

专注孔加工刀具与方案



U钻、铲钻、可换钻尖钻头、组合钻、带定心U钻、VMD大钻头、模块系统



U 钻 U drill

U 钻的特征和优势

Characteristics and advantages of U drill

钻头特征 Bit characteristics

- U钻首先来说与普通钻头的区别就是U钻使用硬质合金刀片，设计内刃刀片和外刃刀片，钻头磨损后无需重磨直接更换刀片即可。
- U钻的刚性更好，可以采用很高的进给率，而且U钻的 加工直径要比普通钻头大的多，钻孔范围达到 10mm~80mm，最长加工深度可达5倍径。
- U钻钻孔的精度比普通钻头要高，而且光洁度要好，而且U钻可以修正孔的位置精度。
- U钻可以在倾斜角小于30°的表面上打孔，而无需降低切削参数。
- U钻的切削参数降低30%后，可实现断续切削，如加工相交孔、相贯孔、相穿孔。
- U钻可实现多阶梯孔的钻削，并能镗孔、倒角、偏心钻孔。
- U钻钻削时 钻屑多为短碎屑，并可利用其内冷系统进行快速排屑，不会缠铁屑，有利产品的加工连续性，缩短 加工时间，提高效率。
- 使用U钻无需预打中心孔，加工出的盲孔底面较为平直，省去了平底钻头。
- U钻机床使用广泛，电脑锣加工中心、数控车床、普通车床、孔加工专用机械 等均可使用，可以为用户大大节约加工时间和使用成本。

·First of all,the difference between Udrill and ordinary drill is that Udrill uses hard alloy blades and designs inner and outer edge blades.After the drill is worn,the blades can be replaced directly without regrinding.

U drill has better rigidity and can use a high feed rate.Noreover,the processing diameter of U drill is much larger than that of ordinary drill.The drilling range can reach D10mm~80mm,and the longest processing depth can reach 5 times diameter.

·The precision of the u-drill is higher than that of the conventional drill,and the finish is better, and the U-drill can correct the precision of the hole position.

U drill can drill holes on surfaces with inclination angles less than 30~without reducing cutting parameters.

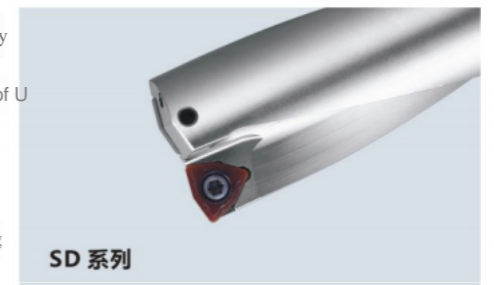
·When the cutting parameters of U drill are reduced by 30%,discontinuous cutting can be realized, such as processing intersecting hole,intersecting hole and phase perforation.

·Udrill can realize drilling of multi-step holes,and can boring,chanfering and eccentric drilling.

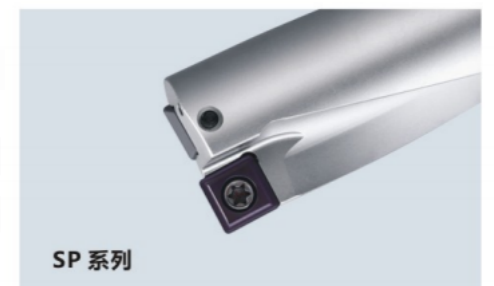
·The drilling cuttings of Udrill are mostly short cuttings,and the internal cooling system can be used for rapid chip removal without iron cuttings,which is conducive to product processing continuity, shorten processing time and improve efficiency.

There is no need to pre-drill the center hole with U drill,and the bottom surface of the processed blind hole is relatively straight,eliminating the need for flat bottom drill bit.

·Udrill machine is widely used,including computer gong machining center,CNC lathe,ordinary lathe, hole machining machinery,etc.,which can greatly save processing time and cost for users



SD 系列



SP 系列

钻头型号编码规则 Drill bit type code rules

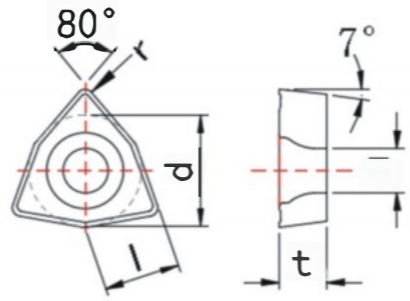
SD18-3D-C25

大类 Big type	刀杆直径 Tool rod diameter	长径比 Length to diameter handle	柄径 Shank diameter
SD (WC刀片系列)	18 (表示刀杆中18mm)	2D (直径的2倍)	C20 (柄径中20mm)
SP (SP刀片系列)		3D (直径的3倍)	C25 (柄径中25mm)
		4D (直径的4倍)	C32 (柄径中32mm)
		5D (直径的5倍)	C40 (柄径中40mm)

刀片 Insert

WCMX 刀片

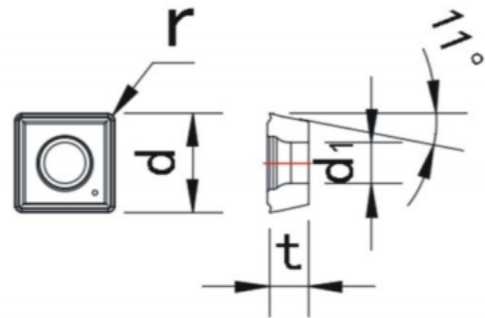
WCMX insert



型号 Code No	尺寸 Size					螺钉 Clamp screw	扳手 Wrench
	l	d	t	r	d1		
WCMX030208	3.8	5.56	2.38	0.8	2.8	M2.5X6	T8
WCMX040208	4.3	6.35	2.38	0.8	2.8	M2.5X6	T8
WCMT050308	5.4	7.94	3.18	0.8	3.3	M3X8	T8
WCMT06T308	6.54	9.525	3.97	0.8	3.8	M3.5X10	T15
WCMT080412	8.74	12.7	4.76	1.2	4.3	M4X10	T15

SPMG 刀片

SPMG Insert



型号 Code No	尺寸 Size				螺钉 Clamp screw	扳手 Wrench
	d	t	r	d1		
SPMT04T102	4	1.98	0.2	2	M1.8X4	T6
SPMG050204	5	2.38	0.4	2.25	M2.2X5	T6
SPMG060204	6	2.38	0.4	2.61	M2.2X6	T7
SPMG07T308	7.94	3.97	0.8	2.85	M2.5X8	T8
SPMG090408	9.8	4.3	0.8	4.05	M3.5X10	T15
SPMG110408	11.5	4.8	0.8	4.45	M4X10	T15
SPMG140512	14.3	5.2	1.2	5.75	M5X12	T20

钻头特性 Bit features

钻头特性

Bit features

排屑槽 Chip removal tank



创新的螺旋槽设计，内外槽比例6:4，排屑更好。
Innovative spiral groove design, inside arc outside groove ratio 6:4, better chip removal.

刀杆刚性 Tool rod rigid



边缘倒角更小，提高刀杆刚性，拥抱式排屑有效保护刀体磨损。
The edge chamfer is smaller, improve the rigidity of the cutter bar, and embrace chip discharge effectively protects the cutter body from wear.

车床油冷接口 Cold connection for lathe oil



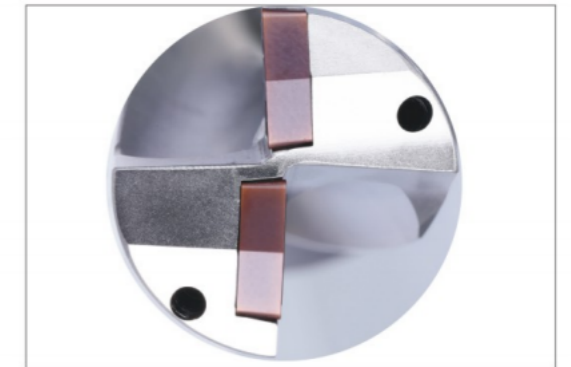
刀柄尾部带管牙螺丝，方便车床接油冷使用。
Handle tail with tube screw, easy to use lathe oil cold.

刀片位 The blade position



平整的刀片位，与刀片贴合更好，有效提高切削效果。
Flat blade position, better fit with the blade, effectively improve the cutting effect.

油冷系统 Oil cooling system



油冷水孔加大1.5倍，冷却更好，排屑更快。
Increase oil cold water hole 1.5 times, better cooling, faster chip removal.

优秀的断屑控制 Excellent chip breaking control



更新后的刀片位角度，断削更优秀。
Updated blade angle, better cutting.

安装与使用

Installation and use

钻头侧固式刀柄的安装方式

Installation of the bit side - grip



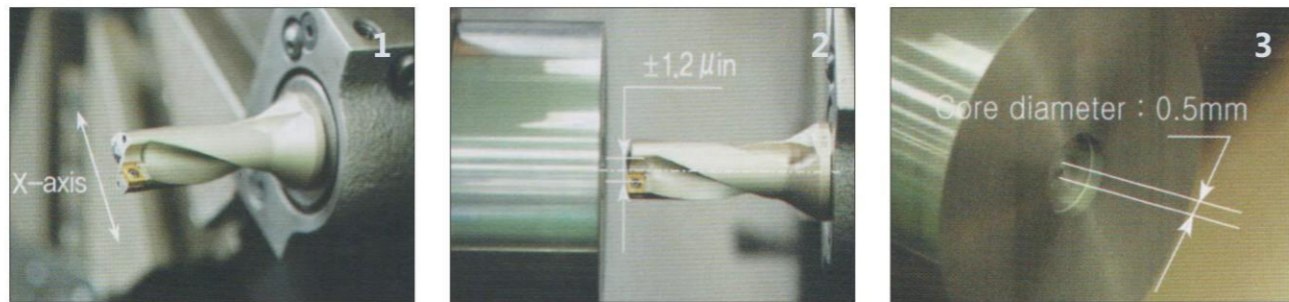
1. 插入钻头时，钻头的侧固面方向和刀柄螺丝方向一致。
2. 将钻头装入刀柄，钻头法兰面与刀柄安装面紧密贴合。
3. 首先拧紧1号螺栓。
4. 下一步拧紧2号螺栓。

1. Insert the bit in the same direction as the shank screw.
2. Install the drill bit into the tool holder, and the flange surface of the drill bit is closely attached to the mounting surface of the tool holder.
3. Tighten bolt No. 1 first.
4. Next, tighten bolt No. 2.



钻头在车床上的安装方式

The way in which the drill bit is mounted on the lathe



*请确认侧固位置，它可能因机床不同而差异。

1. 外刃刀片切削与X轴平行（以侧固面为基准）。
2. 如果钻孔5mm后，核心部分有直径0.5mm的痕迹表面安装正确。
3. 建议外刃的安装朝向应使外刃面朝向操作者（图1）（但也可逆向180°使用）

另外，当车床上有上下两个转塔时，当需要将钻头安装在下转塔上时，则外刃面一定要朝向操作者。（此时也可逆向180°使用）

1. The cutting of the outer edge blade is parallel to the X axis (based on the side solid surface).
2. If the core part has traces with a diameter of 0.5mm after drilling 5mm, the surface is correctly installed.
3. It is recommended that the mounting orientation of the outer edge should be towards the operator (Fig.1) (But can also be reversed 180° use)

In addition, when there are two turrets on the lathe, when it is necessary to install the drill bit on the lower turret, the outer edge must face the operator. (This can also be used in reverse 180°)

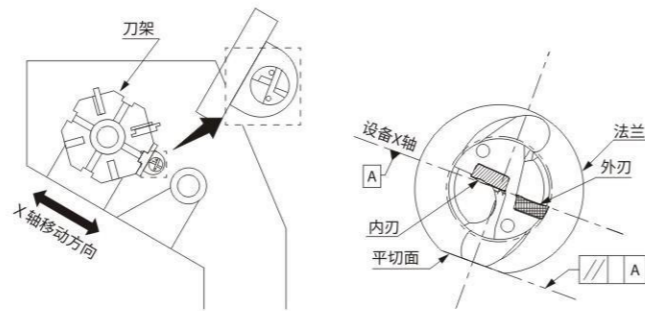


图1 安装到车床上的状态
FIG. 1 Mounting state on lathe

安装与使用

Installation and use

加工径的调整方法

Adjustment method of machining diameter

加工径的调整方法 Adjustment method of machining diameter

1. 通过移动X轴来调整，X轴的移动方向取决于刀杆的安装方向。
2. 通过向外刃方向移动X轴扩大孔径。（图2，图3）孔径的缩小调整请向反方向移动X轴。（这种轴的移动叫「偏心」）但是如果加工孔径比钻头径小0.2mm以上时，刀杆本体的外周部会与加工孔干涉。（图4）
例)使用Φ20的钻头时，孔径不能小于Φ19.8。

1. Adjust by moving the X axis. The moving direction of the X axis depends on the installation direction of the knife rod.
2. Enlarge the aperture by moving the X axis toward the outer edge. (FIG. 2, FIG. 3) For aperture reduction adjustment, please move the X axis in the opposite direction. (This axis movement is called "eccentricity.")

However, if the machining aperture is more than 0.2mm smaller than the bit diameter, the outer circumference of the cutter shank body will interfere with the machining hole. (figure 4) When using a φ 20 drill bit, the hole diameter should not be less than φ 19.8.

加工径的偏心值 Eccentric value of machining diameter

关于加工径的偏心参数，根据实际操作调，原则上刀杆本体不能与外周干涉即可。

例) Φ20的钻头，“半径方向的可偏心范围”为+0.55mm，通过偏心设置，最大可以扩孔至Φ21.1。

The eccentric parameters of machining diameter can be adjusted according to the actual operation. In principle, the cutter bar body can not interfere with the periphery. Example) φ 20 drill, "radius of eccentricity range" is +0.55mm, through the eccentric setting, the maximum hole reaming to φ 21.1.

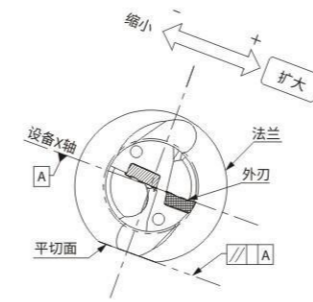


图2 外刃表面上时
FIG. 2 When the outer edge surface is upward

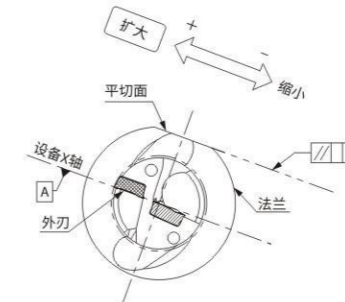


图3 外刃表面向下时
FIG. 3 When the outer edge surface is downward

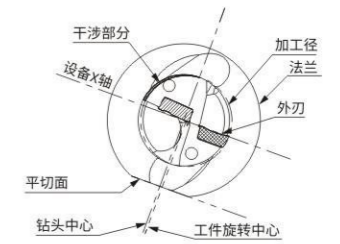


图4 孔径过时
FIG. 4 Aperture obsolescence

中心高的调整方法

Adjustment method of center height

关于内刃的中心高 Center height of inner edge

如图1所示安装时，内刃中心高设定低于中心0.05mm左右。（图2）此为标准中心高，设计·制造时，钻头自身的内刃比中心高降低0.05mm左右。但是、车床的转塔与主轴中心偏移不准的时候，中心太高或太低的情况也是有的。

为了稳定加工确认内刃中心高是很重要的。

As shown in Figure 1, the center height of the inner edge was set about 0.05mm lower than the center during installation. (FIG. 2) This is the standard center height. During design and manufacture, the inner edge of the bit itself is about 0.05mm lower than the center height. However, the lathe turret and spindle center deviation is not accurate, the center is too high or too low.

It is important to confirm the inner edge center height for stable machining.

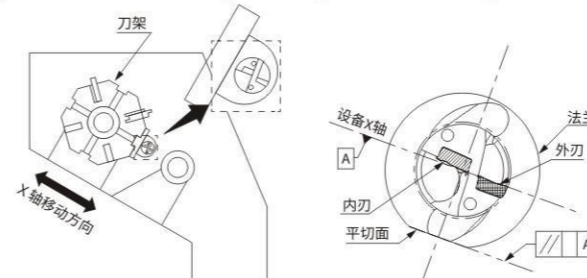


图1 安装到车床上的状态
FIG. 1 Mounting state on lathe

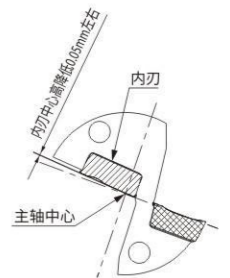


图2 钻头正面图
FIG. 2 Front view of the bit

▶ 内刃中心高的确认方法 Confirmation method of inner edge center height

可以通过盲孔内端面中心部残留的芯核来确认内刃中心高设置是否合理。如果残留着直径0.5mm前后的芯核、中心高的设定是合适的。(图3) 直径1mm以上的大芯核残留的话,有必要对中心高进行调整。

※确认用的盲孔请使用0.1mm/rev以下的低进给、深度10mm左右进行加工。

The core core left at the center of the inner end face of the blind hole can be used to confirm whether the setting of the inner edge center height is reasonable. If there is a residual 0.5mm diameter before and after the core, center height setting is appropriate. (figure 3) It is necessary to adjust the center height if there is a large core with a diameter of more than 1mm.

※ The blind hole used for confirmation should be processed with a low feed below 0.1mm/ REV and a depth of about 10mm.

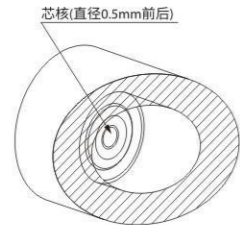


图3 中心芯核
FIG. 3. Core core

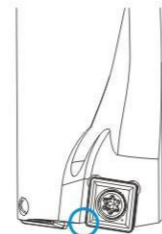


图4 内刃的钻头中心部附近的崩损
FIG. 4 Collapse near the center of the bit at the inner edge

▶ 内刃中心高的调整方法 Adjustment method of inner edge center height

a) 完全没有芯核,内刃的钻头中心部位附近产生崩损。
No core at all, collapse near the center of the inner edge of the bit.

这是内刃中心高过高的状态。必须进行调整。(图4)
This is the state where the inner edge center is too high. Adjustments must be made. (figure 4)

调整方法

请将钻头本体旋转180°安装。

很多问题通过此方法改善。(图5)

Please install the bit body by rotating it 180°.
Many problems can be solved by this method. (figure 5)

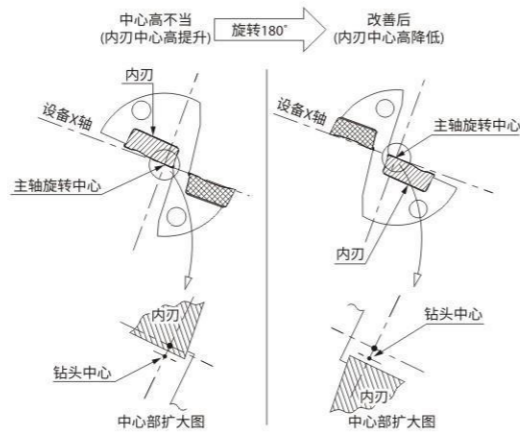


图5 FIG. 5

调整方法

上述调整后加工的芯核径如果变得过大,如图6右侧图所示将刀杆本体旋转90°,将外刃靠下侧安装随着设备X轴的移动来调整中心高。

(但是无法调整加工径(偏心))

另外,请注意与图反方向(外刃靠上侧)安装时,加工径会变小、刀杆本体可能会与孔发生干涉。

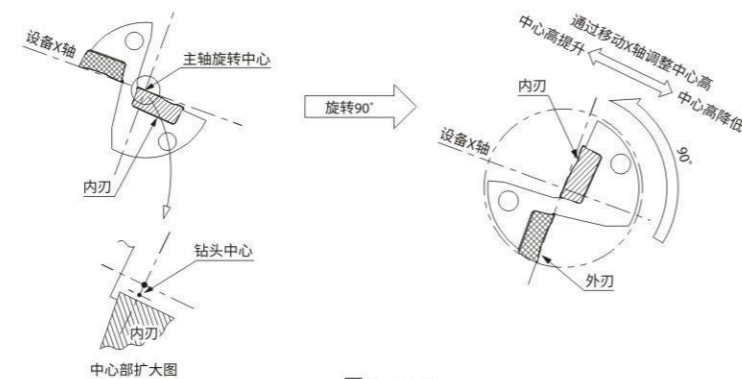
根本来说需要对转塔本身的中心高进行调整。

If the core diameter processed after the above adjustment becomes too large, see Fig.6As shown in the picture on the right, rotate the tool holder body 90° and put the outer edge to the lower side. The mounting adjusts the center height as the device moves along the X axis.

(But can not adjust the machining diameter (eccentric))

In addition, please note that when it is installed in the opposite direction (outer edge on the upper side), the machining diameter will be smaller and the tool holder body may interfere with the hole.

Basically, the center height of the turret itself needs to be adjusted.



调整A后内刃中心高降低量变大的状态

图6 FIG. 6

b) 芯核过大时(直径1mm以上)

When the core is too large (diameter above 1mm)

这是内刃的中心高降低方向大幅度偏离的状态。此时,会对排屑性能有害,请务必进行调整。

This is the condition in which the center height and lowering direction of the inner edge deviate greatly. At this time, will be harmful to the chip removal performance, please be sure to adjust.

调整方法

如图7右图所示将刀杆本体旋转90°,将外刃靠上侧安装,随着设备X轴的移动来调整中心高。

(但是无法调整加工径(偏心))

另外,请注意与图反方向(外刃靠下侧)安装时,加工径会变小、刀杆本体可能会与孔发生干涉。根本来说需要对转塔本身的中心高进行调整。

As shown in figure 7 on the right, rotate the tool rod body 90°, install the outer edge on the upper side, and adjust the center height as the X axis of the equipment moves.

(But can not adjust the machining diameter (eccentric))

In addition, please note that when it is installed in the opposite direction (the outer edge is on the lower side), the machining diameter will be smaller and the tool holder body may interfere with the hole.

Basically, the center height of the turret itself needs to be adjusted.

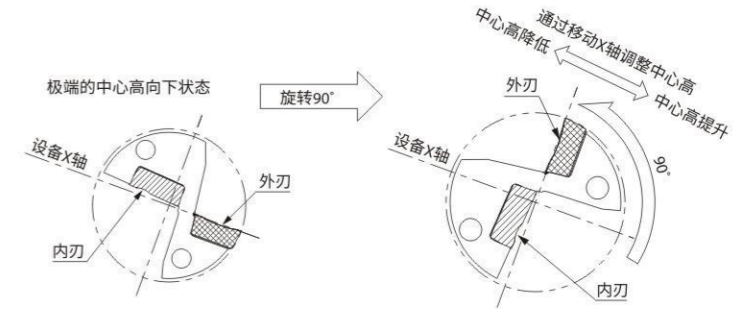
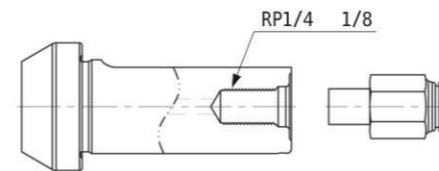


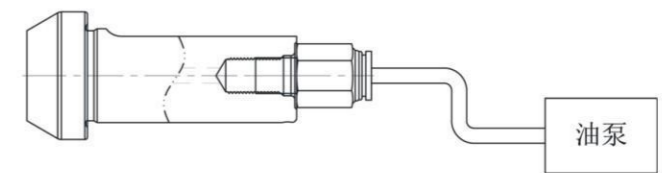
图7 FIG. 7

车床使用内冷安装方式

The lathe is installed with internal cooling



钻头刀柄+快速接头
Bit holder + quick connector



插头低端与输油软管相连,钻头和油泵相连
The lower end of the plug is connected to the oil hose, and the drill bit is connected to the oil pump

1. 钻头刀柄、快速接头、输油软管、油泵链接起来可以实现内冷。
2. 拔出插头后,可在铣床上使用。

1. Internal cooling can be realized by connecting the drill shank, quick connector, oil hose and oil pump.
2. After pulling out the plug, it can be used in milling machine.

参数计算

Calculation method of parameters

高效率可转位快速钻加工相关参数计算方法

Related to the processing parameters of shallow hole drilling method of calculation

切削速度 (Vc)

$$V_c = \frac{D_c \times \pi \times n}{1000}$$

Vc (m/min): 切削速度
Dc (mm): 钻头直径
n (rev/min): 转速

实例
主轴转速为1600rev/min, 钻头直径为Φ20mm, 其切削速度为:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100(\text{m/min})$$

进给速度

$$V_f = f_r \times n$$

Vf (m/min): 切削速度
Fr (mm/rev): 每转进给量
n (rev/min): 主轴转速

实例
主轴转速为1500rev/min, 每转进给量为Φ0.1mm/rev, 其进给速度为:

$$V_f = f_r \times n = 0.1 \times 1500 = 150(\text{mm/min})$$

孔加工时间

$$T_c = \frac{I_d \times i}{n \times f}$$

Tc (min): 加工时间
Id (mm): 钻孔深
Fr (mm/rev): 每转进给量
n (rev/min): 主轴转速
i: 孔数量

实例
钻一个Φ20mm, 深为40mm的孔, 切削速度为100m/min, 每转进给量为0.1mm/rev, 求钻削时间。

$$V_e = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600(\text{rev/min})$$

$$T_c = \frac{I_d \times i}{n \times f} = \frac{40 \times 1}{1600 \times 0.1} = 0.25(\text{min})$$

金属去除率

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000}$$

Q (cm³/min): 金属去除率
Dc (mm): 钻头直径
Vf (mm/min): 进给速度

实例
一个Φ20mm的钻头, 加工时的进给速度为160mm/rev, 其金属去除率为:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 20.24(\text{cm}^3/\text{min})$$

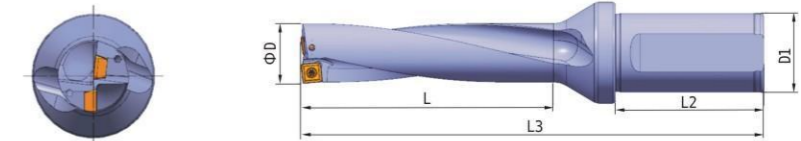
钻头参数

Drilling parameters

钻头公差和孔径公差

Bit tolerance and aperture tolerance

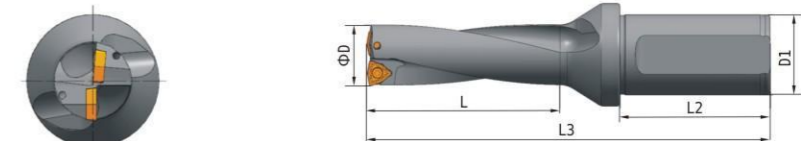
SP系列钻头公差和孔径公差 SP series drill tolerance and aperture tolerance



钻头直径		Φ10~Φ12	Φ12.5~Φ21.5	Φ22~Φ33.5	Φ34~Φ50.5	Φ51~Φ60
2D~3D	钻头公差 (ΦD)	0.00~-0.20	0.00~-0.20	0.00~-0.20	0.00~-0.25	0.00~-0.30
	钻孔公差	+0.10~-0.20	+0.10~-0.20	+0.10~-0.20	+0.10~-0.25	+0.10~-0.35
4D~5D	钻头公差 (ΦD)	0.00~-0.20	0.00~-0.25	0.00~-0.25	0.00~-0.30	0.00~-0.30
	钻孔公差	+0.10~-0.25	+0.10~-0.25	+0.10~-0.25	+0.10~-0.35	+0.10~-0.35

1. 川山甲刀具有限公司实际公差为图标数据 2. 钻头长度, 被加工工件种类, 机床稳定性以及切削条件都会影响公差
1. The actual tolerance of Chuanshanjia Tool Co., LTD is the data of the icon
2. Length of drill bit. Type of workpiece to be processed. Both machine tool stability and cutting conditions affect tolerances

SD系列钻头公差和孔径公差 SD series drill tolerance and aperture tolerance



钻头直径		Φ14	Φ14.5~Φ23.5	Φ24~Φ30.5	Φ31~Φ41.5	Φ51~Φ60
2D~3D	钻头公差 (ΦD)	+0.10~+0.20	0.00~-0.20	0.00~-0.20	0.00~-0.25	0.00~-0.30
	钻孔公差	+0.05~+0.25	+0.10~-0.25	+0.10~-0.25	+0.10~-0.25	+0.10~-0.35
4D~5D	钻头公差 (ΦD)	+0.05~+0.25	0.00~-0.25	0.00~-0.25	0.00~-0.25	0.00~-0.30
	钻孔公差	+0.05~+0.30	+0.10~-0.30	+0.10~-0.30	+0.10~-0.35	+0.10~-0.35

1. 川山甲刀具有限公司实际公差为图标数据 2. 钻头长度, 被加工工件种类, 机床稳定性以及切削条件都会影响公差
1. The actual tolerance of Chuanshanjia Tool Co., LTD is the data of the icon
2. Length of drill bit. Type of workpiece to be processed. Both machine tool stability and cutting conditions affect tolerances

SP系列刀片和配件 SP series blades and accessories

钻头直径	外刃刀片	内刃刀片	螺丝	螺丝头大小	锥度	扳手
Φ10-Φ12	SPMT04T102	SPMT04T102	M1.8X4	2.4	60	T6
Φ12.5-Φ15.5	SPMG050204	SPMG050204	M2.2X5	2.7	60	T6
Φ16-Φ21.5	SPMG060204	SPMG060204	M2.2X6	3	60	T7
Φ22-Φ27.5	SPMG07T308	SPMG07T308	M2.5X8	3.6	60	T8
Φ28-Φ33.5	SPMG090408	SPMG090408	M3.5X10	5.2	48	T15
Φ34-Φ41.5	SPMG110408	SPMG110408	M4X10	5.7	60	T15
Φ42-Φ50	SPMG140512	SPMG140512	M5X12	6.8	60	T20

SD系列刀片和配件 SD series blades and accessories

钻头直径	外刃刀片	内刃刀片	螺丝	螺丝头大小	锥度	扳手
Φ14	WCMX030208	WCMX030208	M2.5X5	3.6	60	T8
Φ14.5-Φ19.5	WCMX030208	WCMX030208	M2.5X6	3.6	60	T8
Φ20-Φ23.5	WCMX040208	WCMX040208	M2.5X6	3.6	60	T8
Φ24-Φ30.5	WCMT050308	WCMT050308	M3X8	4	60	T8
Φ31-Φ41.5	WCMT06T308	WCMT06T308	M3.5X10	5.2	48	T15
Φ42-Φ60	WCMT080412	WCMT080412	M4X10	5.7	60	T15

加工要求

Processing requirements

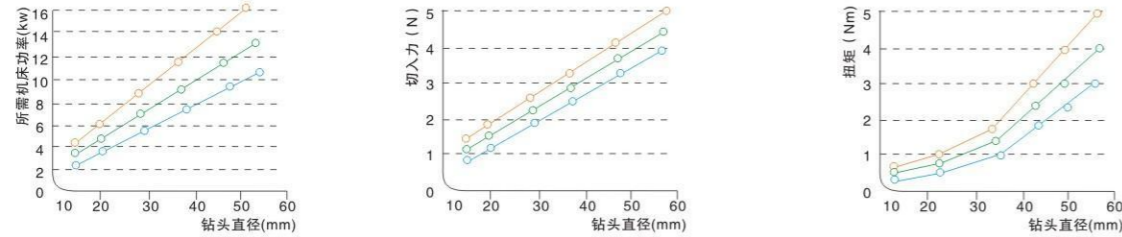
加工功率要求

Machining power requirement

下方图表显示出钻削加工所需的切削力/高刚性高功率机床配合进行加工

- 被加工件: SCM440(240B) 切削条件: $vc(m/min)=100$
- 内冷系统

$fn(mm/rev)=0.13$ $fn(mm/rev)=0.10$ $fn(mm/rev)=0.07$



加工注意事项

Processing considerations

被加工件	加工事项	
	加工不规则表面	刀片可能产生崩刃 正常进给减少25%
	加工凸面	中心刀片先接触被加工表面 降低50%进给,直到内外刀片都进入被加工件
	加工凹面	降低50%进给,直到内外刀片都进入被加工件
	镗孔	正常进给降低50%
	斜面	正常进给降低50%
	加工交叉孔	重叠部分进给降低50%
	加工重叠相交孔	正常进给降低50%
	加工重叠板	刀片可能产生断裂和崩刃 正常进给降低25%

加工问题解决方案

Process problem solution

问题	具体情况	解决方案	
加工同一孔时 孔径发生变化	加工同一孔时期孔径发生变化 →底部孔径变大	增强冷却液, 检查冷却液排出情况 更换长径比小的钻头 更改切削条件, 获得更好的切屑控制	
孔径变大或变小	孔径变大或变小	铣削 →增强冷却液 →检查冷却液排出情况 车削 →检查钻头中心及被加工情况 →钻头旋转180°	
震动	加工震动	更换长径比小的钻头 降低切削速度和进给	稳定的夹持力 检查机床扭矩
排屑不良	长切屑	低碳钢/不锈钢 → 提高切削速度, 进给以及冷却油压 合金钢/碳钢 → 提高切削速度和进给	
表面精度差	短切屑	提高切削速度, 进给以及冷却油压	
	加工表面有刀痕	更换切削条件, 获得更好的切屑控制 降低进给或者提高切削速度	增加冷却液, 检查冷却液排出情况 更换长径比小的钻头, 增大夹紧力
刀片寿命降低	刀片磨损严重或者崩刃	检查切削条件 增加冷却液, 检查冷却液排出情况	更换长径比小的钻头, 增大夹紧力 更换刀片材质

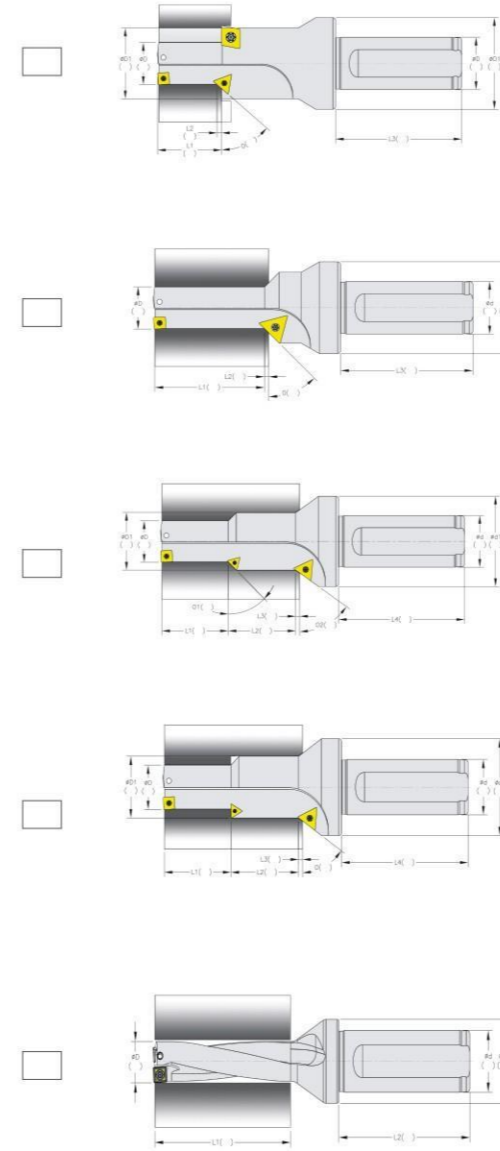
非标钻头定制

Non-standard drill bit customization

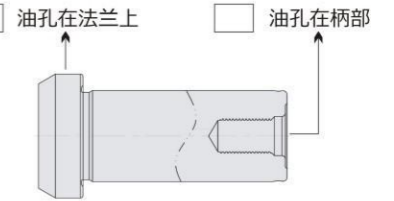
非标钻头订货单

Non-standard drill bit order

方框内填写“√”



冷却方式



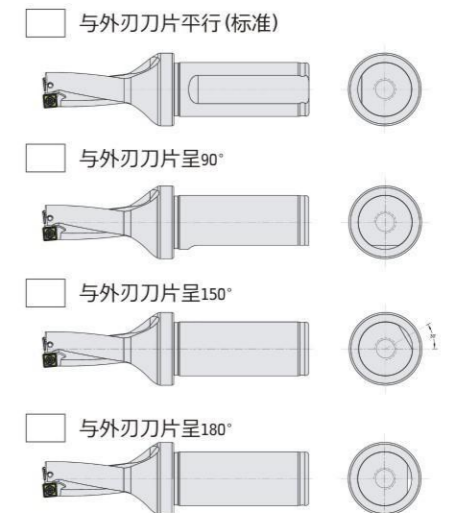
钻孔类型

- 盲孔加工 有底孔
- 通孔加工 无底孔

柄部类型

- 平头型
- 韦尔登类型
- 惠式峭型

侧面位置



注明:

现在使用的刀具
现在的切削条件
-RPM or $vc(m/min)$
- $vc(mm/min)$ or $fn(mm/rev)$
-孔深 (mm)

标准刀具寿命使用设备

-加工中心
-普通车床
-CNC车床

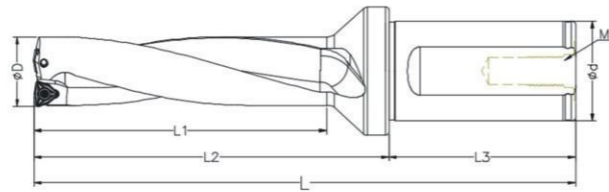
Note:

Knives in use today
Current cutting conditions
-RPM or $vc(m/min)$
- $vc(mm/min)$ or $fn(mm/rev)$
- Hole depth (mm)

Standard tool life using equipment

- Machining center
- General lathe
- CNC lathe

U钻 U drill



WC刀片 2D

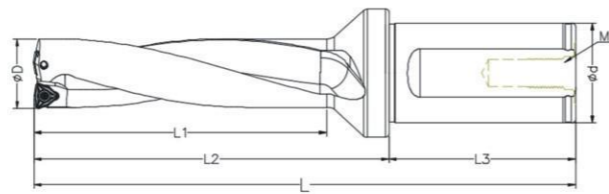
型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench					
	ΦD	L	L1	L2	L3	M	Φd								
SD14-2D-C25	14	107	30	51	56	G 1/8	25	WCMX 03 02 08	M2.5X5	T8					
SD14.5-2D-C25	14.5	108	31	52	56	G 1/8	25	WCMX 03 02 08	M2.5X6	T8					
SD15-2D-C25	15	107	32	51	56										
SD15.5-2D-C25	15.5	108	33	52	56										
SD16-2D-C25	16	109	34	53	56										
SD16.5-2D-C25	16.5	110	35	54	56										
SD17-2D-C25	17	111	36	55	56										
SD17.5-2D-C25	17.5	112	37	56	56										
SD18-2D-C25	18	113	38	57	56										
SD18.5-2D-C25	18.5	114	39	58	56										
SD19-2D-C25	19	113	40	57	56										
SD19.5-2D-C25	19.5	114	41	58	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8					
SD20-2D-C25	20	115.5	42	59.5	56										
SD20.5-2D-C25	20.5	117	43	61	56										
SD21-2D-C25	21	118	44	62	56										
SD21.5-2D-C25	21.5	119	45	63	56										
SD22-2D-C25	22	120	46	64	56										
SD22.5-2D-C25	22.5	121	47	65	56										
SD23-2D-C25	23	122	48	66	56										
SD23.5-2D-C25	23.5	123	49	67	56										
SD24-2D-C25	24	124	50	68	56						G 1/8	25	WCMX 04 02 08	M2.5X6	T8
SD24.5-2D-C25	24.5	125	51	69	56										
SD25-2D-C25	25	127	52	71	56										
SD25-2D-C32	25	136	52	76	60	G 1/4	32	WCMT 05 03 08	M3.0X8	T8					
SD25.5-2D-C32	25.5	137	53	77	60										
SD26-2D-C32	26	138	54	78	60										
SD26.5-2D-C32	26.5	139	55	79	60										
SD27-2D-C32	27	140	56	80	60										
SD27.5-2D-C32	27.5	141	57	81	60										
SD28-2D-C32	28	142	58	82	60										
SD28.5-2D-C32	28.5	143	59	83	60										
SD29-2D-C32	29	144	60	84	60										
SD29.5-2D-C32	29.5	145	61	85	60						G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD30-2D-C32	30	146	62	86	60										
SD30.5-2D-C32	30.5	146	63	86	60										
SD31-2D-C32	31	147	64	87	60										
SD31.5-2D-C32	31.5	147	65	87	60										
SD32-2D-C32	32	149	66	89	60										
SD32.5-2D-C32	32.5	149	67	89	60										
SD33-2D-C32	33	151	68	91	60										
SD33.5-2D-C32	33.5	151	69	91	60										

U钻 U drill

WC刀片 2D

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD34-2D-C32	34	152	70	92	60	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD34.5-2D-C32	34.5	152	71	92	60					
SD35-2D-C32	35	155	72	95	60					
SD35.5-2D-C32	35.5	155	73	95	60					
SD36-2D-C32	36	157	74	97	60					
SD36.5-2D-C32	36.5	158	75	98	60					
SD37-2D-C32	37	159	76	99	60					
SD37.5-2D-C32	37.5	161	77	101	60					
SD38-2D-C32	38	158.5	78	98.5	60					
SD38.5-2D-C32	38.5	159.5	79	99.5	60					
SD39-2D-C32	39	162	80	102	60					
SD39.5-2D-C32	39.5	160	81	100	60					
SD40-2D-C32	40	160	82	100	60					
SD40.5-2D-C32	40.5	160	83	100	60					
SD41-2D-C32	41	164	84	104	60					
SD41.5-2D-C32	41.5	162	85	102	60					
SD42-2D-C40	42	181	86	111	70					
SD42.5-2D-C40	42.5	182	87	112	70					
SD43-2D-C40	43	183	88	113	70	G 1/4	40	WCMT 08 04 12	M4.0X10	T15
SD43.5-2D-C40	43.5	184	89	114	70					
SD44-2D-C40	44	185	90	115	70					
SD44.5-2D-C40	44.5	186	91	116	70					
SD45-2D-C40	45	187	92	117	70					
SD45.5-2D-C40	45.5	188	93	118	70					
SD46-2D-C40	46	189	94	119	70					
SD46.5-2D-C40	46.5	190	95	120	70					
SD47-2D-C40	47	191	96	121	70					
SD47.5-2D-C40	47.5	192	97	122	70					
SD48-2D-C40	48	193	98	123	70					
SD48.5-2D-C40	48.5	194	99	124	70					
SD49-2D-C40	49	195	100	125	70					
SD49.5-2D-C40	49.5	196	101	126	70					
SD50-2D-C40	50	197	102	127	70					
SD50.5-2D-C40	50.5	197	103	127	70					
SD51-2D-C40	51	199	104	129	70					
SD52-2D-C40	52	201	106	131	70					
SD53-2D-C40	53	203	108	133	70					
SD54-2D-C40	54	205	110	135	70					
SD55-2D-C40	55	207	112	137	70					
SD56-2D-C40	56	209	114	139	70					
SD57-2D-C40	57	211	116	141	70					
SD58-2D-C40	58	213	118	143	70					
SD59-2D-C40	59	215	120	145	70					
SD60-2D-C40	60	217	122	147	70					
SD65-2D-C40	65	233.5	132	163.5	70	G 1/4	40	WCMT 06 T3 08	M3.5X10	T15
SD68-2D-C40	68	240	138	170	70					
SD70-2D-C40	70	232	142	162	70					

U钻 U drill



WC刀片 3D

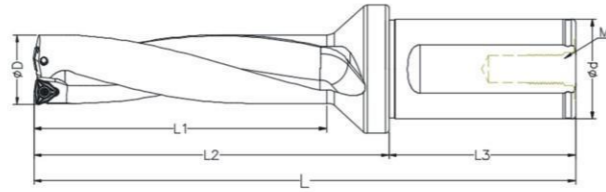
型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD14-3D-C25	14	121	44	65	56	G 1/8	25	WCMX 03 02 08	M2.5X5	T8
SD14.5-3D-C25	14.5	122.5	45.5	66.5	56	G 1/8	25	WCMX 03 02 08	M2.5X6	T8
SD15-3D-C25	15	122	47	66	56					
SD15.5-3D-C25	15.5	123.5	48.5	67.5	56					
SD16-3D-C25	16	125	50	69	56					
SD16.5-3D-C25	16.5	126.5	51.5	70.5	56					
SD17-3D-C25	17	128	53	72	56					
SD17.5-3D-C25	17.5	129.5	54.5	73.5	56					
SD18-3D-C25	18	131	56	75	56					
SD18.5-3D-C25	18.5	132.5	57.5	76.5	56					
SD19-3D-C25	19	132	59	76	56					
SD19.5-3D-C25	19.5	133.5	60.5	77.5	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8
SD20-3D-C25	20	135.5	62	79.5	56					
SD20.5-3D-C25	20.5	137.5	63.5	81.5	56					
SD21-3D-C25	21	139	65	83	56					
SD21.5-3D-C25	21.5	140.5	66.5	84.5	56					
SD22-3D-C25	22	142	68	86	56					
SD22.5-3D-C25	22.5	143.5	69.5	87.5	56					
SD23-3D-C25	23	145	71	89	56					
SD23.5-3D-C25	23.5	146.5	72.5	90.5	56					
SD24-3D-C25	24	148	74	92	56					
SD24.5-3D-C25	24.5	149.5	75.5	93.5	56					
SD25-3D-C25	25	152	77	96	56					
SD25-3D-C32	25	161	77	101	60					
SD25.5-3D-C32	25.5	162.5	78.5	102.5	60					
SD26-3D-C32	26	164	80	104	60					
SD26.5-3D-C32	26.5	165.5	81.5	105.5	60					
SD27-3D-C32	27	167	83	107	60					
SD27.5-3D-C32	27.5	168.5	84.5	108.5	60					
SD28-3D-C32	28	170	86	110	60					
SD28.5-3D-C32	28.5	171.5	87.5	111.5	60					
SD29-3D-C32	29	173	89	113	60					
SD29.5-3D-C32	29.5	174.5	90.5	114.5	60					
SD30-3D-C32	30	176	92	116	60					
SD30.5-3D-C32	30.5	176.5	93.5	116.5	60					
SD31-3D-C32	31	178	95	118	60					
SD31.5-3D-C32	31.5	178.5	96.5	118.5	60					
SD32-3D-C32	32	181	98	121	60					
SD32.5-3D-C32	32.5	181.5	99.5	121.5	60					
SD33-3D-C32	33	184	101	124	60					
SD33.5-3D-C32	33.5	184.5	102.5	124.5	60					
SD31-3D-C32	31	178	95	118	60					
SD31.5-3D-C32	31.5	178.5	96.5	118.5	60					
SD32-3D-C32	32	181	98	121	60					
SD32.5-3D-C32	32.5	181.5	99.5	121.5	60					
SD33-3D-C32	33	184	101	124	60					
SD33.5-3D-C32	33.5	184.5	102.5	124.5	60					

U钻 U drill

WC刀片 3D

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD34-3D-C32	34	186	104	126	60	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD34.5-3D-C32	34.5	186.5	105.5	126.5	60					
SD35-3D-C32	35	190	107	130	60					
SD35.5-3D-C32	35.5	190.5	108.5	130.5	60					
SD36-3D-C32	36	193	110	133	60					
SD36.5-3D-C32	36.5	194.5	111.5	134.5	60					
SD37-3D-C32	37	196	113	136	60					
SD37.5-3D-C32	37.5	198.5	114.5	138.5	60					
SD38-3D-C32	38	196.5	116	136.5	60					
SD38.5-3D-C32	38.5	198	117.5	138	60					
SD39-3D-C32	39	197	119	137	60					
SD39.5-3D-C32	39.5	199.5	120.5	139.5	60					
SD40-3D-C32	40	200	122	140	60					
SD40.5-3D-C32	40.5	200.5	123.5	140.5	60					
SD41-3D-C32	41	205	125	145	60					
SD41.5-3D-C32	41.5	203.5	126.5	143.5	60					
SD42-3D-C40	42	223	128	153	70	G 1/4	40	WCMT 08 04 12	M4.0X10	T15
SD42.5-3D-C40	42.5	224.5	129.5	154.5	70					
SD43-3D-C40	43	226	131	156	70					
SD43.5-3D-C40	43.5	227.5	132.5	157.5	70					
SD44-3D-C40	44	229	134	159	70					
SD44.5-3D-C40	44.5	230.5	135.5	160.5	70					
SD45-3D-C40	45	232	137	162	70					
SD45.5-3D-C40	45.5	233.5	138.5	163.5	70					
SD46-3D-C40	46	235	140	165	70					
SD46.5-3D-C40	46.5	236.5	141.5	166.5	70					
SD47-3D-C40	47	238	143	168	70					
SD47.5-3D-C40	47.5	239.5	144.5	169.5	70					
SD48-3D-C40	48	241	146	171	70					
SD48.5-3D-C40	48.5	242.5	147.5	172.5	70					
SD49-3D-C40	49	244	149	174	70					
SD49.5-3D-C40	49.5	245.5	150.5	175.5	70					
SD50-3D-C40	50	247	152	177	70					
SD50.5-3D-C40	50.5	249	154	179	70					
SD51-3D-C40	51	250	155	180	70					
SD52-3D-C40	52	253	158	183	70					
SD53-3D-C40	53	256	161	186	70					
SD54-3D-C40	54	259	164	189	70					
SD55-3D-C40	55	262	167	192	70					
SD56-3D-C40	56	265	170	195	70					
SD57-3D-C40	57	268	173	198	70					
SD58-3D-C40	58	271	176	201	70					
SD59-3D-C40	59	274	179	204	70					
SD60-3D-C40	60	277	182	207	70					
SD65-3D-C40	65	298.5	197	228.5	70	G 1/4	40	WCMT 06 T3 08	M3.5X10	T15
SD68-3D-C40	68	308	206	238	70					
SD70-3D-C40	70	302	212	232	70					

U钻 U drill



WC刀片 4D

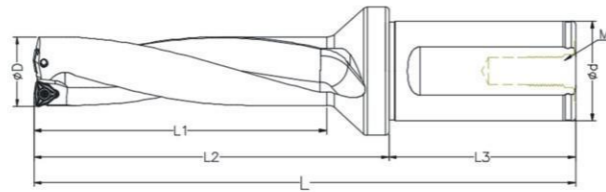
型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench					
	ΦD	L	L1	L2	L3	M	Φd								
SD14-4D-C25	14	135	58	79	56	G 1/8	25	WCMX 03 02 08	M2.5X5	T8					
SD14.5-4D-C25	14.5	137	60	81	56	G 1/8	25	WCMX 03 02 08	M2.5X6	T8					
SD15-4D-C25	15	137	62	81	56										
SD15.5-4D-C25	15.5	139	64	83	56										
SD16-4D-C25	16	141	66	85	56										
SD16.5-4D-C25	16.5	143	68	87	56										
SD17-4D-C25	17	145	70	89	56										
SD17.5-4D-C25	17.5	147	72	91	56										
SD18-4D-C25	18	149	74	93	56										
SD18.5-4D-C25	18.5	151	76	95	56										
SD19-4D-C25	19	151	78	95	56										
SD19.5-4D-C25	19.5	153	80	97	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8					
SD20-4D-C25	20	155.5	82	99.5	56										
SD20.5-4D-C25	20.5	158	84	102	56										
SD21-4D-C25	21	160	86	104	56										
SD21.5-4D-C25	21.5	162	88	106	56										
SD22-4D-C25	22	164	90	108	56										
SD22.5-4D-C25	22.5	166	92	110	56										
SD23-4D-C25	23	168	94	112	56										
SD23.5-4D-C25	23.5	170	96	114	56										
SD24-4D-C25	24	172	98	116	56						G 1/8	25	WCMX 04 02 08	M2.5X6	T8
SD24.5-4D-C25	24.5	174	100	118	56										
SD25-4D-C25	25	177	102	121	56										
SD25-4D-C32	25	186	102	126	60	G 1/4	32	WCMT 05 03 08	M3.0X8	T8					
SD25.5-4D-C32	25.5	188	104	128	60										
SD26-4D-C32	26	190	106	130	60										
SD26.5-4D-C32	26.5	192	108	132	60										
SD27-4D-C32	27	194	110	134	60										
SD27.5-4D-C32	27.5	196	112	136	60										
SD28-4D-C32	28	198	114	138	60										
SD28.5-4D-C32	28.5	200	116	140	60										
SD29-4D-C32	29	202	118	142	60										
SD29.5-4D-C32	29.5	204	120	144	60						G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD30-4D-C32	30	206	122	146	60										
SD30.5-4D-C32	30.5	207	124	147	60										
SD31-4D-C32	31	209	126	149	60										
SD31.5-4D-C32	31.5	210	128	150	60										
SD32-4D-C32	32	213	130	153	60										
SD32.5-4D-C32	32.5	214	132	154	60										
SD33-4D-C32	33	217	134	157	60										
SD33.5-4D-C32	33.5	218	136	158	60										

U钻 U drill

WC刀片 4D

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD34-4D-C32	34	220	138	160	60	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD34.5-4D-C32	34.5	221	140	161	60					
SD35-4D-C32	35	225	142	165	60					
SD35.5-4D-C32	35.5	226	144	166	60					
SD36-4D-C32	36	229	146	169	60					
SD36.5-4D-C32	36.5	231	148	171	60					
SD37-4D-C32	37	233	150	173	60					
SD37.5-4D-C32	37.5	236	152	176	60					
SD38-4D-C32	38	234.5	154	174.5	60					
SD38.5-4D-C32	38.5	236.5	156	176.5	60					
SD39-4D-C32	39	240	158	180	60	G 1/4	40	WCMT 08 04 12	M4.0X10	T15
SD39.5-4D-C32	39.5	239	160	179	60					
SD40-4D-C32	40	240	162	180	60					
SD40.5-4D-C32	40.5	241	164	181	60					
SD41-4D-C32	41	246	166	186	60					
SD41.5-4D-C32	41.5	245	168	185	60					
SD42-4D-C40	42	265	170	195	70					
SD42.5-4D-C40	42.5	267	172	197	70					
SD43-4D-C40	43	269	174	199	70					
SD43.5-4D-C40	43.5	271	176	201	70					
SD44-4D-C40	44	273	178	203	70	G 1/4	40	WCMT 06 T3 08	M3.5X10	T15
SD44.5-4D-C40	44.5	275	180	205	70					
SD45-4D-C40	45	277	182	207	70					
SD45.5-4D-C40	45.5	279	184	209	70					
SD46-4D-C40	46	281	186	211	70					
SD46.5-4D-C40	46.5	283	188	213	70					
SD47-4D-C40	47	285	190	215	70					
SD47.5-4D-C40	47.5	287	192	217	70					
SD48-4D-C40	48	289	194	219	70					
SD48.5-4D-C40	48.5	291	196	221	70					
SD49-4D-C40	49	293	198	223	70	G 1/4	40	WCMT 06 T3 08	M3.5X10	T15
SD49.5-4D-C40	49.5	295	200	225	70					
SD50-4D-C40	50	297	202	227	70					
SD50.5-4D-C40	50.5	299	204	229	70					
SD51-4D-C40	51	301	206	231	70					
SD52-4D-C40	52	305	210	235	70					
SD53-4D-C40	53	309	214	239	70					
SD54-4D-C40	54	313	218	243	70					
SD55-4D-C40	55	317	222	247	70					
SD56-4D-C40	56	321	226	251	70					
SD57-4D-C40	57	325	230	255	70	G 1/4	40	WCMT 06 T3 08	M3.5X10	T15
SD58-4D-C40	58	329	234	259	70					
SD59-4D-C40	59	333	238	263	70					
SD60-4D-C40	60	337	242	267	70					
SD65-4D-C40	65	363.5	262	293.5	70					
SD68-4D-C40	68	376	274	306	70					
SD70-4D-C40	70	372	282	302	70					

U钻 U drill



WC刀片 5D

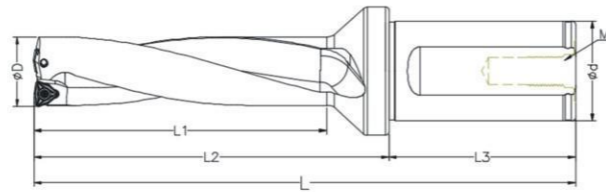
型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD14-5D-C25	14	149	72	93	56	G 1/8	25	WCMX 03 02 08	M2.5X5	T8
SD14.5-5D-C25	14.5	151.5	74.5	95.5	56	G 1/8	25	WCMX 03 02 08	M2.5X6	T8
SD15-5D-C25	15	152	77	96	56					
SD15.5-5D-C25	15.5	154.5	79.5	98.5	56					
SD16-5D-C25	16	157	82	101	56					
SD16.5-5D-C25	16.5	159.5	84.5	103.5	56					
SD17-5D-C25	17	162	87	106	56					
SD17.5-5D-C25	17.5	164.5	89.5	108.5	56					
SD18-5D-C25	18	167	92	111	56					
SD18.5-5D-C25	18.5	169.5	94.5	113.5	56					
SD19-5D-C25	19	170	97	114	56					
SD19.5-5D-C25	19.5	172.5	99.5	116.5	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8
SD20-5D-C25	20	175.5	102	119.5	56					
SD20.5-5D-C25	20.5	178.5	104.5	122.5	56					
SD21-5D-C25	21	181	107	125	56					
SD21.5-5D-C25	21.5	183.5	109.5	127.5	56					
SD22-5D-C25	22	186	112	130	56					
SD22.5-5D-C25	22.5	188.5	114.5	132.5	56					
SD23-5D-C25	23	191	117	135	56					
SD23.5-5D-C25	23.5	193.5	119.5	137.5	56					
SD24-5D-C25	24	196	122	140	56					
SD24.5-5D-C25	24.5	198.5	124.5	142.5	56					
SD25-5D-C25	25	202	127	146	56					
SD25-5D-C32	25	211	127	151	60					
SD25.5-5D-C32	25.5	213.5	129.5	153.5	60					
SD26-5D-C32	26	216	132	156	60					
SD26.5-5D-C32	26.5	218.5	134.5	158.5	60					
SD27-5D-C32	27	221	137	161	60					
SD27.5-5D-C32	27.5	223.5	139.5	163.5	60					
SD28-5D-C32	28	226	142	166	60	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD28.5-5D-C32	28.5	228.5	144.5	168.5	60					
SD29-5D-C32	29	231	147	171	60					
SD29.5-5D-C32	29.5	233.5	149.5	173.5	60					
SD30-5D-C32	30	236	152	176	60					
SD30.5-5D-C32	30.5	237.5	154.5	177.5	60					
SD31-5D-C32	31	240	157	180	60					
SD31.5-5D-C32	31.5	241.5	159.5	181.5	60					
SD32-5D-C32	32	245	162	185	60					
SD32.5-5D-C32	32.5	246.5	164.5	186.5	60					
SD33-5D-C32	33	250	167	190	60					
SD33.5-5D-C32	33.5	251.5	169.5	191.5	60					

U钻 U drill

WC刀片 5D

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD34-5D-C32	34	254	172	194	60	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
SD34.5-5D-C32	34.5	255.5	174.5	195.5	60					
SD35-5D-C32	35	260	177	200	60					
SD35.5-5D-C32	35.5	261.5	179.5	201.5	60					
SD36-5D-C32	36	265	182	205	60					
SD36.5-5D-C32	36.5	267.5	184.5	207.5	60					
SD37-5D-C32	37	270	187	210	60					
SD37.5-5D-C32	37.5	273.5	189.5	213.5	60					
SD38-5D-C32	38	272.5	192	212.5	60					
SD38.5-5D-C32	38.5	275	194.5	215	60					
SD39-5D-C32	39	279	197	219	60					
SD39.5-5D-C32	39.5	278.5	199.5	218.5	60					
SD40-5D-C32	40	280	202	220	60					
SD40.5-5D-C32	40.5	281.5	204.5	221.5	60					
SD41-5D-C32	41	287	207	227	60					
SD41.5-5D-C32	41.5	286.5	209.5	226.5	60					
SD42-5D-C40	42	307	212	237	70	G 1/4	40	WCMT 08 04 12	M4.0X10	T15
SD42.5-5D-C40	42.5	309.5	214.5	239.5	70					
SD43-5D-C40	43	312	217	242	70					
SD43.5-5D-C40	43.5	314.5	219.5	244.5	70					
SD44-5D-C40	44	317	222	247	70					
SD44.5-5D-C40	44.5	319.5	224.5	249.5	70					
SD45-5D-C40	45	322	227	252	70					
SD45.5-5D-C40	45.5	324.5	229.5	254.5	70					
SD46-5D-C40	46	327	232	257	70					
SD46.5-5D-C40	46.5	329.5	234.5	259.5	70					
SD47-5D-C40	47	332	137	262	70					
SD47.5-5D-C40	47.5	334.5	239.5	264.5	70					
SD48-5D-C40	48	337	242	267	70					
SD48.5-5D-C40	48.5	339.5	244.5	269.5	70					
SD49-5D-C40	49	342	247	272	70					
SD49.5-5D-C40	49.5	344.5	249.5	274.5	70					
SD50-5D-C40	50	347	252	277	70					
SD50.5-5D-C40	50.5	349.5	254.5	279.5	70					
SD51-5D-C40	51	352	257	282	70					
SD52-5D-C40	52	257	262	287	70					
SD53-5D-C40	53	362	267	292	70					
SD54-5D-C40	54	367	272	297	70					
SD55-5D-C40	55	372	277	302	70					
SD56-5D-C40	56	377	282	307	70					
SD57-5D-C40	57	382	287	312	70					
SD58-5D-C40	58	387	292	317	70					
SD59-5D-C40	59	392	297	322	70					
SD60-5D-C40	60	397	302	327	70					
SD65-5D-C40	65	428.5	327	358.5	70	G 1/4	40	WCMT 06 T3 08	M3.5X10	T15
SD68-5D-C40	68	444	342	374	70					
SD70-5D-C40	70	442	352	372	70					

U钻 U drill



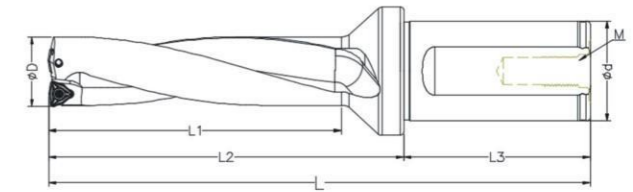
WC刀片 2D-C20

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD14-2D-C20	14	101	30	51	50	G 1/8	20	WCMX 03 02 08	M2.5X5	T8
SD14.5-2D-C20	14.5	102	31	52	50	G 1/8	20			
SD15-2D-C20	15	101	32	51	50					
SD15.5-2D-C20	15.5	102	33	52	50					
SD16-2D-C20	16	103	34	53	50					
SD16.5-2D-C20	16.5	104	35	54	50					
SD17-2D-C20	17	105	36	55	50					
SD17.5-2D-C20	17.5	106	37	56	50					
SD18-2D-C20	18	107	38	57	50					
SD18.5-2D-C20	18.5	108	39	58	50					
SD19-2D-C20	19	107	40	57	50			G 1/8	20	WCMX 04 02 08
SD19.5-2D-C20	19.5	108	41	58	50					
SD20-2D-C20	20	109.5	42	59.5	50					
SD20.5-2D-C20	20.5	111	43	61	50					
SD21-2D-C20	21	112	44	62	50					
SD21.5-2D-C20	21.5	113	45	63	50					
SD22-2D-C20	22	114	46	64	50					
SD22.5-2D-C20	22.5	115	47	65	50					
SD23-2D-C20	23	116	48	66	50					
SD23.5-2D-C20	23.5	117	49	67	50					

WC刀片 3D-20

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD14-3D-C20	14	115	44	65	50	G 1/8	20	WCMX 03 02 08	M2.5X5	T8
SD14.5-3D-C20	14.5	116.5	45.5	66.5	50	G 1/8	20			
SD15-3D-C20	15	116	47	66	50					
SD15.5-3D-C20	15.5	117.5	48.5	67.5	50					
SD16-3D-C20	16	119	50	69	50					
SD16.5-3D-C20	16.5	120.5	51.5	70.5	50					
SD17-3D-C20	17	122	53	72	50					
SD17.5-3D-C20	17.5	123.5	54.5	73.5	50					
SD18-3D-C20	18	125	56	75	50					
SD18.5-3D-C20	18.5	126.5	57.5	76.5	50					
SD19-3D-C20	19	126	59	76	50			G 1/8	20	WCMX 04 02 08
SD19.5-3D-C20	19.5	127.5	60.5	77.5	50					
SD20-3D-C20	20	129.5	62	79.5	50					
SD20.5-3D-C20	20.5	131.5	63.5	81.5	50					
SD21-3D-C20	21	133	65	83	50					
SD21.5-3D-C20	21.5	134.5	66.5	84.5	50					
SD22-3D-C20	22	136	68	86	50					
SD22.5-3D-C20	22.5	137.5	69.5	87.5	50					
SD23-3D-C20	23	139	71	89	50					
SD23.5-3D-C20	23.5	140.5	72.5	90.5	50					

U钻 U drill



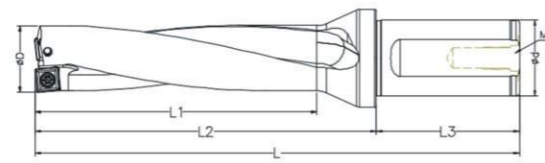
WC刀片 4D-C20

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD14-4D-C20	14	129	58	79	50	G 1/8	20	WCMX 03 02 08	M2.5X5	T8
SD14.5-4D-C20	14.5	131	60	81	50	G 1/8	20			
SD15-4D-C20	15	131	62	81	50					
SD15.5-4D-C20	15.5	133	64	83	50					
SD16-4D-C20	16	135	66	85	50					
SD16.5-4D-C20	16.5	137	68	87	50					
SD17-4D-C20	17	139	70	89	50					
SD17.5-4D-C20	17.5	141	72	91	50					
SD18-4D-C20	18	143	74	93	50					
SD18.5-4D-C20	18.5	145	76	95	50					
SD19-4D-C20	19	145	78	95	50			G 1/8	20	WCMX 04 02 08
SD19.5-4D-C20	19.5	147	80	97	50					
SD20-4D-C20	20	149.5	82	99.5	50					
SD20.5-4D-C20	20.5	152	84	102	50					
SD21-4D-C20	21	154	86	104	50					
SD21.5-4D-C20	21.5	156	88	106	50					
SD22-4D-C20	22	158	90	108	50					
SD22.5-4D-C20	22.5	160	92	110	50					
SD23-4D-C20	23	162	94	112	50					
SD23.5-4D-C20	23.5	164	96	114	50					

WC刀片 5D-C20

型号 Code No	尺寸 Size							刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3	M	Φd			
SD14-5D-C20	14	143	72	93	50	G 1/8	20	WCMX 03 02 08	M2.5X5	T8
SD14.5-5D-C20	14.5	145.5	74.5	95.5	50	G 1/8	20			
SD15-5D-C20	15	146	77	96	50					
SD15.5-5D-C20	15.5	148.5	79.5	98.5	50					
SD16-5D-C20	16	151	82	101	50					
SD16.5-5D-C20	16.5	153.5	84.5	103.5	50					
SD17-5D-C20	17	156	87	106	50					
SD17.5-5D-C20	17.5	158.5	89.5	108.5	50					
SD18-5D-C20	18	161	92	111	50					
SD18.5-5D-C20	18.5	163.5	94.5	113.5	50					
SD19-5D-C20	19	164	97	114	50			G 1/8	20	WCMX 04 02 08
SD19.5-5D-C20	19.5	166.5	99.5	116.5	50					
SD20-5D-C20	20	169.5	102	119.5	50					
SD20.5-5D-C20	20.5	172.5	104.5	122.5	50					
SD21-5D-C20	21	175	107	125	50					
SD21.5-5D-C20	21.5	177.5	109.5	127.5	50					
SD22-5D-C20	22	180	112	130	50					
SD22.5-5D-C20	22.5	182.5	114.5	132.5	50					
SD23-5D-C20	23	185	117	135	50					
SD23.5-5D-C20	23.5	187.5	119.5	137.5	50					

U钻 U drill



SP刀片 2D

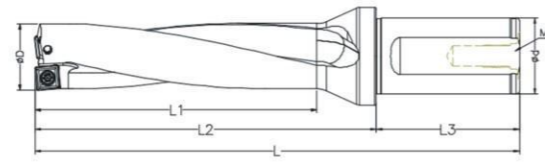
型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP10-2D-C20	10	83	22	33	50	G 1/8	20	SPGT 04 T1 02	M1. 8X4	T6
SP10.5-2D-C20	10.5	84	23	34	50					
SP11-2D-C20	11	85	24	35	50					
SP11.5-2D-C20	11.5	86	25	36	50					
SP12-2D-C20	12	87	26	37	50					
SP12.5-2D-C20	12.5	96	27	46	50	G 1/8	20	SPMG 05 02 04	M2. 2X5	T6
SP13-2D-C20	13	97	28	47	50					
SP13.5-2D-C20	13.5	98	29	48	50					
SP14-2D-C25	14	107	30	51	56	G 1/8	25	SPMG 06 02 04	M2. 2X6	T7
SP14.5-2D-C25	14.5	108	31	52	56					
SP15-2D-C25	15	109	32	53	56					
SP15.5-2D-C25	15.5	110	33	54	56					
SP16-2D-C25	16	111	34	55	56					
SP16.5-2D-C25	16.5	112	35	56	56	G 1/8	25	SPMG 07 T3 08	M2. 5X8	T8
SP17-2D-C25	17	111	36	55	56					
SP17.5-2D-C25	17.5	112	37	56	56					
SP18-2D-C25	18	112	38	56	56					
SP18.5-2D-C25	18.5	113	39	57	56					
SP19-2D-C25	19	113	40	57	56	G 1/8	25	SPMG 07 T3 08	M2. 5X8	T8
SP19.5-2D-C25	19.5	114	41	58	56					
SP20-2D-C25	20	117	42	61	56					
SP20.5-2D-C25	20.5	118	43	62	56					
SP21-2D-C25	21	119	44	63	56					
SP21.5-2D-C25	21.5	120	45	64	56	G 1/8	25	SPMG 07 T3 08	M2. 5X8	T8
SP22-2D-C25	22	121	46	65	56					
SP22.5-2D-C25	22.5	122	47	66	56					
SP23-2D-C25	23	123	48	67	56					
SP23.5-2D-C25	23.5	124	49	68	56					
SP24-2D-C25	24	125	50	69	56	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP24.5-2D-C25	24.5	126	51	70	56					
SP25-2D-C25	25	128	52	72	56					
SP25-2D-C32	25	137	52	77	60					
SP25.5-2D-C32	25.5	138	53	78	60					
SP26-2D-C32	26	139	54	79	60	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP26.5-2D-C32	26.5	140	55	80	60					
SP27-2D-C32	27	141	56	81	60					
SP27.5-2D-C32	27.5	142	57	82	60					
SP28-2D-C32	28	143	58	83	60					
SP28.5-2D-C32	28.5	144	59	84	60	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP29-2D-C32	29	145	60	85	60					
SP29.5-2D-C32	29.5	146	61	86	60					

U钻 U drill

SP刀片 2D

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP30-2D-C32	30	144	62	84	60	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP30.5-2D-C32	30.5	145	63	85	60					
SP31-2D-C32	31	146	64	86	60					
SP31.5-2D-C32	31.5	147	65	87	60					
SP32-2D-C32	32	148	66	88	60					
SP32.5-2D-C32	32.5	149	67	89	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP33-2D-C32	33	150	68	90	60					
SP33.5-2D-C32	33.5	151	69	91	60					
SP34-2D-C32	34	156	70	96	60					
SP34.5-2D-C32	34.5	157	71	97	60					
SP35-2D-C32	35	158	72	98	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP35.5-2D-C32	35.5	159	73	99	60					
SP36-2D-C32	36	160	74	100	60					
SP36.5-2D-C32	36.5	161	75	101	60					
SP37-2D-C32	37	161	76	101	60					
SP37.5-2D-C32	37.5	162	77	102	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP38-2D-C32	38	163	78	103	60					
SP38.5-2D-C32	38.5	164	79	104	60					
SP39-2D-C32	39	165	80	105	60					
SP39.5-2D-C32	39.5	166	81	106	60					
SP40-2D-C32	40	167	82	107	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP40.5-2D-C32	40.5	168	83	108	60					
SP41-2D-C32	41	169	84	109	60					
SP42-2D-C40	42	179	86	109	70					
SP43-2D-C40	43	181	88	111	70					
SP44-2D-C40	44	186	90	116	70	G 1/4	40	SPMG 14 05 12	M5X12	T20
SP45-2D-C40	45	188	92	118	70					
SP46-2D-C40	46	191	94	121	70					
SP47-2D-C40	47	193	96	123	70					
SP48-2D-C40	48	195	98	125	70					
SP49-2D-C40	49	197	100	127	70	G 1/4	40	SPMG 14 05 12	M5X12	T20
SP50-2D-C40	50	199	102	129	70					
SP51-2D-C40	51	201	104	131	70					
SP52-2D-C40	52	203	106	133	70					
SP53-2D-C40	53	205	108	135	70					
SP54-2D-C40	54	207	110	137	70	G 1/4	40	SPMG 07 T3 08	M2. 5X8	T8
SP55-2D-C40	55	209	112	139	70					
SP56-2D-C40	56	211	114	141	70					
SP57-2D-C40	57	213	116	143	70					
SP58-2D-C40	58	215	118	145	70					
SP59-2D-C40	59	218	120	148	70	G 1/4	40	SPMG 09 04 08	M3. 5X10	T15
SP60-2D-C40	60	220	122	150	70					

U钻 U drill



SP刀片 3D

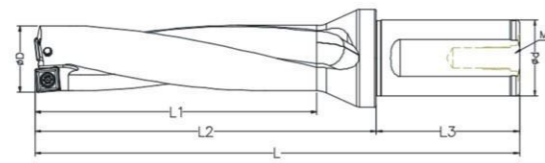
型号 Code No	尺寸 Size					M	Φd	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3					
SP10-3D-C20	10	93	32	43	50	G 1/8	20	SPGT 04 T1 02	M1.8X4	T6
SP10.5-3D-C20	10.5	94.5	33.5	44.5	50					
SP11-3D-C20	11	96	35	46	50					
SP11.5-3D-C20	11.5	97.5	36.5	47.5	50					
SP12-3D-C20	12	99	38	49	50					
SP12.5-3D-C20	12.5	108.5	39.5	58.5	50	G 1/8	20	SPMG 05 02 04	M2.2X5	T6
SP13-3D-C20	13	110	41	60	50					
SP13.5-3D-C20	13.5	111.5	42.5	61.5	50					
SP14-3D-C25	14	121	44	65	56	G 1/8	25	SPMG 06 02 04	M2.2X6	T7
SP14.5-3D-C25	14.5	122.5	45.5	66.5	56					
SP15-3D-C25	15	124	47	68	56					
SP15.5-3D-C25	15.5	125.5	48.5	69.5	56					
SP16-3D-C25	16	127	50	71	56					
SP16.5-3D-C25	16.5	128.5	51.5	72.5	56	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
SP17-3D-C25	17	128	53	72	56					
SP17.5-3D-C25	17.5	129.5	54.5	73.5	56					
SP18-3D-C25	18	130	56	74	56					
SP18.5-3D-C25	18.5	131.5	57.5	75.5	56					
SP19-3D-C25	19	132	59	76	56	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
SP19.5-3D-C25	19.5	133.5	60.5	77.5	56					
SP20-3D-C25	20	137	62	81	56					
SP20.5-3D-C25	20.5	138.5	63.5	82.5	56					
SP21-3D-C25	21	140	65	84	56					
SP21.5-3D-C25	21.5	141.5	66.5	85.5	56	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
SP22-3D-C25	22	143	68	87	56					
SP22.5-3D-C25	22.5	144.5	69.5	88.5	56					
SP23-3D-C25	23	146	71	90	56					
SP23.5-3D-C25	23.5	147.5	72.5	91.5	56					
SP24-3D-C25	24	149	74	93	56	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP24.5-3D-C25	24.5	150.5	75.5	94.5	56					
SP25-3D-C25	25	153	77	97	56					
SP25-3D-C32	25	162	77	102	60					
SP25.5-3D-C32	25.5	163.5	78.5	103.5	60					
SP26-3D-C32	26	165	80	105	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP26.5-3D-C32	26.5	166.5	81.5	106.5	60					
SP27-3D-C32	27	168	83	108	60					
SP27.5-3D-C32	27.5	169.5	84.5	109.5	60					
SP28-3D-C32	28	171	86	111	60					
SP28.5-3D-C32	28.5	172.5	87.5	122.5	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP29-3D-C32	29	174	89	114	60					
SP29.5-3D-C32	29.5	175.5	90.5	115.5	60					

U钻 U drill

SP刀片 3D

型号 Code No	尺寸 Size					M	Φd	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	ΦD	L	L1	L2	L3					
SP30-3D-C32	30	174	92	114	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP30.5-3D-C32	30.5	175.5	93.5	115.5	60					
SP31-3D-C32	31	177	95	117	60					
SP31.5-3D-C32	31.5	178.5	96.5	118.5	60					
SP32-3D-C32	32	180	98	120	60					
SP32.5-3D-C32	32.5	181.5	99.5	121.5	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP33-3D-C32	33	183	101	123	60					
SP33.5-3D-C32	33.5	184.5	102.5	124.5	60					
SP34-3D-C32	34	191.5	104	131.5	60					
SP34.5-3D-C32	34.5	191.5	105.5	131.5	60					
SP35-3D-C32	35	193	107	133	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP35.5-3D-C32	35.5	194.5	108.5	134.5	60					
SP36-3D-C32	36	196	110	136	60					
SP36.5-3D-C32	36.5	197.5	111.5	137.5	60					
SP37-3D-C32	37	198	113	138	60					
SP37.5-3D-C32	37.5	199.5	114.5	139.5	60	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP38-3D-C32	38	201	116	141	60					
SP38.5-3D-C32	38.5	202.5	117.5	142.5	60					
SP39-3D-C32	39	204	119	144	60					
SP39.5-3D-C32	39.5	205.5	120.5	145.5	60					
SP40-3D-C32	40	207	122	147	60	G 1/4	40	SPMG 14 05 12	M5X12	T20
SP40.5-3D-C32	40.5	208.5	123.5	148.5	60					
SP41-3D-C32	41	210	125	150	60					
SP42-3D-C40	42	221	128	151	70					
SP43-3D-C40	43	224	131	154	70					
SP44-3D-C40	44	230	134	160	70	G 1/4	40	SPMG 14 05 12	M5X12	T20
SP45-3D-C40	45	233	137	163	70					
SP46-3D-C40	46	237	140	167	70					
SP47-3D-C40	47	240	143	170	70					
SP48-3D-C40	48	243	146	173	70					
SP49-3D-C40	49	246	149	176	70	G 1/4	40	SPMG 07 T3 08	M2.5X8	T8
SP50-3D-C40	50	249	152	179	70					
SP51-3D-C40	51	252	155	182	70					
SP52-3D-C40	52	255	158	185	70					
SP53-3D-C40	53	258	161	188	70					
SP54-3D-C40	54	261	164	191	70	G 1/4	40	SPMG 09 04 08	M3.5X10	T15
SP55-3D-C40	55	264	167	194	70					
SP56-3D-C40	56	267	170	197	70					
SP57-3D-C40	57	270	173	200	70					
SP58-3D-C40	58	273	176	203	70					
SP59-3D-C40	59	277	179	207	70	G 1/4	40	SPMG 09 04 08	M3.5X10	T15
SP60-3D-C40	60	280	182	210	70					

U钻 U drill



SP刀片 4D

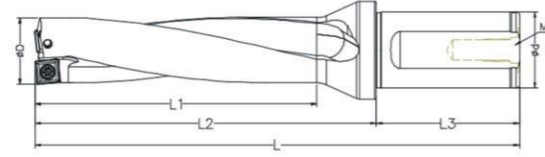
型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP10-4D-C20	10	103	42	53	50	G 1/8	20	SPGT 04 T1 02	M1. 8X4	T6
SP10.5-4D-C20	10.5	105	44	55	50					
SP11-4D-C20	11	107	46	57	50					
SP11.5-4D-C20	11.5	109	48	59	50					
SP12-4D-C20	12	111	50	61	50					
SP12.5-4D-C20	12.5	121	52	71	50	G 1/8	20	SPMG 05 02 04	M2. 2X5	T6
SP13-4D-C20	13	123	54	73	50					
SP13.5-4D-C20	13.5	125	56	75	50					
SP14-4D-C25	14	135	58	79	56					
SP14.5-4D-C25	14.5	137	60	81	56					
SP15-4D-C25	15	139	62	83	56	G 1/8	25	SPMG 06 02 04	M2. 2X6	T7
SP15.5-4D-C25	15.5	141	64	85	56					
SP16-4D-C25	16	143	66	87	56					
SP16.5-4D-C25	16.5	145	68	89	56					
SP17-4D-C25	17	145	70	89	56					
SP17.5-4D-C25	17.5	147	72	91	56	G 1/8	25	SPMG 07 T3 08	M2. 5X8	T8
SP18-4D-C25	18	148	74	92	56					
SP18.5-4D-C25	18.5	150	76	94	56					
SP19-4D-C25	19	151	78	95	56					
SP19.5-4D-C25	19.5	153	80	97	56					
SP20-4D-C25	20	157	82	101	56	G 1/8	25	SPMG 07 T3 08	M2. 5X8	T8
SP20.5-4D-C25	20.5	159	84	103	56					
SP21-4D-C25	21	161	86	105	56					
SP21.5-4D-C25	21.5	163	88	107	56					
SP22-4D-C25	22	165	90	109	56					
SP22.5-4D-C25	22.5	167	92	111	56	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP23-4D-C25	23	169	94	113	56					
SP23.5-4D-C25	23.5	171	96	115	56					
SP24-4D-C25	24	173	98	117	56					
SP24.5-4D-C25	24.5	175	100	119	56					
SP25-4D-C25	25	178	102	122	56	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP25-4D-C32	25	187	102	127	60					
SP25.5-4D-C32	25.5	189	104	129	60					
SP26-4D-C32	26	191	106	131	60					
SP26.5-4D-C32	26.5	193	108	133	60					
SP27-4D-C32	27	195	110	135	60	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15
SP27.5-4D-C32	27.5	197	112	137	60					
SP28-4D-C32	28	199	114	139	60					
SP28.5-4D-C32	28.5	201	116	141	60					
SP29-4D-C32	29	203	118	143	60					
SP29.5-4D-C32	29.5	205	120	145	60					

U钻 U drill

SP刀片 4D

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench						
	ΦD	L	L1	L2	L3	M				Φd					
SP30-4D-C32	30	204	122	144	60	G 1/4	32	SPMG 09 04 08	M3. 5X10	T15					
SP30.5-4D-C32	30.5	206	124	146	60										
SP31-4D-C32	31	208	126	148	60										
SP31.5-4D-C32	31.5	210	128	150	60										
SP32-4D-C32	32	212	130	152	60										
SP32.5-4D-C32	32.5	214	132	154	60										
SP33-4D-C32	33	216	134	156	60										
SP33.5-4D-C32	33.5	218	136	158	60										
SP34-4D-C32	34	224	138	164	60						G 1/4	32	SPMG 11 04 08	M4X10	T15
SP34.5-4D-C32	34.5	226	140	166	60										
SP35-4D-C32	35	228	142	168	60										
SP35.5-4D-C32	35.5	230	144	170	60										
SP36-4D-C32	36	232	146	172	60										
SP36.5-4D-C32	36.5	234	148	174	60										
SP37-4D-C32	37	235	150	175	60										
SP37.5-4D-C32	37.5	237	152	177	60										
SP38-4D-C32	38	239	154	179	60	G 1/4	40	SPMG 14 05 12	M5X12	T20					
SP38.5-4D-C32	38.5	241	156	181	60										
SP39-4D-C32	39	243	158	183	60										
SP39.5-4D-C32	39.5	245	160	185	60										
SP40-4D-C32	40	247	162	187	60										
SP40.5-4D-C32	40.5	249	164	189	60										
SP41-4D-C32	41	251	166	191	60										
SP42-4D-C40	42	263	170	193	70						G 1/4	40	SPMG 07 T3 08	M2. 5X8	T8
SP43-4D-C40	43	267	174	197	70										
SP44-4D-C40	44	274	178	204	70										
SP45-4D-C40	45	278	182	208	70										
SP46-4D-C40	46	283	186	213	70										
SP47-4D-C40	47	287	190	217	70										
SP48-4D-C40	48	291	194	221	70										
SP49-4D-C40	49	295	198	225	70										
SP50-4D-C40	50	299	202	229	70	G 1/4	40	SPMG 09 04 08	M3. 5X10	T15					
SP51-4D-C40	51	303	206	233	70										
SP52-4D-C40	52	307	210	237	70										
SP53-4D-C40	53	311	214	241	70										
SP54-4D-C40	54	315	218	245	70										
SP55-4D-C40	55	319	222	249	70										
SP56-4D-C40	56	323	226	253	70										
SP57-4D-C40	57	327	230	257	70										
SP58-4D-C40	58	331	234	261	70										
SP59-4D-C40	59	336	238	266	70										
SP60-4D-C40	60	340	242	270	70										

U钻 U drill



SP刀片 5D

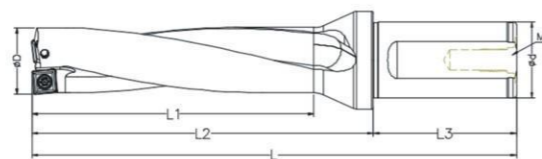
型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench										
	ΦD	L	L1	L2	L3	M				Φd									
SP12.5-5D-C20	12.5	133.5	64.5	83.5	50	G 1/8	20	SPMG 05 02 04	M2.2X5	T6									
SP13-5D-C20	13	136	67	86	50														
SP13.5-5D-C20	13.5	138.5	69.5	88.5	50														
SP14-5D-C25	14	149	72	93	56	G 1/8	25				SPMG 06 02 04	M2.2X6	T7						
SP14.5-5D-C25	14.5	151.5	74.5	95.5	56														
SP15-5D-C25	15	154	77	98	56														
SP15.5-5D-C25	15.5	156.5	79.5	100.5	56	G 1/8	25							SPMG 07 T3 08	M2.5X8	T8			
SP16-5D-C25	16	159	82	103	56														
SP16.5-5D-C25	16.5	161.5	84.5	105.5	56														
SP17-5D-C25	17	162	87	106	56	G 1/8	25										SPMG 09 04 08	M3.5X10	T15
SP17.5-5D-C25	17.5	164.5	89.5	108.5	56														
SP18-5D-C25	18	166	92	110	56														
SP18.5-5D-C25	18.5	168.5	94.5	112.5	56	G 1/8	25	SPMG 09 04 08	M3.5X10	T15									
SP19-5D-C25	19	170	97	114	56														
SP19.5-5D-C25	19.5	172.5	99.5	116.5	56														
SP20-5D-C25	20	177	102	121	56	G 1/4	32				SPMG 09 04 08	M3.5X10	T15						
SP20.5-5D-C25	20.5	179.5	104.5	123.5	56														
SP21-5D-C25	21	182	107	126	56														
SP21.5-5D-C25	21.5	184.5	109.5	128.5	56	G 1/4	32							SPMG 09 04 08	M3.5X10	T15			
SP22-5D-C25	22	187	112	131	56														
SP22.5-5D-C25	22.5	189.5	114.5	133.5	56														
SP23-5D-C25	23	192	117	136	56	G 1/4	32										SPMG 09 04 08	M3.5X10	T15
SP23.5-5D-C25	23.5	194.5	119.5	138.5	56														
SP24-5D-C25	24	197	122	141	56														
SP24.5-5D-C25	24.5	199.5	124.5	143.5	56	G 1/4	32	SPMG 09 04 08	M3.5X10	T15									
SP25-5D-C25	25	203	127	147	56														
SP25-5D-C32	25	212	127	152	60														
SP25.5-5D-C32	25.5	214.5	129.5	154.5	60	G 1/4	32				SPMG 09 04 08	M3.5X10	T15						
SP26-5D-C32	26	217	132	157	60														
SP26.5-5D-C32	26.5	219.5	134.5	159.5	60														
SP27-5D-C32	27	222	137	162	60	G 1/4	32							SPMG 09 04 08	M3.5X10	T15			
SP27.5-5D-C32	27.5	224.5	139.5	164.5	60														
SP28-5D-C32	28	227	142	167	60														
SP28.5-5D-C32	28.5	229.5	144.5	169.5	60	G 1/4	32										SPMG 09 04 08	M3.5X10	T15
SP29-5D-C32	29	232	147	172	60														
SP29.5-5D-C32	29.5	234.5	149.5	174.5	60														
SP30-5D-C32	30	234	152	174	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15									
SP30.5-5D-C32	30.5	236.5	154.5	176.5	60														
SP31-5D-C32	31	239	157	179	60														
SP31.5-5D-C32	31.5	241.5	159.5	181.5	60	G 1/4	32				SPMG 09 04 08	M3.5X10	T15						
SP32-5D-C32	32	244	162	184	60														

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SP刀片 5D

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench										
	ΦD	L	L1	L2	L3	M				Φd									
SP32.5-5D-C32	32.5	246.5	164.5	186.5	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15									
SP33-5D-C32	33	249	167	189	60														
SP33.5-5D-C32	33.5	251.5	169.5	191.5	60														
SP34-5D-C32	34	258	172	198	60	G 1/4	32				SPMG 11 04 08	M4X10	T15						
SP34.5-5D-C32	34.5	260.5	174.5	200.5	60														
SP35-5D-C32	35	263	177	203	60														
SP35.5-5D-C32	35.5	265.5	179.5	205.5	60	G 1/4	32							SPMG 14 05 12	M5X12	T20			
SP36-5D-C32	36	268	182	208	60														
SP36.5-5D-C32	36.5	270.5	184.5	210.5	60														
SP37-5D-C32	37	272	187	212	60	G 1/4	32										SPMG 14 05 12	M5X12	T20
SP37.5-5D-C32	37.5	274.5	189.5	214.5	60														
SP38-5D-C32	38	277	192	217	60														
SP38.5-5D-C32	38.5	279.5	194.5	219.5	60	G 1/4	32	SPMG 14 05 12	M5X12	T20									
SP39-5D-C32	39	282	197	222	60														
SP39.5-5D-C32	39.5	284.5	199.5	224.5	60														
SP40-5D-C32	40	287	202	227	60	G 1/4	40				SPMG 14 05 12	M5X12	T20						
SP40.5-5D-C32	40.5	289.5	204.5	229.5	60														
SP41-5D-C32	41	292	207	232	60														
SP42-5D-C40	42	305	212	235	70	G 1/4	40							SPMG 14 05 12	M5X12	T20			
SP43-5D-C40	43	310	217	240	70														
SP44-5D-C40	44	318	222	248	70														
SP45-5D-C40	45	323	227	253	70	G 1/4	40										SPMG 14 05 12	M5X12	T20
SP46-5D-C40	46	329	232	259	70														
SP47-5D-C40	47	334	237	264	70														
SP48-5D-C40	48	339	242	269	70	G 1/4	40	SPMG 14 05 12	M5X12	T20									
SP49-5D-C40	49	344	247	274	70														
SP50-5D-C40	50	349	252	279	70														
SP51-5D-C40	51	354	257	284	70	G 1/4	40				SPMG 07 T3 08	M2.5X8	T8						
SP52-5D-C40	52	359	262	289	70														
SP53-5D-C40	53	364	267	294	70														
SP54-5D-C40	54	369	272	299	70	G 1/4	40							SPMG 07 T3 08	M2.5X8	T8			
SP55-5D-C40	55	374	277	304	70														
SP56-5D-C40	56	379	282	309	70														
SP57-5D-C40	57	384	287	314	70	G 1/4	40										SPMG 09 04 08	M3.5X10	T15
SP58-5D-C40	58	389	292	319	70														
SP59-5D-C40	59	395	297	325	70														
SP60-5D-C40	60	400	302	330	70	G 1/4	40	SPMG 09 04 08	M3.5X10	T15									

U钻 U drill



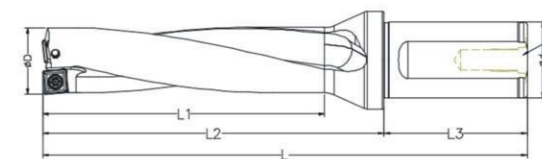
SP刀片 2D-C20

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP14-2D-C20	14	98.5	30	48.5	50	G 1/8	20	SPMG 05 02 04	M2. 2X5	T6
SP14.5-2D-C20	14.5	100	31	50	50					
SP15-2D-C20	15	103	32	53	50					
SP15.5-2D-C20	15.5	104	33	54	50					
SP16-2D-C20	16	105	34	55	50					
SP16.5-2D-C20	16.5	106	35	56	50					
SP17-2D-C20	17	105	36	55	50					
SP17.5-2D-C20	17.5	106	37	56	50					
SP18-2D-C20	18	106	38	56	50					
SP18.5-2D-C20	18.5	107	39	57	50					
SP19-2D-C20	19	107	40	57	50	G 1/8	20	SPMG 06 02 04	M2. 2X6	T7
SP19.5-2D-C20	19.5	108	41	58	50					
SP20-2D-C20	20	111	42	61	50					
SP20.5-2D-C20	20.5	112	43	62	50					
SP21-2D-C20	21	113	44	63	50					
SP21.5-2D-C20	21.5	114	45	64	50					
SP22-2D-C20	22	115	46	65	50					
SP22.5-2D-C20	22.5	116	47	66	50					
SP23-2D-C20	23	117	48	67	50					
SP23.5-2D-C20	23.5	118	49	68	50					
SP24-2D-C20	24	119	49	68	50	G 1/8	20	SPMG 07 T3 08	M2. 5X8	T8
SP24.5-2D-C20	24.5	120	50	69	50					
SP25-2D-C20	25	121	51	70	50					
SP25.5-2D-C20	25.5	122	52	71	50					
SP26-2D-C20	26	123	53	72	50					
SP26.5-2D-C20	26.5	124	54	73	50					
SP27-2D-C20	27	125	55	74	50					
SP27.5-2D-C20	27.5	126	56	75	50					
SP28-2D-C20	28	127	57	76	50					
SP28.5-2D-C20	28.5	128	58	77	50					

SP刀片 3D-C20

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP14-3D-C20	14	112.5	44	62.5	50	G 1/8	20	SPMG 05 02 04	M2. 2X5	T6
SP14.5-3D-C20	14.5	114.5	45.5	64.5	50					
SP15-3D-C20	15	118	47	68	50					
SP15.5-3D-C20	15.5	119.5	48.5	69.5	50					
SP16-3D-C20	16	121	50	71	50					
SP16.5-3D-C20	16.5	122.5	51.5	72.5	50					
SP17-3D-C20	17	122	53	72	50					
SP17.5-3D-C20	17.5	123.5	54.5	73.5	50					
SP18-3D-C20	18	124	56	74	50					
SP18.5-3D-C20	18.5	125.5	57.5	75.5	50					
SP19-3D-C20	19	126	59	76	50	G 1/8	20	SPMG 06 02 04	M2. 2X6	T7
SP19.5-3D-C20	19.5	127.5	60.5	77.5	50					
SP20-3D-C20	20	131	62	81	50					
SP20.5-3D-C20	20.5	132.5	63.5	82.5	50					
SP21-3D-C20	21	134	65	84	50					
SP21.5-3D-C20	21.5	135.5	66.5	85.5	50					
SP22-3D-C20	22	137	68	87	50					
SP22.5-3D-C20	22.5	138.5	69.5	88.5	50					
SP23-3D-C20	23	140	71	90	50					
SP23.5-3D-C20	23.5	141.5	72.5	91.5	50					
SP24-3D-C20	24	143	73	92	50	G 1/8	20	SPMG 07 T3 08	M2. 5X8	T8
SP24.5-3D-C20	24.5	144.5	74.5	93.5	50					
SP25-3D-C20	25	146	75	94	50					
SP25.5-3D-C20	25.5	147.5	76.5	95.5	50					
SP26-3D-C20	26	149	77	96	50					
SP26.5-3D-C20	26.5	150.5	78.5	97.5	50					
SP27-3D-C20	27	152	79	98	50					
SP27.5-3D-C20	27.5	153.5	80.5	99.5	50					
SP28-3D-C20	28	155	81	100	50					
SP28.5-3D-C20	28.5	156.5	82.5	101.5	50					

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SP刀片 4D-C20

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP14-4D-C20	14	126.5	58	76.5	50	G 1/8	20	SPMG 05 02 04	M2. 2X5	T6
SP14.5-4D-C20	14.5	129	60	79	50					
SP15-4D-C20	15	133	62	83	50					
SP15.5-4D-C20	15.5	135	64	85	50					
SP16-4D-C20	16	137	66	87	50					
SP16.5-4D-C20	16.5	139	68	89	50					
SP17-4D-C20	17	139	70	89	50					
SP17.5-4D-C20	17.5	141	72	91	50					
SP18-4D-C20	18	142	74	92	50					
SP18.5-4D-C20	18.5	144	76	94	50					
SP19-4D-C20	19	145	78	95	50	G 1/8	20	SPMG 06 02 04	M2. 2X6	T7
SP19.5-4D-C20	19.5	147	80	97	50					
SP20-4D-C20	20	151	82	101	50					
SP20.5-4D-C20	20.5	153	84	103	50					
SP21-4D-C20	21	155	86	105	50					
SP21.5-4D-C20	21.5	157	88	107	50					
SP22-4D-C20	22	159	90	109	50					
SP22.5-4D-C20	22.5	161	92	111	50					
SP23-4D-C20	23	163	94	113	50					
SP23.5-4D-C20	23.5	165	96	115	50					
SP24-4D-C20	24	166	97	116	50	G 1/8	20	SPMG 07 T3 08	M2. 5X8	T8
SP24.5-4D-C20	24.5	167.5	98.5	117.5	50					
SP25-4D-C20	25	169	100	120	50					
SP25.5-4D-C20	25.5	170.5	101.5	121.5	50					
SP26-4D-C20	26	172	103	123	50					
SP26.5-4D-C20	26.5	173.5	104.5	124.5	50					
SP27-4D-C20	27	175	106	126	50					
SP27.5-4D-C20	27.5	176.5	107.5	127.5	50					
SP28-4D-C20	28	178	109	129	50					
SP28.5-4D-C20	28.5	179.5	110.5	130.5	50					

SP刀片 5D-C20

型号 Code No	尺寸 Size						刀片 Insert	螺钉 Clamp screw	扳手 Wrench	
	ΦD	L	L1	L2	L3	M				Φd
SP14-5D-C20	14	140.5	72	90.5	50	G 1/8	20	SPMG 05 02 04	M2. 2X5	T6
SP14.5-5D-C20	14.5	143.5	74.5	93.5	50					
SP15-5D-C20	15	148	77	98	50					
SP15.5-5D-C20	15.5	150.5	79.5	100.5	50					
SP16-5D-C20	16	153	82	103	50					
SP16.5-5D-C20	16.5	155.5	84.5	105.5	50					
SP17-5D-C20	17	156	87	106	50					
SP17.5-5D-C20	17.5	158.5	89.5	108.5	50					
SP18-5D-C20	18	160	92	110	50					
SP18.5-5D-C20	18.5	162.5	94.5	112.5	50					
SP19-5D-C20	19	164	97	114	50	G 1/8	20	SPMG 06 02 04	M2. 2X6	T7
SP19.5-5D-C20	19.5	166.5	99.5	116.5	50					
SP20-5D-C20	20	171	102	121	50					
SP20.5-5D-C20	20.5	173.5	104.5	123.5	50					
SP21-5D-C20	21	176	107	126	50					
SP21.5-5D-C20	21.5	178.5	109.5	128.5	50					
SP22-5D-C20	22	181	112	131	50					
SP22.5-5D-C20	22.5	183.5	114.5	133.5	50					
SP23-5D-C20	23	186	117	136	50					
SP23.5-5D-C20	23.5	188.5	119.5	138.5	50					
SP24-5D-C20	24	190	120	139	50	G 1/8	20	SPMG 07 T3 08	M2. 5X8	T8
SP24.5-5D-C20	24.5	191.5	121.5	140.5	50					
SP25-5D-C20	25	193	123	142	50					
SP25.5-5D-C20	25.5	194.5	124.5	143.5	50					
SP26-5D-C20	26	196	126	145	50					
SP26.5-5D-C20	26.5	197.5	127.5	146.5	50					
SP27-5D-C20	27	199	129	148	50					
SP27.5-5D-C20	27.5	200.5	130.5	149.5	50					
SP28-5D-C20	28	202	132	151	50					
SP28.5-5D-C20	28.5	203.5	133.5	152.5	50					