●	/	32	10	170	50				R	3	+	1.00

● 常备库存In stock ○按订单生产Make to order

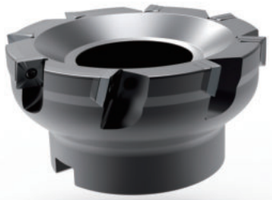


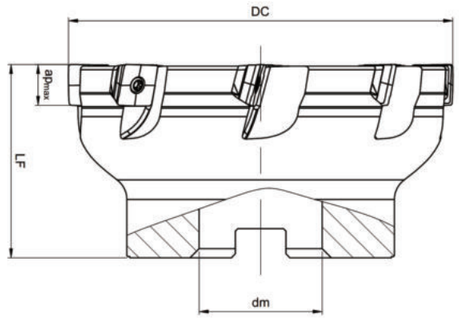


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
20	SM90-020E16SO08-Z02	●	/	16	5.5	80	25				E	2	+	0.10
20	SM90-020E20SO08-Z02	●	/	20	5.5	80	25				E	2	+	0.10
25	SM90-025E20SO08-Z02	●	/	20	5.5	90	32				E	2	+	0.20
25	SM90-025E25SO08-Z03	●	/	25	5.5	90	32				E	3	+	0.20
32	SM90-032E25SO08-Z03	●	/	25	5.5	100	40				E	3	+	0.50
32	SM90-032E32SO08-Z04	●	/	32	5.5	100	40				E	4	+	0.70
40	SM90-040E32SO08-Z04	●	/	32	5.5	120	50				E	4	+	1.10
40	SM90-040E32SO14-Z03	●	/	32	10	120	50				E	3	+	1.00

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-SO
Square Shoulder Mill SM90-SO

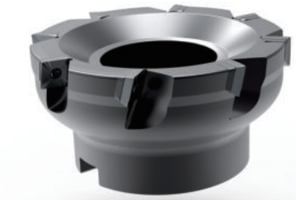


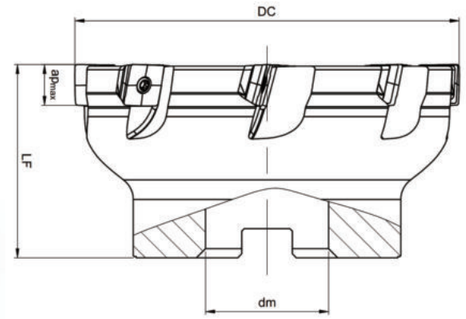


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数(Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
40	SM90-040A16SO08-Z04	○	/	16	5.5	40					A	4	+	0.20
40	SM90-040A16SO08-Z06	○	/	16	5.5	40					A	6	+	0.20
44	SM90-044A16SO08-Z05	○	/	16	5.5	40					A	5	+	0.20
50	SM90-050A22SO08-Z05	●	/	22	5.5	40					A	5	+	0.40
50	SM90-050A22SO08-Z07	○	/	22	5.5	40					A	7	+	0.40
54	SM90-054A22SO08-Z05	○	/	22	5.5	40					A	5	+	0.40
63	SM90-063A22SO08-Z05	●	/	22	5.5	40					A	5	+	0.50
63	SM90-063A22SO08-Z08	○	/	22	5.5	40					A	8	+	0.50
80	SM90-080A27SO08-Z09	●	/	27	5.5	50					A	9	+	1.20
80	SM90-080A27SO08-Z13	○	/	27	5.5	50					A	13	+	1.20
50	SM90-050A22SO14-Z04	●	/	22	10	40					A	4	+	0.30
50	SM90-050A22SO14-Z05	○	/	22	10	40					A	5	+	0.30
63	SM90-063A22SO14-Z05	○	/	22	10	40					A	5	+	0.40
63	SM90-063A22SO14-Z06	●	/	22	10	40					A	6	+	0.40
80	SM90-080A27SO14-Z06	○	/	27	10	50					A	6	+	1
80	SM90-080A27SO14-Z08	●	/	27	10	50					A	8	+	1
100	SM90-100A32SO14-Z05	○	/	32	10	50					A	5	+	1.40
100	SM90-100A32SO14-Z07	●	/	32	10	50					A	7	+	1.40
100	SM90-100A32SO14-Z10	○	/	32	10	50					A	10	+	1.40
125	SM90-125B40SO14-Z06	○	/	40	10	63					B	6		1.60
125	SM90-125B40SO14-Z08	●	/	40	10	63					B	8		2.60
125	SM90-125B40SO14-Z16	○	/	40	10	63					B	16		2.60
160	SM90-160C40SO14-Z08	○	/	40	10	63					C	8		4.40
160	SM90-160C40SO14-Z12	○	/	40	10	63					C	12		4.40

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-SO
Square Shoulder Mill SM90-SO





刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M				K			N		S			
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM4120	BM2210	BM2220	BM4120	BM4130	BM3210	BM2220	BM4120	BM5210	BM5220	BM4210	BM4120	BM4130	BM4230
	SOMX08T304M-PL	8.5	3.5	2.8	0.4	1.5				☆	★		☆	★			☆	★					☆	★
	SOMX08T308M-PM	8.5	3.5	2.8	0.8	1.5				☆	★		☆	★			☆	★					☆	★
	SOMX140408M-PM	14	3.8	4.1	0.8					☆	★		☆	★			☆	★					★	★

首选★ 备选☆
First choice ★ Second choice☆

配件/SPARE PARTS

刀片尺寸/Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
08	20-80	S01-025073	D01-108
14	40-160	S01-035100	D01-115

方肩铣刀SM90-AN
Square Shoulder Mill SM90-AN

通用四刃方肩铣刀
General purpose 4 edges shoulder milling cutter
切削非常轻快
Extremely light cutting
优异的加工表面质量和光洁度
High precision and surface finish
适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工
Suitable for machining steel,stainless steel,heat resitant alloy,cast iron materials
广泛应用于航空航天、汽车零部件、能源、模具、通用机械等领域
Widely used in aerospace,automotive components,energy,die and mould,general engineering industries


PL


PM

刀片槽型

PL 槽型：轻型加工，高表面质量要求首选
PL geometry: first choice for light cutting,high precision and surface finish request
PM 槽型：通用槽型
PM geometry: general purpose geometry


直径范围：20-32mm
Diameter range：20-32mm


直径范围：25-40mm
Diameter range：25-40mm


直径范围：40-160mm
Diameter range：40-160mm


插铣
Plunge milling


槽铣
Slot milling

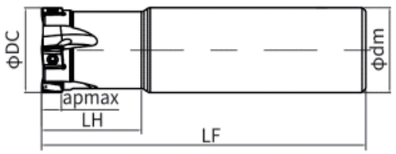

方肩铣
Square shoulder milling

刀片进给切削参数推荐 Feed recommendations

刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
04 (r=0.4)	PL	0.08	0.05	0.12
11 (r=0.8)	PM	0.10	0.08	0.15

方肩铣刀SM90-AN
Square Shoulder Mill SM90-AN

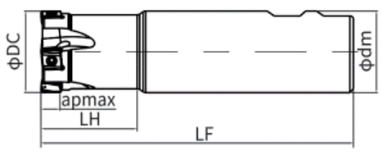




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
20	SM90-020R20AN08-Z02	○	/	20	8	110	25				R	2	+	0.50
20	SM90-020R20AN08-Z03	●	/	20	8	110	25				R	3	+	0.50
25	SM90-025R25AN08-Z03	○	/	25	8	120	32				R	3	+	0.60
25	SM90-025R25AN08-Z04	●	/	25	8	120	32				R	4	+	0.60
32	SM90-032R32AN08-Z04	○	/	32	8	130	40				R	4	+	0.71
32	SM90-032R32AN08-Z05	●	/	32	8	130	40				R	5	+	0.70

● 常备库存In stock ○按订单生产Make to order



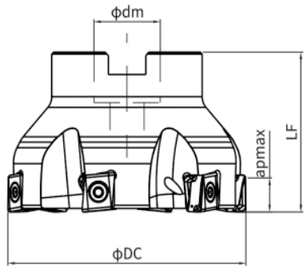


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
25	SM90-025E25AN08-Z03	○	/	25	8	100	32				E	3	+	0.60
25	SM90-025E25AN08-Z04	○	/	25	8	100	32				E	4	+	0.60
32	SM90-032E32AN08-Z04	○	/	32	8	110	40				E	4	+	0.70
32	SM90-032E32AN08-Z05	○	/	32	8	110	40				E	5	+	0.70
40	SM90-040E32AN08-Z04	○	/	32	8	120	25				E	4	+	1.20
40	SM90-040E32AN08-Z06	●	/	32	8	120	25				E	6	+	1.25
40	SM90-040E32AN11-Z05	○	/	32	11	120	25				E	5	+	1.25

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AN
Square Shoulder Mill SM90-AN

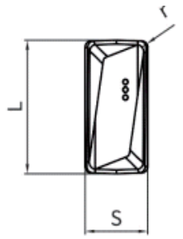


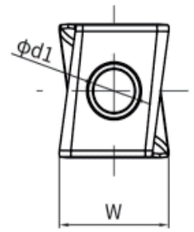


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
40	SM90-040A16AN08-Z04	○	/	16	8	40					A	4	+	0.38
40	SM90-040A16AN08-Z06	○	/	16	8	40					A	6	+	0.38
50	SM90-050A22AN08-Z05	●	/	22	8	40					A	5	+	0.48
50	SM90-050A22AN08-Z07	○	/	22	8	40					A	7	+	0.48
63	SM90-063A22AN08-Z07	●	/	22	8	40					A	7	+	0.58
63	SM90-063A22AN08-Z10	○	/	22	8	40					A	10	+	0.59
80	SM90-080B27AN08-Z09	●	/	27	8	50					B	9	+	0.99
80	SM90-080B27AN08-Z13	○	/	27	8	50					B	13	+	0.86
40	SM90-040A16AN11-Z04	○	/	16	11	40					A	4	+	0.38
40	SM90-040A16AN11-Z05	○	/	16	11	40					A	5	+	0.38
50	SM90-050A22AN11-Z05	●	/	22	11	40					A	5	+	0.54
50	SM90-050A22AN11-Z06	○	/	22	11	40					A	6	+	0.59
63	SM90-063A22AN11-Z04	○	/	22	11	40					A	4	+	0.72
63	SM90-063A22AN11-Z06	●	/	22	11	40					A	6	+	0.72
63	SM90-063A22AN11-Z08	○	/	22	11	40					A	8	+	0.68
80	SM90-080A27AN11-Z05	○	/	27	11	50					A	5	+	0.94
80	SM90-080A27AN11-Z07	●	/	27	11	50					A	7	+	0.96
80	SM90-080A27AN11-Z10	○	/	27	11	50					A	10	+	0.99
100	SM90-100A32AN11-Z07	○	/	32	11	50					A	7	+	1.77
100	SM90-100A32AN11-Z09	●	/	32	11	50					A	9	+	1.73
100	SM90-100A32AN11-Z13	○	/	32	11	50					A	3	+	1.57
125	SM90-125B40AN11-Z09	○	/	40	11	63					B	9		2.71
125	SM90-125B40AN11-Z11	●	/	40	11	63					B	11		2.70
125	SM90-125B40AN11-Z16	○	/	40	11	63					B	16		2.74
160	SM90-160C40AN11-Z09	○	/	40	11	63					C	9		5.00
160	SM90-160C40AN11-Z13	○	/	40	11	63					C	13		5.00

● 常备库存In stock ○按订单生产Make to order

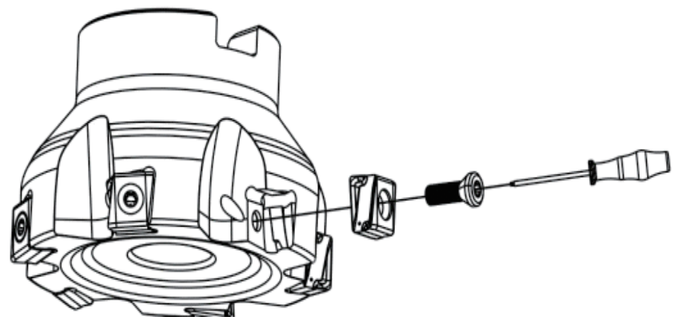
方肩铣刀SM90-AN刀片
Square Shoulder Mill SM90-AN Insert





刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M				K			N		S			
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM4120	BM2210	BM2220	BM4120	BM4130	BM3210	BM2220	BM4120	BM5210	BM5220	BM4210	BM4120	BM4130	BM4230
	ANGX080404-PL	8.39	7.73	4.3	3.3	0.8				☆	★		☆	★			☆	★					☆	★
	ANGX110708-PM	11.5	11.76	7.11	4.5	0.8				☆	★		☆	★			☆	★					☆	★
	ANGX110712-PM	11.5	11.76	7.11	4.5	1.2				☆	★		☆	★			☆	★					☆	★

首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸/Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
08	20-80	S01-030085	D01-109
11	40-160	S01-040121	D01-115

方肩铣刀SM90-ZN
Square Shoulder Mill SM90-ZN

六刃方肩铣刀
6 edges shoulder milling cutter
最具经济性的90°铣刀
Most economical milling cutter
适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工
Suitable for machining steel,stainless steel,heat resitant alloy,cast iron materials
广泛应用于航空航天、汽车零部件、能源、模具、通用机械等领域
Widely used in aerospace,automotive components,energy,die and mould,general engineering industries



M

刀片槽型

M 槽型：通用槽型
M geometry: general purpose geometry
AL槽型，铝合金专用
AL geometry: only for aluminum



直径范围：40mm
Diameter range：40mm



直径范围：25-40mm
Diameter range：25-40mm



面铣
Face milling



方肩铣
Square shoulder milling

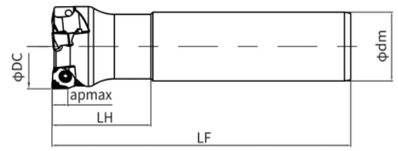
刀片进给切削参数推荐 Feed recommendations

刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
08 (r=0.8)	M	0.10	0.08	0.15
08 (r=0.8)	AL	0.15	0.08	0.30

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

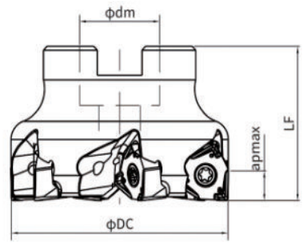
方肩铣刀SM90-ZN
Square Shoulder Mill SM90-ZN





直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
40	SM90-040E32ZN08-Z03	●	/	32	7	120	45				E	3	+	1.25
40	SM90-040E32ZN08-Z04	○	/	32	7	120	45				E	4	+	1.20

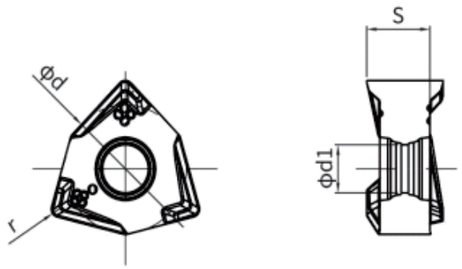




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
50	SM90-050A22ZN08-Z04	●	/	22	7	40					A	4	+	0.48
50	SM90-050A22ZN08-Z05	○	/	22	7	40					A	5	+	0.48
63	SM90-063A22ZN08-Z04	●	/	22	7	40					A	4	+	0.58
63	SM90-063A22ZN08-Z06	○	/	22	7	40					A	6	+	0.58
63	SM90-063A22ZN08-Z07	○	/	22	7	40					A	7	+	0.58
80	SM90-080A27ZN08-Z05	●	/	27	7	50					A	5	+	0.99
80	SM90-080A27ZN08-Z07	○	/	27	7	50					A	7	+	0.90
80	SM90-080A27ZN08-Z09	○	/	27	7	50					A	9	+	0.86
100	SM90-100A32ZN08-Z06	○	/	32	7	50					A	6	+	1.77
100	SM90-100A32ZN08-Z08	●	/	32	7	50					A	8	+	1.73
100	SM90-100A32ZN08-Z11	○	/	32	7	50					A	11	+	1.70
125	SM90-125B40ZN08-Z07	○	/	40	7	63					B	7		2.71
125	SM90-125B40ZN08-Z11	●	/	40	7	63					B	11		2.66
125	SM90-125B40ZN08-Z13	○	/	40	7	63					B	13		2.60
160	SM90-160C40ZN08-Z08	○	/	40	7	63					C	8		5.00
160	SM90-160C40ZN08-Z12	●	/	40	7	63					C	12		5.00
200	SM90-200C60ZN08-Z14	○	/	60	7	63					C	14		6.70
250	SM90-250C60ZN08-Z16	○	/	60	7	63					C	16		8.50

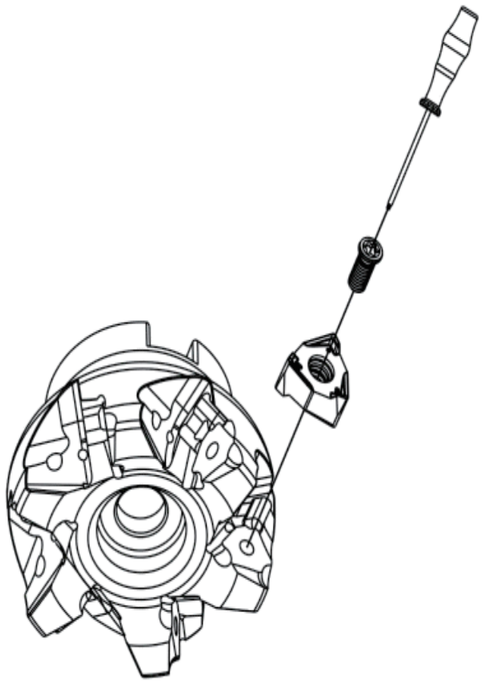
● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-ZN刀片
Square Shoulder Mill SM90-ZN Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M			K			N		S			
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM2230	BM2210	BM2220	BM4120	BM3210	BM2220	BM3230	BM5210	BM5220	BM4210	BM4220	BM4130	BM4230
	ZNMX080608R-M	14.02	6.65	4.7	0.8	1.3			★	★			★	☆	☆	☆	★						
	ZNGX080608R-M	14.02	6.65	4.7	0.8	1.3			★	★			★	☆	☆	☆	★						
	ZNGX080608R-AL	14.02	6.65	4.7	0.8	1.3													★				

首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸/Insert size	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
08	S01-040121	D01-115

方肩铣刀SM90-SD
Square Shoulder Mill SM90-SD

四刃方肩铣刀
4 edges shoulder milling cutter
专用于铝合金材料的加工，加工精度高，粗糙度好
Only for aluminum materails, high precision, high surface quality



AL

刀片槽型

LHC 槽型：轻型加工，高表面质量
LHC geometry: light cutting,high precision and surface finish



直径范围：50-200mm
Diameter range：50-200mm


面铣
Face milling

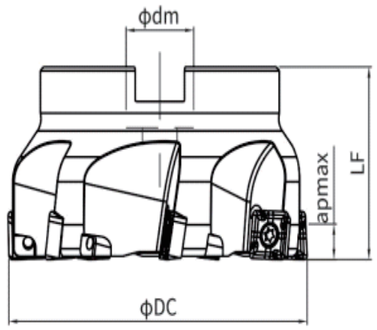

方肩铣
Square shoulder milling

刀片进给切削参数推荐 Feed recommendations

刀片尺寸 Insert size	刀片槽形 Geometry	推荐每齿进给(mm) Rec. Fz	最小每齿进给(mm) Min. Fz	最大每齿进给(mm) Max. Fz
11 (r=0.8)	LHC	0.08	0.06	0.12
17 (r=1.0)	LHC	0.10	0.08	0.15

方肩铣刀SM90-SD
Square Shoulder Mill SM90-SD

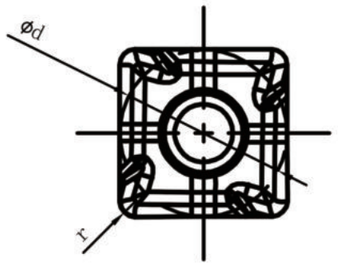


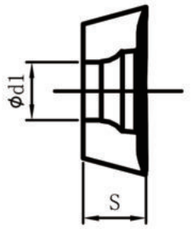


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
50	SM90-050A22SD12-Z03	○	/	22	9.2	40					A	3	+	0.30
50	SM90-050A22SD12-Z04	○	/	22	9.2	40					A	4	+	0.30
63	SM90-063A22SD12-Z04	○	/	22	9.2	40					A	4	+	0.50
63	SM90-063A27SD12-Z05	○	/	27	9.2	40					A	5	+	0.50
80	SM90-080A27SD12-Z05	○	/	27	9.2	50					A	5	+	1.00
80	SM90-080A27SD12-Z06	○	/	27	9.2	50					A	6	+	1.00
100	SM90-100A32SD12-Z06	○	/	32	9.2	50					A	6	+	1.60
100	SM90-100A32SD12-Z08	○	/	32	9.2	50					A	8	+	1.70
125	SM90-125B40SD12-Z07	○	/	40	9.2	63					B	7		2.80
125	SM90-125B40SD12-Z10	○	/	40	9.2	63					B	10		2.90
160	SM90-160C40SD12-Z08	○	/	40	9.2	63					C	8		4.30
160	SM90-160C40SD12-Z12	○	/	40	9.2	63					C	12		4.40
200	SM90-200C60SD12-Z11	○	/	60	9.2	63					C	11		6.80
200	SM90-200C60SD12-Z14	○	/	60	9.2	63					C	14		6.83

● 常备库存In stock ○按订单生产Make to order

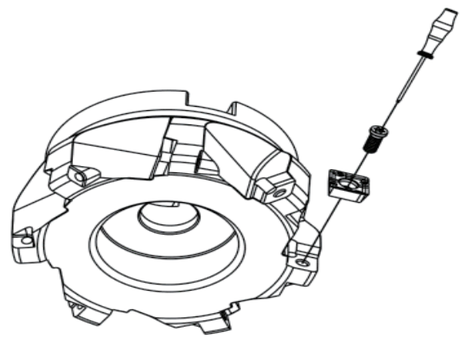
方肩铣刀SM90-SD 刀片
Square Shoulder Mill SM90-SD Insert





刀片外形	型号 Type	基本尺寸 Dimension（mm）						N	
		d	s	d1	r	bs		BM5210	BM5220
	SDGT120408PDER-AL	12.7	4.76	4.4	0.8				★
	SDGT120412PDER-AL	12.7	4.76	4.4	1.2				★

首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
12	40-250	S01-040110	D01-115

方肩铣刀SM90-AD
Square Shoulder Mill SM90-AD

两刃方肩铣刀
2 edges shoulder milling cutter
高性能铝合金铣刀，精磨刀片
High performance mills for aluminum materails，fine grinding inserts
多种圆角刀片，满足多种需求，大圆角刀片可用于快进给铣削
Various insert radius to meet customer needs, big radius insert can be used to high feed milling
前刀面镜面处理，出屑流畅，减少积屑瘤
Mirror polishing to rake face, best chip flow, decrease possibility of BUE
刃口大前角设计，降低切削负载，提高加工品质
Big rake angle design, decrease cutting force, promote machining quality

刀片槽型

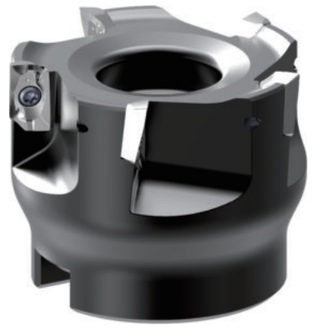
AL 槽型：轻型加工，高表面质量
AL geometry: light cutting,high precision and surface finish



直径范围：20-32mm
Diameter range：20-32mm



直径范围：25-40mm
Diameter range：25-40mm



直径范围：40-160mm
Diameter range：40-160mm



面铣
Face milling



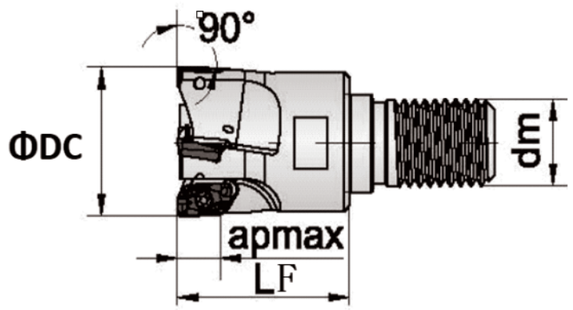
方肩铣
Square shoulder milling

方肩铣刀SM90-AD
Square Shoulder Mill SM90-AD

刀片进给切削参数推荐 Feed recommendations

刀片尺寸 Insert size	刀片槽形 Geometry	推荐每齿进给(mm) Rec. Fz	最小每齿进给(mm) Min. Fz	最大每齿进给(mm) Max. Fz
11 (r=0.2)	AL	0.08	0.05	0.16
11 (r=0.4)	AL	0.12	0.06	0.24
11 (r=0.8)	AL	0.14	0.07	0.28
11 (r=2.0)	AL	0.16	0.08	0.32
11 (r=3.0)	AL	0.20	0.10	0.40
15 (r=0.8)	AL	0.14	0.12	0.28
15 (r=1.2)	AL	0.16	0.08	0.32
19 (r=0.4)	AL	0.12	0.06	0.24
19 (r=0.8)	AL	0.14	0.07	0.28
19 (r=1.2)	AL	0.16	0.08	0.32
19 (r=2.0)	AL	0.16	0.08	0.32
19 (r=2.4)	AL	0.18	0.10	0.33
19 (r=3.0)	AL	0.20	0.10	0.35
19 (r=3.2)	AL	0.25	0.12	0.35



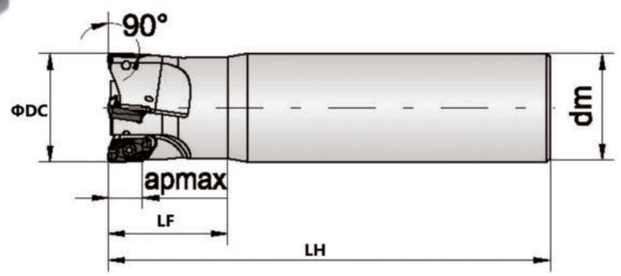


直径 Dc	型号	库存状态	尺寸(mm) DC2	dm	apmax	LF					接口类型	齿数 (Z)	内冷状态	重量 (kg)
16	SM90-016M08AD11-Z02	●	/	M8	10	25					M	2	+	0.35
20	SM90-020M10AD11-Z03	●	/	M10	10	30					M	3	+	0.50
25	SM90-025M12AD11-Z04	●	/	M12	10	35					M	4	+	0.75
32	SM90-032M16AD11-Z05	●	/	M16	10	43					M	5	+	0.80
25	SM90-025M12AD15-Z02	●	/	M12	13	45					M	2	+	0.50
32	SM90-032M16AD15-Z02	●	/	M16	13	52					M	2	+	0.75
40	SM90-040M16AD15-Z03	●	/	M16	13	52					M	3	+	0.80

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AD
Square Shoulder Mill SM90-AD

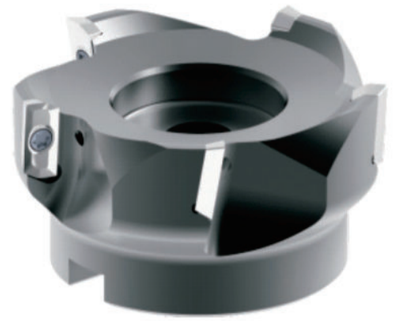


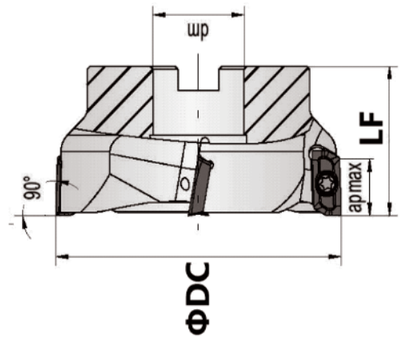


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF	LH							
16	SM90-016R16AD11-Z02	●	/	16	10	32	165				R	2	+	0.38
20	SM90-020R20AD11-Z03	○	/	20	10	40	165				R	3	+	0.50
25	SM90-025R25AD11-Z04	●	/	25	10	50	225				R	4	+	0.38
32	SM90-032R32AD11-Z05	○	/	32	10	50	225				R	5	+	0.54
40	SM90-040R16AD11-Z05	●	/	16	10	/	40				R	5	+	0.54
50	SM90-050R22AD11-Z06	○	/	22	10	/	40				R	6	+	1.45
25	SM90-025R25AD15-Z02	●	/	25	13	40	100				R	2	+	0.38
32	SM90-032R32AD15-Z02	○	/	32	13	40	110				R	2	+	0.54
40	SM90-040R32AD15-Z03	○	/	32	13	40	110				R	3	+	0.54
25	SM90-025R25AD19-Z02	●	/	25	18	45	125				R	2	+	0.38
32	SM90-032R32AD19-Z03	○	/	32	18	5	125				R	3	+	0.54

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AD
Square Shoulder Mill SM90-AD



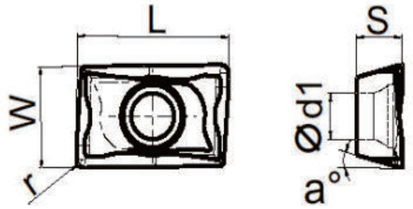


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	ae	LF							
40	SM90-040A16AD11-Z05	○	/	16	10	/	40				A	5	+	0.30
50	SM90-050A22AD11-Z06	○	/	22	10	/	40				A	6	+	0.40
40	SM90-040A16AD15-Z04	○	/	16	13	/	40				A	4	+	0.30
50	SM90-050A22AD15-Z05	○	/	22	13	/	40				A	5	+	0.40
63	SM90-063A22AD15-Z06	○	/	22	13	/	40				A	6	+	0.60
80	SM90-080A27AD15-Z07	○	/	27	13	/	50				A	7	+	0.80
100	SM90-100A32AD15-Z08	○	/	32	13	/	50				A	8	+	1.60
125	SM90-125A40AD15-Z10	○	/	40	13	/	63				A	10	+	1.70
40	SM90-040A16AD19-Z03	○	/	16	18	/	50				A	3	+	0.30
50	SM90-050A22AD19-Z04	○	/	22	18	/	50				A	4	+	0.40
63	SM90-063A22AD19-Z05	○	/	22	18	/	50				A	5	+	0.60
80	SM90-080A27AD19-Z05	○	/	27	18	/	50				A	5	+	0.80
100	SM90-100A32AD19-Z05	○	/	32	18	/	50				A	5	+	1.60
125	SM90-125A40AD19-Z06	○	/	40	18	/	63				A	6	+	1.70

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-AD Insert

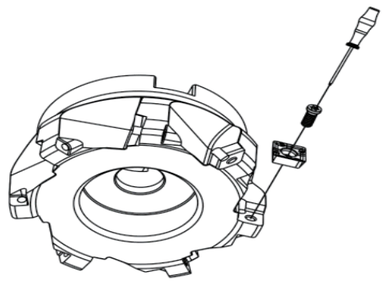
Square Shoulder Mill SM90-AD Insert



刀片外形	型号 Type	基本尺寸 Dimension（mm）						N	
		l	w	s	d1	r		BM5210	BM5220
	ADGT113502FR-AL	12.58	6.60	3.55	2.80	0.20			★
	ADGT113504FR-AL	12.58	6.60	3.55	2.80	0.40			★
	ADGT113508FR-AL	12.58	6.60	3.55	2.80	0.80			★
	ADGT113520FR-AL	12.58	6.60	3.55	2.80	2.00			★
	ADGT113530FR-AL	12.58	6.60	3.55	2.80	3.00			★
	ADGT150408PDFR-AL	15.60	9.70	3.55	2.80	0.80			★
	ADGT150412PDFR-AL	15.60	9.70	3.55	2.80	1.20			★
	ADGT190404FR-AL	22.10	9.52	4.76	4.70	0.40			★
	ADGT190408FR-AL	22.10	9.52	4.76	4.70	0.80			★
	ADGT190412FR-AL	22.10	9.52	4.76	4.70	1.20			★
	ADGT190420FR-AL	22.10	9.52	4.76	4.70	2.00			★
	ADGT190424FR-AL	22.10	9.52	4.76	4.70	2.40			★
	ADGT190430FR-AL	22.10	9.52	4.76	4.70	3.00			★
	ADGT190432FR-AL	22.10	9.52	4.76	4.70	3.20			★

首选★ 备选☆

First choice ★ Second choice☆



配件/SPARE PARTS

刀片尺寸/Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
11	16-50	S025L06S	WT07-F
15	25-125	S035L08T	T15-F
19	25-125	S040L09T	T15-F

方肩铣刀SM90-XP

Square Shoulder Mill SM90-XP

铝合金专用两刃方肩铣刀

2 edges shoulder milling cutter for aluminum

高性能铝合金铣刀，精磨刀片

High performance mills for aluminum materails，fine grinding inserts

多种圆角刀片，满足多种需求，大圆角刀片可用于快进给铣削

可用于面铣，插铣，坡走铣等

Can be used to face milling, plunge milling, ramp milling, etc

刃口大前角设计，降低切削负载，提高加工品质

Big rake angle design, decrease cutting force, promote machining quality

刀片槽型

AL 槽型：轻型加工，高表面质量

AL geometry: light cutting,high precision and surface finish



AL



直径范围：50-200mm

Diameter range：50-200mm



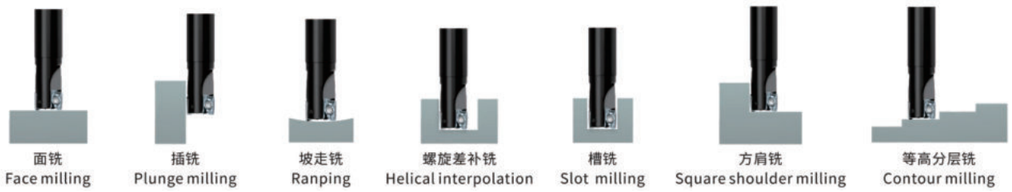
直径范围：50-200mm

Diameter range：50-200mm



直径范围：50-200mm

Diameter range：50-200mm

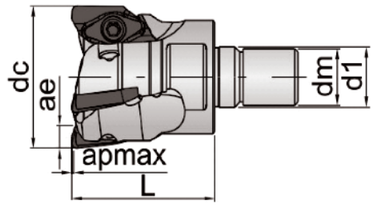


刀片进给切削参数推荐 Feed recommendations

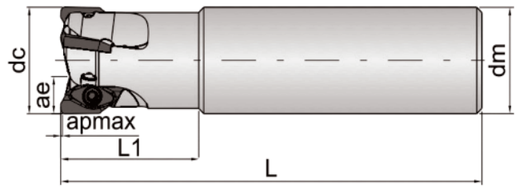
刀片尺寸	刀片槽形	推荐每齿进给(mm)	最小每齿进给(mm)	最大每齿进给(mm)
Insert size	Geometry	Rec. Fz	Min. Fz	Max. Fz
16 (r=0.4)	AL	0.12	0.06	0.24
16 (r=0.8)	AL	0.14	0.07	0.28
16 (r=1.2)	AL	0.16	0.08	0.32
16 (r=1.6)	AL	0.16	0.08	0.32
16 (r=2.0)	AL	0.18	0.10	0.33
16 (r=2.4)	AL	0.20	0.10	0.35
16 (r=3.0)	AL	0.25	0.12	0.35

方肩铣刀SM90-XP
Square Shoulder Mill SM90-XP





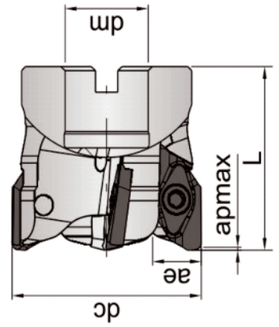


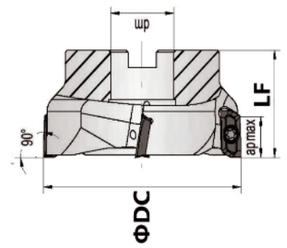


直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	ae	LF	LH						
25	SM90-025M12XP16-Z02	●	/	M12	15	/	45	/			M	2	+	0.25
30	SM90-030M16XP16-Z02	●	/	M16	15	/	52	/			M	2	+	0.32
32	SM90-032M16XP16-Z02	●	/	M16	15	/	52	/			M	2	+	0.32
40	SM90-040M16XP16-Z03	●	/	M16	15	/	52	/			M	3	+	0.40
25	SM90-032R25XP16-Z02	●	/	25	15	/	40	100			R	2	+	0.52
32	SM90-040R32XP16-Z02	●	/	32	15	/	40	110			R	2	+	0.67
40	SM90-040R32XP16-Z03	●	/	40	15	/	40	110			R	3	+	0.82

方肩铣刀SM90-XP
Square Shoulder Mill SM90-XP



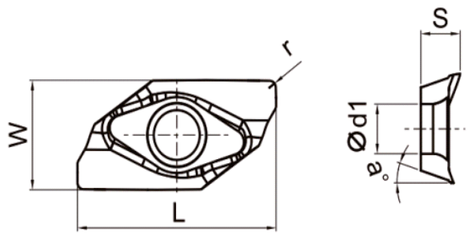




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	ae	LF							
50	SM90-050A22XP16-Z04	○	/	22	15	/	40				A	4	+	0.40
63	SM90-063A22XP16-Z05	○	/	22	15	/	40				A	5	+	0.60

● 常备库存In stock ○按订单生产Make to order

方肩铣刀SM90-XP刀片
Square Shoulder Mill SM90-XP Insert



刀片外形	型号 Type	基本尺寸 Dimension（mm）						N	
		l	w	s	d1	r		BM5210	BM5220
	XPCT160404-AL	25.00	12.90	4.80	5.90	0.40			★
	XPCT160408-AL	25.00	12.90	4.80	5.90	0.80			★
	XPCT160412-AL	25.00	12.90	4.80	5.90	1.20			★
	XPCT160416-AL	25.00	12.90	4.80	5.90	1.60			★
	XPCT160420-AL	25.00	12.90	4.80	5.90	2.00			★
	XPCT160424-AL	25.00	12.90	4.80	5.90	2.40			★
	XPCT160430-AL	25.00	12.90	4.80	5.90	3.00			★

首选★ 备选☆
First choice ★ Second choice☆

配件/SPARE PARTS

刀片尺寸/Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
16	25-63	S050L12S	WT-20T

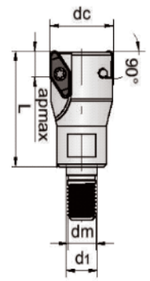
方肩铣刀SM90-VC
Square Shoulder Mill SM90-VC

两刃方肩铣刀
2 edges shoulder milling cutter
高性能铝合金铣刀，精磨刀片
High performance mills for aluminum materails，fine grinding inserts
大圆角刀片可用于快进给铣削
适合于型腔开粗快速铣削去除余量
Suitable for pocket rough milling,high MRR
Mirror polishing to rake face, best chip flow, decrease possibility of BUE
刃口大前角设计，降低切削负载，提高加工品质
Big rake angle design, decrease cutting force, promote machining quality
铝合金加工专用铣刀
Aluminum milling

刀片槽型


AL

AL 槽型：轻型加工，高表面质量
AL geometry: light cutting,high precision and surface finish



直径范围：50-200mm
Diameter range：50-200mm


直径范围：50-200mm
Diameter range：50-200mm


直径范围：50-200mm
Diameter range：50-200mm



刀片进给切削参数推荐 Feed recommendations

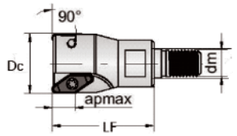
刀片尺寸 Insert size	刀片槽形 Geometry	推荐每齿进给(mm) Rec. Fz	最小每齿进给(mm) Min. Fz	最大每齿进给(mm) Max. Fz
22 (r=3.0)	AL			

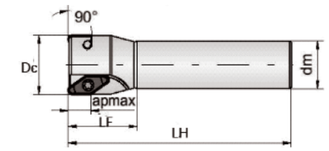
方肩铣刀SM90-VC

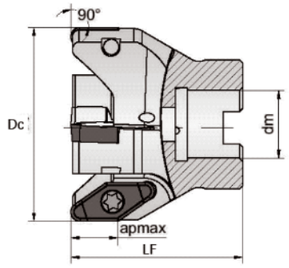
Square Shoulder Mill SM90-VC







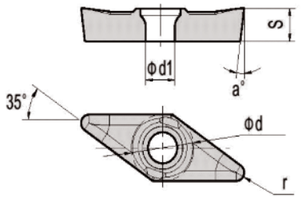




直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	ae	LF	LH						
32	SM90-032M16VC22-Z02	●	/	M16	16	/	43	/			M	2	+	0.75
40	SM90-040M16VC22-Z03	●	/	M16	16	/	43	/			M	3	+	0.80
32	SM90-032R25VC22-Z02	●	/	25	16	/	45	120			R	2	+	0.54
40	SM90-040R32VC22-Z03	●	/	32	16	/	45	120			R	3	+	0.54
50	SM90-050A22VC22-Z03	●	/	22	18	/	56	/			A	3	+	0.40
63	SM90-063A22VC22-Z04	●	/	22	18	/	56	/			A	4	+	0.60
80	SM90-080A27VC22-Z05	●	/	27	18	/	56	/			A	5	+	0.80

首选★ 备选☆

First choice ★ Second choice☆



刀片外形	型号 Type	基本尺寸 Dimension（mm）						N	
		d	w	s	d1	r		BM5210	BM5220
	VCGT220530E-AL	12.70		5.56	5.50	3.00			★

首选★ 备选☆

First choice ★ Second choice☆

配件/SPARE PARTS

刀片尺寸/Insert size	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
16	25-63	S050L12S	WT-20T

仿形铣刀PM00-RP

Profile Mill PM00-RP

加工精度和多用途性

Precision and versatility

面铣, 旋插补铣镗孔，仿形铣

face milling, helical interpolation，profiling

刀片槽型

MV 槽型：精磨刀片，轻型加工，高精度高表面质量要求首选

MV geometry: fine grinding insert， first choice for light cutting,high precision and surface finish request



MV



直径范围：20-50mm

Diameter range：20-50mm



直径范围：40-160mm

Diameter range：40-160mm



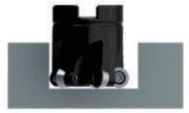
面铣

Face milling



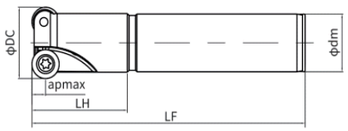
仿行铣

Profile milling



螺旋差补铣

Helical interpolation

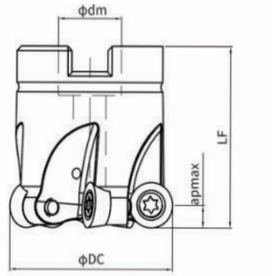


直径(mm) Diameter	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
DC			Dc2	dm	apmax	LF	LH							
20	PM00-020R20RP08-Z02	●	/	20	4	120	35				R	2	+	0.20
25	PM00-025R20RP08-Z03	○	/	20	4	120	35				R	3	+	0.30
32	PM00-032R25RP08-Z04	○	/	25	4	120	35				R	4	+	0.35
25	PM00-025R20RP10-Z02	●	/	20	5	100	35				R	2	+	0.20
32	PM00-032R25RP10-Z02	●	/	25	5	120	40				R	2	+	0.50
40	PM00-040R32RP10-Z03	○	/	32	5	120	40				R	3	+	0.70
50	PM00-050R32RP10-Z03	○	/	32	5	120	40				R	3	+	0.80
32	PM00-032R25RP12-Z02	○	/	25	6	135	40				R	2	+	0.90
40	PM00-040R32RP12-Z02	○	/	32	6	150	40				R	2	+	1.00
50	PM00-050R32RP12-Z03	○	/	32	6	150	40				R	3	+	1.10

● 常备库存In stock ○按订单生产Make to order

仿形铣刀PM00-RP
Profile Mill PM00-RP

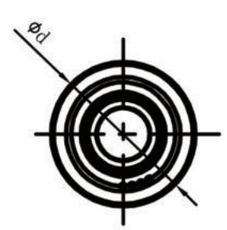


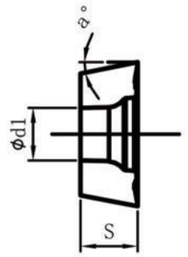


直径(mm) Diameter	型号	库存状态	尺寸(mm)								接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF								
40	PM00-040A16RP08-Z05	○	/	16	4	40					A	5	+	0.44
50	PM00-050A22RP08-Z05	○	/	22	4	40					A	5	+	0.87
63	PM00-063A22RP08-Z06	○	/	22	4	40					A	6	+	0.60
80	PM00-080A27RP08-Z07	○	/	27	4	50					B	7	+	1.40
100	PM00-100A32RP08-Z08	○	/	32	4	50					B	8	+	1.90
125	PM00-125B40RP08-Z10	○	/	40	4	63					B	10	+	3.20
160	PM00-160C40RP08-Z12	○	/	40	4	63					C	12	+	5.90
40	PM00-040A16RP10-Z05	○	/	16	5	40					A	5	+	0.44
50	PM00-050A22RP10-Z05	●	/	22	5	40					A	5	+	0.87
63	PM00-063A22RP10-Z06	●	/	22	5	40					A	6	+	0.60
80	PM00-080B27RP10-Z07	●	/	27	5	50					A	7	+	1.40
100	PM00-100B32RP10-Z08	○	/	32	5	50					A	8	+	1.90
125	PM00-125B40RP10-Z10	○	/	40	5	63					B	10		3.20
160	PM00-160C40RP10-Z12	○	/	40	5	63					C	12		5.90
50	PM00-050A22RP12-Z04	○	/	22	6	45					A	4	+	0.40
63	PM00-063A22RP12-Z04	○	/	22	6	45					A	4	+	0.60
80	PM00-080A27RP12-Z05	○	/	27	6	50					A	5	+	1.10
100	PM00-100A32RP12-Z06	○	/	32	6	50					A	6	+	1.80
125	PM00-125B40RP12-Z07	○	/	40	6	63					B	7		3.70
160	PM00-160C40RP12-Z08	○	/	40	6	63					C	8		4.90

● 常备库存In stock ○按订单生产Make to order

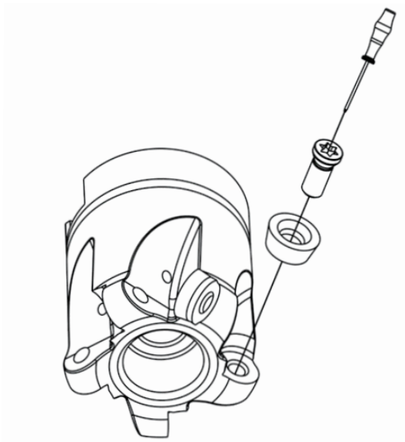
仿形铣刀PM00-RP 刀片
Profile Mill PM00-RP Insert





刀片 Insert	型号 Type	基本尺寸 Dimension (mm)						P				M			K			N	S			
		d	s	d1	r	bs		BM6220	BM6230	BM2220	BM2230	BM2210	BM4130	BM4230	BM3210	BM2220	BM3230	BM5210	BM5220	BM4210	BM4220	BM4130	BM4230
	RPMT0803MOE-M	8	3.18	3.4	11°								★	★								★	★
	RPMT10T3MOE-M	10	3.97	4.4	11°								★	★								★	★
	RPMT1204MOE-M	12	4.76	4.4	11°								★	★								★	★
	RPGT10T3MO-AL	10	3.97	4.4	11°													★					
	RPGT1204MO-AL	12	4.76	4.4	11°													★					

首选★ 备选☆
First choice ★ Second choice☆



配件/SPARE PARTS

刀片/Insert	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
8	20-160	S01-030085	D01-109
10	25-160	S01-040110	D01-115
12	32-160	S01-040110	D01-115

仿形铣刀PM00-XO
Profile Mill PM00-XO

加工精度和多用途性
Precision and versatility
面铣, 旋插补铣镗孔，仿形铣
face milling, helical interpolation，profiling
内冷设计
Internal coolant supply

刀片槽型

MM 槽型：精磨刀片，中等加工，粗加工仿形首选
MM geometry: fine grinding insert，first choice for rough profiling on medium feedrate



MM



直径范围：20-50mm
Diameter range：20-50mm



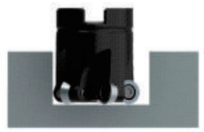
直径范围：40-160mm
Diameter range：40-160mm



面铣
Face milling



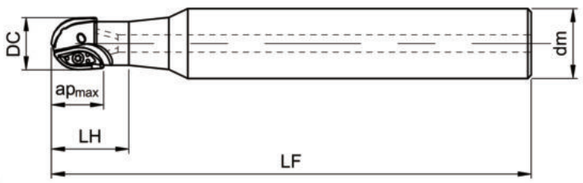
仿行铣
Profile milling



螺旋差补铣
Helical interpolation

仿形铣刀PM00-XO
Profile Mill PM00-XO

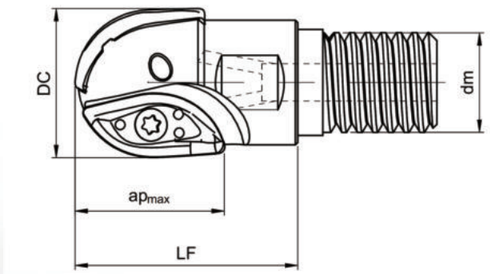




直径(mm) Diameter	型号	库存状态	尺寸(mm)								接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF	LH							
12	PM00-012R16XO12-Z02	●	/	12	10	160	25				R	2	+	0.30
16	PM00-016R16XO15-Z02	●	/	16	14	120	36				R	2	+	0.30
16	PM00-016R20XO15-Z02	●	/	20	14	165	49				R	2	+	0.50
20	PM00-020R25XO19-Z02	●	/	25	18	176	54				R	2	+	0.50

● 常备库存In stock ○按订单生产Make to order



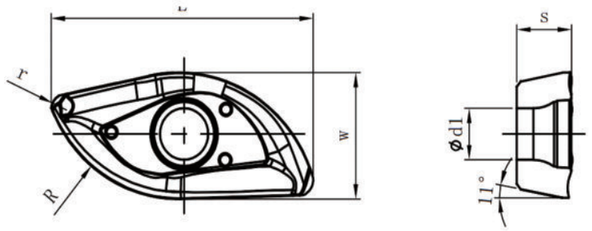


直径(mm) Diameter	型号	库存状态	尺寸(mm)								接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF								
12	PM00-012M06XO12-Z02	●	/	M6	10	20					M	2	+	0.10
12	PM00-012R16XO12-Z02	●	/	M8	10	23					M	2	+	0.10
16	PM00-016R16XO15-Z02	●	/	M8	14	23					M	2	+	0.10
16	PM00-016R16XO15-Z02	●	/	M10	14	28					M	2	+	0.10
20	PM00-020R25XO19-Z02	●	/	M10	18	28					M	2	+	0.10
20	PM00-020R25XO19-Z02	●	/	M12	18	35					M	2	+	0.20

● 常备库存In stock ○按订单生产Make to order

仿形铣刀PM00-XO 刀片

Profile Mill PM00-XO Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P				M			K			N		S			
		L	W	d1	s	R	r		BM6220	BM6230	BM2220	BM4130	BM2210	BM4130	BM4230	BM3210	BM2220	BM3230	BM5210	BM5220	BM4210	BM4220	BM4130	BM4230
	XOMT1202R6-MM	11.47	5.18	2	2.38	6	0.5					★		★									★	,
	XOMT1503R8-MM	15.1	6.83	2.8	3.18	8	0.8					★		★									★	,
	XOMT19T3R10-MM	19.04	8.59	3.5	3.97	10	1					★		★									★	,
																								,

首选★ 备选☆

First choice ★ Second choice☆

配件/SPARE PARTS

刀片大小	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
12	12	S01805-T06P	T06P
15	16	S02506-T08P	T08P
19	20	S03007-T09P	T09P

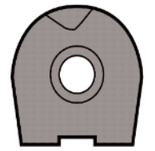
仿形铣刀PM00-RO

Profile Mill PM00-RO

仿形精铣刀
Finish profiling mill
高速切削
High speed milling

刀片槽型

L 槽型：精磨刀片，轻型，仿形精加工首选
L geometry: fine grinding insert, light geometry, first choice for finish profiling





直径范围：20-50mm
Diameter range: 20-50mm



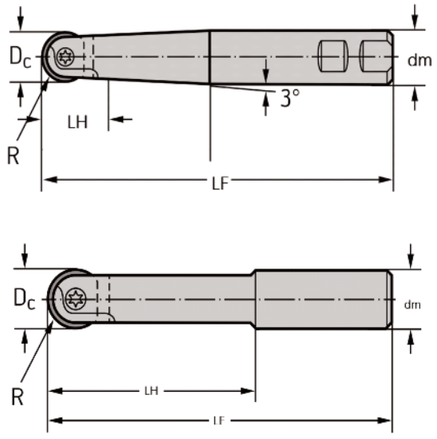
直径范围：40-160mm
Diameter range: 40-160mm



仿行铣
Profile milling

仿形铣刀PM00-RO
Profile Mill PM00-RO



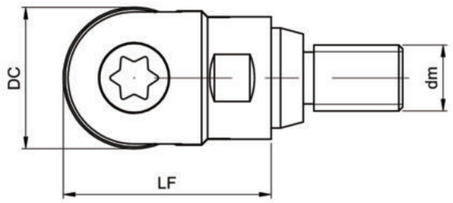


直径(mm) Diameter	型号	库存状态	尺寸(mm)								接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF	LH							
10	PM00-010E12RO10-Z01	●	/	12	/	150	15				E	1	-	0.13
12	PM00-012E16RO12-Z01	●	/	16	/	160	20				E	1	-	0.22
16	PM00-016E20RO16-Z01	●	/	20	/	175	26				E	1	-	0.38
20	PM00-020E25RO25-Z01	●	/	25	/	190	18				E	1	-	0.64
														1
10	PM00-010R10RO10-Z01	●	/	10	/	80	30				R	1	-	0.08
10	PM00-010R10RO10L-Z01	●	/	10	/	120	70				R	1	-	0.12
12	PM00-012R12RO12-Z01	●	/	12	/	90	32				R	1	-	0.13
12	PM00-012R12RO12-Z01	●	/	12	/	145	87				R	1	-	0.21
16	PM00-016R16RO16-Z01	●	/	16	/	110	43				R	1	-	0.27
16	PM00-016R16RO16L-Z01	●	/	16	/	195	128				R	1	-	0.45
20	PM00-020R20RO25-Z01	●	/	20	/	130	47				R	1	-	0.49
20	PM00-020R20RO25L-Z01	●	/	20	/	240	157				R	1	-	0.92

● 常备库存In stock ○按订单生产Make to order

仿形铣刀PM00-RO
Profile Mill PM00-RO





直径(mm) Diameter	型号	库存状态	尺寸(mm)								接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF								
10	PM00-010M06RO10-Z01	●	/	M4	/	25					M	1	+	0.10
12	PM00-012M12RO12-Z01	●	/	M6	/	25					M	1	+	0.10
16	PM00-016M10RO16-Z01	●	/	M8	/	25					M	1	+	0.10
20	PM00-020M12RO20-Z01	●	/	M10	/	30					M	1	+	0.10

● 常备库存In stock ○按订单生产Make to order

仿形铣刀PM00-RO 刀片
Profile Mill PM00-RO insert

刀片外形	型号 Type	基本尺寸 Dimension（mm）							P	M	K	N	S	H
		Dc	R						BM2100	BM2100	BM2100	BM2100	BM2100	BM2100
	ROHT1025-L	10	5						★	★	★	☆	☆	★
	ROHT1225-L	12	6						★	★	★	☆	☆	★
	ROHT1630-L	16	8						★	★	★	☆	☆	★
	ROHT2030-L	20	10											

首选★ 备选☆
First choice ★ Second choice☆

配件/SPARE PARTS

刀片/Insert	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
10	10	RO10-S390	T15
12	12	RO12-S391	T20
16	16	RO16-S392	T20
20	20	RO20-S393	T20

倒角铣刀
Chamfer Mill

CM-SD & CM-TC系列倒角铣刀
CM-SD & CM-TC series chamfering mill
应用于各类倒角加工
For viarous chamfering application
15° 30° 45° 60° 倒角，满足客户各种需求
15°,30°,45°, 60°, for different chamfering needs
长切削刃扩大倒角加工范围
Long cutting edge for short and big chamfering

刀片槽型

M 槽型：中等进口，通用倒角刀片
M geometry: Medium feedrate, general insert for chamfering



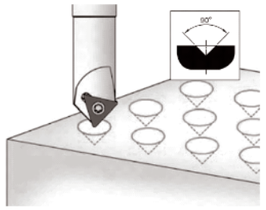
M



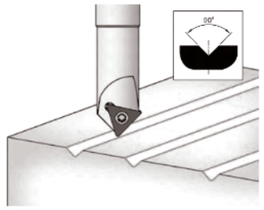
直径范围：20-50mm
Diameter range: 20-50mm



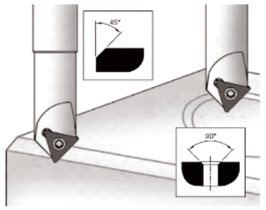
直径范围：40-160mm
Diameter range: 40-160mm



定心



开槽



倒角

应用范围和推荐切削条件 Application and parameter recommendation

被加工件 Material	硬度（HrC）	定心、开槽		倒角	
		VC（m/min）	fz（mm/t）	VC（m/min）	fz（mm/t）
软钢，碳钢，合金钢 Steel	Under HRC 30	80-200	0.01-0.04	100-250	0.04-0.06
高碳钢、合金钢 High carbon steel	HRC 30-40	150-250	0.02-0.06	150-300	0.05-0.10
铝，铜 Aluminium		150-300	0.04-0.08	150-350	0.05-0.10
铸铁Cast iron		80-150	0.02-0.06	100-250	0.05-0.10
不锈钢 Stainless steel		60-120	0.01-0.03	60-150	0.03-0.06
耐热合金HRSA		60-80	0.01-0.03	60-100	0.03-0.06

倒角铣刀
Chamfer Mill



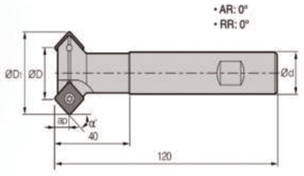


Fig. 1

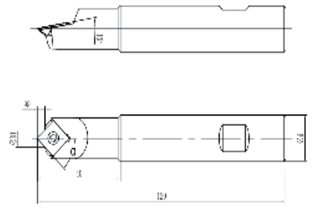


Fig. 2

直径(mm) Diameter	型号	库存状态	尺寸(mm)									接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF	LH	刀具形式 Type	前倒角角度 Forward chamfering angle	后倒角角度 Back chamfering angle	倒角范围 Chamfering range				
25	CM15-025W20SD11-Z02	●	30.5	20	9.5	40	120	1	15°	/	Ø25-Ø30	W	2	-	0.13
25	CM30-025W20SD11-Z02	●	35.5	20	8.5	40	120	1	30°	60°	Ø25-Ø35	W	2	-	0.15
7	CM45-007W20SD11-Z01	●	21.9	20	7	40	120	1	45°	/	Ø7-Ø21	W	1	-	0.15
19	CM45-019W20SD11-Z02	●	33.9	20	7	40	120	1	45°	45°	Ø19-Ø33	W	2	-	0.26
25	CM45-025W20SD11-Z03	●	39.9	20	7	40	120	1	45°	45°	Ø25-Ø39	W	3	-	0.25
25	CM60-025W32SD11-Z03	●	43.3	32	5	40	120	1	60°	30°	Ø25-Ø42	W	3	-	0.30
0	CM45-000W20SD11-Z01	●	7.5	20	3.5	40	120	2	45°	45°	Ø19-Ø33	W	1	-	0.32

● 常备库存In stock ○按订单生产Make to order



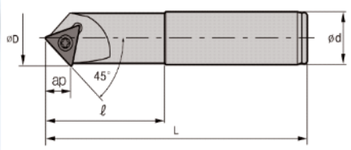


Fig. 1

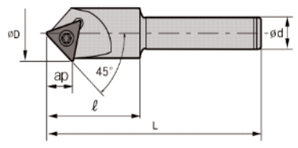
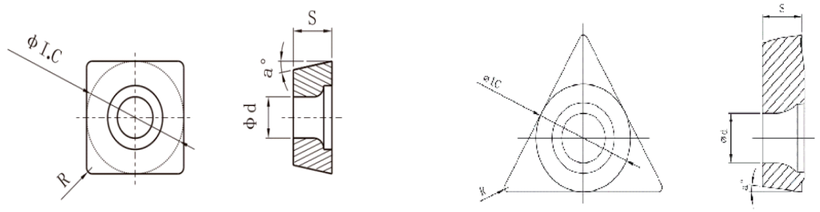


Fig. 2

直径(mm) Diameter	型号	库存状态	尺寸(mm)									接口类型	齿数(Z)	内冷状态	重量(kg)
DC			Dc2	dm	apmax	LF	LH	刀具形式 Type	前倒角角度 Forward chamfering angle	后倒角角度 Back chamfering angle	倒角范围 Chamfering range				
0	CM45-000R20TC16-Z01	●	22	12	10	40	90	2	15°	12-20	Ø0-Ø20	R	1	-	0.28
0	CM45-000R20TC16-Z01	●	22	12	10	50	110	1	30°	6-20	Ø0-Ø20	R	1	-	0.28
0	CM45-000R20TC16-Z01	●	22	20	10	60	200	1	45°	0-20	Ø0-Ø20	R	1	-	0.28

● 常备库存In stock ○按订单生产Make to order

倒角铣刀刀片
Chamfer Mill Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm) d	s	d1	r	bs			P BM2220	M BM2220	K BM2220	S BM2220	N BM2220	H BM2220
	SDMT11T3-M	10.94	3.97	4.4	0.8				★	★	★	★	★	★
	TCMT16T3-M	9.525	3.97	4.4	0.8				★	★	★	★	★	★

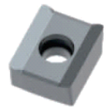
首选★ 备选☆
First choice ★ Second choice☆

配件/SPARE PARTS

刀片大小	刀具直径/Diameter	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
SD11	All	CM040	CM040-T15
TC16	All	CM040	CM040-T15

三面刃铣刀SF90-MN
Full side and face mill SF90-MN

加工精度和多用途性
Precision and versatility
多用途槽铣刀
Multi-purpose side and face mill
槽铣、背铣、切断，面铣、螺旋插补铣镗孔
Slot milling,back face milling, parting, face milling, helical interpolation boring


E-L


E-W

刀片槽型

E-L 槽型：精磨刀片，轻型加工，高表面质量要求首选
E-L geometry: fine grinding insert，first choice for light cutting,high precision and surface finish request
E-M 槽型：精磨刀片，通用槽型
E-M geometry:fine grinding insert,general purpose geometry


直径范围：20-50mm


直径范围：40-160mm
Diameter range：40-160mm


直径范围：40-160mm
Diameter range：40-160mm


面铣
Face milling


背铣
Back face milling


螺旋差补铣
Helical interpolation


槽铣
Slot milling


切断
Parting

刀片进给切削参数推荐 Feed recommendations

刀片尺寸 Insert size	刀片槽形 Geometry	推荐每齿进给(mm) Rec. Fz	最小每齿进给(mm) Min. Fz	最大每齿进给(mm) Max. Fz
05	WL	0.05	0.02	0.15
08\11\14	WL	0.06	0.03	0.15
05	WM	0.07	0.04	0.18
08\11\14	WM	0.09	0.05	0.20

固定槽式三面刃铣刀SF90

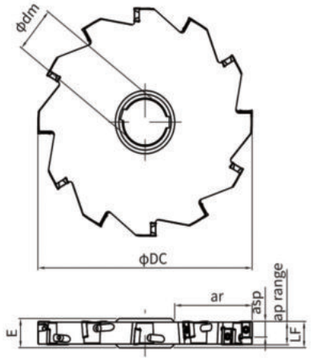
Full Side and Face Mill with Fixed Pockets SF90

直径范围：80-315mm
Diameter range: 80-315mm

槽宽范围：7.9-26.5mm
Slot width range: 7.9-26.5mm

带键槽的孔
Bore with keyway



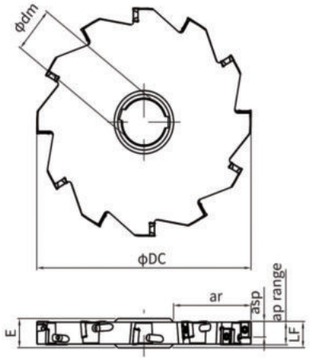


直径(mm) Diameter	订货号 Ordering code	库存状态	刀片尺寸	刀片圆角范围	尺寸(mm) Dimensions						接口类型	齿数 No. of teeth	重量(Kg) Weight
DC			Insert size	Insert radius range	dm	槽宽范围 ap range	E	LF (min.-max.)	ar	asp			
80	SF90-080H27-05DMXX.XX	○	05	0.2-1.54	27	7.9-10.0	16	12-13	19.5	5.6	H	6	0.30
100	SF90-100H32-05DMXX.XX	○	05	0.2-1.54	32	7.9-10.0	16	12-13	25.5	5.6	H	8	0.50
125	SF90-125H40-05DMXX.XX	○	05	0.2-1.54	40	7.9-10.0	16	12-13	34.0	5.6	H	10	0.80
160	SF90-160H40-05DMXX.XX	○	05	0.2-1.54	40	7.9-10.0	16	12-13	51.5	5.6	H	12	1.30
200	SF90-200H50-05DMXX.XX	○	05	0.2-1.54	50	7.9-10.0	16	12-13	64.5	5.6	H	16	2.10
080	SF90-080H27-08EMXX.XX	○	08	0.2-1.54	27	10.0-12.0	16	13-14	19.5	6.2	H	6	0.30
100	SF90-100H32-08EMXX.XX	○	08	0.2-1.54	32	10.0-12.0	16	13-14	25.5	6.2	H	8	0.50
125	SF90-125H40-08EMXX.XX	○	08	0.2-1.54	40	10.0-12.0	16	13-14	34.0	6.2	H	10	0.80
160	SF90-160H40-08EMXX.XX	○	08	0.2-1.54	40	10.0-12.0	16	13-14	51.5	6.2	H	12	1.30
200	SF90-200H50-08EMXX.XX	○	08	0.2-1.54	50	10.0-12.0	16	13-14	64.5	6.2	H	16	2.10
80	SF90-080H27-08FMXX.XX	○	08	0.2-1.54	27	12.0-15.0	16	14-15.5	19.5	7.6	H	6	0.40
100	SF90-100H32-08FMXX.XX	○	08	0.2-1.54	32	12.0-15.0	16	14-15.5	25.5	7.6	H	8	0.60
125	SF90-125H40-08FMXX.XX	○	08	0.2-1.54	40	12.0-15.0	16	14-15.5	34.0	7.6	H	10	0.90
160	SF90-160H40-08FMXX.XX	○	08	0.2-1.54	40	12.0-15.0	16	14-15.5	51.5	7.6	H	12	1.60
200	SF90-200H50-08FMXX.XX	○	08	0.2-1.54	50	12.0-15.0	16	14-15.5	64.5	7.6	H	16	2.50
100	SF90-100H32-11KMXX.XX	○	11	0.2-1.54	32	15.0-17.5	18.5	16.8-18	25.5	10.6	H	6	0.80
125	SF90-125H40-11KMXX.XX	○	11	0.2-1.54	40	15.0-17.5	18.5	16.8-18	34.0	10.6	H	8	1.20
160	SF90-160H40-11KMXX.XX	○	11	0.2-1.54	40	15.0-17.5	18.5	16.8-18	51.5	10.6	H	10	2.00
200	SF90-200H50-11KMXX.XX	○	11	0.2-1.54	50	15.0-17.5	18.5	16.8-18	64.5	10.6	H	12	3.20
250	SF90-250H50-11KMXX.XX	○	11	0.2-1.54	50	15.0-17.5	18.5	16.8-18	89.5	10.6	H	16	5.10
315	SF90-315H60-11KMXX.XX	○	11	0.2-1.54	60	15.0-17.5	18.5	16.8-18	114.5	10.6	H	20	8.10
125	SF90-125H40-11LMXX.XX	○	11	0.2-1.54	40	17.5-20.5	21.5	19.5-21	34.0	10.6	H	8	1.40
160	SF90-160H40-11LMXX.XX	○	11	0.2-1.54	40	17.5-20.5	21.5	19.5-21	51.5	10.6	H	10	2.40
200	SF90-200H50-11LMXX.XX	○	11	0.2-1.54	50	17.5-20.5	21.5	19.5-21	64.5	10.6	H	12	3.70

● 常备库存In stock ○按订单生产Make to order

固定槽式三面刃铣刀SF90
Full Side and Face Mill with Fixed Pockets SF90





直径(mm) Diameter	订货号 Ordering code	库存状态	刀片尺寸	刀片圆角范围	尺寸(mm) Dimensions						接口类型	齿数 No. of teeth	重量(Kg) Weight
DC			Insert size	Insert radius range	dm	槽宽范围 ap range	E	LF (min.-max.)	ar	asp			
250	SF90-250H50-11LMXX.XX	○	11	0.2-1.54	50	17.5-20.5	21.5	19.5-21	89.5	10.6	H	16	6.00
315	SF90-315H60-11LMXX.XX	○	11	0.2-1.54	60	17.5-20.5	21.5	19.5-21	114.5	10.6	H	20	9.50
160	SF90-160H40-11QMXX.XX	○	14	0.2-1.54	40	20.5-23.5	24.5	22.5-24	51.5	13.6	H	10	2.80
200	SF90-200H50-11QMXX.XX	○	14	0.2-1.54	50	20.5-23.5	24.5	22.5-24	64.5	13.6	H	12	4.40
250	SF90-250H50-11QMXX.XX	○	14	0.2-1.54	50	20.5-23.5	24.5	22.5-24	89.5	13.6	H	16	7.10
315	SF90-315H60-11QMXX.XX	○	14	0.2-1.54	60	20.5-23.5	24.5	22.5-24	114.5	13.6	H	20	11.30
160	SF90-160H40-11RMXX.XX	○	14	0.2-1.54	40	23.5-26.5	27.5	25.5-27	51.5	13.6	H	10	3.30
200	SF90-200H50-11RMXX.XX	○	14	0.2-1.54	50	23.5-26.5	27.5	25.5-27	64.5	13.6	H	12	4.30
250	SF90-250H50-11RMXX.XX	○	14	0.2-1.54	50	23.5-26.5	27.5	25.5-27	89.5	13.6	H	16	8.20
315	SF90-315H60-11RMXX.XX	○	14	0.2-1.54	60	23.5-26.5	27.5	25.5-27	114.5	13.6	H	20	13.10

订购刀盘时，需注明槽宽（XX.XX）
When ordering mill, state slot width(XX.XX)in the ordering code

订货示例 Ordering example:SF90-125H40-08EM10.00

订购刀片圆角r大于1.54的刀片时，需注明圆角r要求（rX.XX）
When ordering insert radius bigger than 1.54, state radius(rX.XX)in the ordering code

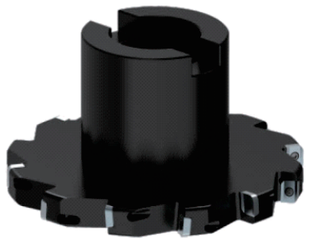
订货示例 Ordering example:SF90-125H40-08EM10.00r3.00

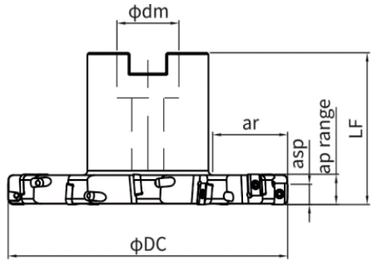
固定槽式三面刃铣刀SF90
Full Side and Face Mill with Fixed Pockets SF90

直径范围：80-315mm
Diameter range: 80-315mm

槽宽范围：7.9-26.5mm
Slot width range: 7.9-26.5mm

心轴式

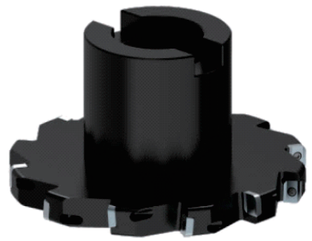


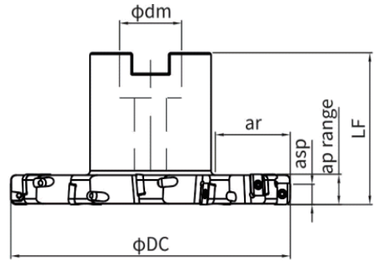


直径(mm) Diameter DC	订货号 Ordering code	库存状态	刀片尺寸 Insert size	刀片圆角范围 Insert radius range	尺寸(mm) Dimensions d m	槽宽范围 ap range	E	LF min.-max.	ar	asp	接口类型	齿数 No. of teeth	重量(Kg) Weight
80	SF90-080A27-05DMXX.XX	○	05	0.2-1.54	27	7.9-10.0	63-64	A	20	5.6	A	6	0.80
100	SF90-100A27-05DMXX.XX	○	05	0.2-1.54	27	7.9-10.0	63-64	A	22	5.6	A	8	1.20
125	SF90-125B32-05DMXX.XX	○	05	0.2-1.54	32	7.9-10.0	63-64	B	29.5	5.6	B	10	1.80
160	SF90-160B40-05DMXX.XX	○	05	0.2-1.54	40	7.9-10.0	63-64	B	41	5.6	B	12	2.60
200	SF90-200C40-05DMXX.XX	○	05	0.2-1.54	40	7.9-10.0	63-64	C	51.0	5.6	C	16	7.00
080	SF90-080A27-08EMXX.XX	○	08	0.2-1.54	27	10.0-12.0	63-64	A	20.0	6.2	A	6	1.10
100	SF90-100A27-08EMXX.XX	○	08	0.2-1.54	27	10.0-12.0	63-64	A	22.0	6.2	A	8	1.70
125	SF90-125B32-08EMXX.XX	○	08	0.2-1.54	32	10.0-12.0	63-64	B	29.5	6.2	B	10	1.80
160	SF90-160B40-08EMXX.XX	○	08	0.2-1.54	40	10.0-12.0	63-64	B	41.0	6.2	B	12	2.60
200	SF90-200C40-08EMXX.XX	○	08	0.2-1.54	40	10.0-12.0	63-64	C	51.0	6.2	C	16	4.30
80	SF90-080A27-08FMXX.XX	○	08	0.2-1.54	27	12.0-15.0	63-64.5	A	20.0	7.6	A	6	1.20
100	SF90-100A27-08FMXX.XX	○	08	0.2-1.54	27	12.0-15.0	63-64.5	A	22.0	7.6	A	8	1.80
125	SF90-125B32-08FMXX.XX	○	08	0.2-1.54	32	12.0-15.0	63-64.5	B	29.5	7.6	B	10	2.00
160	SF90-160B40-08FMXX.XX	○	08	0.2-1.54	40	12.0-15.0	63-64.5	B	41.0	7.6	B	12	3.00
200	SF90-200C40-08FMXX.XX	○	08	0.2-1.54	40	12.0-15.0	63-64.5	C	51.0	7.6	C	16	7.60
100	SF90-100A27-11KMXX.XX	○	11	0.2-1.54	27	15.0-17.5	63-64.25	A	25.7	10.6	A	6	1.70
125	SF90-125B32-11KMXX.XX	○	11	0.2-1.54	32	15.0-17.5	63-64.25	B	29.5	10.6	B	8	2.30
160	SF90-160B40-11KMXX.XX	○	11	0.2-1.54	40	15.0-17.5	63-64.25	B	41.0	10.6	B	10	3.30
200	SF90-200C40-11KMXX.XX	○	11	0.2-1.54	40	15.0-17.5	63-64.25	C	51.0	10.6	C	12	8.00
250	SF90-250C60-11KMXX.XX	○	11	0.2-1.54	60	15.0-17.5	63-64.25	C	56.0	10.6	C	16	9.50
315	SF90-315C60-11KMXX.XX	○	11	0.2-1.54	60	15.0-17.5	63-64.25	C	88.5	10.6	C	20	16.70
125	SF90-125B32-11LMXX.XX	○	11	0.2-1.54	32	17.5-20.5	63-64.5	B	29.5	10.6	B	8	2.50
160	SF90-160B40-11LMXX.XX	○	11	0.2-1.54	40	17.5-20.5	63-64.5	B	41.0	10.6	B	10	3.70
200	SF90-200C40-11LMXX.XX	○	11	0.2-1.54	40	17.5-20.5	63-64.5	C	51.0	10.6	C	12	5.90

● 常备库存In stock ○按订单生产Make to order

固定槽式三面刃铣刀SF90
Full Side and Face Mill with Fixed Pockets SF90





直径(mm) Diameter DC	订货号 Ordering code	库存状态	刀片尺寸 Insert size	刀片圆角范围 Insert radius range	尺寸(mm) Dimensions d m	槽宽范围 ap range	E	LF min.-max.	ar	asp	接口类型	齿数 No. of teeth	重量(Kg) Weight
250	SF90-250C60-11LMXX.XX	○	11	0.2-1.54	60	17.5-20.5	63-64.5	C	56.0	10.6	C	16	10.00
315	SF90-315C60-11LMXX.XX	○	11	0.2-1.54	60	17.5-20.5	63-64.5	C	88.5	10.6	C	20	13.60
160	SF90-160B40-11QMXX.XX	○	14	0.2-1.54	40	20.5-23.5	63-64.5	B	41.0	13.6	B	10	3.60
200	SF90-200C40-11QMXX.XX	○	14	0.2-1.54	40	20.5-23.5	63-64.5	C	51.0	13.6	C	12	8.80
250	SF90-250C60-11QMXX.XX	○	14	0.2-1.54	60	20.5-23.5	63-64.5	C	56.0	13.6	C	16	13.30
315	SF90-315C60-11QMXX.XX	○	14	0.2-1.54	60	20.5-23.5	63-64.5	C	88.5	13.6	C	20	19.20
160	SF90-160B40-11RMXX.XX	○	14	0.2-1.54	40	23.5-26.5	63-64.5	B	41.0	13.6	B	10	4.50
200	SF90-200C40-11RMXX.XX	○	14	0.2-1.54	40	23.5-26.5	63-64.5	C	51.0	13.6	C	12	9.20
250	SF90-250C60-11RMXX.XX	○	14	0.2-1.54	60	23.5-26.5	63-64.5	C	56.0	13.6	C	16	13.90
315	SF90-315C60-11RMXX.XX	○	14	0.2-1.54	60	23.5-26.5	63-64.5	C	88.5	13.6	C	20	20.40

订购刀盘时，需注明槽宽（XX.XX）
When ordering mill, state slot width(XX.XX)in the ordering code

订货示例 Ordering example:SF90-125H40-08EM10.00

订购刀片圆角r大于1.54的刀片时，需注明圆角r要求（rX.XX）
When ordering insert radius bigger than 1.54, state radius(rX.XX)in the ordering code

订货示例 Ordering example:SF90-125H40-08EM10.00r3.00

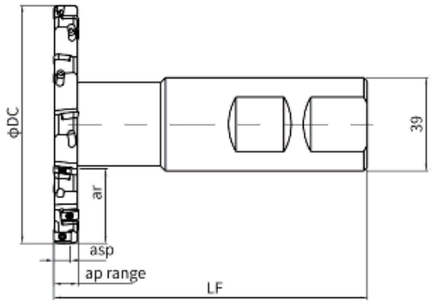
固定槽式三面刃铣刀SF90

Full Side and Face Mill with Fixed Pockets SF90

直径范围：80-100mm
Diameter range: 80-100mm
.
槽宽范围：7.9-12mm
Slot width range: 7.9-12mm

侧压式
Weldon





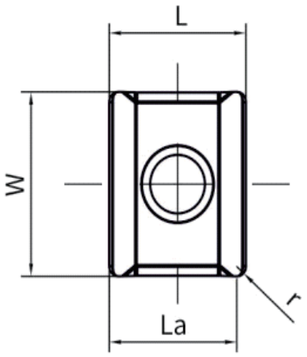
直径(mm) Diameter	订货号 Ordering code	库存状态	刀片尺寸	刀片圆角范围	尺寸(mm) Dimensions						接口类型	齿数 No. of teeth	重量(Kg) Weight
DC			Insert size	Insert radius range	dm	槽宽范围 ap range	E	LF min.-max.	ar	asp			
80	SF90-080E32-05DMXX.XX	○	05	0.2-1.54	32	7.9-10.0	63-64	132	23	6.2	B	6	1.00
100	SF90-100E40-05DMXX.XX	○	05	0.2-1.54	40	7.9-10.0	63-64	152	28	6.2	B	8	1.90
080	SF90-080E32-08EMXX.XX	○	08	0.2-1.54	32	10.0-12.0	63-64	132	23	6.2	B	6	1.00
100	SF90-100E40-08EMXX.XX	○	08	0.2-1.54	40	10.0-12.0	63-64	152	28	6.2	B	8	1.90

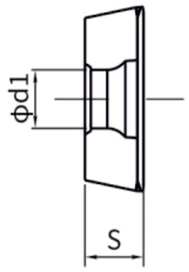
● 常备库存In stock ○按订单生产Make to order

订购刀盘时，需注明槽宽（XX.XX）
When ordering mill, state slot width(XX.XX)in the ordering code
订货示例 Ordering example:SF90-125H40-08EM10.00
订购刀片圆角r大于1.54的刀片时，需注明圆角r要求（rX.XX）
When ordering insert radius bigger than 1.54, state radius(rX.XX)in the ordering code
订货示例 Ordering example:SF90-125H40-08EM10.00r3.00

三面刃铣刀刀片

Full Side and Face Mill Inserts





刀片尺寸	型号	基本尺寸 Dimension (mm)							P				M			K			N		S			
	Type	l	la	W	S	d1	r		BM6220	BM6230	BM2220	BM4120	BM2210	BM2220	BM4120	BM3210	BM4120	BM3230	BM5210	BM5220	BM4210	BM4220	BM4120	BM4230
08	MN084504E-L	8.5	8.1	9.5	4.45	2.9	0.4			☆		★			★		☆	★	★				★	
	MN084508E-L	8.5	7.7	9.5	4.45	2.9	0.8			☆		★			★		☆	★	★				★	
	MR/L084515E-L	8.5	-	9.5	4.45	2.9	1.52			☆		★			★		☆	★	★				★	
	MR/L084515E-L	8.5	-	9.5	4.45	2.9	1.52			☆		★			★		☆	★	★				★	
	MR/L084523E-L	8.5	-	9.5	4.45	2.9	2.29			☆		★			★		☆	★	★				★	
	MR/L084523E-L	8.5	-	9.5	4.45	2.9	2.29			☆		★			★		☆	★	★				★	
	MR/L084530E-L	8.5	-	9.5	4.45	2.9	3.05			☆		★			★		☆	★	★				★	
	MR/L084530E-L	8.5	-	9.5	4.45	2.9	3.05			☆		★			★		☆	★	★				★	

● 常备库存In stock ○按订单生产Make to order

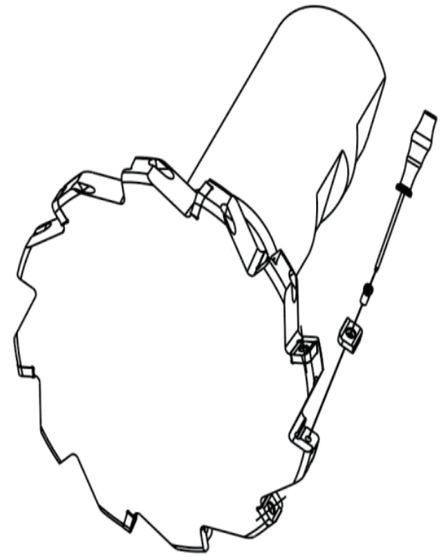
三面刃铣刀刀片

Full Side and Face Mill Inserts

刀片尺寸	型号 Type	基本尺寸 Dimension (mm)							P				M			K			N		S			
		L	W	d1	s	R	r		BM6220	BM6230	BM2220	BM4120	BM2210	BM2220	BM4120	BM3210	BM4120	BM3230	BM5210	BM5220	BM4210	BM4220	BM4120	BM4230
05	MN054508E-M	6.5	5.7	9.5	4.45	2.9	0.8			★		☆			★		☆	★					★	
	MR/L054515E-M	6.5	-	9.5	4.45	2.9	1.52			★		☆			★		☆	★					★	
	MR/L054515E-M	6.5	-	9.5	4.45	2.9	1.52			★		☆			★		☆	★					★	
	MR/L054523E-M	6.5	-	9.5	4.45	2.9	2.29			★		☆			★		☆	★					★	
	MR/L054523E-M	6.5	-	9.5	4.45	2.9	2.29			★		☆			★		☆	★					★	
	MR/L054530E-M	6.5	-	9.5	4.45	2.9	3.05			★		☆			★		☆	★					★	
	MR/L054530E-M	6.5	-	9.5	4.45	2.9	3.05			★		☆			★		☆	★					★	
08	MN084504E-M	8.5	8.1	9.5	4.45	2.9	0.4			★		☆			★		☆	★					★	
	MN084508E-M	8.5	7.7	9.5	4.45	2.9	0.8			★		☆			★		☆	★					★	
	MR/L084515E-M	8.5	-	9.5	4.45	2.9	1.52			★		☆			★		☆	★					★	
	MR/L084515E-M	8.5	-	9.5	4.45	2.9	1.52			★		☆			★		☆	★					★	
	MR/L084523E-M	8.5	-	9.5	4.45	2.9	2.29			★		☆			★		☆	★					★	
	MR/L084523E-M	8.5	-	9.5	4.45	2.9	2.29			★		☆			★		☆	★					★	
	MR/L084530E-M	8.5	-	9.5	4.45	2.9	3.05			★		☆			★		☆	★					★	
	MR/L084530E-M	8.5	-	9.5	4.45	2.9	3.05			★		☆			★		☆	★					★	
11	MN115008E-M	11.5	10.7	11.5	4.95	4.6	0.8			★		☆			★		☆	★					★	
	MR/L115023E-M	11.5	-	11.5	4.95	4.6	2.29			★		☆			★		☆	★					★	
	MR/L115023E-M	11.5	-	11.5	4.95	4.6	2.29			★		☆			★		☆	★					★	
	MR/L115030E-M	11.5	-	11.5	4.95	4.6	3.05			★		☆			★		☆	★					★	
	MR/L115030E-M	11.5	-	11.5	4.95	4.6	3.05			★		☆			★		☆	★					★	
	MR/L115048E-M	11.5	-	11.5	4.95	4.6	4.83			★		☆			★		☆	★					★	
	MR/L115048E-M	11.5	-	11.5	4.95	4.6	4.83			★		☆			★		☆	★					★	
	MR/L115063E-M	11.5	-	11.5	4.95	4.6	6.35			★		☆			★		☆	★					★	
	MR/L115063E-M	11.5	-	11.5	4.95	4.6	6.35			★		☆			★		☆	★					★	
14	MN145008E-M	14.5	13.7	11.5	4.95	4.6	0.8			★		☆			★		☆	★					★	
	MR/L145015E-M	14.5	-	11.5	4.95	4.6	1.52			★		☆			★		☆	★					★	
	MR/L145015E-M	14.5	-	11.5	4.95	4.6	1.52			★		☆			★		☆	★					★	
	MR/L145023E-M	14.5	-	11.5	4.95	4.6	2.29			★		☆			★		☆	★					★	
	MR/L145023E-M	14.5	-	11.5	4.95	4.6	2.29			★		☆			★		☆	★					★	
	MR/L145030E-M	14.5	-	11.5	4.95	4.6	3.05			★		☆			★		☆	★					★	
	MR/L145030E-M	14.5	-	11.5	4.95	4.6	3.05			★		☆			★		☆	★					★	
	MR/L145048E-M	14.5	-	11.5	4.95	4.6	4.83			★		☆			★		☆	★					★	
	MR/L145048E-M	14.5	-	11.5	4.95	4.6	4.83			★		☆			★		☆	★					★	
	MR/L145063E-M	14.5	-	11.5	4.95	4.6	6.35			★		☆			★		☆	★					★	
	MR/L145063E-M	14.5	-	11.5	4.95	4.6	6.35			★		☆			★		☆	★					★	

首选★ 备选☆

First choice ★ Second choice ☆



配件/SPARE PARTS

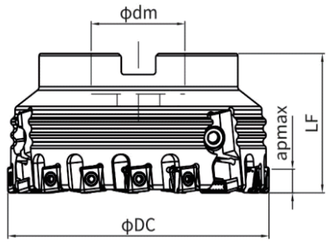
刀片尺寸 Insert size	刀具直径/Diameter DC	刀片夹紧螺钉/Clamping srew	刀片螺钉扳手/Screw Wrench
05	80-200	S01-025087	D01-107
08	80-200	S01-030085	D01-108
11	100-315	S01-040110	D01-115
14	160-315	S01-040110	D01-115

可调式精铣面铣刀FF90-AN&LN

Adjustable Finish Mill FF90-AN&LN

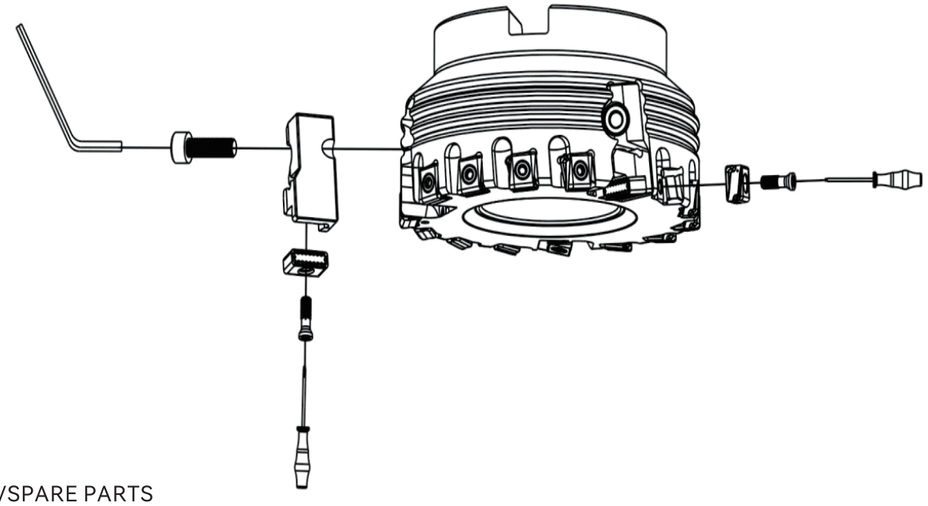
不等齿距设计
Uneven pitch





直径 Dc	型号	库存状态	尺寸(mm)								接口类型	齿数 (Z)	内冷状态	重量 (kg)
			Dc2	dm	apmax	LF								
100	FF90-100A32AN11_LN15-Z09	○	/	32	8	63					A	9+2		3.20
125	FF90-125B40AN11_LN15-Z13	○	/	40	8	63					B	13+3		4.60
160	FF90-160C40AN11_LN15-Z17	○	/	40	8	63					C	17+3		8.40
200	FF90-200C60AN11_LN15-Z23	○	/	60	8	63					C	23+3		9.80
250	FF90-250C60AN11_LN15-Z29	○	/	60	8	63					C	29+3		14.70

● 常备库存In stock ○按订单生产Make to order

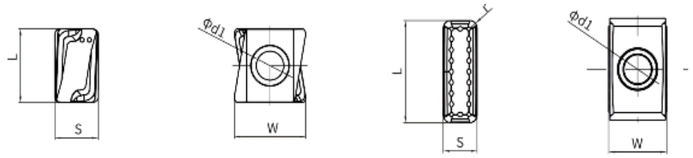


配件/SPARE PARTS

刀片尺寸 Insert size	刀具直径 Diameter	刀片夹紧螺钉 Clamping srew	刀片螺钉扳手 Screw Wrench	修光刀座	修光刀片调整螺钉型号	修光刀座锁紧螺钉型号	调整螺钉扳手型号	锁紧螺钉扳手型号
AN11	100-250	S01-040121	D01-115	FF90-CA2036-LN15	S06-050100F	S03-060250	L02-0025	L02-0005
LN15	100-250	S01-040121	D01-115					

可调式精铣面铣刀FF90-AN&LN 刀片

Adjustable Finish Mill FF90-AN&LN Inserts

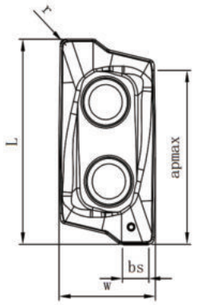


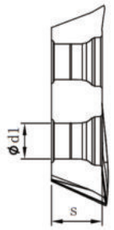
刀片外形	型号 Type	基本尺寸 Dimension（mm）							P		K	
		l	w	s	d1	r	α		BM2220	BM4120	BM2220	BM4120
	ANGX110708-PM	11.5	11.76	7.11	4.5	0.8	0		☆	★	☆	★
	LNHQ150512E-W	15.875	9.525	5.56	4.5	1.2	0		☆	★	☆	★

首选★ 备选☆
First choice ★ Second choice☆

其它常用铣削刀片
Commonly Used Milling Inserts

大切深方肩铣刀AO刀片
Shoulder Mill AO insert

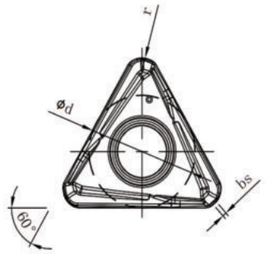


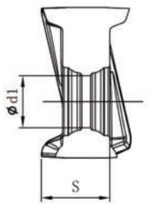


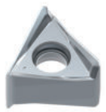
刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	S	d1	r	bs	apmax	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120
	AOMT190608PDER-HP	21.95	10.82	6.85	3.81	0.8	2.6	18.1		★		★		★				
	AOMT190610PDER-HP	21.95	10.82	6.85	3.81	1.0	2.6	18.1		★		★		★				
	AOMT190616PDER-HP	21.95	10.82	6.85	3.81	1.6	2.6	18.1		★		★		★				
	AOMT220708PDER-HP	25.91	12.8	7.57	4.5	0.8	3.43	22.6		★		★		★				

首选★ 备选☆
First choice ★ Second choice☆

大切深方肩铣刀TN16刀片
Shoulder Mill TN16 Insert

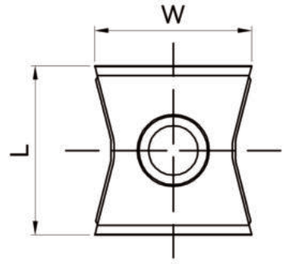


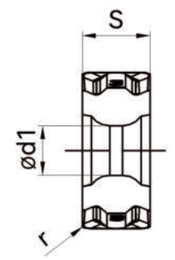


刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		d	s	d1	r	bs	apmax		BM2220	BM4120	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120
	TNGU160610PNTR-42	11.9	7.67	5.5	1	0.7				★		★		★				

首选★ 备选☆
First choice ★ Second choice☆

方肩铣刀SM90-LN刀片
Shoulder Mill SM90-LN Insert

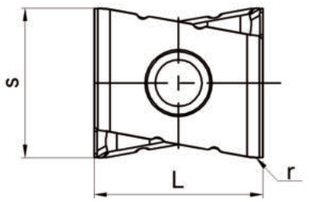


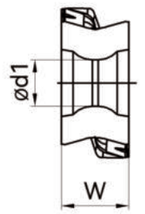


刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	S	d1	r	bs	apmax	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120	BM2220	BM4120
	LNKG1206EN-2	11.6	11	6	4.4	0.8			☆	★	☆	★	★	☆				
	LNKX1506PN-N MM	15	13.88	6	4.4	0.8			☆	★	☆	★	★	☆				
	LNKX1506PN-N MR	15	13.88	6	4.4	0.8			☆	★	☆	★	★	☆				

首选★ 备选☆
First choice ★ Second choice☆

重载方肩铣刀SM90-LN刀片
Heavy Duty Shoulder Mill SM90-LN Insert



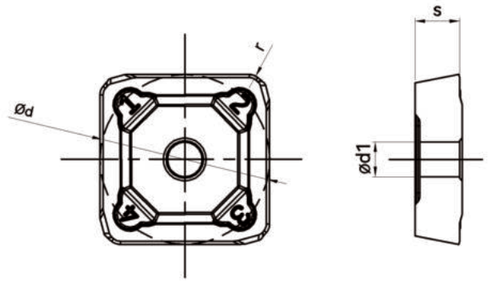


刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		d	s	d1	r	bs	apmax		BM2220	BM6230	BM2220	BM4120	BM2220	BM3230	BM2220	BM4120	BM2220	BM4120
	LNKT1506-ZR	15.94	14.12	6.35	4.4	1.2			☆	★	☆		☆	★				
	LNKT2510-ZR	25.5	18	10	5.6	1.0			☆	★	☆		☆	★				

首选★ 备选☆
First choice ★ Second choice☆

其它常用铣削刀片
Commonly Used Milling Inserts

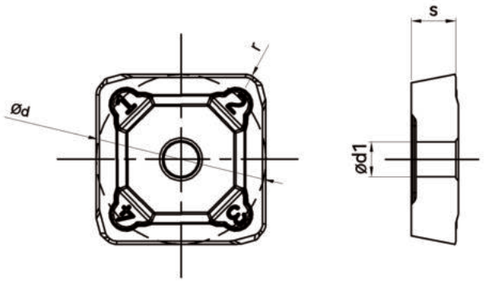
面铣SPKN刀片
Face Mill SPKN Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG05E	BPG20E	BPG05E	BPG20E	BPG05E	BU810	BU810	BPG20E	BM4120	BM4130
	SPKN1203EDSR-SU	-	-	12.70	3.18	2.60	1.0		☆	★	☆	★	★	☆	★			
	SPKN1504EDSR-SU	-	-	15.88	4.76	2.60	1.20		☆	★	☆	★	★	☆	★			

首选★ 备选☆
First choice ★ Second choice☆

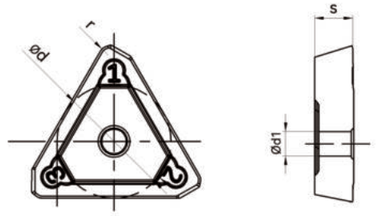
面铣SDKN刀片
Face Mill SDKN Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG05E	BPG20E	BPG05E	BPG20E	BPG05E	BU810	BU810	BPG20E	BM4120	BM4130
	SDKN1203EDSR-SU	-	-	12.70	3.18	2.60			☆	★	☆	★	★	☆	★			
	SDKN1504EDSR-SU	-	-	15.88	4.76	2.60			☆	★	☆	★	★	☆	★			

首选★ 备选☆
First choice ★ Second choice☆

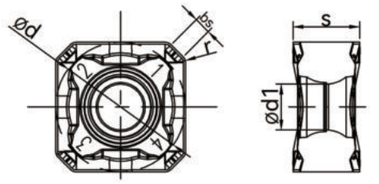
面铣TPKN刀片
Face Mill TPKN Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG05E	BPG20E	BPG05E	BPG20E	BPG05E	BU810	BU810	BPG20E	BM4120	BM4130
	TPKN1603PDSR-SU	-	-	9.53	3.18	2.60	0.60		☆	★	☆	★	★	☆	★			
	TPKN2204PDSR-SU	-	-	12.70	4.76	2.60	0.60		☆	★	☆	★	★	☆	★			

首选★ 备选☆
First choice ★ Second choice☆

面铣SNMX1206刀片
Face Mill TPKN Insert

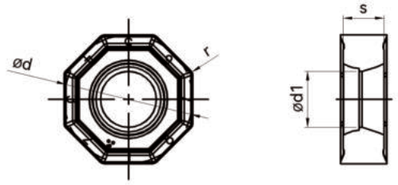


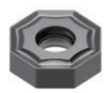
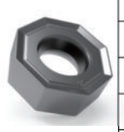
刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BM2220	BPG20E	BM2220	BPG20E	BM3210	BPG20E	BM5210	BM5220	BM4120	BM4130
	SNMX1206ANEN-MQ	-	-	12.70	5.78	5.25	0.60	0.60	☆	★	☆	★	★	☆				

首选★ 备选☆
First choice ★ Second choice☆

其它常用铣削刀片
Commonly Used Milling Inserts

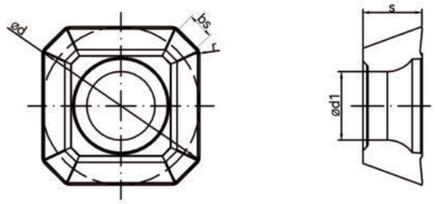
面铣ONMU刀片
Face Mill ONMU Insert

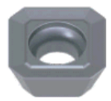


刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG20E	BM2220	BPG20E	BM2220	BPG20E	BM2220	BM5210	BM5220	BM4120	BM4130
	ONMU060508-M1	-	-	16.00	5.50	5.40	0.80		★	☆	★	☆	★	☆				
	ONMU0705ANPN-MJ	-	-	17.50	6.18	7.50	0.80		★	☆	★	☆	★	☆				

首选★ 备选☆
First choice ★ Second choice☆

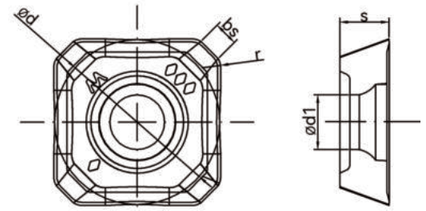
面铣SE12刀片
Face Mill SE12 Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BM2220	BPG308	BM2220	BPG308	BM2220	BPG308	BM5210	BM5220	BM4120	BM4130
	SEKT1204AFSN	-	-	12.70	3.18	2.60		2.1	★	☆	★	☆	★	☆				

首选★ 备选☆
First choice ★ Second choice☆

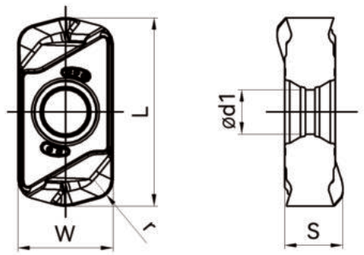
面铣SE13刀片
Face Mill SE13 Insert



Insert	Type	L	W	d	s	d1	r	bs	P		M		K		N		S	
									BM2220	BPG308	BM2220	BPG308	BM2220	BPG308	BM5210	BM5220	BM4120	BM4130
	SEMT13T3AGSN-JM	-	-	13.40	3.97	4.4	1.50	1.90	★	☆	★	☆	★	☆				

首选★ 备选☆
First choice ★ Second choice☆

快进给LNGU刀片
Face Mill LNGU Insert

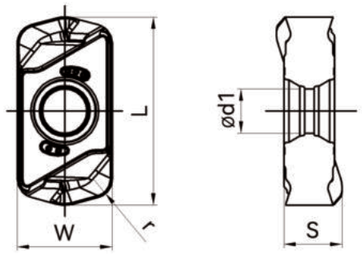


刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BM2220	BPG308	BM2220	BPG308	BM2220	BPG308	BM5210	BM5220	BM4120	BM4130
	LNGU030310R-GM	11.9	6.20	-	3.96	3.45	1.0		★	☆	★	☆	★	☆			☆	★

首选★ 备选☆
First choice ★ Second choice☆

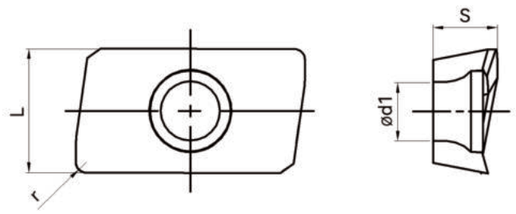
其它常用铣削刀片
Commonly Used Milling Inserts

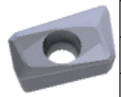
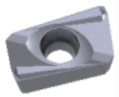
快进给LNMU刀片
Face Mill LNGU Insert



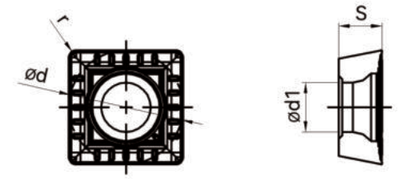
刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG20E	BM2235	BPG20E	BM2235	BPG20E	BM2235	BM5210	BM5220	BM4120	BM4130
	LNMU030312R-JM	11.88	6.00	-	3.67	2.80	1.2		★		★		★					

方肩铣刀AP刀片
Shoulder Mill AP Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG20B	BPU206	BPU206	BPG20A	BPG20B	BPG11E	BM5210	BM5220	BPG20B	BPG11E
	APMT1135PDER-M2	11.20	6.20	-	3.50	2.80	0.80		★	☆	★	☆	☆	★			☆	☆
	APMT1604PDER-M2	17.15	9.30	-	4.76	4.40	0.80		★	☆	★	☆	☆	★			☆	☆
	APMT1135PDER-H2	11.20	6.20	-	3.50	2.80	0.80		★	☆	★	☆	☆	★			☆	☆
	APMT1604PDER-H2	17.15	9.30	-	4.76	4.40	0.80		★	☆	★	☆	☆	★			☆	☆
	APMT1604PDER-H6	17.15	9.30	-	4.76	4.40	3.10		★				★					
	APMT1135PDER-EM	11.20	6.20	-	3.50	2.80	0.80		★			★						
	APMT1604PDER-EM	17.25	9.30	-	5.30	4.40	0.80		★			★						
	APMT170508R-EM	18.52	10.63	-	5.60	4.40	0.80		★									
	APMT170516R-EM	18.52	10.63	-	5.60	4.40	1.60		★									
	APMT170524R-EM	18.52	10.63	-	5.60	4.40	2.40		★									

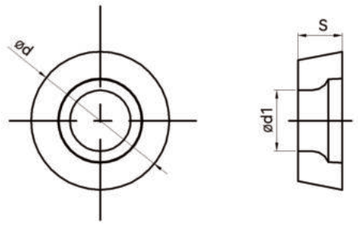
方肩铣刀SP刀片
Shoulder Mill SP Insert



刀片 Insert	型号 Type	基本尺寸 Dimension (mm)							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG20B	BPS411	BPG20B	BM4120	BPG20B	BPS411	BM5210	BM5220	BPG20B	BM4120
	SPMT09T308-D51	-	-	9.53	3.97	4.40	0.80		★	☆	★	☆	☆	★			☆	★
	SPMT120408-D51	-	-	12.70	4.76	5.50	0.80		★	☆	★	☆	☆	★			☆	★
	SPMT120408-MQ	-	-	12.70	4.76	5.50	0.80		★	☆	☆	★	☆	★			☆	★

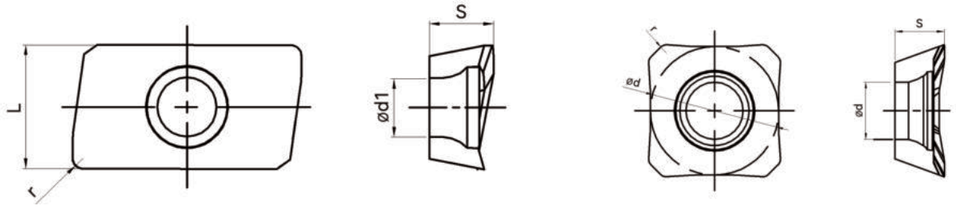
其它常用铣削刀片
Commonly Used Milling Inserts

仿形铣R刀片
Profil Milling R Insert



刀片 Insert	型号 Type	基本尺寸 Dimension（mm）							P		M		K		N		S	
		L	W	d	s	d1	r	bs	BPG11E	BPG20B	BPU206	BPG20A	BP2335	BPG11E	BPG20B	BM5210	BM4120	BM4130
	RPMW0803MOT	-	-	8.00	3.18	4.40				★	★				★			
	RPMW1003MOT	-	-	10.00	3.97	4.40				★	★				★			
	RPMW1204MOT	-	-	12.00	4.76	4.40				★					★			
	RDMW10T3MOT	-	-	10.00	3.97	4.40				★					★			
	RDMW1204MOT	-	-	12.00	4.76	4.40				★	★				★			
	RDMW1604MOT	-	-	16.00	4.76	5.50				★					★			
	RPMT0827MOE-BJS	-	-	8.00	2.70	3.40				★	★				★			
	RPMT10T3MOE-BJS	-	-	10.00	3.97	4.40			★	★	★			★	★			
	RPMT1204MOE-BJS	-	-	12.00	4.76	4.40			★	★	★			★	★			
	ROMT10T3MOE-MM	-	-	10.00	3.97	4.40							★					
	ROMT1204MOE-MM	-	-	12.00	4.76	4.40							★					
	RPMT10T3MOE-BDL	-	-	10.00	3.97	4.40						★						
	ROMT1204MOE-BDL	-	-	12.00	4.76	4.40						★						
	RPGT1003MO-LHC	-	-	10.00	3.18	4.40									★			
	RDGT10T3MO-LHC	-	-	10.00	3.97	4.40									★			
	RDGT10T3MO-LHC	-	-	12.00	4.76	4.40									★			

铝合金专用刀片
Aluminum Mill Insert



刀片外形	型号 Type	基本尺寸 Dimension（mm）							N	
		L	W	d	s	d1	r	bs	BM5210	BM5220
	APKT113502PDFR-G2C	11.31	6.17	-	3.50	2.80	0.20		★	
	APKT113504PDFR-G2C	11.31	6.17	-	3.50	2.80	0.40		★	
	APKT113508PDFR-G2C	11.31	6.17	-	3.50	2.80	0.80		★	
	APKT1604PDFR-G2C	17.00	9.62	-	4.76	4.40	0.80			
	APKT160402FR-LHC	16.88	9.53	-	4.76	4.40	0.20		★	
	APKT160404FR-LHC	16.88	9.53	-	4.76	4.40	0.40		★	
	APKT160408FR-LHC	16.88	9.53	-	4.76	4.40	0.80		★	
	APKT160412FR-LHC	16.88	9.53	-	4.76	4.40	1.20		★	
	APKT160416FR-LHC	16.88	9.53	-	4.76	4.40	1.60		★	
	SEKT120404AFFN-LH-2C	-	-	12.70	4.76	5.50	0.40		★	
	SEKT1204AFFN-LH-2C	-	-	12.70	4.76	5.50	0.80		★	
	SEKT13T3AZFN-LHC	-	-	13.40	3.97	4.40	0.40		★	

75%切宽下切削速度推荐

Cutting Speed Recommadations on 75% ae

ISO	材料Material	单位切削力 Cutting force	布氏硬度 Hardness	
		N/mm2		BM6220
P	非合金钢Carbon steel			
	C=0.1-0.25%	1500	125	400-275
	C=0.25-0.55%	1600	150	360-245
	C=0.55-0.80%	1700	170	340-235
	低合金钢（合金元素≤5%）Low carbon steel （alloy ≤5%）			
	非淬硬钢Not-hardended steel	1700	180	290-200
	轴承钢Bearing steel	1800	210	245-150
	调质Tempered steel	1850	275	265-145
	调质Tempered steel	2050	350	190-125
	高合金钢（合金元素＞5%）High carbon steel（alloy ＞5%）			
	退火Annealed steel	1950	200	190-160
	淬硬工具钢Hardended tool steel	3000	325	120-80
	铸钢Casting steel			
	非合金Non-alloy	1550	180	280-180
	低合金（合金元素≤5%）Low alloy （alloy ≤5%）	1600	200	205-140
	高合金（合金元素＞5%）High alloy（alloy ＞5%）	2050	225	210-175
M	铁素体/马氏体/棒材/锻件Ferrite/Martensite/Bar/Forging			
	非淬硬Not-hardended	1800	200	
	沉淀硬化Precipitation hardening	2850	330	
	淬硬钢Hardended	2350	330	
	奥氏体 棒材/锻件 Austenitic bars/forgings			
	奥氏体 Austenitic	1800	180	
	沉淀硬化Precipitation hardening	2850	330	
	超级奥氏体 Super austenitic	2250	200	
	奥氏体-铁素体（双相）棒材/锻件 Austenitic-ferrite (duplex) bars/forgings			
	不可焊接Unweldable≥0.05% C	2000	230	
	可焊接Weldable＜0.05% C	2450	260	
	铁素体/马氏体 铸件 Ferrite/Martensite Castings			
	非淬硬Not-hardended	1700	200	
	沉淀硬化Precipitation hardening	2450	330	
	淬硬钢Hardended	2150	330	
	奥氏体 铸件 Austenitic castings			
	奥氏体Austenitic	1700	180	
	沉淀硬化Precipitation hardening	2450	330	
	超级奥氏体Super austenitic	2150	200	
	奥氏体-铁素体（双相）铸件Austenitic-Ferrite (duplex)			
	不可焊接Unweldable≥0.05% C	1800	230	
	可焊接weldable＜0.05% C	2250	260	

切削速度Cutting Speed Vc(m/min)									
涂层Coated Grade									
BM6230	BM2220	BM2230	BM3210	BM3230	BM5210	BM5220	BM4120	BM4130	BM4230
340-230	375-280						375-280	245-225	340-255
305-225	215-175						215-175	245-200	215-175
290-195	200-165						200-165	235-190	200-165
250-185	180-145						180-145	200-165	180-145
220-140	130-105						130-105	150-125	130-105
205-125	165-140						165-140	195-160	165-140
155-105	110-90						110-90	125-105	110-90
145-135	125-105						125-105	135-110	125-105
75-50	90-75						90-75	100-80	90-75
200-140	170-140								
150-100	140-115						200-140	170-140	170-140
180-145	120-115						150-100	140-115	140-115
	255-180	200-140					255-180	200-140	200-140
	180-130	130-70					180-130	150-70	150-70
	185-125	135-70					185-125	155-70	155-70
	250-180	180-145					250-180	190-145	190-145
	175-120	100-80					175-120	140-80	140-80
	160-115	125-70					160-115	145-70	145-70
	225-160	200-130					225-160	210-130	210-130
	185-120	160-100					185-120	180-100	180-100
	225-160	190-130					225-160	220-130	220-130
	155-110	110-90					155-110	150-90	150-90
	110-75	90-40					110-75	100-40	100-40
	195-140	160-120					195-140	190-120	190-120
	160-115	130-100					160-115	160-100	160-100
	110-70	90-60					110-70	100-60	100-60
	160-130	100-180					160-130	150-120	150-120
	170-115	90-160					170-115	160-110	160-110

ISO	材料Material	单位切削力 Cutting force	布氏硬度 Hardness	
		N/mm2		BM6220
K	可锻铸铁 Malleable iron			
	铁素体（短切屑）Ferrite (short chip)	790	130	
	珠光体（长切屑）Pearlite (long chips)	900	230	
	灰口铸铁 Grey cast iron			
	低抗拉强度 Low tensile strength	890	180	
	高抗拉强度 High tensile strength	970	220	
	球墨铸铁 SG nodular cast iron			
	铁素体 Ferrite	900	160	
	珠光体 Pearlite	1350	250	
	马氏体 Martensite	2100	380	
N	铝合金 Aluminum alloy			
	锻造或锻造+冷作，非时效处理 Forging or forging+cold work	400	60	
	锻造或锻造加时效处理 Forging or forging+aging treatment	650	100	
	铝合金 Aluminum alloy			
	铸造，非时效 Casting	600	75	
	铸造或铸造加时效处理 Casting or casting + aging treatment	700	90	
	铝合金 Aluminum alloy			
	铸造，13–15% 硅 Casting	700	130	
	铸造，16–22% 硅 Casting	700	130	
	铜和铜合金 Coper and coper alloy			
	易切合金，≥1% 铅 Easy cutting alloy	550	110	
	黄铜，铅青铜，≤1%铅 Brass	550	90	
	青铜与无铅铜，包括电解铜 Bronze and lead-free copper	1350	100	
S	高温合金 铁基 High-temperature alloy steel based			
	退火或固溶处理 Annealing or solution treatment	2400	200	
	时效处理或固溶处理加时效处理 Aging treatment or solution treatment plus aging treatment	2500	280	
	镍基 Nickel based			
	退火或固溶处理 Annealing or solution treatment"	2650	250	
	时效处理或固溶处理加时效处理 Aging treatment or solution treatment plus aging treatment	2900	350	
	铸造或铸造加时效处理 Casting or casting plus aging treatment	3000	320	
	钴基 Cobalt based			
	退火或固溶处理 Annealing or solution treatment	2700	200	
	固溶处理加时效处理 Solution treatment plus aging treatment	3000	300	
	铸造或铸造加时效处理 Casting or casting plus aging treatment	3100	320	
	钛合金 Titanium alloy 2)		Rm3)	
	商业纯 Commercial pure（99.5% Ti）	1300	400	
	α，近α与α+β合金，退火 α, close to α and α+β Alloy, Annealed	1400	950	
	α+β合金时效处理，β合金，退火或时效处理 Alloy aging treatment, β Alloy, annealed or aged treatment	1400	1050	
H	超硬钢 调质处理	4200	59 HRC	55–36
	冷硬铸铁	2200	400	100–70

RM= 最终的拉伸强度测量 UTS （Mpa）

切削速度Cutting Speed Vc(m/min)									
涂层Coated Grade									
BM6230	BM2220	BM2230	BM3210	BM3230	BM5210	BM5220	BM4120	BM4130	BM4230
	295–200		305–200	260–130			260–130		
	240–170		255–170	230–105			230–105		
	335–225		335–225	265–140			265–140		
	250–170		270–180	240–115			240–115		
	200–135		210–140	160–90			160–90		
	185–150		195–130	150–80			150–80		
	120–90		130–90	120–70			120–70		
					940–730	750–650			
					850–720	680–580			
					940–810	1600–1450			
					850–720	1450–1250			
					320–300	300–260			
					285–245	225–190			
					470–405	370–320			
					470–405	370–320			
					330–285	260–220			
							65–55	55–40	65–55
							45–40	40–30	45–40
							60–55	48–38	60–55
							37–32	36–29	37–32
							45–39	44–35	45–39
							28–22	27–22	28–22
							26–18	22–16	26–18
							18–14	18–14	18–14
							130–110	130–110	130–110
							60–50	50–35	60–50
							45–40	42–35	45–40
45–29							40–29		
85–55							70–55		

25%切宽下切削速度推荐

Cutting Speed Recommadations on 25% ae

ISO	材料Material	单位切削力 Cutting force	布氏硬度 Hardness	切削速度Cutting Speed Vc(m/min)
				涂层Coated Grade
		N/mm2		BM6220
P	非合金钢Carbon steel			
	C=0.1–0.25%	1500	125	570–500
	C=0.25–0.55%	1600	150	510–470
	C=0.55–0.80%	1700	170	485–445
	低合金钢（合金元素≤5%）Low carbon steel （alloy ≤5%）			
	非淬硬钢Not–hardended steel	1700	180	425–390
	轴承钢Bearing steel	1800	210	310–285
	调质Tempered steel	1850	275	400–365
	调质Tempered steel	2050	350	260–245
	高合金钢（合金元素＞5%）High carbon steel（alloy ＞5%）			
	退火Annealed steel	1950	200	350–320
	淬硬工具钢Hardended tool steel	3000	325	135–125
	铸钢Casting steel			
	非合金Non–alloy	1550	180	410–375
	低合金（合金元素≤5%）Low alloy （alloy ≤5%）	1600	200	320–290
	高合金（合金元素＞5%）High alloy（alloy ＞5%）	2050	225	245–220
M	铁素体/马氏体/棒材/锻件Ferrite/Martensite/Bar/Forging			
	非淬硬Not–hardended	1800	200	
	沉淀硬化Precipitation hardening	2850	330	
	淬硬钢Hardended	2350	330	
	奥氏体 棒材/锻件 Austenitic bars/forgings			
	奥氏体 Austenitic	1800	180	
	沉淀硬化Precipitation hardening	2850	330	
	超级奥氏体 Super austenitic	2250	200	
	奥氏体–铁素体（双相）棒材/锻件 Austenitic–ferrite (duplex) bars/forgings			
	不可焊接Unweldable≥0.05% C	2000	230	
	可焊接Weldable＜0.05% C	2450	260	
	铁素体/马氏体 铸件 Ferrite/Martensite Castings			
	非淬硬Not–hardended	1700	200	
	沉淀硬化Precipitation hardening	2450	330	
	淬硬钢Hardended	2150	330	
	奥氏体 铸件 Austenitic castings			
	奥氏体Austenitic	1700	180	
	沉淀硬化Precipitation hardening	2450	330	
	超级奥氏体Super austenitic	2150	200	
	奥氏体–铁素体（双相）铸件Austenitic–Ferrite (duplex)			
	不可焊接Unweldable≥0.05% C	1800	230	
	可焊接weldable＜0.05% C	2250	260	

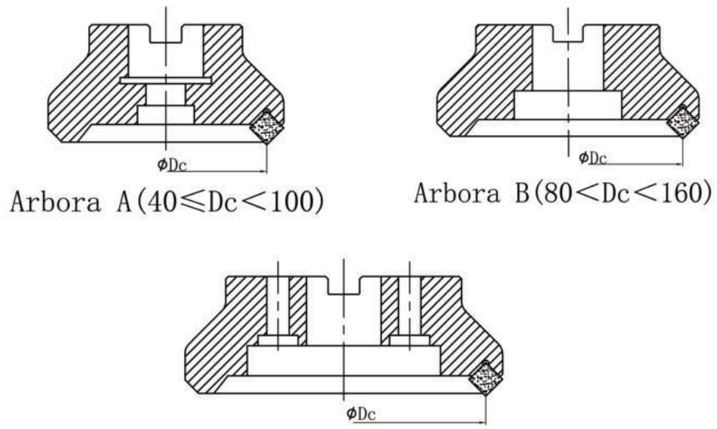
切削速度Cutting Speed Vc(m/min)									
涂层Coated Grade									
BM6230	BM2220	BM2230	BM3210	BM3230	BM5210	BM5220	BM4120	BM4130	BM4230
395–360	345–310						395–360	345–310	395–360
355–325	305–275						355–325	305–275	355–325
335–305	285–255						335–305	285–255	335–305
280–265	230–215						280–265	230–215	280–265
220–200	170–150						220–200	170–150	220–200
280–255	230–205						280–255	230–205	280–255
185–165	135–115						185–165	135–115	185–165
195–175	145–125						195–175	145–125	195–175
85–80	65–50						85–80	65–50	85–80
255–235	235–215						255–235	205–215	255–235
195–185	155–135						195–185	155–135	195–185
150–135	120–105						150–135	120–105	150–135
	275–255	210–185					275–255	285–265	285–265
	195–180	145–130					195–180	195–180	195–180
	200–190	155–145					200–190	205–190	205–190
	270–255	205–175					270–255	240–225	240–225
	190–175	140–125					190–175	195–175	195–175
	150–120	140–120					150–120	170–120	170–120
	245–230	185–160					245–230	250–235	250–235
	185–175	130–110					185–175	170–160	170–160
	260–240	195–170					260–240	235–170	235–170
	170–160	130–110					170–160	170–110	170–110
	130–105	120–100					130–105	160–100	160–100
	180–130	170–100					180–130	180–100	180–100
	215–180	160–140					215–180	210–140	210–140
	175–160	120–100					175–160	170–100	170–100
	210–190	180–110					210–190	200–180	200–180
	175–165	160–90					175–165	170–160	170–160

25%切宽下切削速度推荐

Cutting Speed Recommadations on 25% ae

ISO	材料Material	单位切削力 Cutting force	布氏硬度 Hardness		切削速度Cutting Speed Vc(m/min)									
					涂层Coated Grade									
		N/mm2		BM6220	BM6230	BM2220	BM2230	BM3210	BM3230	BM5210	BM5220	BM4120	BM4130	BM4230
P	非合金钢Carbon steel													
	C=0.1–0.25%	1500	125	570–500	395–360	345–310						395–360	345–310	395–360
	C=0.25–0.55%	1600	150	510–470	355–325	305–275						355–325	305–275	355–325
	C=0.55–0.80%	1700	170	485–445	335–305	285–255						335–305	285–255	335–305
	低合金钢（合金元素≤5%）Low carbon steel （alloy ≤5%）													
	非淬硬钢Not–hardended steel	1700	180	425–390	280–265	230–215						280–265	230–215	280–265
	轴承钢Bearing steel	1800	210	310–285	220–200	170–150						220–200	170–150	220–200
	调质Tempered steel	1850	275	400–365	280–255	230–205						280–255	230–205	280–255
	调质Tempered steel	2050	350	260–245	185–165	135–115						185–165	135–115	185–165
	高合金钢（合金元素＞5%）High carbon steel（alloy ＞5%）													
	退火Annealed steel	1950	200	350–320	195–175	145–125						195–175	145–125	195–175
	淬硬工具钢Hardended tool steel	3000	325	135–125	85–80	65–50						85–80	65–50	85–80
	铸钢Casting steel													
	非合金Non–alloy	1550	180	410–375	255–235	235–215						255–235	205–215	255–235
	低合金（合金元素≤5%）Low alloy （alloy ≤5%）	1600	200	320–290	195–185	155–135						195–185	155–135	195–185
	高合金（合金元素＞5%）High alloy（alloy ＞5%）	2050	225	245–220	150–135	120–105						150–135	120–105	150–135
M	铁素体/马氏体/棒材/锻件Ferrite/Martensite/Bar/Forging													
	非淬硬Not–hardended	1800	200			275–255	210–185					275–255	285–265	285–265
	沉淀硬化Precipitation hardening	2850	330			195–180	145–130					195–180	195–180	195–180
	淬硬钢Hardended	2350	330			200–190	155–145					200–190	205–190	205–190
	奥氏体 棒材/锻件 Austenitic bars/forgings													
	奥氏体 Austenitic	1800	180			270–255	205–175					270–255	240–225	240–225
	沉淀硬化Precipitation hardening	2850	330			190–175	140–125					190–175	195–175	195–175
	超级奥氏体 Super austenitic	2250	200			150–120	140–120					150–120	170–120	170–120
	奥氏体–铁素体（双相）棒材/锻件 Austenitic–ferrite (duplex) bars/forgings													
	不可焊接Unweldable≥0.05% C	2000	230			245–230	185–160					245–230	250–235	250–235
	可焊接Weldable＜0.05% C	2450	260			185–175	130–110					185–175	170–160	170–160
	铁素体/马氏体 铸件 Ferrite/Martensite Castings													
	非淬硬Not–hardended	1700	200			260–240	195–170					260–240	235–170	235–170
	沉淀硬化Precipitation hardening	2450	330			170–160	130–110					170–160	170–110	170–110
	淬硬钢Hardended	2150	330			130–105	120–100					130–105	160–100	160–100
	奥氏体 铸件 Austenitic castings													
	奥氏体Austenitic	1700	180			180–130	170–100					180–130	180–100	180–100
	沉淀硬化Precipitation hardening	2450	330			215–180	160–140					215–180	210–140	210–140
	超级奥氏体Super austenitic	2150	200			175–160	120–100					175–160	170–100	170–100
	奥氏体–铁素体（双相）铸件Austenitic–Ferrite (duplex)													
	不可焊接Unweldable≥0.05% C	1800	230			210–190	180–110					210–190	200–180	200–180
	可焊接weldable＜0.05% C	2250	260			175–165	160–90					175–165	170–160	170–160

芯轴铣刀接口尺寸
Dimension of Milling Cutter Arbor



Dimension(mm)										Fig.	Arbor
DC	DCONMS	A	B	E	DHUB		d1	d2	d3		
					For mold&die	For general					
32	16	8.4	5.6	20	30	-	-	-	-	E	
32	16	8.4	5.6	20	30	-	9	13.5	-	A	
40	16	8.4	5.6	20	38	-	9	13.5	-	A	
40	22	10.4	6.3	22	38	-	11	17	-	A	
50	22	10.4	6.3	22	40	45	11	17	-	A	
63	22	10.4	6.3	22	47	-	11	17	-	A	
80	25.4	9.526	6	26	-	70	13	20	-	A	
80	27	12.4	7	28	58	70	13	22	-	A	
100	31.75	12.7	8	32	-	80	18	26	-	A	
100	31.75	12.7	8	32	-	80	-	46	-	B	
100	32	14.4	8	26	66	85	18	26	-	A	
100	32	14.4	8	26	66	85	-	46	-	B	
125	38.1	15.875	10	38	80	-	-	56	-	B	
125	40	16.4	9	32	85	-	22	32	-	A	
125	40	16.4	9	32	85	-	-	56	-	B	
160	40	16.4	9	32	110	-	-	90	66.7	C	
160	50.8	19.05	11	38	100	-	-	72	-	B	
200	47.625	25.4	14	38	130	-	-	132	101.6	C	
200	60	25.7	14	40	130	-	-	132	101.6	C	
250	47.625	25.4	14	38	160	-	-	150	101.6	C	
250	60	25.7	14	40	160	-	-	150	101.6	C	
315	60	25.7	14	40	225	-	-	225	-	C	

C

钻削
DRILLING



邦普为客户提供基于自身对孔加工的不断开发和技术积累而得来的解决方案
Bangpu provides customers with solutions based on its own continuous development and technology accumulation of hole processing.

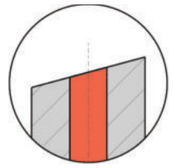
A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

钻削
Drilling

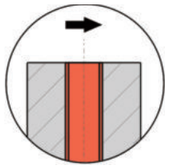
- **钻削刀具介绍和选择指南**
  Drilling tools introduction & Selection C02
- **可转位刀片钻**
  Indexable insert drills
  可转位刀片钻命名规则
  Code key for indexable insert drills C05
  可转位刀片钻WC系列
  Indexable insert drills WC series C06
  可转位刀片钻SP系列
  Indexable insert drills SP series C15
  技术指南
  Technical guide C28
  牌号说明
  Grades introduction C28
  功率和冷却
  Power & Coolant C29
  推荐切削参数
  Cutting datas recommendation C30
- **模块钻**
  Modular tip drills
  模块钻命名规则
  Code key for modular tip drills C38
  模块钻剑齿系列
  Modular tip drills Sword Tooth series C39
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  Cutting datas recommendation C45
  大直径模块钻
  Big dia. Modular drills C46
- **铲钻**
  Spade drills
  铲钻命名规则
  Code key for Spade drills C50
  铲钻
  Spade drills C51
- **推荐切削参数**
  Cutting Parameter Recommendation C57

钻削刀具介绍和选择指南
Drilling Tools Introduction&Selection

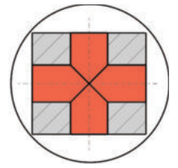
WC U-Drill	SP U-Drill
	
16.00-58.00 3 x DC	12.50-50.00 3-5 X DC
	
IT13-IT11 1-5um	IT13-IT11 1-5um
钻削深度Drilling depth 2XD、3XD、4XD、5XD	孔公差Hole tolerance +0.20/-0.10、+0.25/-0.10、+0.30/-0.10、+0.40/-0.10



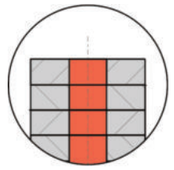
- 斜面孔
  Bevel hole



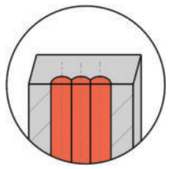
- 可调整直径钻孔
  Hole with adaptable diameter



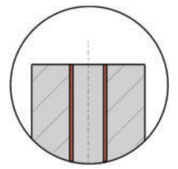
- 相贯孔
  Intersecting hole



- 堆叠孔
  Stacked holes



- 相连孔
  Connected hole



- 镗孔
  Boring hole

钻削刀具介绍和选择指南
Drilling Tools Introduction&Selection

多用途性和经济性
Versatility and economy.

WC型刀片有较好的定心性能，出色的切削控制和排屑
WC shape insert has centering function and good chip control and chip flow.

钻孔效率高，经济型好
Highly drilling efficient and better economical.

选择不同刀片槽型和材质搭配使用，以匹配各种加工应用
Choose different insert geometry and grade combinations,to match various applications.

3 个切削刃
3 edges insert.

适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工
Suitable for machining steel stainless steel,heat resitant alloy,cast iron materials.

应用于模具、汽车零部件、通用机械等领域
Used in die and mould, automotive components, general engineering industries.

刀片槽型
Insert geometry

用途	断屑槽形状	断屑槽形状	特征·用途
Purpose	Geometry	Shape	Features·Purpose
WC系列 WC series	G		·一般材料通用加工首选 ·独特的槽型设计，将切屑轻松排出，抑制切屑阻塞 ·高强度的刃口设计，保证了刃口的坚固性及良好的断屑性能 ·能够稳定处理容易延伸的切屑，抑制切屑缠绕刀杆 ·适用于钢、不锈钢等钻孔加工 ·1st Choice for general material processing. ·Unique Geometry design allows for easy removal of chips and restrains chip blockage. ·High-strength edge design ensures robustness and good chip-breaking performance. ·Capable of stably handling easily extended chips and restraining chip entanglement on the toolbar. ·Suitable for drilling processing of steel, stainless steel, etc.
	L		·断屑能力强--长屑材料加工首选槽型 ·高效快速--最高可达一般钻孔的8倍效率 ·持久耐用--采用特殊硬质合金材料，寿命比一般钻孔可增加一倍 ·切削顺畅--独特的刃口设计，切削力大幅度降低 ·通用性强--可钻削倾斜<30°的表面，大孔无需降低钻削参数 ·Strong chip-breaking ability - preferred type for processing long chip materials. ·Efficient and fast - up to 8 times the efficiency of regular drilling. ·Durable - using special carbide materials, the lifespan can be doubled compared to ordinary drilling. ·Smooth cutting - unique edge design greatly reduces cutting force. ·Strong universality - capable of drilling surfaces with an inclination less than 30°, without reducing drilling parameters for large holes.
	N		·有色金属加工专用槽型 ·具有锋利的切削刃，有利于获得光洁度 ·较高的加工表面质量 ·具有宽广的容屑空间，使排屑顺畅 ·适用于有色金属的钻孔加工 ·Special geometry for non-ferrous metal processing. ·It has sharp cutting edges which are beneficial for obtaining high surface quality with high smoothness. ·Wide chip holding space for smooth chip removal. ·Suitable for drilling processing of non-ferrous metals.

多用途性和经济性
Versatility and economy.

SP型刀片有良好的表面成型，刃口强度高
SP shape insert has Good surface quality and strong cutting edge

相同规格的中心刀片和周边刀片
The same size of central and peripheral inserts

刀片4个切削刃，孔底相对较平整
4 edgesinsert,better bottom of hole

加宽的排屑槽，更利于铁屑排出
Increased chiproom and easy for chips evacuation

适用于钢件、不锈钢、耐热合金、铸铁等各种材料的加工
Suitable for machining steel stainless steel,heat resitant alloy,cast iron materials.

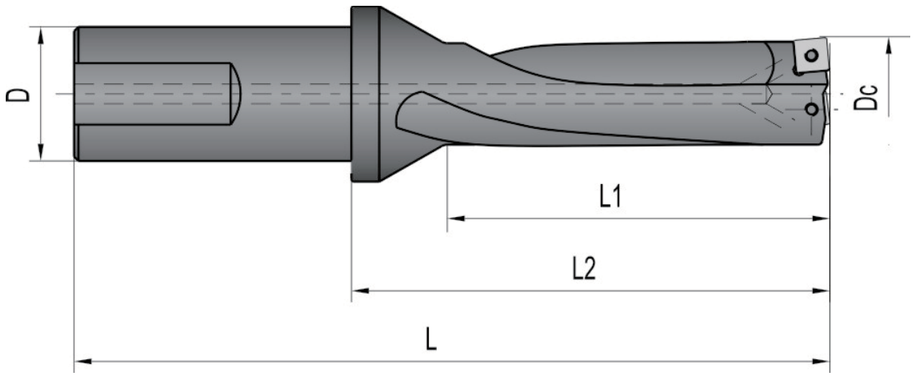
广泛应用于航空航天、汽车零部件、能源、模具、通用机械等领域
Widely used in aerospace,automotive components, energy,die and mould general engineering industries

刀片槽型
Insert geometry

用途	断屑槽形状	断屑槽形状	特征·用途
Purpose	Geometry	Shape	Features·Purpose
SP系列 SP series	G		·一般材料通用加工首选 ·优异的槽型设计，为断屑提供良好的空间 ·表面精度高，刃口锋利，强度高，具有很好的抗冲击性能 ·刀具满足加工黏性材料的要求，适用于奥氏体不锈钢、合金钢等材料的加工 ·Preferred for general material processing. ·Excellent geometry design provides good space for chip breaking. ·High surface accuracy, sharp edge, high strength, and excellent impact resistance. ·This tool meets the requirements for processing adhesive materials and is suitable for processing materials such as austenitic stainless steel and alloy steel. etc.
	N		·有色金属加工专用槽型 ·具有锋利的切削刃，有利于获得光洁度较高的加工表面质量 ·具有宽广的容屑空间，使排屑顺畅 ·适用于有色金属的钻孔加工 ·Special geometry for non-ferrous metal processing. ·It has sharp cutting edges which are beneficial for obtaining high surface quality with high smoothness. ·Wide chip holding space for smooth chip removal. ·Suitable for drilling processing of non-ferrous metals.

可转位刀片钻命名规则

Code Key For Indexable Insert Drills

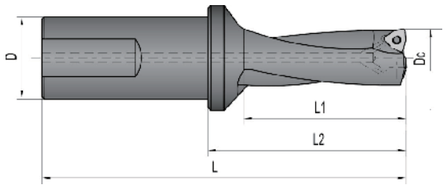


C25	—	3D	19.5	—	62	Sp05
柄径D Flange Dia		倍径比 Drilling depth: 3Xdiameter	刃径DC Diameter		有效加工深度L1 Usable length	刀片型号 Available inserts

可转位刀片钻WC系列（2D）

U-drill WC Type



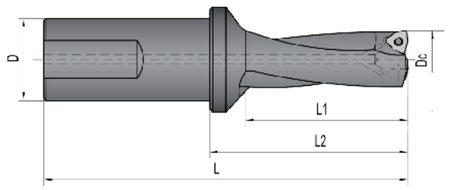


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C20-2D15-33WC03	15.00	20.00	92.00	33.00	48.00	WC□□030208	WC025060	T8
C20-2D15.5-34WC03	15.50		93.00	34.00	49.00			
C20-2D16-35WC03	16.00		94.00	35.00	50.00			
C20-2D16.5-36WC03	16.50		95.00	36.00	51.00			
C20-2D17-37WC03	17.00		96.00	37.00	52.00			
C25-2D17.5-38WC03	17.50	25.00	109.00	38.00	53.00			
C25-2D18-39WC03	18.00		110.00	39.00	54.00			
C25-4D18.5-77WC03	18.50		111.00	40.00	55.00			
C25-2D19-41WC03	19.00		112.00	41.00	56.00			
C25-2D19.5-42WC03	19.50		113.00	42.00	57.00			
C25-2D20-43WC03	20.00		114.00	43.00	58.00			
C25-2D20.5-44WC03	20.50		115.00	44.00	59.00			
C25-2D21-45WC04	21.00		116.00	45.00	60.00	WC□□040208	WC025060	T8
C25-2D21.5-46WC04	21.50		117.00	46.00	61.00			
C25-2D22-47WC04	22.00		118.00	47.00	62.00			
C25-2D22.5-48WC04	22.50		119.00	48.00	63.00			
C25-2D23-49WC04	23.00		123.00	49.00	67.00			
C25-2D23.5-50WC04	23.50		124.00	50.00	68.00			
C25-2D24-51WC04	24.00		125.00	51.00	69.00			
C25-2D24.5-52WC04	24.50		126.00	52.00	70.00			
C25-2D25-53WC05	25.00		127.00	53.00	71.00	WC□□050308	WC030080	T8
C32-2D25.5-54WC05	25.50	32.00	134.00	54.00	74.00			
C32-2D26-55WC05	26.00		135.00	55.00	75.00			
C32-2D26.5-56WC05	26.50		136.00	56.00	76.00			
C32-2D27-57WC05	27.00		137.00	57.00	77.00			
C32-2D27.5-58WC05	27.50		138.00	58.00	78.00			
C32-2D28-59WC05	28.00		139.00	59.00	79.00			
C32-2D28.5-60WC05	28.50		140.00	60.00	80.00			
C32-2D29-62WC05	29.00		143.00	62.00	83.00			
C32-2D29.5-63WC05	29.50		144.00	63.00	84.00			
C32-2D30-64WC05	30.00		148.00	64.00	88.00			
C32-2D30.5-65WC05	30.50		149.00	65.00	89.00			

可转位刀片钻WC系列（2D）

U-drill WC Type



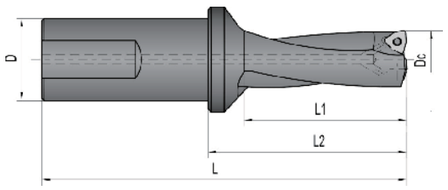


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C32-2D31-66WC06	31.00	32.00	150.00	66.00	90.00	WC□□06T308	WC035080	T15
C32-2D31.5-67WC06	31.50		151.00	67.00	91.00			
C32-2D32-68WC06	32.00		152.00	68.00	92.00			
C32-2D32.5-69WC06	32.50		153.00	69.00	93.00			
C32-2D33-70WC06	33.00		154.00	70.00	94.00			
C32-2D33.5-71WC06	33.50		155.00	71.00	95.00			
C32-2D34-72WC06	34.00		156.00	72.00	96.00			
C32-2D34.5-73WC06	34.50		157.00	73.00	97.00			
C32-2D35-74WC06	35.00		158.00	74.00	98.00			
C32-2D35.5-75WC06	35.50		159.00	75.00	99.00			
C32-2D36-76WC06	36.00		160.00	76.00	100.00			
C32-2D36.5-77WC06	36.50		161.00	77.00	101.00			
C32-2D37-79WC06	37.00		169.00	79.00	109.00			
C32-2D37.5-80WC06	37.50		170.00	80.00	110.00			
C32-2D38-81WC06	38.00		171.00	81.00	111.00			
C32-2D38.5-82WC06	38.50		172.00	82.00	112.00			
C32-2D39-83WC06	39.00		173.00	83.00	113.00			
C32-2D39.5-84WC06	39.50		174.00	84.00	114.00			T15
C40-2D40-85WC06	40.00	40.00	185.00	85.00	115.00			
C40-2D41-87WC06	41.00		187.00	87.00	117.00			
C40-2D42-89WC08	42.00		189.00	89.00	119.00	WC□□080412	WC040100	T15
C40-2D43-91WC08	43.00		191.00	91.00	121.00			
C40-2D44-93WC08	44..00		193.00	93.00	123.00			
C40-2D45-95WC08	45.00		195.00	95.00	125.00			
C40-2D46-97WC08	46.00		197.00	97.00	127.00			
C40-2D47-99WC08	47.00		199.00	99.00	129.00			
C40-2D48-101WC08	48.00		201.00	101.00	131.00			
C40-2D49-103WC08	49.00		203.00	103.00	133.00			
C40-2D50-105WC08	50.00		205.00	105.00	135.00			
C40-2D51-107WC08	51.00		207.00	107.00	137.00			
C40-2D52-109WC08	52.00		209.00	109.00	139.00			
C40-2D53-111WC08	53.00		211.00	111.00	141.00			
C40-2D54-113WC08	54.00	40.00	213.00	113.00	143.00	WC□□080412	WC040100	T15
C40-2D55-115WC08	55.00		215.00	115.00	145.00			
C40-2D56-120WC08	56.00		222.00	120.00	152.00			
C40-2D57-122WC08	57.00		224.00	122.00	154.00			
C40-2D58-124WC08	58.00		226.00	124.00	156.00			
C40-2D59-126WC08	59.0.0		228.00	126.00	158.00			
C40-2D60-128WC08	60.00		230.00	128.00	160.00			

可转位刀片钻WC系列（3D）

U-drill WC Type



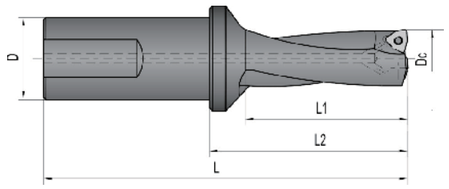


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C20-3D15-48WC03	15.00	20.00	107.00	48.00	63.00	WC□□030208	WC025060	T8
C20-3D15.5-50WC03	15.50		109.00	50.00	65.00			
C20-3D16-51WC03	16.00		110.00	51.00	66.00			
C20-3D16.5-53WC03	16.50		112.00	53.00	68.00			
C20-3D17-54WC03	17.00		113.00	54.00	69.00			
C25-3D17.5-56WC03	17.50	25.00	127.00	56.00	71.00			
C25-3D18-57WC03	18.00		128.00	57.00	72.00			
C25-3D18.5-59WC03	18.50		130.00	59.00	74.00			
C25-3D19-60WC03	19.00		131.00	60.00	75.00			
C25-3D19.5-62WC03	19.50		133.00	62.00	77.00			
C25-3D20-63WC03	20.00		134.00	63.00	78.00			
C25-3D20.5-65WC03	20.50		136.00	65.00	80.00			
C25-3D21-66WC04	21.00		137.00	66.00	81.00	WC□□040208	WC025060	T8
C25-3D21.5-68WC04	21.50		139.00	68.00	83.00			
C25-3D22-69WC04	22.00		140.00	69.00	84.00			
C25-3D22.5-71WC04	22.50		142.00	71.00	86.00			
C25-3D23-72WC04	23.00		146.00	72.00	90.00			
C25-3D23.5-74WC04	23.50		148.00	74.00	92.00			
C25-3D24-75WC04	24.00		149.00	75.00	93.00			
C25-3D24.5-77WC04	24.50		151.00	77.00	95.00			
C25-3D25-78WC05	25.00		152.00	78.00	96.00	WC□□050308	WC030080	T8
C32-3D25.5-80WC05	25.50	32.00	160.00	80.00	100.00			
C32-3D26-81WC05	26.00		161.00	81.00	101.00			
C32-3D26.5-83WC05	26.50		163.00	83.00	103.00			
C32-2D27-57WC05	27.00		164.00	84.00	104.00			
C32-3D27.5-86WC05	27.50		166.00	86.00	106.00			
C32-3D28-87WC05	28.00		167.00	87.00	107.00			
C32-3D28.5-89WC05	28.50		169.00	89.00	109.00			
C32-3D29-91WC05	29.00		172.00	91.00	112.00			
C32-3D29.5-93WC05	29.50		174.00	93.00	114.00			
C32-3D30-94WC05	30.00		178.00	94.00	118.00			
C32-3D30.5-96WC05	30.50		180.00	96.00	120.00			

可转位刀片钻WC系列（3D）

U-drill WC Type



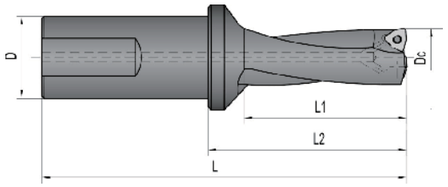


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C32-3D31-97WC06	31.00	32.00	181.00	97.00	121.00	WC□□06T308	WC035080	T15
C32-3D31.5-99WC06	31.50		183.00	99.00	123.00			
C32-3D32-100WC06	32.00		184.00	100.00	124.00			
C32-3D32.5-102WC06	32.50		186.00	102.00	126.00			
C32-3D33-103WC06	33.00		187.00	103.00	127.00			
C32-3D33.5-105WC06	33.50		189.00	105.00	129.00			
C32-3D34-106WC06	34.00		190.00	106.00	130.00			
C32-3D34.5-108WC06	34.50		192.00	108.00	132.00			
C32-3D35-109WC06	35.00		193.00	109.00	133.00			
C32-3D35.5-111WC06	35.50		195.00	111.00	135.00			
C32-3D36-112WC06	36.00		196.00	112.00	136.00			
C32-3D36.5-114WC06	36.50		198.00	114.00	138.00			
C32-3D37-116WC06	37.00		206.00	116.00	146.00			
C32-3D37.5-118WC06	37.50		208.00	118.00	148.00			
C32-3D38-119WC06	38.00		209.00	119.00	149.00			
C32-3D38.5-121WC06	38.50		211.00	121.00	151.00			
C40-3D39-122WC06	39.00	40.00	222.00	122.00	152.00			
C40-3D39.5-124WC06	39.50		224.00	124.00	154.00			
C40-3D40-125WC06	40.00		225.00	125.00	155.00			
C40-3D41-128WC06	41.00		228.00	128.00	158.00			
C40-3D42-131WC08	42.00		231.00	131.00	161.00	WC□□080412	WC040100	T15
C40-3D43-134WC08	43.00		234.00	134.00	164.00			
C40-3D44-137WC08	44..00		237.00	137.00	167.00			
C40-3D45-140WC08	45.00		240.00	140.00	170.00			
C40-3D46-143WC08	46.00		243.00	143.00	173.00			
C40-3D47-146WC08	47.00		246.00	146.00	176.00			
C40-3D48-149WC08	48.00		249.00	149.00	179.00			
C40-3D49-152WC08	49.00		252.00	152.00	182.00			
C40-3D50-155WC08	50.00		255.00	155.00	185.00			
C40-3D51-158WC08	51.00		258.00	158.00	188.00			
C40-3D52-161WC08	52.00		261.00	161.00	191.00			
C40-3D53-164WC08	53.00		264.00	164.00	194.00			
C40-3D54-167WC08	54.00		267.00	167.00	197.00			
C40-3D55-170WC08	55.00		270.00	170.00	200.00			
C40-3D56-176WC08	56.00		278.00	176.00	208.00			
C40-3D57-179WC08	57.00		281.00	179.00	211.00			
C40-3D58-182WC08	58.00		284.0	182.00	214.00			
C40-3D59-185WC08	59.0.0		287.00	185.00	217.00			
C40-3D60-188WC08	60.00		290.00	188.00	220.00			

可转位刀片钻WC系列（4D）

U-drill WC Type



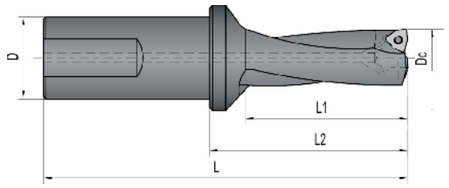


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C20-4D15-63WC03	15.00	20.00	122.00	63.00	78.00	WC□□030208	WC025060	T8
C20-4D15.5-65WC03	15.50		124.00	65.00	80.00			
C20-4D16-67WC03	16.00		126.00	67.00	82.00			
C20-4D16.5-69WC03	16.50		128.00	69.00	84.00			
C20-4D17-71WC03	17.00		130.00	71.00	86.00			
C25-4D17.7-73WC03	17.50	25.00	144.00	73.00	88.00			
C25-4D18-75WC03	18.00		146.00	75.00	90.00			
C25-4D18.5-77WC03	18.50		148.00	77.00	92.00			
C25-4D19-79WC03	19.00		150.00	79.00	94.00			
C25-4D19.5-81WC03	19.50		152.00	81.00	96.00			
C25-4D20-83WC03	20.00		154.00	83.00	98.00			
C25-4D20.5-85WC03	20.50		156.00	85.00	100.00			
C25-4D21-87WC04	21.00		158.00	87.00	102.00	WC□□040208	WC025060	T8
C25-4D21.5-89WC04	21.50		160.00	89.00	104.00			
C25-4D22-91WC04	22.00		162.00	91.00	106.00			
C25-4D22.5-93WC04	22.50		164.00	93.00	108.00			
C25-4D23-95WC04	23.00		169.00	95.00	113.00			
C25-4D23.5-97WC04	23.50		171.00	97.00	115.00			
C25-4D24-99WC04	24.00		173.00	99.00	117.00			
C25-4D24.5-101WC04	24.50		175.00	101.00	119.00			
C25-4D25-103WC05	25.00		177.00	103.00	121.00	WC□□050308	WC030080	T8
C32-4D26.5-109WC05	25.50	32.00	185.00	105.00	125.00			
C32-4D27-111WC05	26.00		187.00	107.00	127.00			
C32-4D27.5-113WC05	26.50		189.00	109.00	129.00			
C32-4D28-115WC05	27.00		191.00	111.00	131.00			
C32-4D27.5-113WC05	27.50		193.00	113.00	133.00			
C32-4D28-115WC05	28.00		195.00	115.00	135.00			
C32-4D28.5-117WC05	28.50		197.00	117.00	137.00			
C32-4D29-120WC05	29.00		201.00	120.00	141.00			
C32-4D29.5-122WC05	29.50		203.00	122.00	143.00			
C32-4D30-124WC05	30.00		208.00	124.00	148.00.			
C32-4D30.5-126WC05	30.50		210.00	126.00	150.00			

可转位刀片钻WC系列（4D）

U-drill WC Type



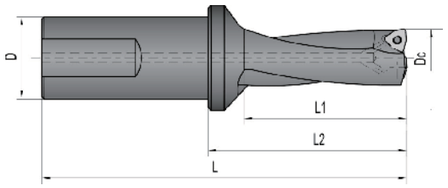


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C32-4D31-128WC06	31.00	32	212.00	128.00	152.00	WC□□06T308	WC035080	T15
C32-4D31.5-130WC06	31.50		214.00	130.00	154.00			
C32-4D32-132WC06	32.00		216.00	132.00	156.00			
C32-4D32.5-134WC06	32.50		218.00	134.00	158.00			
C32-4D33-136WC06	33.00		220.00	136.00	160.00			
C32-4D33.5-138WC06	33.50		222.00	138.00	162.00			
C32-4D34-140WC06	34.00		224.00	140.00	164.00			
C32-4D34.5-142WC06	34.50		226.00	142.00	166.00			
C32-4D35-144WC06	35.00		228.00	144.00	168.00			
C32-4D35.5-146WC06	35.50		230.00	146.00	170.00			
C32-4D36-148WC06	36.00		232.00	148.00	172.00			
C32-4D36.5-150WC06	36.50		236.00	150.00	174.00			
C32-4D37-153WC06	37.00		243.00	153.00	183.00			
C32-4D37.5-155WC06	37.50		245.00	155.00	185.00			
C32-4D38-157WC06	38.00		247.00	157.00	187.00			
C32-4D38.5-159WC06	38.50		249.00	159.00	189.00			
C40-4D39-161WC06	39.00	45	261.00	161.00	191.00			
C40-4D39.5-163WC06	39.500		263.00	163.00	193.00			
C40-4D40-165WC06	40.00		265.00	165.00	195.00			
C40-4D41-169WC06	41.00		269.00	169.00	199.00			
C40-4D42-173WC08	42.00		273.00	173.00	203.00	WC□□080412	WC040100	T15
C40-4D43-177WC08	43.00		277.00	177.00	207.00			
C40-4D44-181WC08	44.00		281.00	181.00	211.00			
C40-4D45-185WC08	45.00		285.00	185.00	215.00			
C40-4D46-189WC08	46.00		289.00	189.00	219.00			
C40-4D47-193WC08	47.00		293.00	193.00	223.00			
C40-4D48-197WC08	48.00		297.00	197.00	227.00			
C40-4D49-201WC08	49.00		301.00	201.00	231.00			
C40-4D50-205WC08	50.00		305.00	205.00	235.00			
C40-4D51-209WC08	51.00		309.00	209.00	239.00			
C40-4D52-213WC08	52.00		313.00	213.00	243.00			
C40-4D53-217WC08	53.00		317.00	217.00	247.00			

可转位刀片钻WC系列（5D）

U-drill WC Type



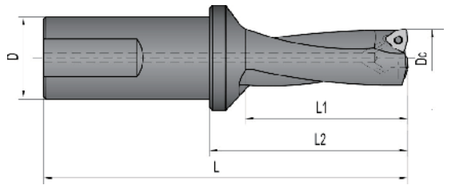


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C20-5D16-83WC03	16.00	20	142.00	83.00	98.00	WC□□030208	WC025060	T8
C20-5D16.5-86WC03	16.50		145.00	86.00	101.00			
C20-5D17-88WC03	17.00		147.00	88.00	103.00			
C25-5D17.5-91WC03	17.50	25	150.00	91.00	106.00			
C25-5D18-93WC03	18.00		152.00	93.00	108.00			
C25-5D18.5-96WC03	18.50		155.00	96.00	111.00			
C25-5D19-98WC03	19.00		157.00	98.00	113.00			
C25-5D19.5-101WC03	19.50		160.00	101.00	116.00			
C25-5D20-103WC03	20.00		162.00	103.00	118.00			
C25-5D20.5-106WC03	20.50		165.00	106.00	121.00			
C25-5D21-108WC04	21.00		167.00	108.00	123.00	WC□□040208	WC025060	T8
C25-5D21.5-111WC04	21.50		170.00	111.00	126.00			
C25-5D22-113WC04	22.00		172.00	113.00	128.00			
C25-5D22.5-116WC04	22.50		175.00	116.00	131.00			
C25-5D23-118WC04	23.00		180.00	118.00	136.00			
C25-5D23.5-121WC04	23.50		183.00	121.00	139.00			
C25-5D24-123WC04	24.00		185.00	123.00	141.00			
C25-5D24.5-126WC04	24.50		188.00	126.00	144.00			
C25-5D25-128WC05	25.00		190.00	128.00	146.00	WC□□050308	WC030080	T8
C32-5D25.5-131WC05	25.50	32	213.00	131.00	453.00			
C32-5D26-133WC05	26.00		216.00	133.00	456.00			
C32-5D26.5-136WC05	26.50		217.00	136.00	157.00			
C32-5D27-138WC05	27.00		218.00	138.00	158.00			
C32-5D27.5-141WC05	27.50		22?	141.00	161.00			
C32-5D28-143WC05	28.00		223.00	143.00	163.00			
C32-5D28.5-146WC05	28.50		226.00	146.00	166.00			
C32-5D29-149WC05	29.00		230.00	149.00	170.00			
C32-5D29.5-151WC05	29.50		233.00	151.00	173.00			
C32-5D30-154WC05	30.00		238.00	154.00	178.00			
C32-5D30.5-157WC05	30.50		241.00	157.00	181.0			

可转位刀片钻WC系列（5D）

U-drill WC Type





型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C32-5D31-159WC06	31.00	32	243.00	159.00	183.00	WC□□06T308	WC035080	T15
C32-5D31.5-162WC06	31.50		245.00	162.00	185.00			
C32-5D32-164WC06	32.00		248.00	164.00	188.00			
C32-5D32.5-16/WC06	32.50		251.00	167.00	191.00			
C32-5D33-169WC06	33.00		253.00	169.00	193.00			
C32-5D33.5-172WC06	33.50		255.00	172.00	195.00			
C32-5D34-174WC06	34.00		258.00	174.00	198.00			
C32-5D34.5-177WC06	34.50		261.00	177.00	201.00			
C32-5D35-179WC06	35.00		263.00	179.00	203.00			
C32-5D35.5-182WC06	35.50		265.00	182.00	205.00			
C32-5D36-184WC06	36.00		268.00	184.00	208.00			
C32-5D36.5-187WC06	36.50		271.00	187.00	211.00			
C32-5D37-190WC06	37.00		280.00	190.00	220.00			
C32-5D37.5-193WC06	37.50		283.00	193.00	223.00			
C32-5D38-195WC06	38.00		285.00	195.00	235.00			
C32-5D38.5-198WC06	38.50		288.00	198.00	228.00			
C32-5D39-200WC06	39.00		290.00	200.00	230.00			
C32-5D39.5-203WC06	39.50		293.00	203.00	233.00			
C40-5D40-205WC06	40.00	40	305.00	205.00	235.00	WC□□080412	WC040100	T15
C40-5D41-210WC06	41.00		310.00	210.00	240.00			
C40-5D42-215WC08	42.00		315.00	215.00	245.00			
C40-5D43-220WC08	43.00		320.00	220.00	250.00			
C40-5D44-225WC08	44.00		325.00	225.00	255.00			
C40-5D45-230WC08	45.00		330.00	230.00	260.00			
C40-5D46-235WC08	46.00		335.00	235.00	265.00			
C40-5D47-240WC08	47.00		340.00	240.00	270.00			
C40-5D48-245WC08	48.00		345.00	245.00	275.00			
C40-5D49-250WC08	49.00		350.00	250.00	280.00			
C40-5D50-255WC08	50.00		355.00	255.00	285.00			
C40-5D51-260WC08	51.00		360.00	260.00	290.00			
C40-5D52-265WC08	52.00		365.00	265.00	295.00			
C40-5D53-270WC08	53.00		370.00	270.00	300.00			
C40-5D54-275WC08	31.00		212.00	128.00	152.00			
C40-5D55-280WC08	31.50		214.00	130.00	154.00			
C40-5D56-285WC08	32.00		216.00	132.00	156.00			
C40-5D57-295WC08	32.50		218.00	134.00	158.00			
C40-5D58-300WC08	33.00		220.00	136.00	160.00			
C40-5D59-305WC08	33.50		222.00	138.00	162.00			
C40-5D60-310WC08	34.00		224.00	140.00	164.00			

WC适用刀片

Inserts

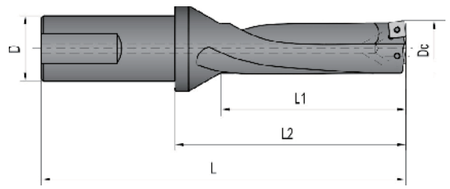
形状 Shape	型号 Specification		涂层 Coated BD6220	BD2220	BD2230	BD3210	未涂层 Uncoated BD5210	尺寸(mm) Dimension d	s	d1
	WCMX	030208-G		★	★	★		5.50	2.38	2.80
		040208-G		★	★	★		6.35	2.38	3.00
		050308-G		★	★	★		8.00	3.18	3.40
		06T308-G		★	★	★		9.525	3.79	3.80
		080412-G		★	★	★		12.70	4.76	4.40
	WCMX	030208-L			★			5.50	2.38	2.80
		040208-L			★			6.35	2.38	3.00
		050308-L			★			8.00	3.18	3.40
		06T308-L			★			9.525	3.97	3.80
		080412-L			★			12.70	4.76	4.40
	WCGT	030208-N					★	5.56	2.38	2.90
		040208-N					★	6.35	2.38	3.00
		050308-N					★	7.94	3.18	3.40
		060308-N					★	9.525	3.97	4.00
		06T308-N					★	9.525	3.97	4.00
		080408-N					★	12.70	4.76	4.40

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

可转位刀片钻SP系列（2D）

U-drill SP Type

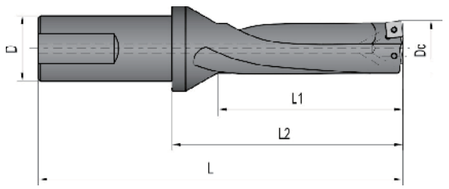




型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C20-2D13-29SP05	13.00	20.00	88.00	29.00	44.00	SP□□050204	SP020050	T6
C20-2D13.5-30SP05	13.50		89.00	30.00	45.00			
C20-2D14-31SP05	14.00		90.00	31.00	46.00			
C20-2D14.5-32SP05	14.50		91.00	32.00	47.00			
C20-2D15-33SP05	15.00		92.00	33.00	48.00			
C20-2D15.5-34SP06	15.50	25.00	93.00	34.00	49.00	SP□□060204	SP022060	T6
C20-2D16-35SP06	16.00		94.00	35.00	50.00			
C20-2D16.5-36SP06	16.50		95.00	36.00	51.00			
C20-2D17-37SP06	17.00		96.00	37.00	52.00			
C25-2D17.5-38SP06	17.50		109.00	38.00	53.00			
C25-2D18-39SP06	18.00		110.00	39.00	54.00			
C25-2D18.5-40SP06	18.50		111.00	40.00	55.00			
C25-2D19-41SP06	19.00		112.00	41.00	56.00			
C25-2D19.5-42SP06	19.50		113.00	42.00	57.00			
C25-2D20-43SP06	20.00		114.00	43.00	58.00			
C25-2D20.5-44SP06	20.50		115.00	44.00	59.00			
C25-2D21-45SP06	21.00		116.00	45.00	60.00			
C25-2D21.5-46SP06	21.50		117.00	46.00	61.00			
C25-2D22-47SP07	22.00		118.00	47.00	62.00	SP□□07T308	Sp025060	T8
C25-2D22.5-48SP07	22.50		119.00	48.00	63.00			
C25-2D23-49SP07	23.00		123.00	49.00	67.00			
C25-2D23.5-50SP07	23.50		124.00	50.00	68.00			
C25-2D24-51SP07	24.00		125.00	51.00	69.00			
C25-2D24.5-52SP07	24.50		126.00	52.00	70.00			
C25-2D25-53SP07	25.00		127.00	53.00	71.00			
C32-2D25.5-54SP07	25.50	32.00	134.00	54.00	74.00			
C32-2D26-55SP07	26.00		135.00	55.00	75.00			
C32-2D26.5-56SP07	26.50		136.00	56.00	76.00			
C32-2D27-57SP07	27.00		137.00	57.00	77.00			
C32-2D27.5-58SP07	27.50		138.00	58.00	78.00			
C32-2D28-59SP09	28.00		139.00	59.00	79.00	SP□□090408	SP035080	T15
C32-2D28.5-60SP9	28.50		140.00	60.00	80.00			

可转位刀片钻SP系列（2D）
U-drill SP Type



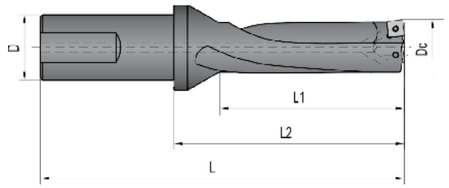


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C32-2D29-62SP09	29.00	32.00	143.00	62.00	83.00	SP□□090408	SP035080	T15
C32-2D29.5-63SP09	29.50		144.00	63.00	84.00			
C32-2D30-64SP09	30.00		148.00	64.00	88.00			
C32-2D30.5-65SP09	30.20		149.00	65.00	89.00			
C32-2D31-66SP09	31.00		150.00	66.00	90.00			
C32-2D31.5-67SP09	31.50		151.00	67.00	91.00			
C32-2D32-68SP09	32.00		152.00	68.00	92.00			
C32-2D32.5-69SP09	32.50		153.00	69.00	93.00			
C32-2D33-70SP09	33.00		154.00	70.00	94.00			
C32-2D33.5-71SP09	33.50		155.00	71.00	95.00			
C32-2D34-72SP11	34.00	32.00	156.00	72.00	96.00	SP□□110408	SP040100	T15
C32-2D34.5-73SP11	34.50		157.00	73.00	97.00			
C32-2D35-74SP11	35.00		158.00	74.00	98.00			
C32-2D35.5-75SP11	35.50		159.00	75.00	99.00			
C32-2D36-76SP11	36.00		160.00	76.00	100.00			
C32-2D36.5-77SP11	36.50		161.00	77.00	101.00			
C32-2D37-79SP11	37.00		169.00	79.00	109.00			
C32-2D37.5-80SP11	37.50		170.00	80.00	110.00			
C32-2D38-81SP11	38.00		171.00	81.00	111.00		SP040100	T15
C32-2D38.5-82SP11	38.50		172.00	82.00	112.00			
C32-2D39-83SP11	39.00		173.00	83.00	113.00			
C32-2D39.5-84SP11	39.50		174.00	84.00	114.00			
C40-2D40-85SP11	40.00	40.00	185.00	85.00	115.00			
C40-2D41-87SP11	41.00		187.00	87.00	117.00			
C40-2D42-89SP14	42.00		189.00	89.00	119.00	SP□□140512	SP050100	T20
C40-2D43-91SP14	43.00		191.00	91.00	121.00			
C40-2D44-93SP14	44.00		193.00	93.00	123.00			
C40-2D45-95SP14	45.00		195.00	95.00	125.00			
C40-2D46-97SP14	46.00		197.00	97.00	127.00			
C40-2D47-99SP14	47.00		199.00	99.00	129.00			
C40-2D48-101SP14	48.00		201.00	101.00	131.00			
C40-2D49-103SP14	49.00		203.00	103.00	133.00			

可转位刀片钻SP系列（2D）

U-drill SP Type



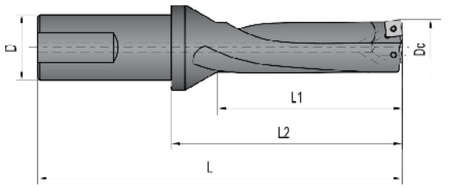


型号	刃径	柄径	尺 寸(mm)			适用刀片	适用螺钉	板手
Specification	ΦDc	ΦD	Dimension			Available inserts	Screw	Wrench
			L	L1	L2			
C40-2D50-105SP14	50.00	40.00	205.00	105.00	135.00	SP□□140512	SP050100	T20
C40-2D51-107SP09	51.00		207.00	107.00	137.00	SP□□090408	SP035080	T15
C40-2D52-109SP09	52.00		209.00	109.00	139.00			
C40-2D53-111SP09	53.00		211.00	111.00	141.00			
C40-2D54-113SP09	54.00		213.00	113.00	143.00			
C40-2D55-115SP09	55.00		215.00	115.00	145.00			
C40-2D56-120SP09	56.00		222.00	120.00	152.00			
C40-2D57-122SP09	57.00		224.00	122.00	154.00			
C40-2D58-124SP09	58.00		226.00	124.00	156.00			
C40-2D59-126SP09	59.00		228.00	126.00	158.00			
C40-2D60-128SP09	60.00		230.00	128.00	160.00			

可转位刀片钻SP系列（3D）

U-drill SP Type



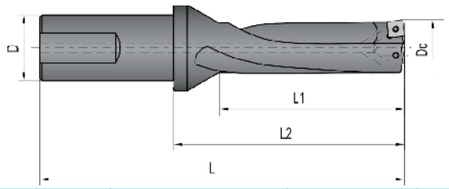


型号	刃径	柄径	尺 寸(mm)			适用刀片	适用螺钉	板手
Specification	ΦDc	ΦD	Dimension			Available inserts	Screw	Wrench
			L	L1	L2			
C20-3D13-42SP05	13.00	20.00	101.00	42.00	57.00	SP□□050204	SP020050	T6
C20-3D13.5-44SP05	13.50		103.00	44.00	59.00			
C20-3D14-45SP05	14.00		104.00	45.00	60.00			
C20-3D14.5-47SP05	14.50		106.00	47.00	62.00			
C20-3D15-48SP05	15.00		107.00	48.00	63.00			
C25-3D15.5-50SP06	15.00	25.00	109.00	50.00	65.00	SP□□060204	SP022060	T6
C25-3D16-51SP06	16.00		110.00	51.00	66.00			
C25-3D16.5-53SP06	16.50		112.00	53.00	68.00			
C25-3D17-54SP06	17.00		113.00	54.00	69.00			
C25-3D17.5-56SP06	17.50		127.00	56.00	71.00			
C25-3D18-57SP06	18.00		128.00	57.00	72.00			
C25-3D18.5-59SP06	18.50		130.00	59.00	74.00			
C25-3D19-60SP06	19.00		131.00	60.00	75.00			
C25-3D19.5-62SP06	19.50		133.00	62.00	77.00			
C25-3D20-63SP06	20.00		134.00	63.00	78.00			
C25-3D20.5-65SP06	20.50		136.00	65.00	80.00			
C25-3D21-66SP06	21.00		137.00	66.00	81.00			
C25-3D21.5-68SP06	21.50		139.00	68.00	83.00			
C25-3D22-69SP07	22.00		140.00	69.00	84.00	SP□□07T308	SP025060	T8
C25-3D22.5-71SP07	22.50		142.00	71.00	86.00			
C25-3D23-72SP07	23.00		146.00	72.00	90.00			
C25-3D23.5-74SP07	23.50		148.00	74.00	92.00			
C25-3D24-75SP07	24.00		149.00	75.00	93.00			
C25-3D24.5-77SP07	24.50		151.00	77.00	95.00			
C25-3D25-78SP07	25.00		152.00	78.00	96.00			
C32-3D25.5-80SP07	25.50	32.00	160.00	80.00	100.00			
C32-3D26-81SP07	26.00		161.00	81.00	101.00			
C32-3D26.5-83SP07	26.50		163.00	83.00	103.00			
C32-3D27-84SP07	27.00		164.00	84.00	104.00			
C32-3D27.5-86SP07	27.50		166.00	86.00	106.00			
C32-3D28-87SP09	28.00		167.00	87.00	107.00	SP□□090408	SP035080	T15
C32-3D28.5-88SP09	28.50		169.00	89?	109.00			

可转位刀片钻SP系列（3D）

U-drill SP Type



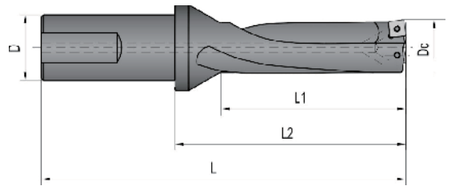


型号	刃径	柄径	尺 寸(mm)			适用刀片	适用螺钉	板手
Specification	ΦDc	ΦD	Dimension			Available inserts	Screw	Wrench
			L	L1	L2			
C32-3D29-91SP09	29.00	32.00	172.00	91.00	112.00	SP□□090408	SP035080	T15
C32-3D29.5-93SP09	29.50		174.00	93.00	114.00			
C32-3D30-94SP09	30.00		178.00	94.00	118.00			
C32-3D30.5-96SP09	30.50		180.00	96.00	120.00			
C32-3D31-97SP09	31.00		181.00	97.00	121.00			
C32-3D31.5-99SP09	31.50		183.00	99.00	123.00			
C32-3D32-100SP09	32.00		184.00	100.00	124.00			
C32-3D32.5-102SP09	32.50		186.00	102.00	126.00			
C32-3D33-103SP09	33.00		187.00	103.00	127.00			
C32-3D33.5-105SP09	33.50		189.00	105.00	129.00			
C32-3D34-106SP11	34.00	32.00	190.00	106.00	130.00	SP□□110408	SP040100	T15
C32-3D34.5-108SP11	34.50		192.00	108.00	132.00			
C32-3D35-109SP11	35.00		193.00	109.00	133.00			
C32-3D35.5-111SP11	35.50		195.00	111.00	135.00			
C32-3D36-112SP11	36.00		196.00	112.00	136.00			
C32-3D36.5-114SP11	36.50		198.00	114.00	138.00			
C32-3D37-116SP11	37.00		206.00	116.00	146.00			
C32-3D37.5-118SP11	37.50		208.00	118.00	148.00			
C32-3D38-119SP11	38.00		209.00	119.00	149.00		SP040100	T15
C32-3D38.5-121SP11	38.50		211.00	121.00	151.00			
C40-3D39-122SP11	39.00	40.00	222.00	122.00	152.00			
C40-3D39.5-124SP11	39.50		224.00	124.00	154.00			
C40-3D40-125SP11	40.00		225.00	125.00	155.00			
C40-3D41-128SP11	41.00		228.00	128.00	158.00			
C40-3D42-131SP14	42.00		231.00	131.00	161.00	SP□□140512	SP050100	T20
C40-3D43-134SP14	43.00		234.00	134.00	164.00			
C40-3D44-137SP14	44.00		237.00	137.00	167.00			
C40-3D45-140SP14	45.00		240.00	140.00	170.00			
C40-3D46-143SP14	46.00		243.00	143.00	173.00			
C40-3D47-146SP14	47.00		246.00	146.00	176.00			
C40-3D48-149SP14	48.00		249.00	149.00	179.00			
C40-3D49-152SP14	49.00		252.00	152.00	182.00			

可转位刀片钻SP系列（3D）

U-drill SP Type



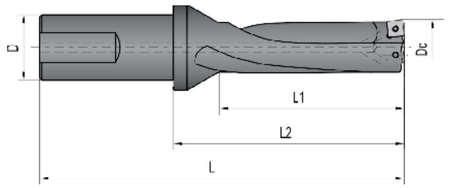


型号	刃径	柄径	尺 寸(mm)			适用刀片	适用螺钉	板手
Specification	ΦDc	ΦD	Dimension			Available inserts	Screw	Wrench
			L	L1	L2			
C40-3D50-155SP14	50.00	40	255.00	155.00	185.00	SP□□140512	SP050100	T20
C40-3D51-158SP09	51.00		258.00	158.00	188.00	SP□□090408	SP035080	T15
C40-3D52-161SP09	52.00		261.00	161.00	191.00			
C40-3D53-164SP09	53.00		264.00	164.00	194.00			
C40-3D54-167SP09	54.00		267.00	167.00	197.00			
C40-3D55-170SP09	55.00		270.00	170.00	200.00			
C40-3D56-176SP09	56.00		278.00	176.00	208.00			
C40-3D57-179SP09	57.00		281.00	179.00	211.00			
C40-3D58-182SP09	58.00		284.00	182.00	214.00			
C40-3D59-185SP09	59.00		287.00	185.00	217.00			
C40-3D60-188SP09	60.00		290.00	188.00	220.00			

可转位刀片钻SP系列（4D）

U-drill SP Type

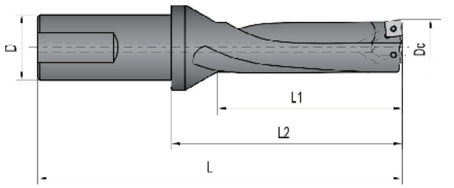




型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C20-4D13-55SP05	13.00	20.00	114.00	55.00	70.00	Sp□□050204	SP020050	T6
C20-4D13.5-57SP05	13.50		116.00	57.00	72.00			
C20-4D14-59SP05	14.00		118.00	59.00	74.00			
C20-4D14.5-61SP05	14.50		120.00	61.00	76.00			
C20-4D15-63SP05	15.00		122.00	63.00	78.00			
C25-4D15.5-65SP06	15.50	25.00	124.00	65.00	80.00	Sp□□060204	SP022060	T6
C25-4D16-67SP06	16.00		126.00	67.00	82.00			
C25-4D16.5-69SP06	16.50		128.00	69.00	84.00			
C25-4D17-71SP06	17.00		130.00	71.00	86.00			
C25-4D17.5-73SP06	17.50		144.00	73.00	88.00			
C25-4D18-75SP06	18.00		146.00	75.00	90.00			
C25-4D18.5-77SP06	18.50		148.00	77.00	92.00			
C25-4D19-79SP06	19.00		150.00	79.00	94.00			
C25-4D19.5-81SP06	19.50		152.00	81.00	96.00			
C25-4D20-83SP06	20.00		154.00	83.00	98.00			
C25-4D20.5-85SP06	20.50		156.00	85.00	100.00			
C25-4D21-87SP06	21.00		158.00	87.00	102.00			
C25-4D21.5-89SP06	21.50		160.00	89.00	104.00			
C25-4D22-91SP07	22.00		162.00	91.00	106.00	SP□□07T308	SP025060	T8
C25-4D22.5-93SP07	22.50		164.00	93.00	108.00			
C25-4D23-95SP07	23.00		169.00	95.00	113.00			
C25-4D23.5-97SP07	23.50		171.00	97.00	115.00			
C25-4D24-99SP07	24.00		173.00	99.00	117.00			
C25-4D24.5-101SP07	24.50		175.00	101.00	119.00			
C25-4D25-103SP07	25.00		177.00	103.00	121.00			
C32-4D25.5-105SP07	25.50	32.00	185.00	105.00	125.00			
C32-4D26-107SP07	26.00		187.00	107.00	127.00			
C32-4D26.5-109SP07	26.50		189.00	109.00	129.00			
C32-4D27-111SP07	27.00		191.00	111.00	131.00			
C32-4D27.5-113SP07	27.50		193.00	113.00	133.00			
C32-4D28-115SP09	28.00		195.00	115.00	135.00	Sp□□090408	SP035080	T15
C32-4D28.5-117SP09	28.50		197.00	117.00	137.00			

可转位刀片钻SP系列（4D）
U-drill SP Type



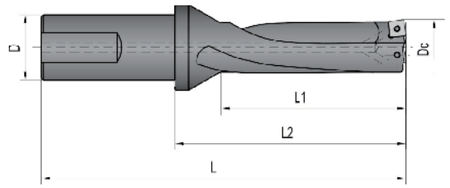


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C32-4D29-120SP09	29.00	32.00	201.00	120.00	141.00	SP□□090408	SP035080	T15
C32-4D29.5-122SP09	29.50		203.00	122.00	143.00			
C32-4D30-124SP09	30.00		208.00	124.00	148.00			
C32-4D30.5-126SP09	30.50		210.00	126.00	150.00			
C32-4D31-128SP09	31.00		212.00	128.00	152.00			
C32-4D31.5-130SP09	31.50		214.00	130.00	154.00			
C32-4D32-132SP09	32.00		216.00	132.00	156.00			
C32-4D32.5-134SP09	32.50		218.00	134.00	158.00			
C32-4D33-136SP09	33.00		220.00	136.00	160.00			
C32-4D33.5-138SP09	33.50		222.00	138.00	162.00			
C32-4D34-140SP11	34.00	32.00	224.00	140.00	164.00	SP□□110408	SP040100	T15
C32-4D34.5-142SP11	34.50		226.00	142.00	168.00			
C32-4D35-144SP11	35.00		228.00	144.00	170.00			
C32-4D35.5-146SP11	35.50		230.00	146.00	172.00			
C32-4D36-148SP11	36.00		232.00	148.00	174.00			
C32-4D36.5-150SP11	36.50		236.00	150.00	183.00			
C32-4D37-153SP11	37.00		243.00	153.00	185.00			
C32-4D37.5-155SP11	37.50		245.00	155.00	187.00			
C32-4D38-157SP11	38.00		247.00	157.00	189.00			
C32-4D38.5-159SP11	38.50		249.00	159.00	191.00			
C40-4D39-161SP11	39.00	40.00	261.00	161.00	193.00	SP□□140512	SP050100	T20
C40-4D39.5-163SP11	39.50		263.00	163.00	195.00			
C40-4D40-165SP11	40.00		265.00	165.00	199.00			
C40-4D41-169SP11	41.00		269.00	169.00	203.00			
C40-4D41-173SP14	42.00		273.00	173.00	207.00			
C40-4D43-177SP14	43.00		277.00	177.00	211.00			
C40-4D44-181SP14	44.00		281.00	181.00	215.00			
C40-4D45-185SP14	45.00		285.00	185.00	219.00			
C40-4D46-189SP14	46.00		289.00	189.00	223.00			
C40-4D47-193SP14	47.00		293.00	193.00	227.00			
C40-4D48-197SP14	48.00		297.00	197.00	227.00			
C40-4D49-201SP14	49.00		301.00	201.00	231.00			

可转位刀片钻SP系列（4D）

U-drill SP Type



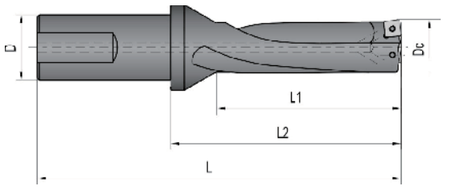


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C40-4D50-205SP14	50.00	40.00	305.00	205.00	235.00	SP□□140512	SP050100	T20
C40-4D51-209SP09	51.00	40.00	309.00	209.00	239.00	SP□□090408	SP035080	T15
C40-4D52-213SP09	52.00		313.00	213.00	243.00			
C40-4D53-217SP09	53.00		317.00	217.00	247.00			
C40-4D54-221SP09	54.00		321.00	221.00	251.00			
C40-4D55-225SP09	55.00		325.00	225.00	255.00			
C40-4D56-232SP09	56.00		334.00	232.00	264.00			
C40-4D57-236SP09	57.00		338.00	236.00	268.00			
C40-4D58-240SP09	58.00		342.00	240.00	272.00			
C40-4D59-244SP09	59.00		346.00	244.00	276.00			
C40-4D60-248SP09	60.00		350.00	248.00	280.00			

可转位刀片钻SP系列（5D）

U-drill SP Type



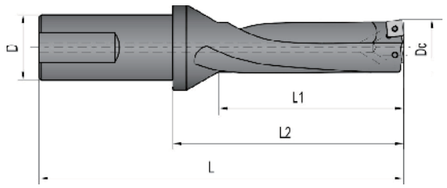


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension			适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
			L	L1	L2			
C20-5D16-83SP06	16.00	20.00	142.00	83.00	98.00	SP□□060204	SP020050	T8
C20-5D16.5-86SP06	16.50		145.00	86.00	101.00			
C20-5D17-88SP06	17.00		147.00	88.00	103.00			
C25-5D17.5-91SP06	17.50	25.00	150.00	91.00	106.00			
C25-5D18-93SP06	18.00		152.00	93.00	108.00			
C25-5D18.5-96SP06	18.50		155.00	96.00	111.00			
C25-5D19-98SP06	19.00		157.00	98.00	113.00			
C25-5D19.5-101SP06	19.50		160.00	101.00	116.00			
C25-5D20-103SP06	20.00		162.00	103.00	118.00			
C25-5D20.5-106SP06	20.50		165.00	106.00	121.00			
C25-5D21-108SP06	21.00		167.00	108.00	123.00			
C25-5D21.5-111SP06	21.50		170.00	111.00	126.00			
C25-5D22-113SP07	22.00		172.00	113.00	128.00	SP□□07T308	SP025060	T8
C25-5D22.5-116SP07	22.50		175.00	116.00	131.00			
C25-5D23-118SP07	23.00		180.00	118.00	136.00			
C25-5D23.5-121SP07	23.50		182.00	121.00	139.00			
C25-5D24-123SP07	24.00		185.00	123.00	141.00			
C25-5D24.5-126SP07	24.50		188.00	126.00	144.00			
C25-5D25-128SP07	25.00		190.00	128.00	146.00			
C32-5D25.5-130SP07	25.50	32.00	213.00	131.00	153.00			
C32-5D26-133SP07	26.00		216.00	133.00	156.00			
C32-5D26.5-136SP07	26.50		217.00	136.00	157.00			
C32-5D27-138SP07	27.00		218.00	138.00	158.00			
C32-5D27.5-141SP07	27.50		220.00	141.00	161.00			
C32-5D28-143SP09	28.00		223.00	143.00	163.00	SP□□090408	SP035080	T15
C32-5D28.5-146SP09	28.50		226.00	146.00	166.00			
C32-5D29-149SP09	29.00		230.00	149.00	170.00			
C32-5D29.5-151SP09	29.50		233.00	151.00	173.00			
C32-5D30-154SP09	30.00		238.00	154.00	178.00			
C32-5D30.5-157SP09	30.50		241.00	157.00	181.00			
C32-5D31-159SP09	31.00		243.00	159.00	183.00			
C32-5D31.5-162SP09	31.50		245.00	162.00	185.00			

可转位刀片钻SP系列（5D）

U-drill SP Type

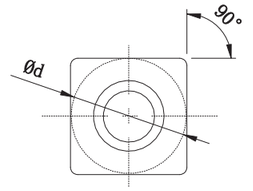


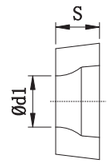


型号 Specification	刃径 ΦDc	柄径 ΦD	尺寸(mm) Dimension L	L1	L2	适用刀片 Available inserts	适用螺钉 Screw	板手 Wrench
C32-5D32-164SP09	32.00	32.00	248.00	164.00	188.00	SP□□090408	SP035080	T15
C32-5D32.5-167SP09	32.50		251.00	167.00	191.00			
C32-5D33-169SP09	33.00		253.00	169.00	193.00			
C32-5D33.5-172SP09	33.50		255.00	172.00	195.00			
C32-5D34-174SP11	34.00		258.00	174.00	198.00	SP□□110408	SP040100	T15
C32-5D34.5-177SP11	34.50		261.00	177.00	201.00			
C32-5D35-179SP11	35.00		263.00	179.00	203.00			
C32-5D35.5-182SP11	35.50		265.00	182.00	205.00			
C32-5D36-184SP11	36.00		268.00	184.00	208.00			
C32-5D36.5-187SP11	36.50		271.00	187.00	211.00			
C32-5D37-190SP11	37.00		280.00	190.00	220.00			
C32-5D37.5-193SP11	37.50		283.00	193.00	223.00			
C32-5D38-195SP11	38.00		285.00	195.00	225.00		SP040100	T15
C32-5D38.5-198SP11	38.50		288.00	198.00	228.00			
C32-5D39-200SP11	39.00		290.00	200.00	230.00			
C32-5D39.5-203SP11	39.50		293.00	203.00	233.00			
C40-5D40-205SP11	40.00	40.00	305.00	205.00	235.00			
C40-5D41-210SP11	41.00		310.00	210.00	240.00			
C40-5D42-215SP14	42.00		315.00	215.00	245.00	SP□□140512	SP050100	T20
C40-5D43-220SP14	43.00		320.00	220.00	250.00			
C40-5D44-225SP14	44.00		325.00	225.00	255.00			
C40-5D45-230SP14	45.00		330.00	230.00	260.00			
C40-5D46-235SP14	46.00		335.00	235.00	265.00			
C40-5D47-240SP14	47.00		340.00	240.00	270.00			
C40-5D48-245SP14	48.00		345.00	245.00	275.00			
C40-5D49-250SP14	49.00		350.00	250.00	280.00			
C40-5D50-255SP14	50.00		355.00	255.00	285.00			
C40-5D51-260SP09	51.00		360.00	260.00	290.00	SP□□090408	SP035080	T15
C40-5D52-265SP09	52.00		365.00	265.00	295.00			
C40-5D53-270SP09	53.00		370.00	270.00	300.00			
C40-5D54-275SP09	54.00		375.00	275.00	305.00			
C40-5D55-280SP09	55.00		380.00	280.00	310.00			
C40-5D56-285SP09	56.00		385.00	285.00	315.00			
C40-5D57-290SP09	57.00		390.00	290.00	320.00			
C40-5D58-295SP09	58.00		395.00	295.00	325.00			
C40-5D59-300SP09	59.00		400.00	300.00	330.00			
C40-5D60-305SP09	60.00		405.00	305.00	335.00			

SP适用刀片

Inserts

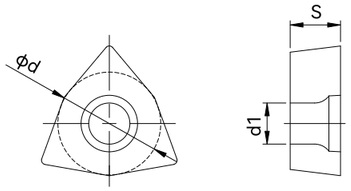




形状 Shape	型号 Specification		涂层 Coated BD6220	BD2220	BD2230	BD3210	未涂层 Uncoated BD5210	尺寸(mm) Dimension d	s	d1
	SPMG	050204-G		★	★	★		5.00	2.38	2.25
		060204-G		★	★	★		6.00	2.38	2.50
		07T308-G		★	★	★		7.94	3.97	2.80
		090408-G		★	★	★		9.80	4.30	4.10
		110408-G		★	★	★		11.50	4.80	4.40
		140512-G		★	★	★		14.30	5.20	5.50
	SPGT	050204-N					★	5.00	2.38	2.25
		060204-N					★	6.00	2.38	2.50
		07T308-N					★	7.94	3.97	2.80
		090408-N					★	9.80	4.30	4.10
		110408-N					★	11.50	4.80	4.40
		140512-N					★	14.30	5.20	5.50

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

其他浅孔钻刀片
Other inserts



形状 Shape	型号 Specification		涂层 Coated				未涂层 Uncoated	尺寸(mm) Dimension		
			BD6220	BD2220	BD2230	BD3210	BD5210	d	s	d1
	WCMX	030204-M		★	★	★		5.50	2.38	2.80
		030208-M		★	★	★		5.50	2.38	2.80
		040204-M		★	★	★		6.35	2.38	3.00
		040208-M		★	★	★		6.35	2.38	3.00
		050304-M		★	★	★		8.00	3.18	3.40
		050308-M		★	★	★		8.00	3.18	3.40
		06T304-M		★	★	★		9.525	3.97	3.80
		06T308-M		★	★	★		9.525	3.97	3.80
		080408-M		★	★	★		12.70	4.76	4.40
		080412-M		★	★	★		12.70	4.76	4.40

此系列仅提供刀片Insert available only

★为第一推荐牌号 Recommended grade
☆为第二推荐牌号Optional grade

技术指南
Technical Guide

牌号说明
Grades introduction

材料分类 Material	ISO材料分类 ISO Classification	牌号 Grade	应用推荐 Features
P	P20(P15-P30)	BD6220	CVD涂层硬质合金牌号 钢件孔加工专用牌号 出色的耐磨损和抗塑性变形能力 CVD coated cemented carbide grade Special grade for steel hole with excellent wear-resistance and anti-plastic deformation
M	M20(M15-M30)	BD2220	PVD涂层硬质合金牌号 具有高的热硬度和良好的抗塑性变形能力 PVD coated cemented carbide grade with high red hardness and good resistance to plastic deformation.
	M30(M25-M40)	BD2230	PVD涂层硬质合金牌号 良好的耐热冲击和耐机械冲击性提供了良好的切削刃安全性 确保长寿加工 PVD coated cemented carbide grade High heat resistance and impact resistance can provide good safety and ensure long lifespan processing
K	K10(K05-K20)	BD3210	PVD涂层硬质合金牌号 韧性与耐磨性的最佳平衡选择，获得极佳的生产效率和刀具寿命 PVD coated cemented carbide grade The best choice for optimal balance between toughness and wear resistance. Achieve excellent production efficiency and tool life.
N	N10(N05-N20)	BD5210	未涂层硬质合金牌号 亚微细晶粒材质确保刀片耐磨性能和抗微崩性 适用于铝、铜、镁等有色金属 Uncoated cemented carbide grade The sub-fine grain material ensures wear resistance and the resistance to slight collapse of the inserts Suitable for non-ferrous metals such as aluminum, copper, magnesium, etc.

技术指南
Technical Guide

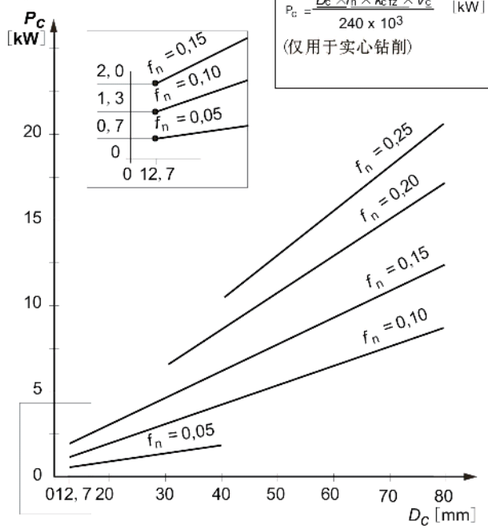
功率和冷却
Power & Coolant

净功率

k_c = 2500 N/mm² v_c = 100 m/min

$$P_c = \frac{D_c \times f_n \times k_{c\,fz} \times v_c}{240 \times 10^3} \quad [kW]$$

(仅用于实心钻削)

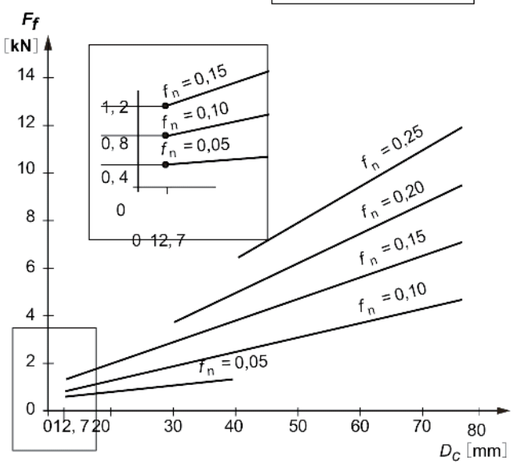


进给力

k_c = 2500 N/mm²

$$F_f = 0,5 \times \frac{D_c}{2} \times f_n \times k_{c\,fz} \cdot \sin$$

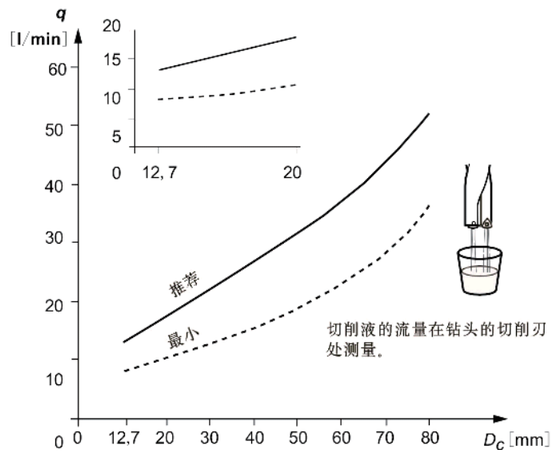
(仅用于实心钻削)



对于不同切削速度的补偿值

Vc m/min	78	93	100	123	153	200	250	300
值	0,78	0,93	1,00	1,23	1,53	2,00	2,50	3,00

切削液流量



- 所示名义数据仅为参考，不可作为精确值应用，需要根据实际加工工况（例如：材料种类）进行调整

  The nominal data shown are for reference only and cannot be used as exact values.It needs to be adjusted according to the actual processing conditions (e.g., material type).

- 注意:这里所给定的仅仅是净功率的额定值，还必须考虑机床的效率和切削刃的磨损所需的预留

  Note: What is given here is only the net power rating, it is also necessary to take into account the efficiency of the machine and the reservation required for the wear of the cutting edge.

切削参数推荐-浅孔钻（2D）
Cutting Data Recommendation-Short Hole Drilling

2D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0	ϕ56.0 ~ ϕ68.0
2D	P	非合金钢 Carbon steel	0.1-0.25%C	退火 Anneal	420	125	250-350	0.04-0.07-0.09	0.04-0.07-0.09	0.04-0.07-0.10	0.04-0.07-0.11	0.05-0.08-0.12
			0.25-0.55%C	退火 Anneal	650	190	180-250	0.07-0.12-0.22	0.07-0.12-0.22	0.07-0.13-0.24	0.08-0.15-0.27	0.09-0.16-0.30
			0.25-0.55%C	调质 Tempering steel	850	250	160-220	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
			0.55-0.80%C	退火 Anneal	750	220	160-220	0.07-0.12-0.20	0.07-0.12-0.20	0.07-0.13-0.21	0.08-0.15-0.24	0.09-0.16-0.27
			0.55-0.80%C	调质 Tempering steel	1000	300	160-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		低合金钢（合金元素≤5%） Low alloy steel		退火 Anneal	600	200	150-220	0.04-0.09-0.13	0.04-0.07-0.13	0.04-0.07-0.15	0.05-0.08-0.16	0.06-0.09-0.18
				调质 Tempering steel	930	275	120-160	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
					1000	300	120-160	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
					1200	350	120-160	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		高合金钢（合金元素 > 5%） High alloy steel		退火 Anneal	680	200	140-180	0.07-0.12-0.22	0.07-0.12-0.22	0.07-0.13-0.24	0.08-0.15-0.27	0.09-0.16-0.30
				调质 Tempering steel	1100	325	120-180	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
	M	不锈钢 Stainless steel		铁素体/马氏体 Ferrite/ Martensite	680	200	150-240	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.08-0.13-0.22
				马氏体 Martensite	820	240	150-240	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.08-0.13-0.22
				奥氏体 Austenite	600	180	150-240	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.1	0.06-0.12-0.20	0.08-0.13-0.22
	K	灰口铸铁 Gray cast iron		铁素体 Ferrite		160	160-260	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45
				珠光体 Pearlite		250	160-260	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45
		球墨铸铁 SG Nodular cast iron		铁素体 Ferrite		180	160-260	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45
				珠光体 Pearlite		260	160-260	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45
		可锻铸铁 Malleable cast-iron		铁素体 Ferrite		130	130-220	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45
				珠光体 Pearlite		230	130-220	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45

切削参数推荐-浅孔钻（2D）
Cutting Data Recommendation-Short Hole Drilling

2D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0	ϕ56.0 ~ ϕ68.0
2D	N	锻造铝合金 Forged aluminum alloy		未固化 non-aging		60	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				固化 aging		100	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		铸造铝合金 casting aluminum alloys	<=12%Si	未固化 non-aging		75	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				固化 aging		90	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
			>=12%Si	高温处理high-temperature		130	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		铜合金 copper alloy	>=1%Pb	易切 Easy to cut		110	120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				黄铜 brass		90	120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				电解铜 Bronze		100	120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		有色金属 Nonferrous		硬质塑料，纤维 plastic			120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				硬橡胶 hard rubber			120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
	S	高温合金 Super alloy	铁基 iron-based	退火 Anneal		200	22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
				固化 aging		280	22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
			镍或钴基 Nickel base/oblt base	退火 Anneal		250	22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
				固化 aging		350	22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
				铸造 casting		320	22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
		钛，钛合金 Titanium alloy			Rm400		22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22
				α+β合金固化	Rm1050		22-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22

切削参数推荐-浅孔钻（3D）
Cutting Data Recommendation-Short Hole Drilling

3D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0	ϕ56.0 ~ ϕ68.0
3D	P	非合金钢 Carbon steel	0.1-0.25%C	退火 Anneal	420	125	250-350	0.04-0.06-0.09	0.04-0.06-0.09	0.04-0.07-0.10	0.04-0.07-0.11	0.05-0.08-0.12
			0.25-0.55%C	退火 Anneal	650	190	180-250	0.07-0.11-0.19	0.07-0.11-0.19	0.07-0.12-0.20	0.08-0.13-0.22	0.09-0.15-0.25
			0.25-0.55%C	调质 Tempering steel	850	250	160-220	0.06-0.09-0.14	0.06-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
			0.55-0.80%C	退火 Anneal	750	220	160-220	0.08-0.11-0.17	0.08-0.11-0.17	0.07-0.12-0.18	0.08-0.13-0.20	0.09-0.15-0.22
			0.55-0.80%C	调质 Tempering steel	1000	300	160-220	0.06-0.09-0.13	0.06-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
		低合金钢（合金元素≤5%） Low alloy steel		退火 Anneal	600	200	150-220	0.04-0.06-0.11	0.04-0.06-0.11	0.04-0.07-0.12	0.05-0.07-0.14	0.06-0.08-0.15
				调质 Tempering steel	930	275	120-160	0.05-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
					1000	300	120-160	0.05-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
					1200	350	120-160	0.05-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
		高合金钢（合金元素 > 5%） High alloy steel		退火 Anneal	680	200	140-180	0.07-0.11-0.19	0.07-0.11-0.19	0.07-0.12-0.20	0.08-0.13-0.22	0.09-0.15-0.25
				调质 Tempering steel	1100	325	120-180	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
	M	不锈钢 Stainless steel		铁素体/马氏体 Ferrite/Martensite	680	200	150-240	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.10	0.06-0.11-0.17	0.07-0.12-0.19
				马氏体 Martensite	820	240	150-240	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
				奥氏体 Austenite	600	180	150-240	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
	K	灰口铸铁 Gray cast iron		铁素体 Ferrite		160	160-260	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38
				珠光体Pearlite		250	160-260	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38
		球墨铸铁 SG Nodular cast iron		铁素体 Ferrite		180	160-260	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38
				珠光体Pearlite		260	160-260	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38
		可锻铸铁 Malleable cast-iron		铁素体 Ferrite		130	130-220	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38
				珠光体 Pearlite		230	130-220	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38

切削参数推荐-浅孔钻（3D）
Cutting Data Recommendation-Short Hole Drilling

3D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0	ϕ56.0 ~ ϕ68.0
	N	锻造铝合金 Forged aluminum alloy		未固化 non-aging		60	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				固化 aging		100	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		铸造铝合金 casting aluminum alloys	<=12%Si	未固化 non-aging		75	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				固化 aging		90	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
			>=12%Si	高温处理high-temperature		130	300-400	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		铜合金 copper alloy	>=1%Pb	易切 Easy to cut		110	120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				黄铜brass		90	120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				电解铜 Bronze		100	120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		有色金属 Nonferrous		硬质塑料，纤维 plastic			120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
				硬橡胶 hard rubber			120-220	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
3D	S	高温合金 Super alloy	铁基 iron-based	退火 Anneal		200	22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
				固化 aging		280	22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
			镍或钴基 Nickel base/ Cobalt base	退火 Anneal		250	22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
				固化 aging		350	22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
				铸造 casting		320	22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
		钛，钛合金 Titanium alloy			Rm400		22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
				α+β合金固化	Rm1050		22-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19

切削参数推荐-浅孔钻（4D）
Cutting Data Recommendation-Short Hole Drilling

4D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0	ϕ56.0 ~ ϕ68.0
4D	P	非合金钢 Carbon steel	0.1-0.25%C	退火 Anneal	420	125	250-350	0.04-0.06-0.09	0.04-0.06-0.09	0.04-0.06-0.09	0.04-0.07-0.09	0.05-0.08-0.10
			0.25-0.55%C	退火 Anneal	650	190	180-250	0.07-0.10-0.16	0.07-0.10-0.16	0.07-0.11-0.17	0.08-0.13-0.20	0.09-0.14-0.21
			0.25-0.55%C	调质 Tempering steel	850	250	160-220	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
			0.55-0.80%C	退火 Anneal	750	220	160-220	0.07-0.10-0.14	0.07-0.10-0.14	0.07-0.11-0.16	0.08-0.13-0.18	0.09-0.14-0.19
			0.55-0.80%C	调质 Tempering steel	1000	300	160-220	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.15
		低合金钢（合金元素≤5%） Low alloy steel		退火 Anneal	600	200	150-220	0.04-0.06-0.09	0.04-0.06-0.09	0.04-0.06-0.10	0.05-0.07-0.11	0.06-0.08-0.13
				调质 Tempering steel	930	275	120-160	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.15
					1000	300	120-160	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.15
					1200	350	120-160	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.15
		高合金钢（合金元素＞5%） High alloy steel		退火 Anneal	680	200	140-180	0.07-0.10-0.16	0.07-0.10-0.16	0.07-0.11-0.17	0.08-0.13-0.20	0.09-0.14-0.21
				调质 Tempering steel	1100	325	120-180	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
	M	不锈钢 Stainless steel		铁素体/马氏体 Ferrite/ Martensite	680	200	150-240	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
				马氏体 Martensite	820	240	150-240	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
				奥氏体 Austenite	600	180	150-240	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
	K	灰口铸铁 Gray cast iron		铁素体 Ferrite		160	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32
				珠光体Pearlite		250	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32
		球墨铸铁 SG Nodular cast iron		铁素体 Ferrite		180	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32
				珠光体Pearlite		260	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32
		可锻铸铁 Malleable cast-iron		铁素体 Ferrite		130	130-220	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32
				珠光体 Pearlite		230	130-220	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32

切削参数推荐-浅孔钻（4D）
Cutting Data Recommendation-Short Hole Drilling

4D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0	ϕ56.0 ~ ϕ68.0
4D	N	锻造铝合金 Forged aluminum alloy		未固化 non-aging		60	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
				固化 aging		100	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
		铸造铝合金 casting aluminum alloys	<=12%Si	未固化 non-aging		75	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
				固化 aging		90	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
			>=12%Si	高温处理high-temperature		130	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
		铜合金 copper alloy	>=1%Pb	易切 Easy to cut		110	120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
				黄铜brass		90	120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
				电解铜 Bronze		100	120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
		有色金属 Nonferrous		硬质塑料，纤维 plastic			120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
				硬橡胶 hard rubber			120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17	0.06-0.12-0.19
4D	S	高温合金Super alloy	铁基 iron-based	退火 Anneal		200	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
				固化 aging		280	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
			镍或钴基 Nickel base/ Cobalt base	退火 Anneal		250	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
				固化 aging		350	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
				铸造 casting		320	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
		钛，钛合金 Titanium alloy			Rm400		22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
				α+β合金固化	Rm1050		22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16

切削参数推荐-浅孔钻（5D）
Cutting Data Recommendation-Short Hole Drilling

5D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0
5D	P	非合金钢 Carbon steel	0.1-0.25%C	退火 Anneal	420	125	250-350	0.04-0.08-0.10	0.04-0.08-0.10	0.05-0.08-0.11	0.05-0.09-0.13
			0.25-0.55%C	退火 Anneal	650	190	180-250	0.06-0.09-0.14	0.06-0.09-0.14	0.07-0.10-0.16	0.06-0.11-0.18
			0.25-0.55%C	调质 Tempering steel	850	250	160-220	0.04-0.05-0.08	0.04-0.05-0.08	0.04-0.05 0.08	0.04-0.06-0.08
			0.55-0.80%C	退火 Anneal	750	220	160-220	0.06-0.09-0.14	0.06-0.09-0.14	0.07-0.10-0.16	0.06-0.11-0.18
			0.55-0.80%C	调质 Tempering steel	1000	300	160-220	0.04-0.05-0.08	0.04-0.05-0.08	0.04-0.05 0.08	0.04-0.06-0.08
		低合金钢 （合金元素≤5%） Low alloy steel		退火 Anneal	600	200	150-220	0.04-0.08-0.10	0.04-0.08-0.10	0.05-0.08-0.11	0.05-0.09-0.12
				调质 Tempering steel	930	275	120-160	0.04-0.05-0.08	0.04-0.05-0.08	0.04-0.05-0.09	00.4-0.08-0.10
					1000	300	120-160	0.04-0.08 0.10	0.04-0.08 0.10	0.05-0.08 0.11	0.05-0.09-0.12
					1200	350	120-160	0.04-0.08 0.10	0.04-0.08 0.10	0.05-0.08 0.11	0.05-0.09-0.12
		高合金钢 （合金元素＞5%） High alloy steel		退火 Anneal	680	200	140-180	0.07-0.10-0.16	0.07-0.10-0.16	0.07-0.11-0.17	0.08-0.13-0.20
				调质 Tempering steel	1100	325	120-180	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
	M	不锈钢 Stainless steel		铁素体/马氏体 Ferrite/ Martensite	680	200	150-240	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
				马氏体 Martensite	820	240	150-240	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
				奥氏体 Austenite	600	180	150-240	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
	K	灰口铸铁 Gray cast iron		铁素体 Ferrite		160	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29
				珠光体Pearlite		250	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29
		球墨铸铁 SG Nodular cast iron		铁素体 Ferrite		180	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29
				珠光体Pearlite		260	160-260	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29
		可锻铸铁 Malleable cast-iron		铁素体 Ferrite		130	130-220	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29
				珠光体 Pearlite		230	130-220	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29

切削参数推荐-浅孔钻（5D）

Cutting Data Recommendation-Short Hole Drilling

5D	ISO	材料 Materials		条件 condition	拉伸强度 Rm(N/mm²)	硬度 HB	切削速度 Vc(m/min)	进给量（mm/rev） ϕ13.0 ~ ϕ18.0	ϕ18.5 ~ ϕ29.0	ϕ29.5 ~ ϕ36.0	ϕ37.0 ~ ϕ55.0
	N	锻造铝合金 Forged aluminum alloy		未固化 non-aging		60	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
				固化 aging		100	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
		铸造铝合金 casting aluminum alloys	<=12%Si	未固化 non-aging		75	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
				固化 aging		90	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
			>=12%Si	高温处理high-temperature		130	300-400	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
		铜合金 copper alloy	>=1%Pb	易切 Easy to cut		110	120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
				黄铜brass		90	120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
				电解铜 Bronze		100	120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
		有色金属 Nonferrous		硬质塑料，纤维 plastic			120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
				硬橡胶 hard rubber			120-220	0.04-0.09-0.14	0.04-0.09-0.14	0.05-0.10-0.15	0.05-0.11-0.17
	S	高温合金Super alloy	铁基 iron-based	退火 Anneal		200	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
				固化 aging		280	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
			镍或钴基 Nickel base/ Cobalt base	退火 Anneal		250	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
				固化 aging		350	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
				铸造 casting		320	22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
		钛，钛合金 Titanium alloy			Rm400		22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14
				α+β合金固化	Rm1050		22-60	0.06-0.10-0.13	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14

模块钻命名规则

Code Key for Modular Tip Drills

模块钻系列

Modular tip Drills

TC	PA	—	1500
1	2		3

1.钻头系列 Tooth System	2.槽型 Chip breaker	3.刀头直径 Tip Diameter
TC=剑齿系列 TC=Tooth System PD=凤凰系列 PD=Phoenix System	EA:适用于软钢、灰钢、不锈钢、铸铁,相对于低钢性能设备，顶角140°EA:Suitable for low steel performance materials, such as mild steel, gray steel, stainless steel and cast iron, with a top angle of 140° PA:适用于一般钢材，顶角140° PA: Suitable for general steel, top angle 140° FA:平底钻，顶角180° FA: Flat bottom drilling with top angle 180°	详见系列表 Please refer to the series list for details

MD模块钻刀柄

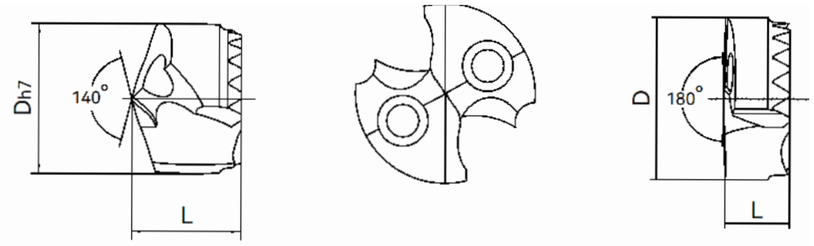
Modular Drills Shank

TC	03	—	120	—	XP16
1	2		3		4

1.刀杆类型 Shank types	2.倍径比 Multiples of diameter
TC=剑齿系列 Tooth System	3=有效钻深3倍径 Effective drilling depth 3 times the diameter

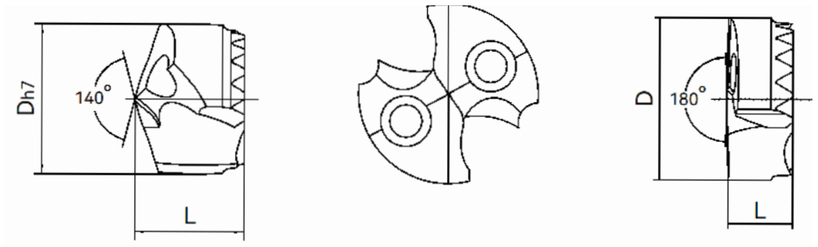
3.L	4.刀柄直径 Shank Diameter
	侧压柄；Side pressure handle; 常用刀柄直径：16,20,25,32 Common Tool handle diameter: 16,20,25,32

模块钻剑齿系列
Modular Tip Drills-Sword Tooth Series



模块钻剑齿系列刀头型号及尺寸
Inserts model and size

刃径DC(mm)	型号	型号	L(mm)	型号	L(mm)
Hole diameter DC	Model	Model		Model	
12.00	TCEA-1200	TCPA-1200	9.10	TCFA-1200	7.10
12.50	TCEA-1250	TCPA-1250	9.40	TCFA-1250	7.20
13.00	TCEA-1300	TCPA-1300	9.70	TCFA-1300	7.50
13.50	TCEA-1350	TCPA-1350	10.30	TCFA-1350	7.90
14.00	TCEA-1400	TCPA-1400		TCFA-1400	
14.50	TCEA-1450	TCPA-1450		TCFA-1450	
15.00	TCEA-1500	TCPA-1500	11.00	TCFA-1500	8.30
15.50	TCEA-1550	TCPA-1550		TCFA-1550	
16.00	TCEA-1600	TCPA-1600	11.60	TCFA-1600	8.80
16.50	TCEA-1650	TCPA-1650		TCFA-1650	
17.00	TCEA-1700	TCPA-1700	12.30	TCFA-1700	9.30
17.50	TCEA-1750	TCPA-1750		TCFA-1750	
18.00	TCEA-1800	TCPA-1800	12.90	TCFA-1800	9.80
18.50	TCEA-1850	TCPA-1850		TCFA-1850	
19.00	TCEA-1900	TCPA-1900	13.60	TCFA-1900	10.20
19.50	TCEA-1950	TCPA-1950		TCFA-1950	
20.00	TCEA-2000	TCPA-2000	14.10	TCFA-2000	10.70
20.50	TCEA-2050	TCPA-2050		TCFA-2050	
21.00	TCEA-2100	TCPA-2100	14.80	TCFA-2100	11.20
21.50	TCEA-2150	TCPA-2150		TCFA-2150	
22.00	TCEA-2200	TCPA-2200	15.00	TCFA-2200	
22.50	TCEA-2250	TCPA-2250		TCFA-2250	



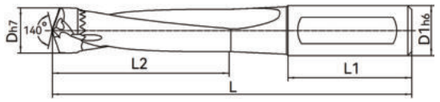
模块钻剑齿系列刀头型号及尺寸
Inserts model and size

刃径DC(mm)	型号	型号	L(mm)	型号	L(mm)
Hole diameter DC	Model	Model		Model	
23.00	TCEA-2300	TCPA-2300	15.20	TCFA-2300	11.20
23.50	TCEA-2350	TCPA-2350		TCFA-2350	
24.00	TCEA-2400	TCPA-2400	15.40	TCFA-2400	11.30
24.50	TCEA-2450	TCPA-2450		TCFA-2450	
25.00	TCEA-2500	TCPA-2500	15.90	TCFA-2500	11.70
25.50	TCEA-2550	TCPA-2550		TCFA-2550	
26.00	TCEA-2600	TCPA-2600	16.50	TCFA-2600	12.20
26.50	TCEA-2650	TCPA-2650		TCFA-2650	
27.00	TCEA-2700	TCPA-2700	17.20	TCFA-2700	12.70
27.50	TCEA-2750	TCPA-2750		TCFA-2750	
28.00	TCEA-2800	TCPA-2800	17.80	TCFA-2800	13.20
28.50	TCEA-2850	TCPA-2850		TCFA-2850	
29.00	TCEA-2900	TCPA-2900	18.40	TCFA-2900	13.60
29.50	TCEA-2950	TCPA-2950		TCFA-2950	
30.00	TCEA-3000	TCPA-3000	19.00	TCFA-3000	14.10
30.50	TCEA-3500	TCPA-3500		TCFA-3500	
31.00	TCEA-3100	TCPA-3100	21.00		
31.50	TCEA-3150	TCPA-3150			
32.00	TCEA-3200	TCPA-3200			
32.50	TCEA-3250	TCPA-3250			
33.00	TCEA-3300	TCPA-3300			
33.50	TCEA-3350	TCPA-3350			

模块钻剑齿系列
Modular Tip Drills-Sword Tooth Series

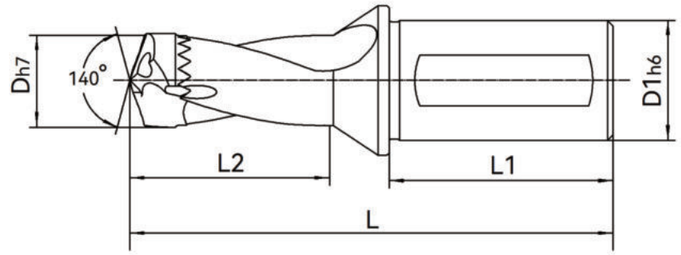
剑齿钻钻体3D 5D 8D
Drill body for Sword Tooth Series 3D 5D 8D





可换头直径范围	3D			5D			8D			刀柄 Shank		螺钉	扳手
Interchangeable head diameter range	型号	尺寸 Size		型号	尺寸 Size		型号	尺寸 Size		尺寸 Size		Screw	Wrench
	Model	L2	L	Model	L2	L	Model	L2	L	L2	L		
12.0-12.49	TC03-120-XP16	46	107	TC05-120-XP16	71	132	-	-	-	46	16	MD-M2.2*8	T6
12.5-13.49	TC03-130-XP16	49	112	TC05-130-XP16	76	142	-	-	-				
13.50-14.5	TC03-140-XP16	55	119	TC05-140-XP16	84	149	TC08-140-XP16	127	194				
14.51-15.5	TC03-150-XP20	58	129	TC05-150-XP20	89	159	TC08-150-XP20	136	204	50	20	MD-M2.5*9	T8
15.51-16.5	TC03-160-XP20	62	134	TC05-160-XP20	95	169	TC08-160-XP20	144	214				
16.51-17.5	TC03-170-XP20	66	140	TC05-170-XP20	101	175	TC08-170-XP20	154	225				
17.51-18.5	TC03-180-XP20	70	145	TC05-180-XP20	107	180	TC08-180-XP20	162	230				
18.51-19.5	TC03-190-XP25	73	160	TC05-190-XP25	112	195	TC08-190-XP25	171	255	56	25	MD-M3.0*11	
19.51-20.5	TC03-200-XP25	77	160	TC05-200-XP25	118	200	TC08-200-XP25	179	270				
20.51-21.5	TC03-210-XP25	80	160	TC05-210-XP25	123	200	TC08-210-XP25	188	266				
21.51-22.8	TC03-220-XP25	84	165	TC05-220-XP25	129	205	TC08-220-XP25	196	275			MD-M3.5*12	T15
22.81-23.8	TC03-230-XP25	81	165	TC05-230-XP25	134	215	TC08-230-XP25	205	285				
23.81-24.8	TC03-240-XP32	91	175	TC05-240-XP32	140	225	TC08-240-XP32	213	300	60	32		
24.81-25.8	TC03-250-XP32	93	175	TC05-250-XP32	145	230	TC08-250-XP32	222	305			MD-M4.0*14	
25.81-26.8	TC03-260-XP32	97	180	TC05-260-XP32	151	235	TC08-260-XP32	230	315				
26.81-27.8	TC03-270-XP32	99	180	TC05-270-XP32	156	245	TC08-270-XP32	239	325				
27.81-28.8	TC03-280-XP32	102	185	TC05-280-XP32	162	245	TC08-280-XP32	247	330			MD-M4.5*15	
28.81-29.8	TC03-290-XP32	105	190	TC05-290-XP32	167	150	TC08-290-XP32	256	340				
29.81-30.8	TC03-300-XP32	110	191	TC05-300-XP32	173	261	TC08-300-XP32	265	351				
30.81-32.0	TC03-320-XP32	116	201	TC05-320-XP32	181	166	TC08-320-XP32	276	361				
32.01-33.5	TC03-330-XP32	121	206	TC05-330-XP32	191	176	TC08-330-XP32	291	376				

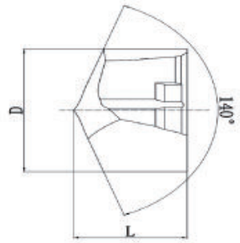
剑齿钻钻体1.5D 12D
Drill body for Sword Tooth Series 1.5D 12D



可换头直径范围	1.5D			12D			刀柄 Shank		螺钉	扳手
Interchangeable head diameter range	型号	尺寸 Size		型号	尺寸 Size		尺寸 Size		Screw	Wrench
	Model	L2	L	Model	L2	L	L2	L		
12.00-12.49	TC1.5-120-XP16	28	91	-	-	-	48	16	TC-M2.2*8	T6
12.50-13.49	TC1.5-130-XP16	30	92	-	-	-				
13.50-14.50	TC1.5-140-XP16	34	96	TC12-140-XP16	171	239				
14.51-15.50	TC1.5-150-XP20	35	100	TC12-150-XP20	183	253	50	20	TC-M2.5*9	T8
15.51-16.50	TC1.5-160-XP20	38	103	TC12-160-XP20	195	266				
16.51-17.50	TC1.5-170-XP20	39	105	TC12-170-XP20	207	278				
17.51-18.50	TC1.5-180-XP20	43	107	TC12-180-XP20	219	291				
18.51-19.50	TC1.5-190-XP25	44	115	TC12-190-XP25	232	309	56	25	TC-M3.0*11	
19.51-20.50	TC1.5-200-XP25	47	118	TC12-200-XP25	244	321				
20.51-21.50	TC1.5-210-XP25	48	119	TC12-210-XP25	256	334				
21.51-22.80	TC1.5-220-XP25	51	121	TC12-220-XP25	268	347			TC-M3.5*12	T15
22.81-23.80	TC1.5-230-XP25	51	122	TC12-230-XP25	280	359				
23.81-24.80	TC1.5-240-XP32	54	129	TC12-240-XP32	292	376	60	32		
24.81-25.80	TC1.5-250-XP32	54	129	TC12-250-XP32	305	388			TC-M4.0*14	
25.81-26.80	TC1.5-260-XP32	57	132	TC12-260-XP32	-	-				
26.81-27.80	TC1.5-270-XP32	58	133	TC12-270-XP32	-	-				
27.81-28.80	TC1.5-280-XP32	60	135	TC12-280-XP32	-	-			TC-M4.5*15	
28.81-29.80	TC1.5-290-XP32	61	136	TC12-290-XP32	-	-				
29.81-30.80	TC1.5-300-XP32	64	139	TC12-300-XP32	-	-				

模块钻凤凰系列
Modular Tip Drills-Phoenix Series





模块钻凤凰系列刀头型号及尺寸
Modular Tip Drills-Phoenix Series
Inserts model and sizer

刃径DC(mm)	型号	L(mm)
Hole diameter DC	Model	
12.5	PDPA-1250	9.6
13	PDPA-1300	
13.5	PDPA-1350	
14	PDPA-1400	10.1
14.5	PDPA-1450	
15	PDPA-1500	10.6
15.5	PDPA-1550	
16	PDPA-1600	11.6
16.5	PDPA-1650	
17	PDPA-1700	
17.5	PDPA-1750	
18	PDPA-1800	
18.5	PDPA-1850	12.6
19	PDPA-1900	
19.5	PDPA-1950	
20	PDPA-2000	13.6
20.5	PDPA-2050	
21	PDPA-2100	
21.5	PDPA-2150	
22	PDPA-2200	
22.5	PDPA-2250	14.6
23	PDPA-2300	
23.5	PDPA-2350	
24	PDPA-2400	
24.5	PDPA-2450	15.6
25	PDPA-2500	
25.5	PDPA-2550	
26	PDPA-2600	

模块钻凤凰系列刀头型号及尺寸
Modular Tip Drills-Phoenix Series
Inserts model and sizer

刃径DC(mm)	型号	L(mm)
Hole diameter DC	Model	
26.5	PDPA-2650	16.6
27	PDPA-2700	
27.5	PDPA-2750	
28	PDPA-2800	
28.5	PDPA-2850	17.6
29	PDPA-2900	
29.5	PDPA-2950	
30	PDPA-3000	
30.5	PDPA-3050	18.6
31	PDPA-3100	
31.5	PDPA-3150	
32	PDPA-3200	
32.5	PDPA-3250	20.6
33	PDPA-3300	
33.5	PDPA-3350	
34	PDPA-3400	
34.5	PDPA-3450	
35	PDPA-3500	
35.5	PDPA-3550	
36	PDPA-3600	
36.5	PDPA-3650	22.6
37	PDPA-3700	
37.5	PDPA-3750	
38	PDPA-3800	
38.5	PDPA-3850	
39	PDPA-3900	
39.5	PDPA-3950	
40	PDPA-4000	

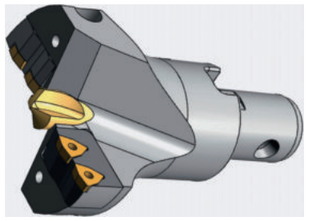
切削参数推荐
Recommended Cutting Parameter

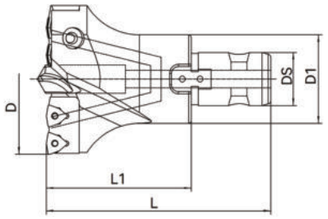
基于5倍径钻的切削参数推荐
Recommendation of cutting parameters based on 5 times diameter MD drill

ISO	材质 Material	硬度 HB Hardness	切削速度Vc(m/min) Cutting speed range	进给量（mm/rev） Feed rate range			
				ϕ12.0 ~ ϕ18.0	ϕ18 ~ ϕ21	ϕ21 ~ ϕ27	ϕ28.0 ~ ϕ33.5
P	非合金钢 Carbon steel	140-200	110-140	0.20-0.24	0.24-0.26	0.24-0.26	0.26-0.32
	低合金钢（合金元素≤5%） Low alloy steel	190-280	100-130	0.20-0.22	0.22-0.24	0.22-0.24	0.24-0.30
	高合金钢（合金元素＞5%） High alloy steel	250-330	90-120	0.18-0.20	0.20-0.26	0.20-0.26	0.24-0.30
M	铁素体 Ferrite	200	50-78	0.24-0.28	0.24-0.30	0.24-0.30	0.24-0.30
	奥氏体 Martensite	180	40-70	0.20-0.25	0.20-0.28	0.20-0.28	0.20-0.28
	马氏体 Austenite	240	50-80	0.16-0.20	0.16-0.24	0.16-0.24	0.16-0.24
K	灰铸铁 Gray cast iron	240	90-120	0.24-0.28	0.24-0.34	0.24-0.34	0.24-0.34
	球墨铸铁 SG Nodular cast iron	180	90-120	0.20-0.25	0.28-0.34	0.28-0.34	0.28-0.34
	可锻铸铁 Malleable cast-iron	230	90-120	0.16-0.20	0.28-0.34	0.30-0.40	0.34-0.50
N	铝合金 Aluminium alloy	130	150-200	0.40-0.50	0.50-0.60	0.50-0.60	0.60-0.70
S	铁基高温合金 Superalloy，iron-based	210	30-50	0.14-0.16	0.14-0.16	0.14-0.18	0.14-0.18
	镍基高温合金 Superalloy，Nickel base	250	30-50	0.12-0.15	0.12-0.15	0.12-0.16	0.12-0.18
	钴基高温合金 Superalloy，Cobalt base	350	30-50	0.14-0.16	0.14-0.16	0.14-0.18	0.14-0.18
H	淬火钢 Hardened Steel	50-55HRC	30-50	0.14-0.16	0.14-0.16	0.14-0.20	0.14-0.20

说明：超过8倍径的钻头，转速和进给都应当根据实际工况进行不同幅度的下调。
Note: For drills with a diameter of more than 8 times, the speed and feed should be adjusted according to the actual working conditions.

大直径模块钻
Big dia. modular tip drills





可转位MDD可转位大钻头系列
MDD indexable large drilling series

型号 Model	D	DS	D1	L1	L	外刃刀夹 External Clamping	内刃刀夹 Internal Clamping	适配导向钻 Pilot Drill	试用刀片 Insert	刀刃数 Number of cutting edges
MDD-045050	45-50	16	30	60	95	VMC-045050T	VNC-045050N	HPD-1035C-H	WC03	4
MDD-050055	50-55					VMC-050055T	VNC-050055N	HPD-1035C-H	WC04	4
MDD-055060	55-60					VMC-055060T	VNC-055060N	HPD-1238C-H	WC04	4
MDD-060065	60-65	25	45	82	127	VMC-060065T	VNC-060065N	HPD-1238C-H	WC05	4
MDD-065070	65-70					VMC-065070T	VNC-065070N	HPD-1238C-H	WC05	4
MDD-070075	70-75					VMC-070075T	VNC-070075N	HPD-1238C-H	WC06	4
MDD-075080	75-80					VMC-075080T	VNC-075080N	HPD-1645C-H	WC06	4
MDD-080085	80-85					VMC-080085T	VNC-080085N	HPD-1645C-H	WC06	4
MDD-085090	85-90	30	50			VMC-085090T	VNC-085090N	HPD-1645C-H	WC06	4
MDD-090095	90-95					VMC-090095T	VNC-090095N	HPD-1645C-H	WC06	4
MDD-095100	95-100					VMC-095100T	VNC-095100N	HPD-2045C-H	WC06	6
MDD-100105	100-105	32	58	94	139	VMC-100105T	VNC-100105N	HPD-2045C-H	WC05	6
MDD-105110	105-110					VMC-105110T	VNC-105110N	HPD-2045C-H	WC05	6
MDD-110115	110-115					VMC-110115T	VNC-110115N	HPD-2045C-H	WC06	6
MDD-115120	115-120	40	70	104	154	VMC-115120T	VNC-115120N	HPD-2045C-H	WC06	6
MDD-120125	120-125					VMC-120125T	VNC-120125N	HPD-2556C-H	WC06	6
MDD-125130	125-130					VMC-125130T	VNC-125130N	HPD-2556C-H	WC06	6
MDD-130135	130-135					VMC-130135T	VNC-130135N	HPD-2556C-H	WC06	6
MDD-135140	135-140					VMC-135140T	VNC-135140N	HPD-2556C-H	WC06	8
MDD-140145	140-145	50	80	116	176	VMC-140145T	VNC-140145N	HPD-2556C-H	WC06	8
MDD-145150	145-150					VMC-145150T	VNC-145150N	HPD-2556C-H	WC08	6
MDD-150155	150-155					VMC-150155T	VNC-150155N	HPD-2556C-H	WC08	6
MDD-155160	155-160					VMC-155160T	VNC-155160N	HPD-2556C-H	WC08	6
MDD-160165	160-165					VMC-160165T	VNC-160165N	HPD-2556C-H	WC06	10
MDD-165170	165-170					VMC-165170T	VNC-165170N	HPD-2556C-H	WC06	10
MDD-170175	170-175					VMC-170175T	VNC-170175N	HPD-2556C-H	WC08	8
MDD-175180	175-180					VMC-175180T	VNC-175180N	HPD-2556C-H	WC08	8
MDD-180185	180-185					VMC-180185T	VNC-180185N	HPD-2556C-H	WC08	8
MDD-185190	180-190					VMC-185190T	VNC-185190N	HPD-2556C-H	WC08	8
MDD-190195	190-195					VMC-190195T	VNC-190195N	HPD-2556C-H	WC08	8
MDD-195200	195-200					VMC-195200T	VNC-195200N	HPD-2556C-H	WC08	10

大直径模块钻
Big dia. modular tip drills



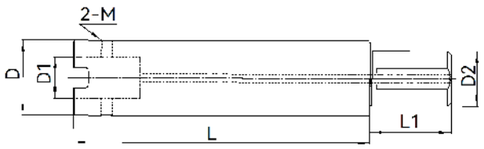


可转位大钻头连接杆
Indexable Big Drill Connecting Ro

型号 Model	D	D1	D2	L	L1	适用孔径 Hole diameter
DXZ-301632100	30	16	32	100	65	ϕ45-ϕ55
DXZ-301632150	30	16	32	150	65	
DXZ-301632200	30	16	32	200	65	
DXZ-301632250	30	16	32	250	65	
DXZ-301632300	30	16	32	300	65	
DXZ-301632350	30	16	32	350	65	
DXZ-301632400	30	16	32	400	65	
DXZ-301632450	30	16	32	450	65	
DXZ-452540100	45	25	40	100	75	ϕ60-ϕ80
DXZ-452540150	45	25	40	150	75	
DXZ-452540200	45	25	40	200	75	
DXZ-452540250	45	25	40	250	75	
DXZ-452540300	45	25	40	300	75	
DXZ-452540350	45	25	40	350	75	
DXZ-452540400	45	25	40	400	75	
DXZ-452540450	45	25	40	450	75	
DXZ-503040100	50	30	40	100	75	ϕ85-ϕ95
DXZ-503040150	50	30	40	150	75	
DXZ-503040200	50	30	40	200	75	
DXZ-503040250	50	30	40	250	75	
DXZ-50304300	50	30	40	300	75	
DXZ-503040350	50	30	40	350	75	
DXZ-503040400	50	30	40	400	75	
DXZ-503040450	50	30	40	450	75	

型号 Model	D	D1	D2	L	L1	适用孔径 Hole diameter
DXZ-583240100	58	32	40	100	75	ϕ100-ϕ110
DXZ-583240150	58	32	40	150	75	
DXZ-583240200	58	32	40	200	75	
DXZ-583240250	58	32	40	250	75	
DXZ-583240300	58	32	40	300	75	
DXZ-583240350	58	32	40	350	75	
DXZ-583240400	58	32	40	400	75	
DXZ-583240450	58	32	40	450	75	
DXZ-704050100	70	40	50	100	80	ϕ115-ϕ135
DXZ-704050150	70	40	50	150	80	
DXZ-704050200	70	40	50	200	80	
DXZ-704050250	70	40	50	250	80	
DXZ-704050300	70	40	50	300	80	
DXZ-704050350	70	40	50	350	80	
DXZ-704050400	70	40	50	400	80	
DXZ-704050450	70	40	50	450	80	
DXZ-805050100	80	50	50	100	80	ϕ140-ϕ195
DXZ-805050150	80	50	50	150	80	
DXZ-805050200	80	50	50	200	80	
DXZ-805050250	80	50	50	250	80	
DXZ-805050300	80	50	50	300	80	
DXZ-805050350	80	50	50	350	80	
DXZ-805050400	80	50	50	400	80	
DXZ-805050450	80	50	50	450	80	





可转位大钻头延长杆
Indexable Big Drill Extension Rod

型号 Model	D	D1	L	适用孔径 Hole diameter
YXZ-3016300	30	16	300	ϕ45-ϕ55
YXZ-3016400	30	16	400	
YXZ-3016500	30	16	500	
YXZ-4525300	45	25	300	ϕ60-ϕ80
YXZ-4525400	45	25	400	
YXZ-4525500	45	25	500	
YXZ-5030300	50	30	300	ϕ85-ϕ95
YXZ-5030400	50	30	400	
YXZ-5030500	50	30	500	
YXZ-5832300	58	32	300	ϕ100-ϕ110
YXZ-5832400	58	32	400	
YXZ-5832500	58	32	500	
YXZ-7040300	70	40	300	ϕ115-ϕ135
YXZ-7040400	70	40	400	
YXZ-7040500	70	40	500	
YXZ-8050300	80	50	300	ϕ140-ϕ195
YXZ-8050400	80	50	400	

铲钻命名规则
Code Key for Spade Drill

铲钻刀片
Spade Drill Insert

50	–	S2	–	ST	–	A
1		2		3		4

1 直径
Diameter
详见系列表 Please refer to the series list for details

2刀片材质
Inserts Material
S2-含钴高速钢 S2 - Cobalt steel G2 - Carbide
S6-粉末高速钢 S6 - Powder high speed steel
G2-硬质合金 S6 - Powder high speed steel

3 槽型
Chip breaker
ST-通用槽型 ST - Universal chip-breaker
DT-通用槽型+倒棱 DT - Universal chip-breaker + Chamfering

4 涂层种类
Types of coating
常用：A,H,P,D Common: A,H,P,D

铲钻刀杆
Spade Drill -Body

SD	10	H	–	168	–	XP	–	32
1	2	3		4		5		6

1.刀杆类型
Shank types
SD=铲钻刀杆 SD = Spade drill holder

2.产品系列
Product Series
如：10,15,20,25 Example: 10, 15, 20, 25

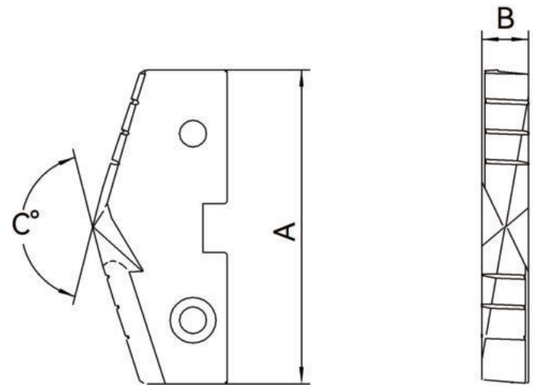
3.刀杆形状刀柄直径
Shank Shape & Shank Diameter
H:螺旋槽 H: Helical groove
S:直槽 S: Straight groove

4.刀杆有效加工深度
Tool Holder Effective Processing Depth
如：118，168 Example: 118, 168

5.柄部类型
Shank Shape
XP:侧固式 XP: Side lock type
Mt□莫氏锥柄 MT: Morse taper

6.柄部尺寸
Shank Size
XP: 16,25,32,40,50 MT: 2,3,4,5

铲钻
Spade Drill

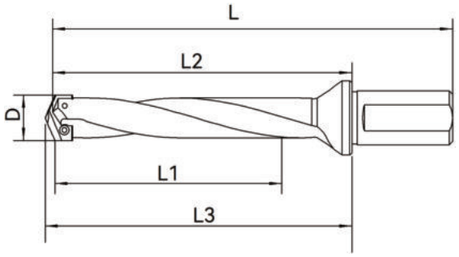


刀片型号及尺寸
RID Insert Model and Size

刀片直径范围A(mm) Range of insert diameter	刀片厚度B(mm) Thickness of insert	顶角C Angle at apex	材质								
			含钴高速钢 Cobalt steel			粉末高速钢 Powder high speed steel			G2 Carbide		
ϕ9.5-ϕ12.5	2.38	132°	S2STA	S2DTH	S2DTP	S6STA	S6DTH	S6DTP	G2STA	G2DTH	G2DTP
ϕ13.0-ϕ17.5	3.18										
ϕ18.0-ϕ24.0	3.97										
ϕ24.5-ϕ35.0	4.76										
ϕ35.5-ϕ47.5	6.35										
ϕ48.0-ϕ65.0	7.94										
ϕ65.5-ϕ89	11.11	144°									
ϕ90.0-ϕ114.0											

铲钻
Spade Drill



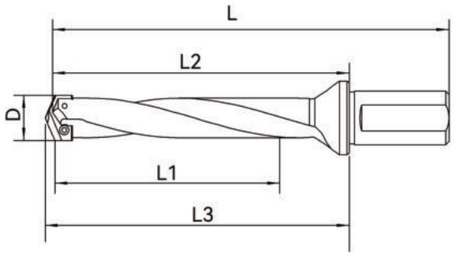


刀片型号及尺寸
Insert Model and Size

Y00系列（ϕ9.5-ϕ11.0）					Z00系列（ϕ11.1-ϕ12.9）					配件	
Y00 Series					Z00 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SDY0H-19-XP16	19	47.60	50	95.60	SDZ0H-19-XP16	19	47.60	50	95.60	SD-M2.0*5	T6
SDY0H-32-XP20	32	61.10	63.50	111.10	SDZ0H-32-XP20	32	61.10	63.50	111.10		
SDY0H-60-XP20	60	89.70	92.10	139.70	SDZ0H-60-XP20	60	89.70	92.10	139.70		
SDY0H-111-XP20	111	140.50	142.90	190.50	SDZ0H-111-XP20	111	140.50	142.9	190.5		
SDY0H-222-XP20	222	251.70	254.10	301.70	SDZ0H-222-XP20	222	251.70	254.10	301.70		
SDY0H-290-XP20	290	319.90	322.30	369.90	SDZ0H-290-XP20	290	319.90	322.30	369.90		

00系列（ϕ13.0-ϕ17.5）					05系列（ϕ15.5-ϕ17.5）					配件	
00 Series					05 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD00H-22-XP20	22	47.60	50.40	97.60	SD05H-22-XP20	22	47.60	50.40	97.60	SD-M2.5*6	T8
SD00H-35-XP20	35	63.50	66.30	113.50	SD05H-35-XP20	35	63.50	66.30	113.50		
SD00H-63-XP20	63	92.10	94.90	142.10	SD05H-63-XP20	63	92.10	94.90	142.10		
SD00H-114-XP20	114	142.90	145.70	192.90	SD05H-114XP20	114	142.90	145.70	192.90		
SD00H-178-XP20	178	206.40	209.10	256.40	SD05H-178-XP20	178	206.40	209.10	256.40		
SD00H-240-XP20	240	268.6	271.30	318.60	SD05H-240-XP20	240	268.60	271.30	318.60		
SD00H-295-XP20	295	323.9	326.70	373.90	SD05H-295-XP20	295	323.90	326.70	373.90		
SD00H-387-XP20	387	416	418.80	466	SD05H-387-XP20	387	416	418.80	466		





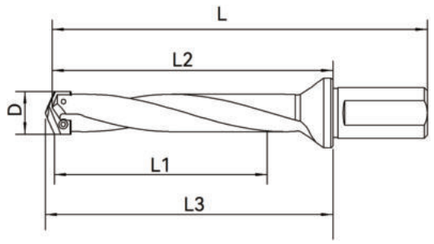
刀片型号及尺寸
Insert Model and Size

10系列（ϕ17.6-ϕ24.4）					15系列（ϕ22.0-ϕ24.4）					配件	
10 Series					15 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD10H-48-XP25	48	75.80	79.40	131.80	SD15H-48-XP25	48	75.80	79.40	131.80	SD-M3.0*8	T8
SD10H-67-XP25	67	107.20	110.70	163.10	SD15H-67-XP25	67	107.20	110.70	163.10		
SD10H-118-XP25	118	154.80	158.40	210.80	SD15H-118-XP25	118	154.80	158.40	210.80		
SD10H-168-XP25	168	205.60	209.20	261.60	SD15H-168-XP25	168	205.60	209.20	261.60		
SD10H-218-XP25	218	255.30	258.90	311.30	SD15H-218-XP25	218	255.30	258.90	311.30		
SD10H-270-XP25	270	307.20	310.80	363.20	SD15H-270-XP25	270	307.20	310.80	363.20		
SD10H-365-XP25	365	402.20	405.80	458.20	SD15H-365-XP25	365	402.20	405.80	458.20		
SD10H-457-XP25	457	494.50	498.10	550.50	SD15H-457-XP25	457	494.50	498.10	550.50		
SD10H-569-XP25	569	602.5	606.10	658.80	SD15H-569-XP25	569	602.50	606.10	658.50		

20系列（ϕ24.5-ϕ35.0）					25系列（ϕ30.0-ϕ35.0）					配件	
20 Series					25 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD20H-57-XP32	57	88.50	92.10	148.50	SD25H-57-XP32	57	88.50	92.10	148.50	SD-M3.5*10	T15
SD20H-86-XP32	86	128.60	132.20	188.60	SD25H-86-XP32	86	128.60	132.20	188.60		
SD20H-137-XP32	137	179.40	183	239.40	SD25H-137-XP32	137	179.40	183	239.40		
SD20H-187-XP32	187	230.20	233.80	290.20	SD25H-187-XP32	187	230.20	233.80	290.20		
SD20H-237-XP32	237	279.90	283.50	339.90	SD25H-237-XP32	237	279.90	283.50	339.90		
SD20H-289-XP32	289	331.80	335.40	391.80	SD25H-289-XP32	289	331.80	335.40	391.80		
SD20H-400-XP32	400	442.80	445.40	502.80	SD25H-400-XP32	400	442.80	446.40	502.80		
SD20H-511-XP32	511	554.10	557.70	614.10	SD25H-511-XP32	511	554.10	557.70	614.10		
SD20H-692-XP32	692	735.10	738.70	795.10	SD25H-692-XP32	692	735.10	738.70	795.10		

铲钻
Spade Drill





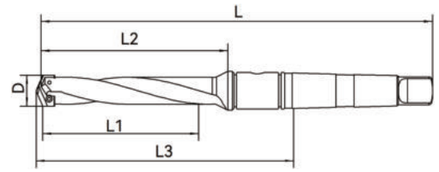
侧固式刀杆
Side Lock Holder

30系列（ϕ35.1-ϕ47.9）					35系列（ϕ42.0-ϕ47.9）					配件	
30 Series					35 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD30H-76-XP40	76	125	129.80	195	SD35H-76-XP40	76	125	129.80	195	SD-M5.0*10	T20
SD30H-121-XP40	121	173	177.80	243	SD35H-121-XP40	121	173	177.80	243		
SD30H-165-XP40	165	217.50	222.30	287.50	SD35H-165-XP40	165	217.50	222.30	287.50		
SD30H-210-XP40	210	261.90	266.70	331.90	SD35H-210-XP40	210	261.90	266.70	331.90		
SD30H-260-XP40	260	312.30	317.10	382.30	SD35H-260-XP40	260	312.30	317.10	382.30		
SD30H-349-XP40	349	401.60	406.40	471.60	SD35H-349-XP40	349	401.60	406.40	471.60		
SD30H-559-XP40	559	611.10	615.90	681.10	SD35H-559-XP40	559	611.10	615.90	681.10		
SD30H-787-XP40	787	839.70	844.50	909.70	SD35H-787-XP40	787	839.70	844.50	909.70		

40系列（ϕ48.0-ϕ65.28）					45系列（ϕ56.0-ϕ65.28）					配件	
Y00 Series					Z00 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD40H-130-XP40	130	179.40	184.20	249.40	SD45H-130-XP40	130	179.40	184.20	249.40	SD-M5.0*15	T20
SD40H-232-XP40	232	281	285.80	351	SD45H-232-XP40	232	281	285.80	351		
SD40H-350-XP40	350	399.20	404	469.20	SD45H-350-XP40	350	399.20	404	469.2		
SD40H-422-XP40	422	471.50	476.30	541.50	SD45H-422-XP40	422	471.50	476.30	541.50		
SD40H-525-XP40	525	574.20	579	644.20	SD45H-525-XP40	525	574.20	579	644.20		
SD40H-625-XP40	625	674.70	679.50	744.70	SD45H-625-XP40	625	674.70	679.50	744.70		
SD40H-879-XP40	879	928.70	933.50	998.70	SD45H-879-XP40	879	928.70	933.50	998.70		

50系列（ϕ65.3-ϕ89.08）					70系列（ϕ89.1-ϕ114.48）					配件	
Y00 Series					Z00 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD50H-171-XP50	171	235	240	315	SD70H-200-XP50	200	275	280	355	SD-M6.0*15	T25
SD50H-350-XP50	350	414	419	494	SD70H-400-XP50	400	475	480	555		
SD50H-660-XP50	660	724	729	804	SD70H-800-XP50	800	875	880	955		





莫氏刀杆
Morse Taper Holder

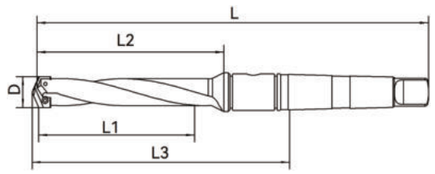
Y00系列（ϕ9.5-ϕ11.0）					Z00系列（ϕ11.1-ϕ12.9）					配件	
Y00 Sereis					Z00 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SDY0H-32-MT2	32	51.50	88	160.30	SDZ0H-32-MT2	32	51.50	88	160.30	SD-M2.0*5	T6
SDY0H-60-MT2	60	80.20	116.70	188.90	SDZ0H-60-MT2	60	80.20	116.70	188.90		
SDY0H-111-MT2	111	130.90	167.40	239.70	SDZ0H-111-MT2	111	130.90	167.40	239.70		

00系列（ϕ13.0-ϕ17.5）					05系列（ϕ15.5-ϕ17.5）					配件	
00 Series					05 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD00H-35-MT2	35	55.50	95.40	167.30	SD05H-35-MT2	35	55.50	95.40	167.30	SD-M2.5*6	T8
SD00H-63-MT2	63	84.10	124	195.90	SD05H-63-MT2	63	84.10	124	195.90		
SD00H-114-MT2	114	135	174.80	246.70	SD05H-114-MT2	114	135	174.80	246.70		
SD00H-178-MT2	178	198.50	238.30	310.20	SD05H-178-MT2	178	198.50	238.30	310.20		

10系列（ϕ17.6-ϕ24.4）					15系列（ϕ22.0-ϕ24.4）					配件	
10 Series					15 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD10H-70-MT3	70	98.40	149	239	SD15H-70-MT3	70	98.40	149	239	SD-M3.0*8	T8
SD10H-70-MT3	121	149.20	199.80	189.80	SD15H-121-MT3	121	149.20	199.80	189.80		
SD10H-70-MT3	171	200	250.60	340.70	SD15H-171-MT3	171	200	250.60	340.70		
SD10H-70-MT3	222	250.50	301.10	391.20	SD15H-222-MT3	222	250.50	301.10	391.20		
SD10H-70-MT3	273	301.60	352.20	442,30	SD15H-273-MT3	273	301.60	352.20	442,30		

铲钻
Spade Drill



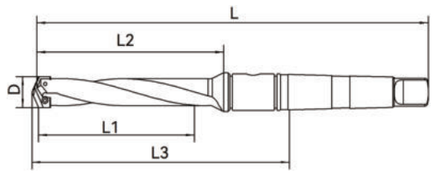


莫氏刀杆
Morse Taper Holder

20系列（ϕ24.5-ϕ35.0）					25系列（ϕ30.0-ϕ35.0）					配件	
20 Series					25 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD20H-86-MT4	86	114.30	172.90	286.30	SD25H-86-MT4	86	114.30	172.90	286.30	SD-M3.5*10	T15
SD20H-137-MT4	137	165.10	223.70	337.10	SD25H-137-MT4	137	165.10	223.70	337.10		
SD20H-187-MT4	187	215.90	274.50	387.90	SD25H-187-MT4	187	215.90	274.50	387.90		
SD20H-237-MT4	237	265.60	324.20	437.60	SD25H-237-MT4	237	265.60	324.20	437.60		
SD20H-289-MT4	289	317.50	376.10	489.50	SD25H-289-MT4	289	317.50	376.10	489.50		
SD20H-400-MT4	400	428.50	487.10	600	SD25H-400-MT4	400	428.50	487.10	600		

30系列（ϕ35.1-ϕ47.9）					35系列（ϕ42.0-ϕ47.9）					配件	
30 Series					35 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD30H-121-MT4	121	152.40	211.70	324.40	SD35H-121-MT4	121	152.40	211.70	324.40	SD-M2.5*6	T8
SD30H-165-MT4	165	196.90	256.20	368.90	SD35H-165-MT4	165	196.90	256.20	368.90		
SD30H-209-MT4	209	241.30	300.60	413.30	SD35H-209-MT4	209	241.30	300.60	413.30		
SD30H-260-MT4	260	291.80	351.10	463.80	SD35H-260-MT4	260	291.80	351.10	463.80		
SD30H-349-MT4	349	381	440.30	553	SD35H-349-MT4	349	381	440.30	553		
SD30H-559-MT4	559	590.60	649.90	762.50	SD35H-559-MT4	559	590.60	649.90	762.50		
SD30H-787-MT4	787	819.20	878.50	991.10	SD35H-787-MT4	787	819.20	878.50	991.10		





莫氏刀杆
Morse Taper Holder

40系列（ϕ48.0-ϕ65.28）					45系列（ϕ56.0-ϕ65.28）					配件	
40 Series					45 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD40H-130-MT5	130	165.10	225	369.40	SD45H-130-MT5	130	165.10	225	369.40	SD-M2.5*6	T8
SD40H-232-MT5	232	266.70	326.60	471	SD45H-232-MT5	232	266.70	326.60	471		
SD40H-350-MT5	350	384.90	444.80	589.20	SD45H-350-MT5	350	384.90	444.80	589.20		
SD40H-422-MT5	422	457.20	517.10	661.50	SD45H-422-MT5	422	457.20	517.10	661.50		
SD40H-625-MT5	625	660.40	720.30	864.70	SD45H-625-MT5	625	660.40	720.30	864.70		
SD40H-879-MT5	879	914.40	974.30	11118.70	SD45H-879-MT5	879	914.40	974.30	11118.70		

50系列（ϕ65.3-ϕ89.08）					70系列（ϕ89.1-ϕ114.48）					配件	
30 Series					70 Series					Accessories	
型号 Model	L1	L2	L3	L	型号 Model	L1	L2	L3	L	螺钉 Screw	扳手 Wrench
SD50H-171-MT5	171	215.90	287.30	430.20	SD70H-171-MT5	171	215.90	287.30	430.20	SD-M2.5*6	T8
SD50H-273-MT5	273	317.50	388.90	531.80	SD70H-273-MT5	273	317.50	388.90	531.80		
SD50H-464-MT5	464	508	579.40	722.30	SD70H-464-MT5	464	508	579.40	722.30		
SD50H-660-MT5	660	704.80	776.20	919.10	SD70H-660-MT5	660	704.80	776.20	919.10		
SD50H-889-MT5	889	933.40	1004.80	1147.70	SD70H-889-MT5	889	933.40	1004.80	1147.70		

铲钻
Spade Drill

切削参数推荐表-硬质合金刀片
Recommended Cutting Parameters - Carbide Inserts

材质	硬度 HB	切削速度Vc(m/min)		进给量（mm/rev）				
Cutting Material	Hardness	Cutting speed (Vc)		ϕ9.0 ~ ϕ12.9	ϕ13.0 ~ ϕ17.5	ϕ17.6 ~ ϕ24.4	ϕ24.5 ~ ϕ35.0	ϕ35.1 ~ ϕ47.6
		A涂层	H涂层					
		A coating	H coating	Feed rate (f)				
易切削钢 Free-Machining Steel	100-150	82	93	0.13	0.19	0.24	0.29	0.34
	150-200	70	80	0.11	0.18	0.22	0.26	0.30
	200-250	67	76	0.10	0.16	0.21	0.24	0.27
低碳钢 Low-Carbon Steel	85-125	77	87	0.13	0.16	0.21	0.27	0.30
	125-175	67	76	0.11	0.16	0.21	0.26	0.29
	175-225	61	69	0.10	0.14	0.19	0.24	(X 27
	225-275	54	60	0.08	0.14	0.19	0.24	0.27
中碳钢 Medium-Carbon Steel	125-175	67	76	0.11	0.16	0.21	0.26	0.29
	175-225	61	69	0.10	0.14	0.19	0.24	0.27
	225-275	54	60	0.10	0.14	0.19	0.24	0.27
	275-325	45	51	0.08	0.13	0.18	0.22	0.26
合金钢 Alloy Steel	125-175	64	73	0.11	0.16	0.21	0.26	0.29
	175-225	59	67	0.10	0.14	0.19	0.24	(X 27
	225-275	54	60	0.10	0.14	0.19	0.24	0.27
	275-325	49	55	0.08	0.13	0.18	0.22	0.26
	325-375	43	50	0.06	0.11	0.16	0.21	0.24
高硬度合金钢 High-Strength Alloy	225-300	39	46	0.10	0.13	0.16	0.19	0.24
	300-350	35	39	0.08	0.13	0.14	0.14	0.22
	350-400	32	35	0.06	0.11	0.13	0.16	0.19
结构钢 Structural Steel	100-150	61	69	0.13	0.18	0.22	0.26	(X 29
	150-250	49	55	0.10	0.16	0.19	0.22	0.26
	250-250	45	51	0.08	0.14	0.18	0.19	0.22
高温合金 High-Temp Alloy	140-220	21	22	0.06	0.11	0.14	0.18	0.21
	220-310	17	18	0.06	0.10	0.13	0.16	0.19
不锈钢 Stainless Steel	135-185	42	46	0.11	0.14	0.19	0.22	0.26
	185-275	32	35	0.10	0.13	0.18	0.19	0.22
工具钢 Tool Steel	150-200	43	50	0.06	0.11	0.14	0.18	0.21
	200-250	34	38	0.06	0.11	0.14	0.18	0.21
铝合金 Aluminium alloy	30	294	-	0.16	0.24	0.29	0.32	0.35
	180	196	-	0.14	0.21	0.26	0.29	0.32
SG/球墨铸铁 SG / Nodular Cast Iron	120-150	90	97	0.13	0.19	0.24	0.30	0.37
	150-200	78	93	0.11	0.18	0.21	0.27	0.34
	200-220	70	83	0.10	0.14	0.19	0.24	0.29
	220-260	61	72	0.08	0.13	0.18	0.21	0.24
	260-320	54	65	0.08	0.11	0.16	0.18	0.21

不同刀杆长度的建议切削条件
Recommended cutting conditions for different shank lengths

刀片直径	倍径		
Insert diameters	Multiples of diameter		
ϕ9.5-ϕ24.4	10	17	22
ϕ24.5-ϕ65.28	7	11	18
ϕ65.3-114.48	5	7	9
建议: Recommendation	建议（Recommendation）：85%*Vc	建议（Recommendation）：80%*Vc	建议（Recommendation）：75%*Vc
	建议（Recommendation）：95%*Vc	建议（Recommendation）：90%*Vc	建议（Recommendation）：90%*Vc

铲钻
Spade Drill

切削参数推荐表-高速钢刀片
Recommended Cutting Parameters - High Speed Steel Inserts

材质	硬度 HB	切削速度Vc(m/min)		进给量（mm/rev）						
Cutting Material	Hardness	Cutting speed (Vc)		ϕ9.0 ~ ϕ12.9	ϕ13.0 ~ ϕ17.5	ϕ17.6 ~ ϕ24.4	ϕ24.5 ~ ϕ35.0	ϕ35.1 ~ ϕ47.6	ϕ48.0 ~ ϕ65.28	ϕ65.3 ~ ϕ114.48
		A涂层	H涂层							
		A coating	H coating	Feed rate (f)						
易切削钢 Free-Machining Steel	100-150	55	64	0.12	0.16	0.21	0.26	0.33	0.38	0. 46
	150-200	51	59	0.12	0.16	0.22	0.26	0.33	0.38	0. 46
	200-250	47	54	0.10	0.16	0.22	0.26	0.33	0.38	0. 46
低碳钢 Low-Carbon Steel	85-125	49	57	0.10	0.15	0.19	0.25	0.31	0.38	0.45
	125-175	47	54	0.10	0.15	0.19	0.25	0.31	0.34	0.39
	175-225	45	51	0.09	0.13	0.16	0.23	0.30	0.34	0.39
	225-275	42	48	0.09	0.13	0.16	0.23	0.30	0.31	0.36
中碳钢 Medium-Carbon Steel	125-175	47	54	0.10	0.15	0.19	0.25	0.31	0.38	0.45
	175-225	45	51	0.09	0.13	0.16	0.23	0.31	0.34	0.39
	225-275	42	48	0.09	0.13	0.16	0.23	0.30	0.34	0.39
	275-325	38	45	0.06	0.12	0.15	0.19	0.26	0.31	0.36
合金钢 Alloy Steel	125-175	42	47	0.10	0.13	0.16	0.23	0.28	0.31	0.36
	175-225	38	45	0.09	0.13	0.16	0.23	0.28	0.31	0.36
	225-275	35	42	0.09	0.12	0.16	0.23	0.28	0.31	0.36
	275-325	34	38	0.06	0.10	0.15	0.19	0.25	0.28	0.33
	325-375	30	35	0.06	0.10	0.15	0.19	0.25	0.28	0.33
高硬度合金钢 High-Strength Alloy	225-300	22	24	0.09	0.12	0.15	0.16	0.23	0.28	0.33
	300-350	17	19	0.06	0.12	0.15	0.16	0.23	0.28	0.33
	350-400	14	16	0.06	0.10	0.13	0.15	0.19	0.25	0.30
结构钢 Structural Steel	100-150	39	46	0.10	0.16	0.19	0.23	0.30	0.34	0.42
	150-250	26	38	0.09	0.15	0.16	0.19	0.26	0.31	0.39
	250-350	28	31	0.06	0.13	0.15	0.16	0.23	0.28	0.33
高温合金 High-Temp Alloy	140-220	8	9	0.06	0.12	0.13	0.16	0.19	0.25	0.28
	220-310	7	8	0.06	0.10	0.12	0.13	0.16	0.19	0.23
不锈钢 Stainless Steel	135-185	21	23	0.10	0.13	0.15	0.18	0.23	0.26	0.33
	185-275	18	20	0.09	0.12	0.13	0.16	0.19	0.23	0.30
工具钢 Tool Steel	150-200	22	24	0.06	0.10	0.13	0.16	0.19	0.25	0.28
	200-250	18	20	0.06	0.10	0.13	0.16	0.19	0.25	0.28
铝合金 Aluminium alloy	30	166	-	0.13	(X 22	0.26	0.32	0.36	0.42	0.42
	180	89	-	0.13	0.22	0.26	0.30	0.36	0.42	0.42
SG/球墨铸铁 SG / Nodular Cast Iron	120-150	49	57	0.12	0.19	0.26	0.33	0.39	0.45	0.49
	150-200	45	51	0.10	0.18	0.23	0.30	0.36	0.42	0.46
	200-220	38	45	0.10	0.15	0.19	0.26	0.30	0.34	0.39
	220-260	32	38	0.09	0.12	0.15	0.19	0.23	0.28	0.33
	260-320	26	30	0.06	0.10	0.12	0.15	0.19	0.23	0.26

不同刀杆长度的建议切削条件
Recommended cutting conditions for different shank lengths

刀片直径	倍径		
Insert diameters	Multiples of diameter		
ϕ9.5-ϕ24.4	10	17	22
ϕ24.5-ϕ65.28	7	11	18
ϕ65.3-114.48	5	7	9
建议: Recommendation	建议（Recommendation）：85%*Vc	建议（Recommendation）：80%*Vc	建议（Recommendation）：75%*Vc
	建议（Recommendation）：95%*Vc	建议（Recommendation）：90%*Vc	建议（Recommendation）：90%*Vc

D

深孔加工

DEEP HOLE MACHINING



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

深孔加工
Deep Hole Machining

深孔钻削刀片材质说明
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深孔加工刀具
Deep hole machining tools D03

喷吸钻与单管钻的安装方式
Machine equipment for ejector and STS system D05

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Ejector drill D80.11 and STS drill D80.21 D07

喷吸钻D42.11 与单管钻D42.21
Ejector drill D42.11 and STS drill D42.21 D17

单管钻425.21
STS drill 425.21 D27

枪钻订货说明
Gun drill ordering introduction D31

深孔钻D80 备件、深孔钻D42 备件
Spare parts for drill D80, spare parts for drill D42 D35

深孔喷吸系统
DHM ejector system D39

旋转连接器
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深孔喷吸系统部件
Assembling parts for ejector system D45

喷吸钻引导孔/导向套加工指导
Instruction of pilot hole/guiding bush hole making for ejector drilling D46

喷吸钻系统冷却液流量压力要求
Ejector system cutting fluid flow and pressure D48

定制单管钻系统部件
Customized assembling parts for STS system D49

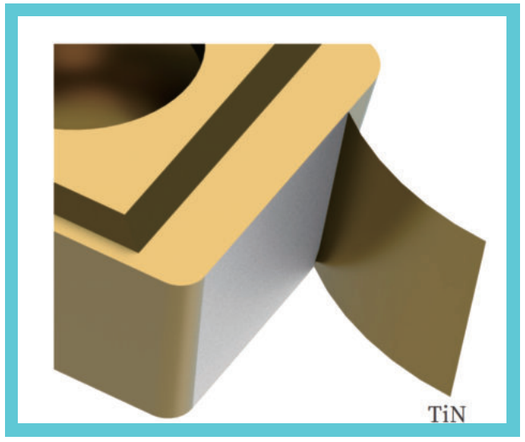
单管钻冷却液流量压力要求
STS cutting fluid flow and pressure D51

推荐切削参数
Cutting dates recommendation D52

深孔钻削刀片材质说明
Deep Hole Drilling Inserts Grades Introduction

通用材质
BD4220 (P M K S N H)

- PVD 涂层硬质合金牌号
  PVD coated grade
- 钻削通用牌号
  general purpose drilling grade
- 高金属去除率，
  可获得极佳生产效率和刀具使用寿命
  High metal removal rate,
  achieves high productivity and tool life.



深孔刀片加工槽型
Deep Hole Drilling Inserts Geometry

用途 Application	断屑槽形状 Chip breaker	特征·用途 Features	应用范围 Application
深孔钻削 Deep hole drilling	D80-L	·长屑材料首选,轻切削槽型、低切削力 ·First choice for long chip material,light cutting, light cutting corce.	PMKNSH
	D80-G	·通用加工槽型,大部分材料切削中都具有良好的切屑控制,中等到高的进给范围 ·General purpose geometry, having good chip control on most of mactrials, medium to high feed rates.	PMKNS
	424-L	·在大部分材料中都有良好的切削控制，这些材料包括：钢、铸铁、铝和其它有色金属,轻切削槽型、低切削力 机床功率受限时的首选 ·Having good chip control in most of materials, like steel, cast iron, aluminium and other non-ferrous metals, light cutting, light force, first choice for limit machine power.	PMKNSH
	424-G	·长屑材料的首选，这些材料包括：不锈钢、耐热优质合金,在中等速度和进给时具有良好的切屑控制 ·First choice for long chip material, like stainless steel, super alloy. Having good chip control on medium feedrates.	PMKNSH
	TPGX-L	·适用于大多数材料,轻切削槽型、低切削力，低到中等的进给范围 ·Suitable for most of materials. Light cutting, light cutting force, low to medium feed rates.	PMKNSH

深孔加工刀具
Deep Hole Machining Tools

D80.11喷吸钻	D80.11 Ejector Drill
ϕ25.00mm-ϕ65.00mm	ϕ5.00mm-ϕ65.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
最大加工深度100倍径	Max. drilling depth：100XD
经济型深孔钻削	Economical deep hole drilling
密封性佳	Good sealing system
适用于易断续材料	Suitable for easy chipbreaking materials
适用于各类卧式加工机床	For horizontal machine tool



D80.21单管钻	D80.21 STS drill
ϕ25.00mm-ϕ65.00mm	ϕ25.00mm-ϕ65.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
最大加工深度150倍径	Max. drilling depth：150XD
适用于长屑材料	Suitable for long chip materials



D42.11喷吸钻	D42.11 Ejector Drill
ϕ63.50mm-ϕ200.00mm	ϕ63.50mm-ϕ200.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
最大加工深度100倍径	Max. drilling depth：100XD
经济型深孔钻削	Economical deep hole drilling
密封性佳	Good sealing system
适用于易断续材料	Suitable for easy chipbreaking materials
适用于各类卧式加工机床	For horizontal machine tool



D42.21单管钻	D42.21 STS drill
ϕ63.50mm-ϕ200.00mm	ϕ63.50mm-ϕ200.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
最大加工深度150倍径	Max. drilling depth：150XD
适用于长屑材料	Suitable for long chip materials
适用于大孔径钻削	For hole size bigger than 63.5mm



425.21单管钻	425.21 STS drill
ϕ48.00mm-ϕ135.99mm	ϕ48.00mm-ϕ135.99mm
可转位刀片及支撑板	Indexable inserts & Support pads
最少化刀片规格	4 Inserts cover very wide range
最大加工深度150倍径	Max. drilling depth：150XD





适用于长屑材料	Suitable for long chip materials
推镗刀	Push Boring Tool
ϕ35.00mm-ϕ450.00mm	ϕ35.00mm-ϕ450.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
带辅助支撑板	With additional support pads
最大加工深度150倍径	Max. drilling depth：150XD
低堵屑风险	Low chip jamming risk
适用推镗工艺中扩孔加工	Suitable for counter boring in push boring process



拉镗刀	Pull Boring Tool
ϕ65.00mm-ϕ200.00mm	ϕ65.00mm-ϕ200.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
带辅助支撑板	With additional support pads
最大加工深度150倍径	Max. drilling depth：150XD
低堵屑风险	Low chip jamming risk
适用拉镗工艺中扩孔加工	Suitable for counter boring in pull boring process
直线度好	Good hole straightness



带前导向的推镗刀	Push Boring Tool with Front Pilot
ϕ35.00mm-ϕ200.00mm	ϕ5.00mm-ϕ200.00mm
可转位刀片及支撑板	Indexable inserts & Support pads
带辅助支撑板	With additional support pads
最大加工深度150倍径	Max. drilling depth：150XD
适用于各种材料加工	For both short & long chip materials
适用深孔内部阶梯孔	Suitable for composite deep hole machining
同轴度要求高的工艺	Suitable for high axiality request



铰削刀	High Feed Reamer
ϕ38.00mm-ϕ305.00mm	ϕ38.00mm-ϕ305.00mm
可转位刀片及软支撑板	Indexable inserts & Support pads
最大加工深度150倍径	Max. drilling depth：150XD
低堵屑风险	Low chip jamming risk
可加工公差正负0.02mm的深孔	Achieve +/-0.02mm hole tolerance
孔壁粗糙度Ra0.4-1.6	Surface finsh Ra0.4-1.6
机械式/液压式	Mechnical / Hydraulic design.

喷吸钻和单管钻系统
Ejector And STS System

喷吸钻系统
Ejector system

1	2	3	4	5	6	7	8
							
钻头	外钻管	内钻管	减震器	夹套/连接套管	密封套筒	O形圈	连接器 （旋转/非旋转）
Drill	Drill tube	Inner tube	Vibration damper	Collet/ connecting sleeve	Sealing sleeve	O-ring	Connector (rotating/ non-rotating)

喷吸钻:又名双管钻。其原理为2/3的液体通过内外管间隙流向钻头方向，1/3的液体从内管上的特殊缝隙中漏出，从而产生负压吸取液体，并使铁屑从内管中排出。

Ejector drill: alternative name double tube drill.Cutting fluid supply is fed through a connector between the inner tube and the drill tube. Approx.2/3 of the cutting fluid is forced to the drill head,the diverted back remainder is through the inner tube via the venturi inner tube(ejector effect) which creates a vacuum to draw the cutting fluid and chips towards the outlet.

单管钻系统
STS system

1	2	3	4	5
				
钻头	钻管	油压头/授油器	减震器	连接夹盘 （旋转/非旋转）
Drill	Drill tube	Inner tube	Vibration damper	Connecting chuck (rotating/ non-rotating)

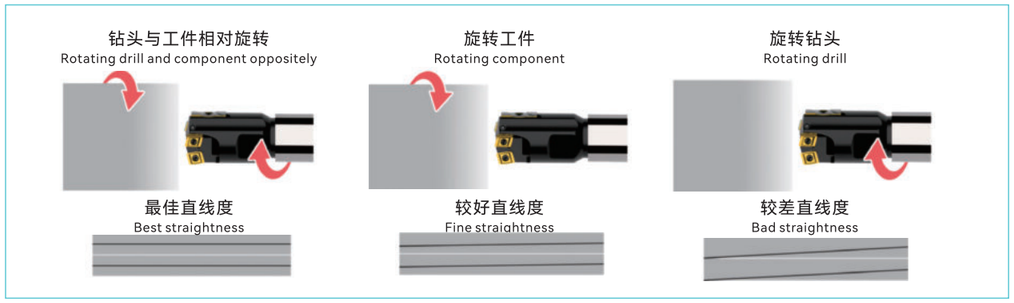
单管钻:油压头/授油器中接入的冷却液直接从钻管及孔壁间隙流向钻头方向，然后冷却液携带铁屑从钻管中排出。

STS drill:Single tube system.Cutting fluid supply is fed through an oil pressure head between the outsideof the drill tube and the hole wall. Chips and oil exits internally through the drill head and ID of the tube.

系统选择指南
System choice introduction

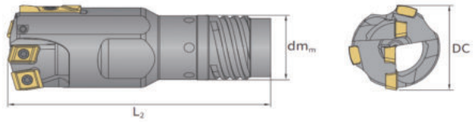
应用信息 Application information	喷吸钻 Ejector drill	单管钻 STS drill
系统复杂性 Complexity	复杂 High	简单 Low
冷却液压力及流量要求 Coolant pressure and quantity	一般 Normal	高 High
最大加工深度 Max.drilling depth	100倍径 100XDia	150倍径 150XDia.
加工导向 Drilling guiding	预孔/钻套 Pilot hole/bush	预孔/钻套 Pilot hole/bush
孔公差 Hole tolerance	取决于系统精度 Depending on system accuracy	取决于系统精度 Depending on system accuracy
孔直线度 Hole straightness	取决于旋转方式 Depending on raotating way	取决于旋转方式 Depending on raotating way
机床 Machine tool	卧式机床 Horizontal	专机 Special drilling machine
长屑 Long chip materials	次选 Second choice	首选First choice
典型应用零件 Typical component	主阀、模具 Valve\Die & mould	钻挺、船用连杆、管板 Drill collar\Marine connecting rod\Heat exchange plate

旋转方式与加工直线度
Rotating way affects hole straightness accuracy



喷吸钻D80.11
Ejector Drill D80.11





直径范围：25.00-65.00mm	Diameter range：25.00-65.00mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深：100倍径	Hole depth：100XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

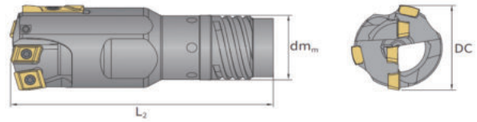
- 钻管dmt
  和钻头dmm一致
  dmt is the same as dmm for the drill

钻头直径范围	钻杆尺寸	订货号	尺寸 mm		刀片			支撑板	数量
Drill dia.range	Tube size	Ordering code	Dimensions		Insert			Pad	Quantity
					中心刀片	中间刀片	周边刀片		
Dc(mm)			dm	≤L2	Central insert	Intermediate insert	Peripheral insert		
25.00-26.40	03	D80.11-03D□□.□□	21.0	75.0	D80-050308M-C-G	D80-050308M-I-G	D80-060308H-P-G	D80-06A	2
26.41-28.70	04	D80.11-04D□□.□□	23.5	78.0	D80-050308M-C-G	D80-050308M-I-G	D80-060308H-P-G	D80-06A	2
28.71-31.00	05	D80.11-05D□□.□□	25.5	80.0	D80-06T308M-C-G	D80-050308M-I-G	D80-060308H-P-G	D80-06A	2
31.01-33.30	06	D80.11-06D□□.□□	28.0	80.0	D80-06T308M-C-G	D80-06T308M-I-G	D80-08T308H-P-G	D80-07A	2
33.31-36.20	07	D80.1107D□□.□□	30.0	90.0	D80-06T308M-C-G	D80-06T308M-I-G	D80-08T308H-P-G	D80-07A	2
					D80-08T308M-C-G	D80-08T308M-I-G			
36.21-39.60	08	D80.1108D□□.□□	33.0	90.0	D80-08T308M-C-G	D80-08T308M-I-G	D80-08T308H-P-G	D80-07A	2
							D80-09T308H-P-G		
39.61-43.00	09	D80.11-09D□□.□□	36.0	95.0	D80-08T308M-C-G	D80-08T308M-I-G	D80-09T308H-P-G	D80-08A	2
43.01-47.00	10	D80.11-10D□□.□□	39.0	100.0	D80-10T308M-C-G	D80-08T308M-I-G	D80-09T308H-P-G	D80-08A	2
47.01-51.70	11	D80.1111D□□.□□	43.0	110.0	D80-12T308M-C-G	D80-08T308M-I-G	D80-09T308H-P-G	D80-10A	2
					D80-10T308M-C-G		D80-11T308H-P-G		
51.71-56.20	12	D80.1112D□□.□□	47.0	115.0	D80-10T308M-C-G	D80-08T308M-I-G	D80-11T308H-P-G	D80-10A	2
						D80-12T308M-I-G		D80-12A	
56.21-65.00	13	D80.1113D□□.□□	51.0	125.0	D80-10T308M-C-G	D80-12T308M-I-G	D80-11T308H-P-G	D80-12A	2
					D80-12T308M-C-G				

- 订购钻头时，需注明钻头直径（□□.□□）
  When ordering drill,state drill diameter (□□.□□) in the ordering code
  订货示例Ordering example： D80.11-03D25.50

喷吸钻D80.11
Ejector Drill D80.11





直径范围：25.00-65.00mm	Diameter range：25.00-65.00mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深：100倍径	Hole depth：100XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

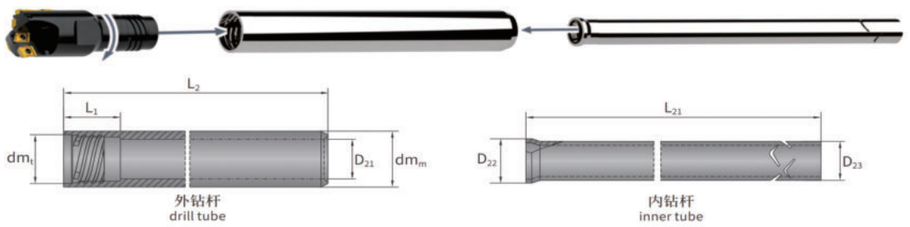
- 钻管dmt
  和钻头dmm一致
  dmt is the same as dmm for the drill

直径范围	中心刀片	直径范围	中间刀片	直径范围	周边刀片	直径范围	支撑板
Diameter range	Central insert	Diameter range	Intermediate insert	Diameter range	Peripheral insert	Diameter range	Support pad
Dc(mm)		Dc(mm)		Dc(mm)		Dc(mm)	
25.00-28.70	D80-050308M-C-G	25.00-31.00	D80-050308M-I-G	25.00-31.00	D80-060308H-P-G	25.00-31.00	D80-06A
28.71-33.99	D80-06T308M-C-G	31.01-34.99	D80-06T308M-I-G	31.01-38.99	D80-08T308H-P-G	31.01-39.60	D80-07A
34.00-43.00	D80-08T308M-C-G	35.00-54.99	D80-08T308M-I-G	39.00-49.99	D80-09T308H-P-G	39.61-47.00	D80-08A
43.01-47.00	D80-10T308M-C-G	55.00-65.00	D80-12T308M-I-G	50.00-65.00	D80-11T308H-P-G	47.01-54.99	D80-10A
47.01-49.99	D80-12T308M-C-G					55.00-65.00	D80-12A
50.00-57.99	D80-10T308M-C-G						
58.00-65.00	D80-12T308M-C-G						

喷吸钻D80.11钻杆

Tubes For D80.11 Ejector Drills

- 直径范围：25.00-65.00mm
  Dia.range：25.00-65.00mm



- 钻管dmt和钻头dmm一致
  dmt is the same as dmm for the drill

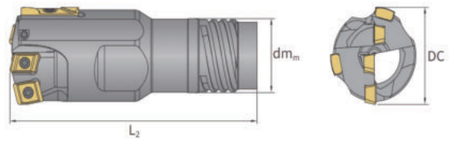
钻头直径范围 Drill dia.range Dc mm	钻杆尺寸 Tube size	订货号（外钻杆） Ordering code (drill tube)	尺寸 mm Dimensions dmm	dmt	D21	l1	订货号（内钻杆） Ordering code (inner tube)	尺寸mm Dimensionsv D22	D23
25.00-26.40	03	D80.11-003-□□□□	23.5	21.0	16.0	30.0	D80.11-103-□□□□	16.0	14.0
26.41-28.70	04	D80.11-004-□□□□	26.0	23.5	18.0	33.0	D80.11-104-□□□□	18.0	16.0
28.71-31.00	05	D80.11-005-□□□□	28.0	25.5	20.0	33.0	D80.11-105-□□□□	20.0	18.0
31.01-33.30	06	D80.11-006-□□□□	30.5	28.0	22.0	33.0	D80.11-106-□□□□	22.0	20.0
33.31-36.20	07	D80.11-007-□□□□	33.0	30.0	24.0	40.0	D80.11-107-□□□□	24.0	22.0
36.21-39.60	08	D80.11-008-□□□□	35.5	33.0	26.0	40.0	D80.11-108-□□□□	26.0	24.0
39.61-43.00	09	D80.11-009-□□□□	39.0	36.0	29.0	40.0	D80.11-109-□□□□	29.0	27.0
43.01-47.00	10	D80.11-010-□□□□	42.5	39.0	32.0	40.0	D80.11-110-□□□□	32.0	30.0
47.01-51.70	11	D80.11-011-□□□□	46.5	43.0	35.0	44.0	D80.11-111-□□□□	35.0	32.0
51.71-56.20	12	D80.11-012-□□□□	51.0	47.0	39.0	44.0	D80.11-112-□□□□	39.0	36.0
56.21-65.00	13	D80.11-013-□□□□	55.5	51.0	43.0	44.0	D80.11-113-□□□□	43.0	40.0

- 订购钻杆时，需注明钻杆长度L2（□□□□）
  When ordering drill tube,state code length L2(□□□□) in the ordering code
- 钻头直径Dc=35.00mm，外钻杆长度为1070mm，内钻杆长度为1100mm的订货示例：
  Ordering example for drill tube length 1070mm，inner tube length 1100mm for drill diameter 35.00mm:
- 外钻杆Drill tube:D80.11-007-1070 内钻杆Inner tube:D80.11-107-1100
  内钻杆必须比外钻杆长30mm
  Inner tube must be 30mm longer than drill tube.
- 外钻杆均不带扳手槽，如需要可定制
  Drill tube without spanner slot,please state if needed.

单管钻D80.21

STS Drill D80.21





直径范围：25.00-65.00mm	Diameter range：25.00-65.00mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深：150倍径	Hole depth：150XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

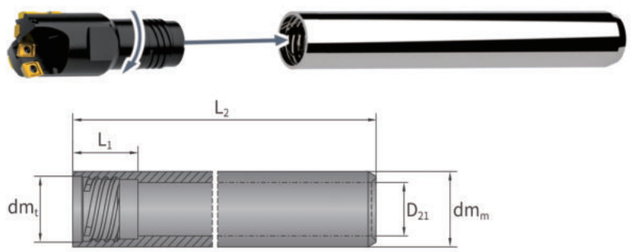
- 钻管dmt和钻头dmm一致
  dmt is the same as dmm for the drill

钻头直径范围 Drill dia.range Dc(mm)	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dm	≤L2	刀片 Insert 中心刀片 Central insert	中间刀片 Intermediate insert	周边刀片 Peripheral insert	支撑板 Pad	数量 Quantity
25.00-26.40	03	D80.21-03D□□.□□	19.5	75.0	D80-050308M-C-G	D80-050308M-I-G	D80-060308H-P-G	D80-06A	2
26.41-28.70	04	D80.21-04D□□.□□	21.0	78.0	D80-050308M-C-G	D80-050308M-I-G	D80-060308H-P-G	D80-06A	2
28.71-31.00	05	D80.21-05D□□.□□	23.5	80.0	D80-06T308M-C-G	D80-050308M-I-G	D80-060308H-P-G	D80-06A	2
31.01-33.30	06	D80.21-06D□□.□□	25.5	80.0	D80-06T308M-C-G	D80-06T308M-I-G	D80-08T308H-P-G	D80-07A	2
33.31-36.20	07	D80.2107D□□.□□	28.0	80.0	D80-06T308M-C-G D80-08T308M-C-G	D80-06T308M-I-G D80-08T308M-I-G	D80-08T308H-P-G	D80-07A	2
36.21-39.60	08	D80.2108D□□.□□	30.0	95.0	D80-08T308M-C-G	D80-08T308M-I-G	D80-08T308H-P-G D80-09T308H-P-G	D80-07A	2
39.61-43.00	09	D80.21-09D□□.□□	33.0	100.0	D80-08T308M-C-G	D80-08T308M-I-G	D80-09T308H-P-G	D80-08A	2
43.01-47.00	10	D80.21-10D□□.□□	36.0	100.0	D80-10T308M-C-G	D80-08T308M-I-G	D80-09T308H-P-G	D80-08A	2
47.01-51.70	11	D80.21-11D□□.□□	39.0	110.0	D80-12T308M-C-G D80-10T308M-C-G	D80-08T308M-I-G	D80-09T308H-P-G D80-11T308H-P-G	D80-10A	2
51.71-56.20	12	D80.21-12D□□.□□	43.0	120.0	D80-10T308M-C-G	D80-08T308M-I-G D80-12T308M-I-G	D80-11T308H-P-G	D80-10A D80-12A	2
56.21-65.00	13	D80.21-13D□□.□□	47.0	125.0	D80-10T308M-C-G D80-12T308M-C-G	D80-12T308M-I-G	D80-11T308H-P-G	D80-12A	2

- 订购钻头时，需注明钻头直径（□□.□□）
  When ordering drill,state drill diameter (□□.□□) in the ordering code
  订货示例Ordering example： D80.21-03D25.50

单管钻D80.21钻杆
Tubes For D80.21 STS Drills

- 直径范围：25.00-65.00mm
  Dia.range：25.00-65.00mm



- 钻管dmt
  和钻头dmm一致
  dmt is the same as
  dmm for the drill

钻头直径范围	钻杆尺寸	订货号	尺寸 mm			
Drill dia.range	Tube size	Ordering code	Dimensions			
Dc mm			dmm	dmt	l1	D21
25.00-26.40	03	D80.21-003-□□□□	22	19.5	26	15
26.41-28.70	04	D80.21-004-□□□□	24	21	26	16
28.71-31.00	05	D80.21-005-□□□□	26	23.5	29	18
31.01-33.30	06	D80.21-006-□□□□	28	25.5	29	20
33.31-36.20	07	D80.21-007-□□□□	30	28	29	22
36.21-39.60	08	D80.21-008-□□□□	33	30	36	24
39.61-43.00	09	D80.21-009-□□□□	36	33	36	26
43.01-47.00	10	D80.21-010-□□□□	39	36	36	29
47.01-51.70	11	D80.21-011-□□□□	43	39	36	32
51.71-56.20	12	D80.21-012-□□□□	47	43	40	35
56.21-65.00	13	D80.21-013-□□□□	51	47	40	39

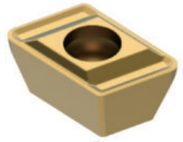
- 订购钻杆时，需注明钻杆长度L2（□□□□）
  When ordering drill tube,state code length L2(□□□□) in the ordering code
- 钻头直径Dc=35.00mm，钻杆长度为2600mm的订货示例：
  Ordering example for drill tube length 2600mm for drill diameter 35.00mm:D80.21-007-2600
- 外钻杆均不带扳手槽，如需要可定制
  Drill tube without spanner slot,please state if needed.

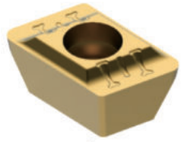
单管钻D80.21钻杆
Tubes For D80.21 STS Drills

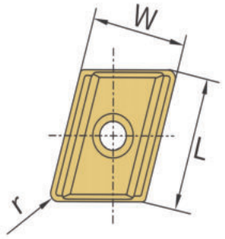
直径范围	中心刀片	直径范围	中间刀片	直径范围	周边刀片	直径范围	支撑板
Diameter range	Central insert	Diameter range	Intermediate insert	Diameter range	Peripheral insert	Diameter range	Support pad
Dc(mm)		Dc(mm)		Dc(mm)		Dc(mm)	
25.00-28.70	D80-050308M-C-G	25.00-31.00	D80-050308M-I-G	25.00-31.00	D80-060308H-P-G	25.00-31.00	D80-06A
28.71-33.99	D80-06T308M-C-G	31.01-34.99	D80-06T308M-I-G	31.01-38.99	D80-08T308H-P-G	31.01-39.60	D80-07A
34.00-43.00	D80-08T308M-C-G	35.00-54.99	D80-08T308M-I-G	39.00-49.99	D80-09T308H-P-G	39.61-47.00	D80-08A
43.01-47.00	D80-10T308M-C-G	55.00-65.00	D80-12T308M-I-G	50.00-65.00	D80-11T308H-P-G	47.01-54.99	D80-10A
47.01-49.99	D80-12T308M-C-G					55.00-65.00	D80-12A
50.00-57.99	D80-10T308M-C-G						
58.00-65.00	D80-12T308M-C-G						

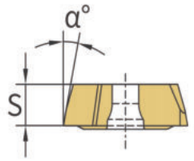
用于D80.11和D80.21的钻削刀片
Inserts For D80.11 And D80.21 Drills

- **中心刀片**
  Central insert





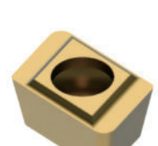


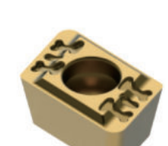


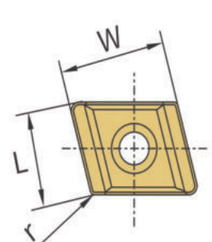
订货号	P	M	K	S	N	尺寸(mm，inch)								
Ordering code	BD4220	BD4220	BD4220	BD4220	BD4220	Dimensions								
						R	R”	W	W”	L	L”	S	S”	α°
D80-050308M-C-G	★	★	★	★	★	0.8	.031	8.00	.315	5.56	.218	3.17	.125	11
D80-06T308M-C-G	★	★	★	★	★	0.8	.031	9.87	.389	6.35	.250	3.96	.156	11
D80-08T308M-C-G	★	★	★	★	★	0.8	.031	9.87	.389	7.94	.312	3.96	.156	11
D80-10T308M-C-G	★	★	★	★	★	0.8	.031	9.87	.389	9.53	.376	3.96	.156	11
D80-12T308M-C-G	★	★	★	★	★	0.8	.031	12.7	.500	12.7	.500	3.96	.156	11
D80-050308M-C-L	★	★	★	★	★	0.8	.031	8.00	.315	5.56	.218	3.17	.125	11
D80-06T308M-C-L	★	★	★	★	★	0.8	.031	9.87	.389	6.35	.250	3.96	.156	11
D80-08T308M-C-L	★	★	★	★	★	0.8	.031	9.87	.389	7.94	.312	3.96	.156	11
D80-10T308M-C-L	★	★	★	★	★	0.8	.031	9.87	.389	9.53	.376	3.96	.156	11
D80-12T308M-C-L	★	★	★	★	★	0.8	.031	12.7	.500	12.7	.500	3.96	.156	11

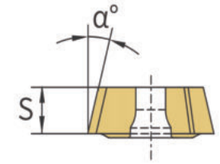
用于D80.11和D80.21的钻削刀片
Inserts For D80.11 And D80.21 Drills

- **中间刀片**
  Intermediate insert





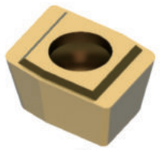


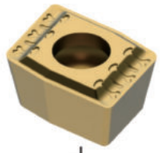


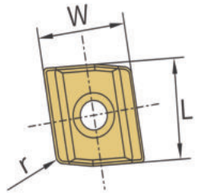
订货号	P	M	K	S	N	尺寸(mm，inch)								
Ordering code	BD4220	BD4220	BD4220	BD4220	BD4220	Dimensions								
						R	R”	W	W”	L	L”	S	S”	α°
D80-050308M-I-G	★	★	★	★	★	0.8	.031	8.00	.314	5.56	.218	3.17	.125	11
D80-06T308M-I-G	★	★	★	★	★	0.8	.031	9.87	.389	6.35	.250	3.96	.156	11
D80-08T308M-I-G	★	★	★	★	★	0.8	.031	9.87	.389	7.94	.312	3.96	.156	11
D80-12T308M-I-G	★	★	★	★	★	0.8	.031	12.7	.500	9.87	.389	3.96	.156	11
D80-050308M-I-L	★	★	★	★	★	0.8	.031	8.00	.314	5.56	.218	3.17	.125	11
D80-06T308M-I-L	★	★	★	★	★	0.8	.031	9.87	.389	6.35	.250	3.96	.156	11
D80-08T308M-I-L	★	★	★	★	★	0.8	.031	9.87	.389	7.94	.312	3.96	.156	11
D80-12T308M-I-L	★	★	★	★	★	0.8	.031	12.7	.500	9.87	.389	3.96	.156	11

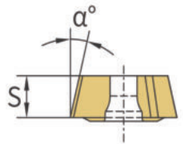
用于D80.11和D80.21的钻削刀片
Inserts For D80.11 And D80.21 Drills

周边刀片
Peripheral insert


-G


-L



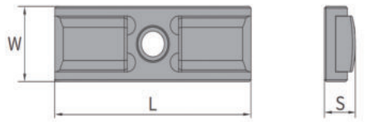


订货号	P	M	K	S	N	尺寸(mm，inch)								
Ordering code	BD4220	BD4220	BD4220	BD4220	BD4220	Dimensions								
						R	R”	W	W”	L	L”	S	S”	α°
D80-060308H-P-G	★	★	★	★	★	0.8	.031	8.00	.314	6.42	.253	3.17	.125	11
D80-08T308H-P-G	★	★	★	★	★	0.8	.031	9.00	.354	8.62	.339	3.96	.156	11
D80-09T308H-P-G	★	★	★	★	★	0.8	.031	9.00	.354	9.63	.379	3.96	.156	11
D80-11T308H-P-G	★	★	★	★	★	0.8	.031	9.00	.354	12.7	.500	3.96	.156	11
D80-060308H-P-L	★	★	★	★	★	0.8	.031	8.00	.314	6.42	.253	3.17	.125	11
D80-08T308H-P-L	★	★	★	★	★	0.8	.031	9.00	.354	8.62	.339	3.96	.156	11
D80-09T308H-P-L	★	★	★	★	★	0.8	.031	9.00	.354	9.63	.379	3.96	.156	11
D80-11T308H-P-L	★	★	★	★	★	0.8	.031	9.00	.354	12.7	.500	3.96	.156	11

用于D80.11和D80.21的支撑板
Support Pad For D80.11 And D80.21 Drills

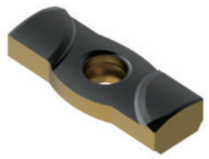
焊接高精度支撑板
Brazed pads-High precision

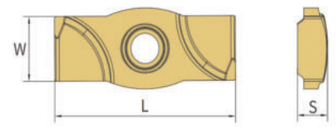




订货号	□□(mm，inch)					
Ordering code	Dimensions					
	W	W”	L	L□	S	S□
D80-06H	6	.236	18	.709	3.0	.118
D80-07H	7	.276	20	.787	3.5	.138
D80-08H	8	.315	25	.984	4.5	.177
D80-10H	10	.394	30	1.181	4.5	.177
D80-12H	12	.472	35	1.378	5.5	.216

压制精磨支撑板
Solid carbide pads-fine grinding

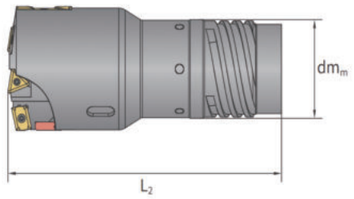


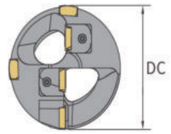


订货号	□□(mm，inch)					
Ordering code	Dimensions					
	W	W”	L	L□	S	S□
D80-06A	6	.236	18	.709	3.0	.118
D80-07A	7	.276	20	.787	3.5	.138
D80-08A	8	.315	25	.984	4.5	.177
D80-10A	10	.394	30	1.181	4.5	.177
D80-12A	12	.472	35	1.378	5.5	.216

喷吸钻D42.11
Ejector Drill D42.11







直径范围:63.50-200.00mm	Diameter range：63.50-200.00mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深：100倍径	Hole depth：100XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

- 钻管dmt 和钻头dmm一致
  dmt is the same as dmm for the drill

标准产品
Standard products

钻头直径 Drill diameter Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	L2	直径调整量 Dia. adjustable	刀片 Insert 中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.	支撑板 Support pad	数量 Qty.
63.50	13	D42.11-13D063.50	47	115	+0.5	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
65.00	13E	D42.11-13ED065.00	51	115	+1.0	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
65.00	14	D42.11-14D065.00	52	150	+1.0	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
69.85	15	D42.11-15D069.85	58	150	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
70.00	15	D42.11-15D070.00	58	150	+1.0	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
71.45	15	D42.11-15D071.45	58	150	+0.5	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
75.00	16	D42.11-16D075.00	63	160	+1.2	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
76.20	16	D42.11-16D076.20	63	160	+1.8	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
80.00	17	D42.11-17D080.00	70	190	+1.0	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
82.55	17	D42.11-17D082.55	70	190	+0.5	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
85.00	17	D42.11-17D085.00	70	190	+1.5	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
88.90	18	D42.11-18D088.99	77	190	+1.0	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
90.00	18	D42.11-18D090.00	77	190	+1.0	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2

喷吸钻D42.11
Ejector Drill D42.11

钻头直径 Drill diameter Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	L2	直径调整量 Dia. adjustable	刀片 Insert 中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.	支撑板 Support pad	数量 Qty.
95.00	18	D42.11-18D095.00	77	190	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-14D065	2
95.25	18	D42.11-18D095.25	77	190	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-14D065	2
100.00	19	D42.11-19D100.00	89	195	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
101.60	19	D42.11-19D101.60	89	195	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
105.00	19	D42.11-19D105.00	89	195	+0.2	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
107.95	19	D42.11-19D107.95	89	195	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
110.00	19	D42.11-19D110.00	89	195	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
114.30	20	D42.11-20D114.30	101	220	+1.5	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
115.00	20	D42.11-20D115.00	101	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
120.00	20	D42.11-20D120.00	101	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
120.65	20	D42.11-20D120.65	101	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
125.00	21	D42.11-21D125.00	113	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
127.00	21	D42.11-21D127.00	113	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
130.00	21	D42.11-21D130.00	113	220	+0.1	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2

喷吸钻D42.11
Ejector Drill D42.11

定制产品
Tailor made products

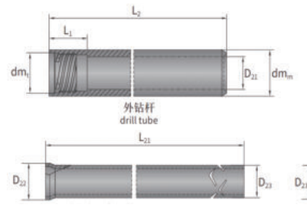
钻头直径范围	推荐钻杆尺寸(可选钻杆尺寸)	订货号	尺寸 mm			刀片						支撑板	数量
Drill dia. range	Recommended Tube size (Optional tube size)	Ordering code	Dimensions			Insert						Support pad	Qty.
			dmm	L2	径向调整量	中心刀夹	数量	中间刀夹	数量	周边刀夹	数量		
Dc(mm)					Dia. adjustable	Central cartridge	Qty.	Intermediate cartridge	Qty.	Peripheral cartridge	Qty.		
63.50-65.00	13	D42.11-13D□□□.□□	47	115	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
63.50-65.00	13E	D42.11-13ED□□□.□□	51	115	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
65.00-69.84	14 (13)	D42.11-14(13)D□□□.□□	52	150	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
69.85-71.99	15 (14)	D42.11-15(14)D□□□.□□	58	150	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
72.00-79.99	16 (15)	D42.11-16(15)D□□□.□□	63	160	+0.2	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
80.00-82.99	17 (16)	D42.11-17(16)D□□□.□□	70	190	+0.2	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
83.00-88.89	17 (16)	D42.11-17(16)D□□□.□□	70	190	+0.2	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
88.90-91.49	18 (17)	D42.11-18(17)D□□□.□□	77	190	+0.2	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
91.50-99.99	18 (17)	D42.11-18(17)D□□□.□□	77	190	+0.2	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-14D065	2
100.00-104.99	19 (18)	D42.11-19(18)D□□□.□□	89	195	+0.2	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
105.00-114.29	19 (18)	D42.11-19(18)D□□□.□□	89	195	+0.2	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
114.30-121.99	20 (19)	D42.11-20(19)D□□□.□□	101	220	+0.2	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
122.00-124.99	21 (20)	D42.11-21(20)D□□□.□□	113	220	+0.2	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
125.00-135.99	21 (20)	D42.11-21(20)D□□□.□□	113	220	+0.2	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
136.00-200.00	22-25	定制Customized design			+0.2								2

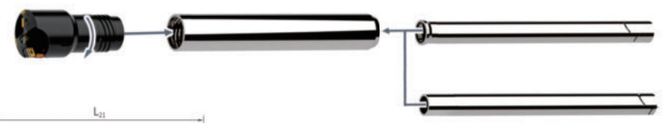
- 订购钻头时，需注明钻头直径（□□□.□□）
  When ordering drill,state drill diameter (□□□.□□) in the ordering code
- 订货示例
  Ordering example: D42.11-14D068.00

刀片 Insert

中心刀卡	刀片	中间刀卡	刀片	周边刀卡	刀片
Central cartridge	Insert	Intermediate cartridge	Insert	Peripheral cartridge	Insert
BL430-C16	TPMT16T312R-L	BR430-I16	TPMT16T312R-L	BR430-P16	424-13T308-L
	TPMT16T312R-G		TPMT16T312R-G		424-13T308-G
BL430-C22	TPMT220612R-L	BR430-I22	TPMT220612R-L	BR430-P22	424-180608-L
	TPMT220612R-G		TPMT220612R-G		424-180608-G

喷吸钻D42.11钻杆
Tubes For D42.11 Ejector Drills





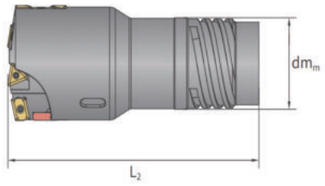
- 钻管dmt和钻头dmm一致
  dmt is the same as dmm for the drill

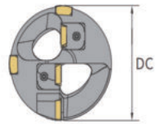
钻头直径	钻杆尺寸	订货号（外钻杆）	尺寸 mm				订货号（内钻杆）	尺寸 mm	
Drill diameter	Tube size	Ordering code (drill tube)	Dimensions				Ordering code (inner tube)	Dimensions	
Dc mm			dmm	dmt	D21	l1		D22	D23
63.50	13	D80.11-013-□□□□	55.5	47	43	44	D80.11-113-□□□□	43	40
65.00	13E	D80.11-013E-□□□□	56.00	51.00	43.00	44.00	D80.11-113-□□□□	43.00	40.00
65.00	14	D80.11-014-□□□□	56	52	43	75	D80.11-114-□□□□	-	40
69.85	15	D80.11-015-□□□□	62	58	48	75	D80.11-115-□□□□	-	44
70.00									
71.45									
75.00	16	D80.11-016-□□□□	68	63	53	75	D80.11-116-□□□□	-	48
76.20									
80.00	17	D80.11-017-□□□□	75	70	59	97	D80.11-117-□□□□	-	54
82.55									
85.00									
88.90	18	D80.11-018-□□□□	82	77	66	97	D80.11-118-□□□□	-	60
90.00									
95.00									
95.25									
100.00	19	D80.11-019-□□□□	94	89	78	97	D80.11-119-□□□□	-	70
101.60									
105.00									
107.95									
110.00									
114.30	20	D80.11-020-□□□□	106	101	90	118	D80.11-120-□□□□	-	80
115.00									
120.00									
120.65									
125.00	21	D80.11-021-□□□□	118	113	92	118	D80.11-121-□□□□	-	80
127.00									
135.99									
136-200	22-25	定制Customized design							

- 订购钻杆时，需注明钻杆长度L2，L21（□□□□）
  When ordering drill tube,state code length L2，L21(□□□□) in the ordering code
- 钻头直径Dc=65.00mm,外钻杆长度为1070mm,内钻杆长度为1260mm的订货示例：
  Ordering example for drill tube length 1070mm，inner tube length 1260mm for drill diameter 65.00mm:
  外钻杆Drill tube:D80.11-014-1070,内钻杆Inner tube:D80.11-114-1260
- 钻头直径为63.50mm-123.90mm的内钻杆必须比外钻杆长190mm。
  For drill diameter 63.50mm-123.90mm:inner tube must be 190mm longer than drill tube.
- 钻头直径为124.00mm-200.00mm的内钻杆必须比外钻杆长220mm
  For drill diameter 124.00mm-200.00mm:inner tube must be 220mm longer than drill tube.
- 钻杆均不带扳手槽，如需要可定制。
  Drill tube without spanner slot,please state if needed.

单管钻D42.21
STS Drill D42.21







直径范围:63.50-200.00mm	Diameter range：63.50-200.00mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深:150倍径	Hole depth：150XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

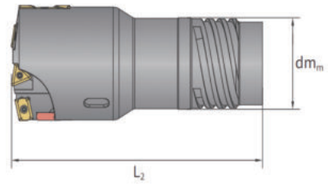
- 钻管dmt 和钻头dmm一致
  dmt is the same as dmm for the drill

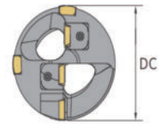
标准产品
Standard products

钻头直径 Drill diameter Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	L2	直径调整量 Dia. adjustable	刀片 Insert 中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.	支撑板 Support pad	数量 Qty.
63.50	13	D42.11-13D063.50	47	115	+0.5	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
65.00	13E	D42.11-13ED065.00	51	115	+1.0	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
65.00	14	D42.11-14D065.00	52	150	+1.0	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
69.85	15	D42.11-15D069.85	58	150	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
70.00	15	D42.11-15D070.00	58	150	+1.0	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
71.45	15	D42.11-15D071.45	58	150	+0.5	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
75.00	16	D42.11-16D075.00	63	160	+1.2	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
76.20	16	D42.11-16D076.20	63	160	+1.8	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
80.00	17	D42.11-17D080.00	70	190	+1.0	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
82.55	17	D42.11-17D082.55	70	190	+0.5	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
85.00	17	D42.11-17D085.00	70	190	+1.5	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
88.90	18	D42.11-18D088.99	77	190	+1.0	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
90.00	18	D42.11-18D090.00	77	190	+1.0	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2

单管钻D42.21
STS Drill D42.21







直径范围:63.50-200.00mm	Diameter range：63.50-200.00mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深:150倍径	Hole depth：150XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

- 钻管dmt 和钻头dmm一致
  dmt is the same as dmm for the drill

钻头直径 Drill diameter Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	L2	直径调整量 Dia. adjustable	刀片 Insert 中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.	支撑板 Support pad	数量 Qty.
95.00	18	D42.11-18D095.00	77	190	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-14D065	2
95.25	18	D42.11-18D095.25	77	190	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-14D065	2
100.00	19	D42.11-19D100.00	89	195	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
101.60	19	D42.11-19D101.60	89	195	+1.0	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
105.00	19	D42.11-19D105.00	89	195	+0.2	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
107.95	19	D42.11-19D107.95	89	195	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
110.00	19	D42.11-19D110.00	89	195	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
114.30	20	D42.11-20D114.30	101	220	+1.5	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
115.00	20	D42.11-20D115.00	101	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
120.00	20	D42.11-20D120.00	101	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
120.65	20	D42.11-20D120.65	101	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
125.00	21	D42.11-21D125.00	113	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
127.00	21	D42.11-21D127.00	113	220	+1.0	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
130.00	21	D42.11-21D130.00	113	220	+0.1	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2

单管钻D42.21
STS Drill D42.21

- **定制产品**
  Tailor made products

钻头直径范围	推荐钻杆尺寸(可选钻杆尺寸)	订货号	尺寸 mm			刀片						支撑板	数量
Drill dia. range	Recommended Tube size (Optional tube size)	Ordering code	Dimensions			Insert						Support pad	Qty.
Dc(mm)			dmm	L2	径向调整量 Dia. adjustable	中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.		
63.50-65.00	13	D42.11-13D□□□.□□	47	115	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
63.50-65.00	13E	D42.11-13ED□□□.□□	51	115	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
65.00-69.84	14 (13)	D42.11-14(13)D□□□.□□	52	150	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
69.85-71.99	15 (14)	D42.11-15(14)D□□□.□□	58	150	+0.2	BL430-C16	1	BR430-I16	1	BR430-P16	1	D80-14D065	2
72.00-79.99	16 (15)	D42.11-16(15)D□□□.□□	63	160	+0.2	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
80.00-82.99	17 (16)	D42.11-17(16)D□□□.□□	70	190	+0.2	BL430-C16	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
83.00-88.89	17 (16)	D42.11-17(16)D□□□.□□	70	190	+0.2	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
88.90-94.00	18 (17)	D42.11-18(17)D□□□.□□	77	190	+0.2	BL430-C22	1	BR430-I16	1	BR430-P22	1	D80-14D065	2
95.00-99.99	18 (17)	D42.11-18(17)D□□□.□□	77	190	+0.2	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-14D065	2
100.00-104.99	19 (18)	D42.11-19(18)D□□□.□□	89	195	+0.2	BL430-C22	1	BR430-I22	1	BR430-P22	1	D80-16D100	2
105.00-114.29	19 (18)	D42.11-19(18)D□□□.□□	89	195	+0.2	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
114.30-121.99	20 (19)	D42.11-20(19)D□□□.□□	101	220	+0.2	BL430-C16	1	BR430-I16	3	BR430-P16	1	D80-16D100	2
122.00-124.99	21 (20)	D42.11-21(20)D□□□.□□	101	220	+0.2	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
125.00-135.99	21 (20)	D42.11-21(20)D□□□.□□	113	220	+0.2	BL430-C16	1	BR430-I16	3	BR430-P22	1	D80-16D100	2
136.00-200.00	22-25	定制Customized design			+0.2								2

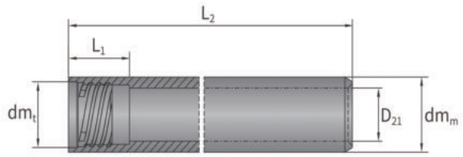
- 订购钻头时，需注明钻头直径（□□□.□□）
  When ordering drill,state drill diameter (□□□.□□) in the ordering code
- 订货示例
  Ordering example：D42.11-14D068.00

刀片 Insert

中心刀卡	刀片	中间刀卡	刀片	周边刀卡	刀片
Central cartridge	Insert	Intermediate cartridge	Insert	Peripheral cartridge	Insert
BL430-C16	TPMT16T312R-L	BR430-I16	TPMT16T312R-L	BR430-P16	424-13T308-L
	TPMT16T312R-G		TPMT16T312R-G		424-13T308-G
BL430-C22	TPMT220612R-L	BR430-I22	TPMT220612R-L	BR430-P22	424-180608-L
	TPMT220612R-G		TPMT220612R-G		424-180608-G

单管钻D42.21钻杆
Tubes For D42.21 STS Drills





- 直径范围：63.50-200.00mm
  Dia.range：63.50-200.00mm
- 钻管dmt钻头dmm一致
  dmt is the same as dmm for the drill

钻头直径	钻杆尺寸	订货号	尺寸 mm			
Drill diameter	Tube size	Ordering code	Dimensions			
Dc mm			dmm	dmt	l1	D21
63.50	13	D80.21-013-□□□□	51	47	40	39
65.00	13E	D80.21-013E-□□□□	56	51	40	43
65.00	14	D80.21-014-□□□□	56	52	75	43
69.85	15	D80.21-015-□□□□	62	58	75	48
70.00						
74.99						
75.00	16	D80.21-016-□□□□	68	63	75	53
79.99						
80.00	17	D80.21-017-□□□□	75	70	97	59
82.55						
88.89						
88.90	18	D80.21-018-□□□□	82	77	97	66
90.00						
95.00						
99.99						
100.00	19	D80.21-019-□□□□	94	89	97	78
101.60						
105.00						
107.95						
114.29						
114.30	20	D80.21-020-□□□□	106	101	118	90
115.00						
120.00						
124.99						
125.00	21	D80.21-021-□□□□	118	113	118	92
127.00						
135.99						
136-200	22-25					

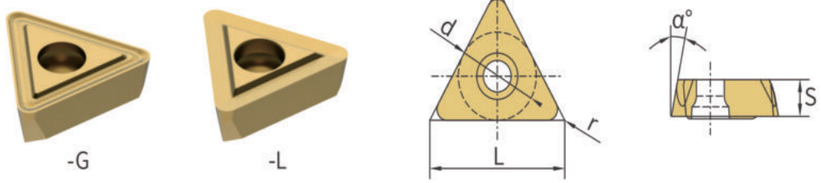
- 订购钻杆时，需注明钻杆长度L2（□□□□）
  When ordering drill tube,state code length L2(□□□□) in the ordering code
- 钻头直径Dc=35.00mm，钻杆长度为2600mm的订货示例：
  Ordering example for drill tube length 2600mm for drill diameter 35.00mm:D80.21-014-2600
- 外钻杆均不带扳手槽，如需要可定制
  Drill tube without spanner slot,please state if needed.

用于D42.11和D42.21的钻削刀片

Inserts For D42.11 And D42.21 Drills

中心刀片、中间刀片

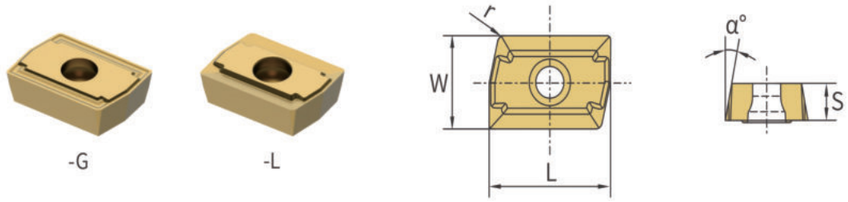
Central and intermediate insert



订货号	P	M	K	S	N	尺寸(mm，inch)								
Ordering code	Dimensions													
	BD4220	BD4220	BD4220	BD4220	BD4220	R	R”	d	d”	L	L”	S	S”	α°
TPMT 16T312R-L	★	★	★	★	★	1.2	0.047	9.525	0.375	16.5	0.650	3.97	0.156	11°
TPMT 16T312R-G	★	★	★	★	★	1.2	0.047	9.525	0.375	16.5	0.65	3.97	0.156	11°
TPMT 220612R-L	★	★	★	★	★	1.2	0.047	12.7	0.500	22.0	0.866	6.35	0.250	11°
TPMT 220612R-G	★	★	★	★	★	1.2	0.047	12.7	0.500	22.0	0.866	6.35	0.250	11°

周边刀片

Peripheral insert



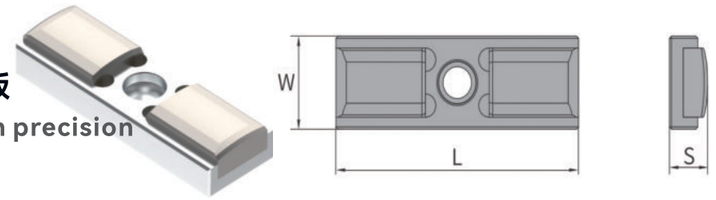
订货号	P	M	K	S	N	尺寸(mm，inch)								
Ordering code	Dimensions													
	BD4220	BD4220	BD4220	BD4220	BD4220	R	R”	W	W”	L	L”	S	S”	α°
424-13T308-L	★	★	★	★	★	0.8	0.031	10	0.394	14.7	0.579	3.97	0.156	11°
424-13T308-G	★	★	★	★	★	0.8	0.031	10	0.394	14.7	0.579	3.97	0.156	11°
424-180608-L	★	★	★	★	★	0.8	0.031	11.5	0.453	20.6	0.811	6.35	0.250	11°
424-180608-G	★	★	★	★	★	0.8	0.031	11.5	0.453	20.6	0.811	6.35	0.250	11°

用于D42.11和D42.21的支撑板

Support pad For D42.11 And D42.21 Drills

焊接高精度支撑板

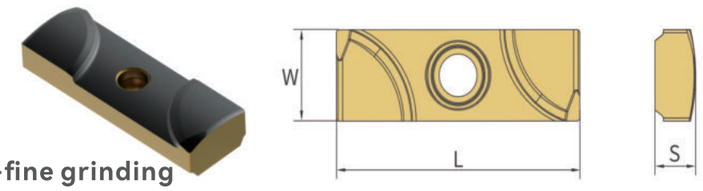
Brazed pads-High precision



钻头直径范围	订货号	□□(mm，inch)					
Drill dia.range	Ordering code	Dimensions					
Dc(mm,inch)		W	W”	L	L□	S	S□
63.5-74.99(2.480-2.952)	D80-14D065H	14	.551	35	1.379	7.0	.276
75.0-84.99(2.953-3.346)	D80-14D075H	14	.551	35	1.379	7.0	.276
85.0-99.99(3.346-3.936)	D80-14D085H	14	.551	35	1.379	7.0	.276
100-109.99(3.937-4.330)	D80-16D100H	20	.787	50	1.969	8.5	.335
110-119.99(4.331-4.724)	D80-16D110H	20	.787	50	1.969	8.5	.335
120-129.99(4.725-5.118)	D80-16D120H	20	.787	50	1.969	8.5	.335
130-139.99(5.119-5.511)	D80-16D130H	20	.787	50	1.969	8.5	.335
140-149.99(5.512-5.905)	D80-16D140H	20	.787	50	1.969	8.5	.335
150-159.99(5.906-6.298)	D80-16D150H	20	.787	50	1.969	8.5	.335
160-169.99(6.229-6.692)	D80-16D160H	20	.787	50	1.969	8.5	.335
170-179.99(6.693-7.086)	D80-16D170H	20	.787	50	1.969	8.5	.335
180-189.99(7.087-7.497)	D80-16D180H	20	.787	50	1.969	8.5	.335

压制精磨支撑板

Solid carbide pads-fine grinding

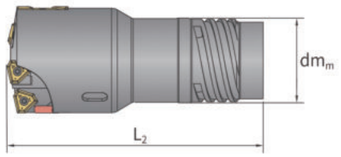


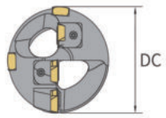
钻头直径范围	订货号	□□(mm，inch)					
Drill dia.range	Ordering code	Dimensions					
Dc(mm,inch)		W	W”	L	L□	S	S□
63.5-74.99(2.480-2.952)	D80-14D065H	14	.551	35	1.379	7.0	.276
75.0-84.99(2.953-3.346)	D80-14D075H	14	.551	35	1.379	7.0	.276
85.0-99.99(3.346-3.936)	D80-14D085H	14	.551	35	1.379	7.0	.276
100-109.99(3.937-4.330)	D80-16D100H	20	.787	50	1.969	8.5	.335
110-119.99(4.331-4.724)	D80-16D110H	20	.787	50	1.969	8.5	.335
120-129.99(4.725-5.118)	D80-16D120H	20	.787	50	1.969	8.5	.335
130-139.99(5.119-5.511)	D80-16D130H	20	.787	50	1.969	8.5	.335

- 可根据加工要求定制非标支撑板。
  Customized design available

单管钻425.21
STS Drill 425.21







直径范围：48.00-135.99mm	Diameter range：48.00-135.99mm
孔公差：IT10	Hole tolerance：IT10
表面光洁度：Ra 3um	Surface finish：Ra 3um
孔深:150倍径	Hole depth：150XDia
切削液：纯油或有EP添加剂的乳化液	Cutting fluid：Net oil or EP additive

- 钻管dmt和钻头dmm一致
  dmt is the same as dmm for the drill

钻头直径 Drill diameter Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	L2	直径调整量 Dia. adjustable	刀片 Insert 中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.	支撑板 Support pad 数量 Qty.
48.00-51.70	11	425.21-11D□□□.□□	39	95	+0.5	425-C14	1	425-I14	1	425-P14	1	3
51.71-51.99	12	425.21-12D□□□.□□	43	100	+0.5	425-C14	1	425-I14	1	425-P14	1	3
52.00-54.99						425-C14	1	425-I14	1	425-P17	1	3
55.00-56.20						425-C17	1	425-I14	1	425-P17	1	3
56.21-57.99	13	425.21-13D□□□.□□	47	110	+0.5	425-C17	1	425-I14	1	425-P17	1	3
58.00-59.99						425-C17	1	425-I17	1	425-P17	1	3
60.00-60.60						425-C17	1	425-I17	1	425-P17	1	3
60.61-63.99	13E	425.21-13ED□□□.□□	51	110	+0.5	425-C17	1	425-I17	1	425-P17	1	3
64.00-65.00						425-C17	1	425-I17	1	425-P24	1	3
65.01-66.99	14	425.21-14D□□□.□□	52	150	+0.5	425-C17	1	425-I17	1	425-P24	1	3
67.00-67.99	15	425.21-15D□□□.□□	58	150	+0.5	425-C17	1	425-I17	1	425-P24	1	3
68.00-72.99						425-C24	1	425-I24	1	425-P17	1	3
73.00-77.99	16	425.21-16D□□□.□□	63	150	+0.5	425-C24	1	425-I24	1	425-P17	1	3
78.00-79.99						425-C24	1	425-I24	1	425-P24	1	3
80.00-84.99	17	425.21-17D□□□.□□	70	180	+0.5	425-C24	1	425-I24	1	425-P24	1	3
85.00-86.99						425-C24	1	425-I24	1	425-P28	1	3

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

单管钻425.21
STS Drill 425.21

钻头直径 Drill diameter Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	L2	直径调整量 Dia. adjustable	刀片 Insert 中心刀夹 Central cartridge	数量 Qty.	中间刀夹 Intermediate cartridge	数量 Qty.	周边刀夹 Peripheral cartridge	数量 Qty.	支撑板 1) Support pad 数量 Qty.
87.00-91.99	18	425.21-18D□□□.□□	77	180	+0.5	425-C14	1	425-I24	1	425-P28	1	3
92.00-98.99						425-C28	1	425-I28	1	425-P24	1	3
99.00-99.99						425-C28	1	425-I28	1	425-P28	1	3
100.00-106.99	19	425.21-19D□□□.□□	89	180	+0.5	425-C28	1	425-I28	1	425-P28	1	3
107.00-111.99						425-C24	1	425-I17	3	425-P24	1	4
112.00-117.99	20	425.21-20D□□□.□□	101	205	+0.5	425-C24	1	425-I17	3	425-P24	1	4
118.00-123.99						425-C24	1	425-I24	3	425-P24	1	4
124.00-135.99	21	425.21-21D□□□.□□	113	205	+0.5	425-C24	1	425-I24	3	425-P24	1	4

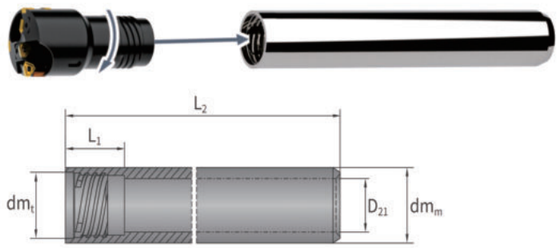
- 1)支撑板可使用D80和D42系列
  D80&D42 support pads can be used
- 2)其它类型支撑板也可定制
  Other size support pads are tailor made
- 订购钻头时，需注明钻头直径（□□□.□□）
  When ordering drill,state drill diameter (□□□.□□) in the ordering code
  订货示例Ordering example：425.21-11D048.00

刀片Insert

中心刀卡 Central cartridge	刀片 Insert	中间刀卡 Intermediate cartridge	刀片 Insert	周边刀卡 Peripheral cartridge	刀片 Insert
425-C14	TPGX1403	425-I14	TPGX1403	425-P14	TPGX1403
425-C17	TPGX1704	425-I17	TPGX1704	425-P17	TPGX1704
425-C24	TPGX2405	425-I24	TPGX2405	425-P24	TPGX2405
425-C28	TPGX2807	425-I28	TPGX2807	425-P28	TPGX2807

单管钻425.21钻杆
Tubes For 425.21 STS Drills

- 直径范围：48.00-135.99mm
  Dia.range：48.00-135.99mm



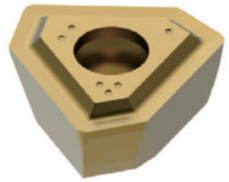
- 钻管dmt
  和钻头dmm一致
  dmt is the same as dmm for the drill

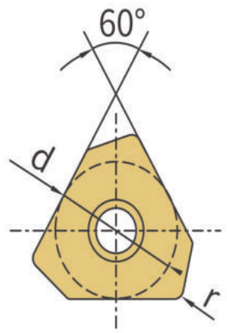
钻头直径范围 Drill dia.range Dc mm	钻杆尺寸 Tube size	订货号 Ordering code	尺寸 mm Dimensions dmm	dmt	l1	D21
48.00-51.70	11	D80.21-011-□□□□	43	39	36	32
51.71-51.99	12	D80.21-012-□□□□	47	43	40	35
52.00-54.99						
55.00-56.20						
56.21-57.99	13	D80.21-013-□□□□	51	47	40	40
58.00-59.99						
60.00-60.60						
60.61-63.99	13E	D80.21-013E-□□□□	56	51	40	42
64.00-65.00						
65.01-66.99	14	D80.21-014-□□□□	56	52	75	43
67.00-67.99	15	D80.21-014-□□□□	62	58	75	48
68.00-72.99						
73.00-77.99	16	D80.21-016-□□□□	68	63	75	53
78.00-79.99						
80.00-84.99	17	D80.21-017-□□□□	75	70	97	59
85.00-86.99						
87.00-91.99	18	D80.21-018-□□□□	82	77	97	66
92.00-98.99						
99.00-99.99						
100.00-106.99	19	D80.21-019-□□□□	94	89	97	78
107.00-111.99						
112.00-117.99	20	D80.21-020-□□□□	106	101	118	90
118.00-123.99						
124.00-135.99	21	D80.21-021-□□□□	118	113	118	92

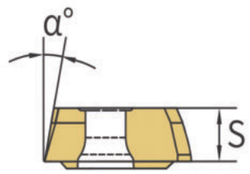
- 订购钻杆时，需注明钻杆长度L2（□□□□）
  When ordering drill tube,state code length L2(□□□□) in the ordering code
- 钻杆均不带扳手槽，如需要可定制。
  Drill tube without spanner slot,please state if needed.
- 钻头直径Dc=48.00mm,钻杆长度为2600mm的订货示例:
  Ordering example for drill tube length 2600mm for drill diameter 48.00mm:
  D80.21-011-2600

用于425.21的钻削刀片
Inserts For 425.21 Drills

- **中心刀片、中间刀片、周边刀片**
  Central,intermediate and peripheral insert



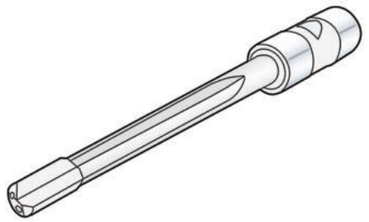




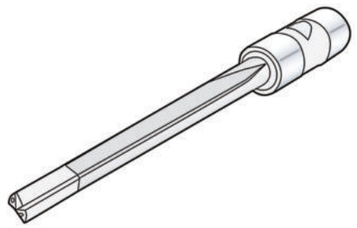
订货号 Ordering code	P BD4220	M BD4220	K BD4220	S BD4220	N BD4220	尺寸(mm，inch) Dimensions R	R"	d	d"	S	S"	α°
TPGX1403	★	★	★	★	★	0.8	0.031	8.45	0.333	3.55	0.140	11
TPGX1704	★	★	★	★	★	0.75	0.030	10.3	0.406	4.02	0.158	11
TPGX2405	★	★	★	★	★	1.2	0.047	14.21	0.559	5.5	0.217	11
TPGX2807	★	★	★	★	★	1.6	0.063	17	0.669	7.5	0.295	11

枪钻订货说明
Gun Drill Ordering Introductions

单刃枪钻GDS和双刃枪钻GDD系列
Single-lip GDS series & twin-lip GDD series



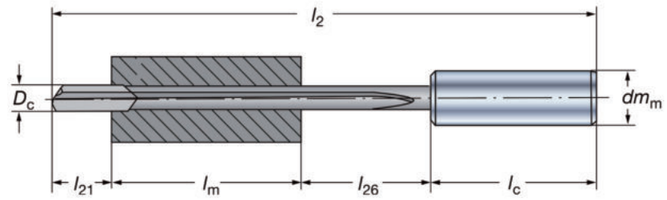
单刃枪钻GDS
GDS Gun Drill Single-lip



双刃枪钻GDD
GDD Gun Drill Twin-lip

系列 Series	单刃枪钻 GDS	双刃枪钻 GDD
钻头直径 Drill diameter:	1.5-40mm	5-25mm
孔深 Hole depth:	小于100倍径 ≤ 100 × diameter	小于100倍径，总长最大1250mm ≤ 100 × diameter (Note! l2 max = 1250 mm)
孔公差 Hole tolerance:	It9	It10
孔粗糙度 Surface finish:	Ra 0.1–3.0 µm	Ra 1.0–4.0 µm
切削液 Cutting fluid:	纯油 Neat oil	纯油 Neat oil
钻头公差 Tolerance:	Dc = h5,dmm = d9	Dc = h5,dmm = d9
可加工材料 Materials	P M K N S H	P K N 仅用于短屑材料 Only for short chip materials
应用 Application	进给低，精度要求较高的孔 Low feedrate but high tolerance	进给效率翻倍，精度要求一般的孔 Double feedrate but broad tolerance

枪钻订货说明
Gun Drill Ordering Introductions

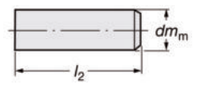
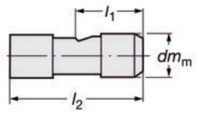
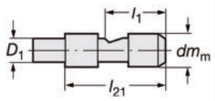
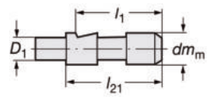
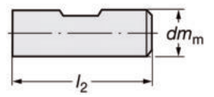
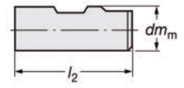


总长 l_2= Overall length with or without driver
钻头直径 D_c= Drill diameter
修磨预留长度 l_{21} =Addition for regrinding
孔深 l_m= Depth of hole
预留最小排屑长度 l_{26}= Minimum chip evacuation distance
柄部长度 l_c= Length of drive
柄部直径 dm_m= Driver diameter

直径范围 Diameter range. mm Dc mm	订货号 Ordering code	尺寸 Dimensions. mm l_{21}	 l_{26}	直径范围 Diameter range. Mm Dc mm	订货号 Ordering code	尺寸 Dimensions. mm l_{21}	 l_{26}
1.50–1.84	GDS-□□□□□-AAAA-BBB	8	25	5.00–7.05	GDG- □□□□□-AAAA-BBB	23	30
1.85–2.60	GDS- □□□□□-AAAA-BBB	10	25	7.06–8.55	GDG□□□□□-AAAA-BBB	25	40
2.61–3.35	GDS- □□□□□-AAAA-BBB	13	25	8.56–13.05	GDG□□□□□-AAAA-BBB	25	50
3.36–4.05	GDS- □□□□□-AAAA-BBB	13	30	3.06–18.05	GDG□□□□□-AAAA-BBB	25	55
4.06–5.15	GDS- □□□□□-AAAA-BBB	19	30	18.06–23.00	GDG□□□□□-AAAA-BBB	30	65
5.16–7.05	GDS- □□□□□-AAAA-BBB	23	30	23.01–25.00	GDG□□□□□-AAAA-BBB	35	65
7.06–8.55	GDS- □□□□□-AAAA-BBB	25	40				
8.56–13.05	GDS- □□□□□-AAAA-BBB	25	50				
13.06–18.05	GDS- □□□□□-AAAA-BBB	25	55				
18.06–23.00	GDS- □□□□□-AAAA-BBB	30	65				
23.01–26.50	GDS- □□□□□-AAAA-BBB	35	65				
26.51–32.00	GDS- □□□□□-AAAA-BBB	40	80				
32.01–40.00	GDS- □□□□□-AAAA-BBB	45	90				

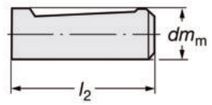
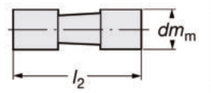
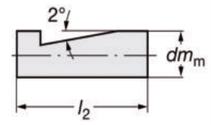
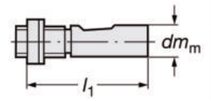
- 直径Dc：□□□□□，精确到小数点后三位
  Dc：□□□□□，3 digits after the decimal point
- 总长L_2：AAAA =l_{21}+l_m(孔深)+l_{26}
  Overall length：AAAA=l_{21}+l_m(depth of hole)+l_{26}
- 柄部规格：BBB 从柄部规格中选择一种适配机床/刀柄的接口
  Driver type: BBB choose one driver type to fit machine joint or tool holder
- 订货示例：GDS-12.800-0450-020 直径12.8000mm，总长450mm，驱动形式020的单刃枪钻
  Order example：GDS-12.800-0450-020,Dia.:12.800mm, overall length: 450mm,driver type: 020

枪钻订货说明
Gun Drill Ordering Introductions

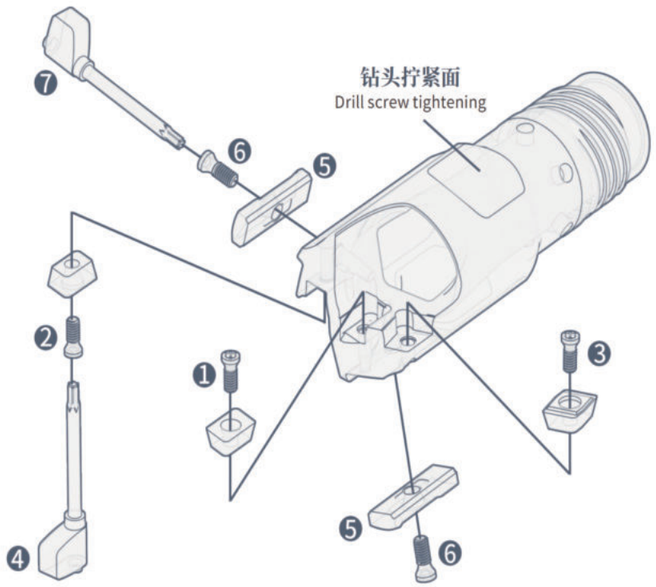
GDS和GDD枪钻柄部型式	Dc mm 直径范围	驱动器编号	尺寸						
Drivers for gun drills GDS & GDD	Diameter range, mm	Driver Dimensions, mm Shank No.	Dimension，mm						
			dm_m	D_1	l_1	l_2	l_{21}	l_c	shank type
	0.98– 1.94	004	4	–	–	30	–	–	圆柱直柄
	1.90– 4.50	006	6	–	–	36	–	–	
	1.90– 7.30	010	10	–	–	40	–	–	
	1.90–12.40	016	16	–	–	48	–	–	
	1.90–15.90	020	20	–	–	50	–	–	
	6.00–19.50	025	25	–	–	56	–	–	
	1.90–20.50	002	16	–	31	45	–	–	–
	1.90–29.60	003	20	–	34	70	–	–	–
	10.00–48.99	005	32	–	34	70	–	–	–
	4.00–20.50	035	19.05	–	34	70	–	–	–
	6.00–49.00	036	25.4	–	34	70	–	–	–
	1.90– 7.30	601	10	–	24	40	–	–	–
	7.30–19.60	801	25	–	33.3	70	–	–	–
	6.55–12.50	602	10	8.2	24	–	40	–	–
	19.60–49.00	802	25	20.3	33.3	–	70	–	–
	1.95–12.60	701	16	–	47	–	50	–	–
	12.60–20.50	702	16	13.5	47	–	50	–	–
	1.95–12.59	903	10	–	–	40	–	–	侧压式
	1.95–12.59	904	12	–	–	45	–	–	
	1.95–16.59	905	16	–	–	48	–	–	
	1.95–20.50	906	20	–	–	50	–	–	
	6.00–49.00	907	25	–	–	56	–	–	侧压式
	9.70–49.00	908	32	–	–	60		–	
	9.70–49.00	909	40	–	–	70	–	–	

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

枪钻订货说明
Gun Drill Ordering Introductions

GDS和GDD枪钻柄部型式	Dc mm 直径范围	驱动器编号	尺寸						
Drivers for gun drills GDS & GDD	Diameter range,mm	Driver Dimension, mm Shank No.	Dimension，mm						
			dm_m	D_1	l_1	l_2	l_{21}	l_c	shank type
	1.95– 9.00	603	10	–	–	40	–	–	侧楔式
	1.95–12.59	604	12	–	–	45	–	–	
	1.95–16.59	605	16	–	–	48	–	–	
	1.95–20.50	606	20	–	–	50	–	–	
	6.00–49.00	607	25	–	–	56	–	–	
	9.70–49.00	608	32	–	–	60	–	–	
	1.95– 9.80	101	12.7	–	–	38.1	–		
	1.95–12.00	102	16	–	–	70	–	–	–
	3.96–15.20	103	19.05	–	–	70	–	–	–
	3.96–29.60	104	20	–	–	70	–	–	–
	3.96–20.50	204	19.05	–	–	70	–	–	–
	6.00–49.00	205	25.4	–	–	70	–	–	–
	6.00–49.00	206	28	–	–	70	–	–	–
	9.70–49.00	207	31.75	–	–	70	–	–	–
	9.70–49.00	208	36	–	–	70	–	–	–
	9.70–49.00	209	38.1	–	70	–	–	–	–
	1.90–12.00	301	16	–	112	–	–	–	–
	1.90–15.20	302	20	–	126	–	–	–	–
	6.00–26.00	303	28	–	126	–	–	–	–
	8.70–32.60	304	36	–	162	–	–	–	–
	11.90–49.00	305	48	–	166	–	–	–	–

D80深孔钻备件
Spareparts for D80 Drills



钻头直径范围	1	2	3	4	5	6	7
Drill dia.range	中心刀片螺钉	中间刀片螺钉	周边刀片螺钉	扳手	支撑板	螺钉	扳手
Dc mm	Central insert screw	Intermediate insert screw	Peripheral insert screw	Wrench	Support pad	Screw	Wrench
25.00-28.70	B020-05	B020-05	B020-05	S01-107	D80-06..	B020-20	S01-107
28.71-31.00	B020-20	B020-05	B020-05	S01-107	D80-06..	B020-20	S01-107
31.01-39.60	B020-34	B020-34	B020-34	S01-108	D80-07..	B020-24	S01-109
39.61-47.00	B020-34	B020-34	B020-34	S01-108	D80-08..	B020-833	S01-110
47.01-65.00	B020-34	B020-34	B020-34	S01-108	D80-10..-D80-12..	B020-10	S01-115

D80深孔钻备件
Spareparts for D80 Drills

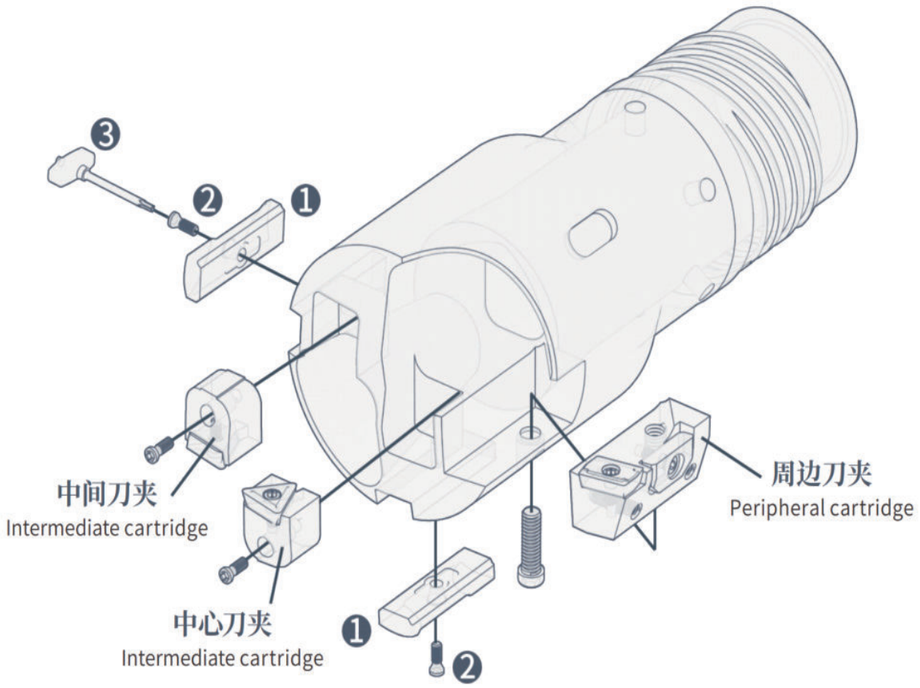
- **钻头拧紧面扳手钳口宽度**
  Spanner size for drill screw tightening

钻头直径范围	钳口宽度mm	扳手
Drill dia.range	Spanner size	Spanner
Dc mm	mm	
25.00 < -≤27.00	22	W01-220
27.00 < -≤29.00	24	W01-240
29.00 < -≤31.00	26	AW01-260 (*)
31.00 < -≤32.00	27	W01-270
32.00 < -≤35.00	28	W01-280
35.00 < -≤36.20	30	W01-300
36.20 < -≤39.60	32	W01-320
39.60 < -≤43.00	36	W01-360
43.00 < -≤47.00	38	W01-380
47.00 < -≤49.00	41	W01-410
49.00 < -≤51.70	43	AW01-430 (*)
51.70 < -≤54.00	46	W01-460
54.00 < -≤56.20	50	W01-500
56.20 < -≤60.00	50	W01-500
60.00 < -≤61.00	55	W01-550
61.00 < -≤63.00	58	AW01-580 (*)
63.00 < -≤65.00	60	W01-600



- *AW01系列扳手为开口活动扳手
  AW01 is adjustable spanner

D42深孔钻备件
Spareparts for D42 Drills

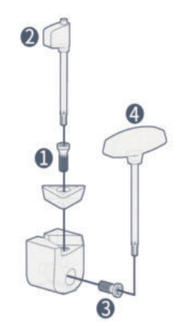


- **支撑板**
  Support pad

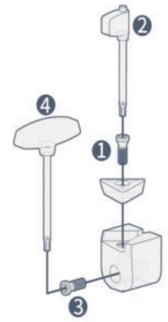
1	2	3
支撑板	螺钉	扳手
Support pad	Screw	Wrench
D80-14D065..	B020-10	S01-115
D80-16D100..	B020-07	S01-120

D42深孔钻备件
Spareparts for D42 Drills

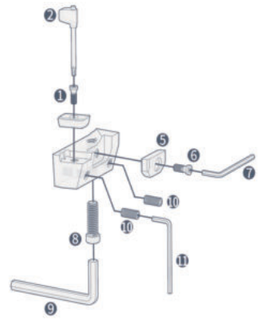
- **刀夹**
  Cartridge



- **中心刀夹**
  Central cartridge



- **中间刀夹**
  Intermediate cartridge

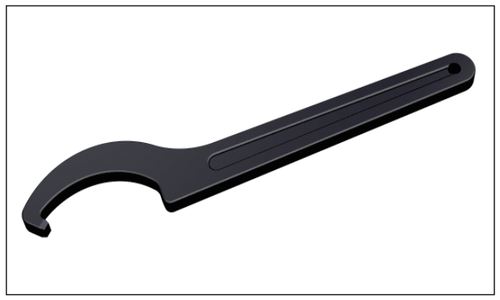


- **周边刀夹**
  Peripheral cartridge

中心刀夹	中间刀夹	1	2	3	4
Central cartridge	Intermediate cartridge	螺钉	扳手	螺钉	扳手
		screw	Wrench	Screw	Wrench
BL430-C16	BR430-I16	B020-24	S01-109	B020-26	T01-120
BL430-C22	BR430-I22	B020-25	S01-115	B020-26	T01-120

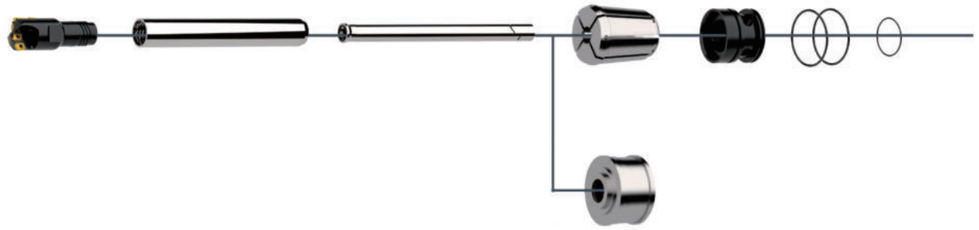
周边刀夹	1	2	5	6	7	8	9	10	11
Peripheral cartridge	螺钉	扳手	刀片保护板	螺钉	扳手	螺钉	扳手	螺钉	扳手
	Screw	Wrench	Pressure pad	Screw	Wrench	Screw	Wrench	Screw	Wrench
BR430-P16	B020-24	S01-109	PB-P16	S03-030 060	L02-0020	S03-060 160	L02-0040	S06-060-100	L02-0030
BR430-P22	B020-25	S01-115	PB-P22	S03-030 060	L02-0020	S03-060 200	L02-0040	S06-060-100	L02-0030

钻头直径范围	月牙扳手型号
Drill dia.range	Hook Wrench
63.50 < -≤72.99	G01-058
73.00 < -≤79.99	G01-068
80.00 < -≤99.99	G01-080
100.00 < -≤111.99	G01-095
112.00 < -≤123.99	G01-110
124.00 < -≤136.00	G01-120



深孔喷吸系统部件

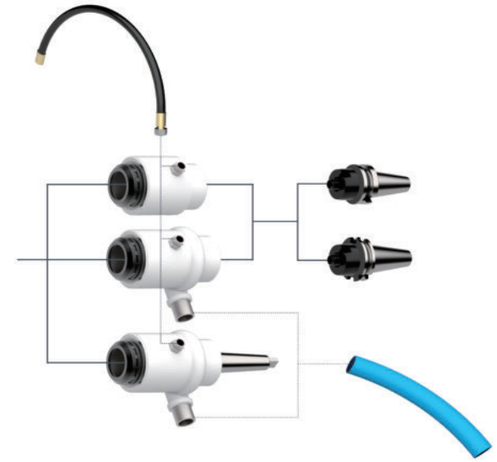
Assembling Parts For Ejector System



钻头直径范围	钻杆尺寸	喷吸钻头	外钻管	内钻管	ER 夹套	密封套筒	外O型圈(2个)
Drill dia.range	Tube size	Drill head	Drill tube	Inner tube	ER collet	Sealing sleeve	Oring (2PCS)
25.00-26.40	03	D80.11-03DXX.XX	D80.11-003-□□□□	D80.11-103-□□□□	D42-ER03	D42-SS03	EO-0313
26.41-28.70	04	D80.11-04DXX.XX	D80.11-004-□□□□	D80.11-104-□□□□	D42-ER04	D42-SS04	
28.71-31.00	05	D80.11-05DXX.XX	D80.11-005-□□□□	D80.11-105-□□□□	D42-ER05	D42-SS05	
31.01-33.30	06	D80.11-06DXX.XX	D80.11-006-□□□□	D80.11-106-□□□□	D42-ER06	D42-SS06	
33.31-36.20	07	D80.11-07DXX.XX	D80.11-007-□□□□	D80.11-107-□□□□	D42-ER07	D42-SS07	
36.21-39.60	08	D80.11-08DXX.XX	D80.11-008-□□□□	D80.11-108-□□□□	D42-ER08	D42-SS08	
39.61-43.00	09	D80.11-09DXX.XX	D80.11-009-□□□□	D80.11-109-□□□□	D42-ER09	D42-SS09	
43.01-47.00	10	D80.11-10DXX.XX	D80.11-010-□□□□	D80.11-110-□□□□	D42-ER10	D42-SS10	
47.01-51.70	11	D80.11-11DXX.XX	D80.11-011-□□□□	D80.11-111-□□□□	D42-ER11	D42-SS11	
51.71-56.20	12	D80.11-12DXX.XX	D80.11-012-□□□□	D80.11-112-□□□□v	D42-ER12	D42-SS12	
56.21-65.00	13	D80.11-13DXX.XX	D80.11-013-□□□□	D80.11-113-□□□□	D42-ER13	D42-SS13	
63.50-65.00	13	D42.11-13D□□□.□□	D80.11-013-□□□□	D80.11-113-□□□□	D42-ER13	D42-SS13	

- ER夹套从锁紧螺母或者密封套筒取出时，建议订购ER夹套拆装器。

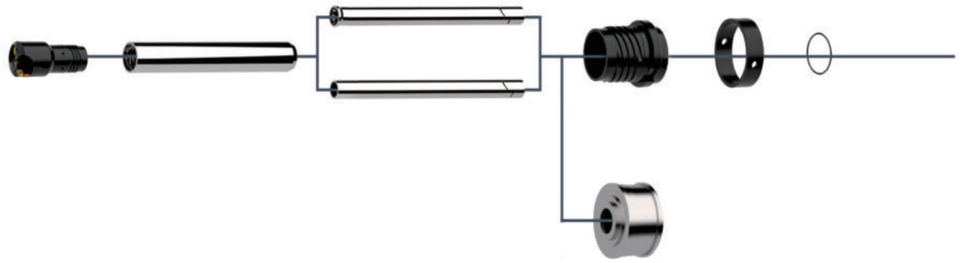
  Please order ER hand tool to remove ER collet from nut or sealing sleeve.



内O型圈(1个)	高压冷却液(mm)	冷却液出水管	旋转连接器(1型)	旋转连接器(2型)	Bt机床主刀柄	Jt机床主刀柄
O-ring(1 PCS)	HP coolant hose	Coolant outlet pipe	Rotation connector(Type 1)	Rotation Connector(Type 2)	BT tool holder	JI tool holder
IO-03	D42HPPL□□□□-1 连接冷却液箱 Connect to the cooler housing	D42-CDL-□□□□-1	D42.1-D19-65-V63 外型较小，不需要冷却液出水管 Smaller size than D42.2-D19-65-V63 coolant outlet pipe unneeded.	D42.2-D19-65-V63 体型稍大 Bigger size than D42.1-D19-65-V63	BT50-V63 仅BT50机床选用 Only for BT50 spinder	JT50-V63 仅JT50机床选用 Only for JT50 spinder
IO-04						
IO-05						
IO-06						
IO-07						
IO-08						
IO-09						
IO-10						
IO-11						
IO-12						
IO-13						
IO-13						

深孔喷吸系统部件

Assembling Parts For Ejector System



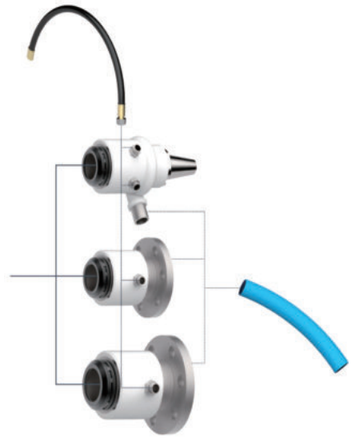
钻头直径范围	钻杆尺寸	喷吸钻头	外钻管	内钻管	连接套
Drill dia.range	Tube size	Drill head	Drill tube	Inner tube	Connecting sleeve
65,00-66,99	14	D42.11-14D□□□.□□	D80.11-014-□□□□	D80.11-114-□□□□	D42-CS14
67,00-72,99	15	D42.11-15D□□□.□□	D80.11-015-□□□□	D80.11-115-□□□□	D42-CS15
73,00-79,99	16	D42.11-16D□□□.□□	D80.11-016-□□□□	D80.11-116-□□□□	D42-CS16
80,00-86,99	17	D42.11-17D□□□.□□	D80.11-017-□□□□	D80.11-117-□□□□	D42-CS17
87,00-99,99	18	D42.11-18D□□□.□□	D80.11-018-□□□□	D80.11-118-□□□□	D42-CS18
100,00-111,99	19	D42.11-19D□□□.□□	D80.11-019-□□□□	D80.11-119-□□□□	D42-CS19
112,00-123,99	20	D42.11-20D□□□.□□	D80.11-020-□□□□	D80.11-120-□□□□	D42-CS20
124,00-135,99	21	D42.11-21D□□□.□□	D80.11-021-□□□□	D80.11-121-□□□□	D42-CS21
136,00-147,99	22	D42.11-22D□□□.□□	D80.11-022-□□□□	D80.11-122-□□□□	D42-CS22
148,00-159,99	23	D42.11-23D□□□.□□	D80.11-023-□□□□	D80.11-123-□□□□	D42-CS23
160,00-171,99	24	D42.11-24D□□□.□□	D80.11-024-□□□□	D80.11-124-□□□□	D42-CS24
172,00-183,90	25	D42.11-25D□□□.□□	D80.11-025-□□□□	D80.11-125-□□□□	D42-CS25

- 选择完整的喷吸钻系统，请咨询技术人员。

  Please contact with techinical engineer when choose a complete set ejector system.

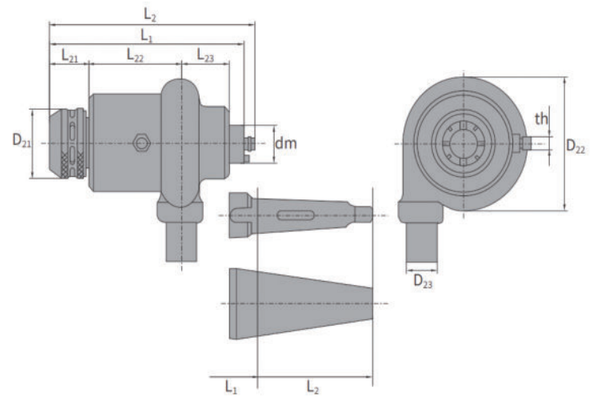
- 可根据客户机床情况定制减震器，非旋转连接器等其它喷吸钻附件。

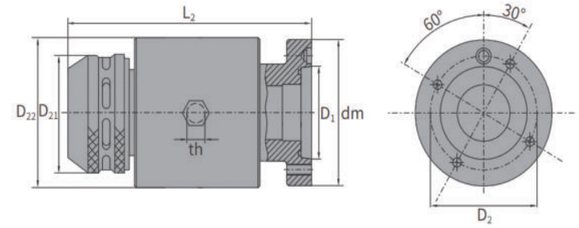
  Viberation damper and non-rotating connectors can be tailor made according to fit the machine tool.



密封套筒	O型圈	高压冷却液管(mm)	冷却液出水管	旋转连接器(3型)	旋转连接器(4型&5型)
Sealing sleeve	O-ring	HP coolant hose	Coolant outlet pipe	Rotation connector(Type 3)	Rotation connector(Type 4&5)
D42-SS14	EO-1425	D42-HPPL-□□□□-2 连接冷却液箱 Connect to the cooler housing	D42-CDL-□□□□-2	D42.1-D65-124-BT50 适合较大直径钻头,2个进水口 Suitable for big size drill，2 water inlets	D42.4-D65-124-FL220 4型 Type4 直接与机床法兰连接 Coonect directly to the machine.
D42-SS15					
D42-SS16					
D42-SS17					
D42-SS18					
D42-SS19					
D42-SS20				/	D42.5-D124-184-FL290 5型 Type5 直接与机床法兰连接 Coonect directly to the machine.
D42-SS21					
D42-SS22					
D42-SS23					
D42-SS24					
D42-SS25					

旋转连接器
Rotation Connectors





旋转连接器型式 Type of rotation connector		钻头直径范围 Drill dia.range Dc mm	订货号 Ordering code	接口型式 Mounting type
1型-V63 Type 1-V63		25.00-65.00	D42.1-D19-65-V63	V63
2型-V63 Type 2-V63		25.00-65.00	D42.2-D19-65-V63	V63
3型-BT50 Type 3-BT50		65.00-123.99	D42.1-D65-124-BT50	Bt50
4型-法兰连接 Type 4-Flange mounting		65.00-123.99	D42.4-D65-124-FL220	法兰连接 Flange mounting
5型-法兰连接Type 5- Flange mounting		124.00-183.99	D42.5-D124-184-FL290	法兰连接 Flange mounting
6型-莫式5号Type 6- Morse MT5		25.00-65.00	D42.2-D19-65-M5	莫氏5号 Morse MT5

尺寸(mm) Dimensions												选型指南 Selection guide
dm	D21	D22	D23	D1	D2	L1	L2	L21	L22	L23	th	
63	115	210	-	-	-	305	-	67	135	85	M27X1.5	外型较小，不需要选择冷却液出水管 Smaller size than 424.2-D19-65-V63，coolant outlet pipe unneeded
63	115	210	50	-	-	305	-	67	135	85	M27X1.5	体型稍大 Bigger size than 424.1-D19-65-V63
-	164	312	100	-	-	341	471	61	200	108	M27X1.5	适合较大直径钻头,2个进水口 Suitable for big size drill，2 water inlets
220	164	225	-	139.7	171.4	-	345	-	-	-	M45X2	直接与机床法兰连接 Coonect directly to the machine
290	244	360	-	196.9	235	-	400	-	-	-	M64X2	直接与机床法兰连接 Coonect directly to the machine
-	115	210	50	-	-	309.5	465	67	135	85	M27X1.5	莫氏接口 Used in Morse mounting machine

- 其他规格，接口的旋转连接器均可根据客户需求进行定制。
  Other type rotation connector can be tailor made.

深孔喷吸系统部件
Assembling Parts For Ejector System

- **高压冷却液管带接头**
  High pressure coolant hose with joint



订货号	长度 mm	连接器进水口规格	冷却液箱出水口规格
Ordering code	length	Size for inlet of connector	Size for outlet of cooler housing
D42-HPPL-□□□□-1	□□□□	M27X1.5	NPT 1 1/2“
D42-HPPL-□□□□-2	□□□□	M45X2	NPT2“

- **冷却液出水管**
  Coolant outlet pipe



订货号	长度 mm	出屑口直径
Ordering code	length	Dia. of chip outlet
D42-CDL-□□□□-1	□□□□	50
D42-CDL-□□□□-2	□□□□	100

- **Er夹套拆装器**
  ER hand tool

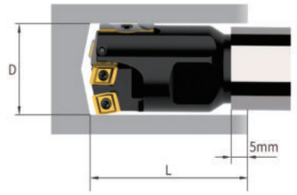
订货号	尺寸范围
Ordering code	Size range
ER-DS	ER03-ER13

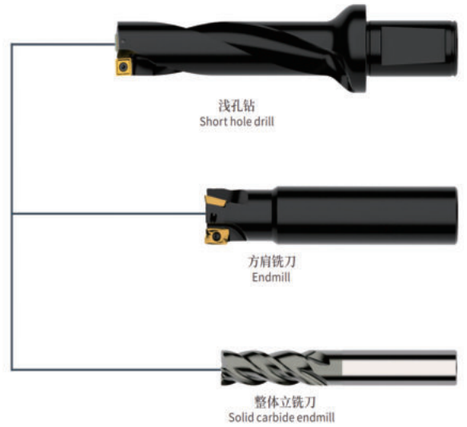


- **Er夹套拆装器**
  ER hand tool

主刀柄型式	订货号
Basic holder type	Ordering code
	BT50-V63
	JT50-V63

喷吸钻引导孔加工指导
Instruction Of Pilot Hole/ Guiding Bush Hole Making For Ejector Drilling





钻头直径范围	钻杆尺寸	引导孔/导向套最短尺寸	引导孔/导向套尺寸
Drill dia.range	Tube size	Min. Pilot Hole /guiding Bush Length	Pilot Hole/guiding Bush Hole Size
Dc mm		L mm	D mm
25.00-26.40	03	70	+0.05/+0.03
26.41-28.70	04	70	+0.05/+0.03
28.71-31.00	05	75	+0.05/+0.03
31.01-33.30	06	75	+0.05/+0.03
33.31-36.20	07	80	+0.05/+0.03
36.21-39.60	08	80	+0.05/+0.03
39.61-43.00	09	85	+0.05/+0.03
43.01-47.00	10	90	+0.07/+0.03
47.01-51.70	11	95	+0.07/+0.03
51.71-56.20	12	100	+0.07/+0.03
56.21-65.00	13	105	+0.07/+0.03
63.50-65.00	13	105	+0.08/+0.03
65,00-66,99	14	110	+0.08/+0.03
67,00-72,99	15	115	+0.08/+0.03
73,00-79,99	16	120	+0.08/+0.03
80,00-86,99	17	130	+0.08/+0.03
87,00-99,99	18	140	+0.08/+0.03
100,00-111,99	19	150	+0.08/+0.03

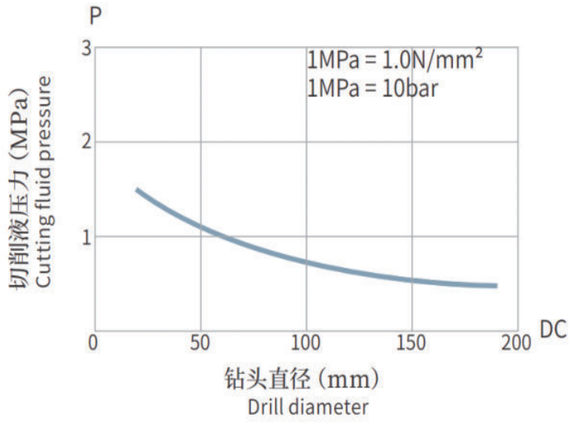
喷吸钻引导孔加工指导

Introduction of Pilot Hole/ Guiding Bush Hole Making For Ejector Drilling

钻头直径范围	钻杆尺寸	引导孔/导向套最短尺寸	引导孔/导向套尺寸
Drill dia.range	Tube size	Min. Pilot Hole /guiding Bush Length	Pilot Hole/guiding Bush Hole Size
Dc mm		L mm	D mm
112,00-123,99	20	150	+0.08/+0.03
124,00-135,99	21	150	+0.08/+0.03
136,00-147,99	22	150	+0.08/+0.03
148,00-159,99	23	150	+0.08/+0.03
160,00-171,99	24	150	+0.08/+0.03
172,00-183,90	25	150	+0.08/+0.03

- **喷吸钻系统冷却液流量压力要求**
  Ejector system coolant quantity and pressure.

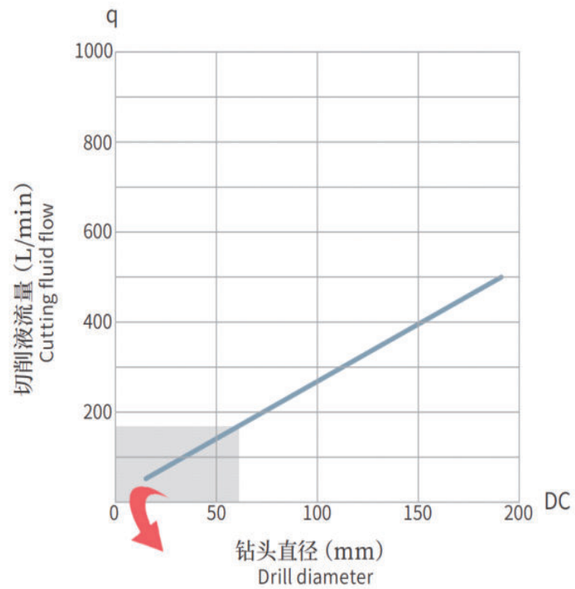
- **切削液压力**
  Cutting fluid pressure

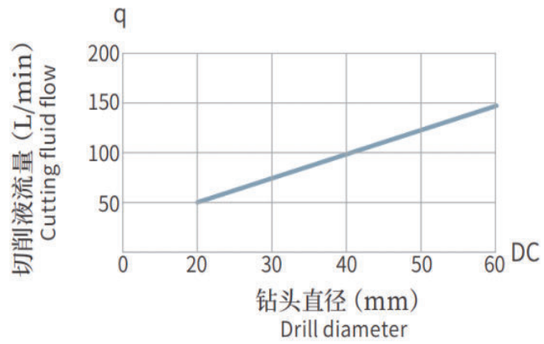


喷吸钻系统冷却液流量压力要求

Ejector System Cutting Fluid Flow & Pressure

- **切削液流量**
  Cutting fluid flow

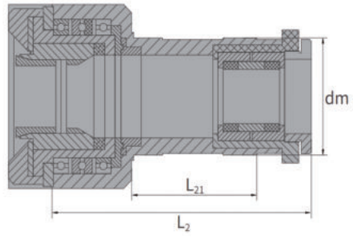




定制单管钻系统部件
Customized Assembling Parts for STS System

● 单管钻油压头定制所需主要信息
Key information for customized STS Oil pressure head（OPH）

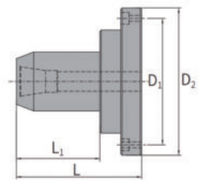




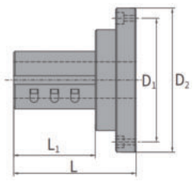
钻头直径 mm	钻杆尺寸	是否配置油压头托架	油压头托架尺寸 mm			加工时工件是否旋转	工件与油压头接触面是否为平面
Drill diameter	drill tube size	Equipped with OPH support	Size of support of OPH			Workpiece rotation when drilling or boring.	Component surface is flat or not
			l2	l21	dm		
mm	03-25	是/否 Yes/No	mm	mm	mm	是/否 Yes/No	是/否 Yes/No

● 单管钻钻管夹持器定制所需主要信息
Key information for customized STS tube holder







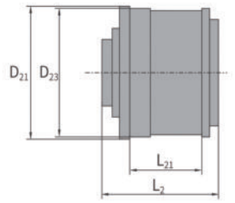


钻头直径 mm	钻杆尺寸	加工时刀具是否旋转	钻管夹持器安装尺寸 mm			
Drill diameter	drill tube size	Tools rotate or not when drilling or boring.	Size of mounting of tube holder			
			L1	L	D1	D2
mm	03-25	c	mm	mm	mm	mm

定制单管钻系统部件
Customized Assembling Parts For STS System

● 单管钻/喷吸钻减震器定制所需主要信息
Key information for customized vibration dapmer for STS/DTS

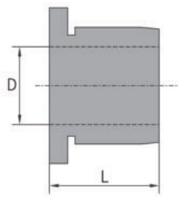




钻头直径 mm	钻杆尺寸	减震器安装尺寸 mm			
Drill diameter	drill tube size	Size of mounting of vibration dapmer			
		l2	l21	D21	D23
mm	03-25	mm	mm	mm	mm

● 单管钻钻套定制所需主要信息
Key information for customized STS drill bush

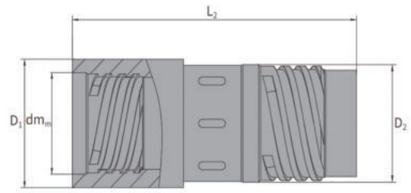




钻头直径（D mm）	钻头直径（D mm）
Drill diameter	Drill diameter
mm	mm

● 单管钻钻管转接器
Adaptors for converting joint size of tube

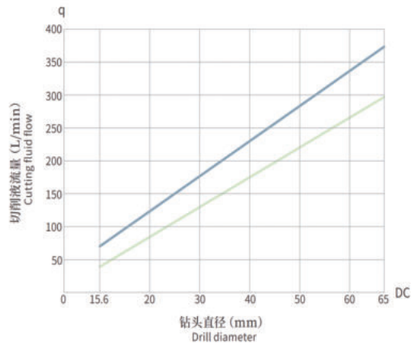


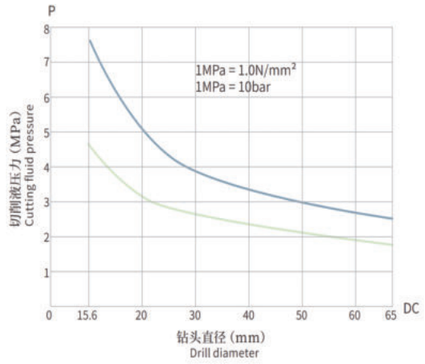


钻头直径 mm	钻头的接口	转接器外径 mm	转接器外接口d2	转接器内接口dmm	长度 mm
Drill diameter	Size of mounting of drill Head	Adaptor diameter	Size of outer mounting of adaptor	Size of inner mounting of adaptor	Lengthen of adaptor
mm	03-25	d1	03-25	03-25	l2

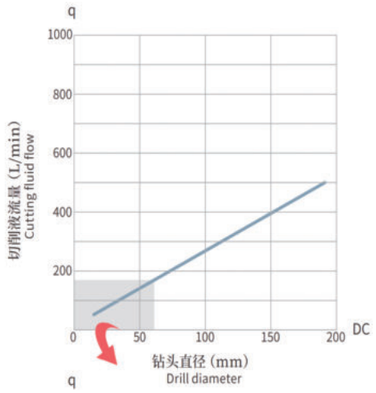
单管钻冷却液流量压力要求
STS Cutting Fluid Flow And Pressure

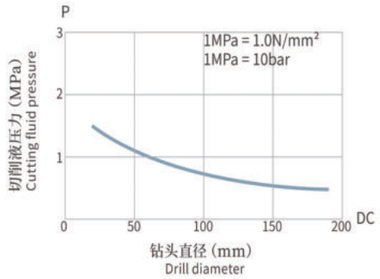
- **D80.21单管钻冷却液流量压力**
  STS cutting fluid flow and pressure for D80.21.

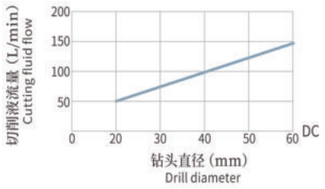




- **D42.21单管钻冷却液流量压力**
  STS cutting fluid flow and pressure for D42.21.







D80系列切削参数推荐
D80 Drills Cutting Parameters Recommendation

ISO	材料 Materials	单位切削力Kc N/mm2	布氏硬度HB	槽型/牌号 800-G/BD4220 vc(m/min)	进给量 fn(mm/r) 钻头直径 Drill dia. mm 25,00-43,00	43,01-65,00
P	**非合金钢 Carbon steel**					
	C=0.1-0.25%	1500	125	70-130	0.11-0.25	0.11-0.30
	C=0.25-0.55%	1600	150	70-130	0.11-0.30	0.11-0.30
	C=0.55-0.80%	1700	170	70-130	0.11-0.30	0.11-0.30
	低合金钢（合金元素≤5%）Low alloy steel					
	非淬硬钢 Non-hardened	1700	180	70-120	0.11-0.30	0.16-0.30
	轴承钢 Bearing steel	1800	210	70-120	0.11-0.30	0.16-0.30
	调质 Tempering steel	1850	275	50-110	0.11-0.30	0.16-0.30
	调质 Tempering steel	2050	350	50-110	0.11-0.30	0.16-0.30
	高合金钢（合金元素＞5%）High alloy steel					
	退火 Anneal	1950	200	50-110	0.11-0.30	0.18-0.35
	淬硬工具钢 Quenched tool steel	3000	325	50-110	0.11-0.30	0.18-0.35
	铸钢 Cast steel					
	非合金 Non-alloy	1550	180	50-110	0.11-0.30	0.18-0.32
	低合金（合金元素≤5%）Low alloy	1600	200	50-110	0.11-0.30	0.18-0.32
	高合金（合金元素＞5%）High alloy	2050	225	50-90	0.11-0.30	0.18-0.32
M	**铁素体/马氏体/棒材/锻件 Ferrite/Martensite forged**					
	非淬硬 Non-hardened	1800	200	40-110	0.10-0.30	0.16-0.30
	沉淀硬化 Precipitation hardening	2850	330	40-110	0.10-0.30	0.16-0.30
	淬硬 Hardened	2350	330	40-80	0.10-0.30	0.16-0.30
	奥氏体 棒材/锻件 Austenite forged					
	奥氏体 Austenite	1800	180	40-90	0.10-0.30	0.16-0.30
	沉淀硬化 Precipitation hardening	2850	330	30-70	0.10-0.30	0.16-0.30
	超级奥氏体 Super austenite	2250	200	30-70	0.10-0.30	0.16-0.30
	奥氏体-铁素体（双相）棒材/锻件 Duplex forged					
	不可焊接≥0.05% C Unweldable	2000	230	30-70	0.10-0.30	0.16-0.30
	可焊接＜0.05% C Welding	2450	260	30-70	0.10-0.30	0.16-0.30
	铁素体/马氏体 铸件 Ferrite/Martensite cast-on					
	非淬硬 Non-hardened	1700	200	30-70	0.10-0.30	0.16-0.30
	沉淀硬化 Precipitation hardening	2450	330	30-70	0.10-0.30	0.16-0.30
	淬硬钢 Hardened	2150	330	30-70	0.10-0.30	0.16-0.30

D80系列切削参数推荐

D80 Drills Cutting Parameters Recommendation

ISO	材料 Materials	单位切削力Kc N/mm2	布氏硬度HB	槽型/牌号 800-G/BD4220 vc(m/min)	进给量 fn(mm/r) 钻头直径 Drill dia. mm 25,00-43,00	43,01-65,00
M	**奥氏体 铸件 Austenite cast-on**					
	奥氏体 Austenite	1700	180	30-70	0.10-0.30	0.16-0.30
	沉淀硬化 Precipitation hardening	2450	330	30-70	0.10-0.30	0.16-0.30
	超级奥氏体 Super austenite	2150	200	30-70	0.10-0.30	0.16-0.30
	奥氏体-铁素体（双相）铸件 Duplex cast-on					
	不可焊接≥0.05% C Unweldable	1800	230	30-70	0.10-0.30	0.16-0.30
	可焊接 < 0.05% C Welding	2250	260	30-70	0.10-0.30	0.16-0.30
K	**可锻铸铁 Malleable cast-iron**					
	铁素体（短切屑）Ferrite (short chip)	790	130	80-120	0.10-0.35	0.16-0.38
	珠光体（长切屑）Pearlite (long chip)	900	230	80-120	0.10-0.35	0.16-0.38
	灰口铸铁 Gray cast iron					
	低抗拉强度 Low tensile strength	890	180	70-120	0.10-0.35	0.16-0.38
	高抗拉强度 高抗拉强度	970	220	70-120	0.10-0.35	0.16-0.38
	球墨铸铁SG Nodular cast iron					
	铁素体 Ferrite	900	160	50-120	0.10-0.35	0.16-0.38
	珠光体 Pearlite	1350	250	50-120	0.10-0.35	0.16-0.38
	马氏体 Martensite	2100	380	50-120	0.10-0.35	0.16-0.38
N	**铝合金 Aluminium alloy**					
	锻造或锻造+冷作，非时效处理 forged	400	60	65-150	0.09-0.33	0.20-0.35
	锻造或锻造加时效处理 Forging with aging treatment	650	100	65-150	0.09-0.33	0.20-0.35
	铝合金 Aluminium alloy					
	奥氏体 Austenite	600	75	65-150	0.09-0.33	0.20-0.35
	沉淀硬化 Precipitation hardening	700	90	65-150	0.09-0.33	0.20-0.35
	铝合金 Aluminium alloy					
	奥氏体-铁素体（双相）棒材/锻件 Duplex forged	700	130	65-150	0.09-0.33	0.20-0.35
	不可焊接≥0.05% C Unweldable	700	130	65-150	0.09-0.33	0.20-0.35
	铜和铜合金 Copper and copper alloy					
	铁素体/马氏体 铸件 Ferrite/Martensite cast-on	550	110	65-150	0.09-0.33	0.20-0.35
	非淬硬 Non-hardened	550	90	65-150	0.09-0.33	0.20-0.35
	沉淀硬化 Precipitation hardening	1350	100	65-150	0.09-0.33	0.20-0.35

ISO	材料 Materials	单位切削力Kc N/mm2	布氏硬度HB	槽型/牌号 800-G/BD4220 vc(m/min)	进给量 fn(mm/r) 钻头直径 Drill dia. mm 25,00-43,00	43,01-65,00
S	**高温合金 铁基 Superalloy，iron-based**					
	退火或固溶处理 Annealing	2400	200	10-55	0.09-0.30	0.20-0.33
	时效处理或固溶处理加时效处理 Aged	2500	280	10-55	0.09-0.30	0.20-0.33
	镍基 Nickel base					
	退火或固溶处理 Annealing	2650	250	10-55	0.09-0.30	0.20-0.33
	时效处理或固溶处理加时效处理 Aged	2900	350	10-55	0.09-0.30	0.20-0.33
	铸造或铸造加时效处理 Cast-on	3000	320	10-55	0.09-0.30	0.20-0.33
	钴基 Cobalt base					
	退火或固溶处理 Annealing	2700	200	10-55	0.09-0.30	0.20-0.33
	固溶处理加时效处理 Aged	3000	300	10-55	0.09-0.30	0.20-0.33
	铸造或铸造加时效处理 Cast-on	3100	320	10-55	0.09-0.30	0.20-0.33
	钛合金2）Titanium alloy		Rm3)			
	商业纯（99.5% Ti）Unalloyed Titanium	1300	400	20-60	0.09-0.30	0.20-0.33
	α，近α与α+β合金，退火 Annealing （α+β）	1400	950	20-60	0.09-0.30	0.20-0.33
	α+β合金时效处理，β合金，退火或时效处理 Aged （α+β）	1400	1050	20-60	0.09-0.30	0.20-0.33

D42系列切削参数推荐

D42 Drills Cutting Parameters Recommendation

ISO	材料 Materials	单位切削力Kc N/mm2	布氏硬度HB	槽型 Geometry	切削速度 Cutting speed vc(m/min)	进给量 fn(mm/r) 钻头直径 Drill dia. mm ≥ 63.50
P	**非合金钢 Carbon steel**					
	C=0.1-0.25%	1500	125	424-L	80-100	0.18-0.35
	C=0.25-0.55%	1600	150	424-L	80-100	0.18-0.35
	C=0.55-0.80%	1700	170	424-L	80-100	0.18-0.35
	低合金钢（合金元素≤5%）Low alloy steel					
	非淬硬钢 Non-hardened	1700	180	424-L	70-100	0.18-0.35
	轴承钢 Bearing steel	1800	210	424-L	70-100	0.18-0.35
	调质 Tempering steel	1850	275	424-L	60-100	0.16-0.35
	调质 Tempering steel	2050	350	424-L	60-100	0.16-0.35
	高合金钢（合金元素＞5%）High alloy steel					
	退火 Anneal	1950	200	424-L	50-110	0.16-0.35
	淬硬工具钢 Quenched tool steel	3000	325	424-L	50-110	0.16-0.35
	铸钢 Cast steel					
	非合金 Non-alloy	1550	180	424-L	50-110	0.15-0.35
	低合金（合金元素≤5%）Low alloy	1600	200	424-L	50-110	0.15-0.35
	高合金（合金元素＞5%）High alloy	2050	225	424-L	50-110	0.15-0.35
M	**铁素体/马氏体/棒材/锻件 Ferrite/Martensite forged**					
	非淬硬 Non-hardened	1800	200	424-L	50-90	0.16-0.35
	沉淀硬化 Precipitation hardening	2850	330	424-L	50-90	0.16-0.35
	淬硬 Hardened	2350	330	424-L	50-90	0.16-0.35
	奥氏体 棒材/锻件 Austenite forged					
	奥氏体 Austenite	1800	180	424-G	50-90	0.16-0.35
	沉淀硬化 Precipitation hardening	2850	330	424-G	50-90	0.16-0.35
	超级奥氏体 Super austenite	2250	200	424-G	50-90	0.16-0.35
	奥氏体-铁素体（双相）棒材/锻件 Duplex forged					
	不可焊接≥0.05% C Unweldable	2000	230	424-G	50-90	0.16-0.35
	可焊接＜0.05% C Welding	2450	260	424-G	50-90	0.16-0.35
	铁素体/马氏体 铸件 Ferrite/Martensite cast-on					
	非淬硬 Non-hardened	1700	200	424-G	50-90	0.16-0.35
	沉淀硬化 Precipitation hardening	2450	330	424-G	50-90	0.16-0.35
	淬硬钢 Hardened	2150	330	424-G	50-90	0.16-0.35

ISO	材料 Materials	单位切削力Kc N/mm2	布氏硬度 HB	槽型 Geometry	切削速度 Cutting speed vc(m/min)	进给量 fn(mm/r) 钻头直径 Drill dia. mm ≥ 63.50
M	**奥氏体 铸件 Austenite cast-on**					
	奥氏体 Austenite	1700	180	424-G	50-90	0.16-0.35
	沉淀硬化 Precipitation hardening	2450	330	424-G	50-90	0.16-0.35
	超级奥氏体 Super austenite	2150	200	424-G	50-90	0.16-0.35
	奥氏体-铁素体（双相）铸件 Duplex cast-on					
	不可焊接≥0.05% C Unweldable	1800	230	424-G	50-90	0.16-0.35
	可焊接＜0.05% C Welding	2250	260	424-G	50-90	0.16-0.35
K	**可锻铸铁 Malleable cast-iron**					
	铁素体（短切屑）Ferrite (short chip)	790	130	424-L	80-100	0.18-0.30
	珠光体（长切屑）Pearlite (long chip)	900	230	424-L	80-100	0.18-0.30
	灰口铸铁 Gray cast iron					
	低抗拉强度 Low tensile strength	890	180	424-L	60-100	0.16-0.35
	高抗拉强度 高抗拉强度	970	220	424-L	60-100	0.16-0.35
	球墨铸铁SG Nodular cast iron					
	铁素体 Ferrite	900	160	424-L	50-100	0.16-0.35
	珠光体 Pearlite	1350	250	424-L	50-100	0.16-0.35
	马氏体 Martensite	2100	380	424-L	50-100	0.16-0.35
N	**铝合金 Aluminium alloy**					
	锻造或锻造+冷作，非时效处理 forged	400	60	424-G	65-130	0.10-0.30
	锻造或锻造加时效处理 Forging with aging treatment	650	100	424-G	65-130	0.10-0.30
	铝合金 Aluminium alloy					
	铸造，非时效 Cast-on, non-aging	600	75	424-G	65-130	0.10-0.30
	铸造或铸造加时效处理Cast on with aging treatment	700	90	424-G	65-130	0.10-0.30
	铝合金 Aluminium alloy					
	铸造，13-15% 硅 Cast-on,13-15% silicon	700	130	424-G	65-130	0.10-0.30
	铸造，16-22% 硅 Cast-on,16-22% silicon	700	130	424-G	65-130	0.10-0.30
	铜和铜合金 Copper and copper alloy					
	易切合金，≥1% 铅 Easy to cut，≥1% lead	550	110	424-G	65-130	0.10-0.30
	黄铜，铅青铜，≤1%铅 Brass ≤1% lead	550	90	424-G	65-130	0.10-0.30
	青铜与无铅铜，包括电解铜 Bronze	1350	100	424-G	65-130	0.10-0.30
S	**高温合金 铁基 Superalloy，iron-based**					
	退火或固溶处理 Annealing	2400	200	424-L	20-65	0.15-0.30
	时效处理或固溶处理加时效处理 Aged	2500	280	424-L	20-65	0.15-0.30
	镍基 Nickel base					
	退火或固溶处理 Annealing	2650	250	424-G	20-65	0.15-0.30
	时效处理或固溶处理加时效处理 Aged	2900	350	424-G	20-65	0.15-0.30
	铸造或铸造加时效处理 Cast-on	3000	320	424-G	20-65	0.15-0.30
	钴基 Cobalt base					
	退火或固溶处理 Annealing	2700	200	424-G	20-65	0.15-0.30
	固溶处理加时效处理 Aged	3000	300	424-G	20-65	0.15-0.30
	铸造或铸造加时效处理 Cast-on	3100	320	424-G	20-65	0.15-0.30
	钛合金2）Titanium alloy		Rm3)			
	商业纯（99.5% Ti）Unalloyed Titanium	1300	400	424-G	30-100	0.15-0.30
	α，近α与α+β合金，退火 Annealing （α+β）	1400	950	424-G	30-100	0.15-0.30
	α+β合金时效处理，β合金，退火或时效处理 Aged （α+β）	1400	1050	424-G	30-100	0.15-0.30

E

圆柄刀具
ROUND TOOLS

- 硬质合金铣刀
  Solid carbide endmills
- 硬质合金钻头
  Solid carbide drill
- 修磨服务介绍
  Reconditioning service



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

圆柄刀具
ROUND TOOLS

硬质合金铣刀 Solid carbide endmills

硬质合金铣刀命名规则
Code key for solid carbide endmills E04

星耀系列高温合金铣刀
Heat resistance endmills E06

平头铣刀
Standard Endmills E06

圆角铣刀
Standard Endmills With Various Radius E07

球头铣刀
Ballnose endmills E09

锥度球头铣刀
Sinking end mills E10

星辉系列钛合金铣刀
Titanium alloy endmills E12

平头铣刀
Standard endmills E12

圆鼻铣刀
Torus end mills E13

球头铣刀
Ballnose endmills E15

星锐系列不锈钢铣刀
Stainless endmills E16

平头铣刀
Standard endmills E16

圆鼻铣刀
Torus end mills E17

球头铣刀
Ballnose endmills E19

星光系列钢用铣刀
Steel endmills E20

短刃铣刀
Short flute endmills E20

长刃铣刀
Long flute endmills E21

圆角铣刀
Standard endmills with various radius E22

球头铣刀
Ballnose endmills E24

星磐系列高硬钢铣刀
Hard Endmills

平头铣刀
Standard endmills E25

圆角铣刀
Standard endmills with various radius E26

球头铣刀
Ballnose endmills E27

星彩系列铝合金铣刀
Aluminum Endmill

平头铣刀
Standard Endmills E29

圆角铣刀
Standard Endmills With Various Radius E30

球头铣刀
Ballnose endmills E32

硬质合金钻头 Solid carbide drill

硬质合金钻头命名规则
Code key for solid carbide drill E33

平底钻
Drills for flat bottom hole E35

钢用硬质合金钻
Drills for steel E36

不锈钢用硬质合金钻
Drills for stainless steel E39

铝用硬质合金钻
Drills for aluminium E42

圆柄刀具
ROUND TOOLS

其它信息 Other information

平底铣刀切削参数推荐
Recommended cutting data of standard endmills E45

圆角铣刀切削参数推荐
Recommended cutting data of standard endmills with various radius E47

球头铣刀切削参数推荐
Recommended cutting data of ball nose endmills E49

平底钻钻削参数推荐
Recommended drilling data of drills for flat bottom hole E51

3D外冷钻头钻削参数推荐
Recommended drilling data of 3D external coolant drills E51

5D内冷钻头钻削参数推荐
Recommended drilling data of 5D internal coolant drills E52

铣刀失效分析
Analysis for endmills E53

钻头失效分析
Analysis for drill failure E54

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Reconditioning service E57

硬质合金铣刀命名规则
Code Key for Solid Carbide Endmills

整体硬质合金铣刀的型号表示规则用9组代号表示铣刀的尺寸及其它特性。见示例 1 。
The code key for solid carbide milling cutters use 9 groups of codes to indicate the size and other characteristics of the endmills. Check Example 1 for details.

示例 1： 一般表示规则
Example 1: General Representation Rules

示列：TR2G-FD6-R0.5-H8-D6-50
Example:TR2G-FD6-R0.5-H8-D6-50

T	R	2	G	FD6	R0.5	H8	D6	50
①	②	③	④	⑤	⑥	⑦	⑧	⑨

型号表示规则中各代号表示如下：
The code key in the model indication rules are expressed as follows:

① 所对应代号表示————————加工用途。
The corresponding code representation————————Processing purposes

T	P	N	M	H	I	G	W
General purpose	Steel	Non-ferrous metals	Stainless steel	Hardened steel	Titanium alloys	High-temperature alloys	HRSA
					Non-metallic materials		

② 所对应代号表示————————刀具类型。
The corresponding code representation————————Tool Type

B	R	E	W	J
Ball Noseendmill	Fillet mill	End mill	Wave edgerough mill	Reamer

③ 所对应代号表示————————刀具刃数。
The corresponding code representation————————Number of flutes

2	3	4
2 flutes	3 flutes	4 flutes

④ 所对应代号表示————————刀具特征。
The corresponding code representation————————Tool Features

G	R	F
General	Roughing	Finishing

⑤ 所对应代号表示————————刀具有效直径。
The corresponding code representation------Dia of cutting edge

⑥ 所对应代号表示————————特殊形状尺寸（刀尖圆角）。
The corresponding code representation--Special shape and size（Cutting Point radius）

⑦ 所对应代号表示————————有效刃长。
The corresponding code representation--Cutting edge length

⑧ 所对应代号表示————————柄部直径。
The corresponding code representation--Dia of shank

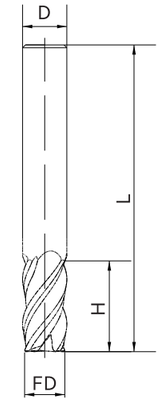
⑨ 所对应代号表示————————刀具总长。
The corresponding code representation--Total length

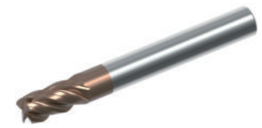


星耀系列高温合金铣刀
Heat Resistance Endmills

平头铣刀 Standard endmills

- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，
- 有效提高刀具使用寿命及工件表面光洁度。
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤。
- 特殊的切削刃口处理及周齿后刀面设计。
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining, effectively improve tool life and workpiece surface.
- Special design of bottom edge and chip groove angle make chip flow more smooth and reduce the damage of the cutting point.
- Special design of bottom edge and chip groove angle make chip flow more smooth and reduce the damage of the cutting point.







公制型 Metric Type

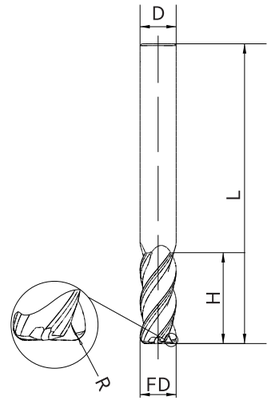
订货规格	刃数	刃径	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Cutting edge length	Total length	Dia of Shank
	T	FD	H	L	D
GE2G-FD1-H3-D4-50	2	1.0	3.0	50.0	4.0
GE2G-FD1.5-H4-D4-50	2	1.5	4.0	50.0	4.0
GE4G-FD2-H5-D4-50	4	2.0	5.0	50.0	4.0
GE4G-FD3-H8-D4-50	4	3.0	8.0	50.0	4.0
GE4G-FD4-H10-D4-50	4	4.0	10.0	50.0	4.0
GE4G-FD5-H13-D6-50	4	5.0	13.0	50.0	6.0
GE4G-FD6-H15-D6-50	4	6.0	15.0	50.0	6.0
GE4G-FD8-H20-D8-60	4	8.0	20.0	60.0	8.0
GE4G-FD10-H25-D10-75	4	10.0	25.0	75.0	10.0
GE4G-FD12-H30-D12-75	4	12.0	30.0	75.0	12.0
GE4G-FD14-H35-D14-100	4	14.0	35.0	100.0	14.0
GE4G-FD16-H45-D16-100	4	16.0	45.0	100.0	16.0
GE4G-FD18-H45-D18-100	4	18.0	45.0	100.0	18.0
GE4G-FD20-H45-D20-100	4	20.0	45.0	100.0	20.0

*接受订货 Accept order

星耀系列高温合金铣刀
Heat Resistance Endmills

圆角铣刀 Standard endmills with various radius

- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，有效提高刀具使用寿命及工件表面光洁度。
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤。
- 特殊的切削刃口处理及周齿后刀面设计。
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining, effectively improve tool life and workpiece surface quality.
- Special design of bottom edge and chip groove angle make chip flow more smooth and reduce the damage of the cutting point.
- Special treatment of cutting edge and the design of the flank surface around the teeth.
- Special treatment of cutting edge and the design of the flank surface around the teeth.







公制型 Metric Type

订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
GR2G-FD2-R0.1-H6-D4-50	2	2.0	0.1	6.0	50.0	4.0
GR2G-FD2-R0.2-H6-D4-50	2	2.0	0.2	6.0	50.0	4.0
GR4G-FD3-R0.1-H8-D4-50	4	3.0	0.1	8.0	50.0	4.0
GR4G-FD3-R0.2-H8-D4-50	4	3.0	0.2	8.0	50.0	4.0
GR4G-FD3-R0.3-H8-D4-50	4	3.0	0.3	8.0	50.0	4.0
GR4G-FD3-R0.5-H8-D4-50	4	3.0	0.5	8.0	50.0	4.0
GR4G-FD4-R0.1-H10-D4-50	4	4.0	0.1	10.0	50.0	4.0
GR4G-FD4-R0.2-H10-D4-50	4	4.0	0.2	10.0	50.0	4.0
GR4G-FD4-R0.3-H10-D4-50	4	4.0	0.3	10.0	50.0	4.0
GR4G-FD4-R0.5-H10-D4-50	4	4.0	0.5	10.0	50.0	4.0
GR4G-FD5-R0.1-H13-D6-50	4	5.0	0.1	13.0	50.0	6.0
GR4G-FD5-R0.2-H13-D6-50	4	5.0	0.2	13.0	50.0	6.0
GR4G-FD5-R0.3-H13-D6-50	4	5.0	0.3	13.0	50.0	6.0

星耀系列高温合金铣刀
Heat Resistance Endmills

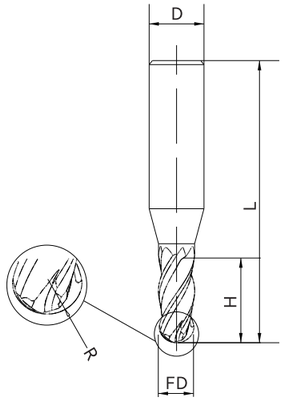
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
GR4G-FD5-R0.5-H13-D6-50	4	5.0	0.5	13.0	50.0	6.0
GR4G-FD6-R0.1-H15-D6-60	4	6.0	0.1	15.0	60.0	6.0
GR4G-FD6-R0.2-H15-D6-60	4	6.0	0.2	15.0	60.0	6.0
GR4G-FD6-R0.3-H15-D6-60	4	6.0	0.3	15.0	60.0	6.0
GR4G-FD6-R0.5-H15-D6-60	4	6.0	0.5	15.0	60.0	6.0
GR4G-FD8-R0.5-H20-D8-60	4	8.0	0.5	20.0	60.0	8.0
GR4G-FD8-R1-H20-D8-60	4	8.0	1.0	20.0	60.0	8.0
GR4G-FD8-R2-H20-D8-60	4	8.0	2.0	20.0	60.0	8.0
GR4G-FD10-R0.5-H25-D10-75	4	10.0	0.5	25.0	75.0	10.0
GR4G-FD10-R1-H25-D10-75	4	10.0	1.0	25.0	75.0	10.0
GR4G-FD10-R2-H25-D10-75	4	10.0	2.0	25.0	75.0	10.0
GR4G-FD12-R0.5-H30-D12-75	4	12.0	0.5	30.0	75.0	12.0
GR4G-FD12-R1-H30-D12-75	4	12.0	1.0	30.0	75.0	12.0
GR4G-FD12-R2-H30-D12-75	4	12.0	2.0	30.0	75.0	12.0
GR4G-FD14-R1-H35-D14-100	4	14.0	1.0	35.0	100.0	14.0
GR4G-FD14-R2-H35-D14-100	4	14.0	2.0	35.0	100.0	14.0
GR4G-FD14-R3-H35-D14-100	4	14.0	3.0	35.0	100.0	14.0
GR4G-FD16-R1-H40-D16-100	4	16.0	1.0	40.0	100.0	16.0
GR4G-FD16-R2-H40-D16-100	4	16.0	2.0	40.0	100.0	16.0
GR4G-FD16-R3-H40-D16-100	4	16.0	3.0	40.0	100.0	16.0
GR4G-FD18-R1-H45-D18-100	4	18.0	1.0	45.0	100.0	18.0
GR4G-FD18-R2-H45-D18-100	4	18.0	2.0	45.0	100.0	18.0
GR4G-FD18-R3-H45-D18-100	4	18.0	3.0	45.0	100.0	18.0
GR4G-FD20-R1-H50-D20-100	4	20.0	1.0	50.0	100.0	20.0
GR4G-FD20-R2-H50-D20-100	4	20.0	2.0	50.0	100.0	20.0
GR4G-FD20-R3-H50-D20-100	4	20.0	3.0	50.0	100.0	20.0

*接受订货 Accept order

星耀系列高温合金铣刀
Heat Resistance Endmills

球头铣刀 Ball nose endmills

- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，有效提高刀具使用寿命及工件表面光洁度。
- 特殊的切削刃口处理及周齿后刀面设计。
- 适用于高温合金半精加工及精加工的整体硬质合金球刀。
- 可高效率加工的4刃球头立铣刀。
- 用于仿形加工。
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining.
- Special treatment of cutting edge and the design of the flank surface around the teeth.
- Suitable for super alloy of semi-finishing and finishing.
- Efficient machining with 4-edge ball end mill.
- Profiling processing.





公制型 Metric Type

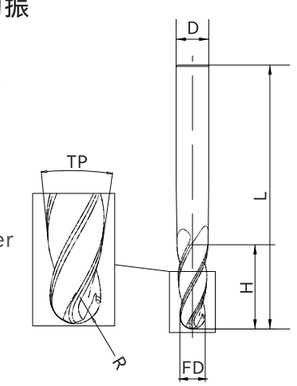
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
GB2G-FD1-R0.5-H2-D4-50	2	1.0	0.5	2.0	50.0	4.0
GB2G-FD2-R1-H4-D4-50	2	2.0	1.0	4.0	50.0	4.0
GB4G-FD3-R1.5-H6-D4-50	4	3.0	1.5	6.0	50.0	4.0
GB4G-FD4-R2-H8-D4-50	4	4.0	2.0	8.0	50.0	4.0
GB4G-FD5-R2.5-H12-D6-50	4	5.0	2.5	12.0	50.0	6.0
GB4G-FD6-R3-H15-D6-50	4	6.0	3.0	15.0	50.0	6.0
GB4G-FD7-R3.5-H20-D7-75	4	7.0	3.5	20.0	75.0	7.0
GB4G-FD8-R4-H25-D8-75	4	8.0	4.0	25.0	75.0	8.0
GB4G-FD10-R5-H30-D10-75	4	10.0	5.0	30.0	75.0	10.0
GB4G-FD12-R6-H35-D12-75	4	12.0	6.0	35.0	75.0	12.0
GB4G-FD16-R8-H45-D16-100	4	16.0	8.0	45.0	100.0	16.0
GB4G-FD20-R10-H50-D20-100	4	20.0	10.0	50.0	100.0	20.0

*接受订货 Accept order

星耀系列高温合金铣刀
Heat Resistance Endmills

锥度球头铣刀 Sinking end mills

- 整体硬质合金锥度球头铣刀（高合专用）
- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，有效提高刀具使用寿命及工件表面光洁度
- 适用于高温合金半精加工及精加工的整体硬质合金球刀
- 用于高效的仿形加工
- 用于工件锥度面的半精铣及精铣
- Solid carbide of SINKING END MILLS (for Heat-resistant Super Alloy).
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining.
- Suitable for Heat-resistant Super Alloy of semi-finishing and finishing.
- High efficient of profiling processing.
- Used for semi-finishing milling and finishing milling of workpiece taper surface.





公制型 Metric Type

订货规格	刃数	刃径	刀尖圆角	锥度	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Taper	Cutting edge length	Total length	Dia of Shank
	T	FD	R	Taper	H	L	D
GB4G-FD3-R1.5-A4-H12-D4-60	4	3.0	1.5	4°	12.0	60.0	4.0
GB4G-FD3-R1.5-A5-H12-D4-60	4	3.0	1.5	5°	12.0	60.0	4.0
GB4G-FD3-R1.5-A6-H12-D4-60	4	3.0	1.5	6°	12.0	60.0	4.0
GB4G-FD4-R2-A4-H12-D6-75	4	4.0	2.0	4°	12.0	75.0	6.0
GB4G-FD4-R2-A5-H12-D6-75	4	4.0	2.0	5°	12.0	75.0	6.0
GB4G-FD4-R2-A6-H12-D6-75	4	4.0	2.0	6°	12.0	75.0	6.0
GB4G-FD5-R2.5-A4-H15-D8-100	4	5.0	2.5	4°	15.0	100.0	8.0
GB4G-FD5-R2.5-A5-H15-D8-100	4	5.0	2.5	5°	15.0	100.0	8.0
GB4G-FD5-R2.5-A6-H15-D8-100	4	5.0	2.5	6°	15.0	100.0	8.0
GB4G-FD6-R3-A4-H15-D8-100	4	6.0	3.0	4°	15.0	100.0	8.0
GB4G-FD6-R3-A5-H15-D8-100	4	6.0	3.0	5°	15.0	100.0	8.0

星耀系列高温合金铣刀
Heat Resistance Endmills

锥度球头铣刀 Sinking end mills

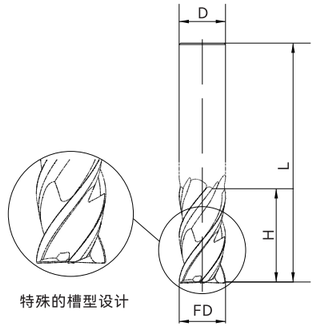
订货规格	刃数	刃径	刀尖圆角	锥度	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Taper	Cutting edge length	Total length	Dia of Shank
	T	FD	R	Taper	H	L	D
GB4G-FD6-R3-A6-H15-D8-100	4	6.0	3.0	6°	15.0	100.0	8.0
GB4G-FD8-R4-A4-H15-D10-100	4	8.0	4.0	4°	15.0	100.0	10.0
GB4G-FD8-R5-A4-H15-D10-100	4	8.0	4.0	5°	15.0	100.0	10.0
GB4G-FD8-R6-A4-H15-D10-100	4	8.0	4.0	6°	15.0	100.0	10.0
GB4G-FD10-R5-A4-H20-D12-120	4	10.0	5.0	4°	20.0	120.0	12.0
GB4G-FD10-R5-A5-H20-D12-120	4	10.0	5.0	5°	20.0	120.0	12.0
GB4G-FD10-R5-A6-H20-D12-120	4	10.0	5.0	6°	20.0	120.0	12.0
GB4G-FD12-R6-A4-H25-D16-150	4	12.0	6.0	4°	25.0	150.0	16.0
GB4G-FD12-R6-A5-H25-D16-150	4	12.0	6.0	5°	25.0	150.0	16.0
GB4G-FD12-R6-A6-H25-D16-150	4	12.0	6.0	6°	25.0	150.0	16.0

*接受订货 Accept order

星辉系列钛合金铣刀
Titanium Alloy Endmills

平头铣刀 Standard endmills

- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动
- 有效提高刀具使用寿命及工件表面光洁度
- 特殊的刀槽设计更有利于排屑
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤
- 特殊的切削刃口处理及周齿后刀面设计
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining, effectively improve tool life and workpiece surface.
- Special groove design makes better chip flowing.
- Special design of bottom edge and chip groove angle make chip flow more smoothly and reduce the damage of the cutting point.
- Special treatment of cutting edge and the design of the flank surface around the teeth.



特殊的槽型设计


公制型 Metric Type



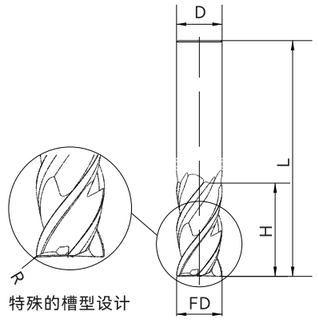
订货规格	刃数	刃径	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Cutting edge length	Total length	Dia of Shank
	T	FD	H	L	D
IE2G-FD1-H3-D4-50	2	1.0	3.0	50.0	4.0
IE2G-FD1.5-H4-D4-50	2	1.5	4.0	50.0	4.0
IE4G-FD2-H5-D4-50	4	2.0	5.0	50.0	4.0
IE4G-FD3-H8-D4-50	4	3.0	8.0	50.0	4.0
IE4G-FD4-H10-D4-50	4	4.0	10.0	50.0	4.0
IE4G-FD5-H12-D6-50	4	5.0	12.0	50.0	6.0
IE4G-FD6-H15-D6-50	4	6.0	15.0	50.0	6.0
IE4G-FD8-H20-D8-60	4	8.0	20.0	60.0	8.0
IE4G-FD10-H25-D10-75	4	10.0	25.0	75.0	10.0
IE4G-FD12-H30-D12-75	4	12.0	30.0	75.0	12.0
IE4G-FD14-H35-D14-100	4	14.0	35.0	100.0	14.0
IE4G-FD16-H45-D16-100	4	16.0	45.0	100.0	16.0
IE4G-FD18-H45-D18-100	4	18.0	45.0	100.0	18.0
IE4G-FD20-H45-D20-100	4	20.0	45.0	100.0	20.0

*接受订货 Accept order

星辉系列钛合金铣刀
Titanium Alloy Endmills

圆鼻铣刀 Torus end mills

- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，有效提高刀具使用寿命及工件表面光洁度。
- 多槽设计，有效提高了刀具的刚性，实现工件的高效切削。
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤。
- 特殊的切削刃口处理及周齿后刀面设计。
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining, effectively improve tool life and workpiece surface.
- The multi-slot design ensures the rigidity of the tool while ensuring the rigidity of the tool.
- Special design of bottom edge and chip groove angle make chip flow more smooth and insert tipless damage.
- Special treatment of cutting edge and the design of the flank surface around the teeth.







公制型 Metric Type

订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
IR2G-FD2-R0.1-H6-D4-50	2	2.0	0.1	6.0	50.0	4.0
IR2G-FD2-R0.2-H6-D4-50	2	2.0	0.2	6.0	50.0	4.0
IR4G-FD3-R0.1-H8-D4-50	4	3.0	0.1	8.0	50.0	4.0
IR4G-FD3-R0.2-H8-D4-50	4	3.0	0.2	8.0	50.0	4.0
IR4G-FD3-R0.3-H8-D4-50	4	3.0	0.3	8.0	50.0	4.0
IR4G-FD3-R0.5-H8-D4-50	4	3.0	0.5	8.0	50.0	4.0
IR4G-FD4-R0.1-H10-D4-50	4	4.0	0.1	10.0	50.0	4.0
IR4G-FD4-R0.2-H10-D4-50	4	4.0	0.2	10.0	50.0	4.0
IR4G-FD4-R0.3-H10-D4-50	4	4.0	0.3	10.0	50.0	4.0
IR4G-FD4-R0.5-H10-D4-50	4	4.0	0.5	10.0	50.0	4.0
IR4G-FD5-R0.1-H13-D6-50	4	5.0	0.1	13.0	50.0	6.0

星辉系列钛合金铣刀
Titanium Alloy Endmills

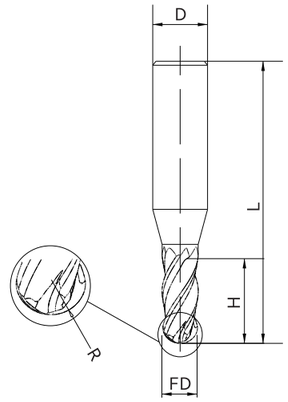
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
IR4G-FD5-R0.2-H13-D6-50	4	5.0	0.2	13.0	50.0	6.0
IR4G-FD5-R0.3-H13-D6-50	4	5.0	0.3	13.0	50.0	6.0
IR4G-FD5-R0.5-H13-D6-50	4	5.0	0.5	13.0	50.0	6.0
IR4G-FD6-R0.1-H15-D6-60	4	6.0	0.1	15.0	60.0	6.0
IR4G-FD6-R0.2-H15-D6-60	4	6.0	0.2	15.0	60.0	6.0
IR4G-FD6-R0.3-H15-D6-60	4	6.0	0.3	15.0	60.0	6.0
IR4G-FD6-R0.5-H15-D6-60	4	6.0	0.5	15.0	60.0	6.0
IR4G-FD8-R0.5-H20-D8-60	4	8.0	0.5	20.0	60.0	8.0
IR4G-FD8-R1-H20-D8-60	4	8.0	1.0	20.0	60.0	8.0
IR4G-FD8-R2-H20-D8-60	4	8.0	2.0	20.0	60.0	8.0
IR4G-FD10-R0.5-H25-D10-75	4	10.0	0.5	25.0	75.0	10.0
IR4G-FD10-R1-H25-D10-75	4	10.0	1.0	25.0	75.0	10.0
IR4G-FD10-R2-H25-D10-75	4	10.0	2.0	25.0	75.0	10.0
IR4G-FD12-R0.5-H30-D12-75	4	12.0	0.5	30.0	75.0	12.0
IR4G-FD12-R1-H30-D12-75	4	12.0	1.0	30.0	75.0	12.0
IR4G-FD12-R2-H30-D12-75	4	12.0	2.0	30.0	75.0	12.0
IR4G-FD14-R1-H35-D14-100	4	14.0	1.0	35.0	100.0	14.0
IR4G-FD14-R2-H35-D14-100	4	14.0	2.0	35.0	100.0	14.0
IR4G-FD14-R3-H35-D14-100	4	14.0	3.0	35.0	100.0	14.0
IR4G-FD16-R1-H40-D16-100	4	16.0	1.0	40.0	100.0	16.0
IR4G-FD16-R2-H40-D16-100	4	16.0	2.0	40.0	100.0	16.0
IR4G-FD16-R3-H40-D16-100	4	16.0	3.0	40.0	100.0	16.0
IR4G-FD18-R1-H45-D18-100	4	18.0	1.0	45.0	100.0	18.0
IR4G-FD18-R2-H45-D18-100	4	18.0	2.0	45.0	100.0	18.0
IR4G-FD18-R3-H45-D18-100	4	18.0	3.0	45.0	100.0	18.0
IR4G-FD20-R1-H50-D20-100	4	20.0	1.0	50.0	100.0	20.0
IR4G-FD20-R2-H50-D20-100	4	20.0	2.0	50.0	100.0	20.0
IR4G-FD20-R3-H50-D20-100	4	20.0	3.0	50.0	100.0	20.0

*接受订货 Accept order

星辉系列钛合金铣刀
Titanium Alloy Endmills

球头铣刀 Ball nose endmills

- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，有效提高刀具使用寿命及工件表面光洁度
- 特殊的切削刃口处理及周齿后刀面设计
- 适用于钛合金半精加工及精加工的整体硬质合金球刀
- 可高效率加工的4刃球头立铣刀
- 用于仿形加工
- Unequal spiral groove design and unequal tooth spacing can reduce the vibration of the tool during machining
- Special treatment of cutting edge and the design of the flank surface around the teeth.
- Solid carbide ball cutter suitable for semi-finishing and finishing of titanium alloy.
- Efficient machining with 4-edge ball end mill.
- Profiling processing.





公制型 Metric Type

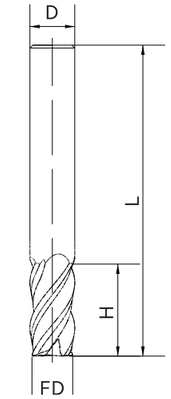
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
IB2G-FD1-R0.5-H2-D4-50	2	1.0	0.5	2.0	50.0	4.0
IB2G-FD2-R1-H4-D4-50	2	2.0	1.0	4.0	50.0	4.0
IB4G-FD3-R1.5-H6-D4-50	4	3.0	1.5	6.0	50.0	4.0
IB4G-FD4-R2-H8-D4-50	4	4.0	2.0	8.0	50.0	4.0
IB4G-FD5-R2.5-H10-D6-50	4	5.0	2.5	10.0	50.0	6.0
IB4G-FD6-R3-H12-D6-50	4	6.0	3.0	12.0	50.0	6.0
IB4G-FD7-R3.5-15-D7-75	4	7.0	3.5	15.0	75.0	7.0
IB4G-FD8-R4-H16-D8-75	4	8.0	4.0	16.0	75.0	8.0
IB4G-FD10-R5-H20-D10-75	4	10.0	5.0	20.0	75.0	10.0
IB4G-FD12-R6-H24-D12-75	4	12.0	6.0	24.0	75.0	12.0
IB4G-FD16-R8-H32-D16-100	4	16.0	8.0	32.0	100.0	16.0
IB4G-FD20-R10-H40-D20-100	4	20.0	10.0	40.0	100.0	20.0

*接受订货 Accept order

星锐系列不锈钢专用铣刀
Stainless Endmills

平刀铣刀 Standard endmills

- 不锈钢专用型设计
- 用于不锈钢系列工件的加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅
- 特殊的切削刃口处理提高刀具的使用寿命
- Special design for stainless steel,used for machining of stainless steel series workpieces
- Special bottom edge design and chip flute angle make chip removal smoother.
- Special cutting-edge treatment improves the tool life.







公制型 Metric Type

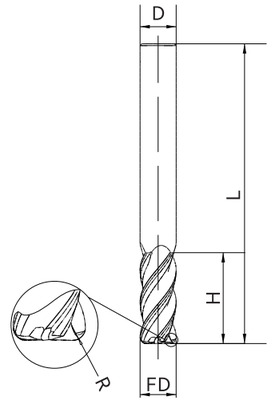
订货规格	刃数	刃径	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Cutting edge length	Total length	Dia of Shank
	T	FD	H	L	D
ME2G-FD1-H3-D4-50	2	1.0	3.0	50.0	4.0
ME2G-FD1.5-H4-D4-50	2	1.5	4.0	50.0	4.0
ME4G-FD2-H6-D4-50	4	2.0	6.0	50.0	4.0
ME4G-FD3-H9-D4-50	4	3.0	9.0	50.0	4.0
ME4G-FD4-H12-D4-50	4	4.0	12.0	50.0	4.0
ME4G-FD5-H15-D6-50	4	5.0	15.0	50.0	6.0
ME4G-FD6-H18-D6-50	4	6.0	18.0	50.0	6.0
ME4G-FD8-H24-D8-60	4	8.0	24.0	60.0	8.0
ME4G-FD10-H30-D10-75	4	10.0	30.0	75.0	10.0
ME4G-FD12-H35-D12-75	4	12.0	35.0	75.0	12.0
ME4G-FD14-H45-D14-100	4	14.0	45.0	100.0	14.0
ME4G-FD16-H45-D16-100	4	16.0	45.0	100.0	16.0
ME4G-FD18-H50-D18-100	4	18.0	50.0	100.0	18.0
ME4G-FD20-H50-D20-100	4	20.0	50.0	100.0	20.0

*接受订货 Accept order

星锐系列不锈钢专用铣刀
Stainless Endmills

圆角铣刀 Standard endmills with various radius

- 不锈钢专用型设计
- 用于不锈钢系列工件的加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅
- 特殊的切削刃口处理及R圆角处特殊过渡提高刀具的使用寿命
- Unique design for stainless steel, used for machining of stainless steel series workpieces
- Special bottom edge design and chip flute angle make chip removal smoother.
- Special cutting-edge treatment and special transition at rounded corners improve the tool life.





公制型 Metric Type

订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
MR2G-FD2-R0.1-H6-D4-50	2	2.0	0.1	6.0	50.0	4.0
MR2G-FD2-R0.2-H6-D4-50	2	2.0	0.2	6.0	50.0	4.0
MR4G-FD3-R0.1-H8-D4-50	4	3.0	0.1	8.0	50.0	4.0
MR4G-FD3-R0.2-H8-D4-50	4	3.0	0.2	8.0	50.0	4.0
MR4G-FD3-R0.3-H8-D4-50	4	3.0	0.3	8.0	50.0	4.0
MR4G-FD3-R0.5-H8-D4-50	4	3.0	0.5	8.0	50.0	4.0
MR4G-FD4-R0.1-H10-D4-50	4	4.0	0.1	10.0	50.0	4.0
MR4G-FD4-R0.2-H10-D4-50	4	4.0	0.2	10.0	50.0	4.0
MR4G-FD4-R0.3-H10-D4-50	4	4.0	0.3	10.0	50.0	4.0
MR4G-FD4-R0.5-H10-D4-50	4	4.0	0.5	10.0	50.0	4.0
MR4G-FD5-R0.1-H13-D6-50	4	5.0	0.1	13.0	50.0	6.0
MR4G-FD5-R0.2-H13-D6-50	4	5.0	0.2	13.0	50.0	6.0
MR4G-FD5-R0.3-H13-D6-50	4	5.0	0.3	13.0	50.0	6.0
MR4G-FD5-R0.5-H13-D6-50	4	5.0	0.5	13.0	50.0	6.0
MR4G-FD6-R0.1-H15-D6-60	4	6.0	0.1	15.0	60.0	6.0

星锐系列不锈钢专用铣刀
Stainless Endmills

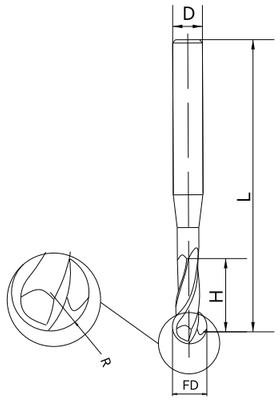
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
MR4G-FD6-R0.2-H15-D6-60	4	6.0	0.2	15.0	60.0	6.0
MR4G-FD6-R0.3-H15-D6-60	4	6.0	0.3	15.0	60.0	6.0
MR4G-FD6-R0.5-H15-D6-60	4	6.0	0.5	15.0	60.0	6.0
MR4G-FD8-R0.5-H20-D8-60	4	8.0	0.5	20.0	60.0	8.0
MR4G-FD8-R1-H20-D8-60	4	8.0	1.0	20.0	60.0	8.0
MR4G-FD8-R2-H20-D8-60	4	8.0	2.0	20.0	60.0	8.0
MR4G-FD10-R0.5-H25-D10-75	4	10.0	0.5	25.0	75.0	10.0
MR4G-FD10-R1-H25-D10-75	4	10.0	1.0	25.0	75.0	10.0
MR4G-FD10-R2-H25-D10-75	4	10.0	2.0	25.0	75.0	10.0
MR4G-FD12-R0.5-H30-D12-75	4	12.0	0.5	30.0	75.0	12.0
MR4G-FD12-R1-H30-D12-75	4	12.0	1.0	30.0	75.0	12.0
MR4G-FD12-R2-H30-D12-75	4	12.0	2.0	30.0	75.0	12.0
MR4G-FD14-R1-H35-D14-100	4	14.0	1.0	35.0	100.0	14.0
MR4G-FD14-R2-H35-D14-100	4	14.0	2.0	35.0	100.0	14.0
MR4G-FD14-R3-H35-D14-100	4	14.0	3.0	35.0	100.0	14.0
MR4G-FD16-R1-H40-D16-100	4	16.0	1.0	40.0	100.0	16.0
MR4G-FD16-R2-H40-D16-100	4	16.0	2.0	40.0	100.0	16.0
MR4G-FD16-R3-H40-D16-100	4	16.0	3.0	40.0	100.0	16.0
MR4G-FD18-R1-H45-D18-100	4	18.0	1.0	45.0	100.0	18.0
MR4G-FD18-R2-H45-D18-100	4	18.0	2.0	45.0	100.0	18.0
MR4G-FD18-R3-H45-D18-100	4	18.0	3.0	45.0	100.0	18.0
MR4G-FD20-R1-H50-D20-100	4	20.0	1.0	50.0	100.0	20.0
MR4G-FD20-R2-H50-D20-100	4	20.0	2.0	50.0	100.0	20.0
MR4G-FD20-R3-H50-D20-100	4	20.0	3.0	50.0	100.0	20.0

*接受订货 Accept order

星锐系列不锈钢专用铣刀
Stainless Endmills

球头铣刀 Ball nose endmills

- 不锈钢专用型设计
- 用于不锈钢系列工件的加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅
- 特殊的切削刃口处理及圆角处特殊过渡，提高刀具的使用寿命
- 用于仿形加工
- Unique design for stainless steel, used for machining of stainless steel series workpieces.
- Special bottom edge design and chip flute angle make chip removal smoother.
- Special cutting-edge treatment and special transition at rounded corners improve the tool life.
- Profiling machining.







公制型 Metric Type

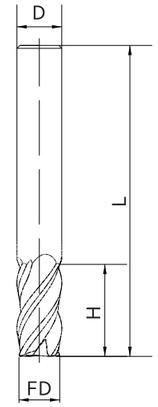
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
MB2G-FD1-R0.5-H2-D4-50	2	1.0	0.5	2.0	50.0	4.0
MB2G-FD2-R1-H4-D4-50	2	2.0	1.0	4.0	50.0	4.0
MB2G-FD3-R1.5-H6-D4-50	2	3.0	1.5	6.0	50.0	4.0
MB2G-FD4-R2-H8-D4-50	2	4.0	2.0	8.0	50.0	4.0
MB2G-FD5-R2.5-H10-D6-50	2	5.0	2.5	10.0	50.0	6.0
MB2G-FD6-R3-H12-D6-50	2	6.0	3.0	12.0	50.0	6.0
MB2G-FD8-R4-H16-D8-75	2	8.0	4.0	16.0	75.0	8.0
MB2G-FD10-R5-H20-D10-75	2	10.0	5.0	20.0	75.0	10.0
MB2G-FD12-R6-H24-D12-75	2	12.0	6.0	24.0	75.0	12.0
MB4G-FD16-R8-H32-D16-100	4	16.0	8.0	32.0	100.0	16.0
MB4G-FD20-R10-H40-D20-100	4	20.0	10.0	40.0	100.0	20.0

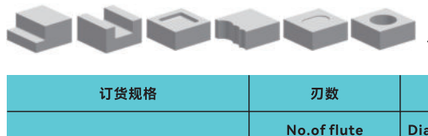
*接受订货 Accept order

星光系列钢用铣刀
Steel Endmills

短刃铣刀 Short flute endmills

- 用于多个行业的多种工件加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤
- 特殊的切削刃口处理及周齿后刀面设计
- Multiple workpiece machining applications for multiple industries.
- Special bottom edge design and chip flute angle for smooth chip evacuation and reduced tip damage.
- Special cutting edge treatment and peripheral tooth flank.





公制型 Metric Type



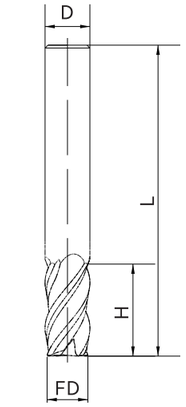
订货规格	刃数	刃径	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Cutting edge length	Total length	Dia of Shank
	T	FD	H	L	D
PE2G-FD1-H3-D4-50	2	1.0	3.0	50.0	4.0
PE2G-FD1.5-H4-D4-50	2	1.5	4.0	50.0	4.0
PE4G-FD2-H6-D4-50	4	2.0	6.0	50.0	4.0
PE4G-FD3-H9-D4-50	4	3.0	9.0	50.0	4.0
PE4G-FD4-H12-D4-50	4	4.0	12.0	50.0	4.0
PE4G-FD5-H15-D6-50	4	5.0	15.0	50.0	6.0
PE4G-FD6-H18-D6-50	4	6.0	18.0	50.0	6.0
PE4G-FD8-H24-D8-60	4	8.0	24.0	60.0	8.0
PE4G-FD10-H30-D10-75	4	10.0	30.0	75.0	10.0
PE4G-FD12-H35-D12-75	4	12.0	35.0	75.0	12.0
PE4G-FD14-H45-D14-100	4	14.0	45.0	100.0	14.0
PE4G-FD16-H45-D16-100	4	16.0	45.0	100.0	16.0
PE4G-FD18-H50-D18-100	4	18.0	50.0	100.0	18.0
PE4G-FD20-H50-D20-100	4	20.0	50.0	100.0	20.0

*接受订货 Accept order

星光系列钢用铣刀
Steel Endmills

长刃铣刀 Long flute endmills

- 钢件孔加工通用型设计
- 用于多个行业的多种工件加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤。
- 特殊的切削刃口处理及周齿后刀面设计
- Universal design for hole processing of steel.
- Multiple workpiece machining applications for multiple industries.
- Special bottom edge design and chip flute angle for smooth chip evacuation and reduced tip damage.
- Special cutting edge treatment and peripheral tooth flank.





公制型 Metric Type



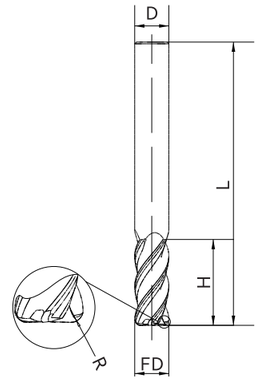
订货规格	刃数	刃径	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Cutting edge length	Total length	Dia of Shank
	T	FD	H	L	D
PE4G-FD3-H15-D6-75	4	3.0	15.0	75.0	6.0
PE4G-FD4-H20-D6-75	4	4.0	20.0	75.0	6.0
PE4G-FD5-H25-D6-75	4	5.0	25.0	75.0	6.0
PE4G-FD6-H30-D6-75	4	6.0	30.0	75.0	6.0
PE4G-FD8-H35-D8-100	4	8.0	35.0	100.0	8.0
PE4G-FD10-H45-D10-100	4	10.0	45.0	100.0	10.0
PE4G-FD12-H45-D12-100	4	12.0	45.0	100.0	12.0
PE4G-FD14-H50-D14-150	4	14.0	50.0	150.0	14.0
PE4G-FD16-H60-D16-150	4	16.0	60.0	150.0	16.0
PE4G-FD18-H70-D18-150	4	18.0	70.0	150.0	18.0
PE4G-FD20-H75-D20-150	4	20.0	75.0	150.0	20.0

*接受订货 Accept order

星光系列钢用铣刀
Steel Endmills

圆角铣刀 Standard endmills with various radius

- 钢件孔加工通用型设计
- 用于多个行业的多种工件加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤。
- 特殊的切削刃口处理及周齿后刀面设计
- Universal design for hole processing of steel.
- Multiple workpiece machining applications for multiple industries.
- Special bottom edge design and chip flute angle for smooth chip evacuation and reduced tip damage.
- Special cutting edge treatment and peripheral tooth flank.





公制型 Metric Type



订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
PR2G-FD2-R0.1-H6-D4-50	2	2.0	0.1	6.0	50.0	4.0
PR2G-FD2-R0.2-H6-D4-50	2	2.0	0.2	6.0	50.0	4.0
PR4G-FD3-R0.1-H8-D4-50	4	3.0	0.1	8.0	50.0	4.0
PR4G-FD3-R0.2-H8-D4-50	4	3.0	0.2	8.0	50.0	4.0
PR4G-FD3-R0.3-H8-D4-50	4	3.0	0.3	8.0	50.0	4.0
PR4G-FD3-R0.5-H8-D4-50	4	3.0	0.5	8.0	50.0	4.0
PR4G-FD4-R0.1-H10-D4-50	4	4.0	0.1	10.0	50.0	4.0
PR4G-FD4-R0.2-H10-D4-50	4	4.0	0.2	10.0	50.0	4.0
PR4G-FD4-R0.3-H10-D4-50	4	4.0	0.3	10.0	50.0	4.0
PR4G-FD4-R0.5-H10-D4-50	4	4.0	0.5	10.0	50.0	4.0
PR4G-FD5-R0.1-H13-D6-50	4	5.0	0.1	13.0	50.0	6.0
PR4G-FD5-R0.2-H13-D6-50	4	5.0	0.2	13.0	50.0	6.0
PR4G-FD5-R0.3-H13-D6-50	4	5.0	0.3	13.0	50.0	6.0
PR4G-FD5-R0.5-H13-D6-50	4	5.0	0.5	13.0	50.0	6.0
PR4G-FD6-R0.1-H15-D6-60	4	6.0	0.1	15.0	60.0	6.0
PR4G-FD6-R0.2-H15-D6-60	4	6.0	0.2	15.0	60.0	6.0
PR4G-FD6-R0.3-H15-D6-60	4	6.0	0.3	15.0	60.0	6.0

星光系列钢用铣刀
Steel Endmills

圆角铣刀 Standard endmills with various radius

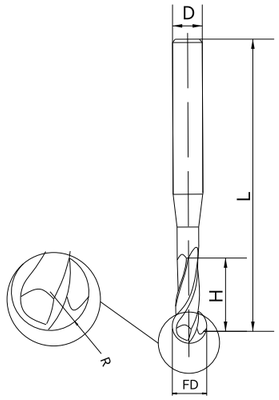
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
PR4G-FD6-R0.5-H15-D6-60	4	6.0	0.5	15.0	60.0	6.0
PR4G-FD8-R0.5-H20-D8-60	4	8.0	0.5	20.0	60.0	8.0
PR4G-FD8-R1-H20-D8-60	4	8.0	1.0	20.0	60.0	8.0
PR4G-FD8-R2-H20-D8-60	4	8.0	2.0	20.0	60.0	8.0
PR4G-FD10-R0.5-H25-D10-75	4	10.0	0.5	25.0	75.0	10.0
PR4G-FD10-R1-H25-D10-75	4	10.0	1.0	25.0	75.0	10.0
PR4G-FD10-R2-H25-D10-75	4	10.0	2.0	25.0	75.0	10.0
PR4G-FD12-R0.5-H30-D12-75	4	12.0	0.5	30.0	75.0	12.0
PR4G-FD12-R1-H30-D12-75	4	12.0	1.0	30.0	75.0	12.0
PR4G-FD12-R2-H30-D12-75	4	12.0	2.0	30.0	75.0	12.0
PR4G-FD14-R1-H35-D14-100	4	14.0	1.0	35.0	100.0	14.0
PR4G-FD14-R2-H35-D14-100	4	14.0	2.0	35.0	100.0	14.0
PR4G-FD14-R3-H35-D14-100	4	14.0	3.0	35.0	100.0	14.0
PR4G-FD16-R1-H40-D16-100	4	16.0	1.0	40.0	100.0	16.0
PR4G-FD16-R2-H40-D16-100	4	16.0	2.0	40.0	100.0	16.0
PR4G-FD16-R3-H40-D16-100	4	16.0	3.0	40.0	100.0	16.0
PR4G-FD18-R1-H45-D18-100	4	18.0	1.0	45.0	100.0	18.0
PR4G-FD18-R2-H45-D18-100	4	18.0	2.0	45.0	100.0	18.0
PR4G-FD18-R3-H45-D18-100	4	18.0	3.0	45.0	100.0	18.0
PR4G-FD20-R1-H50-D20-100	4	20.0	1.0	50.0	100.0	20.0
PR4G-FD20-R2-H50-D20-100	4	20.0	2.0	50.0	100.0	20.0
PR4G-FD20-R3-H50-D20-100	4	20.0	3.0	50.0	100.0	20.0

*接受订货 Accept order

星光系列钢用铣刀
Steel Endmills

球头铣刀 Ball nose endmills

- 用于多个行业的多种工件加工应用
- 特殊的底刃设计及排屑槽角度，让排屑更通畅，减轻刀尖损伤。
- 特殊的切削刃口处理及周齿后刀面设计
- 用于仿形加工
- Multiple workpiece machining applications for multiple industries.
- Special bottom edge design and chip flute angle for smooth chip evacuation and reduced tip damage.
- Special cutting edge treatment and peripheral tooth flank.
- For profiling.





公制型 Metric Type

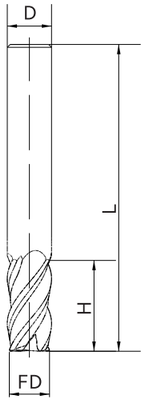
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
PB2G-FD1-R0.5-H2-D4-50	2	1.0	0.5	2.0	50.0	4.0
PB2G-FD2-R1-H4-D4-50	2	2.0	1.0	4.0	50.0	4.0
PB2G-FD3-R1.5-H6-D4-50	2	3.0	1.5	6.0	50.0	4.0
PB2G-FD4-R2-H8-D4-50	2	4.0	2.0	8.0	50.0	4.0
PB2G-FD5-R2.5-H10-D6-50	2	5.0	2.5	10.0	50.0	6.0
PB2G-FD6-R3-H12-D6-50	2	6.0	3.0	12.0	50.0	6.0
PB2G-FD8-R4-H16-D8-75	2	8.0	4.0	16.0	75.0	8.0
PB2G-FD10-R5-H20-D10-75	2	10.0	5.0	20 .0	75.0	10.0
PB2G-FD12-R6-H24-D12-75	2	12.0	6.0	24.0	75.0	12.0
PB4G-FD16-R8-H32-D16-100	4	16.0	8.0	32.0	100.0	16.0
PB4G-FD20-R10-H40-D20-100	4	20.0	10.0	40.0	100.0	20.0

*接受订货 Accept order

星磐系列高硬钢铣刀
Endmills For Hard Steel

平头铣刀 Standard endmills

- 难加工材料独特设计
- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动
- 有效提高刀具使用寿命及工件表面光洁度
- 特殊的底刃设计及排屑槽角度，让排屑更通畅
- 特殊的切削刃口处理及周齿后刀面设计
- Exclusive design for HRSA alloys.
- Unequal spiral groove and tooth pitch design, reduce thevibration of the tool during processing, effectively improve the too life and the surface finish of the workpiece.
- Special bottom edge design and chip discharge groove angle make chip removal smoother.
- Special cutting-edge treatment and the design of the flank surface around the teeth.







公制型 Metric Type

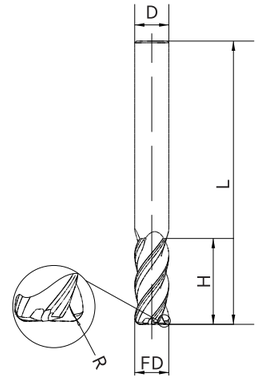
订货规格	刃数	刃径	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Cutting edge length	Total length	Dia of Shank
	T	FD	H	L	D
HE2G-FD1-H3-D4-50	2	1.0	3.0	50.0	4.0
HE2G-FD1.5-H4-D4-50	2	1.5	4.0	50.0	4.0
HE4G-FD2-H5-D4-50	4	2.0	5.0	50.0	4.0
HE4G-FD3-H8-D4-50	4	3.0	8.0	50.0	4.0
HE4G-FD4-H10-D4-50	4	4.0	10.0	50.0	4.0
HE4G-FD5-H12-D6-50	4	5.0	12.0	50.0	6.0
HE4G-FD6-H15-D6-50	4	6.0	15.0	50.0	6.0
HE4G-FD8-H20-D8-60	4	8.0	20.0	60.0	8.0
HE4G-FD10-H25-D10-75	4	10.0	25.0	75.0	10.0
HE4G-FD12-H30-D12-75	4	12.0	30.0	75.0	12.0
HE4G-FD14-H35-D14-100	4	14.0	35.0	100.0	14.0
HE4G-FD16-H45-D16-100	4	16.0	45.0	100.0	16.0
HE4G-FD18-H45-D18-100	4	18.0	45.0	100.0	18.0
HE4G-FD20-H45-D20-100	4	20.0	45.0	100.0	20.0

*接受订货 Accept order

星磐系列高硬钢铣刀
Endmills For Hard Steel

圆角铣刀 Standard endmills with various radius

- 难加工材料独特设计
- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动
- 有效提高刀具使用寿命及工件表面光洁度
- 特殊的底刃设计及排屑槽角度，让排屑更通畅
- 特殊的切削刃口处理及周齿后刀面设计
- Exclusive design for HRSA alloys.
- Unequal spiral groove and tooth pitch design, reduce thevibration of the tool during processing, effectively improve the too life and the surface finish of the workpiece.
- Special bottom edge design and chip discharge groove angle make chip removal smoother.
- Special cutting-edge treatment and the design of the flank surface around the teeth.







公制型 Metric Type

订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
HR2G-FD2-R0.1-H6-D4-50	2	2.0	0.1	6.0	50.0	4.0
HR2G-FD2-R0.2-H6-D4-50	2	2.0	0.2	6.0	50.0	4.0
HR4G-FD3-R0.1-H8-D4-50	4	3.0	0.1	8.0	50.0	4.0
HR4G-FD3-R0.2-H8-D4-50	4	3.0	0.2	8.0	50.0	4.0
HR4G-FD3-R0.3-H8-D4-50	4	3.0	0.3	8.0	50.0	4.0
HR4G-FD3-R0.5-H8-D4-50	4	3.0	0.5	8.0	50.0	4.0
HR4G-FD4-R0.1-H10-D4-50	4	4.0	0.1	10.0	50.0	4.0
HR4G-FD4-R0.2-H10-D4-50	4	4.0	0.2	10.0	50.0	4.0
HR4G-FD4-R0.3-H10-D4-50	4	4.0	0.3	10.0	50.0	4.0
HR4G-FD4-R0.5-H10-D4-50	4	4.0	0.5	10.0	50.0	4.0
HR4G-FD5-R0.1-H13-D6-50	4	5.0	0.1	13.0	50.0	6.0
HR4G-FD5-R0.2-H13-D6-50	4	5.0	0.2	13.0	50.0	6.0
HR4G-FD5-R0.3-H13-D6-50	4	5.0	0.3	13.0	50.0	6.0

星磐系列高硬钢铣刀
Endmills For Hard Steel

圆角铣刀 Standard endmills with various radius

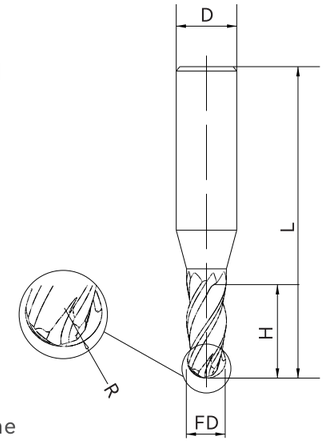
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
HR4G-FD5-R0.5-H13-D6-50	4	5.0	0.5	13.0	50.0	6.0
HR4G-FD6-R0.1-H15-D6-60	4	6.0	0.1	15.0	60.0	6.0
HR4G-FD6-R0.2-H15-D6-60	4	6.0	0.2	15.0	60.0	6.0
HR4G-FD6-R0.3-H15-D6-60	4	6.0	0.3	15.0	60.0	6.0
HR4G-FD6-R0.5-H15-D6-60	4	6.0	0.5	15.0	60.0	6.0
HR4G-FD8-R0.5-H20-D8-60	4	8.0	0.5	20.0	60.0	8.0
HR4G-FD8-R1-H20-D8-60	4	8.0	1.0	20.0	60.0	8.0
HR4G-FD8-R2-H20-D8-60	4	8.0	2.0	20.0	60.0	8.0
HR4G-FD10-R0.5-H25-D10-75	4	10.0	0.5	25.0	75.0	10.0
HR4G-FD10-R1-H25-D10-75	4	10.0	1.0	25.0	75.0	10.0
HR4G-FD10-R2-H25-D10-75	4	10.0	2.0	25.0	75.0	10.0
HR4G-FD12-R0.5-H30-D12-75	4	12.0	0.5	30.0	75.0	12.0
HR4G-FD12-R1-H30-D12-75	4	12.0	1.0	30.0	75.0	12.0
HR4G-FD12-R2-H30-D12-75	4	12.0	2.0	30.0	75.0	12.0
HR4G-FD14-R1-H35-D14-100	4	14.0	1.0	35.0	100.0	14.0
HR4G-FD14-R2-H35-D14-100	4	14.0	2.0	35.0	100.0	14.0
HR4G-FD14-R3-H35-D14-100	4	14.0	3.0	35.0	100.0	14.0
HR4G-FD16-R1-H40-D16-100	4	16.0	1.0	40.0	100.0	16.0
HR4G-FD16-R2-H40-D16-100	4	16.0	2.0	40.0	100.0	16.0
HR4G-FD16-R3-H40-D16-100	4	16.0	3.0	40.0	100.0	16.0
HR4G-FD18-R1-H45-D18-100	4	18.0	1.0	45.0	100.0	18.0
HR4G-FD18-R2-H45-D18-100	4	18.0	2.0	45.0	100.0	18.0
HR4G-FD18-R3-H45-D18-100	4	18.0	3.0	45.0	100.0	18.0
HR4G-FD20-R1-H50-D20-100	4	20.0	1.0	50.0	100.0	20.0
HR4G-FD20-R2-H50-D20-100	4	20.0	2.0	50.0	100.0	20.0
HR4G-FD20-R3-H50-D20-100	4	20.0	3.0	50.0	100.0	20.0

*接受订货 Accept order

星磐系列高硬钢铣刀
Endmills For Hard Steel

球头铣刀 Ball nose endmills

- 难加工材料独特设计
- 采用不等分螺旋槽设计，不等齿距，减轻加工时刀具的振动，有效提高刀具使用寿命及工件表面光洁度
- 特殊的切削刃口处理及周齿后刀面设计
- 适用于高温合金半精加工及精加工的整体硬质合金球刀
- 可高效率加工的4刃球头立铣刀
- 用于仿形加工
- The unique design for HRSA alloys.
- Enequal spiral groove and tooth pitch design,reduce the vibration of the tool during processing, effectively improve the tool life and the surface finish of the workpiece.
- Special cutting edge treatment and the design of the flank surface around the teeth.
- Solid carbide ball end mills for semi-finishing and finishing superalloys.
- 4-flute ball end mill for efficient machining.
- Profiling machining.







公制型 Metric Type

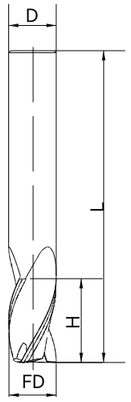
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
HB2G-FD1-R0.5-H2-D4-50	2	1.0	0.5	2.0	50.0	4.0
HB2G-FD2-R1-H4-D4-50	2	2.0	1.0	4.0	50.0	4.0
HB4G-FD3-R1.5-H6-D4-50	4	3.0	1.5	6.0	50.0	4.0
HB4G-FD4-R2-H6-D4-50	4	4.0	2.0	6.0	50.0	4.0
HB4G-FD5-R2.5-H8-D6-50	4	5.0	2.5	8.0	50.0	6.0
HB4G-FD6-R3-H9-D6-50	4	6.0	3.0	9.0	50.0	6.0
HB4G-FD7-R3.5-H12-D7-75	4	7.0	3.5	12.0	75.0	7.0
HB4G-FD8-R4-H12-D8-75	4	8.0	4.0	12.0	75.0	8.0
HB4G-FD10-R5-H15-D10-75	4	10.0	5.0	15.0	75.0	10.0
HB4G-FD12-R6-H18-D12-75	4	12.0	6.0	18.0	75.0	12.0
HB4G-FD16-R8-H24-D16-100	4	16.0	8.0	24.0	100.0	16.0
HB4G-FD20-R10-H30-D20-100	4	20.0	10.0	30.0	100.0	20.0

*接受订货 Accept order

星彩系列铝合金铣刀
Aluminium Endmills

平头铣刀 Standard endmills

- 刀具刃口高光处理，锋利的切削刃及大螺旋角设计
- 沟槽特殊设计，更好的排屑
- 刃口抗振设计，提高表面加工质量
- 应用于有色金属的切削加工
- High-gloss,sharp cutting edges and large helix angles on tool edges.
- Special design of grooves for better chip evacuation.
- Vibration resistant design of the cutting edge for improved surface finish.
- Application to non-ferrous metal cutting.





公制型 Metric Type



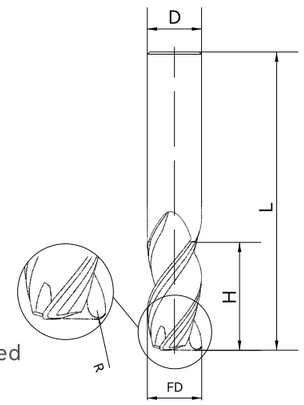
订货规格 Specification	刃数 No.of flute T	刃径 Dia of cutting edge FD	刃长 Cutting edge length H	总长 Total length L	柄径 Dia of Shank D
NE2G-FD1-H3-D4-50	2	1.0	3.0	50.0	4.0
NE2G-FD1.5-H4-D4-50	2	1.5	4.0	50.0	4.0
NE3G-FD2-H6-D4-50	3	2.0	6.0	50.0	4.0
NE3G-FD3-H9-D4-50	3	3.0	9.0	50.0	4.0
NE3G-FD4-H12-D4-50	3	4.0	12.0	50.0	4.0
NE3G-FD5-H15-D6-50	3	5.0	15.0	50.0	6.0
NE3G-FD6-H18-D6-50	3	6.0	18.0	50.0	6.0
NE3G-FD8-H24-D8-60	3	8.0	24.0	60.0	8.0
NE3G-FD10-H30-D10-75	3	10.0	30.0	75.0	10.0
NE3G-FD12-H35-D12-75	3	12.0	35.0	75.0	12.0
NE3G-FD14-H45-D14-100	3	14.0	45.0	100.0	14.0
NE3G-FD16-H45-D16-100	3	16.0	45.0	100.0	16.0
NE3G-FD18-H50-D18-100	3	18.0	50.0	100.0	18.0
NE3G-FD20-H50-D20-100	3	20.0	50.0	100.0	20.0

*接受订货 Accept order

星彩系列铝合金铣刀
Aluminium Endmills

圆角铣刀 Standard endmills with various radius

- 刀具刃口高光处理，锋利的切削刃及大螺旋角设计
- 沟槽特殊设计，更好的排屑
- 刃口抗振设计，提高表面加工质量
- 应用于有色金属的切削加工
- High-gloss,sharp cutting edges and large helix angles on tool edges.
- Special design of grooves for better chip evacuation.
- Vibration resistant design of the cutting edge for improved surface finish.
- Application to non-ferrous metal cutting.





公制型 Metric Type



订货规格 Specification	刃数 No.of flute T	刃径 Dia of cutting edge FD	刀尖圆角 Radius R	刃长 Cutting edge length H	总长 Total length L	柄径 Dia of Shank D
NR3G-FD2-R0.1-H6-D4-50	3	2.0	0.1	6.0	50.0	4.0
NR3G-FD2-R0.2-H6-D4-50	3	2.0	0.2	6.0	50.0	4.0
NR3G-FD3-R0.1-H8-D4-50	3	3.0	0.1	8.0	50.0	4.0
NR3G-FD3-R0.2-H8-D4-50	3	3.0	0.2	8.0	50.0	4.0
NR3G-FD3-R0.3-H8-D4-50	3	3.0	0.3	8.0	50.0	4.0
NR3G-FD3-R0.5-H8-D4-50	3	3.0	0.5	8.0	50.0	4.0
NR3G-FD4-R0.1-H10-D4-50	3	4.0	0.1	10.0	50.0	4.0
NR3G-FD4-R0.2-H10-D4-50	3	4.0	0.2	10.0	50.0	4.0
NR3G-FD4-R0.3-H10-D4-50	3	4.0	0.3	10.0	50.0	4.0
NR3G-FD4-R0.5-H10-D4-50	3	4.0	0.5	10.0	50.0	4.0
NR3G-FD5-R0.1-H13-D6-50	3	5.0	0.1	13.0	50.0	6.0
NR3G-FD5-R0.2-H13-D6-50	3	5.0	0.2	13.0	50.0	6.0
NR3G-FD5-R0.3-H13-D6-50	3	5.0	0.3	13.0	50.0	6.0
NR3G-FD5-R0.5-H13-D6-50	3	5.0	0.5	13.0	50.0	6.0
NR3G-FD6-R0.1-H15-D6-60	3	6.0	0.1	15.0	60.0	6.0
NR3G-FD6-R0.2-H15-D6-60	3	6.0	0.2	15.0	60.0	6.0

星彩系列铝合金铣刀
Aluminium Endmills

圆角铣刀 Standard endmills with various radius

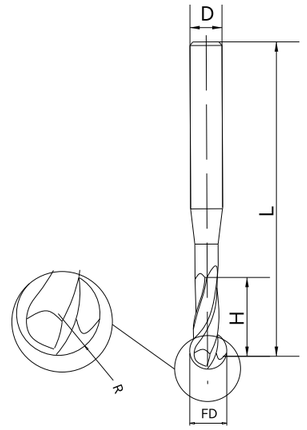
订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
NR3G-FD6-R0.3-H15-D6-60	3	6.0	0.3	15.0	60.0	6.0
NR3G-FD6-R0.5-H15-D6-60	3	6.0	0.5	15.0	60.0	6.0
NR3G-FD8-R0.5-H20-D8-60	3	8.0	0.5	20.0	60.0	8.0
NR3G-FD8-R1-H20-D8-60	3	8.0	1.0	20.0	60.0	8.0
NR3G-FD8-R2-H20-D8-60	3	8.0	2.0	20.0	60.0	8.0
NR3G-FD10-R0.5-H25-D10-75	3	10.0	0.5	25.0	75.0	10.0
NR3G-FD10-R1-H25-D10-75	3	10.0	1.0	25.0	75.0	10.0
NR3G-FD10-R2-H25-D10-75	3	10.0	2.0	25.0	75.0	10.0
NR3G-FD12-R0.5-H30-D12-75	3	12.0	0.5	30.0	75.0	12.0
NR3G-FD12-R1-H30-D12-75	3	12.0	1.0	30.0	75.0	12.0
NR3G-FD12-R2-H30-D12-75	3	12.0	2.0	30.0	75.0	12.0
NR3G-FD14-R1-H35-D14-100	3	14.0	1.0	35.0	100.0	14.0
NR3G-FD14-R2-H35-D14-100	3	14.0	2.0	35.0	100.0	14.0
NR3G-FD14-R3-H35-D14-100	3	14.0	3.0	35.0	100.0	14.0
NR3G-FD16-R1-H40-D16-100	3	16.0	1.0	40.0	100.0	16.0
NR3G-FD16-R2-H40-D16-100	3	16.0	2.0	40.0	100.0	16.0
NR3G-FD16-R3-H40-D16-100	3	16.0	3.0	40.0	100.0	16.0
NR3G-FD18-R1-H45-D18-100	3	18.0	1.0	45.0	100.0	18.0
NR3G-FD18-R2-H45-D18-100	3	18.0	2.0	45.0	100.0	18.0
NR3G-FD18-R3-H45-D18-100	3	18.0	3.0	45.0	100.0	18.0
NR3G-FD20-R1-H50-D20-100	3	20.0	1.0	50.0	100.0	20.0
NR3G-FD20-R2-H50-D20-100	3	20.0	2.0	50.0	100.0	20.0
NR3G-FD20-R3-H50-D20-100	3	20.0	3.0	50.0	100.0	20.0

*接受订货 Accept order

星彩系列铝合金铣刀
Aluminium Endmills

球头铣刀 Ball nose endmills

- 刀具刃口高光处理，锋利的切削刃及大螺旋角设计
- 用于仿形加工
- 刃口抗振设计，提高表面加工质量
- 应用于有色金属的切削加工
- High-gloss,sharp cutting edges and large helix angles on the tool edge.
- Vibration resistant design of the cutting edge for improved surface finish.
- Applications in non-ferrous metal cutting.
- For profiling.





公制型 Metric Type



订货规格	刃数	刃径	刀尖圆角	刃长	总长	柄径
Specification	No.of flute	Dia of cutting edge	Radius	Cutting edge length	Total length	Dia of Shank
	T	FD	R	H	L	D
NB2G-FD1-R0.5-H2-D4-50	2	1.0	0.5	2.0	50.0	4.0
NB2G-FD2-R1-H4-D4-50	2	2.0	1.0	4.0	50.0	4.0
NB2G-FD3-R1.5-H6-D4-50	2	3.0	1.5	6.0	50.0	4.0
NB2G-FD4-R2-H8-D4-50	2	4.0	2.0	8.0	50.0	4.0
NB2G-FD5-R2.5-H10-D6-50	2	5.0	2.5	10.0	50.0	6.0
NB2G-FD6-R3-H12-D6-50	2	6.0	3.0	12.0	50.0	6.0
NB2G-FD8-R4-H16-D8-75	2	8.0	4.0	16.0	75.0	8.0
NB2G-FD10-R5-H20-D10-75	2	10.0	5.0	20.0	75.0	10.0
NB2G-FD12-R6-H24-D12-75	2	12.0	6.0	24.0	75.0	12.0
NB2G-FD16-R8-H32-D16-100	2	16.0	8.0	32.0	100.0	16.0
NB2G-FD20-R10-H40-D20-100	2	20.0	10.0	40.0	100.0	20.0

*接受订货 Accept order

硬质合金钻头命名规则

Code key for solid carbide endmills

- **整体硬质合金钻头的型号表示规则用9组代号表示铣刀的尺寸及其它特性。见示例 1 。**
  The code key for solid carbide milling cutters use 9 groups of codes to indicate the size and other characteristics of the endmills. Check Example 1 for details.

示例 1： 一般表示规则
示列：TD2E-A118-FD4-H8-D6-50

Example 1:General rules
Example:TD2E-A118-FD4-H8-D6-50

T	D	2	E	A118	FD4	H8	D6	50
①	②	③	④	⑤	⑥	⑦	⑧	⑨

- **型号表示规则中各代号表示如下：**
  The code key in the model indication rules are expressed as follows:

① 所对应代号表示————————加工用途
The corresponding code representation————————Processing purposes

T	P	N	M	H	I	G	W
General purpose	Steel	Non-ferrous metals	Stainless steel	Hardened steel	Titanium alloys	High-temperature alloys	HRSA
						Non-metallic materials	

② 所对应代号表示————————钻头类型
The corresponding code representation————————Drill Type

A	D
Center drill	Drill

③ 所对应代号表示————————钻头刃数
The corresponding code representation————————Number of flutes

1	2	3
1 flutes	2 flutes	3 flutes

④ 所对应代号表示————————钻头特征
The corresponding code representation————————Tool Features

G	R	F
General	General	Finishing

⑤ 所对应代号表示————————钻尖角度
The corresponding code representation————————Drill point angle

A118	Drill point angle 118°
A135	Drill point angle 135°
.....	.....

⑥ 所对应代号表示————————钻尖直径
Corresponding code representation--Dia of cutting edge

⑦ 所对应代号表示————————刻背长度（刃长）
The corresponding code representation--Groove length

⑧ 所对应代号表示————————柄部直径。
The corresponding code representation--Dia of shank

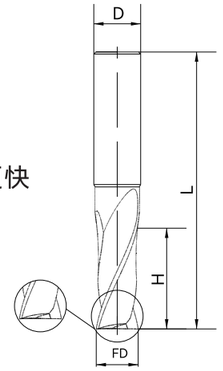
⑨ 所对应代号表示————————钻头总长。
The corresponding code representation--Total length



硬质合金钻头
Solid Carbide Drill

平底钻 Drills for flat bottom hole

- 钢件平底孔通用型设计
- 双重刀刃样式设计，加工时减少产品毛刺
- 特殊的槽型背宽设计，在增强刀具刚性与抗震性的同时让排屑更快
- 应用于钢，不锈钢，铸铁，淬硬材料浅孔钻削
- Universal design of the drill for flat bottom hole.
- Designed with dual cutting edges to reduce fur during machining.
- Special groove back width design enhances the rigidity and vibration resistance ofthe cutting tool while allowing for faster chip removal.
- Applied to shallow hole drilling of steel, stainless steel, cast iron,and hardened materials



公制型 Metric Type

订货规格 Specification	刃数 No.offlute T	刃径 Diaofcuttingedge FD	钻尖角 point angle	刃长 Groove length H	总长 Total length L	柄径 DiaofShank D
TD2E-A180-FD3-H12-D4-50	2	3.0	180.0	12.0	50.0	4.0
TD2E-A180-FD3.5-H12-D4-50	2	3.5	180.0	12.0	50.0	4.0
TD2E-A180-FD4-H12-D4-50	2	4.0	180.0	12.0	50.0	4.0
TD2E-A180-FD4.5-H16-D6-65	2	4.5	180.0	16.0	65.0	6.0
TD2E-A180-FD5-H16-D6-65	2	5.0	180.0	16.0	65.0	6.0
TD2E-A180-FD5.5-H22-D6-65	2	5.5	180.0	22.0	65.0	6.0
TD2E-A180-FD6-H22-D6-65	2	6.0	180.0	22.0	65.0	6.0
TD2E-A180-FD6.5-H25-D8-65	2	6.5	180.0	25.0	65.0	8.0
TD2E-A180-FD7-H25-D8-65	2	7.0	180.0	25.0	65.0	8.0
TD2E-A180-FD7.5-H30-D8-65	2	7.5	180.0	30.0	75.0	8.0
TD2E-A180-FD8-H35-D8-75	2	8.0	180.0	30.0	75.0	8.0
TD2E-A180-FD8.5-H35-D10-85	2	8.5	180.0	35.0	85.0	10.0
TD2E-A180-FD9-H35-D10-85	2	9.0	180.0	35.0	85.0	10.0
TD2E-A180-FD9.5-H38-D10-85	2	9.5	180.0	38.0	85.0	10.0
TD2E-A180-FD10-H38-D10-85	2	10.0	180.0	38.0	85.0	10.0
TD2E-A180-FD10.5-H42-D12-95	2	10.5	180.0	42.0	95.0	12.0
TD2E-A180-FD11-H42-D12-95	2	11.0	180.0	42.0	95.0	12.0
TD2E-A180-FD11.5-H46-D12-95	2	11.5	180.0	46.0	95.0	12.0
TD2E-A180-FD12-H46-D12-95	2	12.0	180.0	46.0	95.0	12.0

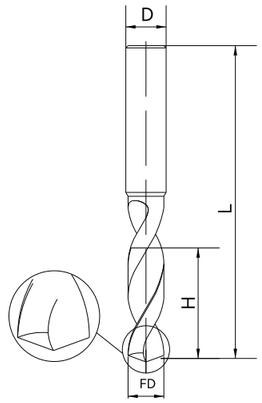
*接受订货 Accept order

硬质合金钻头
Solid Carbide Drill

钢用硬质合金钻 Drills for steel

- 钢件孔加工通用型设计
- 用于多个行业的多种工件孔加工应用
- Universal design for hole machining of steel.
- Applications for multiple workpiece hole processing for multiple industries.





公制型 Metric Type

订货规格 Specification	刃数 No.offlute T	刃径 Diaofcuttingedge FD	钻尖角 point angle	刃长 Groove length H	总长 Total length L	柄径 DiaofShank D
TD2E-A140-FD3.0-H20-D6-62	2	3.0	140.0	20.0	62.0	6.0
TD2E-A140-FD3.1-H20-D6-62	2	3.1	140.0	20.0	62.0	6.0
TD2E-A140-FD3.2-H20-D6-62	2	3.2	140.0	20.0	62.0	6.0
TD2E-A140-FD3.3-H20-D6-62	2	3.3	140.0	20.0	62.0	6.0
TD2E-A140-FD3.4-H20-D6-62	2	3.4	140.0	20.0	62.0	6.0
TD2E-A140-FD3.5-H20-D6-62	2	3.5	140.0	20.0	62.0	6.0
TD2E-A140-FD3.6-H20-D6-62	2	3.6	140.0	20.0	62.0	6.0
TD2E-A140-FD3.7-H20-D6-62	2	3.7	140.0	20.0	62.0	6.0
TD2E-A140-FD3.8-H24-D6-66	2	3.8	140.0	24.0	66.0	6.0
TD2E-A140-FD3.9-H24-D6-66	2	3.9	140.0	24.0	66.0	6.0
TD2E-A140-FD4.0-H24-D6-66	2	4.0	140.0	24.0	66.0	6.0
TD2E-A140-FD4.1-H24-D6-66	2	4.1	140.0	24.0	66.0	6.0
TD2E-A140-FD4.2-H24-D6-66	2	4.2	140.0	24.0	66.0	6.0
TD2E-A140-FD4.3-H24-D6-66	2	4.3	140.0	24.0	66.0	6.0
TD2E-A140-FD4.4-H24-D6-66	2	4.4	140.0	24.0	66.0	6.0

订货规格	刃数	刃径	钻尖角	刃长	总长	柄径
Specification	No.offlute	Diaofcuttingedge	point angle	Groove length	Total length	DiaofShank
	T	FD		H	L	D
TD2E-A140-FD4.5-H24-D6-66	2	4.5	140.0	24.0	66.0	6.0
TD2E-A140-FD4.6-H24-D6-66	2	4.6	140.0	24.0	66.0	6.0
TD2E-A140-FD4.7-H28-D6-66	2	4.7	140.0	28.0	66.0	6.0
TD2E-A140-FD4.8-H28-D6-66	2	4.8	140.0	28.0	66.0	6.0
TD2E-A140-FD4.9-H28-D6-66	2	4.9	140.0	28.0	66.0	6.0
TD2E-A140-FD5.0-H28-D6-66	2	5.0	140.0	28.0	66.0	6.0
TD2E-A140-FD5.1-H28-D6-66	2	5.1	140.0	28.0	66.0	6.0
TD2E-A140-FD5.2-H28-D6-66	2	5.2	140.0	28.0	66.0	6.0
TD2E-A140-FD5.3-H28-D6-66	2	5.3	140.0	28.0	66.0	6.0
TD2E-A140-FD5.4-H28-D6-66	2	5.4	140.0	28.0	66.0	6.0
TD2E-A140-FD5.5-H28-D6-66	2	5.5	140.0	28.0	66.0	6.0
TD2E-A140-FD5.6-H28-D6-66	2	5.6	140.0	28.0	66.0	6.0
TD2E-A140-FD5.7-H28-D6-66	2	5.7	140.0	28.0	66.0	6.0
TD2E-A140-FD5.8-H28-D6-66	2	5.8	140.0	28.0	66.0	6.0
TD2E-A140-FD5.9-H28-D6-66	2	5.9	140.0	28.0	66.0	6.0
TD2E-A140-FD6.0-H28-D6-66	2	6.0	140.0	28.0	66.0	6.0
TD2E-A140-FD6.1-H34-D8-79	2	6.1	140.0	34.0	79.0	8.0
TD2E-A140-FD6.2-H34-D8-79	2	6.2	140.0	34.0	79.0	8.0
TD2E-A140-FD6.3-H34-D8-79	2	6.3	140.0	34.0	79.0	8.0
TD2E-A140-FD6.4-H34-D8-79	2	6.4	140.0	34.0	79.0	8.0
TD2E-A140-FD6.5-H34-D8-79	2	6.5	140.0	34.0	79.0	8.0
TD2E-A140-FD6.6-H34-D8-79	2	6.6	140.0	34.0	79.0	8.0
TD2E-A140-FD6.7-H34-D8-79	2	6.7	140.0	34.0	79.0	8.0
TD2E-A140-FD6.8-H34-D8-79	2	6.8	140.0	34.0	79.0	8.0
TD2E-A140-FD6.9-H34-D8-79	2	6.9	140.0	34.0	79.0	8.0
TD2E-A140-FD7.0-H34-D8-79	2	7.0	140.0	34.0	79.0	8.0
TD2E-A140-FD7.1-H41-D8-79	2	7.1	140.0	41.0	79.0	8.0
TD2E-A140-FD7.2-H41-D8-79	2	7.2	140.0	41.0	79.0	8.0
TD2E-A140-FD7.3-H41-D8-79	2	7.3	140.0	41.0	79.0	8.0
TD2E-A140-FD7.4-H41-D8-79	2	7.4	140.0	41.0	79.0	8.0
TD2E-A140-FD7.5-H41-D8-79	2	7.5	140.0	41.0	79.0	8.0
TD2E-A140-FD7.6-H41-D8-79	2	7.6	140.0	41.0	79.0	8.0
TD2E-A140-FD7.7-H41-D8-79	2	7.7	140.0	41.0	79.0	8.0
TD2E-A140-FD7.8-H41-D8-79	2	7.8	140.0	41.0	79.0	8.0
TD2E-A140-FD7.9-H41-D8-79	2	7.9	140.0	41.0	79.0	8.0
TD2E-A140-FD8.0-H41-D8-79	2	8.0	140.0	41.0	79.0	8.0
TD2E-A140-FD8.1-H47-D10-89	2	8.1	140.0	47.0	89.0	10.0
TD2E-A140-FD8.2-H47-D10-89	2	8.2	140.0	47.0	89.0	10.0

订货规格	刃数	刃径	钻尖角	刃长	总长	柄径
Specification	No.offlute	Diaofcuttingedge	point angle	Groove length	Total length	DiaofShank
	T	FD		H	L	D
TD2E-A140-FD8.3-H47-D10-89	2	8.3	140.0	47.0	89.0	10.0
TD2E-A140-FD8.4-H47-D10-89	2	8.4	140.0	47.0	89.0	10.0
TD2E-A140-FD8.5-H47-D10-89	2	8.5	140.0	47.0	89.0	10.0
TD2E-A140-FD8.6-H47-D10-89	2	8.6	140.0	47.0	89.0	10.0
TD2E-A140-FD8.7-H47-D10-89	2	8.7	140.0	47.0	89.0	10.0
TD2E-A140-FD8.8-H47-D10-89	2	8.8	140.0	47.0	89.0	10.0
TD2E-A140-FD8.9-H47-D10-89	2	8.9	140.0	47.0	89.0	10.0
TD2E-A140-FD9.0-H47-D10-89	2	9.0	140.0	47.0	89.0	10.0
TD2E-A140-FD9.1-H47-D10-89	2	9.1	140.0	47.0	89.0	10.0
TD2E-A140-FD9.2-H47-D10-89	2	9.2	140.0	47.0	89.0	10.0
TD2E-A140-FD9.3-H47-D10-89	2	9.3	140.0	47.0	89.0	10.0
TD2E-A140-FD9.4-H47-D10-89	2	9.4	140.0	47.0	89.0	10.0
TD2E-A140-FD9.5-H47-D10-89	2	9.5	140.0	47.0	89.0	10.0
TD2E-A140-FD9.6-H47-D10-89	2	9.6	140.0	47.0	89.0	10.0
TD2E-A140-FD9.7-H47-D10-89	2	9.7	140.0	47.0	89.0	10.0
TD2E-A140-FD9.8-H47-D10-89	2	9.8	140.0	47.0	89.0	10.0
TD2E-A140-FD9.9-H47-D10-89	2	9.9	140.0	47.0	89.0	10.0
TD2E-A140-FD10.0-H47-D10-89	2	10.0	140.0	47.0	89.0	10.0
TD2E-A140-FD10.1-H55-D12-102	2	10.1	140.0	55.0	102.0	12.0
TD2E-A140-FD10.2-H55-D12-102	2	10.2	140.0	55.0	102.0	12.0
TD2E-A140-FD10.3-H55-D12-102	2	10.3	140.0	55.0	102.0	12.0
TD2E-A140-FD10.4-H55-D12-102	2	10.4	140.0	55.0	102.0	12.0
TD2E-A140-FD10.5-H55-D12-102	2	10.5	140.0	55.0	102.0	12.0
TD2E-A140-FD10.6-H55-D12-102	2	10.6	140.0	55.0	102.0	12.0
TD2E-A140-FD10.7-H55-D12-102	2	10.7	140.0	55.0	102.0	12.0
TD2E-A140-FD10.8-H55-D12-102	2	10.8	140.0	55.0	102.0	12.0
TD2E-A140-FD10.9-H55-D12-102	2	10.9	140.0	55.0	102.0	12.0
TD2E-A140-FD11.0-H55-D12-102	2	11.0	140.0	55.0	102.0	12.0
TD2E-A140-FD11.1-H55-D12-102	2	11.1	140.0	55.0	102.0	12.0
TD2E-A140-FD11.2-H55-D12-102	2	11.2	140.0	55.0	102.0	12.0
TD2E-A140-FD11.3-H55-D12-102	2	11.3	140.0	55.0	102.0	12.0
TD2E-A140-FD11.4-H55-D12-102	2	11.4	140.0	55.0	102.0	12.0
TD2E-A140-FD11.5-H55-D12-102	2	11.5	140.0	55.0	102.0	12.0
TD2E-A140-FD11.6-H55-D12-102	2	11.6	140.0	55.0	102.0	12.0
TD2E-A140-FD11.7-H55-D12-102	2	11.7	140.0	55.0	102.0	12.0
TD2E-A140-FD11.8-H55-D12-102	2	11.8	140.0	55.0	102.0	12.0
TD2E-A140-FD11.9-H55-D12-102	2	11.9	140.0	55.0	102.0	12.0
TD2E-A140-FD12.0-H55-D12-102	2	12.0	140.0	55.0	102.0	12.0

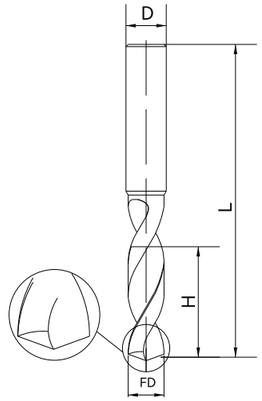
*接受订货 Accept order

硬质合金钻头
Solid carbide drill

不锈钢硬质合金钻 Drills for stainless steel

- 不锈钢系列工件孔加工通用型设计
- 用于多个行业的多种工件孔加工应用
- Universal design for hole machining of stainless steel.
- Applications for multiple workpiece hole processing for multiple industries.





公制型 Metric Type

订货规格 Specification	刃数 No.offlute	刃径 Diaofcuttingedge	钻尖角 point angle	刃长 Groove length	总长 Total length	柄径 DiaofShank
	T	FD		H	L	D
TD2E-A140-FD3.0-H20-D6-62	2	3.0	140.0	20.0	62.0	6.0
TD2E-A140-FD3.1-H20-D6-62	2	3.1	140.0	20.0	62.0	6.0
TD2E-A140-FD3.2-H20-D6-62	2	3.2	140.0	20.0	62.0	6.0
TD2E-A140-FD3.3-H20-D6-62	2	3.3	140.0	20.0	62.0	6.0
TD2E-A140-FD3.4-H20-D6-62	2	3.4	140.0	20.0	62.0	6.0
TD2E-A140-FD3.5-H20-D6-62	2	3.5	140.0	20.0	62.0	6.0
TD2E-A140-FD3.6-H20-D6-62	2	3.6	140.0	20.0	62.0	6.0
TD2E-A140-FD3.7-H20-D6-62	2	3.7	140.0	20.0	62.0	6.0
TD2E-A140-FD3.8-H24-D6-66	2	3.8	140.0	24.0	66.0	6.0
TD2E-A140-FD3.9-H24-D6-66	2	3.9	140.0	24.0	66.0	6.0
TD2E-A140-FD4.0-H24-D6-66	2	4.0	140.0	24.0	66.0	6.0
TD2E-A140-FD4.1-H24-D6-66	2	4.1	140.0	24.0	66.0	6.0
TD2E-A140-FD4.2-H24-D6-66	2	4.2	140.0	24.0	66.0	6.0
TD2E-A140-FD4.3-H24-D6-66	2	4.3	140.0	24.0	66.0	6.0
TD2E-A140-FD4.4-H24-D6-66	2	4.4	140.0	24.0	66.0	6.0
TD2E-A140-FD4.5-H24-D6-66	2	4.5	140.0	24.0	66.0	6.0
TD2E-A140-FD4.6-H24-D6-66	2	4.6	140.0	24.0	66.0	6.0
TD2E-A140-FD4.7-H28-D6-66	2	4.7	140.0	28.0	66.0	6.0
TD2E-A140-FD4.8-H28-D6-66	2	4.8	140.0	28.0	66.0	6.0

订货规格 Specification	刃数 No.offlute	刃径 Diaofcuttingedge	钻尖角 point angle	刃长 Groove length	总长 Total length	柄径 DiaofShank
	T	FD		H	L	D
MD2E-A140-FD4.9-H28-D6-66	2	4.9	140.0	28.0	66.0	6.0
MD2E-A140-FD5.0-H28-D6-66	2	5.0	140.0	28.0	66.0	6.0
MD2E-A140-FD5.1-H28-D6-66	2	5.1	140.0	28.0	66.0	6.0
MD2E-A140-FD5.2-H28-D6-66	2	5.2	140.0	28.0	66.0	6.0
MD2E-A140-FD5.3-H28-D6-66	2	5.3	140.0	28.0	66.0	6.0
MD2E-A140-FD5.4-H28-D6-66	2	5.4	140.0	28.0	66.0	6.0
MD2E-A140-FD5.5-H28-D6-66	2	5.5	140.0	28.0	66.0	6.0
MD2E-A140-FD5.6-H28-D6-66	2	5.6	140.0	28.0	66.0	6.0
MD2E-A140-FD5.7-H28-D6-66	2	5.7	140.0	28.0	66.0	6.0
MD2E-A140-FD5.8-H28-D6-66	2	5.8	140.0	28.0	66.0	6.0
MD2E-A140-FD5.9-H28-D6-66	2	5.9	140.0	28.0	66.0	6.0
MD2E-A140-FD6.0-H28-D6-66	2	6.0	140.0	28.0	66.0	6.0
MD2E-A140-FD6.1-H34-D8-79	2	6.1	140.0	34.0	79.0	8.0
MD2E-A140-FD6.2-H34-D8-79	2	6.2	140.0	34.0	79.0	8.0
MD2E-A140-FD6.3-H34-D8-79	2	6.3	140.0	34.0	79.0	8.0
MD2E-A140-FD6.4-H34-D8-79	2	6.4	140.0	34.0	79.0	8.0
MD2E-A140-FD6.5-H34-D8-79	2	6.5	140.0	34.0	79.0	8.0
MD2E-A140-FD6.6-H34-D8-79	2	6.6	140.0	34.0	79.0	8.0
MD2E-A140-FD6.7-H34-D8-79	2	6.7	140.0	34.0	79.0	8.0
MD2E-A140-FD6.8-H34-D8-79	2	6.8	140.0	34.0	79.0	8.0
MD2E-A140-FD6.9-H34-D8-79	2	6.9	140.0	34.0	79.0	8.0
MD2E-A140-FD7.0-H34-D8-79	2	7.0	140.0	34.0	79.0	8.0
MD2E-A140-FD7.1-H41-D8-79	2	7.1	140.0	41.0	79.0	8.0
MD2E-A140-FD7.2-H41-D8-79	2	7.2	140.0	41.0	79.0	8.0
MD2E-A140-FD7.3-H41-D8-79	2	7.3	140.0	41.0	79.0	8.0
MD2E-A140-FD7.4-H41-D8-79	2	7.4	140.0	41.0	79.0	8.0
MD2E-A140-FD7.5-H41-D8-79	2	7.5	140.0	41.0	79.0	8.0
MD2E-A140-FD7.6-H41-D8-79	2	7.6	140.0	41.0	79.0	8.0
MD2E-A140-FD7.7-H41-D8-79	2	7.7	140.0	41.0	79.0	8.0
MD2E-A140-FD7.8-H41-D8-79	2	7.8	140.0	41.0	79.0	8.0
MD2E-A140-FD7.9-H41-D8-79	2	7.9	140.0	41.0	79.0	8.0
MD2E-A140-FD8.0-H41-D8-79	2	8.0	140.0	41.0	79.0	8.0
MD2E-A140-FD8.1-H47-D10-89	2	8.1	140.0	47.0	89.0	10.0
MD2E-A140-FD8.2-H47-D10-89	2	8.2	140.0	47.0	89.0	10.0
MD2E-A140-FD8.3-H47-D10-89	2	8.3	140.0	47.0	89.0	10.0
MD2E-A140-FD8.4-H47-D10-89	2	8.4	140.0	47.0	89.0	10.0
MD2E-A140-FD8.5-H47-D10-89	2	8.5	140.0	47.0	89.0	10.0

订货规格	刃数	刃径	钻尖角	刃长	总长	柄径
Specification	No.offlute	Diaofcuttingedge	point angle	Groove length	Total length	DiaofShank
	T	FD		H	L	D
MD2E-A140-FD8.6-H47-D10-89	2	8.6	140.0	47.0	89.0	10.0
MD2E-A140-FD8.7-H47-D10-89	2	8.7	140.0	47.0	89.0	10.0
MD2E-A140-FD8.8-H47-D10-89	2	8.8	140.0	47.0	89.0	10.0
MD2E-A140-FD8.9-H47-D10-89	2	8.9	140.0	47.0	89.0	10.0
MD2E-A140-FD9.0-H47-D10-89	2	9.0	140.0	47.0	89.0	10.0
MD2E-A140-FD9.1-H47-D10-89	2	9.1	140.0	47.0	89.0	10.0
MD2E-A140-FD9.2-H47-D10-89	2	9.2	140.0	47.0	89.0	10.0
MD2E-A140-FD9.3-H47-D10-89	2	9.3	140.0	47.0	89.0	10.0
MD2E-A140-FD9.4-H47-D10-89	2	9.4	140.0	47.0	89.0	10.0
MD2E-A140-FD9.5-H47-D10-89	2	9.5	140.0	47.0	89.0	10.0
MD2E-A140-FD9.6-H47-D10-89	2	9.6	140.0	47.0	89.0	10.0
MD2E-A140-FD9.7-H47-D10-89	2	9.7	140.0	47.0	89.0	10.0
MD2E-A140-FD9.8-H47-D10-89	2	9.8	140.0	47.0	89.0	10.0
MD2E-A140-FD9.9-H47-D10-89	2	9.9	140.0	47.0	89.0	10.0
MD2E-A140-FD10.0-H47-D10-89	2	10.0	140.0	47.0	89.0	10.0
MD2E-A140-FD10.1-H55-D12-102	2	10.1	140.0	55.0	102.0	12.0
MD2E-A140-FD10.2-H55-D12-102	2	10.2	140.0	55.0	102.0	12.0
MD2E-A140-FD10.3-H55-D12-102	2	10.3	140.0	55.0	102.0	12.0
MD2E-A140-FD10.4-H55-D12-102	2	10.4	140.0	55.0	102.0	12.0
MD2E-A140-FD10.5-H55-D12-102	2	10.5	140.0	55.0	102.0	12.0
MD2E-A140-FD10.6-H55-D12-102	2	10.6	140.0	55.0	102.0	12.0
MD2E-A140-FD10.7-H55-D12-102	2	10.7	140.0	55.0	102.0	12.0
MD2E-A140-FD10.8-H55-D12-102	2	10.8	140.0	55.0	102.0	12.0
MD2E-A140-FD10.9-H55-D12-102	2	10.9	140.0	55.0	102.0	12.0
MD2E-A140-FD11.0-H55-D12-102	2	11.0	140.0	55.0	102.0	12.0
MD2E-A140-FD11.1-H55-D12-102	2	11.1	140.0	55.0	102.0	12.0
MD2E-A140-FD11.2-H55-D12-102	2	11.2	140.0	55.0	102.0	12.0
MD2E-A140-FD11.3-H55-D12-102	2	11.3	140.0	55.0	102.0	12.0
MD2E-A140-FD11.4-H55-D12-102	2	11.4	140.0	55.0	102.0	12.0
MD2E-A140-FD11.5-H55-D12-102	2	11.5	140.0	55.0	102.0	12.0
MD2E-A140-FD11.6-H55-D12-102	2	11.6	140.0	55.0	102.0	12.0
MD2E-A140-FD11.7-H55-D12-102	2	11.7	140.0	55.0	102.0	12.0
MD2E-A140-FD11.8-H55-D12-102	2	11.8	140.0	55.0	102.0	12.0
MD2E-A140-FD11.9-H55-D12-102	2	11.9	140.0	55.0	102.0	12.0
MD2E-A140-FD12.0-H55-D12-102	2	12.0	140.0	55.0	102.0	12.0

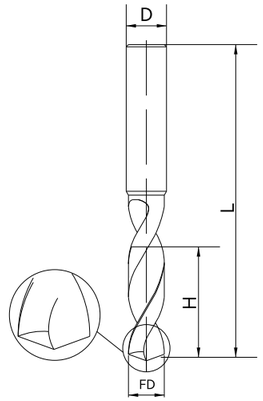
*接受订货 Accept order

硬质合金钻头
Solid carbide drill

铝用硬质合金钻 Drills for aluminium

- 有色金属孔加工通用型设计
- 用于多个行业的多种工件孔加工应用
- General design for hole processing of non-ferrous metals.
- Applicate to different kinds of hole processing in various industries.





公制型 Metric Type

订货规格	刃数	刃径	钻尖角	刃长	总长	柄径
Specification	No.offlute	Diaofcuttingedge	point angle	Groove length	Total length	DiaofShank
	T	FD		H	L	D
ND2E-A118-FD3.0-H20-D6-62	2	3.0	118.0	20.0	62.0	6.0
ND2E-A118-FD3.1-H20-D6-62	2	3.1	118.0	20.0	62.0	6.0
ND2E-A118-FD3.2-H20-D6-62	2	3.2	118.0	20.0	62.0	6.0
ND2E-A118-FD3.3-H20-D6-62	2	3.3	118.0	20.0	62.0	6.0
ND2E-A118-FD3.4-H20-D6-62	2	3.4	118.0	20.0	62.0	6.0
ND2E-A118-FD3.5-H20-D6-62	2	3.5	118.0	20.0	62.0	6.0
ND2E-A118-FD3.6-H20-D6-62	2	3.6	118.0	20.0	62.0	6.0
ND2E-A118-FD3.7-H20-D6-62	2	3.7	118.0	20.0	62.0	6.0
ND2E-A118-FD3.8-H24-D6-66	2	3.8	118.0	24.0	66.0	6.0
ND2E-A118-FD3.9-H24-D6-66	2	3.9	118.0	24.0	66.0	6.0
ND2E-A118-FD4.0-H24-D6-66	2	4.0	118.0	24.0	66.0	6.0
ND2E-A118-FD4.1-H24-D6-66	2	4.1	118.0	24.0	66.0	6.0
ND2E-A118-FD4.2-H24-D6-66	2	4.2	118.0	24.0	66.0	6.0
ND2E-A118-FD4.3-H24-D6-66	2	4.3	118.0	24.0	66.0	6.0
ND2E-A118-FD4.4-H24-D6-66	2	4.4	118.0	24.0	66.0	6.0
ND2E-A118-FD4.5-H24-D6-66	2	4.5	118.0	24.0	66.0	6.0
ND2E-A118-FD4.6-H24-D6-66	2	4.6	118.0	24.0	66.0	6.0
ND2E-A118-FD4.7-H28-D6-66	2	4.7	118.0	28.0	66.0	6.0
ND2E-A118-FD4.8-H28-D6-66	2	4.8	118.0	28.0	66.0	6.0

订货规格	刃数	刃径	钻尖角	刃长	总长	柄径
Specification	No.offlute	Diaofcuttingedge	point angle	Groove length	Total length	DiaofShank
	T	FD		H	L	D
ND2E-A118-FD4.9-H28-D6-66	2	4.9	118.0	28.0	66.0	6.0
ND2E-A118-FD5.0-H28-D6-66	2	5.0	118.0	28.0	66.0	6.0
ND2E-A118-FD5.1-H28-D6-66	2	5.1	118.0	28.0	66.0	6.0
ND2E-A118-FD5.2-H28-D6-66	2	5.2	118.0	28.0	66.0	6.0
ND2E-A118-FD5.3-H28-D6-66	2	5.3	118.0	28.0	66.0	6.0
ND2E-A118-FD5.4-H28-D6-66	2	5.4	118.0	28.0	66.0	6.0
ND2E-A118-FD5.5-H28-D6-66	2	5.5	118.0	28.0	66.0	6.0
ND2E-A118-FD5.6-H28-D6-66	2	5.6	118.0	28.0	66.0	6.0
ND2E-A118-FD5.7-H28-D6-66	2	5.7	118.0	28.0	66.0	6.0
ND2E-A118-FD5.8-H28-D6-66	2	5.8	118.0	28.0	66.0	6.0
ND2E-A118-FD5.9-H28-D6-66	2	5.9	118.0	28.0	66.0	6.0
ND2E-A118-FD6.0-H28-D6-66	2	6.0	118.0	28.0	66.0	6.0
ND2E-A118-FD6.1-H34-D8-79	2	6.1	118.0	34.0	79.0	8.0
ND2E-A118-FD6.2-H34-D8-79	2	6.2	118.0	34.0	79.0	8.0
ND2E-A118-FD6.3-H34-D8-79	2	6.3	118.0	34.0	79.0	8.0
ND2E-A118-FD6.4-H34-D8-79	2	6.4	118.0	34.0	79.0	8.0
ND2E-A118-FD6.5-H34-D8-79	2	6.5	118.0	34.0	79.0	8.0
ND2E-A118-FD6.6-H34-D8-79	2	6.6	118.0	34.0	79.0	8.0
ND2E-A118-FD6.7-H34-D8-79	2	6.7	118.0	34.0	79.0	8.0
ND2E-A118-FD6.8-H34-D8-79	2	6.8	118.0	34.0	79.0	8.0
ND2E-A118-FD6.9-H34-D8-79	2	6.9	118.0	34.0	79.0	8.0
ND2E-A118-FD7.0-H34-D8-79	2	7.0	118.0	34.0	79.0	8.0
ND2E-A118-FD7.1-H41-D8-79	2	7.1	118.0	41.0	79.0	8.0
ND2E-A118-FD7.2-H41-D8-79	2	7.2	118.0	41.0	79.0	8.0
ND2E-A118-FD7.3-H41-D8-79	2	7.3	118.0	41.0	79.0	8.0
ND2E-A118-FD7.4-H41-D8-79	2	7.4	118.0	41.0	79.0	8.0
ND2E-A118-FD7.5-H41-D8-79	2	7.5	118.0	41.0	79.0	8.0
ND2E-A118-FD7.6-H41-D8-79	2	7.6	118.0	41.0	79.0	8.0
ND2E-A118-FD7.7-H41-D8-79	2	7.7	118.0	41.0	79.0	8.0
ND2E-A118-FD7.8-H41-D8-79	2	7.8	118.0	41.0	79.0	8.0
ND2E-A118-FD7.9-H41-D8-79	2	7.9	118.0	41.0	79.0	8.0
ND2E-A118-FD8.0-H41-D8-79	2	8.0	118.0	41.0	79.0	8.0
ND2E-A118-FD8.1-H47-D10-89	2	8.1	118.0	47.0	89.0	10.0
ND2E-A118-FD8.2-H47-D10-89	2	8.2	118.0	47.0	89.0	10.0
ND2E-A118-FD8.3-H47-D10-89	2	8.3	118.0	47.0	89.0	10.0
ND2E-A118-FD8.4-H47-D10-89	2	8.4	118.0	47.0	89.0	10.0
ND2E-A118-FD8.5-H47-D10-89	2	8.5	118.0	47.0	89.0	10.0

订货规格	刃数	刃径	钻尖角	刃长	总长	柄径
Specification	No.offlute	Diaofcuttingedge	point angle	Groove length	Total length	DiaofShank
	T	FD		H	L	D
ND2E-A118-FD8.6-H47-D10-89	2	8.6	118.0	47.0	89.0	10.0
ND2E-A118-FD8.7-H47-D10-89	2	8.7	118.0	47.0	89.0	10.0
ND2E-A118-FD8.8-H47-D10-89	2	8.8	118.0	47.0	89.0	10.0
ND2E-A118-FD8.9-H47-D10-89	2	8.9	118.0	47.0	89.0	10.0
ND2E-A118-FD9.0-H47-D10-89	2	9.0	118.0	47.0	89.0	10.0
ND2E-A118-FD9.1-H47-D10-89	2	9.1	118.0	47.0	89.0	10.0
ND2E-A118-FD9.2-H47-D10-89	2	9.2	118.0	47.0	89.0	10.0
ND2E-A118-FD9.3-H47-D10-89	2	9.3	118.0	47.0	89.0	10.0
ND2E-A118-FD9.4-H47-D10-89	2	9.4	118.0	47.0	89.0	10.0
ND2E-A118-FD9.5-H47-D10-89	2	9.5	118.0	47.0	89.0	10.0
ND2E-A118-FD9.6-H47-D10-89	2	9.6	118.0	47.0	89.0	10.0
ND2E-A118-FD9.7-H47-D10-89	2	9.7	118.0	47.0	89.0	10.0
ND2E-A118-FD9.8-H47-D10-89	2	9.8	118.0	47.0	89.0	10.0
ND2E-A118-FD9.9-H47-D10-89	2	9.9	118.0	47.0	89.0	10.0
ND2E-A118-FD10.0-H47-D10-89	2	10.0	118.0	47.0	89.0	10.0
ND2E-A118-FD10.1-H55-D12-102	2	10.1	118.0	55.0	102.0	12.0
ND2E-A118-FD10.2-H55-D12-102	2	10.2	118.0	55.0	102.0	12.0
ND2E-A118-FD10.3-H55-D12-102	2	10.3	118.0	55.0	102.0	12.0
ND2E-A118-FD10.4-H55-D12-102	2	10.4	118.0	55.0	102.0	12.0
ND2E-A118-FD10.5-H55-D12-102	2	10.5	118.0	55.0	102.0	12.0
ND2E-A118-FD10.6-H55-D12-102	2	10.6	118.0	55.0	102.0	12.0
ND2E-A118-FD10.7-H55-D12-102	2	10.7	118.0	55.0	102.0	12.0
ND2E-A118-FD10.8-H55-D12-102	2	10.8	118.0	55.0	102.0	12.0
ND2E-A118-FD10.9-H55-D12-102	2	10.9	118.0	55.0	102.0	12.0
ND2E-A118-FD11.0-H55-D12-102	2	11.0	118.0	55.0	102.0	12.0
ND2E-A118-FD11.1-H55-D12-102	2	11.1	118.0	55.0	102.0	12.0
ND2E-A118-FD11.2-H55-D12-102	2	11.2	118.0	55.0	102.0	12.0
ND2E-A118-FD11.3-H55-D12-102	2	11.3	118.0	55.0	102.0	12.0
ND2E-A118-FD11.4-H55-D12-102	2	11.4	118.0	55.0	102.0	12.0
ND2E-A118-FD11.5-H55-D12-102	2	11.5	118.0	55.0	102.0	12.0
ND2E-A118-FD11.6-H55-D12-102	2	11.6	118.0	55.0	102.0	12.0
ND2E-A118-FD11.7-H55-D12-102	2	11.7	118.0	55.0	102.0	12.0
ND2E-A118-FD11.8-H55-D12-102	2	11.8	118.0	55.0	102.0	12.0
ND2E-A118-FD11.9-H55-D12-102	2	11.9	118.0	55.0	102.0	12.0
ND2E-A118-FD12.0-H55-D12-102	2	12.0	118.0	55.0	102.0	12.0

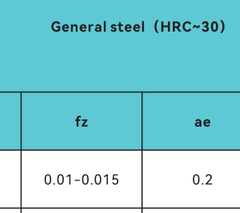
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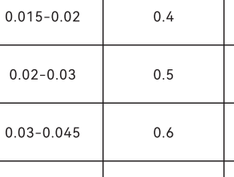
繁星系列平底铣刀加工参数推荐（普通切削）

Recommended cutting datas for standard endmills (General processing)

Workpieces materials	General steel（HRC~30）				Stainless steel			
Diameter	Vc	fz	ae	ap	Vc	fz	ae	ap
2	50-150	0.01-0.015	0.2	3	50-150	0.01-0.015	0.2	3
3	50-150	0.015-0.02	0.3	4.5	50-150	0.015-0.02	0.3	4.5
4	80-160	0.015-0.02	0.4	6	60-120	0.015-0.02	0.4	6
5	80-160	0.02-0.03	0.5	7.5	60-120	0.02-0.03	0.5	7.5
6	80-160	0.03-0.045	0.6	9	60-120	0.03-0.045	0.6	9
8	80-160	0.04-0.06	0.8	12	60-120	0.04-0.06	0.8	12
10	80-160	0.04-0.07	1	15	60-120	0.04-0.07	1	15
12	80-160	0.05-0.08	1.2	18	60-120	0.05-0.08	1.2	18
14	80-160	0.06-0.09	1.4	21	60-120	0.06-0.09	1.4	21
16	80-160	0.07-0.11	1.6	24	60-120	0.07-0.11	1.6	24
18	80-160	0.07-0.12	1.8	27	60-120	0.07-0.12	1.8	27
20	80-160	0.08-0.12	2	30	60-120	0.08-0.12	2	30

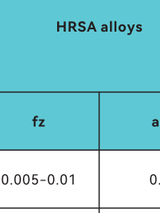
MAX ap

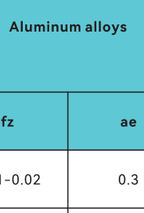


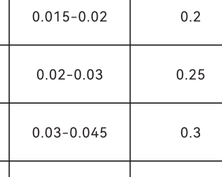


Tool's diameter	ap
ϕ1≤D≥ϕ3	0.15D
ϕ3≤D≥ϕ6	0.3D
ϕ6≤D≥ϕ20	0.5D

HRSA alloys				Aluminum alloys			
Vc	fz	ae	ap	Vc	fz	ae	ap
30-90	0.005-0.01	0.1	3	50-150	0.01-0.02	0.3	3
30-90	0.015-0.02	0.15	4.5	50-150	0.01-0.02	0.45	4.5
30-90	0.015-0.02	0.2	6	90-180	0.02-0.04	0.6	6
30-90	0.02-0.03	0.25	7.5	90-180	0.02-0.04	0.75	7.5
30-90	0.03-0.045	0.3	9	90-180	0.03-0.06	0.9	9
30-90	0.04-0.06	0.4	12	90-180	0.035-0.08	1.2	12
30-90	0.04-0.07	0.5	15	90-180	0.045-0.1	1.5	15
30-90	0.05-0.08	0.6	18	90-180	0.05-0.12	1.8	18
30-90	0.06-0.09	0.7	21	90-180	0.06-0.14	2.1	21
30-90	0.07-0.11	0.8	24	90-180	0.075-0.16	2.4	24
30-90	0.07-0.12	0.9	27	90-180	0.08-0.16	2.7	27
30-90	0.08-0.12	1	30	90-180	0.09-0.2	3	30



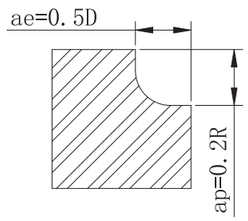


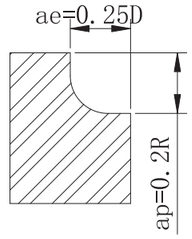
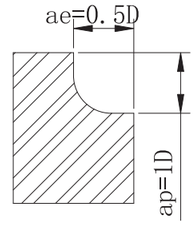


Tool's diameter	ap
ϕ1≤D≥ϕ3	0.15D
ϕ3≤D≥ϕ6	0.3D
ϕ6≤D≥ϕ20	0.5D

繁星系列圆角铣刀加工参数推荐（普通切削）

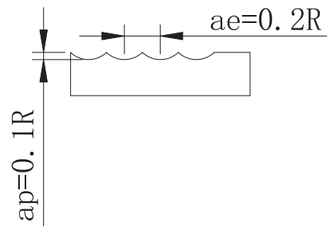
Recommended cutting datas for Standard endmills with various radius(General processing)

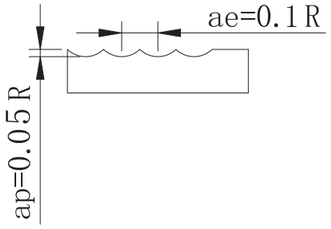
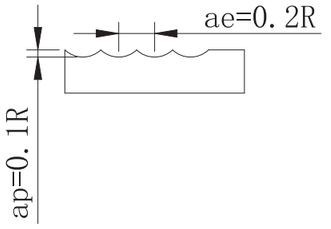
Workpieces materials	General steel（HRC~30）				Stainless steel			
Diameter	Vc	fz	ae	ap	Vc	fz	ae	ap
D2R0.1/0.2	50-150	0.01-0.014	1	0.02-0.06	50-150	0.01-0.014	1	0.02-0.06
D3R0.1/0.2/0.3/0.5	50-150	0.01-0.015	1.5	0.02-0.1	50-150	0.01-0.015	1.5	0.02-0.1
D4R0.1/0.2/0.3/0.5	60-120	0.01-0.02	2	0.02-0.1	60-120	0.01-0.02	2	0.02-0.1
D5R0.1/0.2/0.3/0.5	60-120	0.015-0.03	2.5	0.02-0.1	60-120	0.015-0.03	2.5	0.02-0.1
D6R0.1/0.2/0.3/0.5	60-120	0.015-0.035	3	0.02-0.1	60-120	0.015-0.035	3	0.02-0.1
D8R0.5/1/2	60-120	0.02-0.035	4	0.1-0.4	60-120	0.02-0.035	4	0.1-0.4
D10R0.5/1/2	60-120	0.02-0.04	5	0.1-0.4	60-120	0.02-0.04	5	0.1-0.4
D12R0.5/1/2	60-120	0.03-0.04	6	0.1-0.4	60-120	0.03-0.04	6	0.1-0.4
D14R1/2/3	60-120	0.035-0.06	7	0.2-0.6	60-120	0.035-0.06	7	0.2-0.6
D16R1/2/3	60-120	0.035-0.06	8	0.2-0.6	60-120	0.035-0.06	8	0.2-0.6
D18R1/2/3	60-120	0.04-0.08	9	0.2-0.6	60-120	0.04-0.08	9	0.2-0.6
MAX ap								

HRSA alloys				Aluminum alloys			
Vc	fz	ae	ap	Vc	fz	ae	ap
30-90	0.008-0.015	0.02-0.06	0.02-0.06	50-150	0.01-0.02	1	2
30-90	0.01-0.015	0.02-0.1	0.02-0.1	50-150	0.01-0.02	1.5	3
40-80	0.01-0.015	0.02-0.1	0.02-0.1	60-200	0.02-0.04	2	4
40-80	0.01-0.02	0.02-0.1	0.02-0.1	60-200	0.02-0.04	2.5	5
40-80	0.01-0.02	0.02-0.1	0.02-0.1	60-200	0.03-0.06	3	6
40-80	0.015-0.03	0.1-0.4	0.1-0.4	60-200	0.035-0.08	4	8
40-80	0.02-0.03	0.1-0.4	0.1-0.4	60-200	0.045-0.08	5	10
40-80	0.02-0.03	0.1-0.4	0.1-0.4	60-200	0.05-0.1	6	12
40-80	0.03-0.05	0.2-0.6	0.2-0.6	60-200	0.065-0.12	7	14
40-80	0.03-0.06	0.2-0.6	0.2-0.6	60-200	0.08-0.15	8	16
40-80	0.03-0.07	0.2-0.6	0.2-0.6	60-200	0.09-0.2	9	18
							

繁星系列球头铣刀加工参数推荐（普通切削）

Recommended cutting datas for Ball nose endmills (General processing)

Workpieces materials	General steel（HRC~30）				Stainless steel			
Diameter	Vc	fz	ae	ap	Vc	fz	ae	ap
D1R0.5	25-62	0.008-0.012	0.1	0.05	25-62	0.008-0.012	0.1	0.05
D2R1	30-110	0.01-0.015	0.2	0.1	30-110	0.01-0.015	0.2	0.1
D3R1.5	30-110	0.01-0.015	0.3	0.15	30-110	0.01-0.015	0.3	0.15
D4R2	30-110	0.015-0.02	0.4	0.2	30-110	0.015-0.02	0.4	0.2
D5R2.5	30-110	0.015-0.02	0.5	0.25	30-110	0.015-0.02	0.5	0.25
D6R3	30-110	0.02-0.03	0.6	0.3	30-110	0.02-0.03	0.6	0.3
D7R3.5	30-110	0.02-0.03	0.7	0.35	30-110	0.02-0.03	0.7	0.35
D8R4	30-110	0.02-0.04	0.8	0.4	30-110	0.02-0.04	0.8	0.4
D10R5	30-110	0.02-0.06	1	0.5	30-110	0.02-0.06	1	0.5
D12R6	30-110	0.03-0.08	1.2	0.6	30-110	0.03-0.08	1.2	0.6
D16R8	30-110	0.03-0.1	1.6	0.8	30-110	0.03-0.1	1.6	0.8
D20R10	30-110	0.03-0.12	2	1	30-110	0.03-0.12	2	1
MAX ap								

HRSA alloys				Aluminum alloys			
Vc	fz	ae	ap	Vc	fz	ae	ap
20-32	0.005-0.012	0.05	0.025	25-62	0.01-0.02	0.1	0.05
20-90	0.008-0.012	0.1	0.05	30-110	0.015-0.02	0.2	0.1
30-90	0.01-0.014	0.15	0.075	30-110	0.015-0.02	0.3	0.15
30-90	0.01-0.023	0.2	0.1	30-110	0.02-0.04	0.4	0.2
30-90	0.01-0.028	0.25	0.125	30-110	0.02-0.04	0.5	0.25
30-90	0.015-0.035	0.3	0.15	30-110	0.03-0.06	0.6	0.3
30-90	0.015-0.035	0.35	0.175	30-110	0.03-0.06	0.7	0.35
30-90	0.015-0.04	0.4	0.2	30-110	0.03-0.08	0.8	0.4
30-90	0.015-0.045	0.5	0.25	30-110	0.03-0.08	1	0.5
30-90	0.02-0.05	0.6	0.3	30-110	0.03-0.1	1.2	0.6
30-90	0.02-0.065	0.8	0.4	30-110	0.03-0.15	1.6	0.8
30-90	0.03-0.075	1	0.5	30-110	0.05-0.2	2	1
							

繁星系列平底钻头钻削参数推荐（普通切削）
Recommended drilling data of drills for flat bottom hole (General processing)

Workpieces materials	General steel（HRC~30）		Stainless steel		Aluminum alloys	
Diameter	Vc	fz	Vc	fz	Vc	fz
3.0-4.5	35-55	0.01-0.03	20-30	0.01-0.02	20-120	0.05-0.08
5.0-5.5	35-55	0.02-0.03	20-35	0.01-0.03	20-120	0.05-0.08
6.0-6.5	45-65	0.03-0.05	23-35	0.02-0.04	20-120	0.05-0.08
7.0-7.5	45-65	0.03-0.05	23-35	0.03-0.05	30-120	0.06-0.1
8.0-8.5	50-55	0.05-0.06	25-30	0.03-0.06	30-120	0.06-0.1
9.0-9.5	50-55	0.05-0.06	25-30	0.04-0.08	30-120	0.06-0.1
10.0-10.5	55-70	0.05-0.07	25-30	0.04-0.08	30-120	0.06-0.1
11.0-11.5	55-70	0.05-0.07	25-30	0.05-0.09	30-120	0.1-0.15
12.0	45-65	0.06-0.08	22-30	0.05-0.09	30-120	0.1-0.15

繁星系列3D（外冷）钻头钻削参数推荐（普通切削）
Recommended drilling data of 3D external coolant drills (General processing)

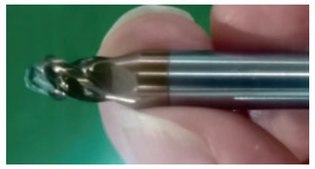
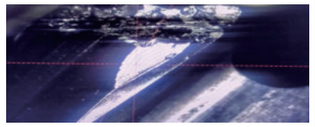
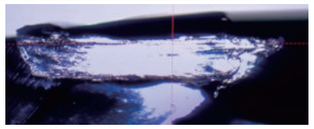
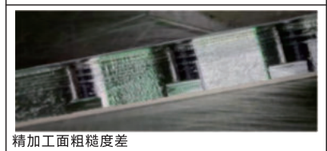
Workpieces materials	General steel（HRC~30）		Stainless steel		HRSA alloys		Aluminum alloys	
Diameter	Vc	fz	Vc	fz	Vc	fz	Vc	fz
2.1-3.0	30-120	0.03-0.05	30-60	0.02-0.05	10-25	0.02-0.04	30-120	0.05-0.08
3.1-4.0	30-120	0.03-0.05	30-60	0.02-0.05	10-25	0.02-0.04	30-120	0.05-0.08
4.1-5.0	30-120	0.03-0.05	30-60	0.02-0.05	10-25	0.02-0.04	30-120	0.05-0.08
5.1-6.0	30-120	0.05-0.1	23-60	0.04-0.08	10-18	0.03-0.05	30-120	0.06-0.1
6.1-7.0	30-120	0.05-0.1	23-60	0.04-0.08	10-18	0.03-0.05	30-120	0.06-0.1
7.1-80	30-120	0.05-0.1	23-60	0.04-0.08	10-18	0.03-0.05	30-120	0.06-0.1
8.1-9.0	30-120	0.05-0.1	23-60	0.04-0.08	10-18	0.03-0.05	30-120	0.06-0.1
9.1-10.0	30-120	0.06-0.15	23-60	0.05-0.09	10-18	0.04-0.065	30-120	0.1-0.15
10.1-12.0	30-120	0.06-0.15	23-60	0.05-0.09	10-18	0.04-0.065	30-120	0.1-0.15

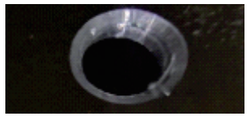
繁星系列5D（内冷）钻头钻削参数推荐（普通切削）
Recommended drilling data of 5D internal coolant drills (General processing)

Workpieces materials	General steel（HRC~30）		Stainless steel		HRSA alloys		Aluminum alloys	
Diameter	Vc	fz	Vc	fz	Vc	fz	Vc	fz
2.1-3.0	20-90	0.03-0.05	18-60	0.03-0.05	10-25	0.02-0.04	20-110	0.05-0.08
3.1-4.0	20-90	0.03-0.05	18-60	0.03-0.05	10-25	0.02-0.04	20-110	0.05-0.08
4.1-5.0	20-90	0.03-0.05	18-60	0.03-0.05	10-25	0.02-0.04	20-110	0.05-0.08
5.1-6.0	30-90	0.05-0.1	20-60	0.05-0.08	10-18	0.03-0.05	30-110	0.06-0.1
6.1-7.0	30-90	0.05-0.1	20-60	0.05-0.08	10-18	0.03-0.05	30-110	0.06-0.1
7.1-80	30-90	0.05-0.1	20-60	0.05-0.08	10-18	0.03-0.05	30-110	0.06-0.1
8.1-9.0	30-90	0.05-0.1	20-60	0.05-0.08	10-18	0.03-0.05	30-110	0.06-0.1
9.1-10.0	30-90	0.06-0.15	20-60	0.05-0.09	10-18	0.04-0.065	30-110	0.1-0.15
10.1-12.0	30-90	0.06-0.15	20-60	0.05-0.09	10-18	0.04-0.065	30-110	0.1-0.15

其它信息
Other information

铣刀失效分析 Analysis for endmills

铣刀失效分析 Analysis and Solutions for Endmill		
故障现象Failure	原因Reason	对策Trouble-shooting
 切削时发生震动 Vibration occurs during cutting	1.圆周后角、刀槽前角太小 2.工件安装不良 3.机床、刀柄刚性不足 4.切削速度、进给速度太快 1.The rake angle and clearance angle are too small. 2.Poor installation of the workpiece. 3.Insufficient rigidity of the tool shank and lathe. 4.The cutting speed and feed speed are too fast.	1.修正刀具前角、后角 2.装夹清洁夹头并紧固刀具 3.更换机床、刀夹 4.变更切削参数及条件 1.Correct rake angle and clearance angle 2.Clean the chuck and fasten the tool. 3.Replace the lathe and chuck. 4.Change the cutting parameters and conditions.
 切削时发生折损 Damage occurs during cutting	1.刀具刚性不够 2.进给速度太快 3.切削深度太大 4.装夹突出量太长 5.刃口磨损，刀具不锋利 6.刃长超过需要 1.Insufficient rigidity of the tool. 2.The feed speed are too fast. 3.The cutting depth is too large. 4.Excessive protrusion during clamping. 5.The cutting edge is worn and the tool is not sharp. 6.The cutting length exceeds requirement.	1.使用经过刚性设计的刀具 2.降低进给速度 3.减小切削深度 4.缩短装夹长度 5.多检查刀具磨损程度，返磨 6.跟换短刃刀具 1.Using rigid designed cutting tools. 2.Reduce feed speed. 3.Reduce cutting depth. 4.Shorten the clamping length. 5.Check the wear of the cutting tools frequently and return them for grinding. 6.Replace tools with short cutting length.
 切削时发生刃口破损 The cutting edge damaged during cutting	1.工件固定差 2.进给速度太快 3.刀具刃口太锋利 4.刀具紧固不足 5.切削深度太大 6.机床刚性不足 1.The workpiece is not fixed firmly. 2.The feeding speed is too fast. 3.The cutting edge is too sharp. 4.The cutting tools is not fixed firmly. 5.The cutting depth is too large. 6.Insufficient rigidity of the lathe.	1.牢靠地固定工件 2.降低进给速度 3.对刀具刃口进行正确值研磨 4.牢固地夹持刀具 5.减少切削深度 6.变更机床 1.Fix the workpiece firmly. 2.Reduce the feeding 3.Grinding the cutting edge. 4.Clamping the tool firmly. 5.Reduce the cutting depth. 6.Replace the lathe.
 磨损、烧伤明显Obvious wear and burns	1.切削速度太快 2. 切削阻力过大 3. 工件材料硬度太高 1.The cutting speed is too fast. 2.Excessive cutting resistance. 3.The workpiece material is with high hardness.	1.降低切削速度 2.更换对应性能的刀具 3.选用适合加工硬材的刀具 1.Reduce the cutting speed. 2.Replace the tools with matching properties. 3.Select proper tools to machine hard materials.
 切削卡住Obvious wear and burns	1.切削深度太大 2.容屑槽太小 3.切削液压力不足 4.容屑槽形状不良 1.The cutting depth is too large. 2.The chip pocket is too small. 3.Insufficient cutting fluid pressure. 4.The shape of the chip pocket is bad.	1.调整进给速度、切削深度 2.增大容屑槽空间 3.供给充足的切削液 4.改变容屑槽形状 1.Adjust the feeding speed and cutting depth. 2.Increase the room of the chip pocket. 3.Supply sufficient cutting liquid. 4.Change the shape ofthe chip pocket.
 精加工面出现毛刺 Burrs appear on the finished surface	1.刀具槽前角周后角不合适 2.切削条件选择错误 3.刀具刃口磨损太快 1.Improper rake angle andclearance angle. 2.The cutting conditions is wrongly selected. 3.The cutting edge wears out quickly.	1.修正刀具前角、后角 2.重新选择切削条件 3.对刀具尽早进行再研磨 1.Correct the rake angle and clearance angle. 2.Reset the cutting conditions. 3.Regrind the cutting tools as soon as possible.
 精加工面粗糙度差 Poor surface quality ofthe finished surface.	1.进给速度太快 2.切削速度太慢 3.刃口磨损太大 4.排屑不通，卡屑 1.The feed rate is too fast. 2.The cutting speed is too fast. 3.Excessive wear of the cutting edge. 4.Chip evacuation not smoothly.	1.降低进给速度 2.提高转速 3.更换刀具 4.减小切削深度 1.Reduce feed rate. 2.Increase the speed. 3.Replace the tool. 4.Reduce the cutting depth.

钻头加工时的故障及其原因，对策 ANALYSIS FOR DRILL FAILURE			
故障现象Fault form	可能原因Possible reason		对策Solutions
	客户User	刀具Tools	
负载大Overload	-	刀具刃型选择不当 The cutting edge shapeis not properly chosen	-
	-	刃口处理不当 Improper cutting edge treatment	-
 不耐磨，寿命短 Poor wear-resistance, short tool life	切削用量不恰当 Improper cutting		降低转数，增大进给 Lower the rotations,increase feed
	冷却不充分 Insufficient cooling	-	改善冷却 Optimize cooling method
	-	刀具材料选择不当 Improper tool material	选择高硬度牌号如K10 Choose higher hardness grade such as K10
			刀具涂层 Make coating
孔偏大 Hole is too large	主轴刀柄连接精度低，刀尖跳动大 Low connection accuracy of the spindle tool handle,large runout	-	改善连接精度，如更换液压或热张夹头 Improving connection accuracy, such as replacing hydraulic or thermal expansion clamps
	主轴刀柄刀具刚性差 Poor rigidity of spindle tool handle	-	改善刚性，减少刀具悬伸长度，采用弹簧夹头，避免使用钻夹头 Improve rigidity, reduce tool over hang length use spring chuck type rather than drill chuck
	工件夹持不稳定 Unstable workpiece clamping	-	改善工件装夹 Improve workpiece clamping
	-	内刃主刃横刃不对称 Asymmetric inner edge. main edge,lateral edge	-
	-	钻头公差选择过高 Tolerance of drills is too high	M7改为H7或H6 Change M7 to H7 and H6
 孔壁毛刺孔壁螺旋状划痕 Burrs,spiral scratches on the hole wall	切削速度过高 Too high cutting speed	-	降低主轴转速 Reduce spindle speed
	冷却不充分 Insufficient cooling	-	检查冷却状态，增大冷却压力 Check the cooling status and increase the cooling pressure
	-	棱边倒锥过小，甚至正锥 Edge inverted cone is too small or even straight cone	及时修磨 Timely grinding
	-	棱边过宽 Too wide edge	-
	-	刀具材料亲和性 Tool material affinity	选择涂层 Choose coating
 出口毛刺 Exit burr	进给过快 Too fast feed	-	减少进给 Lower the feed
	材料热处理不稳定，偏软 Material's heat treatment is unstable and soft	-	保证热处理稳定 Make stable heat treatment
	-	顶角小 Small top angle	增大顶角 Enlarge top angle
	-	刀尖倒棱 Cutting edge chamfering	不倒棱 No chamfering

其它信息
Other information

钻头加工时的故障及其原因，对策 ANALYSIS FOR DRILL FAILURE			
故障现象Fault form	可能原因Possible reason		对策Solutions
	客户User	刀具Tools	
 崩刃、崩棱边、近刀尖棱边缠绕 Broken edgetwist around	主轴刀柄连接精度低，刀尖跳动大 Low connection accuracy of the spindle tool handle, large runout	-	改善连接精度，如更换液压或热涨夹头 Improve connection accuracy, such as replacing hydraulic or thermal expansion clamps
	-	刃型不正确，断屑不好 Improper cutting edge shape, bad chip breaking	改善刃型，选择正确钻头 Improve shape and choose the correct drill Bit
	-	槽型不正确，排屑不畅 Improper cutting edge shape, bad chip removing	改善槽型，选择正确钻头 Improve shape and choose the correct drill Bit
	-	棱边过宽，倒锥太小 Too wide edge. too small inverted cone	减少棱边，增大倒锥 Reduce edges and increase inverted cones
 断刀 Tools Broken	撞刀 Tools-crashing	-	减少操作失误 Reduce operational errors
	进给过大，切削速度过低 Too large feed while low cutting speed	-	校核切削速度，减少进给 Check cutting speed to reduce feed
	刀具悬伸过长 Too long over hang length	-	减少刀具悬伸 Reduce overhang length
	未及时修磨 Failure to repair inatimely manner	-	及时修磨 repair it timely
	排屑槽堵塞 Blocked chip removal slot	-	选择恰当钻头，啄钻 Choose the appropriate drill bit to peck the drill
	-	-	改善冷却 Improve cooling
	-	刃口强度不够，芯厚不足 Insufficient blade strength	改善钻头强度 Insufficient core thickness
	-	长径比过大 Excessive aspect ratio	-

其它信息
Other information

非标定制 Specific order

Customized Tools					
Machine and workpiece materials:					
Machine name :					
Machine type:	Vertical machining center	Horizontal machining center	Special Cutting Machine	CNC lathe	OTHER
Machine tool spindle type:	BT30	B40	BT50	HSK	OTHER
Clamping Type:	Spring chuck	Hydraulic collet	Thermal expansion chuck	Side fixed type	OTHER
Workpiece name:					
Workpiece material/ grade:					
Hardness HB/HRS:					
Heat-treatment:	YES	No			
processing requirement:	1				
	2				
	3				
	4				
	5				
Lifetime requirements:					
Tools Information:	Special endmill	Special Drill bits	Special reamer		
Tolerance requirements:					

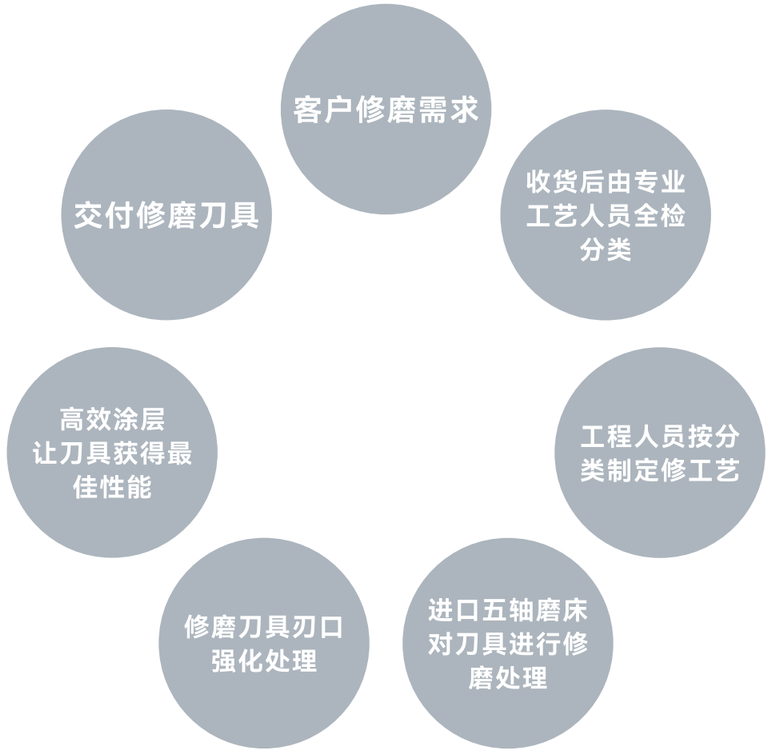
专业刀具修磨服务

Professional Tool Grinding Services

邦普刀具提供高质量的刀具修磨服务，公司在刀具修磨方面积累了丰富的技术经验。
邦普采用严禁的工艺流程和修磨标准，修磨之后的刀具寿命达到新刀的80%以上，可为客户节省大量的刀具成本。

Based on our rich technical experience in tool grinding.
Bangpu will provide customers with high-quality tool grinding services using rigorous process flow and grinding standards.After grinding, the tool life will reach over 80% of that of new tools,achieving significant cost savings.

- 专业的修磨标准工艺流程 Professional tool grinding flow and standards
- 高品质的涂层 High quality coating
- 稳定的产品质量 High quality coating
- 专业的产品应用支持 High quality coating



修磨刀具流程：

Grinding Services flow:

1.客户提出刀具修磨需要
1.The customer proposes the need for tool grinding.

2.我们专业工艺人员全检分类，并和客户沟通修磨细节
2.Our professionals will conduct full inspection and classification,and communicate with customers about the details of grinding.

3.工程人员按分类好的修磨刀具分别定制修磨工艺
3.Engineer will customize the grinding process according to the classified grinding tools.

4.进口五轴磨床对刀具进行修磨处理
4.Imported five-axis grinding machine for tool grinding treatment.

5.修磨后刀具钝化，刃口强化处理
5.After grinding, the tool will be passivated and the edge is strengthened.

6.根据客户需求如需涂层，进行高效涂层
6.If the coating is required according to customer needs,carry out efficient coating.

7.入库交付修磨刀具
7.Warehousing & delivery of the finished tools.

8.回访客户修磨刀具信息
8. Follow-up information on the tools.

可修磨的刀具种类：

Types of repairable tools

- 整体硬质合金钻头
Solid carbide drill bit

- 整体硬质合金铣刀
Solid carbide endmill

- 模块化钻头（附带刀杆修磨）
Modular drill bit (with toolholder grinding)

- 模块化铣刀（附带刀杆修磨）
Modular milling cutter (with toolholder grinding)

F

镗削
BORING



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

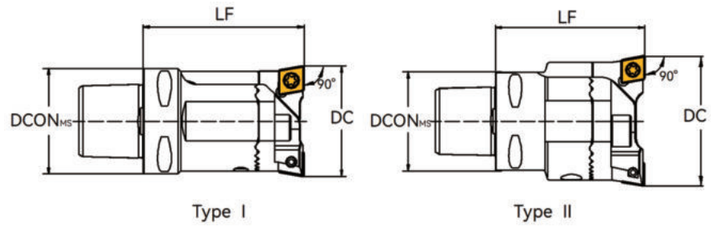
镗削
Boring

- **PSC镗刀**
  PSC Boring Tools F03
  90°双刃镗刀 (TCR)
  90° Double-Edges Boring Tools(TCR) F03
  90°双刃镗刀 (TTR)
  90° Double-Edges Boring Tools(TTR) F05
  80°双刃镗刀 (TSR)
  80° Double-Edges Boring Tools(TSR) F07
  小孔径精镗刀 （SBZ)
  Fine Boring for Small Diameter(SBZ) F09
  微调精镗刀镗刀 （FBZ)
  Micro-Adjustabal Boring Tools(FBZ) F12
  TMG21镗刀
  TMG21 Boring Tools F13
  90°双刃镗刀 (TCR)
  90° Double-Edges Boring Tools(TCR) F13
  90°双刃镗刀 (TTR)
  90° Double-Edges Boring Tools(TTR) F15
  80°双刃镗刀 (TSR)
  80° Double-Edges Boring Tools(TSR) F17
  90°双刃镗刀
  90° Double-Edges Boring Tools F19
  小孔径精镗刀 （SBZ)
  Fine Boring for Small Diameter(SBZ) F21
  微调精镗刀 （CBZ)
  Micro-Adjustabal Boring Tools(CBZ) F24
  微调精镗刀 (FBZ)
  Micro-Adjustabal Boring Tools(FBZ) F25
- **TMG21模块式工具系统**
  TMG21 Modular Tooling System F27
  TMG21主柄模块
  TMG21 Base Tool hoders F27
  TMG21等径中间模块
  TMG21 Extensions F35
  TMG21变径中间模块
  TMG21 Reductions F36
- **大直径镗刀**
  Boring Tools for Large Diameter F37
  大直径双刃镗刀 (SCC)
  Double-Edges Boring Tools(SCC) F37
  大直径双刃镗刀 (MCN)
  Double-Edges Boring Tools(MCN) F39
  大直径微调精镗刀
  Fine Boring Tools for Large Diameter F41
  大直径镗刀专用刀柄
  Toolholders for Large Diameter Boring F43
- **整体式粗镗刀**
  Rough Boring Tools F45
  直角型粗镗刀 (TZC)
  Straight Form Rough Boring Tools(TZC) F45
  倾斜型粗镗刀 (TQC)
  Clino-form Rough Boring Tools(TQC) F48

90°双刃镗刀 (TCR)

90° Double-Edges Boring Tools(TCR)





- **中心通水 , 冷却液压力≤ 15bar**
  Internal coolant, coolant pressure ≤ 15bar

接口类型 Interface type	型号 Model	镗头型号 Cartridge	镗孔尺寸DC Boring range	尺寸 Size(mm)		刀片 Insert
				$DCON_{MS}$	LF	
PSC3	PSC3-TCR9033-050	TCR9033.CC06A	33-43	32	50	CCMT060204
		TCR9038.CC06B	38-48			
PSC3	PSC3-TCR9042-060	TCR9042.CC09A	42-54	32	60	CCMT09T308
PSC4	PSC4-TCR9042-060	TCR9042.CC09A	42-54	40	60	CCMT09T308
		TCR9048.CC09B	48-59			
PSC4	PSC4-TCR9053-065	TCR9053.CC09A	53-70	40	65	CCMT09T308
PSC5	PSC5-TCR9053-070	TCR9053.CC09A	53-70	50	70	CCMT09T308
		TCR9061.CC09B	61-78			
PSC5	PSC5-TCR9068-075	TCR9068.CC12A	68-88	50	75	CCMT09T308
PSC6	PSC6-TCR9068-080	TCR9068.CC12A	68-88	63	80	CCMT120408
		TCR9075.CC12B	75-95			
PSC6	PSC6-TCR9084-080	TCR9084.CC12A	84-115	63	80	CCMT120408
		TCR9100.CC12B	100-131			
PSC8	PSC8-TCR90110-090	TCR9110.CC12A	110-155	80	90	CCMT120408
		TCR9132.CC12B	132-177			
PSC10	PSC10-TCR90150-115	TCR9150.CC12A	150-205	100	115	CCMT120408
		TCR9180.CC12B	180-235			

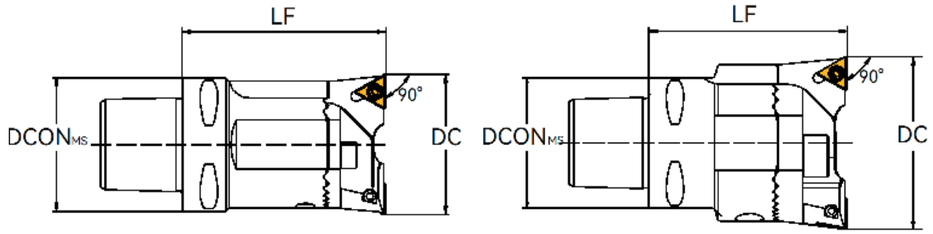
- 镗刀标准配置镗刀头TCR90****A，TCR90****B 镗刀头需单独订购
  TCR90****A cartridges are contained ， TCR90****B cartridges are sold separately
- 刀片需单独订购
  Inserts are sold separately

螺钉 Screw	扳手 Torx wrench	刀体型号 Boring body	螺钉 Screw	扳手 Hex wrench	垫圈 Washer	扳手 Hex wrench	型式 Type
C025A07IP	8IP	PSC3-TR33-50	MS05016N	S4	DT05	S1.5	I
C035A08IP	15IP	PSC3-TR42-60	MS06020N	S5	DT06	S1.5	II
C035A08IP	15IP	PSC4-TR42-60	MS06020N	S5	DT06	S1.5	I
C035A08IP	15IP	PSC4-TR53-65	MS08020N	S6	DT08	S2.5	II
C035A08IP	15IP	PSC5-TR53-70	MS08020N	S6	DT08	S2.5	I
C050A12IP	20IP	PSC5-TR68-75	MS10025N	S8	D10IP	S2.5	II
C050A12IP	20IP	PSC6-TR68-80	MS10025N	S8	D10IP	S2.5	I
C050A12IP	20IP	PSC6-TR84-80	MS12025N	S10	DT12	S3	II
C050A12IP	20IP	PSC8-TR110-90	MS10030N	S8	D10IP	S3	II
C050A12IP	20IP	PSC10-TR150-115	MS10030N	S8	D10IP	TS3	II

90°双刃镗刀 (TTR)

90° Double-Edges Boring Tools(TTR)





- **中心通水 , 冷却液压力≤ 15bar**
  Internal coolant, coolant pressure ≤ 15bar

接口类型	型号	镗头型号	镗孔尺寸DC	尺寸		刀片
Interface type	Model	Cartridge	Boring range	Size(mm)		Insert
				$DCON_{MS}$	LF	
PSC3	PSC3-TTR9033-050	TTR9033.CC06A	33-43	32	50	TCMT090204
		TTR9038.CC06B	38-48			
PSC3	PSC3-TTR9042-060	TTR9042.CC09A	42-54	32	60	TCMT110204
PSC4	PSC4-TTR9042-060	TTR9042.CC09A	42-54	40	60	TCMT110204
		TTR9048.CC09B	48-59			
PSC4	PSC4-TTR9053-065	TTR9053.CC09A	53-70	40	65	TCMT110204
PSC5	PSC5-TTR9053-070	TTR9053.CC09A	53-70	50	70	TCMT110204
		TTR9061.CC09B	61-78			
PSC5	PSC5-TTR9068-075	TTR9068.CC12A	68-88	50	75	TCMT16T308
PSC6	PSC6-TTR9068-080	TTR9068.CC12A	68-88	63	80	TCMT16T308
		TTR9075.CC12B	75-95			
PSC6	PSC6-TTR9084-080	TTR9084.CC12A	84-115	63	80	TCMT16T308
		TTR9100.CC12B	100-131			
PSC8	PSC8-TTR90110-090	TTR9110.CC12A	110-155	80	90	TCMT16T308
		TTR9132.CC12B	132-177			
PSC10	PSC10-TTR90150-115	TTR9150.CC12A	150-205	100	115	TCMT16T308
		TTR9180.CC12B	180-235			

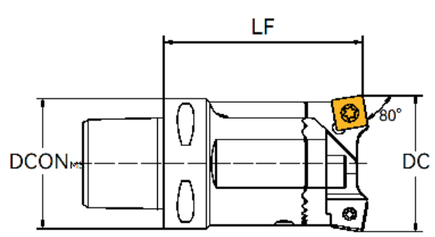
螺钉	扳手	刀体型号	螺钉	扳手	垫圈	扳手	型式
Screw	Torx wrench	Boring body	Screw	Hex wrench	Washer	Hex wrench	Type
C022A06IP	7IP	PSC3-TR33-50	MS05016N	S4	DT05	S1.5	I
C025A07IP	T08	PSC3-TR42-60	MS06020N	S5	DT06	S1.5	II
C025A07IP	T08	PSC4-TR42-60	MS06020N	S5	DT06	S1.5	I
C025A07IP	T08	PSC4-TR53-65	MS08020N	S6	DT08	S2.5	II
C025A07IP	T08	PSC5-TR53-70	MS08020N	S6	DT08	S2.5	I
C035A08IP	15IP	PSC5-TR68-75	MS10025N	S8	D10IP	S2.5	II
C035A08IP	15IP	PSC6-TR68-80	MS10025N	S8	D10IP	S2.5	I
C035A08IP	15IP	PSC6-TR84-80	MS12025N	S10	DT12	S3	II
C035A08IP	15IP	PSC8-TR110-90	MS10030N	S8	D10IP	S3	II
C035A08IP	15IP	PSC10-TR150-115	MS10030N	S8	D10IP	TS3	II

- 镗刀标准配置镗刀头TTR90****A，TTR90****B 镗刀头需单独订购
  TTR90****A cartridges are contained ， TTR90****B cartridges are sold separately
- 刀片需单独订购
  Inserts are sold separately

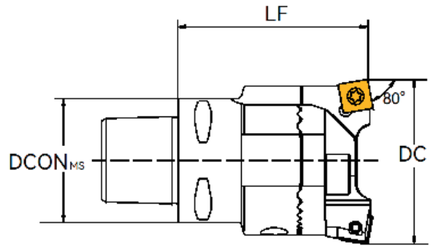
80°双刃镗刀 (TSR)

80° Double-Edges Boring Tools(TSR)





Type Ⅰ



Type Ⅱ

- **中心通水 , 冷却液压力≤ 15bar**
  Internal coolant, coolant pressure ≤ 15bar

接口类型	型号	镗头型号	镗孔尺寸DC	尺寸		刀片
Interface type	Model	Cartridge	Boring range	Size(mm)		Insert
				$DCON_{MS}$	LF	
PSC3	PSC3-TSR8042-60	TSR8042.SC09	42-54	32	60	SCMT09T308
PSC4	PSC4-TSR8042-60	TSR8042.SC09	42-54	40	60	SCMT09T308
PSC4	PSC4-TSR8053-65	TSR8053.SC09	53-70	40	65	SCMT09T308
PSC5	PSC5-TSR8053-70	TSR8053.SC09	53-70	50	70	SCMT09T308
PSC5	PSC5-TSR8068-75	TSR8068.SC12	68-88	50	75	SCMT120408
PSC6	PSC6-TSR8068-80	TSR8068.SC12	68-88	63	80	SCMT120408
PSC6	PSC6-TSR8084-80	TSR8084.SC12	84-115	63	80	SCMT120408
PSC8	PSC8-TSR80110-90	TSR80110.SC12	110-155	80	90	SCMT120408
PSC10	PSC10-TSR80150-115	TSR80150.SC12	150-205	100	115	SCMT120408

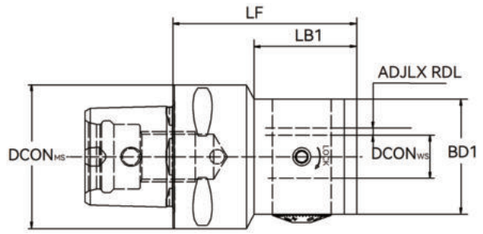
- 刀片需单独订购
  Inserts are sold separately

螺钉	扳手	刀体型号	螺钉	扳手	垫圈	扳手	型式
Screw	Torx wrench	Boring body	Screw	Hex wrench	Washer	Hex wrench	Type
C035A08IP	15IP	PSC3-TR42-60	MS06020N	S5	DT06	S1.5	Ⅱ
C035A08IP	15IP	PSC4-TR42-60	MS06020N	S5	DT06	S1.5	Ⅰ
C035A08IP	15IP	PSC4-TR53-65	MS08020N	S6	DT08	S2.5	Ⅱ
C035A08IP	15IP	PSC5-TR53-70	MS08020N	S6	DT08	S2.5	Ⅰ
C050A12IP	20IP	PSC5-TR68-75	MS10025N	S8	D10IP	S2.5	Ⅱ
C050A12IP	20IP	PSC6-TR68-80	MS10025N	S8	D10IP	S2.5	Ⅰ
C050A12IP	20IP	PSC6-TR84-80	MS12025N	S10	DT12	S3	Ⅱ
C050A12IP	20IP	PSC8-TR110-90	MS10030N	S8	D10IP	S3	Ⅱ
C050A12IP	20IP	PSC10-TR150-115	MS10030N	S8	D10IP	TS3	Ⅱ

小孔径精镗刀（SBZ)

Fine Boring for Small Diameter(SBZ)



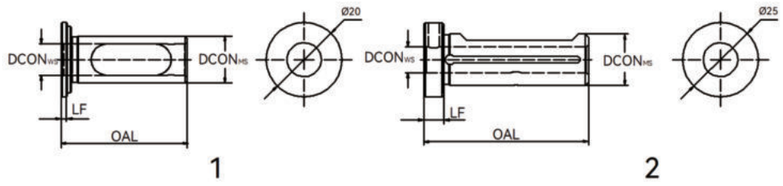


接口类型	型号	镗头型号	镗孔尺寸DC	尺寸					
Interface type	Model	Cartridge	Boring range	Size(mm)					
				$DCON_{WS}$	$DCON_{MS}$	ADJLX RDL	LF	LB1	BD1
PSC4	PSC4-SBZ-8	TSR8042.SC09	3-11	40	8	1	50	28	40
PSC5	PSC5-SBZ-12	TSR8042.SC09	3-28	50	12	1.5	55	31.5	50
PSC6	PSC6-SBZ-16	TSR8053.SC09	3-50	63	16	2.5	75	46	63

● 刀片需单独订购
Inserts are sold separately

● 变径套

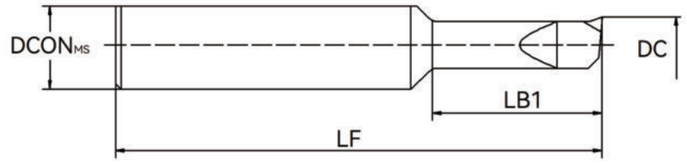
Re Ducing Sleeve



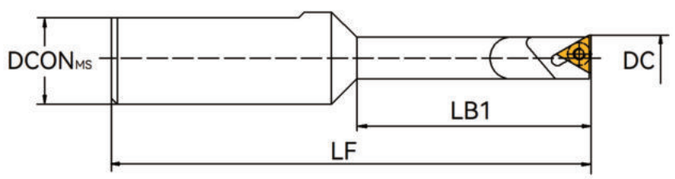
型号	精镗孔器	尺寸				结构型式
Model	Boring range	Size(mm)				DSGN
		$DCON_{WS}$	$DCON_{MS}$	LF	OAL	
SBJ-12C8	21CD50-SBZ-12	8	12	2	30	1
SBJ-16C8	21CD63-SBZ-16	8	16	6	48	2

整体硬质合金镗刀杆

Solid Carbide Boring Bar



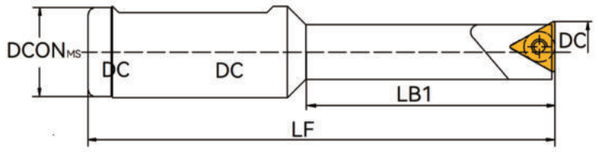
型号	镗孔尺寸DC	尺寸		
Model	Boring range	Size(mm)		
		$DCON_{MS}$	LB1	LF
YBJ-0803-09	3~5	8	9	38
YBJ-0805-15	5~7	8	15	43
YBJ-0807-21	7~9	8	21	49
YBJ-0809-27	9~11	8	27	54



型号	镗孔尺寸DC	尺寸			刀片	螺钉	扳手
Model	Boring range	Size(mm)			Insert	Screw	Torx wrench
		$DCON_{MS}$	LB1	LF			
YSBJ-1608-040	8~11	16	40	82	TBGT060102L	C020S05J	6IP
YSBJ-1610-050	10~13	16	50	92	TBGT060102L	C020S05J	6IP
YSBJ-1612-060	12~17	16	60	102	TPGH090204L	C025A07IP	8IP
YSBJ-1616-080	16~21	16	80	122	TPGH090204L	C025A07IP	8IP
YSBJ-1620-100	20~26	16	100	142	TPGH110304L	C030A07IP	9IP

● 刀片需单独订购
Inserts are sold separately

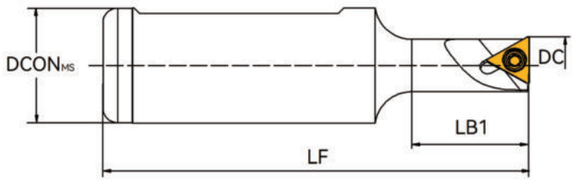
镗刀杆 - 标准型
Boring Bar-Standard



● 刀片需单独订购
Inserts are sold separately

型号	镗孔尺寸DC	尺寸			刀片	螺钉	扳手
Model	Boring range	Size(mm)			Insert	Screw	Torx wrench
		$DCON_{MS}$	LB1	LF			
SBJ-1208-30	8~10	12	32	60	TBGT060102L	C020S05J	6IP
SBJ-1210-40	10~12	12	40	68	TBGT060102L	C020S05J	6IP
SBJ-1212-48	12~14	12	48	76	TPGH090204L	C025A07IP	8IP
SBJ-1214-56	14~16	12	56	84	TPGH090204L	C025A07IP	8IP
SBJ-1216-60	16~18	12	60	88	TPGH090204L	C025A07IP	8IP
SBJ-1218-60	18~20	12	60	88	TPGH110304L	C030A07IP	9IP
SBJ-1220-60	20~24	12	60	88	TPGH110304L	C030A07IP	9IP
SBJ-1224-60	24~28	12	60	88	TPGH110304L	C030A07IP	9IP
SBJ-1608-32	8~11	16	32	74	TBGT060102L	C020S05J	6IP
SBJ-1610-40	10~13	16	40	82	TBGT060102L	C020S05J	6IP
SBJ-1612-53	12~17	16	53	95	TPGH090204L	C025A07IP	8IP
SBJ-1616-68	16~21	16	68	110	TPGH090204L	C025A07IP	8IP
SBJ-1620-83	20~26	16	83	125	TPGH110304L	C030A07IP	9IP
SBJ-1625-90	25~32	16	90	132	TPGH110304L	C030A07IP	9IP
SBJ-1630-90	30~42	16	90	132	TPGH110304L	C030A07IP	9IP
SBJ-1640-90	40~50	16	90	132	TPGH110304L	C030A07IP	9IP

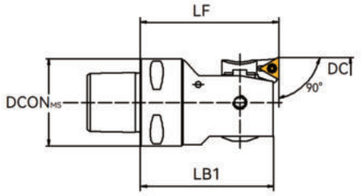
镗刀杆 - 短型
Boring Bar-Short



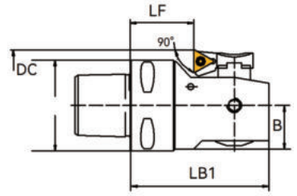
型号	镗孔尺寸DC	尺寸			刀片	螺钉	扳手
Model	Boring range	Size(mm)			Insert	Screw	Torx wrench
		$DCON_{MS}$	LB1	LF			
SBJ-1608-16	8-11	16	16	58	TBGT060102L	C020S05J	6IP
SBJ-1610-20	10-13	16	20	62	TBGT060102L	C020S05J	6IP
SBJ-1612-24	12-17	16	24	66	TPGH090204L	C025A07IP	8IP
SBJ-1616-32	16-21	16	32	74	TPGH090204L	C025A07IP	8IP
SBJ-1620-32	20-26	16	32	74	TPGH110304L	C030A07IP	9IP
SBJ-1625-32	25-32	16	32	74	TPGH110304L	C030A07IP	9IP

微调精镗刀镗刀（FBZ）
Micro-Adjustabal Boring Tools(FBZ)





正镗



反镗

接口类型	型号	尺寸			正镗		反镗		刀片座	螺钉
Interface type	Model	Size(mm)			Forward boring		Back boring		Cartridge	Screw
		$DCON_{MS}$	LB1	B	DC	LF	DC	LF		
PSC3	PSC3-FBZ033010-50	32	48	16	33-60	50	44-60	22	BZ03...	SS04010A
PSC4	PSC4-FBZ042013-60	40	58	20	42-74	60	57-74	24	BZ04...	SS05010A
PSC5	PSC5-FBZ053017-60	50	58	25	53-95	60	68-95	20	BZ05...	SS06012A
PSC6	PSC6-FBZ068032-80	63	78	32.5	68-152	80	84-152	30	BZ06...	SS08012A
PSC8	PSC8-FBZ098053-80	80	88	45	98-203	90	98-203	40	BZ06...	SS08012A

● 刀片座需单独订购
Cartridges are sold separately

● 刀片需要单独订购
Inserts are sold separately

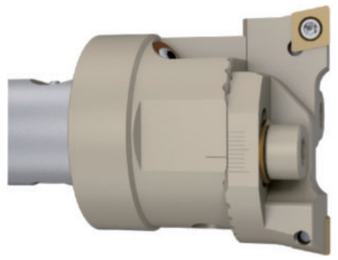
刀片座/ Cartridges

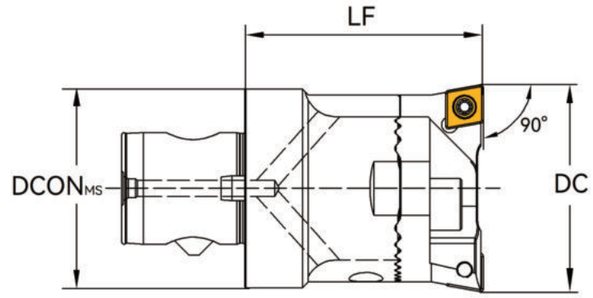
型号	正镗	反镗	镗刀	刀片	螺钉	扳手
Model	Forward boring	Back boring	Boring Tools	Insert	Torx wrench	Torx wrench
BZ031.TP08	33~43	-	PSC3-FBZ033010-50	TP□□0802□□L	C020S05J	6IP
BZ032.TP08	42~52	44~52	PSC3-FBZ033010-50			
BZ033.TP08	50~60	52~60	PSC3-FBZ033010-50			
BZ041.TP11	42~55	-	PSC4-FBZ042013-60	TP□□1103□□L	C030A07IP	9IP
BZ042.TP11	52~65	57~65	PSC4-FBZ042013-60			
BZ043.TP11	61~74	66~74	PSC4-FBZ042013-60			
BZ051.TP11	53~70	68~70	PSC5-FBZ053017-60			
BZ052.TP11	64~81	70~81	PSC5-FBZ053017-60			
BZ053.TP11	78~95	84~95	PSC5-FBZ053017-60			
BZ061.TP11	68~100	84~100	PSC6-FBZ068032-80			
	98~151	98~151	PSC8-FBZ098053-90			
BZ062.TP11	95~127	107~127	PSC6-FBZ068032-80			
	125~178	125~178	PSC8-FBZ098053-90			
BZ063.TP11	132~152	132~152	PSC6-FBZ068032-80			
	150~203	150~203	PSC8-FBZ098053-90			
BZ031.CC06	33~43	-	PSC3-FBZ033010-50	CC□□0602	C025A07IP	8IP
BZ041.TC11	42~52	-	PSC4-FBZ042013-60	TC□□1102	C025A07IP	8IP
BZ051.TC11	53~70	68~70	PSC5-FBZ053017-60			
BZ061.TC11	68~100	84~100	PSC6-FBZ068032-80			
	98~151	98~151	PSC8-FBZ098053-90			

● 刀片需要单独订购
Inserts are sold separately

90°双刃镗刀 (TCR)

90° Double-Edge Boring Tools(TCR)





- **中心通水 , 冷却液压力≤ 15bar**
  Internal coolant, coolant pressure ≤ 15bar

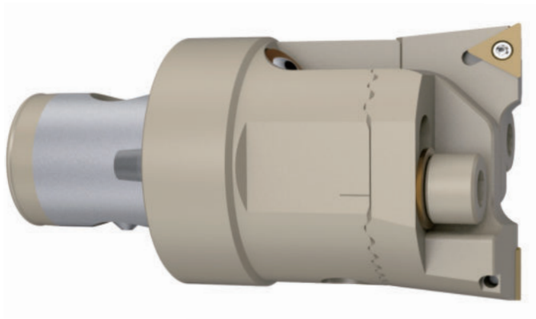
接口类型	型号	镗头型号	镗孔尺寸DC	尺寸		刀片
Interface type	Model	Cartridge	Boring range	Size(mm)		Insert
				$DCON_{MS}$	LF	
21CD25	21CD25-TCR9026-045	TCR9026.CC06A	26-34	25	45	CCMT060204
		TCR9030.CC06B	30-38			
21CD32	21CD32-TCR9033-050	TCR9033.CC06A	33-43	32	50	CCMT060204
		TCR9038.CC06B	38-48			
21CD40	21CD40-TCR9042-060	TCR9042.CC09A	42-54	40	60	CCMT09T308
		TCR9048.CC09B	48-59			
21CD50	21CD50-TCR9053-060	TCR9053.CC09A	53-70	50	60	CCMT09T308
		TCR9061.CC09B	61-78			
21CD63	21CD63-TCR9068-080	TCR9068.CC12A	68-88	63	80	CCMT120408
		TCR9075.CC12B	75-95			
21CD63	21CD63-TCR9084-080	TCR9084.CC12A	84-115	63	80	CCMT120408
		TCR9100.CC12B	100-131			
21CD80	21CD80-TCR90110-090	TCR9110.CC12A	110-155	80	90	CCMT120408
		TCR9132.CC12B	132-177			
21CD100	21CD100-TCR90150-115	TCR9150.CC12A	150-205	100	115	CCMT120408
		TCR9180.CC12B	180-235			

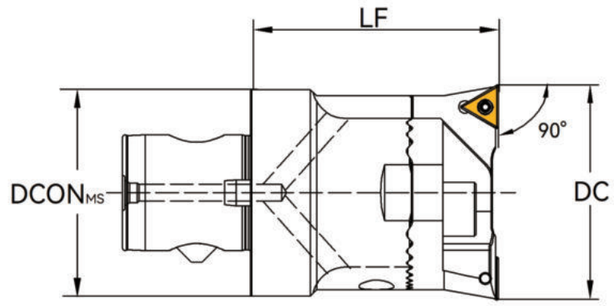
- 镗刀标准配置镗刀头TCR90****A，TCR90****B 镗刀头需单独订购
  TCR90****A cartridges are contained， TCR90****B cartridges are sold separately
- 刀片需单独订购
  Inserts are sold separately

螺钉	扳手	刀体型号	螺钉	扳手	垫圈	扳手
Screw	Torx wrench	Boring body	Screw	Hex wrench	Washer	Hex wrench
C025A07IP	8IP	21CD25-TR26-045	MS04016N	S3	DT04	S1.5
C025A07IP	8IP	21CD32-TR33-050	MS05016N	S4	DT05	S1.5
C035A08IP	15IP	21CD40-TR42-060	MS06020N	S5	DT06	S2.5
C035A08IP	15IP	21CD50-TR53-060	MS08020N	S6	DT08	S2.5
C050A12IP	20IP	21CD63-TR68-080	MS10025N	S8	DT10	S3
C050A12IP	20IP	21CD63-TR84-080	MS12025N	S10	DT12	S3
C050A12IP	20IP	21CD80-TR110-090	MS10030N	S8	DT10	S3
C050A12IP	20IP	21CD100-TR150-115	MS10030N	S8	DT10	TS3

90°双刃镗刀 (TTR)

90° Double-Edge Boring Tools(TTR)





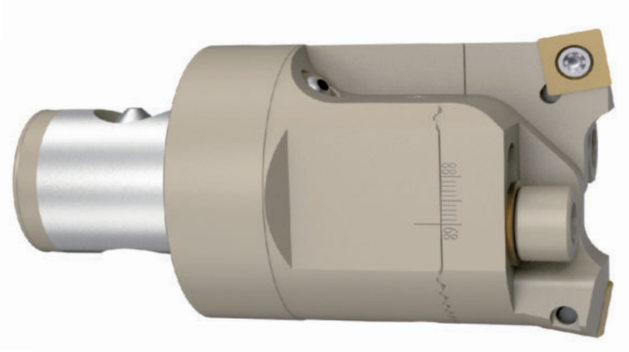
接口类型	型号	镗头型号	镗孔尺寸DC	尺寸		刀片
Interface type	Model	Cartridge	Boring range	Size(mm)		Insert
				$DCON_{MS}$	LF	
21CD25	21CD25-TTR9026-045	TTR9026.CC06A	26-34	25	45	TCMT090204
		TTR9030.CC06B	30-38			
21CD32	21CD32-TTR9033-050	TTR9033.CC06A	33-43	32	50	TCMT090204
		TTR9038.CC06B	38-48			
21CD40	21CD40-TTR9042-060	TTR9042.CC09A	42-54	40	60	TCMT110204
		TTR9048.CC09B	48-59			
21CD50	21CD50-TTR9053-060	TTR9053.CC09A	53-70	50	60	TCMT110204
		TTR9061.CC09B	61-78			
21CD63	21CD63-TTR9068-080	TTR9068.CC12A	68-88	63	80	TCMT110204
		TTR9075.CC12B	75-95			
21CD63	21CD63-TTR9084-080	TTR9084.CC12A	84-115	63	80	TCMT16T308
		TTR9100.CC12B	100-131			
21CD80	21CD80-TTR90110-090	TTR9110.CC12A	110-155	80	90	TCMT16T308
		TTR9132.CC12B	132-177			
21CD100	21CD100-TTR90150-115	TTR9150.CC12A	150-205	100	115	TCMT16T308
		TTR9180.CC12B	180-235			

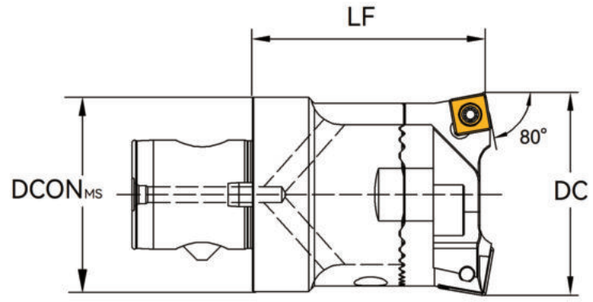
螺钉	扳手	刀体型号	螺钉	扳手	垫圈	扳手
Screw	Torx wrench	Boring body	Screw	Hex wrench	Washer	Hex wrench
C022A06IP	7IP	21CD25-TR26-045	MS04016N	S3	DT04	S1.5
C022A06IP	7IP	21CD32-TR33-050	MS05016N	S4	DT05	S1.5
C025A07IP	8IP	21CD40-TR42-060	MS06020N	S5	DT06	S2.5
C025A07IP	8IP	21CD50-TR53-060	MS08020N	S6	DT08	S2.5
C035A08IP	15IP	21CD63-TR68-080	MS10025N	S8	DT10	S3
C035A08IP	15IP	21CD63-TR84-080	MS12025N	S10	DT12	S3
C035A08IP	15IP	21CD80-TR110-090	MS10030N	S8	DT10	S3
C035A08IP	15IP	21CD100-TR150-115	MS10030N	S8	DT10	TS3

- 镗刀标准配置镗刀头TTR90****A，TTR90****B 镗刀头需单独订购
  TTR90****A cartridges are contained，TTR90****B cartridges are sold separately
- 刀片需单独订购
  Inserts are sold separately

80°双刃镗刀 (TSR)

80° Double-Edges BoringTools(TSR)





接口类型	型号	镗头型号	镗孔尺寸DC	尺寸		刀片
Interface type	Model	Cartridge	Boring range	Size(mm)		Insert
				$DCON_{MS}$	LF	
21CD40	21CD40-TSR8042-60	TSR8042.SC09	42-54	60	40	SCMT09T308
21CD50	21CD50-TSR8053-60	TSR8053.SC09	53-70	60	50	SCMT09T308
21CD63	21CD63-TSR8068-80	TSR8068.SC12	68-88	80	63	SCMT120408
21CD63	21CD63-TSR8084-80	TSR8084.SC12	84-115	80	63	SCMT120408
21CD80	21CD80-TSR80110-90	TSR80110.SC12	110-155	90	80	SCMT120408
21CD100	21CD100-TSR80150-115	TSR80150.SC12	150-205	115	100	SCMT120408

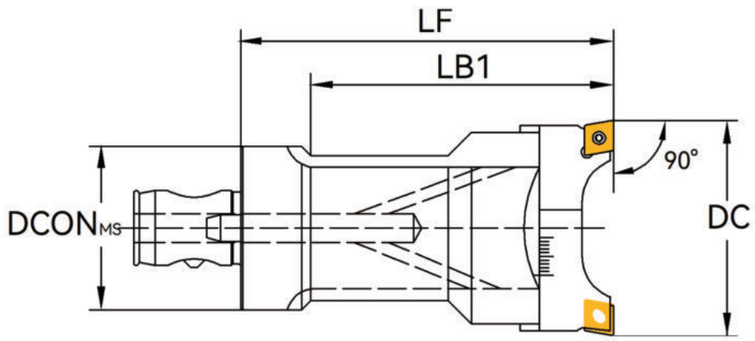
● 刀片需单独订购
Inserts are sold separately

螺钉	扳手	刀体型号	螺钉	扳手	垫圈	扳手
Screw	Torx wrench	Boring body	Screw	Hex wrench	Washer	Hex wrench
C035A08IP	15IP	21CD40-TR42-60	MS06020N	S5	DT06	S1.5
C035A08IP	15IP	21CD50-TR53-60	MS08020N	S6	DT08	S2.5
C050A12IP	20IP	21CD63-TR68-80	MS10025N	S8	D10IP	S2.5
C050A12IP	20IP	21CD63-TR84-80	MS12025N	S10	DT12	S3
C050A12IP	20IP	21CD80-TR110-90	MS10030N	S8	D10IP	S3
C050A12IP	20IP	21CD100-TR150-115	MS10030N	S8	D10IP	TS3

90°双刃镗刀 (TTR)

90° Double-Edges Boring Tools(TTR)





型号	镗孔尺寸DC	尺寸 Size(mm)				刀片
Model	Boring range	$DCON_{MS}$	LF 短型 Short style	LF 长型 Long style	LB1	Insert
21CD25-TS9025-045	25-32	25	45	-	35	CCMT060204
21CD32-TS9025-070		32	-	70	58	
21CD25-TS9030-050	30-38	25	50	-	-	
21CD32-TS9030-085		32	-	85	73	
21CD32-TS9037-060	37-47	32	60	-	-	
21CD40-TS9046-060	36-56	40	60	-	-	CCMT09T308
21CD50-TS9046-120		50	-	120	104	
21CD40-TS9055-060	55-70	40	60	-	-	
21CD50-TS9055-135		50	-	135	-	
21CD50-TS9069-070	69-84	63	70	-	-	CCMT120408
21CD63-TS9083-080	83-101	63	80	-	-	
21CD63-TS9099-080	99-125	63	80	-	-	
21CD80-TS90123-090	123-150	80	90	-	-	

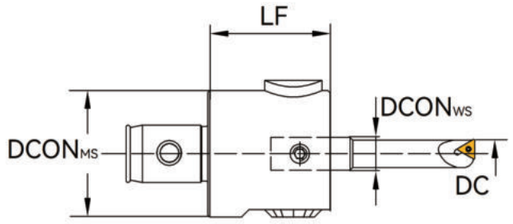
● 刀片需单独订购
Inserts are sold separately

螺钉	扳手	镗头型号	螺钉	扳手	垫圈	螺钉	扳手
Screw	Torx wrench	Boring body	Screw	Hex wrench	Washer	Screw	Hex wrench
C025A07IP	8IP	TS9025.CC06	MS04016N	S3	DT04	RS03010	S1.5
		TS9030.CC06	MS04016N	S3	DT04	RS03010	S1.5
		TS9037.CC06	MS05016N	S4	DT05	RS03010	S1.5
C035A08IP	15IP	TS9046.CC09	MS05016N	S4	DT05	RS04012	S2
		TS9055.CC09	MS06020N	S5	DT06	RS04012	S2
C050A12IP	20IP	TS9069.CC12	MS08020N	S6	DT08	RS05016	S2.5
		TS9083.CC12	MS10025N	S8	DT10	RS05020	S2.5
		TS9099.CC12	MS10030N	S8	DT10	RS06025	S3
		TS90123.CC12	MS10030N	S8	DT10	RS06025	S3

小孔径精镗刀（SBZ)

Fine Boring for Small Diameter(SBZ)



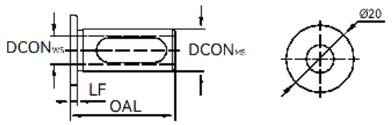


型号	镗孔尺寸DC	微调行程	尺寸		
Model	Boring range	Slide travel	Size(mm)		
			$DCON_{WS}$	$DCON_{MS}$	LF
21CD40-SBZ-8	3-11	2	8	40	35
21CD50-SBZ-12	3-28	3	12	50	40
21CD63-SBZ-16	3-50	5	16	63	60

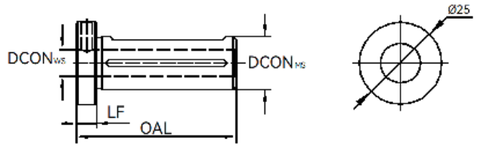
- 刀柄需单独订购
  Toolholders are sold separately
- 变径套、镗刀杆需单独订购
  Reducing sleeves & boring bars are sold separately

变径套

Re Ducing Sleeve



Type Ⅰ

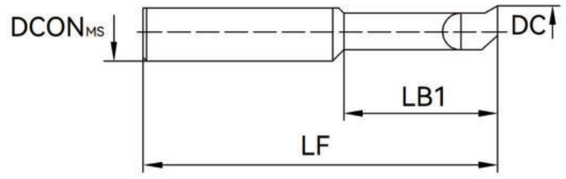


Type Ⅱ

型号	精镗孔器	尺寸				结构型式
Model	Boring range	Size(mm)				DSGN
		$DCON_{WS}$	$DCON_{MS}$	LF	OAL	
SBJ-12C8	SBJ-16C8	8	12	2	30	1
SBJ-16C8	21CD63-SBZ-16	8	16	6	48	2

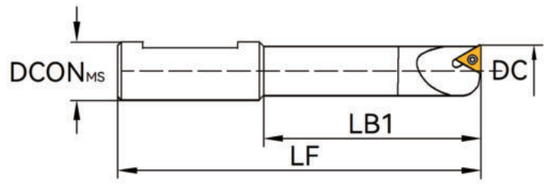
整体硬质合金镗刀杆

Solid Carbide Boring Bar



型号	镗孔尺寸DC	尺寸		
Model	Boring range	Size(mm)		
		$DCON_{MS}$	LB1	LF
YBJ-0803-09	3-5	8	9	38
YBJ-0805-15	5-7	8	15	43
YBJ-0807-21	7-9	8	21	49
YBJ-0809-27	9-11	8	27	54

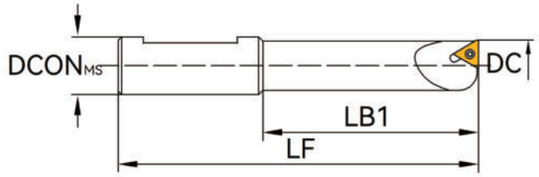
- 该系列镗杆可直接用于 21CD40-SBZ-8
  These boring bars can be fitted 21CD40-SBZ-8 directly
- 该系列镗杆用于21CD50-SBZ-12时，需与变径套SBJ-12C8配合
  These boring bars must use reducing sleeve SBJ-12C8 to fit 21CD50-SBZ-12
- 该系列镗杆用于21CD63-SBZ-16时，需与变径套SBJ-16C8配合
  These boring bars must use reducing sleeve SBJ-16C8 to fit 21CD63-SBZ-16



型号	镗孔尺寸DC	尺寸			刀片	螺钉	扳手
Model	Boring range	Size(mm)			Insert	Screw	Torx wrench
		$DCON_{MS}$	LB1	LF			
YSBJ-1608-040	8-11	16	40	82	TBGT060102L	C020S05J	6IP
YSBJ-1610-050	10-13	16	50	92	TBGT060102L	C020S05J	6IP
YSBJ-1612-060	12-17	16	60	102	TPGH090204L	C025A07IP	8IP
YSBJ-1616-080	16-21	16	80	122	TPGH090204L	C025A07IP	8IP
YSBJ-1620-100	20-26	16	100	142	TPGH110304L	C030A07IP	9IP

- 刀片需单独订购
  Inserts are sold separately

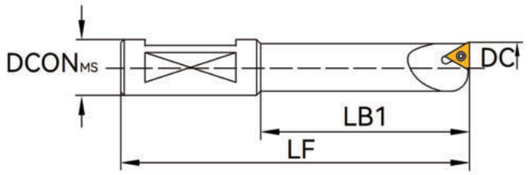
镗刀杆 - 标准型
Boring Bar-Standard



● 刀片需单独订购
Inserts are sold separately

型号 Model	镗孔尺寸DC Boring range	尺寸 Size(mm)			刀片 Insert	螺钉 Screw	扳手 Torx wrench
		$DCON_{MS}$	LB1	LF			
SBJ-1208-030	8-10	12	32	60	TBGT060102L	C020S05J	6IP
SBJ-1210-040	10-12	12	40	68	TBGT060102L	C020S05J	6IP
SBJ-1212-048	12-14	12	48	76	TPGH090204L	C025A07IP	8IP
SBJ-1214-056	14-16	12	56	84	TPGH090204L	C025A07IP	8IP
SBJ-1216-060	16-18	12	60	88	TPGH090204L	C025A07IP	8IP
SBJ-1218-060	18-20	12	60	88	TPGH110304L	C030A07IP	9IP
SBJ-1220-060	20-24	12	60	88	TPGH110304L	C030A07IP	9IP
SBJ-1224-060	24-28	12	60	88	TPGH110304L	C030A07IP	9IP
SBJ-1608-032	8-11	16	32	74	TBGT060102L	C020S05J	6IP
SBJ-1610-040	10-13	16	40	82	TBGT060102L	C020S05J	6IP
SBJ-1612-053	12-17	16	53	95	TPGH090204L	C025A07IP	8IP
SBJ-1616-068	16-21	16	68	110	TPGH090204L	C025A07IP	8IP
SBJ-1620-083	20-26	16	83	125	TPGH110304L	C030A07IP	9IP
SBJ-1625-090	25-32	16	90	132	TPGH110304L	C030A07IP	9IP
SBJ-1630-090	30-42	16	90	132	TPGH110304L	C030A07IP	9IP
SBJ-1640-090	40-50	16	90	132	TPGH110304L	C030A07IP	9IP

镗刀杆 - 短型
Boring Bar-Short Type

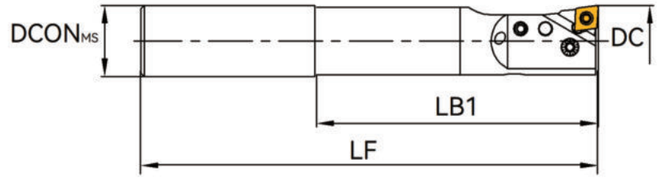


● 刀片需单独订购
Inserts are sold separately

型号 Model	镗孔尺寸DC Boring range	尺寸 Size(mm)			刀片 Insert	螺钉 Screw	扳手 Torx wrench
		$DCON_{MS}$	LB1	LF			
SBJ-1608-016	8-11	16	16	58	TBGT060102L	C020S05J	6IP
SBJ-1610-020	10-13	16	20	62	TBGT060102L	C020S05J	6IP
SBJ-1612-024	12-17	16	24	66	TPGH090204L	C025A07IP	8IP
SBJ-1616-032	16-21	16	32	74	TPGH090204L	C025A07IP	8IP
SBJ-1620-032	20-26	16	32	74	TPGH110304L	C030A07IP	9IP
SBJ-1625-032	25-32	16	32	74	TPGH110304L	C030A07IP	9IP

微调精镗刀 (CBZ)
Micro-Adjustabal Boring Tools(CBZ)





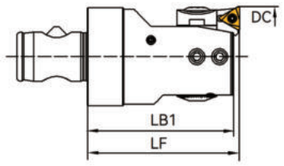
型号 Model	尺寸 Size(mm)				刀片 Insert	螺钉 Screw	扳手 Torx wrench
	DC	$DCON_{MS}$	LB1	LF			
HC20-CBZ19.0-075	19	20	75	125	CC□□060204	C025A07IP	8IP
HC20-CBZ19.5-075	19.5	20	75	125	CC□□060204	C025A07IP	8IP
HC20-CBZ20.0-080	20	20	80	130	CC□□060204	C025A07IP	8IP
HC20-CBZ20.5-080	20.5	20	80	130	CC□□060204	C025A07IP	8IP
HC20-CBZ21.0-085	21	20	85	135	CC□□060204	C025A07IP	8IP
HC20-CBZ21.5-085	21.5	20	85	135	CC□□060204	C025A07IP	8IP
HC20-CBZ22.0-090	22	20	90	140	CC□□060204	C025A07IP	8IP
HC20-CBZ22.5-090	22.5	20	90	140	CC□□060204	C025A07IP	8IP
HC20-CBZ23.0-090	23	20	90	140	CC□□060204	C025A07IP	8IP
HC20-CBZ23.5-090	23.5	20	90	140	CC□□060204	C025A07IP	8IP
HC20-CBZ24.0-095	24	20	95	145	CC□□060204	C025A07IP	8IP
HC20-CBZ24.5-095	24.5	20	95	145	CC□□060204	C025A07IP	8IP
HC20-CBZ25.0-100	25	20	100	150	CC□□060204	C025A07IP	8IP
HC20-CBZ25.5-100	25.5	20	100	150	CC□□060204	C025A07IP	8IP

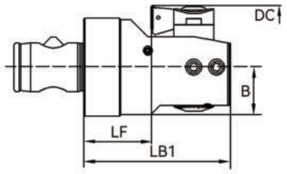
● 刀片需单独订购
Inserts are sold separately

微调精镗刀 (FBZ)

Micro-Adjustabal Boring Tools(FBZ)





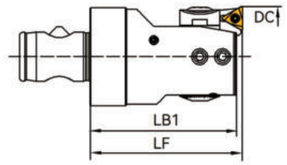


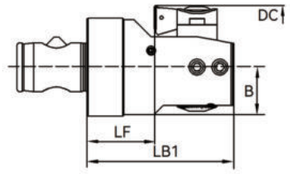
接口类型	型号	正镗			反镗				刀片座	螺钉
Interface type	Model	Forward boring			Back boring				Cartridge	Screw
		DC	LF	LB1	DC	LF	LB1	B		
21CD25	21CD25-FBZ026008-045	26-47	45	43	36-47	19	43	12.5	BZ02...	SS03005A
21CD32	21CD32-FBZ033010-050	33-60	50	48	44-60	22	48	16	BZ03...	SS04010A
21CD40	21CD40-FBZ042013-060	42-74	60	58	57-74	24	58	20	BZ04...	SS05010A
21CD50	21CD50-FBZ053017-060	53-95	60	58	68-95	20	58	25	BZ05...	SS06012A
21CD63	21CD63-FBZ068032-080	68-152	80	78	84-152	30	78	32.5	BZ06...	SS08012A
21CD80	21CD80-FBZ098053-090	98-203	90	88	98-203	40	88	45	BZ06...	SS08015A

- 刀片座需单独订购
  Cartridges are sold separately

- 刀片需单独订购
  Inserts are sold separately







刀片座

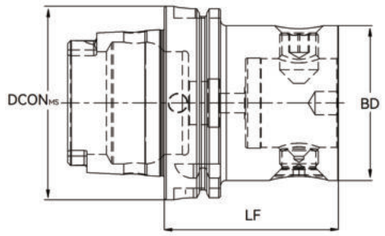
Cartridges

型号	正镗	反镗	镗刀	刀片	螺钉	扳手
Model	Forward boring	Back boring	Boring Tools	Insert	Torx wrench	Torx wrench
BZ021.TP08	26~34	-	21CD25-FBZ026008-45	TP□□0802□□L	C020S05J	6IP
BZ022.TP08	33~41	36~41	21CD25-FBZ026008-45			
BZ023.TP08	39~47	42~47	21CD25-FBZ026008-45			
BZ031.TP08	33~43	-	21CD32-FBZ033010-50			
BZ032.TP08	42~52	44~52	21CD32-FBZ033010-50			
BZ033.TP08	50~60	52~60	21CD32-FBZ033010-50			
BZ041.TP11	42~55	-	21CD40-FBZ042013-60	TP□□1103□□L	C030A07IP	9IP
BZ042.TP11	52~65	57~65	21CD40-FBZ042013-60			
BZ043.TP11	61~74	66~74	21CD40-FBZ042013-60			
BZ051.TP11	53~70	68~70	21CD50-FBZ053017-60			
BZ052.TP11	64~81	70~81	21CD50-FBZ053017-60			
BZ053.TP11	78~95	84~95	21CD50-FBZ053017-60			
BZ061.TP11	68~100	84~100	21CD63-FBZ068032-80			
	98~151	98~151	21CD80-FBZ098053-90			
BZ062.TP11	95~127	107~127	21CD63-FBZ068032-80			
	125~178	125~178	21CD80-FBZ098053-90			
BZ063.TP11	120~152	132~152	21CD63-FBZ068032-80			
	150~203	150~203	21CD80-FBZ098053-90			
BZ021.CC06	26~34	-	21CD25-FBZ026008-45	CC□□0602	C025A07IP	8IP
BZ031.CC06	33~43	-	21CD32-FBZ033010-50			
BZ041.TC11	42~55	-	21CD40-FBZ042013-60	TC□□1102	C025A07IP	8IP
BZ051.TC11	53~70	68~70	21CD50-FBZ053017-60			
BZ061.TC11	68~100	84~100	21CD63-FBZ068032-80			
	98~151	98~151	21CD80-FBZ098053-90			

TMG21 主柄模块

TMG21 Base Toolhoders





接口类型	型号	尺寸			外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)			Thrust screw	Receiving screw
	DIN69893	$DCON_{MS}$	BD	LF		
HSK-A63	21A.HSK63A.25-050	63	25	50	21A.25-E1	21A.25-E2
HSK-A63	21A.HSK63A.32-055	63	32	55	21A.32-E1	21A.32-E2
HSK-A63	21A.HSK63A.40-060	63	40	60	21A.40-E1	21A.40-E2
HSK-A63	21A.HSK63A.50-070	63	50	70	21A.50-E1	21A.50-E2
HSK-A63	21A.HSK63A.63-080	63	63	80	21A.63-E1	21A.63-E2
HSK-A63	21A.HSK63A.80-100	63	80	100	21A.80-E1	21A.80-E2
HSK-A100	21A.HSK100A.25-060	100	25	60	21A.25-E1	21A.25-E2
HSK-A100	21A.HSK100A.32-060	100	32	60	21A.32-E1	21A.32-E2
HSK-A100	21A.HSK100A.40-080	100	40	80	21A.40-E1	21A.40-E2
HSK-A100	21A.HSK100A.50-080	100	50	80	21A.50-E1	21A.50-E2
HSK-A100	21A.HSK100A.63-080	100	63	80	21A.63-E1	21A.63-E2
HSK-A100	21A.HSK100A.80-090	100	80	90	21A.80-E1	21A.80-E2
HSK-A100	21A.HSK100A.100-100	100	100	100	21A.100-E1	21A.100-E2

附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10	S12

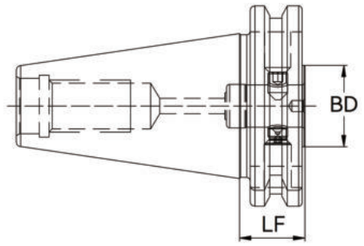
附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 CooLUnt tubes	TU-HSK63	TU-HSK100
扳手 CooLUnt tube Wrench	W-HSK63	W-HSK100

- 中心通油时，建议配用密封垫
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- 附件需单独订购
  Accessories are sold separately

TMG21 主柄模块 - 短型

TMG21 Base Toolhoders-Stub





接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
JT40	21A.JT40.25-020	25	20	21A.25-E1	21A.25-E2
JT40	21A.JT40.32-022.5	32	22.5	21A.32-E1	21A.32-E2
JT40	21A.JT40.40-022.5	40	22.5	21A.40-E1	21A.40-E2
JT40	21A.JT40.50-045	50	45	21A.50-E1	21A.50-E2
JT40	21A.JT40.63-065	63	65	21A.63-E1	21A.63-E2
JT50	21A.JT50.25-020	25	20	21A.25-E1	21A.25-E2
JT50	21A.JT50.32-022.5	32	22.5	21A.32-E1	21A.32-E2
JT50	21A.JT50.40-022.5	40	22.5	21A.40-E1	21A.40-E2
JT50	21A.JT50.50-045	50	45	21A.50-E1	21A.50-E2
JT50	21A.JT50.63-050	63	50	21A.63-E1	21A.63-E2
JT50	21A.JT50.80-060	80	60	21A.80-E1	21A.80-E2
JT50	21A.JT50.100-080	100	80	21A.100-E1	21A.100-E2

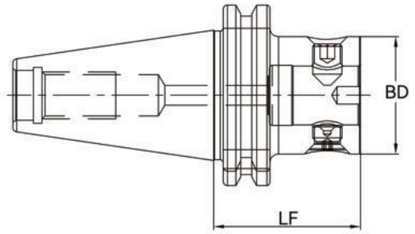
附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10	S12

- 中心通油时，建议配用密封垫
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TMG21 主柄模块

TMG21 Base Toolhoders



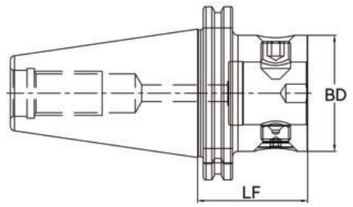


接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
JT40	21A.JT40.25-050	25	50	21A.25-E1	21A.25-E2
JT40	21A.JT40.25-075	25	75	21A.25-E1	21A.25-E2
JT40	21A.JT40.25-095	25	95	21A.25-E1	21A.25-E2
JT40	21A.JT40.32-050	32	50	21A.32-E1	21A.32-E2
JT40	21A.JT40.32-075	32	75	21A.32-E1	21A.32-E2
JT40	21A.JT40.32-100	32	100	21A.32-E1	21A.32-E2
JT40	21A.JT40.32-135	32	135	21A.32-E1	21A.32-E2
JT40	21A.JT40.40-050	40	50	21A.40-E1	21A.40-E2
JT40	21A.JT40.40-080	40	80	21A.40-E1	21A.40-E2
JT40	21A.JT40.40-110	40	110	21A.40-E1	21A.40-E2
JT40	21A.JT40.40-150	40	150	21A.40-E1	21A.40-E2
JT40	21A.JT40.50-050	50	50	21A.50-E1	21A.50-E2
JT40	21A.JT40.50-080	50	80	21A.50-E1	21A.50-E2
JT40	21A.JT40.50-115	50	115	21A.50-E1	21A.50-E2
JT40	21A.JT40.50-150	50	150	21A.50-E1	21A.50-E2
JT40	21A.JT40.63-090	63	90	21A.63-E1	21A.63-E2
JT40	21A.JT40.63-135	63	135	21A.63-E1	21A.63-E2
JT40	21A.JT40.63-175	63	175	21A.63-E1	21A.63-E2

附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8

- 中心通油时，建议配用密封垫
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  Accessories are sold separately





接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
JT50	21A.JT50.25-060	25	60	21A.25-E1	21A.25-E2
JT50	21A.JT50.25-090	25	90	21A.25-E1	21A.25-E2
JT50	21A.JT50.25-105	25	105	21A.25-E1	21A.25-E2
JT50	21A.JT50.32-060	32	60	21A.32-E1	21A.32-E2
JT50	21A.JT50.32-090	32	90	21A.32-E1	21A.32-E2
JT50	21A.JT50.32-110	32	110	21A.32-E1	21A.32-E2
JT50	21A.JT50.32-135	32	135	21A.32-E1	21A.32-E2
JT50	21A.JT50.40-060	40	60	21A.40-E1	21A.40-E2
JT50	21A.JT50.40-090	40	90	21A.40-E1	21A.40-E2
JT50	21A.JT50.40-120	40	120	21A.40-E1	21A.40-E2
JT50	21A.JT50.40-150	40	150	21A.40-E1	21A.40-E2
JT50	21A.JT50.50-060	50	60	21A.50-E1	21A.50-E2
JT50	21A.JT50.50-090	50	90	21A.50-E1	21A.50-E2
JT50	21A.JT50.50-125	50	125	21A.50-E1	21A.50-E2
JT50	21A.JT50.50-165	50	165	21A.50-E1	21A.50-E2
JT50	21A.JT50.63-060	63	60	21A.63-E1	21A.63-E2
JT50	21A.JT50.63-105	63	105	21A.63-E1	21A.63-E2
JT50	21A.JT50.63-145	63	145	21A.63-E1	21A.63-E2
JT50	21A.JT50.63-175	63	175	21A.63-E1	21A.63-E2
JT50	21A.JT50.63-225	63	225	21A.63-E1	21A.63-E2
JT50	21A.JT50.80-070	80	70	21A.80-E1	21A.80-E2
JT50	21A.JT50.80-125	80	125	21A.80-E1	21A.80-E2
JT50	21A.JT50.80-155	80	155	21A.80-E1	21A.80-E2
JT50	21A.JT50.80-200	80	200	21A.80-E1	21A.80-E2
JT50	21A.JT50.80-250	80	250	21A.80-E1	21A.80-E2
JT50	21A.JT50.100-115	100	115	21A.100-E1	21A.100-E2
JT50	21A.JT50.100-155	100	155	21A.100-E1	21A.100-E2
JT50	21A.JT50.100-200	100	200	21A.100-E1	21A.100-E2
JT50	21A.JT50.100-250	100	250	21A.100-E1	21A.100-E2

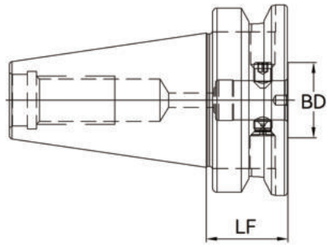
附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10	S12

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TMG21 主柄模块 - 短型

TMG21 Base Toolhoders-Stub





接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
BT40	21A.BT40.25-027	25	27	21A.25-E1	21A.25-E2
BT40	21A.BT40.32-027.5	32	27.5	21A.32-E1	21A.32-E2
BT40	21A.BT40.40-027.5	40	27.5	21A.40-E1	21A.40-E2
BT40	21A.BT40.50-050.5	50	50.5	21A.50-E1	21A.50-E2
BT40	21A.BT40.63-055	63	55	21A.63-E1	21A.63-E2
BT50	21A.BT50.32-038.5	32	38.5	21A.25-E1	21A.32-E2
BT50	21A.BT50.40-038.5	40	38.5	21A.32-E1	21A.40-E2
BT50	21A.BT50.50-038.5	50	38.5	21A.40-E1	21A.50-E2
BT50	21A.BT50.63-038.5	63	38.5	21A.50-E1	21A.63-E2
BT50	21A.BT50.80-075	80	75	21A.63-E1	21A.80-E2
BT50	21A.BT50.100-090	100	90	21A.80-E1	21A.100-E2

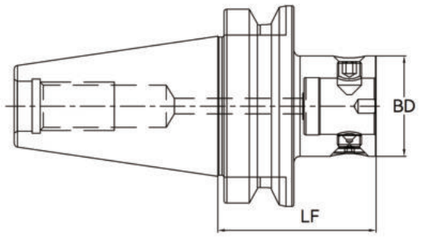
附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10	S12

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TMG21 主柄模块

TMG21 Base Toolhoders





接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
BT30	21A.BT30.25-040	25	40	21A.25-E1	21A.25-E2
BT30	21A.BT30.32-050	32	50	21A.32-E1	21A.32-E2
BT30	21A.BT30.40-050	40	50	21A.40-E1	21A.40-E2
BT40	21A.BT40.25-058	25	58	21A.25-E1	21A.25-E2
BT40	21A.BT40.25-075	25	75	21A.25-E1	21A.25-E2
BT40	21A.BT40.25-100	25	100	21A.25-E1	21A.25-E2
BT40	21A.BT40.32-058	32	58	21A.32-E1	21A.32-E2
BT40	21A.BT40.32-085	32	85	21A.32-E1	21A.32-E2
BT40	21A.BT40.32-110	32	110	21A.32-E1	21A.32-E2
BT40	21A.BT40.32-145	32	145	21A.32-E1	21A.32-E2
BT40	21A.BT40.40-058	40	58	21A.40-E1	21A.40-E2
BT40	21A.BT40.40-090	40	90	21A.40-E1	21A.40-E2
BT40	21A.BT40.40-120	40	120	21A.40-E1	21A.40-E2
BT40	21A.BT40.40-150	40	150	21A.40-E1	21A.40-E2
BT40	21A.BT40.50-058	50	58	21A.50-E1	21A.50-E2
BT40	21A.BT40.50-095	50	95	21A.50-E1	21A.50-E2
BT40	21A.BT40.50-125	50	125	21A.50-E1	21A.50-E2
BT40	21A.BT40.50-165	50	165	21A.50-E1	21A.50-E2
BT40	21A.BT40.63-070	63	70	21A.63-E1	21A.63-E2
BT40	21A.BT40.63-098	63	98	21A.63-E1	21A.63-E2
BT40	21A.BT40.63-135	63	135	21A.63-E1	21A.63-E2
BT40	21A.BT40.63-180	63	180	21A.63-E1	21A.63-E2

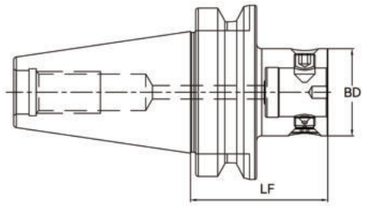
附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8

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TMG21 主柄模块

TMG21 Base Toolhoders



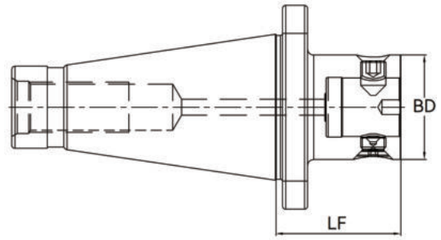


接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
BT50	21A.BT50.25-079	25	79	21A.25-E1	21A.25-E2
BT50	21A.BT50.25-100	25	100	21A.25-E1	21A.25-E2
BT50	21A.BT50.25-125	25	125	21A.25-E1	21A.25-E2
BT50	21A.BT50.32-079	32	79	21A.32-E1	21A.32-E2
BT50	21A.BT50.32-105	32	105	21A.32-E1	21A.32-E2
BT50	21A.BT50.32-130	32	130	21A.32-E1	21A.32-E2
BT50	21A.BT50.32-165	32	165	21A.32-E1	21A.32-E2
BT50	21A.BT50.40-079	40	79	21A.40-E1	21A.40-E2
BT50	21A.BT50.40-105	40	105	21A.40-E1	21A.40-E2
BT50	21A.BT50.40-140	40	140	21A.40-E1	21A.40-E2
BT50	21A.BT50.40-175	40	175	21A.40-E1	21A.40-E2
BT50	21A.BT50.50-079	50	79	21A.50-E1	21A.50-E2
BT50	21A.BT50.50-110	50	110	21A.50-E1	21A.50-E2
BT50	21A.BT50.50-145	50	145	21A.50-E1	21A.50-E2
BT50	21A.BT50.50-180	50	180	21A.50-E1	21A.50-E2
BT50	21A.BT50.63-079	63	79	21A.63-E1	21A.63-E2
BT50	21A.BT50.63-125	63	125	21A.63-E1	21A.63-E2
BT50	21A.BT50.63-165	63	165	21A.63-E1	21A.63-E2
BT50	21A.BT50.63-200	63	200	21A.63-E1	21A.63-E2
BT50	21A.BT50.63-250	63	250	21A.63-E1	21A.63-E2
BT50	21A.BT50.80-089	80	89	21A.80-E1	21A.80-E2
BT50	21A.BT50.80-135	80	135	21A.80-E1	21A.80-E2
BT50	21A.BT50.80-150	80	150	21A.80-E1	21A.80-E2
BT50	21A.BT50.80-175	80	175	21A.80-E1	21A.80-E2
BT50	21A.BT50.80-210	80	210	21A.80-E1	21A.80-E2
BT50	21A.BT50.80-265	80	265	21A.80-E1	21A.80-E2
BT50	21A.BT50.100-134	100	134	21A.100-E1	21A.100-E2
BT50	21A.BT50.100-165	100	165	21A.100-E1	21A.100-E2
BT50	21A.BT50.100-200	100	200	21A.100-E1	21A.100-E2
BT50	21A.BT50.100-250	100	250	21A.100-E1	21A.100-E2

附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10	S12

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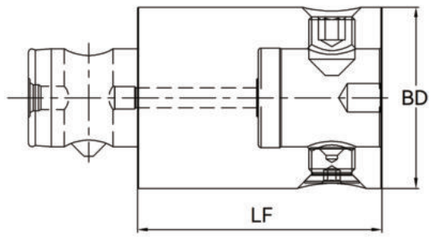
接口类型	型号	尺寸		外锥端螺钉	内锥端螺钉
Interface type	Model	Size(mm)		Thrust screw	Receiving screw
	DIN69871-AD	BD	LF		
ST50	21A.ST50.50-060	50	60	21A.50-E1	21A.50-E2
ST51	21A.ST50.63-060	63	60	21A.63-E1	21A.63-E2
ST52	21A.ST50.80-070	80	70	21A.80-E1	21A.80-E2
ST53	21A.ST50.100-115	100	115	21A.100-E1	21A.100-E2

附件 Accessories	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S6	S8	S10	S12

- 中心通油时，建议配用密封垫
  Please use seal ring in the case of internal coolant supply
- 附件需单独订购
  Accessories are sold separately

TMG21 等径中间模块
TMG21 Extensions





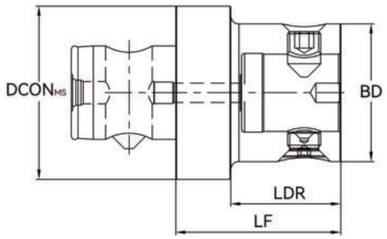
型号	尺寸		外锥端螺钉	内锥端螺钉	滑销	定位销
Model	Size(mm)		Thrust screw	Receiving screw	Floating pin	Orientation pin
	BD	LF				
21B.25/25-045	25	45	21A.25-E1	21A.25-E2	21A.25-E3	21A.25-E4
21B.25/25-060	25	60	21A.25-E1	21A.25-E2	21A.25-E3	21A.25-E4
21B.32/32-050	32	50	21A.32-E1	21A.32-E2	21A.32-E3	21A.32-E4
21B.32/32-070	32	70	21A.32-E1	21A.32-E2	21A.32-E3	21A.32-E4
21B.40/40-060	40	60	21A.40-E1	21A.40-E2	21A.40-E3	21A.40-E4
21B.40/40-090	40	90	21A.40-E1	21A.40-E2	21A.40-E3	21A.40-E4
21B.50/50-065	50	65	21A.50-E1	21A.50-E2	21A.50-E3	21A.50-E4
21B.50/50-100	50	100	21A.50-E1	21A.50-E2	21A.50-E3	21A.50-E4
21B.63/63-085	63	85	21A.63-E1	21A.63-E2	21A.63-E3	21A.63-E4
21B.63/63-125	63	125	21A.63-E1	21A.63-E2	21A.63-E3	21A.63-E4
21B.80/80-085	80	85	21A.80-E1	21A.80-E2	21A.80-E3	21A.80-E4
21B.80/80-125	80	125	21A.80-E1	21A.80-E2	21A.80-E3	21A.80-E4
21B.100/100-085	100	85	21A.100-E1	21A.100-E2	21A.100-E3	21A.100-E4
21B.100/100-125	100	125	21A.100-E1	21A.100-E2	21A.100-E3	21A.100-E4
21B.100/100-160	100	160	21A.100-E1	21A.100-E2	21A.100-E3	21A.100-E4

附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80	BD=100
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9	21A.100-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10	S12

- 中心通油时，建议配用密封垫
  Please use seal ring in the case of internal coolant supply
- 附件需单独订购
  Accessories are sold separately

TMG21 变径中间模块
TMG21 Reductions





型号	尺寸				外锥端螺钉	内锥端螺钉	滑销	定位销
Model	Size(mm)				Thrust screw	Receiving screw	Floating pin	Orientation pin
	$DCON_{MS}$	BD	LF	LDR				
21B.32/25-040	32	25	40	28	21A.25-E1	21A.25-E2	21A.32-E3	21A.32-E4
21B.40/25-040	40	25	40	26	21A.25-E1	21A.25-E2	21A.40-E3	21A.40-E4
21B.40/32-040	40	32	40	26	21A.32-E1	21A.32-E2	21A.40-E3	21A.40-E4
21B.50/25-050	50	25	50	34	21A.25-E1	21A.25-E2	21A.50-E3	21A.50-E4
21B.50/32-050	50	32	50	34	21A.32-E1	21A.32-E2	21A.50-E3	21A.50-E4
21B.50/40-050	50	40	50	34	21A.40-E1	21A.40-E2	21A.50-E3	21A.50-E4
21B.63/25-060	63	25	60	40	21A.25-E1	21A.25-E2	21A.63-E3	21A.63-E4
21B.63/32-060	63	32	60	40	21A.32-E1	21A.32-E2	21A.63-E3	21A.63-E4
21B.63/40-060	63	40	60	40	21A.40-E1	21A.40-E2	21A.63-E3	21A.63-E4
21B.63/50-060	63	50	60	40	21A.50-E1	21A.50-E2	21A.63-E3	21A.63-E4
21B.80/32-060	80	32	60	36	21A.32-E1	21A.32-E2	21A.80-E3	21A.80-E4
21B.80/40-060	80	40	60	36	21A.40-E1	21A.40-E2	21A.80-E3	21A.80-E4
21B.80/50-060	80	50	60	36	21A.50-E1	21A.50-E2	21A.80-E3	21A.80-E4
21B.80/63-060	80	63	60	36	21A.63-E1	21A.63-E2	21A.80-E3	21A.80-E4
21B.100/40-080	100	40	80	52	21A.40-E1	21A.40-E2	21A.100-E3	21A.100-E4
21B.100/50-080	100	50	80	52	21A.50-E1	21A.50-E2	21A.100-E3	21A.100-E4
21B.100/63-080	100	63	80	52	21A.63-E1	21A.63-E2	21A.100-E3	21A.100-E4
21B.100/80-080	100	80	80	52	21A.80-E1	21A.80-E2	21A.100-E3	21A.100-E4

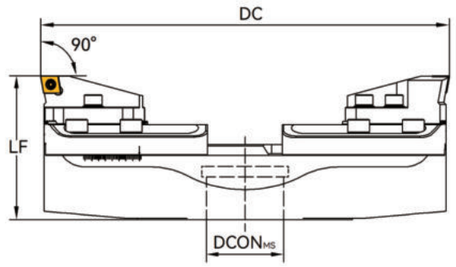
附件 Accessories	BD=25	BD=32	BD=40	BD=50	BD=63	BD=80
密封垫 Seal Ring	21A.25-E9	21A.32-E9	21A.40-E9	21A.50-E9	21A.63-E9	21A.80-E9
扳手 Hex Wrench	S3	S4	S5	S6	S8	S10

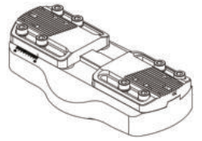
- 中心通油时，建议配用密封垫
  Please use seal ring in the case of internal coolant supply
- 附件需单独订购
  Accessories are sold separately

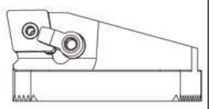
大直径双刃镗刀 (SCC)

Double-Edges Boring Tools(SCC)

- 使用正前角刀片（刀片后角大于 0°）。
  Use positive inserts
- 简单可靠的刀片夹紧方式和极少的备件。
  Reliable fix insert clamping
- 适用于轻、中型加工场合。
  Light to medium cutting



桥体	型号	滑座	螺钉	垫圈	扳手	微调组件	扳手
Crossbars	Model	Slide base	Screw	Washer	Hex Wrench	Adjustable member	Hex Wrench
	CRB150	SDB50	MS10030	DT10	S8	ADJM05	TS2.5
	CRB200						
	CRB250						
	CRB300	SDB80					
	CRB380						
	CRB460						
	CRB540						
	CRB620						

镗刀座	型号	螺钉	垫圈	扳手	螺钉	扳手
Slide insert holder	Model	Screw	Washer	Hex Wrench	Screw	Hex Wrench
	SCC12.TS90	MS08020	DT08	S6	C050A12IP	20IPIP

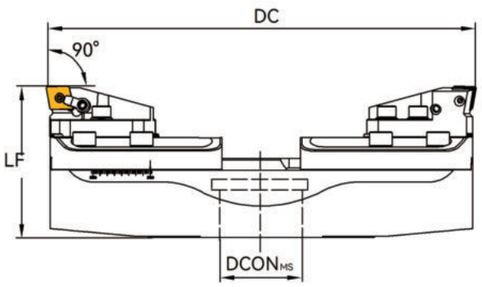
镗孔尺寸DC	组合型号	尺寸		刀柄	桥体	镗刀座	内冷却	刀片
Boring range	Model	Size(mm)		Tool Holders	Crossbars	Slide insert holder	Inner Cooling	Insert
		$DCON_{MS}$	LF					
150~200	9IP0.RS150.CC12.40	40	95	..XMX40..	CRB150	SCC12.TS90	Y	CC□□1204□□
200~250	9IP0.RS200.CC12.40	40	95		CRB200		Y	
250~300	9IP0.RS250.CC12.40	40	95		CRB250		Y	
300~380	9IP0.RS300.CC12.60	60	105	..XMX60..	CRB300		-	
380~460	9IP0.RS380.CC12.60	60	105		CRB380		-	
460~540	9IP0.RS460.CC12.60	60	115		CRB460		-	
540~620	9IP0.RS540.CC12.60	60	115		CRB540		-	
620~700	9IP0.RS620.CC12.60	60	115		CRB620		-	

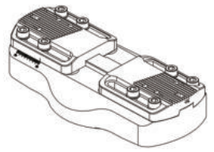
- 刀片需单独订购
  Inserts are sold separately
- 刀柄需单独订购
  Toolholders are sold separately
- 交货时，桥体与镗刀座分开包装
  Crossba and slide insert holders are packed separately

大直径双刃镗刀 (MCN)

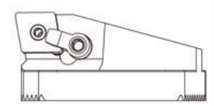
Double-Edges Boring Tools(MCN)

- 采用销钉侧压与压板上压。
  Rigid clamping
- 使用 N 后角刀片（刀片后角为 0°），刀片可双面使用。
  Use negetive inserts



桥体	型号	滑座	螺钉	垫圈	扳手	微调组件	扳手
Crossbars	Model	Slide base	Screw	Washer	Hex Wrench	Adjustable member	Hex Wrench
	CRB150	SDB50	MS10030	DT10	S8	ADJM05	TS2.5
	CRB200						
	CRB250						
	CRB300	SDB80					
	CRB380						
	CRB460						
	CRB540						
	CRB620						

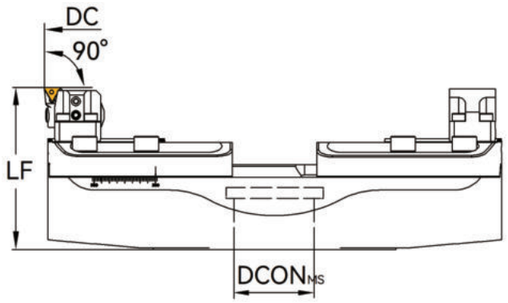
镗孔尺寸DC	组合型号	尺寸		刀柄	桥体	镗刀座	内冷却	刀片
Boring range	Model	Size(mm)		Tool Holders	Crossbars	Slide insert holder	Inner Cooling	Insert
		$DCON_{MS}$	LF					
150~200	9IP0.RM150.CN16.40	40	95	..XMX40..	CRB150	SCC12.TS90	Y	CC□□1606□□
200~250	9IP0.RM200.CN16.40	40	95		CRB200		Y	
250~300	9IP0.RM250.CN16.40	40	95		CRB250		Y	
300~380	9IP0.RM300.CN16.60	60	105	..XMX60..	CRB300		-	
380~460	9IP0.RM380.CN16.60	60	105		CRB380		-	
460~540	9IP0.RM460.CN16.60	60	115		CRB460		-	
540~620	9IP0.RM540.CN16.60	60	115		CRB540		-	
620~700	9IP0.RM620.CN16.60	60	115		CRB620		-	

镗刀座	型号	螺钉	垫圈	扳手	螺钉	扳手
Slide insert holder	Model	Screw	Washer	Hex Wrench	Screw	Hex Wrench
	SCC12.TS90	MS08020	DT08	S6	C050A12IP	20IP

- 刀片需单独订购
  Inserts are sold separately
- 刀柄需单独订购
  Toolholders are sold separately
- 交货时，桥体与镗刀座分开包装
  Crossba and slide insert holders are packed separately

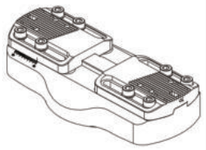
大直径微调精镗刀

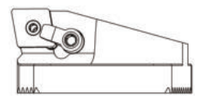
Fine Boring Tools for Large Diameter

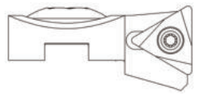


镗孔尺寸DC	组合型号	尺寸		刀柄	桥体	镗刀座	内冷却	刀片
Boring range	Model	Size(mm)		Tool Holders	Crossbars	Slide insert holder	Inner Cooling	Insert
		$DCON_{MS}$	LF					
150~200	9IP0.FS150.TC11.40	40	95		CRB150		Y	
200~250	9IP0.FS200.TC11.40	40	95	..XMX40..	CRB200		Y	
250~300	9IP0.FS250.TC11.40	40	95		CRB250		Y	
300~380	9IP0.FS300.TC11.60	60	105		CRB300		-	
380~460	9IP0.FS380.TC11.60	60	105		CRB380	FTC11.TS90	-	TC..1102..
460~540	9IP0.FS460.TC11.60	60	115	..XMX60..	CRB460		-	
540~620	9IP0.FS540.TC11.60	60	115		CRB540		-	
620~700	9IP0.FS620.TC11.60	60	115		CRB620		-	

- 刀片需单独订购
  Inserts are sold separately
- 刀柄需单独订购
  Toolholders are sold separately
- 交货时，桥体与镗刀座分开包装
  Crossba and slide insert holders are packed separately

桥体	型号	滑座	螺钉	垫圈	扳手
Crossbars	Model	Slide base	Screw	Washer	Hex Wrench
	CRB150	SDB50	MS10030	DT10	S8
	CRB200				
	CRB250				
	CRB300	SDB80			
	CRB380				
	CRB460				
	CRB540				
	CRB620				

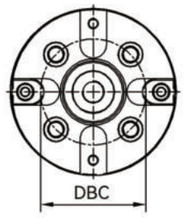
镗刀座	型号	配重块	螺钉	扳手
Slide insert holder	Model	Balunce	Screw	Hex Wrench
	FTC11.TS90	ZB041	MS05020	S4

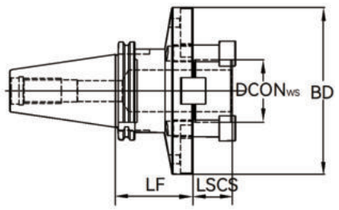
刀片座	型号	螺钉	扳手	螺钉	□□
CartriDges	Model	Screw	Hex Wrench	Screw	Hex Wrench
	BZ041.TC11	SS05010A	S3	C025A07IP	8IPIP

大直径镗刀专用刀柄

Toolholders for Large Diameter Boring

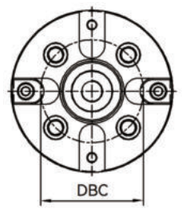


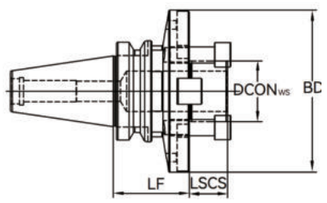




接口类型	型号	尺寸					螺钉	键	螺钉
Interface type	Model	Size(mm)					screw	Key	screw
		$DCON_{WS}$	BD	DBC	LF	LSCS			
JT40	JT40-XMX40-060	40	89	66.7	60	27	MS12045(4)	KXM40	MS08020
JT50	JT50-XMX40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
JT50	JT50-XMX60-075	60	160	101.6	75	38	MS16045(4)	KXMC60	MS10025

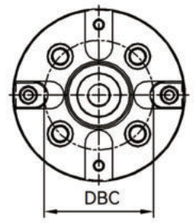


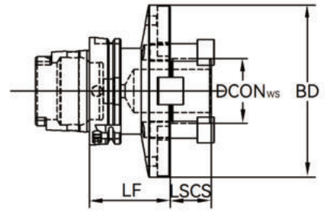




接口类型	型号	尺寸					螺钉	键	螺钉
Interface type	Model	Size(mm)					screw	Key	screw
		$DCON_{WS}$	BD	DBC	LF	LSCS			
BT40	BT40-XMX40-060	40	89	66.7	60	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMX40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMX40-150	40	89	66.7	150	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMX40-200	40	89	66.7	200	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMX40-250	40	89	66.7	250	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMX60-075	60	160	101.6	75	38	MS16045(4)	KXMC60	MS10025
BT50	BT50-XMX60-150	60	160	101.6	150	38	MS16045(4)	KXMC60	MS10025
BT50	BT50-XMX60-200	60	160	101.6	200	38	MS16045(4)	KXMC60	MS10025







接口类型	型号	尺寸					螺钉	键	螺钉
Interface type	Model	Size(mm)					screw	Key	screw
		$DCON_{WS}$	BD	DBC	LF	LSCS			
HSK63A	HSK63A-XMX40-065	40	89	66.7	60	27	MS12045(4)	KXM40	MS08020
HSK100A	HSK100A-XMX40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
HSK100A	HSK100A-XMX60-075	60	160	101.6	75	38	MS16045(4)	KXMC60	MS10025

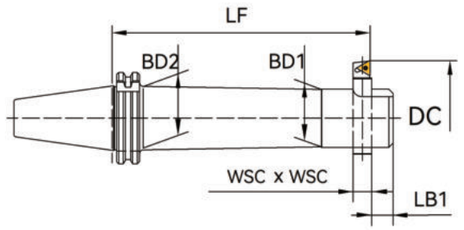
● 附件需要单独订购
Accessories are sold separately

附件 Accessories	$DCON_{WS}$=40	$DCON_{WS}$=60
扳手 Hex Wrench	S10	S14

JT 直角型粗镗刀 (TZC)

JT Straight Form Rough Boring Tools(TZC)





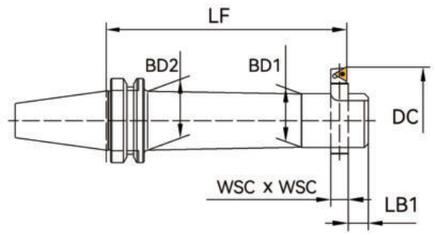
接口类型	型号	镗孔尺寸 DC	尺寸					螺钉	扳手
Interface type	Model	Boring range	Size(mm)					Screw	Hex wrench
			LF	BD_1	BD_2	LB_1	WSC×WSC		
JT40	JT40-TZC25-135	25-50	135	20	24	10	8	RS04005	S2
JT40	JT40-TZC38-180	38-70	180	30	36	15	10	RS06008	S3
JT40	JT40-TZC50-180	50-90	180	40	44	15	13	RS08012	S4
JT40	JT40-TZC50-225	50-90	225	40	44	15	13	RS08012	S4
JT40	JT40-TZC62-180	62-115	180	50	50	15	16	RS10012	S5
JT40	JT40-TZC62-225	62-115	225	50	50	15	16	RS10012	S5
JT40	JT40-TZC72-180	72-135	180	50	50	15	19	RS12016	S6
JT40	JT40-TZC72-225	72-135	225	50	50	15	19	RS12016	S6
JT40	JT40-TZC90-180	90-150	180	50	50	15	19	RS12016	S6
JT40	JT40-TZC90-225	90-150	225	50	50	15	19	RS12016	S6
JT50	JT50-TZC25-135	25-50	135	20	24	10	8	RS04005	S2
JT50	JT50-TZC38-180	38-70	180	30	36	15	10	RS06008	S3
JT50	JT50-TZC50-180	50-90	180	40	48	15	13	RS08012	S4
JT50	JT50-TZC50-240	50-90	240	40	48	15	13	RS08012	S4
JT50	JT50-TZC62-195	62-115	195	50	56	15	16	RS10012	S5
JT50	JT50-TZC62-270	62-115	270	50	56	15	16	RS10012	S5
JT50	JT50-TZC72-195	72-135	195	60	66	15	19	RS12016	S6
JT50	JT50-TZC72-285	72-135	285	60	66	15	19	RS12016	S6
JT50	JT50-TZC90-210	90-150	210	72	77	18	19	RS12016	S6
JT50	JT50-TZC90-300	90-150	300	72	77	18	19	RS12016	S6
JT50	JT50-TZC105-195	105-190	195	80	80	20	25	RS16016	S8
JT50	JT50-TZC105-285	105-190	285	80	80	20	25	RS16016	S8

● 镗刀头单独订购，根据加工要求接口 WSC×WSC 选配相应的镗刀头
Please order cartidges separately according to size of WSC×WSC

BT 直角型粗镗刀 (TZC)

BT Straight Form Rough Boring Tools(TZC)



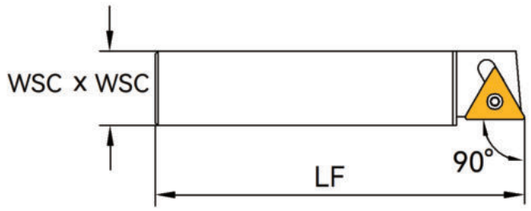


接口类型	型号	镗孔尺寸 DC	尺寸					螺钉	扳手
Interface type	Model	Boring range	Size(mm)					Screw	Hex wrench
			LF	BD_1	BD_2	LB_1	WSC×WSC		
BT40	BT40-TZC25-135	25-50	135	20	24	10	8	RS04005	S2
BT40	BT40-TZC38-180	38-70	180	30	36	15	10	RS06008	S3
BT40	BT40-TZC50-180	50-90	180	40	44	15	13	RS08012	S4
BT40	BT40-TZC50-225	50-90	225	40	44	15	13	RS08012	S4
BT40	BT40-TZC62-180	62-115	180	50	56	15	16	RS10012	S5
BT40	BT40-TZC62-225	62-115	225	50	56	15	16	RS10012	S5
BT40	BT40-TZC72-180	72-135	180	50	50	15	19	RS12016	S6
BT40	BT40-TZC72-225	72-135	225	50	50	15	19	RS12016	S6
BT40	BT40-TZC90-180	90-150	180	50	50	15	19	RS12016	S6
BT40	BT40-TZC90-225	90-150	225	50	50	15	19	RS12016	S6
BT50	BT50-TZC25-135	25-50	135	20	24	10	8	RS04005	S2
BT50	BT50-TZC38-180	38-70	180	30	36	15	10	RS06008	S3
BT50	BT50-TZC50-180	50-90	180	40	48	15	13	RS08012	S4
BT50	BT50-TZC50-240	50-90	240	40	48	15	13	RS08012	S4
BT50	BT50-TZC62-195	62-115	195	50	56	15	16	RS10012	S5
BT50	BT50-TZC62-270	62-115	270	50	56	15	16	RS10012	S5
BT50	BT50-TZC72-195	72-135	195	60	66	15	19	RS12016	S6
BT50	BT50-TZC72-285	72-135	285	60	66	15	19	RS12016	S6
BT50	BT50-TZC90-210	90-150	210	72	77	18	19	RS12016	S6
BT50	BT50-TZC90-300	90-150	300	72	77	18	19	RS12016	S6
BT50	BT50-TZC105-195	105-190	195	80	80	20	25	RS16016	S8
BT50	BT50-TZC105-285	105-190	285	80	80	20	25	RS16016	S8

● 镗刀头单独订购，根据加工要求接口 WSC×WSC 选配相应的镗刀头
Please order cartidges separately according to size of WSC×WSC

TZC 镗刀头

TZC Cartidges



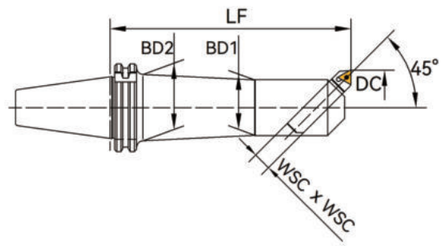
型号	镗孔尺寸 DC	尺寸		刀片	螺钉	扳手
Model	Boring range	Size(mm)		Insert	Screw	Hex wrench
		LF	WSC×WSC			
TZC08-023-90L	25-38	23	8	CP□□050204	L60M2.2×5	6IP
TZC08-036-90L	38-50	36	8	CP□□050204	L60M2.2×5	6IP
TZC10-036-90L	38-50	36	10	TC□□090204	L60M2.2×5	6IP
TZC10-048-90L	50-70	48	10	TC□□090204	L60M2.2×5	6IP
TZC13-048-90L	50-70	48	13	TC□□110204	L60M2.5×5.2	8IP
TZC13-065-90L	70-90	65	13	TC□□110204	L60M2.5×5.2	8IP
TZC16-060-90L	62-90	60	16	TC□□110204	L60M2.5×5.2	8IP
TZC16-085-90L	90-115	85	16	TC□□110204	L60M2.5×5.2	8IP
TZC19-070-90L	72-105	70	19	TC□□16T308	L60M3.5×8.8	15IP
TZC19-095-90L	105-135	95	19	TC□□16T308	L60M3.5×8.8	15IP
TZC19-120-90L	135-150	120	19	TC□□16T308	L60M3.5×8.8	15IP
TZC25-100-90L	105-140	100	25	TC□□16T308	L60M3.5×8.8	15IP
TZC25-135-90L	140-190	135	25	TC□□16T308	L60M3.5×8.8	15IP

● 刀片需单独订购
Inserts are sold separately

倾斜型粗镗刀 (TQC)

Clino-form Rough Boring Tools(TQC)





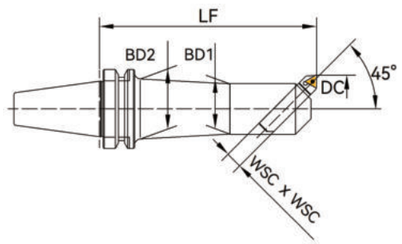
接口类型	型号	镗孔尺寸 DC	尺寸				螺钉	扳手
Interface type	Model	Boring range	Size(mm)				Screw	Hex wrench
			LF	BD_1	BD_2	WSC×WSC		
JT40	JT40-TQC25-135	25-38	135	20	24	8	RS04005	S2
JT40	JT40-TQC30-165	30-42	165	24	28	8	RS05006	S2.5
JT40	JT40-TQC38-180	38-52	180	30	36	10	RS06008	S3
JT40	JT40-TQC42-210	42-56	210	34	40	10	RS06008	S3
JT40	JT40-TQC50-180	50-65	180	40	48	13	RS08012	S4
JT40	JT40-TQC50-225	50-65	225	40	48	13	RS08012	S4
JT40	JT40-TQC62-180	62-90	180	50	50	16	RS10012	S5
JT40	JT40-TQC62-240	62-90	240	50	50	16	RS10012	S5
JT40	JT40-TQC72-180	72-110	180	50	50	19	RS12016	S6
JT40	JT40-TQC72-240	72-110	240	50	50	19	RS12016	S6
JT40	JT40-TQC90-180	90-125	180	50	50	19	RS12016	S6
JT40	JT40-TQC90-225	90-125	225	50	50	19	RS12016	S6
JT50	JT50-TQC25-135	25-38	135	20	24	8	RS04005	S2
JT50	JT50-TQC30-165	30-42	165	24	28	8	RS05006	S2.5
JT50	JT50-TQC38-180	38-52	180	30	36	10	RS06008	S3
JT50	JT50-TQC42-210	42-56	210	34	40	10	RS06008	S3
JT50	JT50-TQC50-180	50-65	180	40	48	13	RS08012	S4
JT50	JT50-TQC50-240	50-65	240	40	48	13	RS08012	S4
JT50	JT50-TQC62-195	62-90	195	50	56	16	RS10012	S5
JT50	JT50-TQC62-270	62-90	270	50	56	16	RS10012	S5
JT50	JT50-TQC72-195	72-110	195	60	66	19	RS12016	S6
JT50	JT50-TQC72-285	72-110	285	60	66	19	RS12016	S6
JT50	JT50-TQC90-210	90-125	210	72	77	19	RS12016	S6
JT50	JT50-TQC90-300	90-125	300	72	77	19	RS12016	S6
JT50	JT50-TQC115-220	115-160	220	80	80	25	RS16016	S8
JT50	JT50-TQC115-300	115-160	300	80	80	25	RS16016	S8

● 镗刀头单独订购，根据加工要求接口 WSC×WSC 选配相应的镗刀头
Please order cartidges separately according to size of WSC×WSC

BT 倾斜型粗镗刀 (TQC)

BT Clino-form Rough Boring Tools(TQC)



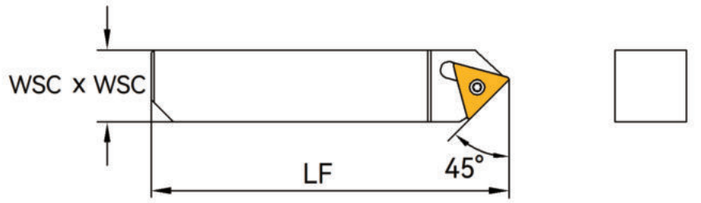


接口类型	型号	镗孔尺寸 DC	尺寸				螺钉	扳手
Interface type	Model	Boring range	Size(mm)				Screw	Hex wrench
			LF	BD_1	BD_2	WSC×WSC		
BT40	BT40-TQC25-135	25-38	135	20	24	8	RS04005	S2
BT40	BT40-TQC30-165	30-42	165	24	28	8	RS05006	S2.5
BT40	BT40-TQC38-180	38-52	180	30	36	10	RS06008	S3
BT40	BT40-TQC42-210	42-56	210	34	40	10	RS06008	S3
BT40	BT40-TQC50-180	50-65	180	40	44	13	RS08012	S4
BT40	BT40-TQC50-225	50-65	225	40	44	13	RS08012	S4
BT40	BT40-TQC62-180	62-90	180	50	50	16	RS10012	S5
BT40	BT40-TQC62-240	62-90	240	50	50	16	RS10012	S5
BT40	BT40-TQC72-180	72-110	180	50	50	19	RS12016	S6
BT40	BT40-TQC72-240	72-110	240	50	50	19	RS12016	S6
BT40	BT40-TQC90-180	90-125	180	55	55	19	RS12016	S6
BT40	BT40-TQC90-225	90-125	225	55	55	19	RS12016	S6
BT50	BT50-TQC25-135	25-38	135	20	24	8	RS04005	S2
BT50	BT50-TQC30-165	30-42	165	24	28	8	RS05006	S2.5
BT50	BT50-TQC38-180	38-52	180	30	36	10	RS06008	S3
BT50	BT50-TQC42-210	42-56	210	34	40	10	RS06008	S3
BT50	BT50-TQC50-180	50-65	180	40	48	13	RS08012	S4
BT50	BT50-TQC50-240	50-65	240	40	48	13	RS08012	S4
BT50	BT50-TQC62-195	62-90	195	50	56	16	RS10012	S5
BT50	BT50-TQC62-270	62-90	270	50	56	16	RS10012	S5
BT50	BT50-TQC72-195	72-110	195	60	66	19	RS12016	S6
BT50	BT50-TQC72-285	72-110	285	60	66	19	RS12016	S6
BT50	BT50-TQC90-210	90-125	210	72	77	19	RS12016	S6
BT50	BT50-TQC90-300	90-125	300	72	77	19	RS12016	S6
BT50	BT50-TQC115-220	115-160	220	80	80	25	RS16016	S8
BT50	BT50-TQC115-300	115-160	300	80	80	25	RS16016	S8

● 镗刀头单独订购，根据加工要求接口 WSC×WSC 选配相应的镗刀头
Please order cartidges separately according to size of WSC×WSC

TQC 镗刀头

TQC Cartidges



型号	镗孔尺寸 DC	尺寸		刀片	螺钉	扳手
Model	Boring range	Size(mm)		Insert	Screw	Hex wrench
		LF	WSC×WSC			
TQC08-029-45L	25-38	29	8	CP□□050204	L60M2.2×5	6IP
TQC08-045-45L	38-50	45	8	CP□□050204	L60M2.2×5	6IP
TQC10-045-45L	38-50	45	10	TC□□090204	L60M2.2×5	6IP
TQC10-060-45L	50-70	60	10	TC□□090204	L60M2.2×5	6IP
TQC13-060-45L	50-70	60	13	TC□□110204	L60M2.5×5.2	8IP
TQC13-081-45L	70-90	81	13	TC□□110204	L60M2.5×5.2	8IP
TQC16-075-45L	62-90	75	16	TC□□110204	L60M2.5×5.2	8IP
TQC16-106-45L	90-115	106	16	TC□□110204	L60M2.5×5.2	8IP
TQC19-088-45L	72-105	88	19	TC□□16T308	L60M3.5×8.8	15IP
TQC19-119-45L	105-135	119	19	TC□□16T308	L60M3.5×8.8	15IP
TQC19-150-45L	135-150	150	19	TC□□16T308	L60M3.5×8.8	15IP
TQC25-125-45L	105-140	125	25	TC□□16T308	L60M3.5×8.8	15IP
TQC19-169-45L	140-190	169	25	TC□□16T308	L60M3.5×8.8	15IP

● 刀片需单独订购
Inserts are sold separately

G

旋转刀柄

ROTATION TOOLHOLDER



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

旋转刀柄
Rotation Toolholder

BT 工具系统 BT Tooling System

BT 强力夹头刀柄
BT Milling Chucks G04

BT 侧固式刀柄
BT Side Lock Holders G05

BT 2° 侧固式刀柄
BT 2° Side Lock Holders G06

BT ER 弹簧夹头刀柄
BT ER Collet Chucks G07

BT 无扁尾莫氏圆锥孔刀柄
BT Morse Taper Holders without Tang G12

BT 有扁尾莫氏圆锥孔刀柄
BT Morse Taper Holders with Tang G13

BT 套式立铣刀刀柄
BT Shell Mill Holders G14

BT 套式面铣刀刀柄
BT Face Mill Holders G16

BT 三面刃铣刀刀柄
BT Soltting Cutter Holders G17

BT 液压刀柄
BT Hydraulic Chucks G18

BT 工具磨液压刀柄
BT Tool Grinding Hydraulic Chucks G20

BT 热装刀柄
BT Shrink Fit Toolholders G21

ER 卡簧接杆
ER Collet Chucks Extentions G26

标准热装接杆
Standard Shrink Fit Extensions G27

TMG21 ER 弹簧夹头刀柄模块
TMG21 ER Collet Chucks G28

HSK 工具系统 HSKTooling System

HSK 强力夹头刀柄
HSK Milling Chucks G29

HSK 侧固式刀柄
HSK Side Lock Holders G30

HSK 2° 侧固式刀柄
HSK Side Lock Holders G31

HSK 强力夹头刀柄
HSK Milling Chucks G29

HSK 侧固式刀柄
HSK Side Lock Holders G30

HSK 2° 侧固式刀柄
HSK Side Lock Holders G31

HSK ER 弹簧夹头刀柄
HSK ER Collet Chucks G32

HSK 有扁尾莫氏圆锥孔刀柄
HSK Morse Taper Holders with Tang G34

HSK 套式立铣刀刀柄
HSK Shell Mill Holders G35

HSK 套式面铣刀刀柄
HSK Face Mill Holders G36

HSK 三面刃铣刀刀
HSK Soltting Cutter Holders G37

HSK 液压刀柄
HSK Hydraulic Chucks G38

HSK-A 热装刀柄
HSK-A Shrink Fit Toolholders G41

HSK-E 热装刀柄
HSK-E Shrink Fit Toolholders G45

JT 工具系统 JT Tooling System

JT 强力夹头刀柄
JT Milling Chucks G46

JT 侧固式刀柄
JT Side Lock Holders G47

JT 2° 侧固式刀柄
JT 2° Side Lock Holders G48

JT ER 弹簧夹头刀柄
JT ER Collet Chucks G49

JT 无扁尾莫氏圆锥孔刀柄
JT Morse Taper Holders without Tang G50

JT 有扁尾莫氏圆锥孔刀柄
JT Morse Taper Holders with Tang G51

JT 套式立铣刀刀柄
JT Shell Mill Holders G52

JT 套式面铣刀刀柄
JT Face Mill Holders G53

JT 三面刃铣刀刀柄
JT Soltting Cutter Holders G54

JT 液压刀柄
JT Hydraulic Chucks G55

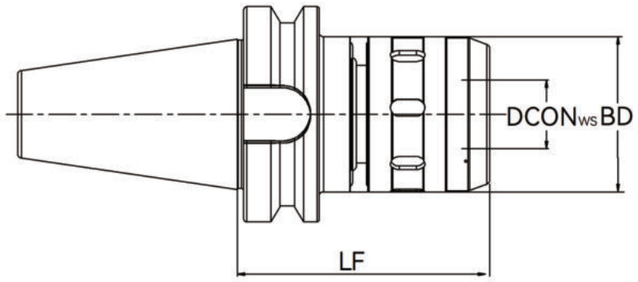
JT 热装刀柄
JT Shrink Fit Toolholders G58

- **ST 刀柄系列 ST Series**
  - ST 强力夹头刀柄 ST Milling Chucks G62
  - ST 侧固式刀柄 ST Side Lock Holders G63
  - ST ER 弹簧夹头刀柄 ST ER Collet Chucks G64
  - ST 无扁尾莫氏圆锥孔刀柄 ST Morse Taper Holders without Tang G65
  - ST 有扁尾莫氏圆锥孔刀柄 ST Morse Taper Holders with Tang G66
  - ST 套式立铣刀刀柄 ST Shell Mill Holders G67
  - ST 套式面铣刀刀柄 ST Face Mill Holders G68
  - 可调液压刀柄 Adjustable Hydraulic Chuck G69
  - 可调液压刀柄模块 Adjustable Hydraulic Chuck Module G71
  - 可调刀柄主柄 Adjustable Hydraulic Chuck Master Module G72
- **PSC刀柄系列 PSC Series**
  - PSC 强力夹头刀柄 PSC Milling Chucks G75
  - PSC 侧固式刀柄 PSC Side Lock Holders G76
  - PSC ER 弹簧夹头刀柄 PSC ER Collet Chucks G77
  - PSC 套式立铣刀刀柄 PSC Shell Mill Holders G79
  - PSC 套式面铣刀刀柄 PSC Face Mill Holders G81
  - PSC 液压刀柄 PSC Hydraulic Chucks G82
  - PSC 热装刀柄 PSC Shrink Fit Toolholders G83
  - HSK 转接柄 HSK-PSC Adaptor G85
  - BT 转接柄 BT-PSC Adaptor G87
  - JT 转接柄 JT-PSC Adaptor G89
  - ST 转接柄 ST-PSC Adaptor G91
  - 等径接杆 Equal-diameter Adaptor G93
  - 缩径接杆 Equal-diameter Adaptor G97

BT 强力夹头刀柄
BT Milling Chucks



柄径公差 h6

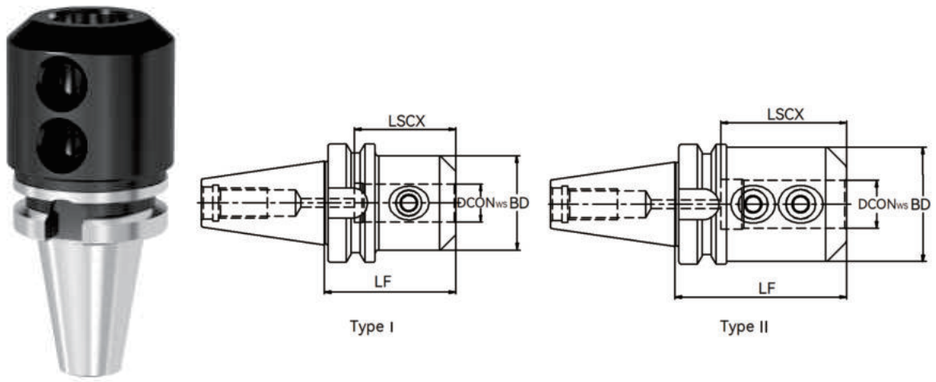


主轴型号	刀柄型号	尺寸 Size (mm)			卡簧
Spindle Model	Model No JIS B6339-AD	$DCON_{WS}$	BD	LF	Collets
BT30	BT30-C20-095	20	55	95	C20
BT40	BT40-C20-095	20	55	95	C20
BT40	BT40-C20-120	20	55	120	C20
BT40	BT40-C25-100	25	62	100	C25
BT40	BT40-C25-120	25	62	120	C25
BT50	BT40-C32-105	32	72	105	C32
BT50	BT50-C20-105	20	55	105	C20
BT50	BT50-C20-135	20	55	105	C20
BT50	BT50-C25-110	25	62	110	C25
BT50	BT50-C25-135	25	62	135	C25
BT50	BT50-C32-110	32	72	110	C32
BT50	BT50-C32-135	32	72	135	C32
BT50	BT50-C42-110	42	87	110	C42

● 附件需单独订购 Accessories are sold separately

附件 Accessories	C20	C25	C32	C42
扳手 Wrench	WCN25	WCN32	WCN40	BS130UNT

BT侧固式刀柄
BT Side Lock Holders

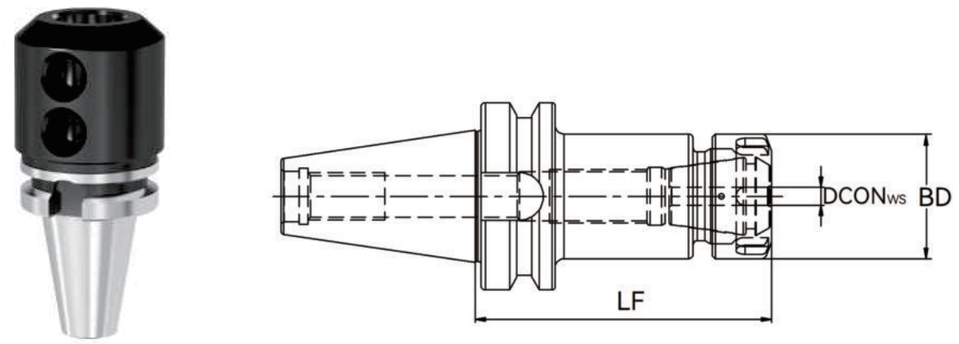


主轴型号	刀柄型号	尺寸 Size (mm)				螺钉	型式
Spindle Model	Model No JIS B6339-AD	$DCON_{WS}$	BD	LF	LSCX	Screw	Type
BT30	BT30-XP16-063	16	48	63	52	SXP16	I
BT30	BT30-XP20-070	20	50	70	54	SXP20	I
BT40	BT40-XP16-063	16	48	63	52	SXP16	I
BT40	BT40-XP20-070	20	50	70	54	SXP20	I
BT40	BT40-XP25-090	25	60	90	66	SXP25	II
BT40	BT40-XP32-100	32	68	100	70	SXP32	II
BT50	BT50-XP16-080	16	48	80	52	SXP16	I
BT50	BT50-XP20-080	20	50	80	54	SXP20	I
BT50	BT50-XP25-100	25	60	100	66	SXP25	II
BT50	BT50-XP32-105	32	68	105	79	SXP32	II
BT50	BT50-XP40-120	40	84	120	80	SXP32	II

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=25	$DCON_{WS}$=32	$DCON_{WS}$=40
扳手 Hex Wrench	S6	S8	S8	S10	S10

BT 2° 侧固式刀柄
BT 2° Side Lock Holders

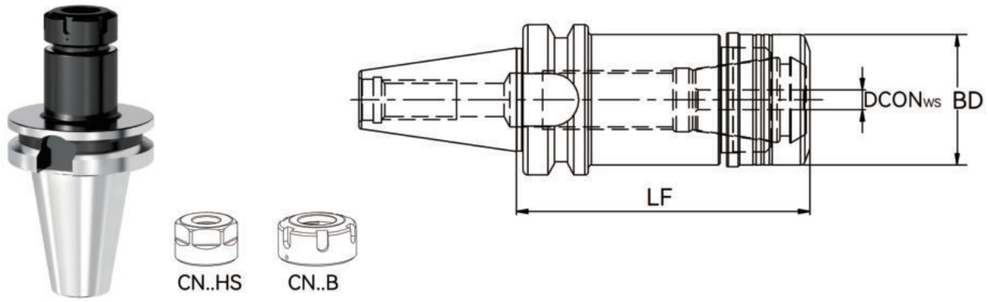


主轴型号	刀柄型号	尺寸 Size (mm)				螺钉	螺钉	型式
Spindle Model	Model No JIS B6339-AD	$DCON_{WS}$	BD	LF	LSCX	Screw	Screw	Type
BT30	BT30-XPD16-063	16	45	63	55	SXP16	SO12014C	I
BT30	BT30-XPD20-075	20	52	75	57	SXP20	SO16016C	I
BT30	BT30-XPD25-085	25	65	85	62	SXP25	SO20016C	II
BT40	BT40-XPD16-075	16	48	75	55	SXP16	SO12014C	I
BT40	BT40-XPD20-075	20	52	75	57	SXP20	SO16016C	I
BT40	BT40-XPD25-090	25	65	90	62	SXP25	SO20016C	II
BT40	BT40-XPD25-165	25	65	165	62	SXP25	SO20016C	II
BT40	BT40-XPD32-105	32	72	105	63	SXP32	SO20016C	II
BT40	BT40-XPD32-165	32	72	165	63	SXP32	SO20016C	II
BT50	BT50-XPD16-080	16	48	80	55	SXP16	SO12014C	I
BT50	BT50-XPD20-080	20	52	80	57	SXP20	SO16016C	I
BT50	BT50-XPD25-100	25	65	100	62	SXP25	SO20016C	II
BT50	BT50-XPD25-165	25	65	165	62	SXP25	SO20016C	II
BT50	BT50-XPD32-105	32	72	105	63	SXP32	SO20016C	II
BT50	BT50-XPD32-165	32	72	165	63	SXP32	SO20016C	II

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=25	$DCON_{WS}$=32
扳手 Hex Wrench	S6	S8	S8	S10

BT-ER 弹簧夹头刀柄
BT-ER Collet Chucks

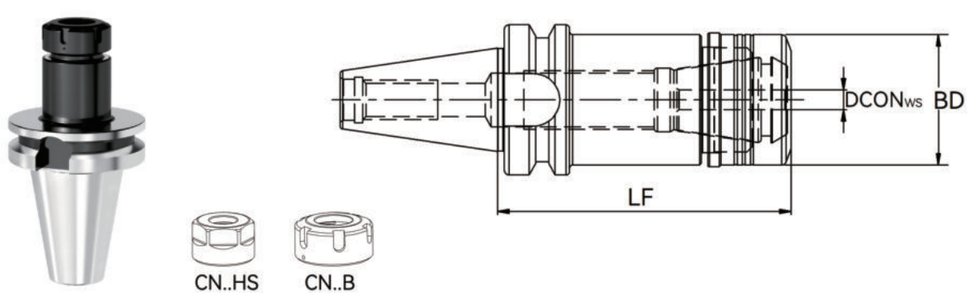


主轴型号	刀柄型号	尺寸 Size (mm)			螺母	螺钉	卡簧
Spindle Model	Model No JIS B6339-AD	$DCON_{WS}$	BD	LF	Nuts	Screw	Collets
BT30	BT30-ER11-060	0.5-7	19	60	CN11HS	SER11C	ER11
BT30	BT30-ER11-090	0.5-7	19	90			
BT30	BT30-ER16-060	0.5-10	28	60	CN16HS	SER16C	ER16
BT30	BT30-ER16-090	0.5-10	28	90			
BT30	BT30-ER16-120	0.5-10	28	120			
BT30	BT30-ER20-060	1.0-13	34	60	CN20HS	SER20C	ER20
BT30	BT30-ER20-090	1.0-13	34	90			
BT30	BT30-ER20-120	1.0-13	34	120			
BT30	BT30-ER25-060	1.0-16	42	60	CN25B	SER25C	ER25
BT30	BT30-ER25-090	1.0-16	42	90			
BT30	BT30-ER25-120	1.0-16	42	120			
BT30	BT30-ER32-060	2.0-20	50	60	CN32B	SER32C	ER32
BT30	BT30-ER32-090	2.0-20	50	90			

● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20	ER25	ER32
扳手 Wrench	W17D	W25D	W30D	YER25B	YER32B

BT ER 弹簧夹头刀柄
BT ER Collet Chucks



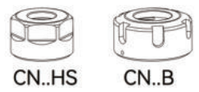
主轴型号	刀柄型号	尺寸 Size (mm)			螺母	螺钉	卡簧
Spindle Model	Model No JIS B6339-AD	$DCON_{WS}$	BD	LF	Nuts	Screw	Collets
BT40	BT40-ER11-070	0.5-7	19	70	CN11HS	SER11C	ER11
BT40	BT40-ER11-120	0.5-7	19	120			
BT40	BT40-ER16-070	0.5-10	28	70	CN16HS	SER16C	ER16
BT40	BT40-ER16-100	0.5-10	28	100			
BT40	BT40-ER16-120	0.5-10	28	120			
BT40	BT40-ER16-150	0.5-10	28	150			
BT40	BT40-ER20-080	1.0-13	34	80	CN20HS	SER20C	ER20
BT40	BT40-ER20-100	1.0-13	34	100			
BT40	BT40-ER20-120	1.0-13	34	120			
BT40	BT40-ER20-150	1.0-13	34	150			
BT40	BT40-ER25-080	1.0-16	42	80	CN25B	SER25C	ER25
BT40	BT40-ER25-100	1.0-16	42	100			
BT40	BT40-ER25-120	1.0-16	42	120			
BT40	BT40-ER25-150	1.0-16	42	150			
BT40	BT40-ER32-060	2.0-20	50	60	CN32B	SER32C	ER32
BT40	BT40-ER32-080	2.0-20	50	80			
BT40	BT40-ER32-100	2.0-20	50	100			
BT40	BT40-ER32-120	2.0-20	50	120			
BT40	BT40-ER32-150	2.0-20	50	150			
BT40	BT40-ER40-080	3.0-26	63	80	CN40B	SER40C	ER40
BT40	BT40-ER40-100	3.0-26	63	100			
BT40	BT40-ER40-120	3.0-26	63	120			
BT40	BT40-ER40-150	3.0-26	63	150			

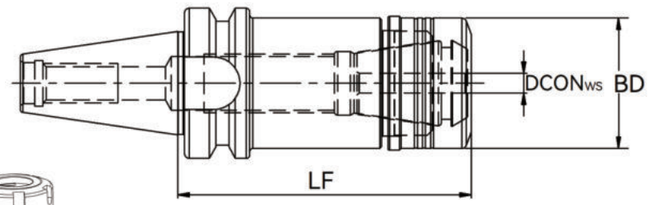
● 附件需单独订购Accessories are sold separately

附件 Accessories	C20	C25	C32	C42
扳手 Wrench	WCN25	WCN32	WCN40	BS130UNT

BT ER 弹簧夹头刀柄
BT ER Collet Chucks







主轴型号	刀柄型号	尺寸 Size (mm)			螺母	螺钉	卡簧
Spindle Model	Model No JIS B6339-AD	$DCON_{ws}$	BD	LF	Nuts	Screw	Collets
BT50	BT50-ER16-080	0.5-10	28	80	CN16HS	SER16C	Er16
BT50	BT50-ER16-100	0.5-10	28	100			
BT50	BT50-ER16-120	0.5-10	28	120			
BT50	BT50-ER16-165	0.5-10	28	165			
BT50	BT50-ER20-080	1.0-13	34	80	CN20HS	SER20C	ER20
BT50	BT50-ER20-100	1.0-13	34	100			
BT50	BT50-ER20-120	1.0-13	34	120			
BT50	BT50-ER20-135	1.0-13	34	135			
BT50	BT50-ER20-165	1.0-13	34	165			
BT50	BT50-ER25-080	1.0-16	42	80	CN25B	SER25C	ER25
BT50	BT50-ER25-100	1.0-16	42	100			
BT50	BT50-ER25-120	1.0-16	42	120			
BT50	BT50-ER25-165	1.0-16	42	165			
BT50	BT50-ER32-090	2.0-20	50	90	CN32B	SER32C	ER32
BT50	BT50-ER32-100	2.0-20	50	100			
BT50	BT50-ER32-120	2.0-20	50	120			
BT50	BT50-ER32-165	2.0-20	50	165			
BT50	BT50-ER32-200	2.0-20	50	200			
BT50	BT50-ER32-250	2.0-20	50	250			
BT50	BT50-ER40-100	3.0-26	63	100	CN40B	SER40C	ER40
BT50	BT50-ER40-120	3.0-26	63	120			
BT50	BT50-ER40-165	3.0-26	63	165			
BT50	BT50-ER40-200	3.0-26	63	200			

● 附件需单独订购Accessories are sold separately

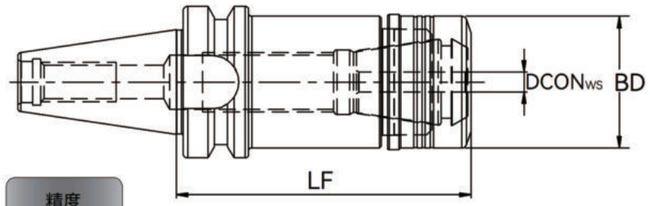
附件 Accessories	ER11	ER16	ER20	ER25	ER32	Er40
扳手 Wrench	W17D	W25D	W30D	YER25B	YER32B	YER40B

BT ER 弹簧夹头刀柄 （动平衡）
BT ER Collet Chucks (Balanced)



G2.5
25000rpm

精度
5μm



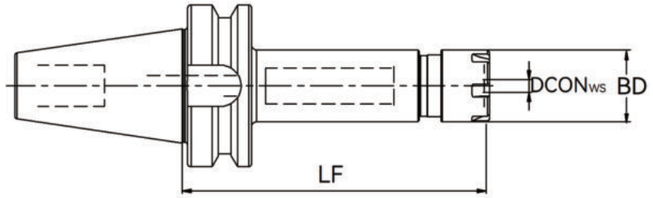
主轴型号	刀柄型号	尺寸 Size (mm)			螺母	卡簧
Spindle Model	Model No JIS B6339-AD	$DCON_{ws}$	BD	LF	Nuts	Collets
BT30	BT30-ER16-060	0.5-10	30	60	HN16	ER16
BT30	BT30-ER16-090	0.5-10	30	90		
BT30	BT30-ER16-120	0.5-10	30	120		
BT30	BT30-ER20-060	1.0-13	35	60	HN20	ER20
BT30	BT30-ER20-090	1.0-13	35	90		
BT30	BT30-ER20-120	1.0-13	35	120		
BT30	BT30-ER25-060	1.0-16	40	60	HN25	ER25
BT30	BT30-ER25-090	1.0-16	40	90		
BT30	BT30-ER25-120	1.0-16	40	120		

● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20	ER25	ER32
扳手 Wrench	W17D	W25D	W30D	YER25B	YER32B

BT ER 弹簧夹头刀柄
BT ER Collet Chucks





主轴型号	刀柄型号	尺寸 Size (mm)			螺母	螺钉	卡簧
Spindle Model	Model No JIS B6339-AD	$DCON_{ws}$	BD	LF	Nuts	Screw	Collets
BT30	BT30-ER11-060(M)	0.5-7	16	60	CNM11	SER11C	ER11
BT30	BT30-ER11-090(M)	0.5-7	16	90			
BT30	BT30-ER11-120(M)	0.5-7	16	120			
BT30	BT30-ER16-060(M)	0.5-10	23	60	CNM16	SER16C	ER16
BT30	BT30-ER16-090(M)	0.5-10	23	90			
BT30	BT30-ER16-120(M)	0.5-10	23	120			
BT30	BT30-ER20-060(M)	1.0-13	28	60	CNM20	SER20C	ER20
BT30	BT30-ER20-090(M)	1.0-13	28	90			
BT30	BT30-ER20-120(M)	1.0-13	28	120			
BT40	BT40-ER11-090(M)	1.0-16	16	90	CNM11	SER11C	ER11
BT40	BT40-ER11-120(M)	1.0-16	16	120			
BT40	BT40-ER11-150(M)	-	16	150			
BT40	BT40-ER16-090(M)	-	23	90	CNM16	SER16C	ER16
BT40	BT40-ER16-120(M)	-	23	120			
BT40	BT40-ER16-150(M)	-	23	150			
BT40	BT40-ER20-095(M)	-	28	95	CNM20	SER20C	ER20
BT40	BT40-ER20-120(M)	-	28	120			
BT40	BT40-ER20-150(M)	-	28	150			
BT50	BT50-ER16-105(M)	-	23	105	CNM16	SER16C	ER16
BT50	BT50-ER16-135(M)	-	23	135			
BT50	BT50-ER16-165(M)	-	23	165			
BT50	BT50-ER20-105(M)	-	28	105	CNM20	SER20C	ER20
BT50	BT50-ER20-135(M)	-	28	135			
BT50	BT50-ER20-165(M)	-	28	165			

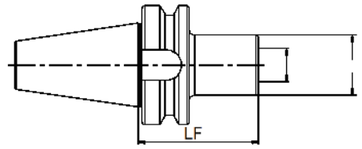
● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20
扳手 Wrench	WM11	WM16	WM20

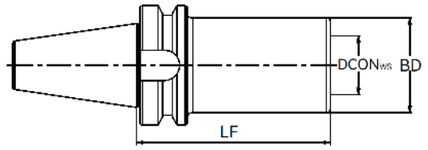
BT 无扁尾莫氏圆锥孔刀柄
BT Morse Taper Holders without Tang







Type I



Type II

主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径 (mm)	尺寸 Size (mm)			螺钉	型式
Spindle Model	Model No JIS B6339-A	Morse taper	Corresponding to installed milling cutter diameter	$DCON_{ws}$	BD	LF	Screw	Type
BT40	BT40-MW1-050	MT1	6-12	12.065	27	50	MS06025	I
BT40	BT40-MW2-064	MT2	14-20	17.780	32	64	MS10030-A	I
BT40	BT40-MW3-076	MT3	22-36	23.825	40	76	MS12035-A	II
BT40	BT40-MW4-103	MT4	32-56	31.267	50	103	MS16040-A	II
BT50	BT50-MW1-045	MT1	6-12	12.065	27	45	MS06025	I
BT50	BT50-MW2-060	MT2	14-20	17.780	32	60	MS10030-A	I
BT50	BT50-MW3-065	MT3	22-36	23.825	40	65	MS12035-A	I
BT50	BT50-MW4-075	MT4	32-56	31.267	50	75	MS16040-B	I
BT50	BT50-MW5-105	MT5	40-63	44.399	78	105	MS20048-A	II

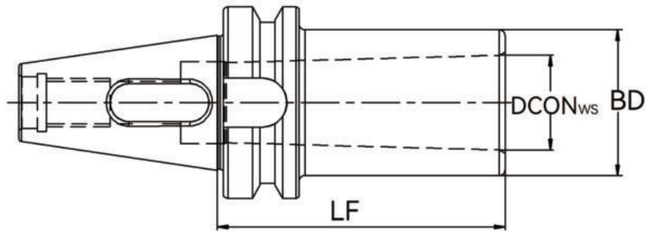
● 附件需单独订购Accessories are sold separately

附件 Accessories	MT1	MT2	MT3	MT4(I)	MT4(2)	MT5
扳手 Hex Wrench	S5	S8	S10	S14	S12	S17

BT 有扁尾莫氏圆锥孔刀柄

BT Morse Taper Holders with Tang





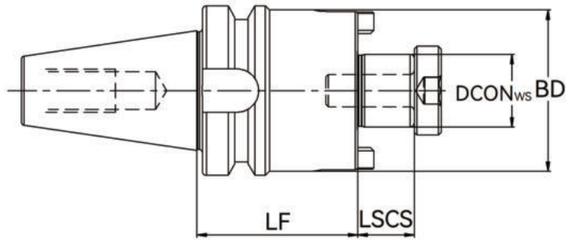
主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径 (mm)	尺寸 Size (mm)		
Spindle Model	Model No JIS B6339-A	Morse taper	Corresponding to installed milling cutter diameter	$DCON_{ws}$	BD	LF
BT30	BT30-M1-050	MT1	3-14	12.065	25	50
BT30	BT30-M2-060	MT2	14.25-23	17.780	32	60
BT40	BT40-M1-045	MT1	3-14	12.065	25	45
BT40	BT40-M1-120	MT1	3-14	12.065	25	120
BT40	BT40-M2-060	MT2	14.25-23	17.780	32	60
BT40	BT40-M2-120	MT2	14.25-23	17.780	32	120
BT40	BT40-M3-075	MT3	23.25-31.75	23.825	40	75
BT40	BT40-M3-135	MT3	23.25-31.75	23.825	40	135
BT40	BT40-M4-095	MT4	32-50.5	31.267	48	95
BT40	BT40-M4-165	MT4	32-50.5	31.267	48	165
BT50	BT50-M1-045	MT1	3-14	12.065	25	45
BT50	BT50-M1-120	MT1	3-14	12.065	25	120
BT50	BT50-M1-180	MT1	3-14	12.065	25	180
BT50	BT50-M2-045	MT2	14.25-23	17.780	32	45
BT50	BT50-M2-135	MT2	14.25-23	17.780	32	135
BT50	BT50-M2-180	MT2	14.25-23	17.780	32	180
BT50	BT50-M3-075	MT3	23.25-31.75	23.825	40	75
BT50	BT50-M3-150	MT3	23.25-31.75	23.825	40	150
BT50	BT50-M3-180	MT3	23.25-31.75	23.825	40	180
BT50	BT50-M4-075	MT4	32-50.5	31.267	48	75
BT50	BT50-M4-180	MT4	32-50.5	31.267	48	180
BT50	BT50-M5-107	MT5	51-76	44.399	63	107
BT50	BT50-M5-210	MT5	51-76	44.399	63	210

● 附件需单独订购Accessories are sold separately

BT 套式立铣刀刀柄

BT Shell Mill Holders





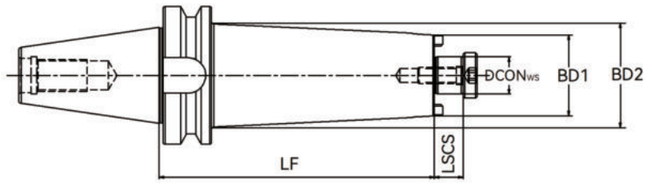
主轴型号	刀柄型号	尺寸 Size (mm)				螺钉1	键	螺钉2
Spindle Model	Model No JIS B6339-A	$DCON_{ws}$	BD	LF	LSCS	Screw	Key	Screw
BT30	BT30-XMB16-060	16	34	60	17	MS08030	JC08017	MS03008
BT30	BT30-XMB22-045	22	42	45	19	MS10030	JC10021	MS04010
BT30	BT30-XMB27-045	27	60	45	21	SXM27	JC12023	MS05016
BT40	BT40-XMB16-060	16	34	60	17	MS08030	JC08017	MS03008
BT40	BT40-XMB16-090	16	34	90	17	MS08030	JC08017	MS03008
BT40	BT40-XMB16-120	16	34	120	17	MS08030	JC08017	MS03008
BT40	BT40-XMB22-060	22	42	60	19	MS10030	JC10021	MS04010
BT40	BT40-XMB22-090	22	42	90	19	MS10030	JC10021	MS04010
BT40	BT40-XMB22-120	22	42	120	19	MS10030	JC10021	MS04010
BT40	BT40-XMB27-060	27	60	60	21	SXM27	JC12023	MS05016
BT40	BT40-XMB27-090	27	60	90	21	SXM27	JC12023	MS05016
BT40	BT40-XMB27-120	27	60	120	21	SXM27	JC12023	MS05016
BT40	BT40-XMB32-060	32	78	60	24	SXM32	JC14020	MS06020
BT40	BT40-XMB40-060	40	89	60	27	SXM40	KXM40	MS08020

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{ws}$=16	$DCON_{ws}$=22	$DCON_{ws}$=27	$DCON_{ws}$=32	$DCON_{ws}$=40
扳手 Hex Wrench	S6	S8	S10	S14	S17

BT套式立铣刀刀柄
BT Shell Mill Holders





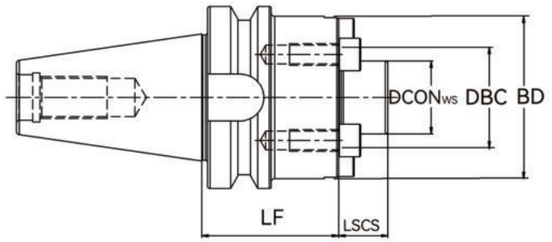
主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No / JIS B6339-A	$DCON_{ws}$	BD1	BD2	LF	LSCS	Screw	Key	Screw
BT50	BT50-XMB16-060	16	34	-	60	17	MS08030	JC08017	MS03008
BT50	BT50-XMB16-090	16	34	-	90	17	MS08030	JC08017	MS03008
BT50	BT50-XMB16-120	16	34	-	120	17	MS08030	JC08017	MS03008
BT50	BT50-XMB22-060	22	42	-	60	19	MS10030	JC10021	MS04010
BT50	BT50-XMB22-090	22	42	-	90	19	MS10030	JC10021	MS04010
BT50	BT50-XMB22-120	22	42	-	120	19	MS10030	JC10021	MS04010
BT50	BT50-XMB22-150	22	42	60	150	19	MS10030	JC10021	MS04010
BT50	BT50-XMB22-200	22	42	60	200	19	MS10030	JC10021	MS04010
BT50	BT50-XMB22-250	22	42	60	250	19	MS10030	JC10021	MS04010
BT50	BT50-XMB27-060	27	60	-	60	21	SXM27	JC12023	MS05016
BT50	BT50-XMB27-090	28	60	-	90	21	SXM27	JC12023	MS05016
BT50	BT50-XMB27-120	29	60	-	120	21	SXM27	JC12023	MS05016
BT50	BT50-XMB27-150	30	60	75	150	21	SXM27	JC12023	MS05016
BT50	BT50-XMB27-200	31	60	75	200	21	SXM27	JC12023	MS05016
BT50	BT50-XMB27-250	32	60	75	250	21	SXM27	JC12023	MS05016
BT50	BT50-XMB27-300	27	60	75	300	21	SXM27	JC12023	MS05016
BT50	BT50-XMB32-060	32	78	-	60	24	SXM32	JC14020	MS06020
BT50	BT50-XMB32-090	32	78	-	90	24	SXM32	JC14020	MS06020
BT50	BT50-XMB32-120	32	78	-	120	24	SXM32	JC14020	MS06020
BT50	BT50-XMB32-150	32	78	-	150	24	SXM32	JC14020	MS06020
BT50	BT50-XMB32-200	32	78	-	200	24	SXM32	JC14020	MS06020
BT50	BT50-XMB40-060	40	89	-	60	27	SXM40	KXM40	MS08020
BT50	BT50-XMB40-090	40	89	-	90	27	SXM40	KXM40	MS08020
BT50	BT50-XMB40-120	40	89	-	120	27	SXM40	KXM40	MS08020
BT50	BT50-XMB40-150	40	89	-	150	27	SXM40	KXM40	MS08020

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{ws}$=16	$DCON_{ws}$=22	$DCON_{ws}$=27	$DCON_{ws}$=32	$DCON_{ws}$=40
扳手 Hex Wrench	S6	S8	S10	S14	S17

BT 面铣刀刀柄
BT Face Mill Holders





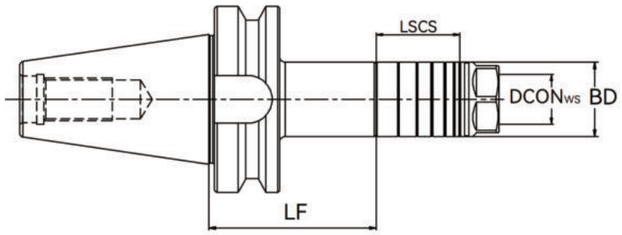
主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No / JIS B6339-A	$DCON_{ws}$	BD	DBC	LF	LSCS	Screw	Key	Screw
BT40	BT40-XMC40-060	40	89	66.7	60	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMC40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
BT50	BT50-XMC60-075	60	129	101.6	75	38	MS16045(4)	KXM60	MS10025

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{ws}$=40	$DCON_{ws}$=60
扳手 Hex Wrench	S10	S14

BT 三面刃铣刀刀柄
BT Soltting Cutter Holders



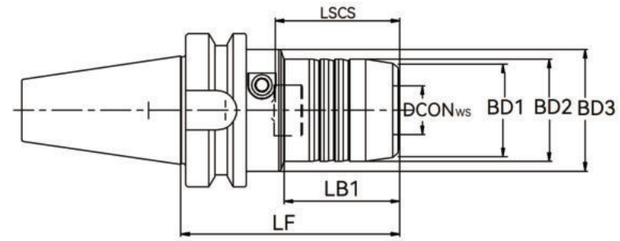


主轴型号	刀柄型号	尺寸 Size (mm)				螺母	垫圈	键
Spindle Model	Model No	DCONWS	BD	LF	LSCS	nuts	Washer	Key
	JIS B6339-A							
BT40	BT40-XS22-075	22	34	75	30	MXS22	SD22	JA06020
BT40	BT40-XS22-120	22	34	120	30	MXS22	SD22	JA06020
BT40	BT40-XS27-075	27	40	75	30	MXS27	SD27	JA07022
BT40	BT40-XS27-120	27	40	120	30	MXS27	SD27	JA07022
BT40	BT40-XS32-090	32	46	90	30	MXS32	SD32	JA08022
BT50	BT50-XS22-090	22	34	90	30	MXS22	SD22	JA06020
BT50	BT50-XS22-135	22	34	135	30	MXS22	SD22	JA06020
BT50	BT50-XS27-090	27	40	90	30	MXS27	SD27	JA07022
BT50	BT50-XS27-135	27	40	135	30	MXS27	SD27	JA07022
BT50	BT50-XS32-090	32	46	90	30	MXS32	SD32	JA08022
BT50	BT50-XS32-135	32	46	135	30	MXS32	SD32	JA08022
BT50	BT50-XS40-090	40	55	90	30	MXS40	SD40	JA10025
BT50	BT50-XS40-135	40	55	135	30	MXS40	SD40	JA10025
BT50	BT50-XS50-090	50	69	90	30	MXS50	SD50	JA12025
BT50	BT50-XS50-135	50	69	135	30	MXS50	SD50	JA12025

● 附件需单独订购Accessories are sold separately

BT 液压刀柄
BT Hydraulic Chucks





柄径公差	G2.5	回转精度
h6	25000rpm	3μm

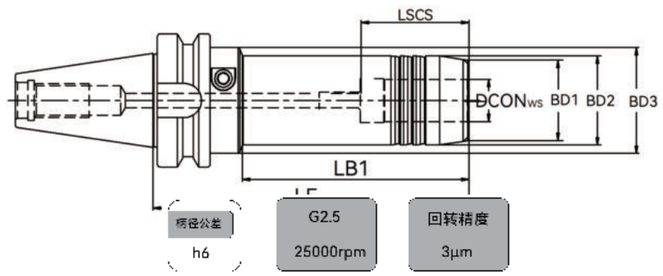
主轴型号	刀柄型号	尺寸 Size (mm)							螺钉	卡簧
Spindle Model	Model No	DCONWS	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Collets
	JIS B6339-AD									
BT30	BT30-HCM06-50.8	6	23	26	46	50.8	37	15.6	HCSO05014C	
BT30	BT30-HCM08-50.8	8	25	28	46	50.8	37	15.6	HCSO06014C	-
BT30	BT30-HCM10-50.8	10	27	30	46	50.8	41	15.6	HCSO08014C	
BT30	BT30-HCM12-50.8	12	29	32	46	50.8	46	15.6	HCSO08014C	HC12
BT30	BT30-HCM16-090	16	34	38	45	90	49	50	HCSO08014C	-
BT30	BT30-HCM20-090	20	38	42	45	90	51	50	HCSO08014C	HC20
BT40	BT40-HCM06-090	6	22	26	50	90	37	43	HCSO05014C	-
BT40	BT40-HCM08-090	8	24	28	50	90	37	44.5	HCSO06014C	-
BT40	BT40-HCM10-090	10	26	30	50	90	41	44.5	HCSO08014C	-
BT40	BT40-HCM12-090	12	28	32	50	90	46	44.5	HCSO08014C	HC12
BT40	BT40-HCM14-090	14	30	34	50	90	46	44.5	HCSO08014C	-
BT40	BT40-HCM16-090	16	34	38	50	90	49	47.5	HCSO08014C	-
BT40	BT40-HCM20-090	20	38	42	50	90	51	47.5	HCSO08014C	HC20
BT40	BT40-HCM25-083	25	53	57	62	83	57	44	HCSO12014C	-
BT40	BT40-HCM32-083	32	60	63	80	83	61	25.5	HCSO12014C	HC32
BT50	BT50-HCM12-090	12	28	32	44.5	90	46	34	HCSO08014C	HC12
BT50	BT50-HCM16-090	16	34	38	44.5	90	49	34	HCSO08014C	-
BT50	BT50-HCM20-090	20	38	42	44.5	90	51	34	HCSO08014C	HC20
BT50	BT50-HCM20-105	20	38	42	44.5	105	51	47.5	HCSO08014C	HC20
BT50	BT50-HCM25-090	25	53	57	66	90	57	34	HCSO12014C	HC32
BT50	BT50-HCM32-090	32	60	64	72	90	61	34	HCSO12014C	HC32

● 附件需单独订购Accessories are sold separately

附件 ccessories	DCONWS=6	DCONWS=8	DCONWS=10	DCONWS=12	DCONWS=16	DCONWS=20	DCONWS=32
扳手 Hex Wrench	TS5						TS6

BT 液压刀柄
BT Hydraulic Chucks





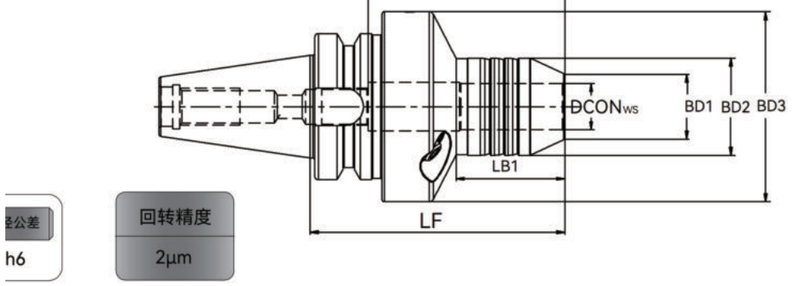
主轴型号	刀柄型号	尺寸 Size (mm)							螺钉	卡簧
Spindle Model	Model No / DIN69893	$DCON_{ws}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Collets
BT40	BT40-HCM06-150	6	22	26	50	150	37	103	HCSO05014C	-
BT40	BT40-HCM08-150	8	24	28	50	150	37	104	HCSO06014C	-
BT40	BT40-HCM10-150	10	26	30	50	150	41	104	HCSO08014C	-
BT40	BT40-HCM12-150	12	28	32	50	150	46	105	HCSO08014C	HC12
BT40	BT40-HCM14-150	14	30	34	50	150	46	105	HCSO08014C	-
BT40	BT40-HCM16-150	16	34	38	50	150	49	106	HCSO08014C	-
BT40	BT40-HCM18-150	18	36	40	50	150	49	107	HCSO08014C	-
BT40	BT40-HCM20-150	20	38	42	50	150	51	107	HCSO08014C	HC20
BT40	BT40-HCM06-200	6	22	26	50	200	37	153	HCSO05014C	-
BT40	BT40-HCM08-200	8	24	28	50	200	37	154	HCSO06014C	-
BT40	BT40-HCM10-200	10	26	30	50	200	41	154	HCSO08014C	-
BT40	BT40-HCM12-200	12	28	32	50	200	46	155	HCSO08014C	HC12
BT40	BT40-HCM14-200	14	30	34	50	200	46	155	HCSO08014C	-
BT40	BT40-HCM16-200	16	34	38	50	200	49	156	HCSO08014C	-
BT40	BT40-HCM18-200	18	36	40	50	200	49	157	HCSO08014C	-
BT40	BT40-HCM20-200	20	38	42	50	200	51	157	HCSO08014C	HC20
BT50	BT50-HCM12-150	12	28	32	50	150	46	95	HCSO08014C	HC12
BT50	BT50-HCM20-150	20	38	42	50	150	51	95	HCSO08014C	HC20

● 附件需单独订购Accessories are sold separately

A

BT 工具磨液压刀柄
BT Tool Grinding Hydraulic Chucks





主轴型号	刀柄型号	尺寸 Size (mm)							卡簧
Spindle Model	Model No / DIN69893	$DCON_{ws}$	BD1	BD2	BD3	LF	LSCX	LB1	Collets
BT40	BT40-HCM12-110M	12	21.5	36.5	80	110	80	47	HC12
BT40	BT40-HCM20-110M	20	20	42	82	110	85	47	HC20

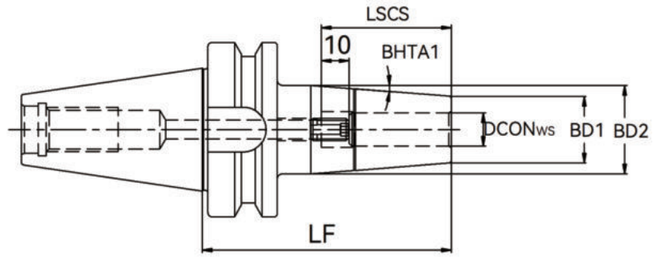
● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{ws}$=12	$DCON_{ws}$=20
扳手 Hex Wrench	TS5	

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

BT 热装刀柄
BT Shrink Fit Toolholders





柄径公差 h6

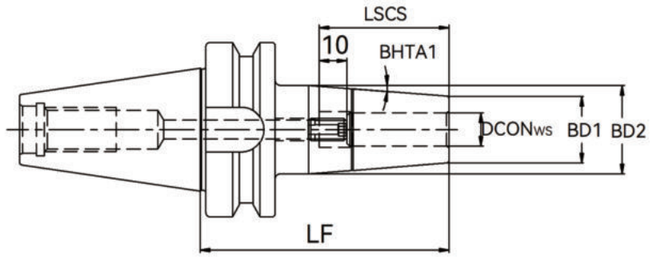
主轴型号	刀柄型号	尺寸 Size (mm)						卡簧
Spindle Model	Model No / JIS B6339-AD	$DCON_{ws}$	BD1	BD2	LF	LSCX	BHTA1	Collets
BT30	BT30-SFX03-060	3	10	-	60	-	4.5	-
BT30	BT30-SFX04-060	4	10	-	60	-	4.5	-
BT30	BT30-SFX05-060	5	10	-	60	-	4.5	-
BT30	BT30-SFX06-080	6	21	27	80	36	4.5	SO05014C
BT30	BT30-SFX06-105	6	21	27	105	36	4.5	SO05014C
BT30	BT30-SFX06-120	6	21	27	120	36	4.5	SO05014C
BT30	BT30-SFX08-080	8	21	27	80	36	4.5	SO06014C
BT30	BT30-SFX08-105	8	21	27	105	36	4.5	SO06014C
BT30	BT30-SFX08-120	8	21	32	120	36	4.5	SO06014C
BT30	BT30-SFX10-080	10	24	32	80	42	4.5	SO08014C
BT30	BT30-SFX10-105	10	24	32	105	42	4.5	SO08014C
BT30	BT30-SFX10-120	10	24	32	120	42	4.5	SO08014C
BT30	BT30-SFX12-080	12	24	32	80	47	4.5	SO08014C
BT30	BT30-SFX12-105	12	24	32	105	47	4.5	SO08014C
BT30	BT30-SFX12-120	12	24	34	120	47	4.5	SO08014C
BT30	BT30-SFX14-080	14	27	34	80	47	4.5	SO08014C
BT30	BT30-SFX14-105	14	27	34	105	47	4.5	SO08014C
BT30	BT30-SFX14-120	14	27	34	120	47	4.5	SO08014C
BT30	BT30-SFX16-080	16	27	34	80	50	4.5	SO12014C
BT30	BT30-SFX16-105	16	27	34	105	50	4.5	SO12014C
BT30	BT30-SFX16-120	16	27	34	120	50	4.5	SO12014C

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{ws}$=3	$DCON_{ws}$=4	$DCON_{ws}$=5	$DCON_{ws}$=6	$DCON_{ws}$=8	$DCON_{ws}$=10	$DCON_{ws}$=12	$DCON_{ws}$=14	$DCON_{ws}$=16
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4	S4	S6

BT 热装刀柄
BT Shrink Fit Toolholders





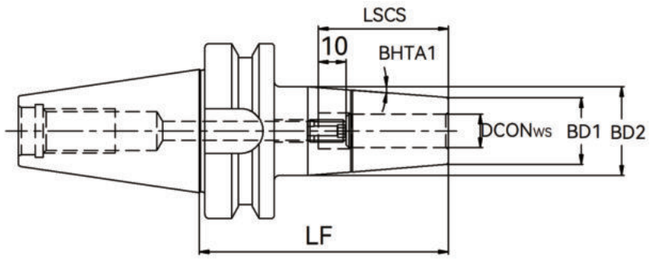
柄径公差 h6

主轴型号	刀柄型号	尺寸 Size (mm)					螺钉
Spindle Model	Model No / JIS B6339-AD	$DCON_{ws}$	BD1	BD2	LF	LSCX	Screw
BT40	BT40-SFX03-080	3	10	-	80	-	-
BT40	BT40-SFX04-080	4	10	-	80	-	-
BT40	BT40-SFX05-080	5	10	-	80	-	-
BT40	BT40-SFX06-090	6	21	27	90	36	SO05014C
BT40	BT40-SFX06-120	6	21	27	120	36	SO05014C
BT40	BT40-SFX06-160	6	21	32	160	36	SO05014C
BT40	BT40-SF08-090	8	21	27	90	36	SO06014C
BT40	BT40-SF08-120	8	21	27	120	36	SO06014C
BT40	BT40-SF08-160	8	21	32	160	36	SO06014C
BT40	BT40-SF10-090	10	24	32	90	42	SO08014C
BT40	BT40-SF10-120	10	24	32	120	42	SO08014C
BT40	BT40-SF10-160	10	24	34	160	42	SO08014C
BT40	BT40-SF12-090	12	24	32	90	47	SO08014C
BT40	BT40-SF12-120	12	24	32	120	47	SO08014C
BT40	BT40-SF12-160	12	24	34	160	47	SO08014C
BT40	BT40-SF14-090	14	27	34	90	47	SO08014C
BT40	BT40-SF14-120	14	27	34	120	47	SO08014C
BT40	BT40-SF14-160	14	27	42	160	47	SO08014C
BT40	BT40-SF16-090	16	27	34	90	50	SO12014C
BT40	BT40-SF16-120	16	27	34	120	50	SO12014C
BT40	BT40-SF16-160	16	27	42	160	50	SO12014C
BT40	BT40-SF18-090	18	33	42	90	50	SO12014C
BT40	BT40-SF18-120	18	33	42	120	50	SO12014C
BT40	BT40-SF18-160	18	33	51	160	50	SO12014C
BT40	BT40-SF20-090	20	33	42	90	52	SO16016C

BT 热装刀柄
BT Shrink Fit Toolholders







主轴型号	刀柄型号	尺寸 Size (mm)					螺钉
Spindle Model	Model No JIS B6339-AD	$DCON_{ws}$	BD1	BD2	LF	LSCX	Screw
BT40	BT40-SF20-120	20	33	42	120	52	SO16016C
BT40	BT40-SF20-160	20	33	51	160	52	SO16017C
BT40	BT40-SF25-100	25	44	53	100	58	SO16018C
BT40	BT40-SF25-120	25	44	53	120	58	SO16019C
BT40	BT40-SF25-160	25	44	60	160	58	SO16020C

● 附件需单独订购Accessories are sold separately

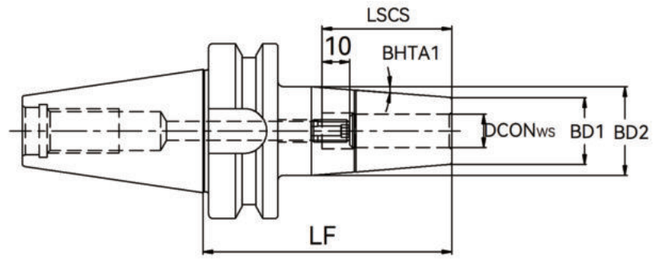
附件 Accessories	$DCON_{ws}$=3	$DCON_{ws}$=4	$DCON_{ws}$=5	$DCON_{ws}$=6	$DCON_{ws}$=8	$DCON_{ws}$=10	$DCON_{ws}$=12
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4

附件 Accessories	$DCON_{ws}$=14	$DCON_{ws}$=16	$DCON_{ws}$=18	$DCON_{ws}$=20	$DCON_{ws}$=25
扳手 Hex Wrench	S4	S6	S6	S8	S8

BT 热装刀柄
BT Shrink Fit Toolholders





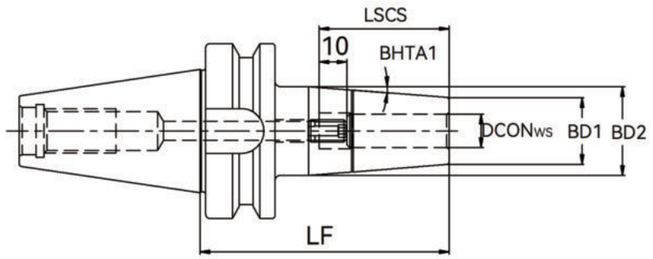


主轴型号	刀柄型号	尺寸 Size (mm)					螺钉
Spindle Model	Model No JIS B6339-AD	$DCON_{ws}$	BD1	BD2	LF	LSCX	Screw
BT50	BT50-SFX06-100	6	21	27	100	36	SO05014C
BT50	BT50-SFX06-120	6	21	27	120	36	SO05014C
BT50	BT50-SFX06-160	6	21	32	160	36	SO05014C
BT50	BT50-SF08-100	8	21	27	100	36	SO06014C
BT50	BT50-SF08-120	8	21	27	120	36	SO06014C
BT50	BT50-SF08-160	8	21	32	160	36	SO06014C
BT50	BT50-SF10-100	10	24	32	100	42	SO08014C
BT50	BT50-SF10-120	10	24	32	120	42	SO08014C
BT50	BT50-SF10-160	10	24	34	160	42	SO08014C
BT50	BT50-SF12-100	12	24	32	100	47	SO08014C
BT50	BT50-SF12-120	12	24	32	120	47	SO08014C
BT50	BT50-SF12-160	12	24	34	160	47	SO08014C
BT50	BT50-SF14-100	14	27	34	100	47	SO08014C
BT50	BT50-SF14-120	14	27	34	120	47	SO08014C
BT50	BT50-SF14-160	14	27	42	160	47	SO08014C
BT50	BT50-SF16-100	16	27	34	100	50	SO12014C
BT50	BT50-SF16-120	16	27	34	120	50	SO12014C
BT50	BT50-SF16-160	16	33	42	160	50	SO12014C
Bt50	BT50-SF18-100	18	33	42	100	50	SO12014C
BT50	BT50-SF18-120	18	33	42	120	50	SO12014C
BT50	BT50-SF18-160	18	33	51	160	50	SO12014C
BT50	BT50-SF20-100	20	33	42	100	52	SO16016C
BT50	BT50-SF20-120	20	33	42	120	52	SO16016C
BT50	BT50-SF20-160	20	33	51	160	52	SO16016C

BT 热装刀柄
BT Shrink Fit Toolholders







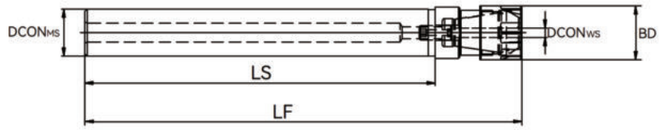
Spindle Model	Model No JIS B6339-AD	DCON$_{WS}$	BD1	BD2	LF	LSCX	Screw
BT50	BT50-SF25-110	25	44	53	110	58	SO16016C
BT50	BT50-SF25-135	25	44	60	135	58	SO16016C
BT50	BT50-SF25-160	25	44	60	160	58	SO16016C
BT50	BT50-SF32-110	32	44	53	110	58	SO16016C
BT50	BT50-SF32-135	32	44	60	135	58	SO16016C
BT50	BT50-SF32-160	32	44	60	160	58	SO16016C

● 附件需单独订购Accessories are sold separately

附件 Accessories	DCON$_{WS}$=6	DCON$_{WS}$=8	DCON$_{WS}$=10	DCON$_{WS}$=12	DCON$_{WS}$=14	DCON$_{WS}$=16	DCON$_{WS}$=18
扳手 Hex Wrench	S2.5	S3	S4	S4	S4	S6	S6

附件 Accessories	DCON$_{WS}$=20	DCON$_{WS}$=25	DCON$_{WS}$=32
扳手 Hex Wrench	S8	S8	S8

ER 卡簧接杆
ER Collet Chucks Extentions





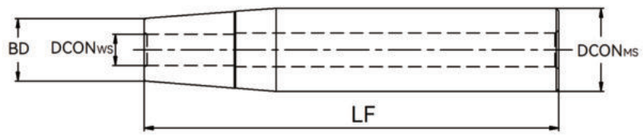
型号 Model	尺寸 Size (mm) DCON$_{WS}$	BD	DCONMS	LS	LF	螺母 Nuts	螺钉 Screw	卡簧 Collets
C16-ER11-050(M)	0.5-7	16	16	50	77	CNM11	SO06014C	ER11
C16-ER11-100(M)	0.5-7	16	16	100	127	CNM11	SO06014C	ER11
C20-ER16-050(M)	0.5-10	23	20	50	85	CNM16	SO06014C	ER16
C20-ER16-100(M)	0.5-10	23	20	100	135	CNM16	SO06014C	ER16
C20-ER16-150(M)	0.5-10	23	20	50	185	CNM16	SO06014C	ER16
C20-ER20-050(M)	1.0-13	28	20	100	88	CNM20	SO08014C	ER20
C20-ER20-100(M)	1.0-13	28	20	50	138	CNM20	SO08014C	ER20
C20-ER20-150(M)	1.0-13	28	20	100	188	CNM20	SO08014C	ER20
C25-ER20-050(M)	1.0-13	28	25	50	88	CNM20	SO08014C	ER20
C25-ER20-100(M)	1.0-13	28	25	100	138	CNM20	SO08014C	ER20
C25-ER20-150(M)	1.0-13	28	25	150	188	CNM20	SO08014C	ER20

● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20
扳手 Wrench	WM11	WM16	WM20

标准热装接杆
Standard Shrink Fit Extensions





型号	尺寸 Size (mm)			
Model	$DCON_{WS}$	$DCON_{MS}$	BD	LF
C12-SFX03-160	3	12	8	160
C12-SFX04-160	4	12	8	160
C16-SFX03-160	3	16	10	160
C16-SFX04-160	4	16	10	160
C16-SFX05-160	5	16	10	160
C20-SFX05-160	5	20	14	160
C16-SFX06-160	6	16	10	160
C20-SFX06-160	6	20	14	160
C20-SF08-160	8	20	14	160
C25-SF08-160	8	25	19	160
C25-SF10-160	10	25	20	160
C25-SF12-160	12	25	20	160
C25-SF14-160	14	25	22	160
C25-SF16-160	16	25	24	160
C32-SF10-160	10	32	24	160
C32-SF12-160	12	32	24	160
C32-SF14-160	14	32	27	160
C32-SF16-160	16	32	27	160
C32-SF18-160	18	32	27	160
C32-SF20-160	20	32	27	160

● 附件需单独订购Accessories are sold separately

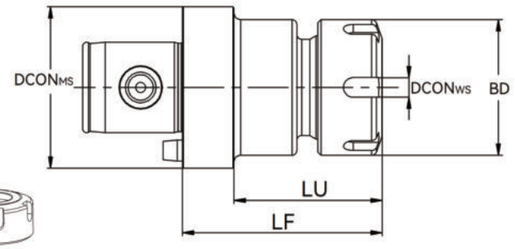
附件 Accessories	$DCON_{WS}$=3	$DCON_{WS}$=4	$DCON_{WS}$=5	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10
扳手 Hex Wrench	-	-	-	S2.5	S3	S4

TMG21 ER 弹簧夹头刀柄模块
TMG21 ER Collet Chucks









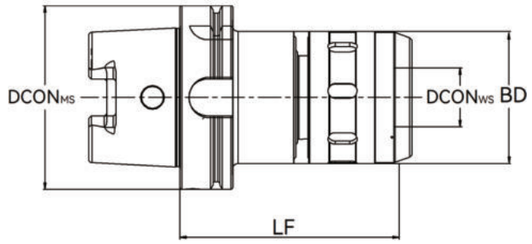
型号	尺寸 Size (mm)					滑销	定位销	螺母	螺钉	卡簧
Model	$DCON_{WS}$	$DCON_{MS}$	BD	LF	LU	Floating pin	Orientation in	Nuts	Screw	Collets
21C.25-ER11-040	0.5-7	25	19	40	30	21A.25-E3	21A.25-E4	CN11HS	SO06010C	ER11
21C.25-ER16-040	0.5-10	25	28	40	30	21A.25-E3	21A.25-E4	CN16HS	-	ER16
21C.32-ER11-040	0.5-7	32	19	40	28	21A.32-E3	21A.32-E4	CN11HS	SO06014C	ER11
21C.32-ER16-040	0.5-10	32	28	40	28	21A.32-E3	21A.32-E4	CN16HS	-	ER16
21C.32-ER20-052	1.0-13	32	34	52	40	21A.32-E3	21A.32-E4	CN20HS	SO08010C	ER20
21C.40-ER11-040	0.5-7	40	19	40	26	21A.40-E3	21A.40-E4	CN11HS	SO06014C	ER11
21C.40-ER16-040	0.5-10	40	28	40	26	21A.40-E3	21A.40-E4	CN16HS	-	ER16
21C.40-ER20-052	1.0-13	40	34	52	38	21A.40-E3	21A.40-E4	CN20HS	-	ER20
21C.40-ER25-052	1.0-16	40	42	52	38	21A.40-E3	21A.40-E4	CN25B	-	ER25
21C.50-ER11-040	0.5-7	50	19	40	24	21A.50-E3	21A.50-E4	CN11HS	SO06014C	ER11
21C.50-ER16-040	0.5-10	50	28	40	24	21A.50-E3	21A.50-E4	CN16HS	-	ER16
21C.50-ER20-052	1.0-13	50	34	52	36	21A.50-E3	21A.50-E4	CN20HS	SO08010C	ER20
21C.50-ER25-062	1.0-16	50	42	62	46	21A.50-E3	21A.50-E4	CN25B	SER25C	ER25
21C.50-ER32-070	2.0-20	50	50	70	54	21A.50-E3	21A.50-E4	CN32B	SER32C	ER32
21C.63-ER11-040	0.5-7	63	19	40	20	21A.63-E3	21A.63-E4	CN11HS	-	ER11
21C.63-ER16-040	0.5-10	63	28	40	20	21A.63-E3	21A.63-E4	CN16HS	-	ER16
21C.63-ER20-052	1.0-13	63	34	52	32	21A.63-E3	21A.63-E4	CN20HS	SO08010C	ER20
21C.63-ER25-062	1.0-16	63	42	62	42	21A.63-E3	21A.63-E4	CN25B	SER20C	ER25
21C.63-ER32-070	2.0-20	63	50	70	50	21A.63-E3	21A.63-E4	CN32B	SER20C	ER32
21C.63-ER40-078	3.0-26	63	63	78	58	21A.63-E3	21A.63-E4	CN40B	SER20C	ER40

● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20	ER25	ER32	ER40
扳手 Wrench	W17D	W25D	W30D	YER25B	YER32B	YER40B

HSK 强力夹头刀柄
HSK Milling Chucks





柄径公差
h6

主轴型号	刀柄型号	尺寸 Size (mm)				卡簧
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	LF	Collets
HSK-A63	HSK63A-C20-105	20	63	55	105	C20
HSK-A63	HSA63A-C25-110	25	63	62	110	C25
HSK-A63	HSK63A-C32-115	32	63	72	115	C32
HSK-A100	HSK100A-C20-110	20	100	55	110	C20
HSK-A100	HSK100A-C25-115	25	100	62	115	C25
HSK-A100	HSK100A-C32-120	32	100	72	120	C32
HSK-A100	HSK100A-C42-120	42	100	87	120	C42

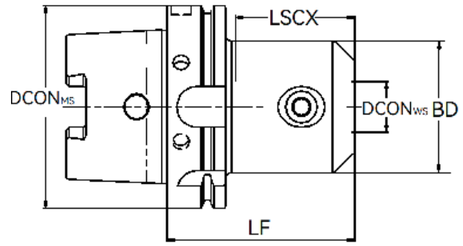
● 附件需单独订购Accessories are sold separately

附件 Accessories	C20	C25	C32	C42
扳手 Wrench	WCN25	WCN32	WCN40	BS130UNT

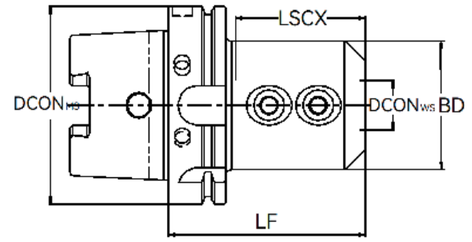
附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

HSK 侧固式刀柄
HSK Side Lock Holders





Type I



Type II

主轴型号	刀柄型号	尺寸 Size (mm)						型式
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	LF	LSCX	Screw	Screw
HSK-A63	HSK63A-XP16-080	16	63	48	80	52	SXP16	I
HSK-A63	HSK63A-XP20-080	20	63	50	80	54	SXP20	I
HSK-A63	HSA63A-XP25-110	25	63	60	110	66	SXP25	II
HSK-A63	HSK63A-XP32-110	32	63	68	110	70	SXP32	II
HSK-A100	HSK100A-XP16-100	16	100	48	100	52	SXP16	I
HSK-A100	HSK100A-XP20-100	20	100	50	100	54	SXP20	I
HSK-A100	HSK100A-XP25-105	25	100	60	105	66	SXP25	II
HSK-A100	HSK100A-XP32-100	32	100	68	100	70	SXP32	II
HSK-A100	HSK100A-XP40-120	40	100	84	120	80	SXP32	II
HSK-A100	HSK100A-XP40-160	40	100	84	160	80	SXP32	II

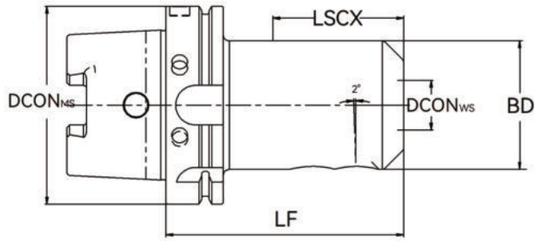
● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=25	$DCON_{WS}$=32	$DCON_{WS}$=40
扳手 Hex Wrench	S6	S8	S8	S10	S10

附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

HSK 2° 侧固式刀柄
HSK Side Lock Holders





主轴型号	刀柄型号	尺寸 Size (mm)					螺钉	螺钉
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	LF	LSCX	Screw	Screw
HSK-A63	HSK63A-XPD16-100	16	63	48	100	55	SXP16	SO12014C
HSK-A63	HSK63A-XPD20-100	20	63	52	100	57	SXP20	SO16014C
HSK-A63	HSA63A-XPD25-110	25	63	65	110	62	SXP25	SO20016C
HSK-A63	HSK63A-XPD32-110	32	63	72	110	66	SXP32	SO20016C
HSK-A100	HSK100A-XPD16-100	16	100	48	100	55	SXP16	SO12014C
HSK-A100	HSK100A-XPD20-110	20	100	52	110	57	SXP20	SO16014C
HSK-A100	HSK100A-XPD25-120	25	100	65	120	62	SXP25	SO20016C
HSK-A100	HSK100A-XPD32-120	32	100	72	120	66	SXP32	SO20016C

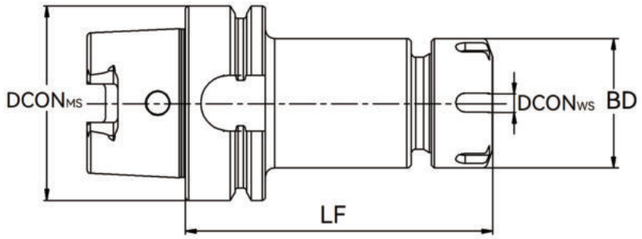
● 附件需单独订购Accessories are sold separately

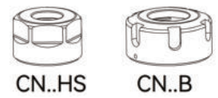
附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=25	$DCON_{WS}$=32
扳手 Hex Wrench	S6	S8	S8	S10

附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

HSK ER 弹簧夹头刀柄
HSK ER Collet Chucks







主轴型号	刀柄型号	尺寸 Size (mm)				螺母	螺钉	卡簧
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	LF	Nuts	Screw	Collets
HSK-A63	HSK63A-ER11-075	0.5-7	63	19	75	CN11HS	SER11C	ER11
HSK-A63	HSK63A-ER16-080	0.5-10	63	28	80	CN16HS	SER16C	ER16
HSK-A63	HSK63A-ER16-100	0.5-10	63	28	100	CN16HS	SER16C	ER16
HSK-A63	HSK63A-ER16-120	0.5-10	63	28	120	CN16HS	SER16C	ER16
HSK-A63	HSK63A-ER20-080	1.0-13	63	34	80	CN20HS	SER20C	ER20
HSK-A63	HSK63A-ER20-100	1.0-13	63	34	100	CN20HS	SER20C	ER20
HSK-A63	HSK63A-ER20-120	1.0-13	63	34	120	CN20HS	SER20C	ER20
HSK-A63	HSK63A-ER25-080	1.0-16	63	42	80	CN25B	SO08014C	ER25
HSK-A63	HSK63A-ER25-100	1.0-16	63	42	100	CN25B	SER25C	ER25
HSK-A63	HSK63A-ER25-120	1.0-16	63	42	120	CN25B	SER25C	ER25
HSK-A63	HSK63A-ER32-080	2.0-20	63	50	80	CN32B	SO08014C	ER32
HSK-A63	HSK63A-ER32-100	2.0-20	63	50	100	CN32B	SER32C	ER32
HSK-A63	HSK63A-ER32-120	2.0-20	63	50	120	CN32B	SER32C	ER32
HSK-A63	HSK63A-ER40-080	3.0-26	63	63	80	CN40B	/	ER40
HSK-A63	HSK63A-ER40-100	3.0-26	63	63	100	CN40B	SER40C	ER40
HSK-A63	HSK63A-ER40-120	3.0-26	63	63	120	CN40B	SER40C	ER40

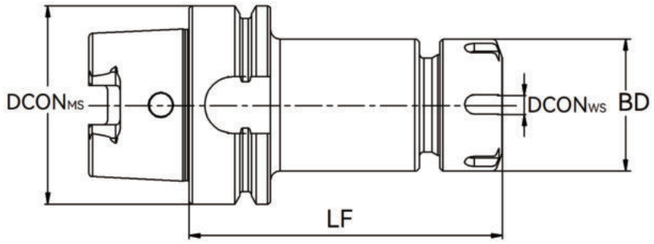
● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20	ER25	ER32	ER40
扳手 Hex Wrench	W17D	W25D	W30D	YER25B	YER32B	YER40B

附件 Accessories	$DCON_{MS}$=63
冷却液套管 Coolant tubes	TU-HSK63
扳手 Coolant tube Wrench	W-HSK63

HSK ER 弹簧夹头刀柄
HSK ER Collet Chucks






CN..HS


CN..B

主轴型号	刀柄型号	尺寸 Size (mm)				螺母	螺钉	卡簧
Spindle Model	Model No / DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	LF	Nuts	Screw	Collets
HSK-A100	HSK100A-ER16-100	0.5-10	100	28	100	SER16C	SER11C	ER16
HSK-A100	HSK100A-ER16-160	0.5-10	100	28	160	SER16C	SER16C	ER16
HSK-A100	HSK100A-ER20-100	1.0-13	100	34	100	SER20C	SER16C	ER20
HSK-A100	HSK100A-ER20-160	1.0-13	100	34	160	SER20C	SER16C	ER20
HSK-A100	HSK100A-ER25-100	1.0-16	100	42	100	SER25C	SER20C	ER25
HSK-A100	HSK100A-ER25-160	1.0-16	100	42	160	SER25C	SER20C	ER25
HSK-A100	HSK100A-ER32-100	2.0-20	100	50	100	SER32C	SER20C	ER32
HSK-A100	HSK100A-ER32-160	3.0-26	100	63	160	SER32C	SO08014C	ER32
HSK-A100	HSK100A-ER40-100	3.0-26	100	63	100	SER40C	SER25C	ER40
HSK-A100	HSK100A-ER40-120	3.0-26	100	63	120	SER40C	SER25C	ER40
HSK-A100	HSK100A-ER40-160	3.0-26	100	63	160	SER40C	SO08014C	ER40

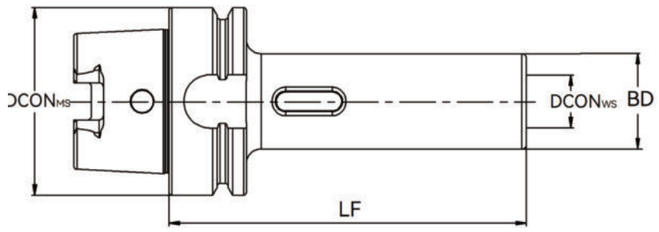
● 附件需单独订购Accessories are sold separately

附件 Accessories	ER11	ER16	ER20	ER25	ER32	ER40
扳手 Hex Wrench	W17D	W25D	W30D	YER25B	YER32B	YER40B

附件 Accessories	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63
扳手 Coolant tube Wrench	W-HSK63

HSK 有扁尾莫氏圆锥孔刀柄
HSK Morse Taper Holders with Tang





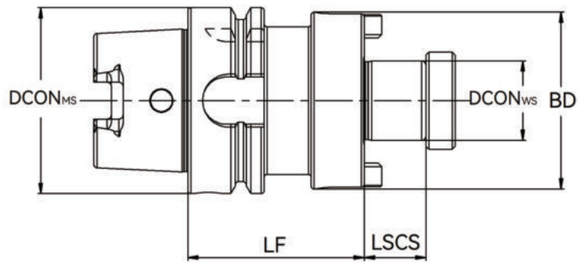
主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径 (mm)	尺寸 Size (mm)			
Spindle Model	Model No / DIN69893	Morse taper	Corresponding to installed milling cutter diameter	$DCON_{MS}$	BD	$DCON_{WS}$	LF
HSK-A63	HSK63A-M1-100	MT1	3-14	63	25	12.065	100
HSK-A63	HSK63A-M2-120	MT2	14.25-23.0	63	32	17.78	120
HSK-A63	HSK63A-M3-140	MT3	23.25-23	63	40	23.825	140
HSK-A63	HSK63A-M4-160	MT4	32-50.5	63	48	31.267	160
HSK-A100	HSK100A-M1-110	MT1	3-14	100	25	12.065	100
HSK-A100	HSK100A-M2-120	MT2	14.25-23.0	100	32	17.78	120
HSK-A100	HSK100A-M3-150	MT3	23.25-23	100	40	23.825	150
HSK-A100	HSK100A-M4-170	MT4	32-50.5	100	48	31.267	170
HSK-A100	HSK100A-M5-200	MT5	51-56	100	63	44.399	200

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

HSK 套式立铣刀刀柄
HSK Shell Mill Holders





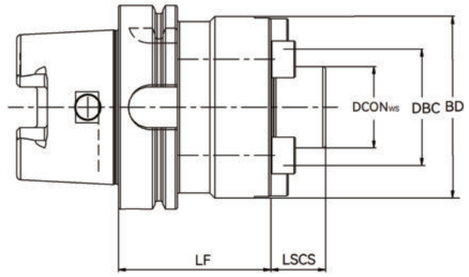
主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No / DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	LF	LF	Screw	Key	Screw
HSK-A63	HSK-63A-XMB16-050	16	63	34	50	17	MS08030	JC08017	MS03008
HSK-A63	HSK-63A-XMB16-100	16	63	34	100	17	MS08030	JC08017	MS03008
HSK-A63	HSK-63A-XMB22-050	22	63	42	50	19	MS10030	JC10021	MS04010
HSK-A63	HSK-63A-XMB22-100	23	63	42	100	19	MS10030	JC10021	MS04010
HSK-A63	HSK-63A-XMB27-060	27	63	60	60	21	SXM27	JC12023	MS05016
HSK-A63	HSK-63A-XMB27-120	27	63	60	120	21	SXM27	JC12023	MS05016
HSK-A63	HSK-63A-XMB32-060	32	63	78	60	24	SXM32	JC14020	MS06020
HSK-A63	HSK-63A-XMB32-100	32	63	78	100	24	SXM32	JC14020	MS06020
HSK-A63	HSK-63A-XMB40-060	40	63	89	60	27	SXM40	KXM40	MS08020
HSK-A100	HSK-100A-XMB22-050	22	100	42	50	19	MS10030	JC10021	MS04010
HSK-A100	HSK-100A-XMB22-100	22	100	42	100	19	MS10030	JC10021	MS04010
HSK-A100	HSK-100A-XMB27-050	27	100	60	50	21	SXM27	JC12023	MS05016
HSK-A100	HSK-100A-XMB27-100	27	100	60	100	21	SXM27	JC12023	MS05016
HSK-A100	HSK-100A-XMB32-050	32	100	78	50	24	SXM32	JC14020	MS06020
HSK-A100	HSK-100A-XMB32-100	32	100	78	100	24	SXM32	JC14020	MS06020
HSK-A100	HSK-100A-XMB40-060	40	100	89	60	27	SXM40	KXM40	MS08020
HSK-A100	HSK-100A-XMB40-100	40	100	89	100	27	SXM40	KXM40	MS08020

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=22	$DCON_{WS}$=27	$DCON_{WS}$=32	$DCON_{WS}$=40
扳手 Hex Wrench	S6	S8	S10	S14	S17
附件 Accessories	$DCON_{MS}$=63			$DCON_{MS}$=100	
冷却液套管 Coolant tubes	TU-HSK63			TU-HSK100	
扳手 Coolant tube Wrench	W-HSK63			W-HSK100	

HSK 面铣刀刀柄
HSK Face Mill Holders





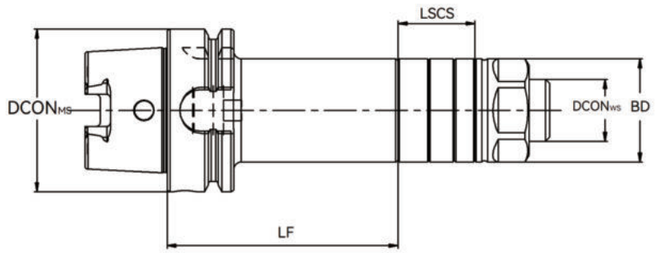
主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No / DIN69893	$DCON_{WS}$	BD	DBC	LF	LSCS	Screw	Key	Screw
HSK-A100	HSK100A-XMC40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
HSK-A100	HSK100A-XMC60-075	60	129	101.6	75	38	MS16045(4)	KXMC60	MS10025

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=40	$DCON_{WS}$=60
扳手 Hex Wrench	S10	S14
附件 Accessories	$DCON_{MS}$=100	
冷却液套管 Coolant tubes	TU-HSK100	
扳手 Coolant tube Wrench	W-HSK100	

HSK 三面刃铣刀刀柄
HSK Soltting Cutter Holders





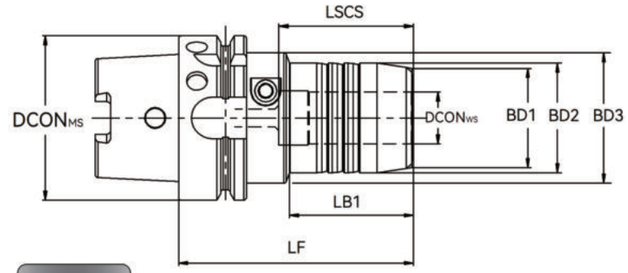
主轴型号	刀柄型号	尺寸 Size (mm)					螺母	垫圈	键
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	BD	LF	LSCS	nuts	Washer	Key
	DIN69893								
HSK-A63	HSK-63A-XS13-075	13	63	20	75	30	MXS13	SD13	-
HSK-A63	HSK-63A-XS16-090	16	63	26	90	30	MXS16	SD16	JA04020
HSK-A63	HSK-63A-XS16-120	16	63	26	120	30	MXS16	SD16	JA04020
HSK-A63	HSK-63A-XS22-090	22	63	34	90	30	MXS22	SD22	JA06020
HSK-A63	HSK-63A-XS22-135	22	63	34	135	30	MXS22	SD22	JA06020
HSK-A63	HSK-63A-XS27-090	27	63	40	90	30	MXS27	SD27	JA07022
HSK-A63	HSK-63A-XS27-135	27	63	40	135	30	MXS27	SD27	JA07022
HSK-A63	HSK-63A-XS32-090	32	63	46	90	30	MXS32	SD32	JA08022
HSK-A63	HSK-63A-XS32-135	32	63	46	135	30	MXS32	SD32	JA08022
HSK-A100	HSK-100A-XS13-075	13	100	20	75	30	MXS13	SD13	-
HSK-A100	HSK-100A-XS16-090	16	100	26	90	30	MXS16	SD16	JA04020
HSK-A100	HSK-100A-XS16-120	16	100	26	120	30	MXS16	SD16	JA04020
HSK-A100	HSK-100A-XS22-090	22	100	34	90	30	MXS22	SD22	JA06020
HSK-A100	HSK-100A-XS22-135	22	100	34	135	30	MXS22	SD22	JA06020
HSK-A100	HSK-100A-XS27-090	27	100	40	90	30	MXS27	SD27	JA07022
HSK-A100	HSK-100A-XS27-135	27	100	40	135	30	MXS27	SD27	JA07022
HSK-A100	HSK-100A-XS32-090	32	100	46	90	30	MXS32	SD32	JA08022
HSK-A100	HSK-100A-XS32-135	32	100	46	135	30	MXS32	SD32	JA08022
HSK-A100	HSK-100A-XS40-090	40	100	55	90	30	MXS40	SD40	JA10025
HSK-A100	HSK-100A-XS40-135	40	100	55	135	30	MXS40	SD40	JA10025

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

HSK 液压刀柄
HSK Hydraulic Chucks





柄径公差
h6

G2.5
25000rpm

回转精度
3μm

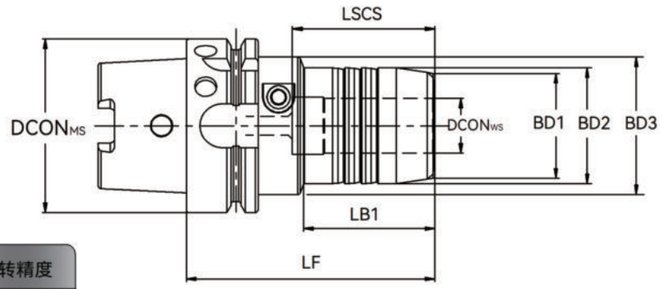
主轴型号	刀柄型号	尺寸 Size (mm)								螺钉	卡簧
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Collets
	DIN69893										
HSK-A63	HSK63A-HCM06-070	6	63	22	26	50	70	37	24	HCSO05014C	-
HSK-A63	HSK63A-HCM08-070	8	63	24	28	50	70	37	25	HCSO06014C	-
HSK-A63	HSK63A-HCM10-080	10	63	26	30	50	80	41	35	HCSO08014C	-
HSK-A63	HSK63A-HCM12-085	12	63	28	32	50	85	46	40	HCSO08014C	HC12
HSK-A63	HSK63A-HCM16-090	16	63	34	38	50	90	49	46	HCSO08014C	-
HSK-A63	HSK63A-HCM20-090	20	63	38	42	50	90	51	48	HCSO08014C	HC20
HSK-A63	HSK63A-HCM25-120	25	63	53	57	63	120	57	59	HCSO12014C	-
HSK-A63	HSK63A-HCM32-125	32	63	60	64	75	125	61	63	HCSO12014C	HC32
HSK-A100	HSK100A-HCM06-075	6	100	22	26	50	75	37	26	HCSO05 014C	-
HSK-A100	HSK100A-HCM08-075	8	100	24	28	50	75	37	26	HCSO06014C	-
HSK-A100	HSK100A-HCM10-090	10	100	26	30	50	90	41	42	HCSO08014C	-
HSK-A100	HSK100A-HCM12-095	12	100	28	32	50	95	46	47	HCSO08014C	HC12
HSK-A100	HSK100A-HCM16-100	16	100	34	38	50	100	49	53	HCSO08014C	-
HSK-A100	HSK100A-HCM20-105	20	100	38	42	50	105	51	51	HCSO08014C	HC20
HSK-A100	HSK100A-HCM25-110	25	100	53	57	63	110	57	62	HCSO12014C	-
HSK-A100	HSK100A-HCM32-110	32	100	60	64	75	110	61	62	HCSO12014C	HC32

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=32
扳手 Hex Wrench	TS5						TS6
附件 Accessories	$DCON_{MS}$=63			$DCON_{M'S}$=100			
冷却液套管 Coolant tubes	TU-HSK63			TU-HSK100			
扳手 Coolant tube Wrench	W-HSK63			W-HSK100			

HSK 液压刀柄
HSK Hydraulic Chucks





柄径公差 h6

G2.5 25000rpm

回转精度 3μm

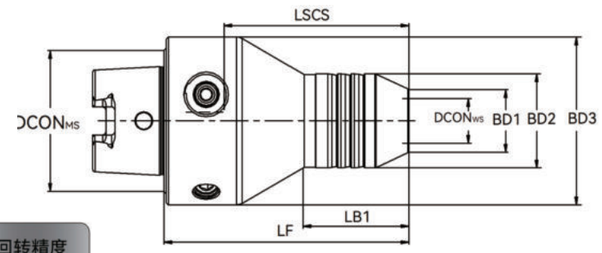
主轴型号	刀柄型号	尺寸 Size (mm)								螺钉	卡簧
Spindle Model	Model No / DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Collets
HSK-A63	BT30-HCM06-50.8	6	63	22	26	50	150	37	103	HCSO05014C	-
HSK-A63	BT30-HCM08-50.8	8	63	24	28	50	150	37	104	HCSO06014C	-
HSK-A63	BT30-HCM10-50.8	10	63	26	30	50	150	41	104	HCSO08014C	-
HSK-A63	BT30-HCM12-50.8	12	63	28	32	50	150	46	105	HCSO08014C	HC12
HSK-A63	BT30-HCM16-090	14	63	30	34	50	150	46	105	HCSO08014C	-
HSK-A63	BT30-HCM20-090	16	63	34	38	50	150	49	106	HCSO08014C	-
HSK-A63	BT40-HCM06-090	18	63	36	40	50	150	49	107	HCSO08014C	-
HSK-A63	BT40-HCM08-090	20	63	38	42	50	150	51	108	HCSO08014C	HC20
HSK-A63	BT40-HCM10-090	6	63	22	26	50	200	37	153	HCSO05014C	-
HSK-A63	BT40-HCM12-090	8	63	24	28	50	200	37	154	HCSO06014C	-
HSK-A63	BT40-HCM14-090	10	63	26	30	50	200	41	154	HCSO08014C	-
HSK-A63	BT40-HCM16-090	12	63	28	32	50	200	46	155	HCSO08014C	HC12
HSK-A63	BT40-HCM20-090	14	63	30	34	50	200	46	155	HCSO08014C	-
HSK-A63	BT40-HCM25-083	16	63	34	38	50	200	49	156	HCSO08014C	-
HSK-A63	BT40-HCM32-083	18	63	36	40	50	200	49	157	HCSO08014C	-
HSK-A63	BT50-HCM12-090	20	63	38	42	50	200	51	158	HCSO08014C	HC20
HSK-A100	BT50-HCM16-090	12	100	28	32	50	150	46	102	HCSO08014C	HC12
HSK-A100	BT50-HCM20-090	20	100	38	42	50	150	51	104	HCSO08014C	HC20

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=32
扳手 Hex Wrench	TS5						TS6
附件 Accessories	$DCON_{MS}$=63			$DCON_{MS}$=100			
冷却液套管 Coolant tubes	TU-HSK63			TU-HSK100			
扳手 Coolant tube Wrench	W-HSK63			W-HSK100			

HSK 工具磨液压刀柄
HSK Tool Grinding Hydraulic Chucks





柄径公差 h6

回转精度 2μm

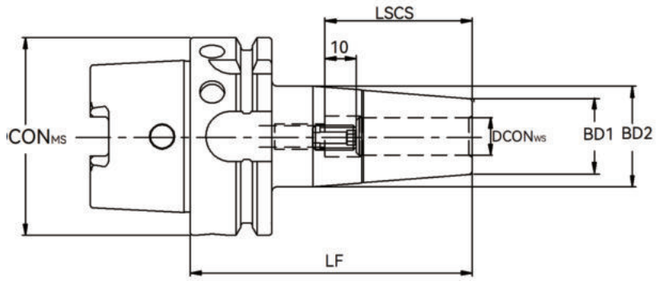
主轴型号	刀柄型号	尺寸 Size (mm)								螺钉	卡簧
Spindle Model	Model No / DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Collets
HSK-A63	HSK63C-HCM12-110M	12	63	21.5	36.5	75	110	83	47	-	HC12
HSK-A63	HSK63C-HCM20-110M	20	63	28	42	75	110	83	47	-	HC20
HSK-A63	HSK63C-HCM32-110M	32	63	40	54	80	110	83	62.5	-	HC32

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=12	$DCON_{WS}$=20	$DCON_{WS}$=30
扳手 Hex Wrench	TS5		

HSK-A 热装刀柄
HSK-A Shrink Fit Toolholders





主轴型号	刀柄型号	尺寸 Size (mm)						螺钉
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	LF	LSCX	Screw
HSK-A63	HSK63A-SFX03-080	3	63	10	-	80	-	-
HSK-A63	HSK63A-SFX04-080	4	63	10	-	80	-	-
HSK-A63	HSK63A-SFX05-080	5	63	10	-	80	-	-
HSK-A63	HSK63A-SFX06-080	6	63	27	21	80	36	SO05014C
HSK-A63	HSK63A-SFX06-120	6	63	27	21	120	36	SO05014C
HSK-A63	HSK63A-SFX06-160	6	63	32	21	160	36	SO05014C
HSK-A63	HSK63A-SF08-080	8	63	27	21	80	36	SO06014C
HSK-A63	HSK63A-SF08-120	8	63	27	21	120	36	SO06014C
HSK-A63	HSK63A-SF08-160	8	63	32	21	160	36	SO06014C
HSK-A63	HSK63A-SF10-085	10	63	32	24	85	42	SO08014C
HSK-A63	HSK63A-SF10-120	10	63	32	24	120	42	SO08014C
HSK-A63	HSK63A-SF10-160	10	63	34	24	160	42	SO08014C
HSK-A63	HSK63A-SF12-090	12	63	32	24	90	47	SO08014C
HSK-A63	HSK63A-SF12-120	12	63	32	24	120	47	SO08014C
HSK-A63	HSK63A-SF12-160	12	63	34	24	160	47	SO08014C
HSK-A63	HSK63A-SF14-090	14	63	34	27	90	47	SO08014C
HSK-A63	HSK63A-SF14-120	14	63	34	27	120	47	SO08014C
HSK-A63	HSK63A-SF14-160	14	63	42	27	160	47	SO08014C
HSK-A63	HSK63A-SF16-095	16	63	34	27	95	50	SO12014C
HSK-A63	HSK63A-SF16-120	16	63	34	27	120	50	SO12014C
HSK-A63	HSK63A-SF16-160	16	63	42	27	160	50	SO12014C
HSK-A63	HSK63A-SF18-095	18	63	42	33	95	50	SO12014C
HSK-A63	HSK63A-SF18-120	18	63	42	33	120	50	SO12014C
HSK-A63	HSK63A-SF18-160	18	63	51	33	160	50	SO12014C
HSK-A63	HSK63A-SF20-100	20	63	42	33	100	52	SO16016C
HSK-A63	HSK63A-SF20-120	20	63	42	33	120	52	SO16016C
HSK-A63	HSK63A-SF20-160	20	63	51	33	160	52	SO16016C
HSK-A63	HSK63A-SF25-115	25	63	53	44	115	58	SO16016C
HSK-A63	HSK63A-SF25-160	25	63	60	44	160	58	SO16016C

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

HSK-A 热装刀柄
HSK-A Shrink Fit Toolholders

● 附件需单独订购Accessories are sold separately

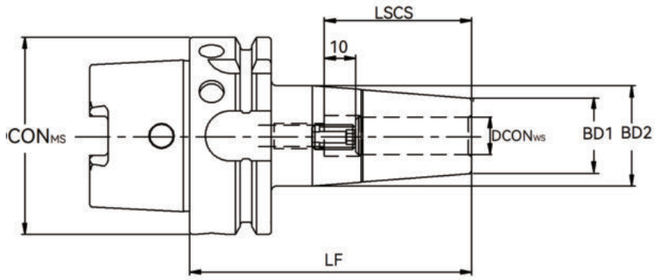
附件 Accessories	DCONWS=3	DCONWS=4	DCONWS=5	DCONWS=6	DCONWS=8	DCONWS=10	DCONWS=12	DCONWS=14
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4	S4

附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=18	$DCON_{WS}$=20	$DCON_{WS}$=25
扳手 Hex Wrench	S6		S8	
附件 Accessories	$DCON_{MS}$=63			
冷却液套管 Coolant tubes	TU-HSK63			
扳手 Coolant tube Wrench	W-HSK63			

HSK-A 热装刀柄

HSK-A Shrink Fit Toolholders





主轴型号	刀柄型号	尺寸 Size (mm)						螺钉
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	LF	LSCX	Screw
HSK-A100	HSK100A-SFX06-085	6	100	21	27	85	36	SO05014C
HSK-A100	HSK100A-SFX06-120	6	100	21	27	120	36	SO05014C
HSK-A100	HSK100A-SFX06-160	6	100	21	32	160	36	SO05014C
HSK-A100	HSK100A-SF08-085	8	100	21	27	85	36	SO06014C
HSK-A100	HSK100A-SF08-120	8	100	21	27	120	36	SO06014C
HSK-A100	HSK100A-SF08-160	8	100	21	32	160	36	SO06014C
HSK-A100	HSK100A-SF10-090	10	100	24	32	90	42	SO08014C
HSK-A100	HSK100A-SF10-120	10	100	24	32	120	42	SO08014C
HSK-A100	HSK100A-SF10-160	10	100	24	34	160	42	SO08014C
HSK-A100	HSK100A-SF12-095	12	100	24	32	95	47	SO08014C
HSK-A100	HSK100A-SF12-120	12	100	24	32	120	47	SO08014C
HSK-A100	HSK100A-SF12-160	12	100	24	34	160	47	SO08014C
HSK-A100	HSK100A-SF14-095	14	100	27	34	95	47	SO08014C
HSK-A100	HSK100A-SF14-120	14	100	27	34	120	47	SO08014C
HSK-A100	HSK100A-SF14-160	14	100	27	42	160	47	SO08014C
HSK-A100	HSK100A-SF16-100	16	100	27	34	100	50	SO12014C
HSK-A100	HSK100A-SF16-120	16	100	27	34	120	50	SO12014C
HSK-A100	HSK100A-SF16-160	16	100	27	42	160	50	SO12014C
HSK-A100	HSK100A-SF18-100	18	100	33	42	100	50	SO12014C
HSK-A100	HSK100A-SF18-120	18	100	33	42	120	50	SO12014C
HSK-A100	HSK100A-SF18-160	18	100	33	51	160	50	SO12014C
HSK-A100	HSK100A-SF20-105	20	100	33	42	105	52	SO16016C
HSK-A100	HSK100A-SF20-120	20	100	33	42	120	52	SO16016C
HSK-A100	HSK100A-SF20-160	20	100	33	51	160	52	SO16016C
HSK-A100	HSK100A-SF25-115	25	100	44	53	115	58	SO16016C
HSK-A100	HSK100A-SF25-160	25	100	44	60	160	58	SO16016C
HSK-A100	HSK100A-SF32-120	32	100	44	53	120	58	SO16016C
HSK-A100	HSK100A-SF32-160	32	100	44	60	160	58	SO16016C

A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

HSK-A 热装刀柄

HSK-A Shrink Fit Toolholders

● 附件需单独订购Accessories are sold separately

附件 Accessories	$DCON_{WS}$=3	$DCON_{WS}$=4	$DCON_{WS}$=5	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12	$DCON_{WS}$=14
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4	S4

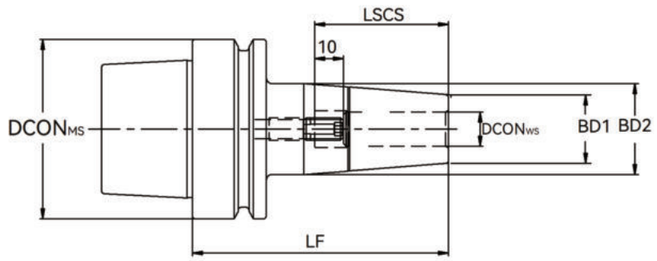
附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=18	$DCON_{WS}$=20	$DCON_{WS}$=25
扳手 Hex Wrench	S6		S8	
附件 Accessories	$DCON_{MS}$=63			
冷却液套管 Coolant tubes	TU-HSK63			
扳手 Coolant tube Wrench	W-HSK63			

HSK-E 热装刀柄

HSK-E Shrink Fit Toolholders



柄径公差
h6



主轴型号	刀柄型号	尺寸 Size (mm)						螺钉
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	LF	LSCX	Screw
	DIN69893							
HSK-E40	HSK40E-SFX03-060	3	40	10	-	60	-	-
HSK-E40	HSK40E-SFX04-060	4	40	10	-	60	-	-
HSK-E40	HSK40E-SFX05-060	5	40	10	-	60	-	-
HSK-E40	HSK40E-SFX06-080	6	40	21	27	80	36	SO05014C
HSK-E40	HSK40E-SF08-080	8	40	21	27	80	36	SO06014C
HSK-E40	HSK40E-SF10-080	10	40	24	32	80	42	SO08014C
HSK-E40	HSK40E-SF12-090	12	40	24	32	90	47	SO08014C
HSK-E40	HSK40E-SF14-090	14	40	27	34	90	47	SO08014C
HSK-E40	HSK40E-SF16-090	16	40	27	34	90	50	SO12014C

● 附件需单独订购Accessories are sold separately

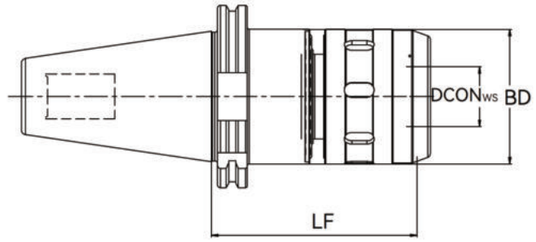
附件 Accessories	$DCON_{WS}$=3	$DCON_{WS}$=4	$DCON_{WS}$=5	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12	$DCON_{WS}$=14
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4	S4
附件 Accessories	$DCON_{WS}$=16		-					
扳手 Hex Wrench	S6		-					
附件 Accessories	$DCON_{MS}$=63							
附件 Accessories	$DCON_{MS}$=63				$DCON_{MS}$=100			
冷却液套管 Coolant tubes	TU-HSK63				TU-HSK100			
扳手 Coolant tube Wrench	W-HSK63				W-HSK100			

JT强力夹头刀柄

JT Milling Chucks



柄径公差
h6



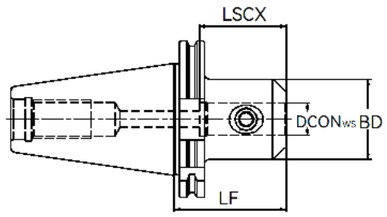
主轴型号	刀柄型号	尺寸 Size (mm)			卡簧
Spindle Model	Model No	$DCON_{WS}$	BD	LF	Collets
	DIN69871-AD				
JT40	JT40-C20-095	20	55	95	C20
JT40	JT40-C25-100	25	62	100	C25
JT40	JT40-C32-105	32	72	105	C32
JT50	JT50-C20-105	20	55	105	C20
JT50	JT50-C25-110	25	62	110	C25
JT50	JT50-C32-110	32	72	110	C32
JT50	JT50-C42-110	42	87	110	C42

● 附件需单独订购Accessories are sold separately

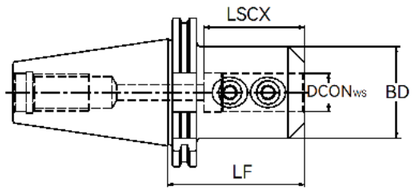
附件 Accessories	C20	C25	C32	C42
扳手 Wrench	WCN25	WCN32	WCN40	BS130UNT

JT侧固式刀柄
JT Side Lock Holders





Type I

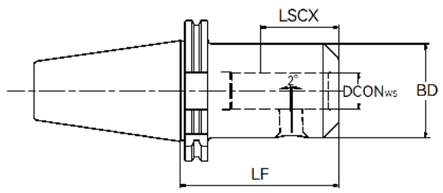


Type II

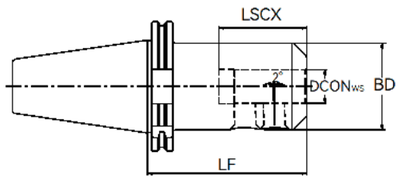
主轴型号	刀柄型号	尺寸 Size (mm)				螺钉	型式
Spindle Model	Model No DIN 69871-AD	$DCON_{WS}$	BD	LF	LSCX	Screw	Type
JT40	JT40-XP16-063	16	48	63	52	SXP16	I
JT40	JT40-XP20-070	20	50	70	54	SXP20	I
JT40	JT40-XP25-100	25	60	100	66	SXP25	II
JT40	JT40-XP32-100	32	68	100	70	SXP32	II
JT50	JT50-XP16-063	16	48	63	52	SXP16	I
JT50	JT50-XP20-063	20	50	63	54	SXP20	I
JT50	JT50-XP25-080	25	60	80	66	SXP25	II
JT50	JT50-XP32-100	32	68	100	70	SXP32	II
JT50	JT50-XP40-110	40	84	110	80	SXP32	II

JT 2° 侧固式刀柄 2°
JT Side Lock Holders





Type I



Type II

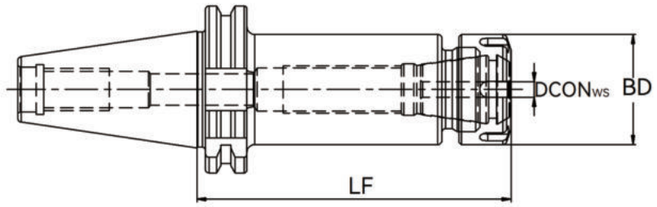
主轴型号	刀柄型号	尺寸 Size (mm)				螺钉	螺钉	型式
Spindle Model	Model No DIN69871-AD	$DCON_{WS}$	BD	LF	LSCX	Screw	Screw	Type
JT40	JT40-XPD16-063	16	48	63	55	SXP16	SO12014C	I
JT40	JT40-XPD20-070	20	52	70	57	SXP20	SO16016C	I
JT40	JT40-XPD25-100	25	65	100	62	SXP25	SO20016C	II
JT40	JT40-XPD32-100	32	72	100	63	SXP32	SO20016C	II
JT50	JT50-XPD16-063	16	48	63	55	SXP16	SO12014C	I
JT50	JT50-XPD20-063	20	52	63	57	SXP20	SO16016C	I
JT50	JT50-XPD25-080	25	65	80	62	SXP25	SO20016C	II
JT50	JT50-XPD32-100	32	72	100	63	SXP32	SO20016C	II

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=25	$DCON_{WS}$=32
扳手 Hex Wrench	S6	S8	S8	S10

JT ER 弹簧夹头刀柄
JT ER Collet Chucks






CN..HS


CN..B

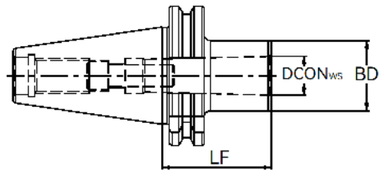
主轴型号	刀柄型号	尺寸 Size (mm)			螺母	螺钉	卡簧
Spindle Model	Model No DIN69871-AD	$DCON_{WS}$	BD	LF	Nuts	Screw	Collets
JT40	JT40-ER11-070	0.5~7	19	70	CN11HS	SER11C	ER11
JT40	JT40-ER11-120	0.5~7	19	120			
JT40	JT40-ER16-070	0.5~10	28	70	CN16HS	SER16C	ER16
JT40	JT40-ER16-120	0.5~10	28	120			
JT40	JT40-ER20-080	1.0~13	34	80	CN20HS	SER20C	ER20
JT40	JT40-ER20-120	1.0~13	34	120			
JT40	JT40-ER25-080	1.0~16	42	80	CN25B	SER25C	ER25
JT40	JT40-ER25-120	1.0~16	42	120			
JT40	JT40-ER32-060	2.0~20	50	60	CN32B	SER32C	ER32
JT40	JT40-ER32-120	2.0~20	50	120			
JT40	JT40-ER40-080	3.0~26	63	80	CN40B	SER40C	ER40
JT50	JT50-ER16-060	0.5~10	28	60	CN16HS	SER16C	ER16
JT50	JT50-ER16-120	0.5~10	28	120			
JT50	JT50-ER20-070	1.0~13	34	70	CN20HS	SER20C	ER20
JT50	JT50-ER20-120	1.0~13	34	120			
JT50	JT50-ER25-070	1.0~16	42	70	CN25B	SER25C	ER25
JT50	JT50-ER25-120	1.0~16	42	120			
JT50	JT50-ER32-090	2.0~20	50	90	CN32B	SER32C	ER32
JT50	JT50-ER32-120	2.0~20	50	120			
JT50	JT50-ER40-100	3.0~26	63	100	CN40B	SER40C	ER40

● 附件需单独订购 Accessories are sold separately

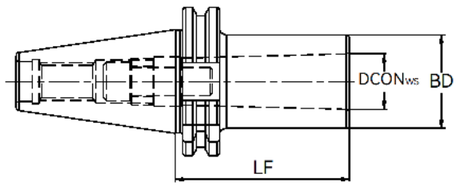
附件 A ssories	ER11	ER16	ER20	ER25	ER32	ER40
扳手 Wrench	W17D	W25D	W30D	YER25B	YER32B	YER40B

JT 无扁尾莫氏圆锥孔刀柄
JT Morse Taper Holders without Tang





Type I



Type II

主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径 (mm)	尺寸 Size (mm)			螺钉	型式
Spindle Model	Model No DIN69871-A	Morse taper	Corresponding to installed milling cutter diameter	$DCON_{WS}$	BD	LF	Screw	Type
JT40	JT40-MW1-045	MT1	6-12	12.065	27	45	MS06025	I
JT40	JT40-MW2-050	MT2	14-20	17.780	32	50	MS10030-A	I
JT40	JT40-MW3-075	MT3	22-36	23.825	40	75	MS12035-A	II
JT40	JT40-MW4-095	MT4	32-56	31.267	50	95	MS16040-A	II
JT50	JT50-MW1-045	MT1	6-12	12.065	27	45	MS06025	I
JT50	JT50-MW2-060	MT2	14-20	17.780	32	60	MS10030	I
JT50	JT50-MW3-065	MT3	22-36	23.825	40	65	MS12035	I
JT50	JT50-MW4-075	MT4	32-56	31.267	50	75	MS16040-B	I
JT50	JT50-MW5-105	MT5	40-63	44.399	78	105	MS20048-A	II

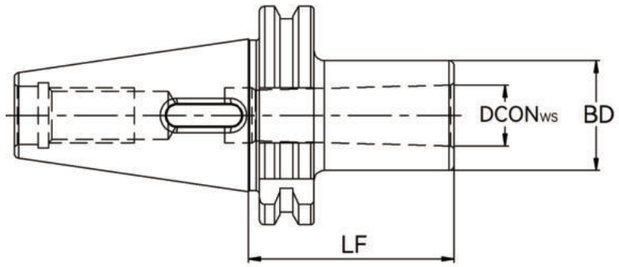
● 附件需单独订购 Accessories are sold separately

附件 Accessories	MT1	MT2	MT3	MT4(I)	MT4(II)	MT5
扳手 Hex Wrench	S5	S8	S10	S14	S12	S17

JT有扁尾莫氏圆锥孔刀柄

JT Morse Taper Holders with Tang



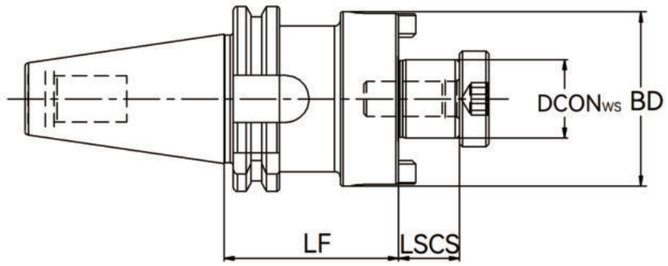


主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径(mm)	尺寸Size(mm)		
SpindleModel	ModelNo DIN69871-A	Morsetaper	Correspondingtoinstalledmillingcutterdiameter	$DCON_{WS}$	BD	LF
JT40	JT40-M1-045	MT1	3-14	12.065	25	45
JT40	JT40-M1-120	MT1	3-14	12.065	25	120
JT40	JT40-M2-060	MT2	14.25-23	17.780	32	60
JT40	JT40-M2-120	MT2	14.25-23	17.780	32	120
JT40	JT40-M3-075	MT3	23.25-31.75	23.825	40	75
JT40	JT40-M3-135	MT3	23.25-31.75	23.825	40	135
JT40	JT40-M4-095	MT4	32-50.5	31.267	48	95
JT40	JT40-M4-165	MT4	32-50.5	31.267	48	165
JT50	JT50-M1-045	MT1	3-14	12.065	25	45
JT50	JT50-M1-120	MT1	3-14	12.065	25	120
JT50	JT50-M1-180	MT1	3-14	12.065	25	180
JT50	JT50-M2-045	MT2	14.25-23	17.780	32	45
JT50	JT50-M2-135	MT2	14.25-23	17.780	32	135
JT50	JT50-M2-180	MT2	14.25-23	17.780	32	180
JT50	JT50-M3-075	MT3	23.25-31.75	23.825	40	75
JT50	JT50-M3-150	MT3	23.25-31.75	23.825	40	150
JT50	JT50-M3-180	MT3	23.25-31.75	23.825	40	180
JT50	JT50-M4-075	MT4	32-50.5	31.267	48	75
JT50	JT50-M4-180	MT4	32-50.5	31.267	48	180
JT50	JT50-M5-105	MT5	51-76	44.399	63	105

JT套式立铣刀刀柄

JT Shell Mill Holders





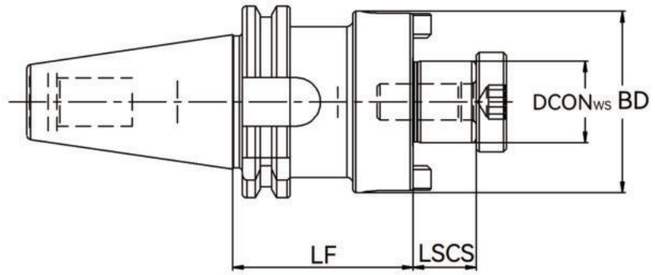
主轴型号	刀柄型号	尺寸Size(mm)				螺钉1	键	螺钉2
SpindleModel	ModelNo DIN69871-A	$DCON_{WS}$	BD	LF	LSCS	Screw	Key	Screw
JT40	JT40-XMB16-060	16	34	60	17	MS08030	JC08017	MS03008
JT40	JT40-XMB16-120	16	34	120	17	MS08030	JC08017	MS03008
JT40	JT40-XMB22-060	22	42	60	19	MS10030	JC10021	MS04010
JT40	JT40-XMB22-120	22	42	120	19	MS10030	JC10021	MS04010
JT40	JT40-XMB27-060	27	60	60	21	SXM27	JC12023	MS05016
JT40	JT40-XMB27-120	27	60	120	21	SXM27	JC12023	MS05016
JT40	JT40-XMB32-060	32	78	60	24	SXM32	JC14020	MS06020
JT40	JT40-XMB40-060	40	89	60	27	SXM40	KXM40	MS08020
JT50	JT50-XMB16-060	16	34	60	17	MS08030	JC08017	MS03008
JT50	JT50-XMB16-120	16	34	120	17	MS08030	JC08017	MS03008
JT50	JT50-XMB22-060	22	42	60	19	MS10030	JC10021	MS04010
JT50	JT50-XMB22-120	22	42	120	19	MS10030	JC10021	MS04010
JT50	JT50-XMB27-060	27	60	60	21	SXM27	JC12023	MS05016
JT50	JT50-XMB27-090	27	60	90	21	SXM27	JC12023	MS05016
JT50	JT50-XMB27-120	27	60	120	21	SXM27	JC12023	MS05016
JT50	JT50-XMB32-075	32	78	75	24	SXM32	JC14020	MS06020
JT50	JT50-XMB40-075	40	89	75	27	SXM40	KXM40	MS08020

● 附件需单独订购 Accessories are sold separately

附件Accessories	$DCON_{WS}$=16	$DCON_{WS}$=22	$DCON_{WS}$=27	$DCON_{WS}$=32	$DCON_{WS}$=40
扳手HexWrench	S6	S8	S10	S14	S17

JT 面铣刀刀柄
JT Face Mill Holders





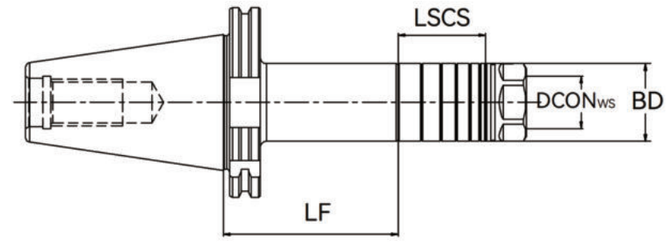
主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No DIN69871-A	DCONWS	BD	DBC	LF	LSCS	Screw	Key	Screw
JT40	JT40-XMC40-060	40	89	66.7	60	27	MS12045(4)	KXM40	MS08020
JT50	JT50-XMC40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
JT50	JT50-XMC60-075	60	129	101.6	75	38	MS16045(4)	KXMC60	MS10025

● 附件需单独订购 Accessories are sold separately

附件 Accessories	DCONWS=40	DCONWS=60
扳手 Hex Wrench	S10	S14

JT 三面刃铣刀刀柄
HSK-A Shrink Fit Toolholders

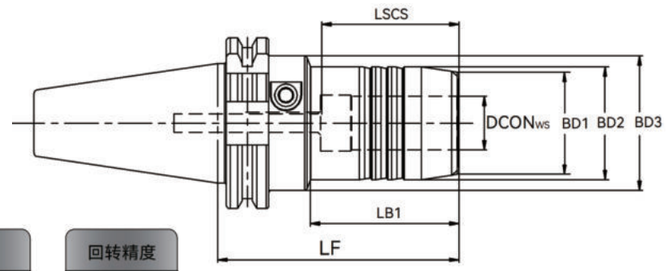




主轴型号	刀柄型号	尺寸 Size (mm)				螺母	垫圈	键
Spindle Model	Model No DIN69871-A	DCONWS	BD	LF	LSCS	nuts	Washer	Key
JT40	JT40-XS22-075	22	34	75	30	MXS22	SD22	JA06020
JT40	JT40-XS22-120	22	34	120	30	MXS22	SD22	JA06020
JT40	JT40-XS27-075	27	40	75	30	MXS27	SD27	JA07022
JT40	JT40-XS27-120	27	40	120	30	MXS27	SD27	JA07022
JT40	JT40-XS32-090	32	46	90	30	MXS32	SD32	JA08022
JT50	JT50-XS22-090	22	34	90	30	MXS22	SD22	JA06020
JT50	JT50-XS27-090	27	40	90	30	MXS27	SD27	JA07022
JT50	JT50-XS27-135	27	40	135	30	MXS27	SD27	JA07022
JT50	JT50-XS32-090	32	46	90	30	MXS32	SD32	JA08022
JT50	JT50-XS32-135	32	46	135	30	MXS32	SD32	JA08022
JT50	JT50-XS40-090	40	55	90	30	MXS40	SD40	JA10025
JT50	JT50-XS40-135	40	55	135	30	MXS40	SD40	JA10025
JT50	JT50-XS50-090	50	69	90	30	MXS50	SD50	JA12025

JT 液压刀柄
JT Hydraulic Chucks





柄径公差 h6

G2.5 25000rpm

回转精度 3μm

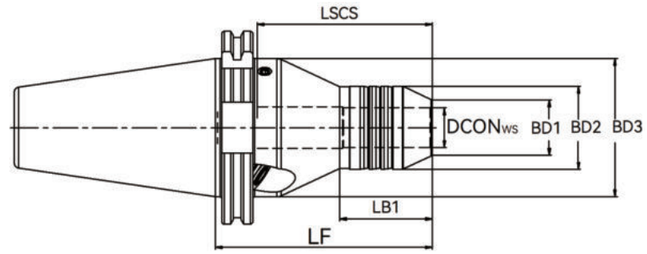
主轴型号	刀柄型号	尺寸 Size (mm)							螺钉	卡簧
Spindle Model	Model No / DIN69871-AD	$DCON_{WS}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Collets
JT40	JT40-HCM06-80.5	6	22	26	50	80.5	37	29.5	HCSO05014C	-
JT40	JT40-HCM08-80.5	8	24	28	50	80.5	37	30	HCSO06014C	-
JT40	JT40-HCM10-80.5	10	26	30	50	80.5	41	31	HCSO08014C	-
JT40	JT40-HCM12-80.5	12	28	32	50	80.5	46	31.5	HCSO08014C	HC12
JT40	JT40-HCM16-80.5	16	34	38	50	80.5	49	33	HCSO08014C	-
JT40	JT40-HCM20-80.5	20	38	42	50	80.5	51	34	HCSO08014C	HC20
JT40	JT40-HCM25-80.5	25	53	57	72	80.5	57	25.5	HCSO12014C	-
JT40	JT40-HCM32-80.5	32	60	63	80	80.5	61	25.5	HCSO12014C	HC32
JT50	JT50-HCM20-80.5	20	38	42	50	80.5	51	34	HCSO08014C	HC20

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12	$DCON_{WS}$=16	$DCON_{WS}$=20	$DCON_{WS}$=32
扳手 Hex Wrench	TS5						TS6

JT 工具磨液压刀柄
JT Tool Grinding Hydraulic Chucks





柄径公差 h6

回转精度 2μm

主轴型号	刀柄型号	尺寸 Size (mm)							卡簧
Spindle Model	Model No / DIN69871-AD	$DCON_{WS}$	BD1	BD2	BD3	LF	LSCX	LB1	Collets
JT50	JT50-HCM12-110M	12	21.5	36.5	60	110	50	55	HC12
JT50	JT50-HCM20-110M	20	28	42	70	110	95	47	HC20
JT50	JT50-HCM32-110M	32	40	54	70	110	95	62.5	HC32

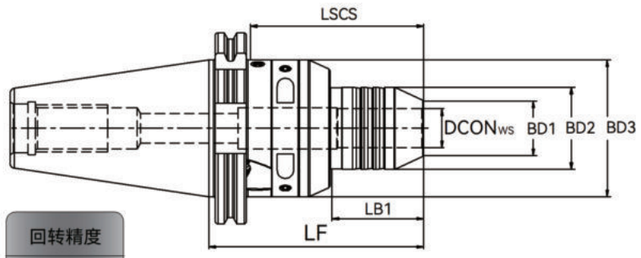
● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=12	$DCON_{WS}$=20	$DCON_{WS}$=32
扳手 Hex Wrench	TS5		

JT 工具磨可调液压刀柄

JT Tool Grinding Adjustable Hydraulic Chucks





柄径公差 h6

回转精度 2μm

主轴型号	刀柄型号	尺寸 Size (mm)							卡簧
Spindle Model	Model No DIN69893	$DCON_{WS}$	BD1	BD2	BD3	LF	LSCX	LB1	Collets
JT50	JT50-HCA12-110M	12	21.5	36.5	65.5	110	50	49	HC12
JT50	JT50-HCA20-110M	20	28	42	70.5	110	95	48	HC20
JT50	JT50-HCA32-115M	32	40	53.5	80.5	115	95	48	HC32

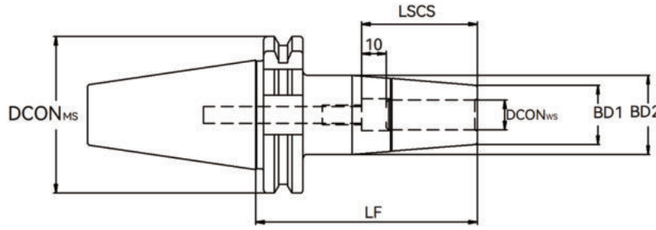
● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=12	$DCON_{WS}$=20	$DCON_{WS}$=32
扳手 Hex Wrench	TS5		

JT 热装刀柄

JT Shrink Fit Toolholders



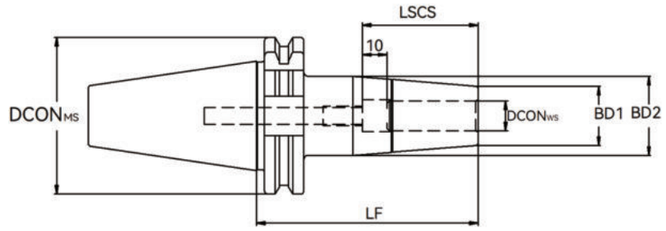


柄径公差 h6

主轴型号	刀柄型号	尺寸 Size (mm)					卡簧
Spindle Model	Model No DIN69871-AD	$DCON_{WS}$	BD1	BD2	LF	LSCX	Collets
JT40	JT40-SFX03-080	3	10	-	80	-	-
JT40	JT40-SFX04-080	4	10	-	80	-	-
JT40	JT40-SFX05-080	5	10	-	80	-	-
JT40	JT40-SFX06-080	6	21	27	80	36	SO05014C
JT40	JT40-SFX06-120	6	21	27	120	36	SO05014C
JT40	JT40-SFX06-160	6	21	32	160	36	SO05014C
JT40	JT40-SF08-080	8	21	27	80	36	SO06014C
JT40	JT40-SF08-120	8	21	27	120	36	SO06014C
JT40	JT40-SF08-160	8	21	32	160	36	SO06014C
JT40	JT40-SF10-080	10	24	32	80	42	SO08014C
JT40	JT40-SF10-120	10	24	32	120	42	SO08014C
JT40	JT40-SF10-160	10	24	34	160	42	SO08014C
JT40	JT40-SF12-080	12	24	32	80	47	SO08014C
JT40	JT40-SF12-120	12	24	32	120	47	SO08014C
JT40	JT40-SF12-160	12	24	34	160	47	SO08014C
JT40	JT40-SF14-080	14	27	34	80	47	SO08014C
JT40	JT40-SF14-120	14	27	34	120	47	SO08014C
JT40	JT40-SF14-160	14	27	42	160	47	SO08014C
JT40	JT40-SF16-080	16	27	34	80	50	SO12014C
JT40	JT40-SF16-120	16	27	34	120	50	SO12014C
JT40	JT40-SF16-160	16	27	42	160	50	SO12014C
JT40	JT40-SF18-080	18	33	42	80	50	SO12014C

JT 热装刀柄
JT Shrink Fit Toolholders





柄径公差
h6

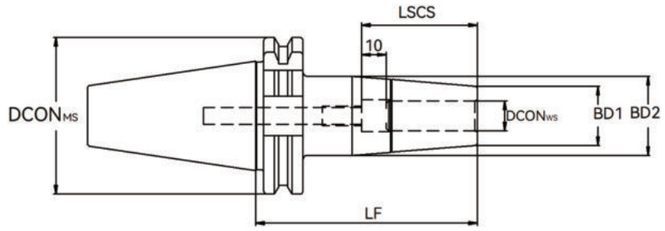
主轴型号	刀柄型号	尺寸 Size (mm)					卡簧
Spindle Model	Model No	$DCON_{WS}$	BD1	BD2	LF	LSCX	Collets
	DIN69871-AD						
JT40	JT40-SF18-120	18	33	42	120	50	SO12014C
JT40	JT40-SF18-160	18	33	50	160	50	SO12014C
JT40	JT40-SF20-080	20	33	42	80	52	SO16016C
JT40	JT40-SF20-120	20	33	42	120	52	SO16016C
JT40	JT40-SF20-160	20	33	50	160	52	SO16016C
JT40	JT40-SF25-100	25	44	50	100	58	SO16016C
JT40	JT40-SF25-120	25	44	50	120	58	SO16016C
JT40	JT40-SF25-160	25	44	50	160	58	SO16016C

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=3	$DCON_{WS}$=4	$DCON_{WS}$=5	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4
附件 Accessories	$DCON_{WS}$=14	$DCON_{WS}$=16	$DCON_{WS}$=18	$DCON_{WS}$=20		$DCON_{WS}$=25	
扳手 Hex Wrench	S4	S6	S6	S8		S8	

JT 热装刀柄
JT Shrink Fit Toolholders





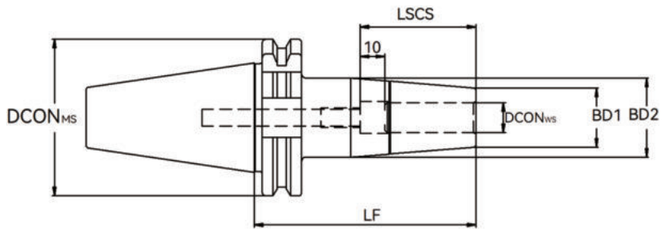
柄径公差
h6

主轴型号	刀柄型号	尺寸 Size (mm)					螺钉
Spindle Model	Model No	$DCON_{WS}$	BD1	BD2	LF	LSCX	Screw
	DIN69871-AD						
Jt50	JT50-SFX06-080	6	21	27	80	36	SO05014C
JT50	JT50-SFX06-120	6	21	27	120	36	SO05014C
JT50	JT50-SFX06-160	6	21	32	160	36	SO05014C
JT50	JT50-SF08-080	8	21	27	80	36	SO06014C
JT50	JT50-SF08-120	8	21	27	120	36	SO06014C
JT50	JT50-SF08-160	8	21	32	160	36	SO06014C
JT50	JT50-SF10-080	10	24	32	80	42	SO08014C
JT50	JT50-SF10-120	10	24	32	120	42	SO08014C
JT50	JT50-SF10-160	10	24	34	160	42	SO08014C
JT50	JT50-SF12-080	12	24	32	80	47	SO08014C
JT50	JT50-SF12-120	12	24	32	120	47	SO08014C
JT50	JT50-SF12-160	12	24	34	160	47	SO08014C
JT50	JT50-SF14-080	14	27	34	80	47	SO08014C
JT50	JT50-SF14-120	14	27	34	120	47	SO08014C
JT50	JT50-SF14-160	14	27	42	160	47	SO08014C
JT50	JT50-SF16-080	16	27	34	80	50	SO12014C
JT50	JT50-SF16-120	16	27	34	120	50	SO12014C
JT50	JT50-SF16-160	16	27	42	160	50	SO12014C
JT50	JT50-SF18-080	18	33	42	80	50	SO12014C

JT 热装刀柄
JT Shrink Fit Toolholders



柄径公差
h6



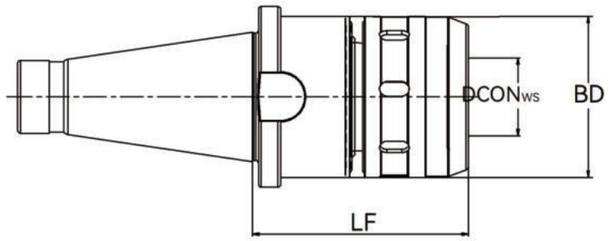
主轴型号	刀柄型号	尺寸 Size (mm)					螺钉
Spindle Model	Model No	$DCON_{WS}$	BD1	BD2	LF	LSCX	Screw
	DIN69871-AD						
JT50	JT50-SF18-120	18	33	42	120	50	SO12014C
JT50	JT50-SF18-160	18	33	51	160	50	SO12014C
JT50	JT50-SF20-080	20	33	42	80	52	SO16016C
JT50	JT50-SF20-120	20	33	42	120	52	SO16016C
JT50	JT50-SF20-160	20	33	51	160	52	SO16016C
JT50	JT50-SF25-100	25	44	53	100	58	SO16016C
JT50	JT50-SF25-120	25	44	53	120	58	SO16016C
JT50	JT50-SF25-160	25	44	60	160	58	SO16016C
JT50	JT50-SF32-100	32	44	53	100	58	SO16016C
JT50	JT50-SF32-120	32	44	53	120	58	SO16016C
JT50	JT50-SF32-160	32	44	60	160	58	SO16016C

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=3	$DCON_{WS}$=4	$DCON_{WS}$=5	$DCON_{WS}$=6	$DCON_{WS}$=8	$DCON_{WS}$=10	$DCON_{WS}$=12
扳手 Hex Wrench	-	-	-	S2.5	S3	S4	S4

ST 强力夹头刀柄
ST Milling Chucks





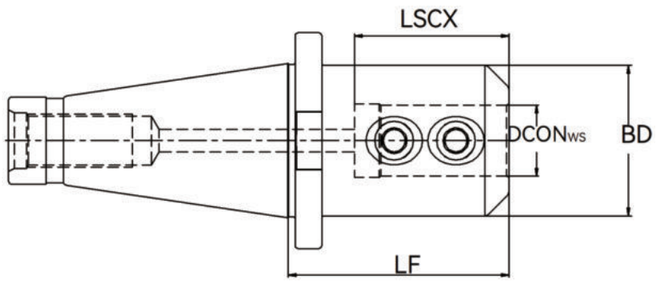
主轴型号	刀柄型号	尺寸 Size (mm)			卡簧
Spindle Model	Model No	$DCON_{WS}$	BD	LF	Collets
	DIN2080				
ST50	ST50-C32-110	32	72	110	C32
ST50	ST50-C42-110	42	87	110	C42

● 附件需单独订购 Accessories are sold separately

附件 Accessories	C32	C42
扳手 Wrench	WCN40	BS130UNT

ST 侧固式刀柄
ST Side Lock Holders





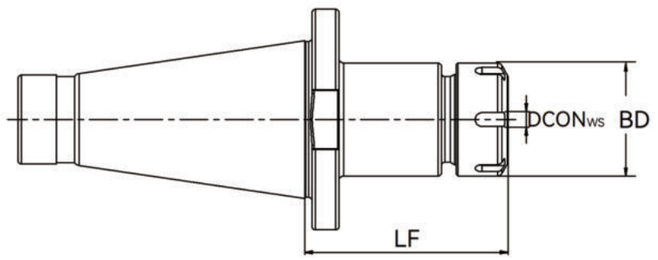
主轴型号	刀柄型号	尺寸 Size (mm)				螺钉
Spindle Model	Model No DIN2080	$DCON_{ws}$	BD	LF	LSCX	Screw
JT40	ST50-XP25-080	25	60	80	66	SXP25
JT40	ST50-XP32-100	32	68	100	70	SXP32
JT40	ST50-XP40-110	40	84	110	80	SXP32

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{WS}$=25	$DCON_{WS}$=32	$DCON_{WS}$=40
扳手 Hex Wrench	S8	S10	S10

ST ER 弹簧夹头刀柄
ST ER Collet Chucks





主轴型号	刀柄型号	尺寸 Size (mm)			螺母	螺钉	卡簧
Spindle Model	Model No DIN2080	$DCON_{ws}$	BD	LF	Nuts	Screw	Collets
ST40	ST40-ER32-060	2.0~20	50	60	CN32B	SER32C	ER32
ST40	ST40-ER40-080	3.0~26	63	80	CN40B	SER40C	ER40
ST50	ST50-ER32-090	2.0~20	50	90	CN32B	SER32C	ER32
ST50	ST50-ER40-100	3.0~26	63	100	CN40B	SER40C	ER40

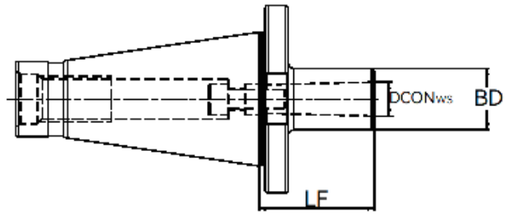
● 附件需单独订购 Accessories are sold separately

附件 Accessories	ER32	ER40
扳手 Wrench	YER32B	YER40B

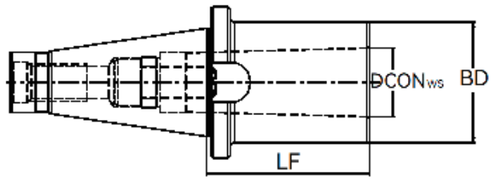
ST 无扁尾莫氏圆锥孔刀柄

ST Morse Taper Holders without Tang





Type



Type II

主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径 (mm)	尺寸 Size (mm)			螺钉	型式
Spindle Model	Model No DIN2080	Morse taper	Corresponding to installed milling cutter diameter	$DCON_{ws}$	BD	LF	Screw	Type
ST50	ST50-MW2-060	MT2	14-20	17.780	32	60	MS10030	I
ST50	ST50-MW3-065	MT3	22-36	23.825	40	65	MS12035	I
ST50	ST50-MW4-075	MT4	32-56	31.267	50	75	MS16040-B	I
ST50	ST50-MW5-105	MT5	42-63	44.399	78	105	MS20048-A	II

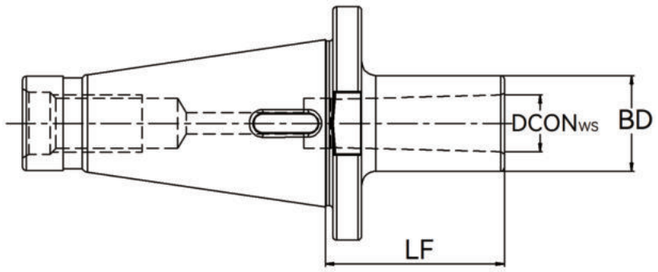
● 附件需单独订购 Accessories are sold separately

附件 Accessories	MT2	MT3	MT4	MT5
扳手 Hex Wrench	S8	S10	S14	S17

ST 有扁尾莫氏圆锥孔刀柄

ST Morse Taper Holders with Tang

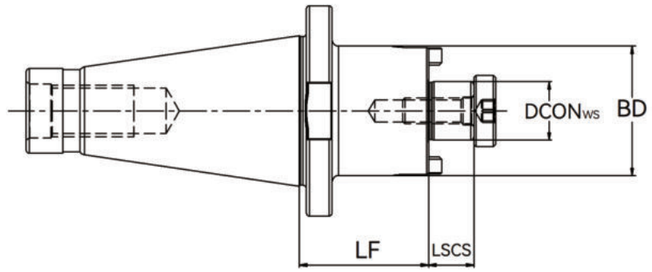




主轴型号	刀柄型号	莫氏锥度	对应安装铣刀直径 (mm)	尺寸 Size (mm)		
Spindle Model	Model No DIN2080	Morse taper	Corresponding to installed milling cutter diameter	$DCON_{ws}$	BD	LF
ST50	ST50-M3-075	MT3	23.25-31.75	23.825	40	75
ST50	ST50-M4-075	MT4	32-50.5	31.267	48	75
ST50	ST50-M5-105	MT5	51-76	44.399	63	105

ST 套式立铣刀刀柄
ST Shell Mill Holders





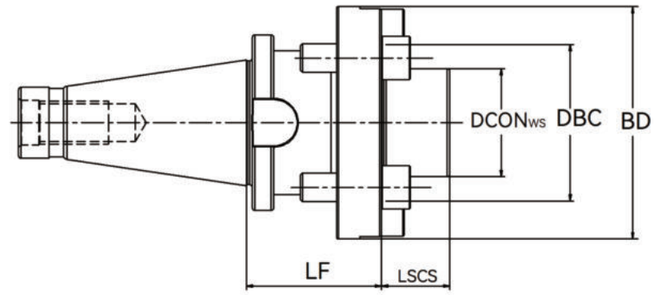
主轴型号	刀柄型号	尺寸 Size (mm)				螺钉1	键	螺钉2
Spindle Model	Model No DIN2080	$DCON_{ws}$	BD	LF	LSCS	Screw	Key	Screw
ST50	ST50-XMB27-60	27	60	60	21	SXM27	JC12023	MS05016
ST50	ST50-XMB32-45	32	78	45	24	SXM32	JC14020	MS06020
ST50	ST50-XMB40-45	40	89	45	27	SXM40	KXM40	MS08020

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{ws}$=27	$DCON_{ws}$=32	$DCON_{ws}$=40
扳手 Hex Wrench	S10	S14	S17

ST 套式面铣刀刀柄
ST Face Mill Holders





主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No DIN2080	$DCON_{ws}$	BD	DBC	LF	LSCS	Screw	Key	Screw
ST50	ST50-XMC40-075	40	89	66.7	75	27	MS12045(4)	KXM40	MS08020
ST50	ST50-XMC60-075	60	129	101.6	75	38	MS16045(4)	KXMC60	MS10025

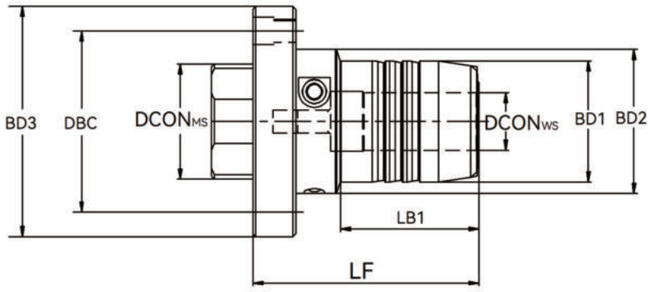
● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{ws}$=40	$DCON_{ws}$=60
扳手 Hex Wrench	S10	S14

HSK 可调液压刀柄

HSK Adjustable Hydraulic Chucks





柄径公差 h6

主轴型号	刀柄型号	尺寸 Size (mm)								螺钉	扳手
Spindle Model	Model No / JIS B6339-AD	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Wrench
HSK-A63	HSK63A-HCZ12-085	12	63	28	32	50	85	47.5	40	HCSO08014C	TS5/S3
HSK-A63	HSK63A-HCZ16-095	16	63	34	38	50	95	55.5	46	HCSO08014C	TS5/S3
HSK-A63	HSK63A-HCZ20-090	20	63	38	42	50	90	51.5	48	HCSO08014C	TS5/S3
HSK-A100	HSK100A-HCZ12-095	12	100	28	32	50	95	47.5	47	HCSO08014C	TS5/S3
HSK-A100	HSK100A-HCZ16-100	16	100	34	38	50	100	55.5	53	HCSO08014C	TS5/S3
HSK-A100	HSK100A-HCZ20-105	20	100	38	42	50	105	51.5	59	HCSO08014C	TS5/S3
HSK-A100	HSK100A-HCZ25-110	25	100	53	57	63	110	59.5	62	HCSO12014C	TS6/S3

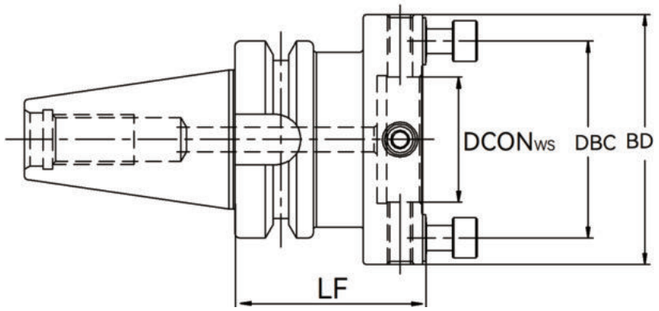
● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

BT 可调液压刀柄

BT Adjustable Hydraulic Chucks

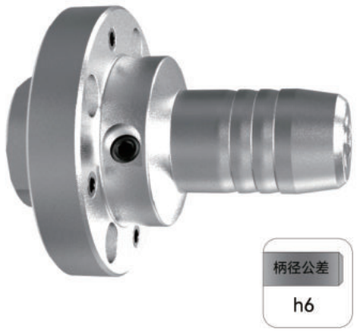


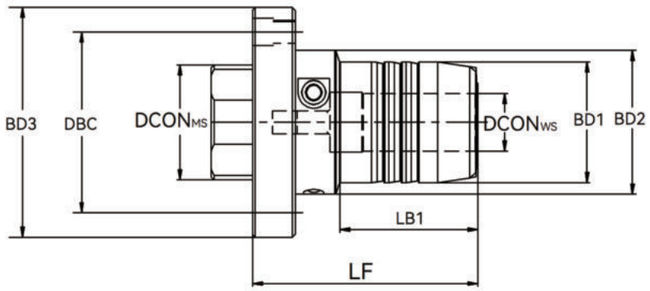


柄径公差 h6

主轴型号	刀柄型号	尺寸 Size (mm)							螺钉	扳手
Spindle Model	Model No / JIS B6339-AD	$DCON_{WS}$	BD1	BD2	BD3	LF	LSCX	LB1	Screw	Wrench
BT40	BT40-HCZ12-090	12	28	32	50	90	47.5	44.5	HCSO08014C	TS5/S3
BT40	BT40-HCZ16-095	16	34	38	50	95	55.5	47.5	HCSO08014C	TS5/S3
BT40	BT40-HCZ20-090	20	38	42	50	90	51.0	47.5	HCSO08014C	TS5/S3
BT50	BT50-HCZ12-100	12	28	32	50	100	47.5	44.5	HCSO08014C	TS5/S3
BT50	BT50-HCZ16-105	16	34	38	50	105	55.5	47.5	HCSO08014C	TS5/S3
BT50	BT50-HCZ20-105	20	38	42	50	105	51.5	50	HCSO08014C	TS5/S3
BT50	BT50-HCZ25-120	25	53	57	63	120	59.5	62	HCSO12014C	TS6/S3

可调液压刀柄模块
Adjustable Hydraulic Chuck Module

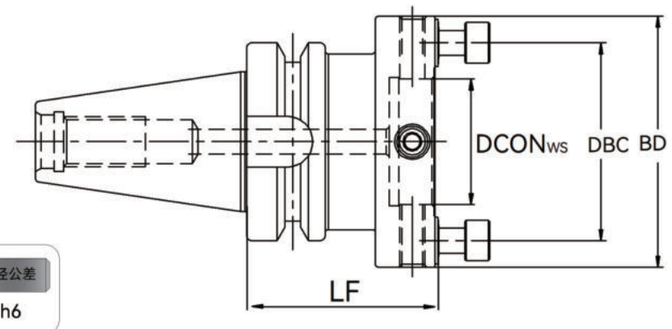




型号	尺寸 Size (mm)								螺钉	卡簧	扳手
Model	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	LB1	LF	BD3	DBC	Screw	Collets	Hex Wrench
DC70-HCM06-080	6	36	26	50	30	80	70	53	HCSO05014C	-	TS5/S4
DC70-HCM08-080	8	36	28	50	30	80	70	53	HCSO06014C	-	TS5/S4
DC70-HCM10-080	10	36	30	50	35	80	70	53	HCSO08014C	-	TS5/S4
DC70-HCM12-085	12	36	32	50	40	85	70	53	HCSO08014C	HC12	TS5/S4
DC80-HCM06-060	6	40	26	50	24	60	80	63	HCSO05014C	-	TS5/S4
DC80-HCM08-060	8	40	28	50	25	60	80	63	HCSO06014C	-	TS5/S4
DC80-HCM10-070	10	40	30	50	35	70	80	63	HCSO08014C	-	TS5/S4
DC80-HCM12-080	12	40	32	50	44.5	70	80	63	HCSO08014C	HC12	TS5/S4
DC80-HCM16-080	16	40	38	50	46	80	80	63	HCSO08014C	-	TS5/S4
DC80-HCM20-080	20	40	42	50	47.5	80	80	63	HCSO08014C	HC20	TS5/S4
DC100-HCM12-080	12	56	35	50	46	80	100	82	HCSO08014C	HC12	TS5/S4
DC100-HCM16-080	16	56	38	50	47.5	80	100	82	HCSO08014C	-	TS5/S4
DC100-HCM20-080	20	56	42	50	47.5	80	100	82	HCSO08014C	HC20	TS5/S4
DC100-HCM25-090	25	56	57	63	59	90	100	82	HCSO12014C	-	TS6/S4

BT 可调刀柄主柄
BT Adjustable Hydraulic Chuck Master Module





主轴型号	刀柄型号	尺寸 Size (mm)				扳手
Spindle Model	Model No JIS B6339-AD	$DCON_{WS}$	DBC	BD	LF	Wrench
BT30	BT30-DC70-050	36	53	70	50	S4/S5
BT30	BT30-DC80-050	40	63	80	50	S4/S5
BT40	BT40-DC70-055	36	53	70	55	S4/S5
BT40	BT40-DC80-055	40	63	80	55	S4/S5
BT40	BT40-DC100-060	56	82	100	60	S5/S6
BT50	BT50-DC70-070	36	53	70	70	S4/S5
BT50	BT50-DC80-070	40	63	80	70	S4/S5
BT50	BT50-DC100-070	56	82	100	70	S5/S6

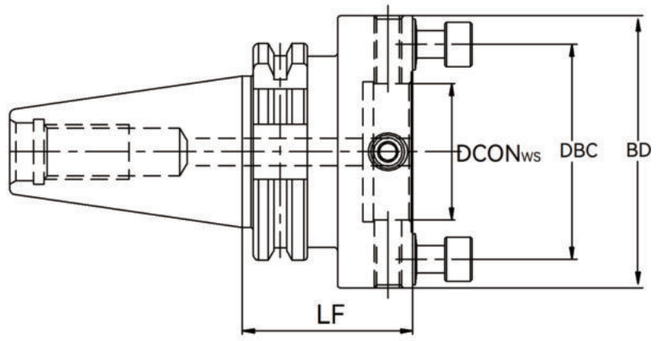
● 附件需单独订购 Accessories are sold separately

备件 SpareParts	$DCON_{WS}$=36	$DCON_{WS}$=40	$DCON_{WS}$=56
压紧螺钉 Screw	MS06020	MS06020	MS08025
调节螺钉 Screw	RS08016-B	RS08016-B	RS10020-B

JT 可调刀柄主柄

JT Adjustable Hydraulic Chuck Master Module





主轴型号	刀柄型号	尺寸 Size (mm)					扳手
Spindle Model	Model No DIN69871	$DCON_{WS}$	$DCON_{MS}$	BD	DBC	LF	Wrench
JT40	JT40-DC70-055	36	40	70	53	55	S5/S4
JT40	JT40-DC80-055	40	40	80	63	55	S5/S4
JT40	JT40-DC100-060	56	40	100	82	60	S6/S5
JT50	JT50-DC70-050	36	50	70	53	50	S5/S4
JT50	JT50-DC80-050	40	50	80	63	50	S5/S4
JT50	JT50-DC100-060	56	50	100	82	60	S6/S5

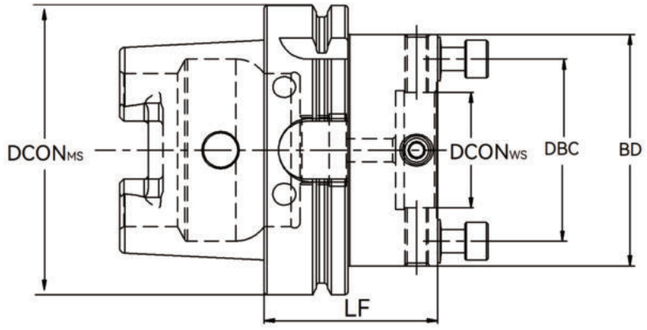
● 附件需单独订购 Accessories are sold separately

备件 SpareParts	$DCON_{WS}$=36	$DCON_{WS}$=40	$DCON_{WS}$=56
压紧螺钉 Screw	MS06020	MS06020	MS08025
调节螺钉 Screw	RS08016-B	RS08016-B	RS10020-B

HSK 可调刀柄主柄

HSK Adjustable Hydraulic Chuck Master Module





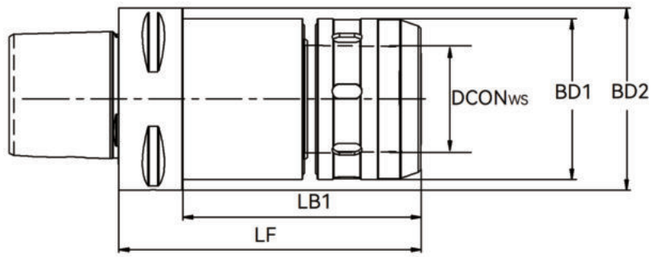
主轴型号	刀柄型号	尺寸 Size (mm)					扳手
Spindle Model	Model No DIN69893	$DCON_{WS}$	$DCON_{MS}$	BD	DBC	LF	Wrench
HSK-50A	HSK50A-DC70-065	36	50	70	53	65	S5/S4
HSK-50A	HSK50A-DC80-065	40	50	80	63	65	S5/S4
HSK-63A	HSK63A-DC70-065	36	63	70	53	65	S5/S4
HSK-63A	HSK63A-DC80-065	40	63	80	63	65	S5/S4
HSK-63A	HSK63A-DC100-070	56	63	100	82	70	S6/S5
HSK-100A	HSK100A-DC70-050	36	100	70	53	50	S5/S4
HSK-100A	HSK100A-DC80-050	40	100	80	63	50	S5/S4
HSK-100A	HSK100A-DC100-070	56	100	100	82	70	S6/S5

● 附件需单独订购 Accessories are sold separately

附件 Accessories	$DCON_{MS}$=63	$DCON_{MS}$=100
冷却液套管 Coolant tubes	TU-HSK63	TU-HSK100
扳手 Coolant tube Wrench	W-HSK63	W-HSK100

PSC 强力夹头刀柄
PSC Milling Chucks



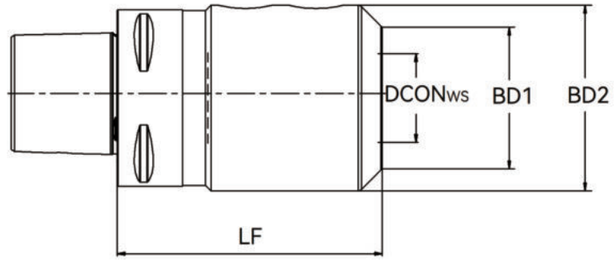


主轴型号	刀柄型号	尺寸 Size (mm)					卡簧
Spindle Model	Model No	$DCON_{ws}$	BD1	BD2	LF	LB1	Collets
PSC4	PSC4-PC20-085	20	52	40	85	65	C20
PSC5	PSC5-PC20-090	20	52	50	90	70	C20
PSC5	PSC5-PC25-095	25	60	50	95	75	C25
PSC6	PSC6-PC20-090	20	52	63	90	68	C20
PSC6	PSC6-PC25-095	25	60	63	95	73	C25
PSC6	PSC6-PC32-110	32	69	63	110	88	C32
PSC8	PSC8-PC25-095	25	60	80	95	65	C25
PSC8	PSC8-PC32-110	32	69	80	110	80	C32
PSC8	PSC8-PC42-110	42	86	80	110	80	C42
PSC10	PSC10-PC32-120	32	69	100	120	84	C32
PSC10	PSC10-PC42-120	42	86	100	120	84	C42

PSC 侧固式刀柄
PSC Side Lock Holders

- 中心通水 , 冷却液压力≤ 80bar
- Internal coolant pressure ≤ 80bar
- 接口符合 DIN1835-B
- Din1835-B joint standard

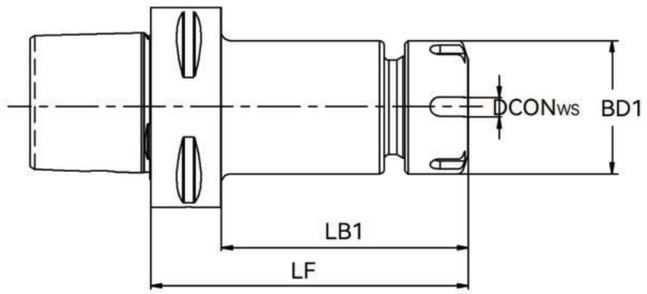




主轴型号	刀柄型号	尺寸 Size (mm)				螺钉
Spindle Model	Model No	$DCON_{ws}$	BD1	BD2	LF	Screw
PSC4	PSC4-XP16-055	16	38	48	55	SXP16
PSC5	PSC5-XP16-060	16	38	48	60	SXP16
PSC5	PSC5-XP20-060	20	42	50	60	SXP20
PSC5	PSC5-XP25-080	25	49	60	80	SXP25
PSC6	PSC6-XP16-065	16	38	48	65	SXP16
PSC6	PSC6-XP20-065	20	42	50	65	SXP20
PSC6	PSC6-XP25-080	25	49	60	80	SXP25
PSC6	PSC6-XP32-090	32	56	68	90	SXP32
PSC6	PSC6-XP40-100	40	74	84	100	SXP32
PSC8	PSC8-XP16-070	16	38	48	70	SXP16
PSC8	PSC8-XP20-070	20	42	50	70	SXP20
PSC8	PSC8-XP25-080	25	49	60	80	SXP25
PSC8	PSC8-XP32-080	32	56	68	80	SXP32
PSC8	PSC8-XP40-110	40	74	84	110	SXP32
PSC8	PSC8-XP50-120	50	84	90	120	SXP50

PSC ER 弹簧夹头刀柄
PSC ER Collet Chucks





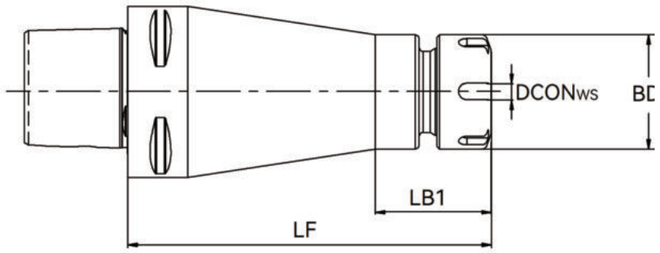
- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)				螺母	螺钉	卡簧
Spindle Model	Model No	$DCON_{ws}$	LF	LB1	BD1	Nuts	Screw	Collets
PSC32	PSC3-ER16-045	17	45	29	28	CN16HS	-	ER16
PSC32	PSC3-ER20-045	21	45	-	34	CN20HS	-	ER20
PSC40	PSC4-ER20-052	21	52	-	34	CN20HS	-	ER20
PSC40	PSC4-ER25-052	26	52	-	42	CN25B	-	ER25
PSC40	PSC4-ER32-054	33	54	-	50	CN32B	-	ER32
PSC50	PSC5-ER20-055	21	55	35	34	CN20HS	-	ER20
PSC50	PSC5-ER25-055	26	55	35	42	CN25B	-	ER25
PSC50	PSC5-ER32-057	33	57	-	50	CN32B	-	ER32
PSC50	PSC5-ER32-100	33	100	-	50	CN32B	SER32C	ER32
PSC63	PSC6-ER25-060	26	60	38	42	CN25B	-	ER25
PSC63	PSC6-ER25-100	26	100	78	42	CN25B	SER25C	ER25
PSC63	PSC6-ER32-060	33	60	38	50	CN32B	-	ER32
PSC63	PSC6-ER32-100	33	100	78	50	CN32B	SER32C	ER32
PSC63	PSC6-ER40-065	41	65	-	63	CN40B	-	ER40
PSC63	PSC6-ER40-130	41	130	-	63	CN40B	SER40C	ER40
PSC80	PSC8-ER20-065	21	65	35	34	CN20HS	SER20C	ER20
PSC80	PSC8-ER25-070	26	70	40	42	CN25B	SER25C	ER25
PSC80	PSC8-ER32-070	33	70	40	50	CN32B	SER32C	ER32
PSC80	PSC8-ER40-070	41	70	40	63	CN40B	-	ER40

PSC ER 弹簧夹头刀柄
PSC ER Collet Chucks





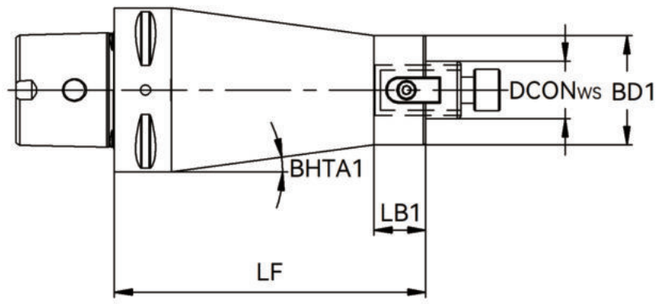
- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)				螺母	螺钉	卡簧
Spindle Model	Model No	$DCON_{ws}$	LF	LB1	BD1	Nuts	Screw	Collets
PSC4	PSC4-ER16-070	17	70	44	28	CN16HS	SER16C	ER16
PSC5	PSC5-ER16-100	17	100	60	28	CN16HS	SER16C	ER16
PSC5	PSC5-ER20-100	21	100	55	34	CN20HS	SER20C	ER20
PSC5	PSC5-ER20-130	21	130	55	34	CN20HS	SER20C	ER20
PSC5	PSC5-ER25-100	26	100	65	42	CN25B	SER25C	ER25
PSC6	PSC6-ER16-100	17	100	60	28	CN16HS	SER16C	ER16
PSC6	PSC6-ER20-60	21	60	31	34	CN20HS	SER20C	ER20
PSC6	PSC6-ER25-130	26	130	65	42	CN25B	SER25C	ER25
PSC6	PSC6-ER25-160	26	160	65	42	CN25B	SER25C	ER25
PSC6	PSC6-ER32-130	33	130	75	50	CN32B	SER32C	ER32
PSC8	PSC8-ER32-160	33	160	75	50	CN32B	SER32C	ER32
PSC8	PSC8-ER40-160	41	160	95	63	CN40B	SER40C	ER40
PSC10	PSC10-ER32-160	33	160	75	50	CN32B	SER32C	ER32
PSC10	PSC10-ER40-160	41	160	95	63	CN40B	SER40C	ER40

PSC 套式立铣刀刀柄
PSC Shell Mill Holders

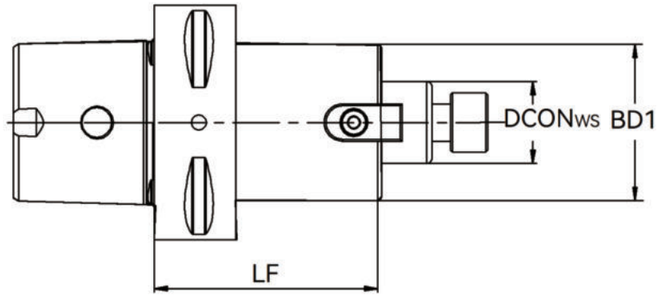




主轴型号	刀柄型号	尺寸 Size (mm)					螺钉1	键	螺钉2
Spindle Model	Model No	$DCON_{ws}$	LF	LB1	BD1	BHTA1	Screw	Key	Screw
PSC4	PSC4-XMB16-120C	16	120	22	34	2.2°	MS08030	JC08017	MS03008
PSC5	PSC5-XMB22-150C	22	150	12	42	1.9°	MS10030	JC10021	MS04010
PSC6	PSC6-XMB22-120C	22	120	98	55	90°	MS10030	JC10021	MS04010
PSC6	PSC6-XMB22-190C	22	190	168	55	90°	MS10030	JC10021	MS04010
PSC8	PSC8-XMB27-150C	27	150	120	65	90°	SXM27	JC12023	MS05016
PSC8	PSC8-XMB27-240C	27	240	210	65	90°	SXM27	JC12023	MS05016

PSC 套式立铣刀刀柄
PSC Shell Mill Holders



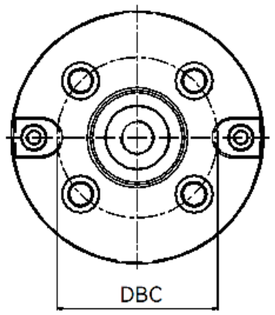


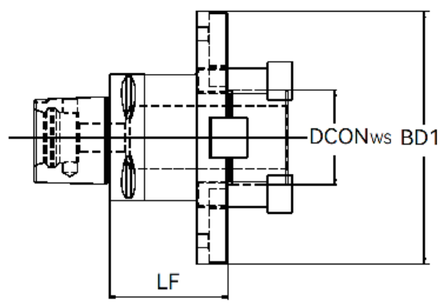
主轴型号	刀柄型号	尺寸 Size (mm)			螺钉1	键	螺钉2
Spindle Model	Model No	$DCON_{ws}$	LF	BD1	Screw	Key	Screw
PSC3	PSC3-XMB16-030	16	30	32	MS08030	JC08017	MS03007
PSC4	PSC4-XMB16-032	16	32	40	MS08030	JC08017	MS03008
PSC4	PSC4-XMB16-055	16	55	34	MS08030	JC08017	MS03008
PSC4	PSC4-XMB22-025	22	25	40	MS10030	JC10021	MS04010
PSC4	PSC4-XMB22-055	22	55	42	MS10030	JC10021	MS04010
PSC5	PSC5-XMB16-035	16	35	34	MS08030	JC08017	MS03008
PSC5	PSC5-XMB16-070	16	70	34	MS08030	JC08017	MS03008
PSC5	PSC5-XMB22-025	22	25	50	MS10030	JC10021	MS04010
PSC5	PSC5-XMB22-070	22	70	42	MS10030	JC10021	MS04010
PSC5	PSC5-XMB27-025	27	25	50	SXM27	JC12023	MS05012
PSC5	PSC5-XMB32-040	32	40	78	SXM32	JC14020	MS06016
PSC6	PSC6-XMB16-040	16	40	34	MS08030	JC08017	MS03008
PSC6	PSC6-XMB22-025	22	25	63	MS10030	JC10021	MS04010
PSC6	PSC6-XMB22-080	22	80	42	MS10030	JC10021	MS04010
PSC6	PSC6-XMB27-025	27	25	63	SXM27	JC12023	MS05016
PSC6	PSC6-XMB27-080	27	80	60	SXM27	JC12023	MS05016
PSC6	PSC6-XMB32-025	32	25	63	SXM32	JC14023	MS06014
PSC6	PSC6-XMB40-050	40	50	89	SXM40	KXM40	MS08016
PSC8	PSC8-XMB16-050	16	50	34	MS08030	JC08017	MS03008
PSC8	PSC8-XMB22-030	22	30	80	MS10030	JC10021	MS04010
PSC8	PSC8-XMB22-090	22	90	42	MS10030	JC10021	MS04010
PSC8	PSC8-XMB27-030	27	30	80	SXM27	JC12023	MS05016
PSC8	PSC8-XMB27-090	27	90	60	SXM27	JC12023	MS05016
PSC8	PSC8-XMB32-030	32	30	80	SXM32	JC14020	MS06020
PSC8	PSC8-XMB40-060	40	60	89	SXM40	KXM40	MS08020
PSC10	PSC10-XMB27-075	27	75	60	SXM27	JC12023	MS05016
PSC10	PSC10-XMB32-075	32	75	78	SXM32	JC14020	MS06020

PSC 面铣刀刀柄
PSC Face Mill Holders



- 中心拉钉锁紧
Locking with center pull pin
- 三棱锥前后同向
Pyramid in the same direction before and after
- 中心通水，冷却液压力≤ 80bar
Internal coolant pressure ≤ 80bar

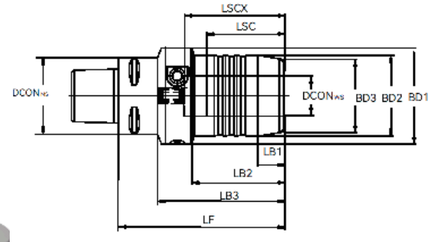




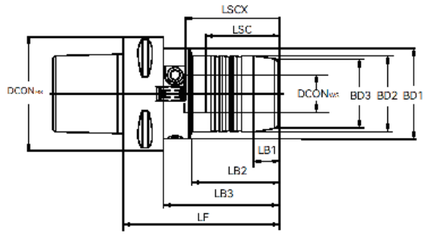
主轴型号	刀柄型号	尺寸 Size (mm)				螺钉1	键	螺钉2
Spindle Model	Model No	$DCON_{ws}$	DBC	LF	BD1	Screw	Key	Screw
PSC63	PSC6-XMC40-050C	40	66.7	50	89	MS12045	KXM40	MS08020
PSC80	PSC8-XMC40-060C	40	66.7	60	89	MS12045	KXM40	MS08020
PSC100	PSC10-XMC40-040C	40	66.7	40	100	MS12045	KXM40	MS08020
PSC80	PSC8-XMC60-060	60	101.6	60	129	MS16045	KXMC60	MS10025
PSC100	PSC10-XMC60-075	60	101.6	75	129	MS16045	KXMC60	MS10025

PSC 液压刀柄
PSC Hydraulic Chucks





Type I



Type II

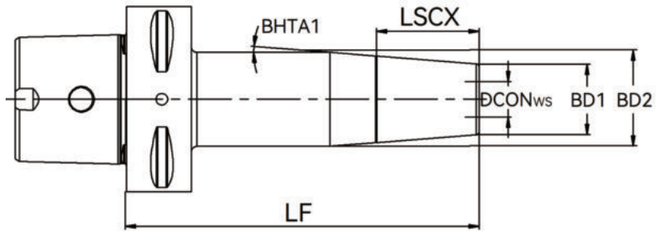
柄径公差	G2.5	回转精度
h6	25000rpm	3μm

- 中心通水，冷却液压力≤ 80bar
Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)									螺钉	扳手	型式
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	BD1	BD2	BD3	LF	LSCX	LB1	LB2	Screw	Torx wrench	Type
PSC4	PSC4-HCM06-065	6	40	22	26	50	65	37	24	45	HCSO05014C	TS5	I
PSC4	PSC4-HCM08-065	8	40	24	28	50	65	37	25	45	HCSO06014C	TS5	I
PSC4	PSC4-HCM10-075	10	40	26	30	50	75	41	35	55	HCSO08014C	TS5	I
PSC4	PSC4-HCM12-085	12	40	28	32	50	85	46	45	65	HCSO08014C	TS5	I
PSC4	PSC4-HCM16-085	16	40	34	38	50	85	49	48	65	HCSO08014C	TS5	I
PSC4	PSC4-HCM20-090	20	40	38	42	50	85	51	47.5	70	HCSO08014C	TS5	I
PSC5	PSC5-HCM06-065	6	50	22	26	50	65	37	30	-	HCSO05014C	TS5	II
PSC5	PSC5-HCM08-065	8	50	24	28	50	65	37	30	-	HCSO06014C	TS5	II
PSC5	PSC5-HCM10-070	10	50	26	30	50	70	41	35	-	HCSO08014C	TS5	II
PSC5	PSC5-HCM12-080	12	50	28	32	50	80	46	45	-	HCSO08014C	TS5	II
PSC5	PSC5-HCM16-080	16	50	34	38	50	80	49	48	-	HCSO08014C	TS5	II
PSC5	PSC5-HCM20-080	20	50	38	42	50	80	51	48	-	HCSO08014C	TS5	II
PSC5	PSC5-HCM25-100	25	50	53	57	63	100	57	59	80	HCSO12014C	TS6	I
PSC6	PSC6-HCM06-070	6	63	22	26	50	70	37	29	48	HCSO05014C	TS5	II
PSC6	PSC6-HCM08-070	8	63	24	28	50	70	37	30	48	HCSO06014C	TS5	II
PSC6	PSC6-HCM10-075	10	63	26	30	50	75	41	35	53	HCSO08014C	TS5	II
PSC6	PSC6-HCM12-085	12	63	28	32	50	90	46	45	63	HCSO08014C	TS5	II
PSC6	PSC6-HCM16-085	16	63	34	38	50	85	49	48	63	HCSO08014C	TS5	II
PSC6	PSC6-HCM20-100	20	63	38	42	50	100	51	51	63	HCSO08014C	TS5	II
PSC6	PSC6-HCM25-100	25	63	53	57	63	100	57	60	-	HCSO12014C	TS6	II
PSC6	PSC6-HCM32-105	32	63	60	64	75	105	61	61	83	HCSO12014C	TS6	I
PSC8	PSC8-HCM12-095	12	80	28	32	50	95	46	45	63	HCSO08014C	TS5	II
PSC8	PSC8-HCM20-095	20	80	38	42	50	95	51	48	63	HCSO08014C	TS5	II
PSC8	PSC8-HCM32-115	32	80	60	64	75	115	61	63	82	HCSO12014C	TS6	II

PSC 热装刀柄
PSC Shrink Fit Toolholders





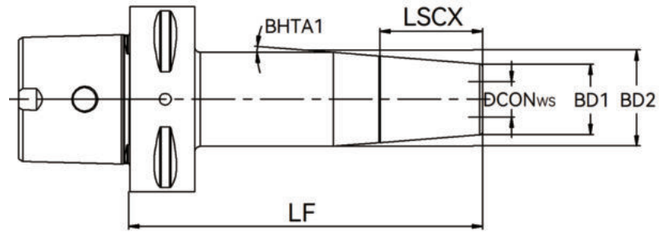
- 中心通水，冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)							螺钉
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	LF	LSCX	BD1	BD2	BHTA1	Screw
PSC4	PSC4-SFX06-075	6	40	75	36	21	27	4.5°	SO05014C
PSC4	PSC4-SF08-075	8	40	75	36	21	27	4.5°	SO06014C
PSC4	PSC4-SF10-075	10	40	75	42	24	32	4.5°	SO08014C
PSC4	PSC4-SF12-075	12	40	75	47	24	32	4.5°	SO08014C
PSC4	PSC4-SF14-080	14	40	80	47	27	34	4.5°	SO08014C
PSC4	PSC4-SF16-080	16	40	80	50	27	34	4.5°	SO12014C
PSC5	PSC5-SFX06-075	6	50	75	36	21	27	4.5°	SO05014C
PSC5	PSC5-SF08-075	8	50	75	36	21	27	4.5°	SO06014C
PSC5	PSC5-SF10-075	10	50	75	42	24	32	4.5°	SO08014C
PSC5	PSC5-SF12-075	12	50	75	47	24	32	4.5°	SO08014C
PSC5	PSC5-SF14-080	14	50	80	47	27	34	4.5°	SO08014C
PSC5	PSC5-SF16-080	16	50	80	50	27	34	4.5°	SO12014C
PSC5	PSC5-SF18-080	18	50	80	50	33	42	4.5°	SO12014C
PSC5	PSC5-SF20-085	20	50	85	52	33	42	4.5°	SO16016C
PSC6	PSC6-SFX06-080	6	63	80	36	21	27	4.5°	SO05014C
PSC6	PSC6-SF08-080	8	63	80	36	21	27	4.5°	SO06014C
PSC6	PSC6-SF10-080	10	63	80	42	24	32	4.5°	SO08014C
PSC6	PSC6-SF12-080	12	63	80	47	24	32	4.5°	SO08014C
PSC6	PSC6-SF14-085	14	63	85	47	27	34	4.5°	SO08014C
PSC6	PSC6-SF16-085	16	63	85	50	27	34	4.5°	SO12014C
PSC6	PSC6-SF18-085	18	63	85	50	33	42	4.5°	SO12014C
PSC6	PSC6-SF20-085	20	63	85	52	33	42	4.5°	SO16016C
PSC6	PSC6-SF25-090	25	63	90	58	44	53	4.5°	SO16016C
PSC6	PSC6-SF32-095	32	63	95	58	44	53	4.5°	SO16016C

PSC 热装刀柄
PSC Shrink Fit Toolholders





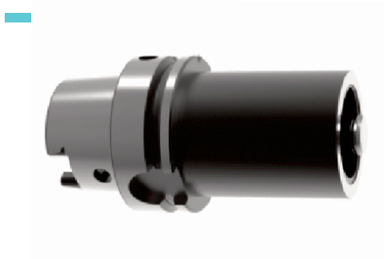
- 中心通水，冷却液压力≤ 80bar

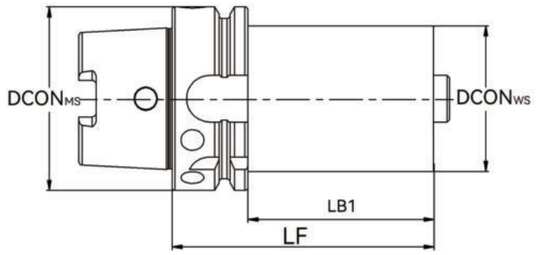
Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)							螺钉
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	LF	LSCX	BD1	BD2	BHTA1	Screw
PSC8	PSC8-SF10-090	10	80	90	42	24	32	4.5°	SO08014C
PSC8	PSC8-SF12-090	12	80	90	47	24	32	4.5°	SO08014C
PSC8	PSC8-SF16-095	16	80	95	47	27	34	4.5°	SO12014C
PSC8	PSC8-SF20-095	20	80	95	52	33	42	4.5°	SO16016C
PSC8	PSC8-SF25-100	25	80	100	58	44	53	4.5°	SO16016C
PSC10	PSC10-SF12-095	12	100	95	47	24	32	4.5°	SO08014C
PSC10	PSC10-SF16-100	16	100	100	50	27	34	4.5°	SO12014C
PSC10	PSC10-SF20-100	20	100	100	52	33	42	4.5°	SO16016C
PSC10	PSC10-SF25-110	25	100	110	58	44	53	4.5°	SO16016C

HSK 转接柄 (后拉式)

HSK-PSC Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 适用于旋转刀具或静态刀具

Suitable for rotating or static tools

- 中心通水 , 冷却液压力≤ 100bar

Internal coolant pressure ≤ 100bar

- 机床接口 HSK A/C/T

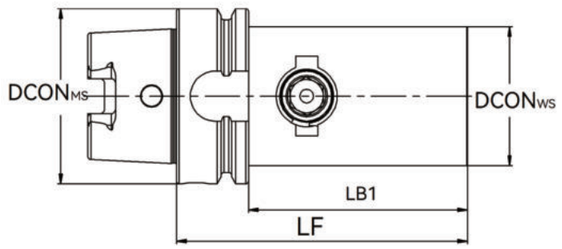
Machine interface HSK A/C/T

主轴型号	刀柄型号	尺寸 Size (mm)			
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	LF	LB1
PSC5	HSK63T-PSC5-090	50	63	90	64
PSC6	HSK63T-PSC6-110	63	63	110	-
PSC6	HSK100T-PSC6-110	63	100	110	81
PSC8	HSK100T-PSC8-120	80	100	120	91

HSK 转接柄 (涨爪式)

HSK-PSC Adaptor





- 中心涨爪锁紧

locking with Center expansion claw

- 适用于旋转刀具或静态刀具

Suitable for rotating or static tools

- 中心通水 , 冷却液压力≤ 100bar

Internal coolant pressure ≤ 100bar

- 机床接口 HSK A/C

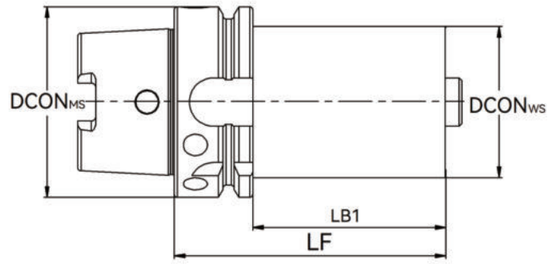
Machine interface HSK A/C/T

主轴型号	刀柄型号	尺寸 Size (mm)			
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	LF	LB1
PSC5	HSK63A-PSC5M-115	50	63	115	89
PSC6	HSK100A-PSC6M-135	63	100	135	106
PSC6	HSK100A-PSC8M-165	80	100	165	136

HSK 转接柄

HSK-PSC Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 适用于旋转刀具或静态刀具

Suitable for rotating or static tools

- 中心通水 , 冷却液压力≤ 100bar

Internal coolant pressure ≤ 100bar

- 机床接口 HSK A/C

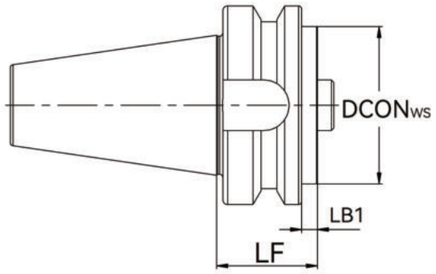
Machine interface HSK A/C

主轴型号	刀柄型号	尺寸 Size (mm)			
Spindle Model	Model No	$DCON_{WS}$	$DCON_{MS}$	LF	LB1
PSC3	HSK63A-PSC3-075	32	63	75	49
PSC4	HSK63A-PSC4-080	40	63	80	54
PSC5	HSK63A-PSC5-090	50	63	90	64
PSC3	HSK100A-PSC3-080	32	100	80	51
PSC4	HSK100A-PSC4-090	40	100	90	61
PSC5	HSK100A-PSC5-100	50	100	100	71
PSC6	HSK100A-PSC6-110	63	100	110	81
PSC8	HSK100A-PSC8-120	80	100	120	91
PSC10	HSK100A-PSC10-155	100	100	155	-

BT 转接柄 (后拉式)

BT-PSC Adaptor





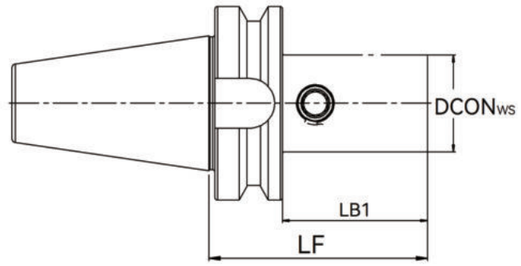
- 中心拉钉锁紧
Locking with center pull pin
- 适用于旋转刀具或静态刀具
Suitable for rotating or static tools
- 中心通水 , 冷却液压力≤ 80bar
Internal coolant pressure ≤ 80bar
- 机床接口 JIS B6339
Machine interface JIS B6339

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
BT30	BT30-PSC3-030	32	30	8
BT30	BT30-PSC3-060	32	60	38
BT30	BT30-PSC4-060	40	60	38
BT30	BT30-PSC5-080	50	80	-
BT40	BT40-PSC3-030	32	30	3
BT40	BT40-PSC3-060	32	60	33
BT40	BT40-PSC4-030	40	30	3
BT40	BT40-PSC4-060	40	60	33
BT40	BT40-PSC5-050	50	50	23
BT40	BT40-PSC5-090	50	90	63
BT40	BT40-PSC6-075	63	75	-
BT50	BT50-PSC3-040	32	40	2
BT50	BT50-PSC3-070	32	70	32
BT50	BT50-PSC4-040	40	40	2
BT50	BT50-PSC4-070	40	70	32
BT50	BT50-PSC5-040	50	40	2
BT50	BT50-PSC5-080	50	80	42
BT50	BT50-PSC6-050	63	50	12
BT50	BT50-PSC6-100	63	100	62
BT50	BT50-PSC8-070	80	70	32
BT50	BT50-PSC8-120	80	120	82
BT50	BT50-PSC10-140	100	140	-
BT60	BT60-PSC8-120	80	120	72
BT60	BT60-PSC10-080	100	80	32

BT 转接柄（涨爪式）

BT-PSC Adaptor



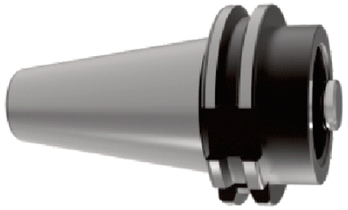


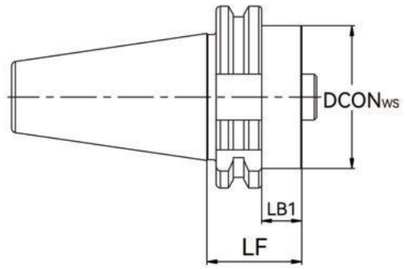
- 中心涨爪锁紧
Locking with center expansion claw
- 适用于旋转刀具或静态刀具
Suitable for rotating or static tools
- 中心通水 , 冷却液压力≤ 80bar
Internal coolant pressure ≤ 80bar
- 机床接口 ISO 7388-1
Machine interface ISO 7388-1

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
BT50	BT50-PSC5M-115	50	115	77
BT50	BT50-PSC6M-135	63	135	97
BT50	BT50-PSC8M-150	80	150	112

JT 转接柄 (后拉式)

JT-PSC Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 适用于旋转刀具或静态刀具

Suitable for rotating or static tools

- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

- 机床接口 ISO 7388-1

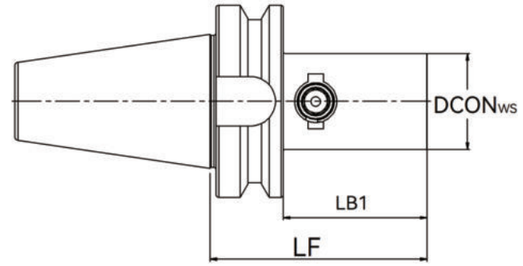
Machine interface ISO 7388-1

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
JT40	JT40-PSC3-030	32	30	10.9
JT40	JT40-PSC3-060	32	60	40.9
JT40	JT40-PSC4-030	40	30	10.9
JT40	JT40-PSC4-060	40	60	40.9
JT40	JT40-PSC5-060	50	60	40.9
JT40	JT40-PSC5-080	50	80	60.9
JT40	JT40-PSC6-085	63	85	65.9
JT50	JT50-PSC3-030	32	30	10.9
JT50	JT50-PSC3-060	32	60	40.9
JT50	JT50-PSC4-030	40	30	10.9
JT50	JT50-PSC4-060	40	60	40.9
JT50	JT50-PSC5-030	50	30	10.9
JT50	JT50-PSC5-070	50	70	50.9
JT50	JT50-PSC6-050	63	50	30.9
JT50	JT50-PSC6-100	63	100	80.9
JT50	JT50-PSC8-070	80	70	50.9
JT50	JT50-PSC8-120	80	120	100.9
JT50	JT50-PSC10-140	100	140	-
JT60	JT60-PSC8-120	80	120	100.9
JT60	JT60-PSC10-050	100	50	30.9

JT 转接柄 (涨爪式)

JT-PSC Adaptor





- 中心涨爪锁紧

Locking with center expansion claw

- 适用于旋转刀具或静态刀具

Suitable for rotating or static tools

- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

- 机床接口 ISO 7388-1

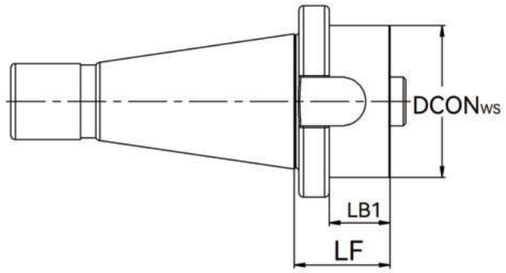
Machine interface ISO 7388-1

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
Jt50	JT50-PSC5M-095	50	95	75.9
JT50	JT50-PSC6M-115	63	115	95.9
JT50	JT50-PSC8M-135	80	135	115.9

ST 转接柄 (后拉式)

ST-PSC Adaptor





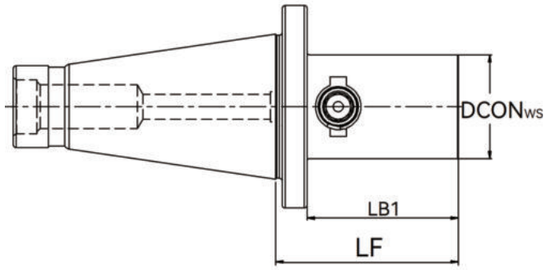
- 中心拉钉锁紧
Locking with center pull pin
- 适用于旋转刀具或静态刀具
Suitable for rotating or static tools
- 中心通水 , 冷却液压力≤ 80bar
Internal coolant pressure ≤ 80bar
- 机床接口 DIN 2080
Machine interface DIN 2080

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
ST40	ST40-PSC3-030	32	30	18.4
ST40	ST40-PSC4-030	40	30	18.4
ST40	ST40-PSC4-060	40	60	48.4
ST40	ST40-PSC5-030	50	30	18.4
ST40	ST40-PSC6-075	63	75	-
ST50	ST50-PSC3-030	32	30	14.8
ST50	ST50-PSC3-060	32	60	44.8
ST50	ST50-PSC4-030	40	30	14.8
ST50	ST50-PSC4-060	40	60	44.8
ST50	ST50-PSC5-030	50	30	14.8
ST50	ST50-PSC5-070	50	70	54.8
ST50	ST50-PSC6-030	63	30	14.8
ST50	ST50-PSC6-080	63	80	64.8
ST50	ST50-PSC8-070	80	70	54.8
ST50	ST50-PSC8-120	80	120	104.8

ST 转接柄 (涨爪式)

ST-PSC Adaptor



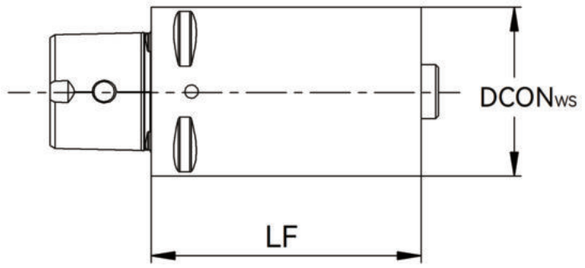


- 中心涨爪锁紧
Locking with center expansion claw
- 适用于旋转刀具或静态刀具
Suitable for rotating or static tools
- 中心通水 , 冷却液压力≤ 80bar
Internal coolant pressure ≤ 80bar
- 机床接口 DIN 2080
Machine interface DIN 2080

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
ST40	ST40-PSC5M-95	50	95	83.4
ST50	ST50-PSC8M-140	80	140	124.8

等径接杆（后拉式）
PSC Extension Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 三棱锥前后同向

Pyramid in the same direction before and after

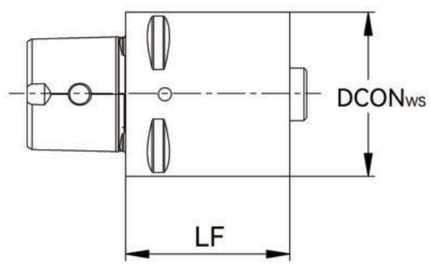
- 中心通水，冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)	
Spindle Model	Model No	$DCON_{ws}$	LF
PSC3	PSC3-PSC3-060	32	60
PSC3	PSC3-PSC3-080	32	80
PSC3	PSC3-PSC3-095	32	95
PSC4	PSC4-PSC4-060	40	60
PSC4	PSC4-PSC4-080	40	80
PSC4	PSC4-PSC4-120	40	120
PSC5	PSC5-PSC5-080	50	80
PSC5	PSC5-PSC5-100	50	100
PSC5	PSC5-PSC5-150	50	150
PSC6	PSC6-PSC6-100	63	100
PSC6	PSC6-PSC6-140	63	140
PSC6	PSC6-PSC6-185	63	185
PSC8	PSC8-PSC8-100	80	100
PSC8	PSC8-PSC8-125	80	125
PSC8	PSC8-PSC8-200	80	200
PSC10	PSC10-PSC10-140	100	140
PSC10	PSC10-PSC10-200	100	200

等径接杆（后拉式）
PSC Extension Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 三棱锥前后同向

Pyramid in the same direction before and after

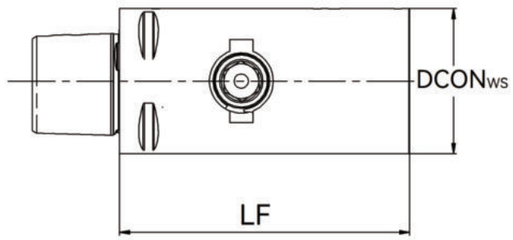
- 中心通水，冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)	
Spindle Model	Model No	$DCON_{ws}$	LF
PSC3	PSC3-PSC3-035	32	35
PSC4	PSC4-PSC4-040	40	40
PSC5	PSC5-PSC5-050	50	50
PSC6	PSC6-PSC6-060	63	60
PSC8	PSC8-PSC8-065	80	65

等径接杆（涨爪式）
PSC Extension Adaptor





- 中心涨爪锁紧

Locking with center expansion claw

- 三棱锥前后同向

Pyramid in the same direction before and after

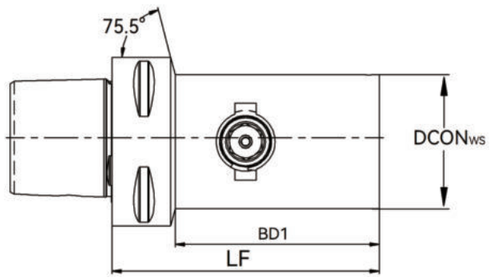
- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)	
Spindle Model	Model No	$DCON_{ws}$	LF
PSC4	PSC4-PSC4M-085	40	85
PSC5	PSC5-PSC5M-100	50	100
PSC6	PSC6-PSC6M-115	63	115
PSC8	PSC8-PSC8M-145	80	145

缩径接杆（后拉式）
PSC Reduction Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 三棱锥前后同向

Pyramid in the same direction before and after

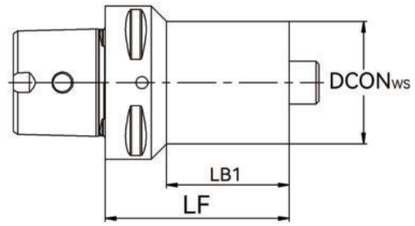
- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	DCONWS	LF	Lb1
PSC5	PSC5-PSC4M-085	40	85	60.5
PSC6	PSC6-PSC5M-100	50	100	73
PSC8	PSC8-PSC6M-120	63	120	84.5
PSC100	PSC10-PSC8M-150	80	150	108

等径接杆（后拉式）
PSC Extension Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 三棱锥前后同向

Pyramid in the same direction before and after

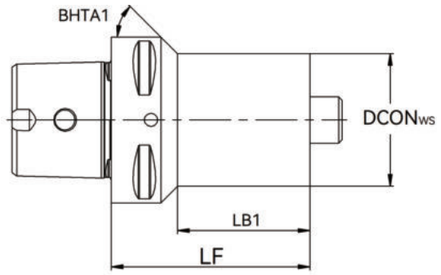
- 中心通水 , 冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)		
Spindle Model	Model No	$DCON_{ws}$	LF	LB1
PSC4	PSC4-PSC3-055	32	55	31
PSC4	PSC4-PSC3-120	32	120	95.7
PSC5	PSC5-PSC3-060	32	60	34.8
PSC5	PSC5-PSC3-120	32	120	94.4
PSC5	PSC5-PSC4-065	40	65	40
PSC5	PSC5-PSC4-140	40	140	115.5
PSC6	PSC6-PSC3-070	32	70	39
PSC6	PSC6-PSC3-125	32	125	95.6
PSC6	PSC6-PSC4-080	40	80	51.4
PSC6	PSC6-PSC4-145	40	145	116.7
PSC6	PSC6-PSC5-080	50	80	51.5
PSC6	PSC6-PSC5-175	50	175	148.1
PSC8	PSC8-PSC3-060	32	60	20.7
PSC8	PSC8-PSC3-135	32	135	95.7
PSC8	PSC8-PSC4-070	40	70	31.4
PSC8	PSC8-PSC4-155	40	155	116.4
PSC8	PSC8-PSC5-080	50	80	42.8
PSC8	PSC8-PSC5-185	50	185	147.8
PSC8	PSC8-PSC6-080	63	80	44.5
PSC8	PSC8-PSC6-200	63	200	164.5
PSC10	PSC10-PSC6-200	63	200	155.8
PSC10	PSC10-PSC8-200	80	200	158.1

缩径接杆（后拉式）
PSC Reduction Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 三棱锥前后同向

Pyramid in the same direction before and after

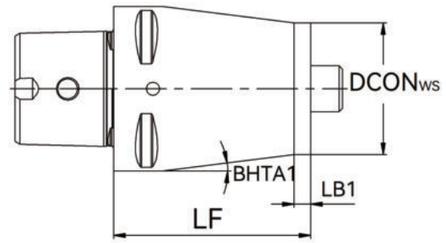
- 中心通水，冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)			
Spindle Model	Model No	$DCON_{WS}$	LF	LB1	BHTA1
PSC8	PSC8-PSC6-120	63	120	10	6°
PSC10	PSC10-PSC3-085	32	85	36.7	71°
PSC10	PSC10-PSC4-090	40	90	42.7	71°
PSC10	PSC10-PSC5-095	50	95	49.1	70°
PSC10	PSC10-PSC6-095	63	95	50.8	68°
PSC10	PSC10-PSC8-100	80	100	58.1	63°

缩径接杆（后拉式）
PSC Reduction Adaptor





- 中心拉钉锁紧

Locking with center pull pin

- 三棱锥前后同向

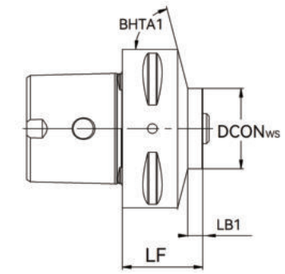
Pyramid in the same direction before and after

- 中心通水，冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)			
Spindle Model	Model No	$DCON_{WS}$	LF	LB1	BHTA1
PSC4	PSC4-PSC3-070	32	70	10	6°
PSC5	PSC5-PSC3-150	32	150	5	4°
PSC5	PSC5-PSC4-085	40	85	10	5°
PSC6	PSC6-PSC3-185	32	185	5	6°
PSC6	PSC6-PSC4-185	40	185	5	4°
PSC6	PSC6-PSC5-110	50	110	10	5°
PSC8	PSC8-PSC4-200	40	200	5	7°
PSC8	PSC8-PSC5-200	50	200	5	5°





- 中心拉钉锁紧

Locking with center pull pin

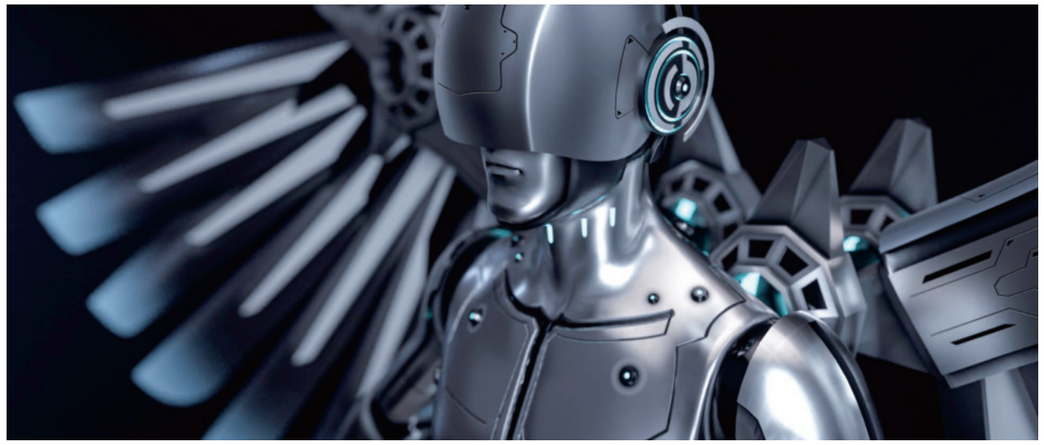
- 中心通水，冷却液压力≤ 80bar

Internal coolant pressure ≤ 80bar

主轴型号	刀柄型号	尺寸 Size (mm)			
Spindle Model	Model No	$DCON_{WS}$	LF	LB1	BHTA1
PSC5	PSC5-PSC3-33	32	33	5	0°
PSC5	PSC5-PSC4-40	40	40	15	0°
PSC6	PSC6-PSC3-32	32	32	6	0°
PSC6	PSC6-PSC4-40	40	40	11	0°
PSC6	PSC6-PSC5-50	50	50	20	0°
PSC8	PSC8-PSC5-45	50	45	5	0°
PSC8	PSC8-PSC6-55	63	55	15	0°
PSC10	PSC10-PSC6-55	63	55	14	75°
PSC10	PSC10-PSC8-65	80	65	25.4	70°

H

技术信息
TECHNICAL INFORMATION



A 车削
B 铣削
C 钻削
D 深孔加工
E 圆柄刀具
F 镗削
G 旋转刀柄
H 技术信息

金属材料牌号对照表
Table of Metal Materials

优质碳素结构钢 High quality carbon structural steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
10	S10C	1010	1.0301	C10
15	S15C	1015	1.0401	C15
20	S20C	1020	1.0402	C22
25	S25C	1025	1.0406	C25
30	S30C	1030	1.0528	C30
35	S35C	1035	1.0501	C35
40	S40C	1040	1.0511	C40
45	S45C	1045	1.0503	C45
50	S50C	1049	1.0540	C50
55	S55C	1055	1.0535	C55
58	S58C	1060	1.0601	C58

合金结构钢 Alloy structural steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
40CrNi	SNC236	3135	1.571	36NiCr6
12CrNi2	SNC415	3415	1.5732	14NiCr10
30CrNi3	SNC631	-	-	-
12CrNi3	SNC815	3310	1.5752	14NiCr14
37CrNi3	SNC836	-	-	-

合金结构钢 Alloy structural steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
20CrNiMo	SNCM220	8620	1.6523	21NiCrMo2
	SNCM240	8640	1.6546	40NiCrMo22
	SNCM415	-	-	-
	SNCM420	4320	-	-
40CrNiMoA	SNCM439	4340	1.6582	35CrNiMo6
45CrNiMoVA	SNCM447	-	-	-
	SNCM630	-	-	-
	SNCM815	-	-	-

合金结构钢 Alloy structural steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
15Cr	SCr415	5015	1.7015	15Cr3
20Cr	SCr420	5120	1.7020	20Cr4
30Cr	SCr430	5130	1.7033	34Cr4
35Cr	SCr435	5132	1.7034	37Cr4
40Cr	SCr440	5140	1.7045	42Cr4
45Cr	SCr445	5147	-	-

合金结构钢 Alloy structural steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
15CrMo	SCM415	-	1.7262	15CrMo5
20CrMo	SCM420	-	-	-
30CrMo	SCM430	4130	1.7218	25CrMo4
35CrMo	SCM435	4137	1.7220	34CrMo4
42CrMo	SCM440	4140	1.7223	41CrMo4
45CrMo	SCM4415	4145	-	-

合金结构钢 Alloy structural steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
20Mn2	SMn420	1522	-	-
35Mn2	SMn433	1536	-	-
40Mn2	SMn438	1541	-	-
45Mn2	SMn443	1541	-	-
20CrMn	SMnC420	-	-	-
40CrMn	SMnC443	-	-	-

碳素工具钢 Carbon tool steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
T13	SK1	W1-13	-	-
T12	SK2	W1-11 1/2	-	-
T11	SK3	W1-10	1.1545	C105W1
T9	SK4	W1-9	-	-
T8MnA	SK5	W1-8	1.1525	C80W1
T8	SK6	W1-7	1.1525	C80W1
T7	SK7	-	1.1620	C70W2

高速钢 High speed steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
W18Cr4V	SKH2	T1	-	-
W18Cr4VCo5	SKH3	T4	-	-
W12Cr4V5CoV	SKH10	T15	-	-
W6Mo5Cr4V2	SKH51	M2	1.334	S6-5-2
W6Mo5Cr4V3	SKH52	M3-1	-	-
CW6Mo5Cr4V3	SKH53	M3-2	1.3344	S6-5-3
	SKH54	M4	-	-
	SKH56	M36	-	-

合金工具钢 Alloy tool steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
	SKS11	F2	-	-
	SKS51	L6	-	-
	SKS43	W2-9 1/2	-	-
	SKS45	W2-8 1/2	-	-
Cr12	SKD1	D3	1.2080	X210Cr12
Cr12MoV	SKD11	D2	1.2379	X100CrMoV5
	SKD12	A2	1.2363	X100CrMoV51
	SKD2	-	1.2436	X210CrW12
3Cr2W8V	SKD5	H21	1.2581	C30WCrV9
4Cr5W2VSi	SKD61	H13	1.2344	X40CrMoV5

不锈钢（铁素体） Stainless steel (ferrite)

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
0Cr13A1	SUS405	AISI 405	1.4724	X6CrA113
	SUS429	AISI 429	-	-
1Cr17	SUS430	AISI 430	1.4742	X6Cr17
Y1Cr17	SUS430F	AISI 430F	1.4104	X12CrMoS17
1Cr17Mo	SUS434	AISI 434	-	-

不锈钢（马氏体） Stainless steel (martensite)

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
1Cr12	SUS403	AISI 403	-	-
1Cr13	SUS410	AISI 410	1.4006	X10Cr13
Y1Cr13	SUS416	AISI 416	-	-
2Cr13	SUS420J1	AISI 420	1.4034	X20Cr13
Y3Cr13	SUS420F	AISI 420F	-	-
1Cr17Ni2	SUS431	AISI 431	1.4057	X20CrNi172
7Cr17	SUS440A	AISI 440A	-	-
8Cr17	SUS440B	AISI 440B	-	-
11Cr17	SUS440C	AISI 440C	-	-

不锈钢（奥氏体） Stainless steel (austenite)

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
1Cr17Mn6Ni5N	SUS201	AISI 201	-	-
1Cr18Mn8Ni5N	SUS202	AISI 202	-	-
1Cr17Ni7	SUS301	AISI 301	-	-
1Cr18Ni9	SUS302	AISI 302	-	-
1Cr18Ni9Si3	SUS302B	AISI 302B	-	-
Y1Cr18Ni9	SUS303	AISI 303	1.4305	X10CrNiS189
Y1Cr18Ni9Se	SUS303Se	AISI 303Se	-	-
0Cr19Ni9	SUS304	AISI 304	1.4301	X5CrNi1810
00Cr19Ni11	SUS304L	AISI 304L	1.4306	X2CrNi1911
0Cr19Ni9N	SUS304N1	AISI 304N	-	-
1Cr18Ni12	SUS305	AISI 305	1.4303	X5CrNi1812
06Cr20Ni11	SUS308	AISI 308	-	-
0Cr23Ni13	SUS309S	AISI 309S	-	-
0Cr25Ni20	SUS310S	AISI 310S	-	-
0Cr17Ni12Mo2	SUS316	AISI 316	1.4401	X5CrNiMo17122
0Cr17Ni14Mo2	SUS316L	AISI 316L	-	X5CrNiMo17123
0Cr17Ni12MoN	SUS316N	AISI 316N	1.4404	-
0Cr19Ni13Mo3	SUS317	AISI 317	1.4438	X2CrNiMo18164
00Cr19Ni13Mo3	SUS317L	AISI 317L	1.4438	X2CrNiMo18164
0Cr18Ni11Ti	SUS321	AISI 321	-	-
0Cr18Ni11Nb	SUS347	AISI 347	1.4550	X6CrNiNb1810
	SUS384	AISI 384	-	-

耐热钢Heat resistant steel

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
	SUH31	-	-	-
5Cr21Mn9Ni4n	SUH35	-	-	-
Y5Cr21Mn9Ni4N	SUH36	-	-	-
2Cr22Ni11N	SUH37	-	-	-
3Cr20Ni11Mo2PB	SUH38	-	-	-
2Cr23Ni13	309	AISI 309	-	-
2Cr25Ni20	310	AISI 310	1.4845	CrNi2520
1Cr16Ni35	330	AISI 330	-	-

耐热钢（铁素体） Heat resistant steel (Tie Suti)

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
	SUH21	-	-	CrAl 1205
	SUH409	AISI 409	1.4512	X6CrTi 12
2Cr25N	SUH446	AISI 446	-	-

耐热钢（马氏体） Heat resistant steel (martensite)

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
45Cr9Si3	SUH1	-	-	-
4Cr10Si2Mo	SUH3	-	-	-
8Cr20Si2Ni	SUH4	-	-	-
	SUH11	-	-	-
2Cr12MoVNbN	SUH600	ASTM 616	-	-

会铸铁 Cast iron

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
HT100	FC100	20	0.6010	GG 10
HT150	FC150	25	0.6015	GG 15
HT200	FC200	30	0.6020	GG 20
HT250	FC250	35	0.6025	GG 25
HT300	FC300	40	0.6030	GG 30
HT350	FC350	50	0.6035	GG 35

球墨铸铁 Nodular cast iron

中国 China	日本 Japan	美国 U.S.A	德国 Germany	
GB	JIS	AISI / SAE	W.nr	DIN
QT400-18	FCD400	60-40-18	0.7040	GGG 40
QT450-10	FCD450	60-40-8	0.7045	GGG 45
QT500-7	FCD500	65-45-12	0.7050	GGG 50
QT600-3	FCD600	80-55-06	0.7060	GGG 60
QT700-2	FCD700	100-70-03	0.7070	GGG 70

表面粗糙度
Surface Roughness

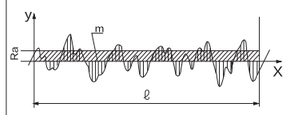
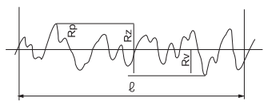
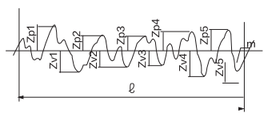
理论粗糙度 Theoretical roughness

从刀尖切削形状来看，可以将表面粗糙度的理论值表述如下
From the cutting shape, the surface roughness of the theoretical value as follows.

$$R(max) \approx \frac{f^2}{8r} \times 1{,}000(\mu m) \qquad [\ f{:}进给量(mm/rev)，r{:}刀尖圆角半径(mm/rev)\ ]$$

从式中可以看出，理论上来看同实际加工现场经验是符合的，即进给量在极大程度上对表面粗糙度产生影响，而刀尖半径的增大也可对提高粗糙度带来积极的作用。
From the style can be seen in the theoretical point of view is consistent with the actual processing with field experience, namely the feed to a great extent on the surface roughness effect, increasing tip radius can also be To improve the roughness of the positive role.

实测粗糙度 Measured roughness

种类 type	代号 Code	求解方法 Solving method	求解方法例子（图） Examples of solving methods (Figure)	表示方法Representation method 代号 Code	意义Significance
几何平均粗糙度 Geometric mean roughness	Ra	从测到的粗糙度曲线中，在其平均线方向，只取一段标准长度，将其取出部分平均线方向定为X轴，与其垂直方向定为Y轴，用Y=f(X)表述粗糙度曲线时，由下式求得的几何平均值。单位为微米（μm） The roughness curve from measured in the direction of the average, only the standard length of a segment, out of the average line direction as X axis and its perpendicular direction as Y axis, Y=f (X) expression roughness curve, the average value obtained by geometric formula. Micron (μm) $Ra=\frac{1}{\ell}\int_0^{\ell}[f(\times)]dx$		3.2	用任何方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness obtained by any method, the upper limit of Ra is 3.2μm
				3.2	用去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness obtained by the method of material removal, the upper limit of Ra is 3.2μm
				3.2	用不去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness of M was obtained by the method of material removal, and the upper limit of Ra was 3.2μm
				3.2 / 1.6	用去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm，Ra的下限值为1.6 m The surface roughness obtained by the method of material removal, the upper limit of Ra is 3.2 m, Ra The lower limit is 1.6 m
最大高度 Maximum height	Rmax	从测到的粗糙度曲线中，在其平均线方向，只取一段标准长度，测定该取出部分最大峰顶和最深谷底之间的距离，单位为微米（μm） The roughness curve from measured in the direction of the average, just take a standard length, the determination of the maximum peak and the most part removed between the valley bottom distance in microns (μm) $Rmax=Rp+Rv$ 一般来说 $Ra\approx\frac{1}{10}Rmax$		3.2max	用任何方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness obtained by any method, the upper limit of Ra is 3.2μm
				3.2max	用去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness obtained by the method of material removal, the upper limit of Ra is 3.2μm
				3.2max	用不去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness of M was obtained by the method of material removal, and the upper limit of Ra was 3.2μm
				3.2max / 1.6min	用去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm，Ra的下限值为1.6μm The surface roughness obtained by the method of material removal, the upper limit of Ra is 3.2μm, Ra The lower limit is 1.6μm
十点平均粗糙度 Ten point average roughness	Rz	从测到的粗糙度曲线中，在其平均线方向，只取一段标准长度，求从该取出部分的平均线到最大5个的峰值标高（Zp)的绝对值和从最低5个谷底的标高（Zv)的绝对值之算术平均值，单位为微米(μm) 表示。 The roughness curve from measured in the direction of the average, just take a standard length, and the average removal from part of the peak elevation to a maximum of 5 of the absolute value (Zp) and 5 from the lowest bottom elevation (Zv) arithmetic of the absolute value of the average unit micron (m) said. $RzJIS=\frac{[Zp1+Zp2+Zp3+Zp4+Zp5]+[Zv1+Zv2+Zv3+Zv4+Zv5]}{5}$ 一般来说 $Ra\approx\frac{1}{4}Rz$	 Zp1、Zp2、Zp3、Zp4、Zp5: 从对应标准长.的取出部分最高5个峰值的标高。 From the corresponding standard length. The maximum of the 5 peaks of the removed part. Zv1、Zv2、Zv3、Zv4、Zv5: 从对应标准长.的取出部分最低5个谷底的标高。 From the corresponding standard length of the extraction of the lowest 5 bottom elevation.	Ry3.2	用任何方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness obtained by any method, the upper limit of Ra is 3.2μm
				Rz200	用不去除材料方法获得的表面粗糙度，Ra的上限值为200μm The surface roughness of M was obtained by the method of material removal, and the upper limit of Ra was 200μm
				Rz3.2 Rz1.6	用去除材料方法获得的表面粗糙度，Ra的上限值为3.2μm，Ra的下限值为1.6μm The surface roughness obtained by the method of material removal, the upper limit of Ra is 3.2 m, Ra The lower limit is 1.6μm
				Ry3.2 Ry12.5	用去除材料方法获得的表面粗糙度，Ra的上限值为3.2 m，Ra的下限值为12.5μm The surface roughness obtained by the method of material removal, the upper limit of Ra is 3.2 m, Ra The lower limit is 12.5μm
				Ry3.2max	用任何方法获得的表面粗糙度，Ra的上限值为3.2μm The surface roughness obtained by any method, the upper limit of Ra is 3.2μm

最大高度Rz的等级数量 Maximum height Rz	最大高度RzJIS的等级数量 Maximum height RzJIS	算数平均Ra的等级数量 The average number of Ra	标准长度的标准值 Standard value of standard length	三角记号 Triangle mark
(0.05S)、0.1S、0.2S、0.4S	(0.05Z)、0.1Z、0.2Z、0.4Z	(0.012a)、0.025a、0.05a、0.10a	–	▽▽▽▽
0.8S	0.8Z	0.20a	0.25	
1.6S、3.2S、6.3S	1.6Z、3.2Z、6.3Z	0.40a、0.80a、1.6a	0.80	▽▽▽
12.5S、(18S)、25S	12.5Z、(18Z)、25Z	3.2a、6.3a	2.5	▽▽
(35S)、50S、(70S)、100S	(35Z)、50Z、(70Z)、100Z	12.5a、25a	–	▽
(140S)、200S、(280S)、400S、(560S)	(140Z)、200Z、(280Z)、400Z、(560Z)	(50a)、(100a)	–	–

[备考]（）内的等级数值，除非十分必要，请尽量不要使用。[pro forma] () the rank value, unless it is necessary, please try not to use.

根据螺纹尺寸推荐的钻头直径
Recommended Drill Diameter According To The Thread Size

螺纹直径 Thread diameter	钻头直径 Drill diameter mm	螺距 pitch mm	螺纹直径 Thread diameter	钻头直径 Drill diameter mm	螺距 pitch TPI*	螺纹直径 Thread diameter	钻头直径 Drill diameter mm	螺距 pitch TPI*
M公制粗牙螺纹M metric coarse thread			UNF美制统一螺纹UNF American unified thread			Rc英制圆锥管螺纹Rc inch tapered pipe thread		
M4	3.30	0.7	UNF NO.6	3.00	40	Rc 1/8″	8.40	28
M4.5	3.70	0.75	UNF NO.8	3.50	36	Rc 1/4″	11.20	19
M5	4.20	0.8	UNF NO.10	4.10	32	Rc 3/8″	14.75	19
M6	5.00	1	UNF NO.12	4.65	28	Rc 1/2″	18.25	14
M7	6.00	1	UNF 1/4″	5.50	28	Rc 3/4″	23.75	14
M8	6.80	1.25	UNF 5/16″	6.90	24	Rc 1″	30.00	11
M9	7.80	1.25	UNF 3/8″	8.50	24	G英制圆柱管螺纹G inch cylindrical pipe thread		
M10	8.50	1.5	UNF7/16″	9.90	20	G 1/8″	8.80	28
M11	9.50	1.5	UNF1/2″	11.50	20	G 1/4″	11.80	19
M12	10.20	1.75	UNF9/16″	12.90	18	G 3/8″	15.25	19
M14	12.00	2	UNF5/8″	14.50	18	G 1/2″	19.00	14
M16	14.00	2	UNF 3/4″	17.50	16	G 5/8″	21.00	14
M18	15.50	2.5	UNF 7/8″	20.50	14	G 3/4″	24.50	14
M20	17.50	2.5	UNF 1″	23.25	12	G 7/8″	28.25	14
M22	19.50	2.5	UNF 1 1/8″	26.50	12	G 1″	30.75	11
M24	21.00	3	UNF 1 1/4″	29.75	12	G 11/4″	39.50	11
M27	24.00	3	UNF 1 3/8″	33.00	12	G 11/2″	45.50	11
M30	26.50	3.5	UNF 1 1/2″	36.00	12	G 13/4″	51.40	11
M33	29.50	3.5				G 2″	57.20	11
M36	32.00	4	UNC美制统一粗牙螺纹UNC American unified coarse thread			NPT 60°全牙形锥管螺纹NPT 60°All dental canal thread		
M39	35.00	4	UNC NO.6	2.85	32	NPT 1/16″	6.10	27
M42	37.50	4.5	UNC NO.8	3.50	32	NPT 1/8″	8.50	27
M45	40.50	4.5	UNC NO.10	3.90	24	NPT 1/4″	11.00	18
M48	43.00	5	UNC NO.12	4.50	24	NPT 3/8″	14.50	18
M52	47.00	5	UNC 1/4″	5.20	20	NPT 1/2″	17.80	14
			UNC 5/16″	6.60	18	NPT 3/4″	23.00	14
M公制挤压螺纹M metric screw thread			UNC 3/8″	8.00	16	NPT 1″	29.00	11 1/2
M4	3.70	0.7	UNC 7/16″	9.40	14	NPT 11/4″	37.50	11 1/2
M5	4.63	0.8	UNC 1/2″	10.75	13	NPT 11/2″	44.00	11 1/2
M6	5.50	1	UNC 9/16″	12.25	12	NPT 2″	56.00	11 1/2
M7	6.51	1	UNC 5/8″	13.50	11	NPTF 60°全牙形锥管螺纹NPTF 60 degree full dental canal thread		
M8	7.40	1.25	UNC 3/4″	16.50	10	NPTF 1/16″	6.00	27
M10	9.25	1.5	UNC 7/8″	19.50	9	NPTF 1/8″	8.40	27
M12	11.12	1.75	UNC 1″	22.25	8	NPTF 1/4″	10.90	18
M14	13.00	2	UNC 1 1/8″	25.00	7	NPTF 3/8″	14.25	18
M16	15.00	2	UNC 1 1/4″	28.25	7	NPTF 1/2″	17.75	14
			UNC 1 3/8″	31.00	6	NPTF 3/4″	23.00	14
			UNC 1 1/2″	34.00	6	NPTF 1″	29.00	11 1/2
			UNC 1 3/4″	39.50	5	NPTF 1 1/4″	37.75	11 1/2
			UNC 2″	45.25	4 1/2	NPTF 1 1/2″	43.75	11 1/2
						NPTF 2″	55.75	11 1/2

钻头直径=丝锥直径-螺距
Drill diameter =Tap diameter-pitch
TPI=每英寸螺纹扣数Number of threads per inch

金属材料横向对比表
Comparison Table of Metal Materials From Different Countries

碳钢Carbon steel

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
15	STKM12A/STKM12C/S15C	1.0038/1.0401/1.1141	RSt.37-2/C15/Ck15	4360 40 C/080M15	-/32C	E24-2Ne/CC12/XC12	-/C15, C16/C16	-/F.111/C15K	1311/1350/1370	A570.36/1015
20	-	1.0402	C22	050A20	2C	CC20	C20,C21	F.112	1450	1020
Y13	-	1.0736	9SMn36	240M07	1B	S300	CF9SMn36	12SMn35	-	1215
Y15	SUM22	1.0715	9SMn28	230M07	1A	S250	CF9SMn28	F.2111/11SMn28	1912	1213
25	S25C	1.1158	Ck25	-	-	-	-	-	-	1025
35	-	1.0501	C35	060A35	-	CC35	C35	F.113	1550	1035
45	-	1.0503	C45	080M46	-	CC45	C45	F.114	1650	1045
40Mn	-	1.1157	40Mn4	150M36	15	35M5	-	-	-	1039
35Mn2	SMn438(H)	1.1167	36Mn5	-	-	40M5	-	36Mn5	2120	1335
30Mn	SCMn1	1.117	28Mn6	150M28	14A	20M5	C28Mn	-	-	1330
35Mn	S35C	1.1183	Cf35	060A35	-	XC38TS	C36	-	1572	1035
Ck45	S45C	1.1191	Ck45	080M46	-	XC42	C45	C45K	1672	1045
50	S50C	1.1213	Cf53	060A52	-	XC48TS	C53	-	1674	1050
55	-/S55C	1.0535/1.1203	C55/Ck55	070M55	9/-	-/XC55	C55/C50	-/C55K	1655/-	1055
60	-	1.0601	C60	080A62	43D	CC55	C60	-	-	1060
60Mn	S58C	1.1221	Ck60	080A62	43D	XC60	C60	-	1678	1060

不锈钢（奥氏体类）Stainless steel (austenitic type)

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
0Cr19Ni10	SUS304L	1.4306	X2CrNi1911	304S11	-	Z2CN18.10	X2CrNi18.11	-	2352	304L
0Cr18Ni9	SUS304	1.435	X5CrNi189	304S11	58E	Z6CN18.09	X5CrNi1810	F.3551/F.3541/F.3504	2332	304
1Cr18Ni9MoZr	SUS303	1.4305	X12CrNiS188	303S21	58M	Z10CNF18.09	X10CrNiS18.09	F.3508	2346	303
Cr17Ni7	SUS301	1.431	X12CrNi177	-	-	Z12CN17.07	X12CrNi1707	F.3517	2331	301
0Cr17Ni11Mo2	SUS316	1.4401	X5CrNiMo1810	316S16	58J	Z6CND17.11	X5CrNiMo1712	F.3543	2347	316
0Cr17Ni13Mo	SUS316LN	1.4429	X2CrNiMoN1813	-	-	Z2CND17.13	-	-	2375	316LN
0Cr27Ni12Mo3	SCS16/SUS316L	1.4435	X2CrNiMo1812	316S13	-	Z2CND17.12	X2CrNiMo1712	-	2353	316L
00Cr19Ni13Mo	SUS317L	1.4438	X2CrNiMo1816	317S12	-	Z2CND19.15	X2CrNiMo1816	-	2367	317L
1Cr18NI9Ti	SUS321	1.4541	X10CrNiTi189	321S12	58B	Z6CNT18.10	X6CrNiTi1811	F.3553/F.3523	2337	321
1Cr18Ni11Nb	SUS347	1.455	X10CrNiNb189	347S17	58F	Z6CNNb18.10	X6CrNiNb1811	F.3552/F.3524	2338	347
Cr18Ni12Mo2T	-	1.4571	X10CrNiMoTi1810	320S17	58J	Z6CNDT17.12	X6CrNiMoTi1712	F.3535	2350	316Ti
1Cr23Ni13	SUH309	1.4828	X15CrNiSi2012	309S24	-	Z15CNS20.12	X6CrNi2520	-	-	309
0Cr25Ni20	SUH310	1.4845	X12CrNi2521	310S24	-	Z12CN2520	X6CrNi2520	F.331	2361	310S
1Cr18Ni9Ti	SUS321	1.4878	X12CrNiTi189	321S32	58B, 58C	Z6CNT18.12B	X6CrNiTi18 11	F.3523	-	321

合金钢Alloy steel

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
55Si2Mn	-	1.0904	55Si7	250A53	45	55S7	55Si8	56Si7	2085	9255
Gr15 45G	SUJ2	1.3505	100Cr6	534A99	31	100C6	100Cr6	F.131	2258	ASTM52100
15Cr	SCr415(H)	1.7015	15Cr3	523M15	-	12C3	-	-	-	5015
40Cr	SCr440	1.7045	42Cr4	-	-	-	-	42Cr4	2245	5140
20CrMn	SUP9(A)	1.7176	55Cr3	527A60	48	55C3	-	-	-	5155
40CrNiMoA	-	1.6582	34CrNiMo6	817M40	24	35NCD6	35NiCrMo6(KB)	-	2541	4340
35Cr	SCr430(H)	1.7033	34Cr4	530A32	18B	32C4	34Cr4(KB)	35Cr4	-	5132
40Cr	SCr440(H)	1.7035	41Cr4	530M40	18	42C4	41Cr4	42Cr4	-	5140
18CrMn	-	1.7131	16MnCr5	(527M20)	-	16MC5	16MnCr5	16MnCr5	2511	5115
30CrMn	SCM420/SCM430	1.7218	25CrMo4	1717CDS110/708M20	-	25CD4	25CrMo4(KB)	55Cr3	2225	4130
35CrMo	SCM432/SCCRM3	1.722	34CrMo4	708A37	19B	35CD4	35CrMo4	34CrMo4	2234	4137/4135
40CrMoA	SCM440	1.7223	41CrMo4	708M40	19A	42CD4TS	41CrMo4	42CrMo4	2244	4140/4142
42CrMo/42CrMnMo	SCM440(H)	1.7225	42CrMo4	708M40	19A	42CD4	42CrMo4	42CrMo4	2244	4140
50CrVA	SUP10	1.8159	50CrV4	735A50	47	50CV4	50CrV4	51CrV4	2230	6150
CrV,/9SiCr	-	1.2067	100Cr6	BL3	-	Y100C6	-	100Cr6	-	L3
CrWMo	SKS31/SKS2,/SKS3	1.2419	105WCr6	-	-	105WC13	100WCr6/107WCr5KU	105WCr5	2140	-
5CrNiMo	SKT4	1.2713	55NiCrMoV6	BH224/5	-	55NCDV7	-	F.520.S	-	L6
Cr12	SKD1	1.208	X210Cr12	BD3	-	Z200C12	X210Cr13KU/X250Cr12KU	X210Cr12	-	D3 /ASTM D3
40CrMoV5	SKD61	1.2344	X40CrMoV51/X40CrMoV51	BH13	-	Z40CDV5	X35CrMoV05KU/X40CrMoV51KU	X40CrMoV5	2242	H13/ASTM H13
100CrMoV5	SKD12	1.2363	X100CrMoV51	BA2	-	Z100CDV5	X100CrMoV51KU	X100CrMoV5	2260	A2
30WCrV9	SKD5	1.2581	X30WCrV93	BH21	-	Z30WCV9	X28W09KU	X30WCrV9	-	H21
V	SKS43	1.2833	100V1	BW2	-	Y1105V	-	-	-	W210
W18Cr4VCo5	SKH3	1.3255	S18-1-2-5	BT4	-	Z80WKCV	X78WCo1805KU	HS18-1-1-5	-	T4
X45CrSi93	SUH1	1.4718	X45CrSi93	401S45	52	Z45CS9	X45CrSi8	F.322	-	HW3
M2	SKH9,	SKH51	1.3343	S6/5/2	BM2	-	Z85WDCV	HS6-5-2-2	F.5603	2722
M7	-	1.3348	S	2002/9/2	-	-	-	HS2-9-2	HS2-9-2	2782

耐热钢Heat-resistant steel

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
-	SUH330	1.4864	X12NiCrSi3616	-	-	Z12NCS35.16	-	-	-	330
-	SCH15	1.4865	G-X40NiCrSi3818	330C11	-	-	XG50NiCr3919	-	-	HT,HT50

金属材料横向对比表
Comparison Table of Metal Materials From Different Countries

不锈钢（铁素体类,马氏体类）Stainless Steel(Ferrite type/Martensitic type)

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
OCr13/1Cr12	SUS403	1.4	X7Cr13	403S17	-	Z6C13	X6Cr13	F.3110	2301	403
1Cr13	SUS410	1.4006	X10Cr13	410S21	56A	Z10C14	X12Cr13	F.3401	2302	410
1Cr17	SUS430	1.4016	X8Cr17	430S15	60	Z8C17	X8Cr17	F.3113	2320	430
4Cr13	SUS420J2	1.4034	X46Cr13	420S45	56D	Z40CM/Z38C13M	X40Cr14	F.3405	2304	-
1Cr17Ni2	SUS431	1.4057	X22CrNi17	431S29	57	Z15CNi6.02	X16CrNi16	F.3427	2321	431
Y1Cr17	SUS430F	1.4104	X12CrMoS17	-	-	Z10CF17	X10CrS17	F.3117	2383	430F
1Cr17Mo	SUS434	1.4113	X6CrMo17	434S17	-	Z8CD17.01	X8CrMo17	-	2325	434
OCr13Al	SUS405	1.4724	X10CrA113	403S17	-	Z10C13	X10CrA112	F.311	-	405
Cr17	SUS430	1.4742	X10CrA118	430S15	60	Z10CAS18	X8Cr17	F.3113	-	430
5Cr2Mn9Ni4N	SUH35	1.4871	X53CrMnNiN219	349S54	-	Z52CMN21.09	X53CrMnNiN219	-	-	EV8

灰口铸铁Gray cast iron

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
HT150	FC150	0.6015	GG15	Grade150	-	Ft15 D	G15	FG15	115	No 25 B
HT200	FC200	0.602	GG20	Grade220	-	Ft20 D	G20	-	120	No 30 B
HT250	FC250	0.6025	GG25	Grade260	-	Ft25 D	G25	FG25	125	No 35 B
HT300	FC300	0.603	GG30	Grade300	-	Ft30 D	G30	FG30	130	No 45 B
HT350	FC350	0.6035	GG35	Grade350	-	Ft35 D	G35	FG35	135	No 50 B
HT400	-	0.604	GG40	Grade400	-	Ft40 D	-	-	140	No 55 B

球墨铸铁Nodular cast iron

中国China	日本Japan	德国Germany		英国Great Britain		法国France	意大利Italy	西班牙Spain	瑞典Sweden	美国USA
GB	JIS	W.-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	AISI/SAE
QT400-18	FCD400	0.704	GGG 40	SNG 420/12	-	FCS 400-12	GS 370-17	FGE 38-17	07 17-02	60-40-18
QT500-7	FCD500	0.705	GGG 50	SNG 500/7	-	FGS 500-7	GS 500	FGE 50-7	07 27-02	80-55-06
QT600-3	FCD600	-	GGG 60	SNG 600/3	-	FGS 600-3	-	-	07 32-03	-
QT700-18	FCD700	0.707	GGG 70	SNG 700/2	-	FGS 700-2	GS 700-2	FGS 70-2	07 37-01	100-70-03

各公司材质对照表
Grade Comparison List To Other Company

● 车削用CVD涂层材质
Turning CVD grade

ISO					山特维克		三菱日立工具				伊斯卡				
用途分类	代号	CDBP	TUNGALOY	MITSUBISHI	SUMITOMO	SANDVIK	KYOCERA	DIJET	SECO TOOLS	KENNAMETAL	ISCAR	TAEGUTEC	WIDIA	WALTER	CERATIZIT
P	P01	BP8305	T9105	UE6105	AC810P	GC4205	CA5505	HG8010	JC110V	TP0500	KC9105	CA8150	TT8115	TN10P	WPP01	
						GC4305	CA510			TP0501	KCP05	CA9150		TN20K	WPP05	
												CA9015			WPP05S	
		BP8305	T9105	UE6105	AC810P	GC4205	CA5515	HG8010	JC110V	TP0500	KC9110	CA8150	TT8115	TN10P	WPP05	CTC3110
		BP8305	T9115	UE6110	AC820P	GC4215	CA515	GM8020	JC215V	TP1500	KC9105	CA9150		TN20K	WPP10	CTCK120
	P10					GC4305				TP0501	KCP10	CA8080		WP15CT	WAK20	
						GC4315				TP1501		CA9080			WPP05S	
												CA9015			WPP10S	
		BP8315	T9115	UE6110	AC820P	GC4215	CA5515	HG8025	JC110V	TP1500	KC9215	CA8150	TT8125	TN10P	WPP20	CTCP115
		BP8315	T9125	UE6020	AC830P	GC4315	CA515	GM8020	JC215V	TP2500	KC9225	CA9150	TT5100	TN15M	WPP20S	CTCP125
	P20	BP8325		MC6025	AC8025P	GC4225	CA5525	GM25		TP1501	KC9325	CA9015		WP25CT		CTC1425
						GC4325	CA525			TP2501	KCP25	CA8250				
												CA9250				
		BP8325	T9125	MC6025	AC8025P	GC4225	CA5525	HG8025	JC215V	TP2500	KC9140	CA8080	TT8125	TN30P	WPP30	CTCP125
		BP8335	T9135	UE6035	AC830P	GC4235	CA5535	GM8035	JC325V	TP3500	KC9240	CA6456	TT5100	TN30M	WAK30	CTC1425
	P30		T6130			GC4325	CA530	GM25		TP2501	KCP30	CA9350	TT8135	WP35CT	WPP30S	CTC1135
												CA9250				CTC1435
		BP8335	T9135	UE6035	AC830P	GC4235	CA5535	GM8035	JC325V	TP3500	KC9140	CA9350	TT8135	TN30P	WPP30	CTC2135
	P40		T6130	UH6400	AC630M		GX30			TP4000	KC9240	IC635	TT7100	TN30M	WAK30	CTC1435
											KCP40				WPP30S	CTC2135
			T9115	MC7015	AC610M	GC2015	CA6515		JC110V		KCM15	IC9250	TT9215	TN15M		CTCP115
	M10											IC520M		WM15CT		
			T6120	MC7015	AC6030M	GC2015	CA6525	HG8025	JC110V	TM2000	KCM15	IC9025	TT9215	TN15M		CTC1425
			T9125	US7020		GC2025		GM25			KCM25	IC9350	TT9225	WM25CT		CTCP125
	M20			MC7025								IC4050				CTC1135
			T6130	MC7025	AC6030M	GC2025		GM8035	JC215V	TM2000	KCM25	IC9350	TT9225	TN30M		CTC1435
M				US735	AC630M	GC235		GM25		TM4000	KCM35	IC4050	TT9235	WM35CT		CTC2135
	M30							GX30				IC635				CTC2135
				US735		GC235		GC30		TM4000	KCM35	IC635	TT9235			CTC2135
	M40										KCP40					
		BP3205	T5105	MC5005	AC405K	GC3205	CA4505	HX3505	JC050W	TK1001	KCK05	IC8080		WK05CT	WAK10	
	K01	BP3205		UC5105				JC105V	TK1000						WPP01	
		BP3215	T5105	MC5015	AC415K	GC3210	CA4515	HX3515	JC105V	TK1001	KCK05	IC9150	TT7005	WK05CT	WAK10	CTC3110
	K10	BP3215	T515	UC5115				GM10	JC110V	TK1000	KCK15	IC5100			WPP10	CTC1425
			T5115					HG8010				IC4100			WKK10S	
		BP3215	T515	MC5015	AC420K	GC3215	CA4515	HX3515	JC100V	TK2000	KCK15	IC9150	TT7310	WK20CT	WAK20	CTC1435
	K20	BP3215	T5115	UC5115				GM8020	JC215V	TK2001	KCK20	IC5100			WPP20	CTCK120
			T5125									IC4100			WKK20S	CTCP115
												IC9080				
		BP8325	T5125					HG8025	JC215V		KCP25	IC520M			WAK30	CTCP125
	K30	BP8315	T9115									IC4050			WKP30S	

车削用PVD涂层材质
Turning PVD grade

ISO								日立工具									
用途分类		CDBP	TUNGALOY	MiTSUBiSHi	SUMITOMO	SANDVIK	KYOCERA	HITACHI	Dijet	Seco Tools	Kennametal	ISCAR	TaeguTec	Widia	Walter	Ceratizit
P							PR1005								WXN10	
	P01	BP2205	AH710	VP10RT		GC1525	PR930	IP2000	JC5003	TS2000	KC5010	IC507		WS10PT	WSM10	
	P10	BP2205					PR1005		JC5030	CP200	KC5510	IC807			WSM21	
							PR1115				KCU10	IC907				
							PR1215									
							PR1425									
		BP2225	AH120	VP10RT	AC520U	GC1525	PR930	IP2000	JC5030	TS2500	KC5025	IC507	TT9030	WS10PT	WSM20	
	P20	BP2225	AH725	VP15TF		GC1125	PR1025	IP3000	JC5040	CP200	KC5525	IC807		WS25PT	WSM21	
		BP2225	AH730	VP20MF			PR1115				KCU25	IC907				
			SH725	VP20RT			PR1215									
			SH730	UP20M			PR1425									
			J740				PR1225									
		BP2215	AH120	VP15TF	AC530U	GC1125	PR1025	IP3000	JC5040	CP500	KC5025	IC328	TT9030	WS25PT	WSM30	CTP1235
	P30	BP2225	AH725	VP20MF			PR1225				KC5525	IC928	TT8020			CTP1625
			SH725	VP20RT							KCU25	IC3028				CTP2235
			AH730	UP20M												
			SH730													
			GH730													
			GH330													
			J740													
	P40		AH120		AC530U					CP500		IC328	TT8020			CTP1235
			AH725									IC3028				CTP2235
			AH645													
M	M01											IC520			WXM10	
	M10	BP2205	AH630	VP10RT		GC1105	PR1025	IP100S	JC5003	TS2000	KC5010	IC520		WS10PT	WSM10	
		BP2205				GC1115	PR1215	IP050S	JC8015	TS2500	KC5510	IC507			WSM10S	
		BP2205				GC1525				CP200	KCU10	IC807				
												IC907				
	M20	BP2225	AH630	CP10RT	AC520U	GC1115	PR930	IP100S	JC5015	TS2500	KC5025	IC520	TT9030	WS10PT	WSM20	CTP1235
		BP2215	AH120	VP15TF		GC1125	PR1025	IP050S	JC5030	CP200	KC5525	IC507	TT8010	WS25PT	WSM21	CTP2120
		BP2225	AH725	VP20MF		GC1525	PR1125		JC8015	CP500	KCU25	IC807			WSM20S	
			SH725	VP20RT			PR1215					IC907				
			SH730	UP20M			PR1425					IC308				
							PR1225					IC3028				
	M30	BP2225	AH645	VP15TF	AC530U	GC1125	PR1125	IP100S	JC5015	CP500	KC5025	IC3028	TT8020	WS25PT	WSM30	CTP1235
		BP2225	AH120	VP20MF	AC6040M	GC2035			JC5030		KC5525	IC308			WSM30S	CTP2120
		BP2225	AH725	VP20RT					JC5040		KCU25	IC908				CTP2235
			SH725	UP20M								IC928				CTP1625
			SH730	MP7035												
			J740													
	M40		AH645	MP7035	AC530U							IC228				
					AC6040M							IC328				
K	K01		AH110									IC910				
	K10		GH110	VP10RT	AC510U		PR905		JC5003	TS2000	KC5015	IC910	TT9030	WS10PT		CPT6215
			AH110				PR1215		JC5015	CP200	KC5510	IC308				
											KCU10	IC508				
	K20	BP2225	AH120	VP10RT			PR905		JC5015	TS2500	KC5025	IC910	TT9030	WS10PT		CP6215
		BP2225		VP20RT			PR1215			CP200	KC5525	IC308		WS25PT		
		BP2225		VP15RT						CP250	KCU25	IC508				
												IC928				
												IC1008				
	K30		AH120	VP20RT						CP500		IC928	TT9030	WS25PT		CPT6215
			GH130	VP15RT								IC1008				
S	S01		AH8005	VP05RT					JC8003						WSM10	
				MP9005												
	S10	BP4205	AH8005	VP10RT	AC510U	GC1105	PR1305		JC8015	TS2000	KC5010	IC507	TT8010	WS10PT	WSM10	CPT2235
		BP4205	AH8015	MP9015	AC520U		PR1310		JC5015	TS2500	KC5510	IC807				
		BP4205								CP200	KCU10	IC808				
										CP250		IC907				
												IC908				
	S20	BP4215	AH8015	VP15TF	AC520U	GC1115	PR1310		JC8015	TS2000	KC5025	IC507	TT8020	WS10PT	WSM20	CPT2235
				MP9015		GC1125			JC5015	TS2500	KC5525	IC807		WS25PT	WSM21	
		BP4215		VP20RT						CP200	KCU25	IC808			WSM20S	
										CP500		IC907				
												IC908				
	S30		AH630	VP15TF	AC520U	GC1125	RP1325					IC830		WS25PT	WSM30	
			AH7025	VP20RT								IC928			WSM30S	

车削用硬质合金
Turning Un-Coated Grade

ISO								日立工具								
用途分类		CDBP	TUNGALOY	MiTSUBiSHi	SUMITOMO	SANDVIK	KYOCERA	HITACHI	Dijet	Seco Tools	Kennametal	ISCAR	TaeguTec	Widia	Walter	Ceratizit
P	P01															
	P10	BP5205	TH10		ST10P			WS10	SRT		P10	IC70	P10	TN15U		
	P20	BP5215	KS20	UTI20T	ST20E	SMA		EX35	SRT	S10M	K125M		P20	TN15U		
											TTM	IC70				
	P30	BP5215	KS15F	UTI20T	A30	SM30	PW30		DX30	S25M	GK	IC28	P30			S40T
			UX30		A30N	H10F		EX40	SR30		K600	IC54				
											TTR					
	P40		TX40		ST40E			EX45	SR30	S60M	G13	IC28	P40			S40T
												IC54				
M	M01															
	M10	BP5215	TH10		U10E	H10A		WA10B	UMN	890	K313	IC20	M10	TN15U		
					EH510									WU10HT		
	M20	BP5215	KS20	UTI20T	U2	H13A		EEX35	DX25	HX	K68	IC20		TN15U		CTW7120
					EH520				UMS	883	KMF			UN10HT		H210T
											K125M					
											TTM					
	M30		UX30	UTI20T	A30	H10F			UMS		GK	IC28				
					A30N	SM30		EX45			K600					
											TTR					
	M40		TU40						UM40		G13	IC28	M40			S40T
K	K01		KS05F	HTI05T	H2			WH01	KG03		K605		UF1	TN15U		
					H1			WH05						WU10HT		
	K10	BP5215	TH10	HTI10	H1	H10	KW10	WH10	KG10	890	K313	IC20	K10	TN15U		H210T
					EH10				KT9		K110M	IC09T		WU10HT		H216T
					EH510				CR1		THM					H10T
											THM-U					
	K20	BP5215	KS15F	UTI20T	G10E	H13A	KW10	WH20	KT9	890	K715	IC20	K20	TN15U		CTW7120
			KS20		EH20	H10F	GW15		CR1	HX	KMF	IC09T		WU10HT		H210T
					EH520				KG20	883	K600					H216T
									FB15							H10T
	K30			UTI20T	G10E	H13A	GW25		KG30	883	THR	IC28	K30			
						H10F										
	K40										G13					
N	N01		KS05F			H10	KW10				K605	IC20				
					H1											
	N10	BP5205	TH10	HTI10	H1	H10	GW15	WH10	KT9	890	K313	IC20	K10	TN15U	WK1	H210T
						H10F			CR1	HX	K110M	IC28		WU10HT	WK10	H216T
										KX	THM					H10T
										H15	THM-U					
	N20	BP5215	KS15F			H10F		WH20	KT9	890	K715	IC20	K20	TN15U	WK1	CTW7120
						H13A			CR1	HX	KMF	IC28		WU10HT	WK10	H210T
										KX	K600					H216T
										883						H10T
	N30									883	G13				WK40	
										H25	THR				WMG40	
S	S01			RT9005								IC20				
	S10	BP5205	KS05F	RT9005		H10	KW10	WH10	KG10	890	K10	IC20	K10	TN15U	WK1	H210T
			TH10	RT9010	EH510	H10A				883	K313			WU10HT		H216T
											THM					H10T
	S20	BP5215	KS10F	RT9010		H10F	GW25	WH20	KG20	890	K715	IC20	K20	TN15U	WK1	CTW7120
			KS20	TF15	EH520	H13A				883	KMF	IC28		WU10HT	WMG40	H210T
										H25						H216T
																H10T
	S30			TF15						883	G13				WMG40	
											K600					
											THR					

铣削用CVD涂层材质
Milling CVD Grade

ISO								日立工具								
用途分类		CDBP	TUNGALOY	MiTSUBiSHi	SUMITOMO	SANDVIK	KYOCERA	HITACHI	Dijet	Seco Tools	Kennametal	ISCAR	TaeguTec	Widia	Walter	Ceratizit
P	P01											IC9015		TN2510		
												IC5400				
												IC8080				
												IC9080				
	P10			FH7020	ACP100	GC4220			JC730U	MP150	KCPM20	IC9015		TN2510	WKP25	GM226+
						GC4230						IC5400		TN7525		
												IC8080				
												IC9080				
												IC4100				
												IC5100				
	P20		T3225	FH7020	ACP100	GC4220		GX2140	JC730U	MP150	KCPM20	IC8080	TT7800	TN7525	WKP25	GM226+
		BM6230		F7030		GC4230		GX2160		MP250	KCPK30	IC9080		TN7535	WKP35	
										T25M	KCPM30	IC4100			WKP35S	
											KC927M	IC5100				
												IC9250				
												IC520M				
	P30		T3130	F7030	ACP100	GC4230		GX2140		MP150	KCPK30	IC9250	TT7800	TN7525	WKP25	GM226+
			T3225			GC4240		GX2160		MP250	KCPM30	IC520M		TN7535	WKP35	GM246
						GC2040				T350M	KC927M	IC4050			WKP35S	GM43+
										T25M		IC635				
	P40					GC4230		GX2160		MM450	KCPK30	IC4050	TT7800	TN7535	WKP35	GM246
						GC4240				T350M	KCPM30	IC635				GM43+
						GC2040										
M	M10				ACM200	GC2015			JC730U		KCPM20	IC9250		TN7525		
												IC520M				
												IC9350				
	M20		T3225	F7030	ACM200	GC4230	CA6535		JC730U	MP250	KCMP20	IC9250	TN7800	TN7525		CTC523
										T350M	KCMP30	IC520M		TN7535		GM226+
										T25M	KC927M	IC9350				
												IC4050				
												IC635				
	M30		T3225	F7030	ACM200	GC2040	CA6535	GX2160	JC730U	MP250	KCPM30	IC9350		TN7525		CTC523
			T3130			GC4230				T350M		IC4050		TN7535		CTC524
						GC4240				T25M		IC635				GM226+
						S40T										GM246
																GM43+
	M40					GC2040	CA6535	GX2160		MM450		IC635		TN7535		CTC523
						GC4240				T350M						CTC524
						S40T										GM246
																GM43+
K	K01	BM3210		MC5020	ACK200		CA420M		JC605M		KC907M	IC8080		TN2510		CTC321
												IC4100		TN5505		
												IC5100				
												IC9150				
	K10	BM3210	T1215	MC5020	ACK200	GC3220	CA420M	GX2120	JC605W	MK150	KC907M	IC8080	TT6800	TN2510	WKP15	CTC321
			T1115						JC608X		KC914M	IC4100		TN5505	WKP25	SR216
									JC610		KC917M	IC5100		TN5515		SR226+
											KC924M	IC9150		TN5520		
											KCK15	IC9080				
												IC520M				
	K20	BM3230	T1215	MC5020	ACK200	GC3220	CA420M	GX2120	JC605W	MK150	KC917M	IC5100	TN6800	TN5515	WKP15	SR216
						GC3330		GX2140	JC608X	MP150	KC924M	IC9150		TN5520	WKP25	SR226+
						GC3040			JC610		KCK15	IC9080			WKP35	
						GC4220					KCPM20	IC520M			WKP35S	
						GC4230					KCPK30	IC4050				
											KC927M					
	K30	BM3230		MC5020		GC3330		GX2140	JC610	MK150	KCPM20	IC520M			WKP25	
						GC3040				MK150	CPK30	IC4050			WKP35	
						GC4220					KC927M				WKP35S	
						GC4230										
						GC4240										

铣削用PVD涂层材质
Milling PVD Grade

ISO									日立工具								
用途分类		CDBP	TUNGALOY	MiTSUBiSHi	SUMITOMO	SANDVIK	KYOCERA	HITACHI	Dijet	Seco Tools	Kennametal	ISCAR	TaeguTec	Widia	Walter	Ceratizit
P	P01		AH710			GC1010		ATH80D			KC505M	IC903	TT2510	TN2505		
			AH110					JP4105			KC510M		TT5505	TN6505		
											KC515M					
	P10		AH120	MP6120	ACP200	GC1010	PR830	ATH80D	JC8003		KC505M	IC903	TT2505	TN2505	WHH15	
		BM2220	AH725	VP15TF		GC1025	PR1225	PN08M	JC8015		KC510M	IC907	TT5505	TN2525	WXM15	
							PR1230	ATH10E	JC5015		KC515M	IC950	TT5515	TN6425		
							PR1525	PN15M	JC5118		KC610M	IC980	TT7080	TN6505		
								JP4105			KC715M	IC910				
								JP4115				IC380				
								JP4120				IC900				
	P20	BM2220	AH120	MP6120	APC200	GC1025	PR830	JP4120	JC8015	MP3000	KC522M	IC907	TT2510	TN2525	WHH15	CTP1235
			AH725	VP15TF	ACP300	GC1030	PR1225	JS4045	JC5015	F25M	KC525M	IC950	TT5505	TN6425	WXM15	CTP1625
		BM2220	AH3135	MP6130		GC2030	PR1230	CY250	JC5118		KC527M	IC908	TT5525	TN6430		
			AH9030	UP20M			PR1525		JC5040		KC530M	IC910	TT7080	TN6525		
				VP20RT							KC610M	IC380	TT9030			
											KC620M	IC900	TT9080			
											KC635M	IC830				
											KC715M	IC928				
											KC720M	IC1008				
											KC730M					
	P30	BM2230	AH120	MP6120	ACP200	GC1025	PR830	JS4045	JC5118	MP3000	KC525M	IC907	TT5525	TN6430	WSP45	CTP1235
			AH725	VP15TF	ACP300	GC1030	PR1225	CY250	JC5040	F25M		IC950	TT7080	TN6525	WSP46	CTP1625
			AH3135	MP6130		GC2030	PR1230	JM4160	JC8050	F30M		IC908	TT8020	TN6540		CTP2235
			AH130	UP20M			PR1525		JC7560	F40M		IC910	TT8080			
			AH6030	VP20RT								IC380	TT9030			
				VP30RT							KC620M	IC900	TT9080			
											KC720M	IC830				
											KC725M	IC928				
											KC730M	IC1008				
											KC735M					
	P40		AH140	VP30RT	ACP300	GC1030		JM4160	JC5118	MP3000	KC537M	IC830	IT8020	TN6540	WSP45	CTP1235
						GC2030			JC5040	F40M	KC720M	IC928			WSP46	CTP2235
									JC8050	F60M	KC725M	IC1008				
									JC7560		KC735M					
M	M01				ACM100	GC1010		PCS08M				IC907				
					ACK300							IC903				
	M10		AH725	VP15TF	ACM100	GC1010	PR830	PCS08M			KC515M	IC907	TT5525	TN6425	WXM15	
					ACK300	GC1025	PR1225	CY150			KC610M	IC903	TT9030	TN6525		
					ACP300	GC1030	PR1525				KC635M		TT9080			
						GC2030	PR1535				KC720M					
	M20	BM2220	AH725	VP15TF	ACM300	GC1025	PR830	CY150	JC8015	MP3000	KC522M	IC380	TT8020	TN6425	WXM15	CTP1235
			AH3135	MP7130	ACP300	GC1030	PR1225	CY250	JC5015	MS2050	KC525M	IC900	TT8080	TN6525	WSM35	CTP1625
		BM2220	AH130	MP7030		GC1040	PR1525		JC5118	F25M	KC530M	IC908			WSM36	
			AH6030	UP20M		GC2030	PR1535			F30M	KC610M	IC928				
				VP20RT							KC635M	IC1008				
											KC720M					
											KC730M					
	M30		AH3135	VP15TF	ACM300	GC1040	PR830	CY250	JC8015	MP3000	KC522M	IC380	TT8020	TN6540	WSM35	CTP1235
		BM2230	AH130	MP7130		GC2030	PR1225	JM4160	JC5015	MS2050	KC525M	IC900	TT8080		WSM36	CTP2235
				MP7030			PR1525		JC5118	F30M	KC530M	IC908			WSP45	
				UP20N			PR1535		JC8050	F40M	KC537M	IC928			WSP46	
				VP20RT					JC7560		KC725M	IC1008				
				MP7140							KC730M	IC328				
				VP30RT							KC735M	IC330				
	M40		AH140	MP7140	ACM300	GC1040	PR1225	JM4160	JC5015	MS2050	KC725M	IC1008	TT8020	TN6540	WSM35	CTP2235
				VP30RT			PR1525		JC5118	F40M		IC328			WSM36	
							PR1535		JC8050			IC330			WSP45	
									JC7560						WSP46	
K	K01		AH110	MP8010		GC1010	PR1510	ATH80D	JC78003			IC380	TT6080	TN2505		AMZ
								JP4105				IC900		TN6405		
														TN6505		
	K10		AH110	MP8010		GC1010	PR1210	ATH80D	JC8015	MK2050	KC514M	IC380	TT6080	TN2505	WHH15	AMZ

负型刀片
Negative Insert

ISO		邦普	泰珂洛	三菱	住友电工	山特维克	京瓷	三菱日立工具	戴杰	山高	肯纳	伊斯卡	特固特	威迪亚	瓦尔特	森拉天时
用途分类	代号	CDBP	TUNGALOY	MiTSUBiSHi	SUMITOMO	SANDVIK	KYOCERA		Dijet	Seco Tools	Kennametal	ISCAR	TaeguTec	Widia	Walter	Ceratizit
P	精密	S1	01	PK	FA	QF	DP	FE	PF		FS，LF					
	精切削	S2	TF	FH								SF，PP，T	FA			
	精切削 轻型切削	P1	TS，TSF	SA	SU	PF，QF	PQ，VF	BE，BH	UA，FT		FF，FN	F3P	FG	4	NF3	CF，TF
		P1	ZF	FY	FL	LC	CJ		UR，UT			NF，SF	VF，EA		NS6	
		M1	11，NS	C		MF	PQ，VF	AB，CT					FC			
		P1	AS	SH	SE，SX	R/L-K	GP，PP						MC	AP		
			TQ				HQ									
			NM	MP			GS									
			CB				CQ	CE					ML，MP			
			C													
	精切削 轻型切削 （修光刃）		AFW，FW		LUW	WL，WF	WP				FW	WF	WS	FW	NF	TFQ
			ASW，SW	SW	SEW	WMX	WQ				MW	WG	WT	MW	NM	TMQ
						WM，WR					RW					
					GUW											
	半精切削	PY3	TM，AM	MA	GUW	PM，QM	HS，PT，GT	AH	PG，UB		P	M3P，M3M	PC，MT	48	NMT，NM	TMF，TMM
		P3	DM，ZM	MH，MP	GE，UX	XM，XRM	CS，PS	AE，AY，B	GN		MN	PP，TF，G	MC，MG-			M50
			全周						GNP							
	半精强力切削	P6	TH	RP，GH	MU，ME	HM，PR	PH	RE	GG，UP		RN，RP	NR	RT	49	NM5	TM
			THS	HZ，HL	HG	MR	全周				MR	MR			NM9	TRM
	强力切削	RM	TU	HM，HX	HG，HP	PR，MR	PX	TE，UE	UC		RM	R3P	HT，HD		NR6	TRR，TR
		RX/RH	TRS		HU，HW	HR，QR		HX，HE			RH	NM	RX，RH		NRF	R28，R58
		RS	TUS	HV	HF			H					HY，HZ		NRR	R88
M	精切削 轻型切削	S2	SF，SA	GM，MS	EX，EG	MF，XF	GU	MP	SF		FP	TF，VL	EA，SF，SU		NF4	CF，F30
		M1	SS	SH，LM	SU，EF	LC，R/L-K	MQ	BH，AB					FG		NMS	F32，TF
	半精切削	M3	SM	MM，MA	GU	MM,QM	TK	PV，SE	SZ			M3M，PP	EM，ET		NM4	TMF，M42
		M3	S	ES	HM	XM，XRM	MU	DE			MP，P					M30，M52
	强力切削		TH，SH	GH，RM，HZ	EM，MU	MR	MS	AH，AE	SG		UP，RP	MR，MH			NR4	TM，M60
			TU			HM，PR								SR	NRT，NR	TRM,TMR,TR
																R80
K	精切削		CF	LK，MA	UZ	KF，XF	C	Y，AH			FN	GN	FG			CF
	半精切削		CM	MK	GZ	KM，QM	ZS	V，VE	PG		RP，UN		MT		NM5	M50
		K3	全周	GK		XM，XRM	全周	VA					MG			
	强力切削	K6	GH	PK		KR	GC	RE	GG，UD		无断屑槽		RT		无断屑槽	TMR，TR
		无断屑槽	无断屑槽	无断屑槽	无断屑槽	无断屑槽	无断屑槽	无断屑槽	无断屑槽							
			无断屑槽													R28
																R58，R88
N	非铁金属切削	N1	P		AX	MF	AH，A3	无断屑槽			MS，MP	PP	ML			F32
		N2				QM					MG					
S	精切削	S1	HRF	FJ，LS	EF	SF	MQ				FS，LS		SF		NFT	
		S2			EX，EG	01					MS				NF4	
	半精切削	S3	HRM	MS	EG	MM，QM	TK，MS，MU				UP，P，N	PP	SU	SM	NMS	M34，M52
		S3	HMM		MU	SMR					RP					
			SA	RS，GJ											NM4	

正型刀片
Positive Insert

ISO		邦普	泰珂洛	三菱	住友电工	山特维克	京瓷	三菱日立工具	戴杰	山高	肯纳	伊斯卡	特固特	威迪亚	瓦尔特	森拉天时
用途分类	代号	CDBP	TUNGALOY	MITSUBISHI	SUMITOMO	SANDVIK	KYOCERA		DIJET	SECO TOOLS	KENNAMETAL	ISCAR	TAEGUTEC	WIDIA	WALTER	CERATIZIT
P	精密	S1	01	FV，SMG	FC，FW		CF	无代号			UF	SF		2	PF2	F32
	精切削						CK	MP								
	精切削 轻型切削	S2	PSF，PF，SS	FP，FV，SV	FP，FZ，LU	R/L-K	CQ，GK	JQ	FT		L1，GM	PF	FA	41	PF5	SF
		P1	PS，PSS，TS	LP	FK，SS，SC	PF，XF	GP，HQ				LF	SM,14,17	FG		PF4	SMF
					SU，SK，SF	UF，PM	XP，XQ					19，XL			PS5	
					US											
			TSW	SW，MW	LUW，SDW	WF,WK,WM						R/L	GF		PF，PM	SMQ，25Q
			W08~20	R/L，R/L-FD	W，SD							RF，LF				
				R/L-FS	FX，FY											
				R/L-MV												
												无代号				
				R/L-F，R/L-L												
	半精切削	P3	PM	MP	SU，MU	PM，XM	全周	JE			GM，MP，MR	DT，HD	MT		PM5	SM
						UM，PR，XR										
			23	MV	UJ	UR	VF，MF									
			24	无代号	SC											
					GI级刀片除											
			全周													
			RS										MT			
		P6			RP				GG					43		
	大进给小切深切削		61	无代号		无标记						无代号	无代号	无代号		
								WE				14				
M	精切削	S1	PSF，SS	FM，FV，SV	FC	R/L-K		MP			GM，LF		FG	41		
		S2				UF，MF		MP								
	精切削 -半精切削	M1	PSS	LM		MM，XMM	MQ	JQ			MF				PF4	SF，SMF
		M3	PS	SV		UM		JQ								
	半精切削	M3	PM	MM，MV	MU	MR，XR		JE							PM5	F23，F43
						UR										SM
K	铸铁切削	K1	CM	MK		KF，XF						19	MT		PS5，PM5	SF
		K3	无断屑槽	无断屑槽	无断屑槽	KM，XM	无断屑槽	JQ，JE	无断屑槽		无断屑槽		无断屑槽		无断屑槽	25P
		K6				UM，KR，XR										27，29
N	非铁金属切削	N1	AL	AZ	AG	AL	AH，A3				GT-HP	AS	FL	AL1	PF2	23P
		N3	APP		AX，AY									AL2，AL3	PM2	25P
		N2														27，29
			导向型	R/L-F												
				R/L												
S	精切削	S1	PSF	FJ	FC	MF,UF,R/L-K	MQ									SF
	精切削 半精切削	S1/S2	PSS		FX，FY	MM，XM										
			PS													F23
	半精切削	S1	全周		S1	UM,MR,UR，							FG		PF2，PF4	SM，25P，2
P	小型车床用															
		R/L-S1	01	R/L-SR	W，SD	F，M	R/L-F，R/L-	无代号	MF，MM				GF，GW		PM5	
		S2	W08，W15	R/L-SN			ER/L-U									
		S1	J10	R/L-SS			FR/L-U		ALU,MML							
M				FS，F	FX，FY		R/L-U									
							FR/L-									
		S2	JRP,JSP,JPP													
		S2	TS，JTS				MF,R/L-FSF									
			TSW													
N		N1	SS，JSS	SW，MW	LUW，SDU											
					LU,FP,FK,SU											
S		S1	JS		FB，LB											
					FC，SI.SC		GK									
				SMG			E-GK									

Cutmin

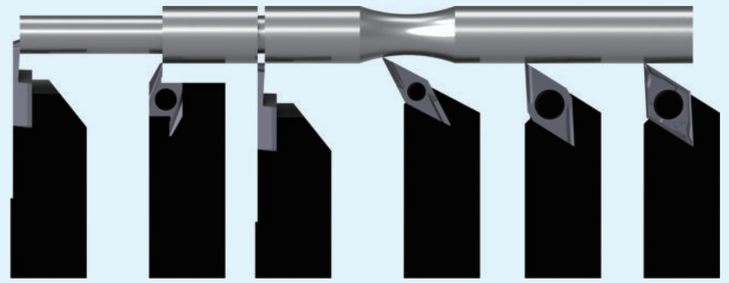
CHENGDU **BANGPU**
CUTTING TOOLS

NEW

INSERT SERIES FOR
MACHINING MINI PARTS

FOUR EXCLUSIVE ADVANTAGES





01 EXCLUSIVE ADVANTAGE

The latest substrate material and coating technology, reduce tool replacement caused by tool breakage and abnormal wear. Combined with high-precision interchangeable tool heads, efficiency can be further improved.

02 EXCLUSIVE ADVANTAGE

Further optimized the chip breaker and adopted a special surface treatment process to make the iron chips more easily curled and broken for smooth evacuation.

03 EXCLUSIVE ADVANTAGE

The world's top grinding equipment and technical reserves, with core personnel of over 10 years experiences as technical experts, possess rich theoretical knowledge and practical experience in high-precision anodized blades, combined with a strict quality control system to ensure product excellence.

04 EXCLUSIVE ADVANTAGE

The substrate, coating, chip breaker, and surface treatment process which are targeted to develop not only effectively solve the problems of service life, chip breaking, and accuracy, but also solve problems such as friction, adhesion, and vibration, thereby further improving the surface smoothness of the workpiece.



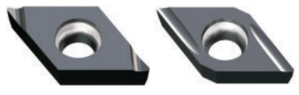
GROOVING AND CUT-OFF SERIES

- Sharp edge design
- High precision grinding
- High-precision machining



FINISH GROOVING SERIES

- Sharp cutting edge
- Fine grinding and grooving
- Smooth chip evacuation



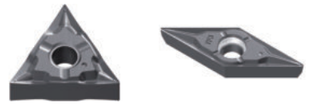
BACK TURNING SERIES

- Back turning
- Inserts in radial arrangements
- Smooth chip evacuation

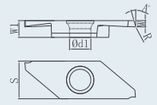
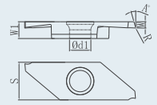


3D MOLDED CHIPBREAKER SERIES

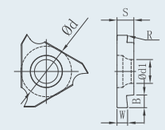
- Sharp edge design
- Unique chip breaker design
- Suitable for turning with small cutting depth



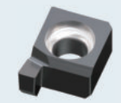
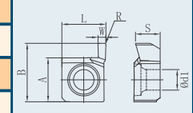
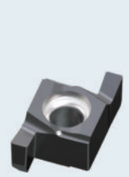
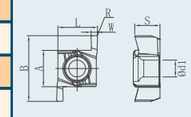
GROOVING AND CUT-OFF SERIES

Insert shape	Specification	Grade	Size						Geometry
		BPG05E BPG20E	W	W1	S	d1	A	R	
	TKF12R/L150-S	★	1.50	3.00	8.70	5.00	0°	0.05	
	TKF12R/L200-S	★	2.00	3.00	8.70	5.00	0°	0.05	
	TKF16R/L150-S	★	1.50	4.00	9.50	5.00	0°	0.05	
	TKF16R/L200-S	★	2.00	4.00	9.50	5.00	0°	0.05	
	TKF12R/L150-S-16DR	★	1.50	3.00	8.70	5.00	16°	0.05	
	TKF12R/L200-S-16DR	★	2.00	3.00	8.70	5.00	16°	0.05	
	TKF16R/L150-S-16DR	★	1.50	4.00	9.50	5.00	16°	0.05	
	TKF16R/L200-S-16DR	★	2.00	4.00	9.50	5.00	16°	0.05	

◎ The grooving and cut off series can be customized with different grooving width.

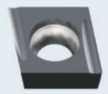
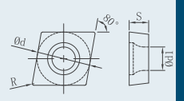
Insert shape	Specification	Grade	Size						Geometry
		BPG05E BPG20E	D	S	d1	B	W	R	
	TGF32R/L-100-010	★	9.525	3.18	4.40	2.00	1.00	0.10	
	TGF32R/L-200-010	★	9.525	3.18	4.40	2.00	2.00	0.10	
	TGF43R/L-100-010	★	12.70	4.76	5.50	4.00	1.00	0.10	
	TGF43R/L-200-010	★	12.70	4.76	5.50	4.00	2.00	0.10	
	TGF53R/L-100-010	★	15.875	6.35	5.50	6.00	1.00	0.10	
	TGF53R/L-200-010	★	15.875	6.35	5.50	6.00	2.00	0.10	

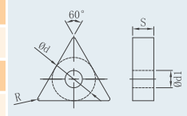
◎ The grooving and cut off series can be customized with different grooving width.

Insert shape	Specification	Grade	Size							Geometry
		BPG05E BPG20E	A	B	L	S	d1	W	R	
	ZGF7R100	★	5.56	7.36	5.56	3.08	2.58	1.00	0.20	
	ZGF7R150	★	5.56	7.36	5.56	3.08	2.58	1.50	0.20	
	ZGF7R200	★	5.56	7.36	5.56	3.08	2.58	2.00	0.20	
	ZGF7R250	★	5.56	7.36	5.56	3.08	2.58	2.50	0.20	
	ZGF8R100	★	5.56	10.16	6.15	3.87	2.58	1.00	0.20	
	ZGF8R150	★	5.56	10.16	6.15	3.87	2.58	1.50	0.20	
	ZGF8R200	★	5.56	10.16	6.15	3.87	2.58	2.00	0.20	
	ZGF8R250	★	5.56	10.16	6.15	3.87	2.58	2.50	0.20	
	ZGF9R100	★	6.35	12.95	7.74	4.66	2.86	1.00	0.20	
	ZGF9R150	★	6.35	12.95	7.74	4.66	2.86	1.50	0.20	
	ZGF9R200	★	6.35	12.95	7.74	4.66	2.86	2.00	0.20	
	ZGF9R250	★	6.35	12.95	7.74	4.66	2.86	2.50	0.20	

◎ The grooving and cut off series can be customized with different grooving width.

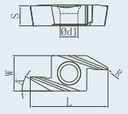
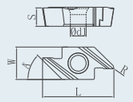
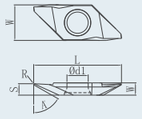
FINISH GROOVING SERIES

Insert shape	Specification	Grade	Size				Geometry
		BPG05E BPG20E	d	S	d1	R	
	CCGT09T301FR-U	★	9.525	3.97	4.40	0.10	
	CCGT09T301FL-U	★	9.525	3.97	4.40	0.10	
	CCGT09T302FR-U	★	9.525	3.97	4.40	0.20	
	CCGT09T302FL-U	★	9.525	3.97	4.40	0.20	
	DCGT070201ER-U	★	6.35	2.38	2.80	0.10	
	DCGT070201EL-U	★	6.35	2.38	2.80	0.10	
	DCGT070202ER-U	★	6.35	2.38	2.80	0.20	
	DCGT070202EL-U	★	6.35	2.38	2.80	0.20	
	DCGT11T301ER-U	★	9.525	3.97	4.40	0.10	
	DCGT11T301EL-U	★	9.525	3.97	4.40	0.10	
	DCGT11T302ER-U	★	9.525	3.97	4.40	0.20	
	DCGT11T302EL-U	★	9.525	3.97	4.40	0.20	
	DCGT11T304ER-U	★	9.525	3.97	4.40	0.40	
	DCGT11T304EL-U	★	9.525	3.97	4.40	0.40	
	DCGT070201R-F	★	6.35	2.38	2.80	0.10	
	DCGT070201L-F	★	6.35	2.38	2.80	0.10	
	DCGT070202R-F	★	6.35	2.38	2.80	0.20	
	DCGT070202L-F	★	6.35	2.38	2.80	0.20	
	DCGT11T301R-F	★	9.525	3.97	4.40	0.10	
	DCGT11T301L-F	★	9.525	3.97	4.40	0.10	
	DCGT11T302R-F	★	9.525	3.97	4.40	0.20	
	DCGT11T302L-F	★	9.525	3.97	4.40	0.20	

Insert shape	Specification	Grade	Size				Geometry
		BPG05E BPG20E	d	S	d1	R	
	VBGT110301L-F	★	6.35	3.18	2.80	0.10	
	VBGT110301R-F	★	6.35	3.18	2.80	0.10	
	VBGT110302L-F	★	6.35	3.18	2.80	0.20	
	VBGT110302R-F	★	6.35	3.18	2.80	0.20	
	VBGT110304L-F	★	6.35	3.18	2.80	0.40	
	VBGT110304R-F	★	6.35	3.18	2.80	0.40	
	VPGT110301R-F	★	6.35	3.18	2.80	0.10	
	VPGT110301L-F	★	6.35	3.18	2.80	0.10	
	VPGT110302R-F	★	6.35	3.18	2.80	0.20	
	VPGT110302L-F	★	6.35	3.18	2.80	0.20	
	VBGT160402R-Y	★	6.35	3.18	2.80	0.20	
	VBGT160402L-Y	★	6.35	3.18	2.80	0.20	
	VBGT160404R-Y	★	6.35	3.18	2.80	0.40	
	VBGT160404L-Y	★	6.35	3.18	2.80	0.40	
	TNGG160402R-S	★	9.525	4.76	3.81	0.20	
	TNGG160402L-S	★	9.525	4.76	3.81	0.20	
	TNGG160404R-S	★	9.525	4.76	3.81	0.40	
	TNGG160404L-S	★	9.525	4.76	3.81	0.40	

BACK TURNING SERIES

背车系列

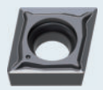
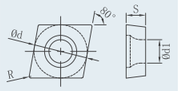
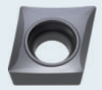
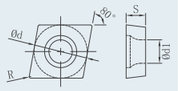
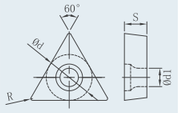
Insert shape	Specification	Grade	Size						Geometry
		BPG05E BPG20E	L	W	S	d1	a	R	
	ABW15R4005	★	15.40	7.00	3.97	3.40	45°	0.05	
	ABW15R4015	★	15.40	7.00	3.97	3.40	45°	0.15	
	ABS15R4005	★	15.40	7.00	3.97	3.40	30°	0.05	
	ABS15R4015	★	15.40	7.00	3.97	3.40	30°	0.15	
	TKB12R15005	★	21.40	8.70	1.50	5.20	60°	0.05	
	TKB12R28005	★	21.40	8.70	2.80	5.20	60°	0.05	
	TKB12R28010	★	21.40	8.70	2.80	5.20	60°	0.10	
	TKB16R38005	★	26.50	9.50	3.80	5.20	60°	0.05	
	TKB16R38010	★	26.50	9.50	3.80	5.20	60°	0.10	

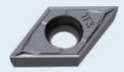
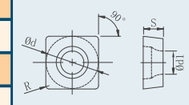




3D MOLDED CHIPBREAKER SERIES

三维断屑槽系列

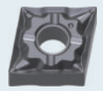
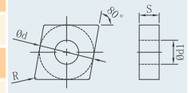
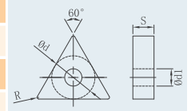
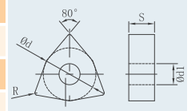
Insert shape	Specification	Grade	Size				Geometry
		BPG05E BPG20E	d	S	d1	R	
	CCGT060201E-TF3	★	6.35	2.38	2.80	0.10	
	CCGT060202E-TF3	★	6.35	2.38	2.80	0.20	
	CCGT060204E-TF3	★	6.35	2.38	2.80	0.40	
	CCGT09T301E-TF3	★	9.525	3.97	4.40	0.10	
	CCGT09T302E-TF3	★	9.525	3.97	4.40	0.20	
	CCGT09T304E-TF3	★	9.525	3.97	4.40	0.40	
	CCGT060201-SL	★	6.35	2.38	2.80	0.10	
	CCGT060202-SL	★	6.35	2.38	2.80	0.20	
	CCGT060204-SL	★	6.35	2.38	2.80	0.40	
	CCGT09T301-SL	★	9.525	3.97	4.40	0.10	
	CCGT09T302-SL	★	9.525	3.97	4.40	0.20	
	CCGT09T304-SL	★	9.525	3.97	4.40	0.40	
	CCGT09T308-SL	★	9.525	3.97	4.40	0.80	
	CCGT120402-SL	★	12.70	3.97	5.50	0.20	
	CCGT120404-SL	★	12.70	3.97	5.50	0.40	
	CCGT120408-SL	★	12.70	3.97	5.50	0.80	
	TBGT060101-SL	★	3.97	1.59	2.16	0.20	
	TBGT060104-SL	★	3.97	1.59	2.16	0.40	
	TCGT090202-SL	★	5.56	2.38	2.50	0.20	
	TCGT090204-SL	★	5.56	2.38	2.50	0.40	
	TCGT110202-SL	★	6.35	2.38	2.80	0.20	
	TCGT110204-SL	★	6.35	2.38	2.80	0.40	
	TCGT110208-SL	★	6.35	2.38	2.80	0.80	
	TCGT16T304-SL	★	9.525	3.97	4.40	0.40	

Insert shape	Specification	Grade	Size				Geometry
		BPG05E BPG20E	d	S	d1	R	
	DCGT070201E-TF3	★	6.35	2.38	2.80	0.10	
	DCGT070202E-TF3	★	6.35	2.38	2.80	0.20	
	DCGT11T301E-TF3	★	9.525	3.97	4.40	0.10	
	DCGT11T302E-TF3	★	9.525	3.97	4.40	0.20	
	DCGT11T304E-TF3	★	9.525	3.97	4.40	0.40	
	DCGT070201-SL	★	6.35	2.38	2.80	0.10	
	DCGT070202-SL	★	6.35	2.38	2.80	0.20	
	DCGT070204-SL	★	6.35	2.38	2.80	0.40	
	DCGT11T301-SL	★	9.525	3.97	4.40	0.10	
	DCGT11T302-SL	★	9.525	3.97	4.40	0.20	
	DCGT11T304-SL	★	9.525	3.97	4.40	0.40	
	DCGT11T308-SL	★	9.525	3.97	4.40	0.80	
	SCGT120404-SL	★	12.70	4.76	5.50	0.40	
	SCGT120408-SL	★	12.70	4.76	5.50	0.80	

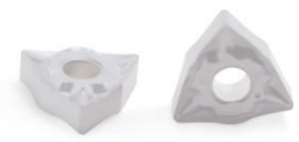
3D MOLDED CHIPBREAKER SERIES

三维断屑槽系列

Insert shape	Specification	Grade	Size				Geometry
		BPG05E BPG20E	d	S	d1	R	
	VBGT160404E-TF3	★	9.525	4.76	4.40	0.40	
	VBGT160408E-TF3	★	9.525	4.76	4.40	0.80	
	VCGT080202E-TF3	★	4.76	2.38	2.30	0.20	
	VCGT080204E-TF3	★	4.76	2.38	2.30	0.40	
	VCGT110302E-TF3	★	6.35	3.18	2.80	0.20	
	VCGT110304E-TF3	★	6.35	3.18	2.80	0.40	
	VCGT160402E-TF3	★	9.525	4.76	4.40	0.20	
	VCGT160404E-TF3	★	9.525	4.76	4.40	0.40	
	VBGT110301-SL	★	6.35	3.18	2.80	0.10	
	VBGT110302-SL	★	6.35	3.18	2.80	0.20	
	VBGT110304-SL	★	6.35	3.18	2.80	0.40	
	VBGT160402-SL	★	9.525	4.76	4.40	0.20	
	VBGT160404-SL	★	9.525	4.76	4.40	0.40	
	VBGT160408-SL	★	9.525	4.76	4.40	0.80	
	VCGT080201-SL	★	4.76	2.38	2.30	0.10	
	VCGT080202-SL	★	4.76	2.38	2.30	0.20	
	VCGT080204-SL	★	4.76	2.38	2.30	0.40	
	VCGT110301-SL	★	6.35	3.18	2.80	0.10	
	VCGT110302-SL	★	6.35	3.18	2.80	0.20	
	VCGT110304-SL	★	6.35	3.18	2.80	0.40	
	VCGT110308-SL	★	6.35	3.18	2.80	0.80	
	VCGT160402-SL	★	9.525	4.76	4.40	0.20	
	VCGT160404-SL	★	9.525	4.76	4.40	0.40	
	VCGT160408-SL	★	9.525	4.76	4.40	0.80	

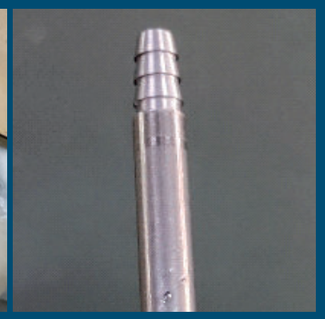
Insert shape	Specification	Grade	Size				Geometry
		BPG05E BPG20E	d	S	d1	R	
	CNGG120404E-TF3	★	12.70	4.76	5.16	0.40	
	CNGG120408E-TF3	★	12.70	4.76	5.16	0.80	
	TNGG160402E-TF3	★	9.525	4.76	3.81	0.20	
	TNGG160404E-TF3	★	9.525	4.76	3.81	0.40	
	TNGG160408E-TF3	★	9.525	4.76	3.81	0.80	
	WNGG080404E-TF3	★	12.70	4.76	5.16	0.40	
	WNGG080408E-TF3	★	12.70	4.76	5.16	0.80	

CHENGDU **BANGPU**
CUTTING TOOLS



APPLICATION CASE





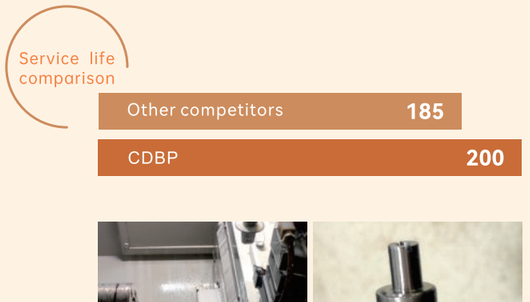
Workpiece material	S15C
Cutting speed	Vc=100m/min
Feed rate	fn=0.1-0.3mm/r
Depth of cut	Ap=0.1-0.3mm
Inserts applied	ABS15R4015 The service life is 20% higher than other competitors

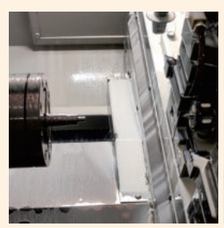




APPLICATION CASE

Workpiece material	SCM43
Cutting speed	Vc=110m/min
Feed rate	fn=0.05mm/r
Depth of cut	Ap=0.1-0.3mm
Inserts applied	DCGT11T302E-TF3 The service lift is equivalent to other competitors






PUCOAT

CHENGDU **BANGPU**
CUTTING TOOLS

Bangpu High nitrogen and high performance

2023 NEW CERMET CATALOG

REASONS TO CHOOSE CERMET CUTTING TOOL

CERMET MATERIAL ADVANTAGES

- The machined surface has a good finish, realizing the replacement of grinding by turning and milling.
- In finishing machining and semi-finishing machining with better working conditions, it has a very good life performance and high oxidation resistance, especially suitable for dry cutting.
- Good chemical stability, effectively preventing the formation of built-up edge.
- Good red hardness at high temperature, can realize dry high-speed cutting.
- Low density, more cost competitive.
- Resource considerations: cermet uses less strategic reserve resources - tungsten and cobalt resources.

Application Direction

- Turning Insert
- Boring Insert
- Threading Insert
- Milling Insert
- Grooving Insert
- Solid Reamer Tool
- Solid Carbide Small Boring Tools

Cermet Materials / Processed Materials

Steel: mainly for carbon steel and alloy steel materials whose hardness does not exceed HRC45, and semi-finishing under stable working conditions.

Aluminum alloy: Turning, milling finishing, semi-finishing. However, cermet tools are not recommended for high-silicon aluminum alloys with Si content greater than 8%.

Stainless steel: finish machining of ferritic, martensitic and austenitic stainless steel with cutting depth less than 0.3mm, processing of duplex stainless steel is not recommended.

Pure iron: metallic material for electromagnetic components.

Cast iron: gray cast iron, malleable cast iron finishing can be processed.

Cermet Materials / Points of Special Concern

1. Cermet materials are prone to micro-cracks after electric discharge machining, and must be properly ground before use to achieve the best use effect.

2. The thermal shock resistance of cermet materials is poor. During the welding operation, the welded tool must be heat-insulated, otherwise it is prone to desoldering, cracks, etc.

3. The processing formability of cermet materials is worse than that of cemented carbide. During tool grinding, the grinding efficiency must be reduced and sufficient cooling must be ensured. Otherwise, micro-cracks, surface burns and other defects will easily appear, which will seriously affect the use.

4. Cermet materials can withstand dry cutting in cutting applications, or wet cutting with adequate cooling throughout. Avoid insufficient cooling or large thermal shock during the cutting process, otherwise the tool will be easily damaged.

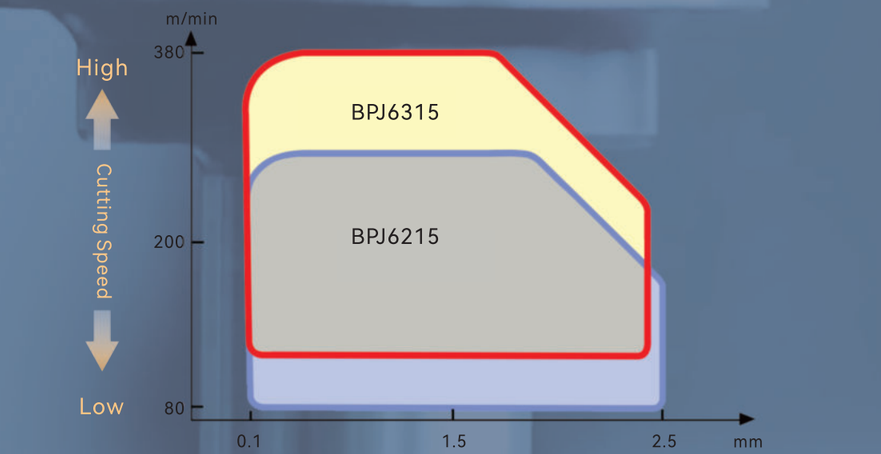
5. The post-processing of cermet is very difficult. Especially in the production of complex shape tools, this problem is more prominent.

TOUCH A STONE AND TURN IT INTO GOLD

BangPu 2023 New Cermet Series Cutting Tools

ChengDu BangPu is one of the earliest manufacturer of cermet cutting tools in China. After ten years hard working, in 2023, BangPu cermet series inserts – tough PUCOAT newly debut. With the full dimensional breakthrough of technology, process, production capacity, research and development, Bangpu had created a new model of the whole industrial chain system and achieved a comprehensive upgrade of the competitiveness of China's cermet tools.

Grade	Equivalent to ISO	Main Component	Density (g/cm3)	Hardness (HRA)	Bending Strength (Mpa)	Application Range
BPJ6215	P05-P15/ M01-M10 N05-N20	Ti(C,N)+Mo.C	6.8	92.7	1680	1. The combination of high wear resistance and high toughness grade, to ensure the stability of complex working conditions. 2. High nitrogen particle composition, to ensure a good finish of the machined surface and achieve perfect cutting. 3. Special surface treatment technology, to reduce the production of cutting tumors. 4. High heat-resistant impact grade can adapt to dry cutting.
BPJ6315	P05-P15/ M01-M10	Ti(C,N)+TaC +Mo.C	6.9	92.5	1800	Coated Grade: 1, the special treatment technology can ensure the perfect combination of coating and matrix. 2. High wear-resistant coating components ensure good surface quality from low to high speed cutting conditions, and also greatly improving wear resistance.



BPJ6215—— Excellent Performance

The combination of high wear resistance and high toughness ensures the stability of complex working conditions.
The high nitrogen particle composition ensures a good finish of the machined surface and achieves perfect cutting.
Special surface treatment technology to reduce the production of cutting nodules.
High heat and impact-resistant grade suitable for dry cutting.

BPJ6315—— Coated Cermet Grade

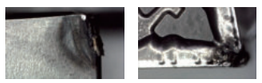
Special management technology can ensure the perfect combination of coating and substrate.
High wear-resistant coating components ensure good surface quality from low to high speed cutting conditions, and also greatly improving wear resistance.

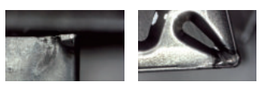
PROCESSING COMPARISON

A new cermet technology
With high nitrogen particulate composition
That make cermet inserts with high toughness and high wear resistance.

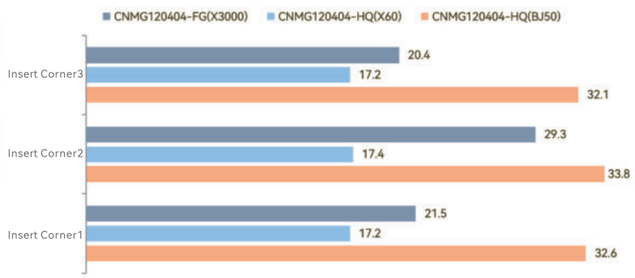
Due to its amazing toughness and wear resistance,
BPJ6215 provides a stable performance for cermet inserts.

42CrMo (HB270~300)	Continuous Wet Turning				
	Vc=280m/min，f=0.2mm/rev，ap=1.3mm				
	Insert Corner1	Insert Corner2	Insert Corner3	Meanlife	Volatility
CNMG120404-HQ(BPJ6215)	32.6min	33.8min	32.1min	32.8min	0.51
CNMG120404-HQ(X60)	17.2min	17.4min	17.2min	17.3min	0.01
CNMG120404-FG(X3000)	21.5min	29.3min	20.4min	23.7min	15.70









BPJ6215 Wear Picture

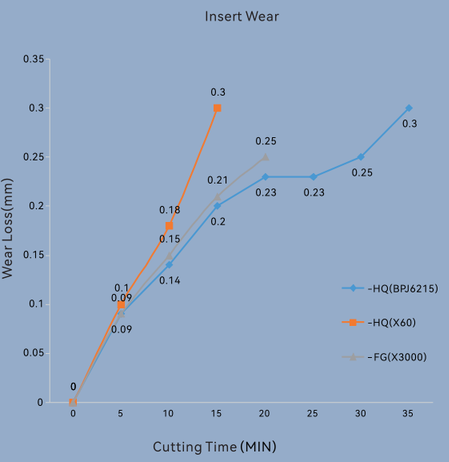


X60 Wear Picture



X3000 Wear Picture

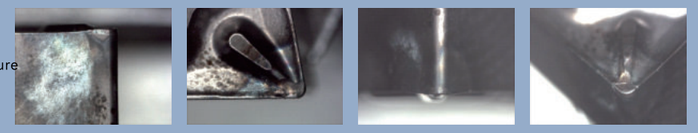




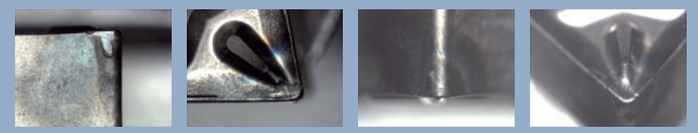
Heat and Wear Resistance Test

Material	Cutting Speed(Vc)	Feed(F)	Cooling Type
42CrMo(HB173-195)	480m/min	0.2mm/rev	Dry Cutting

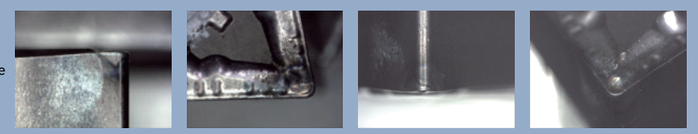
BPJ6215 Wear Picture



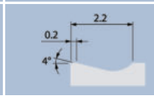
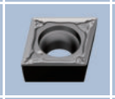
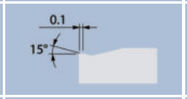
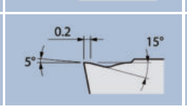
X60 Wear Picture



X3000 Wear Picture

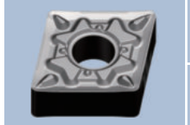
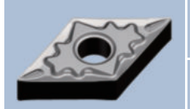
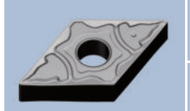
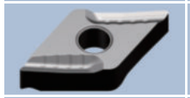


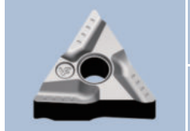
THREE MAJOR APPLICATION RANGES

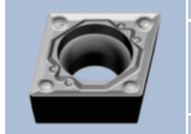
Application	Chipbreaker	Shape		Features
Semi-finishing	MT			General rake angle for semi-finishing of steel, stainless, and cast iron.
	FS			Big rake angle can obviously reduce cutting resistance and it's special shape can suppress boundary wear in a large extent.
	VF			The large rake angle is suitable for processing slender workpieces, steel, and stainless steel, which can reduce cutting force and vibration.
	C			General processing, commonly used for ordinary cutting with feed ranging from 0.2 to 0.35mm/rev.
Finishing-Semi-finishing	TS			Under complex processing conditions, it can effectively control chips and achieve high-quality surface quality, especially in the processing of slender shaft parts, it can effectively control chips and get excellent performance.
	PS			In the field of semi-finishing and finishing machining, both 3D groove design and low cutting force design can effectively control cutting chips. In addition, low-cost M-grade regular inserts are also widely used for high-efficiency boring.
	HQ (Negative)			By incorporating 3D rake angles and double bumps in the design, excellent sharpness can be achieved.
	HQ (Postive)			General chipbreaker for finishing and semi-finishing
Finishing	S			The sharp tool tip greatly reduces cutting resistance and helps to produce a good cutting surface. At the same time, it can control the direction of the chips, making the chips more smoothly discharged.
	U			Even under low feed conditions, even if the cutting depth changes, low resistance machining can be achieved by controlling the chips.
	Y			A good sharpness of cutting tools and surface quality can be obtained.

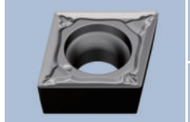
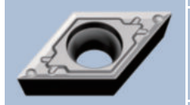
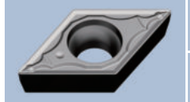
Application	Chipbreaker	Grade	Cutting speed Vc(m/min)			Depth of axial cutting ap(mm)	Feed speed f(mm/r)
			Medium carbon steel Alloy steel				
			HB180	HB240	HB300		
Semi-finishing	MT	BPJ6215	150-250	80-220	80-180	1.0-2.5	0.12-0.40
		BPJ6315	150-380	80-280	80-200		
	FS	BPJ6215	150-250	80-220	80-180	0.7-2.5	0.15-0.35
		BPJ6315	150-380	80-280	80-200		
	VF	BPJ6215	150-250	80-220	80-180	0.7-2.5	0.10-0.30
		BPJ6315	150-380	80-280	80-200		
	C	BPJ6215	150-250	80-220	80-180	1.0-2.0	0.20-0.35
		BPJ6315	150-380	80-280	80-200		
Finishing-Semi-finishing	TS	BPJ6215	150-250	80-220	80-180	0.5-2.5	0.10-0.30
		BPJ6315	150-380	80-280	80-200		
	PS	BPJ6215	150-250	80-220	80-180	0.5-2.5	0.10-0.30
		BPJ6315	150-380	80-280	80-200		
	HQ (Negative)	BPJ6215	150-250	80-220	80-180	0.5-2.0	0.12-0.30
		BPJ6315	150-380	80-280	80-200		
	HQ (Postive)	BPJ6215	150-250	80-220	80-180	0.5-2.0	0.12-0.25
		BPJ6315	150-380	80-280	80-200		
Finishing	S	BPJ6215	150-250	80-220	80-180	0.2-0.8	0.08-0.20
	U	BPJ6215	150-250	80-220	80-180	0.5-1.0	0.02-0..08
	Y	BPJ6215	150-250	80-220	80-180	0.5-1.0	0.02-0..08

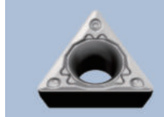
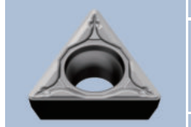
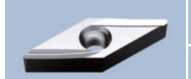
PRODUCT DETAILS

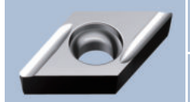
Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	CNMG	120404-HQ	★	★
	CNMG	120408-HQ	★	★
	DNMG	150404-HQ	★	★
	DNMG	150408-HQ	★	★
	DNMG	150404-TS	★	★
	DNMG	150408-TS	★	★
	DNMG	150404R-VF	★	★
	TNMG	160404-HQ	★	★
	TNMG	160408-HQ	★	★
	TNMG	160404R-C	★	★
	TNMG	160408R-C	★	★

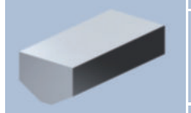
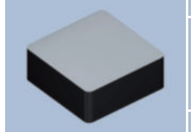
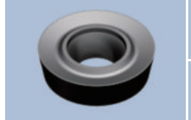
Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	TNMG	160404-TS	★	★
	TNMG	160408-TS	★	★
	TNMG	160404L-FS	★	★
	TNMG	160404R-FS	★	★
	TNMG	160408L-FS	★	★
	TNMG	160408R-FS	★	★
	TNMG	160404L-VF	★	★
	TNMG	160404R-VF	★	★
	TNMG	160408L-VF	★	★
	TNMG	160408R-VF	★	★
	VNMG	160404-HQ	★	★
	VNMG	160408-HQ	★	★

Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	VNMG	160404-TS	★	★
	VNMG	160408-TS	★	★
	VNMG	160404-MT	★	★
	WNMG	080404-HQ	★	★
	WNMG	080408-HQ	★	★
	WNMG	080404-TS	★	★
	WNMG	080408-TS	★	★
	WNMG	080404-MT	★	★
	WNMG	080408-MT	★	★
	CCMT	060202-HQ	★	★
	CCMT	060204-HQ	★	★
	CCMT	09T304-HQ	★	★

Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	CCMT	060204-PS	★	★
	CCMT	09T304-PS	★	★
	DCMT	070202-HQ	★	★
	DCMT	11T302-HQ	★	★
	DCMT	070204-PS	★	★
	DCMT	11T304-PS	★	★
	TCMT	090204-HQ	★	★
	TCMT	110204-HQ	★	★
	TCMT	16T304-HQ	★	★
	TCMT	110204-PS	★	★

Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	TPMT	090204-HQ	★	★
	TPMT	110304-HQ	★	★
	TPMT	090204-PS	★	★
	TPMT	110204-PS	★	★
	TPMT	16T304-PS	★	★
	VBMT	110304-HQ	★	★
	VBMT	160404-HQ	★	★
	TNGG	160404R-C	★	★
	TNGG	160408R-C	★	★
	TNGG	160402R-S	★	★
	TNGG	160404R-S	★	★
	VBGT	110302R-Y	★	★
	VBGT	110304R-Y	★	★

Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	CCGT	060202L-U	★	★
	CCGT	060204L-U	★	★
	CCGT	09T302L-U	★	★
	CCGT	09T304L-U	★	★
	DCGT	070202L-U	★	★
	DCGT	070204L-U	★	★
	DCGT	11T302L-U	★	★
	DCGT	11T304L-U	★	★
	TPGH	080202(P)	★	
	TPGH	090202(P)	★	
	TPGH	110202(P)	★	
	TPGH	110302(P)	★	
	TPGH	160302(P)	★	

Insert	Specification		Uncoated grade	Coated
			BPJ6215	BPJ6315
	V8×20×6(120°)		★	
	V8×20×7(90°)		★	
	V12×25×8(120°)		★	
	V15×25×9(120°)		★	
	V20×30×10(120°)		★	
	SNMN	090304	★	
	SNMN	120404	★	
	SNMN	150404	★	
	TNMN	160304	★	
	TNMN	220408	★	
	TNMN	270412	★	
	RPGT	1203-BB	★	
	RPGT	1604-BB	★	
	SEEN	1203AFTN	★	

PROCESSING CASE



Application case	
Workpiece material	718H
Workpiece Diameter	Profile milling
Competitor’s insert	SEEN1203 NS740
Insert type comparison	SEEN1203
Coating grade	BPJ6215
Cutting depth	0.8 mm
Feed rate	300mm/min
Cutting speed	370 r/min
Cutter diameter	250mm
Processing type	Dry cutting
Tool life	Surface finish is similar, longer lifespan, each cutting edge tip can be used after 6 hours processing.

PROCESSING CASE





Application case	Power tool shaft
Workpiece material	42CrMo
Workpiece Diameter	14mm
Insert type	TNMG160404R-C
Grade	BPJ6215
Cutting depth	1.25-1.5mm
Feed	0.2-0.25mm/r
Cutting speed	65m/min
Processing type	Dry cutting
The product has a slight oxide-scale	
Lifespan of each edge	3000pcs
Competitor’s lifespan	2800pcs

PROCESSING CASE





Application case:	Gear blank
Workpiece material:	40Cr（forging）
Workpiece Diameter:	58mm
Insert type:	TNMG160404-TS
Grade:	BPJ6215
Cutting depth:	0.2mm
Processing part:	End face、External
Feed:	0.12-0.15mm/r
Cutting speed:	320m/min
Processing type:	Dry cutting
	Has a slight oxide-scale
Lifespan of each edge:	2800pcs
Competitor’s lifespan:	2600pcs

PROCESSING CASE



Application case:

Workpiece material:	35#steel
Workpiece Diameter:	Internal processing Ø12.5-Ø18
Currently used insert:	CCMT060204-PS
Our Insert type:	CCMT060204-HQ
Grade:	BPJ6215
Cutting depth:	1.5 mm
Feed:	0.12mm/r
Cutting speed:	1500 r/min
Processing type:	Wet cutting
Service life:	Currently used insert can process about 500pcs, and our insert can process more than 700pcs.

PROCESSING CASE





Application case

Workpiece material :	20#Steel
Currently used insert:	WNMG080404-TS
Our Insert type:	WNMG080404-TS
Grade:	BPJ6215
Cutting depth:	0.5mm
Feed:	200mm/min
Cutting speed:	72m/min
Processing type:	Wet cutting
Service life:	Process 90 pieces of Competitor's inserts, and process more than 180 pieces for comparison.

PROCESSING CASE





Application case :	Pipe joint
Workpiece material:	35# Steel
Workpiece Diameter:	Φ 22 and Φ 28 inner holes
Currently used insert:	CCMT09T304-TS
Our Insert type:	CCMT09T304-HQ
Grade:	BPJ6215
Cutting depth:	1 mm
Feed:	150mm/min
Cutting speed:	1200 r/min
Processing type:	Wet cutting
Service life:	Process 200 pieces of competitor's inserts, and process 300 pieces.

PROCESSING CASE





Application case	
Workpiece material:	20Cr
Workpiece Diameter:	12mm
Insert type:	TNMG160404-TS
Grade:	BPJ6215
Cutting depth:	1.5mm
Cutting speed:	2100r/min
Feed:	350mm/min
Processing type:	Horizontal wet machining
Service life:	500pcs
comparison:	Other brand products TNMG160404-TS can process 300pcs

PROCESSING CASE





Application case

Workpiece material:	35CrMo
Workpiece Diameter:	16.7mm
Insert type:	TNMG160408-HQ
Grade:	BPJ6215
Cutting depth:	0.5mm
Cutting speed:	2000r/min
Feed:	330mm/min
Processing type:	Horizontal wet machining
Service life:	280pcs
comparison：	Other brand products TNMG160404-CQ can process 300pcs

