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专注孔加工刀具与方案

诚招全国代理商 承接OEM

东莞市川山甲精密刀具有限公司

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2025版

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东莞市川山甲精密刀具有限公司

Dongguan chuanshanjia Precision Cutting Tool Co., Ltd.

Company Profile
公司简介

东莞市川山甲精密刀具有限公司坐落于“世界工厂”之称的中国广东东莞市，创立于2017年，厂区占地面积5000平方米，是一家集研发、设计、制造、销售和服务于一体的精密数控刀具制造厂商，主要以生产孔加工刀具为主，目前开发产品有U钻(快速钻)、铲钻、皇冠钻(可换钻尖钻头)、带定心U钻、组合钻、VMD大钻头、扩孔钻、固定镗刀、油路刀柄、精密镗刀等，多种系列一千多款不同规格产品远销国内外，并深受客户好评与青睐。

Dongguan Chuanshanjia Precision Cutting Tool Co.,Ltd.is located in Dongguan city, Guangdong province, China, known as the “world factory”. Our company was founded in 2017 and covers an area of 5000 square meters, which is a precision CNC cutting tool manufacturer that integrates R&D, design, manufacturing, sales and service. Our main business is the production of hole processing tools. Currently, we have developed products, such as U-drill, spade drill, crown drill(replaceable drill tip bits),spot U-drill, combination drill, VMD large drill, reaming drill, fixed boring tool, oil channel tool holder, precision boring tool, etc. Various series and more than one thousand products with different specifications are sold at home and abroad, and are well received and favored by customers.

公司拥有专业的研发工程师8人和100余名的生产团队，网点销售人员和售后服务工程师20余人，竭诚为每一个客户解决孔加工难题。产品设计理念与时俱进，技术力量雄厚，生产设备先进，现有五轴磨床、三菱、西子、法兰克系统CNC加工中心共60台，数控车床20台，深孔钻10台、精密外圆磨床6台，海克斯康三坐标测量机、瑞士TRIMOS optima光学对刀仪、进口检测仪器等设备，产品坚持全检，让用户放心使用。

The company has 8 professional R&D engineers and a production team of over 100 people, as well as 20 sales personnel and after-sales service engineers. We are dedicated to solving any problems related to hole processing for every customer. Our product design concept keeps pace with the times, our technical strength is strong, our production equipment is advanced. Currently, we have 60 CNC processing centers including five-axis grinders, Mitsubishi, Siemens, and Fanuc systems, 20 CNC lathes, 10 deep hole drills, 6 precision cylindrical grinders, a Hexagon three-coordinate measuring machine, a Swiss TRIMOS optima optical alignment instrument, and imported testing equipment. We insist on full inspection to make customers be assured to use our products.

用质量铸造品牌，以实力证明价值，诚信经营稳健发展，迈向企业永续经营之路！

Build the brand with quality, prove the value with strength, operate with integrity and develop steadily, and embark on the path of sustainable enterprise operation!

Contents 目录

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

皇冠钻的特征与优势

The Characteristics and Advantages of Crown Drill

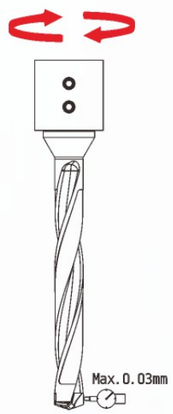
- 刀体采用经过特殊热处理的优质工具钢，表面全部涂层处理，耐磨防锈。
- Hb型侧固式刀柄，坚固的法兰式刀体，以减少震动或抖动。
- 三种槽形的型硬质合金钻尖，适用与碳钢、铸铁、不锈钢、高温合金、铝合金等材料的加工。
- 钻尖采用侧固式锁紧螺丝，更换钻尖更方便。
- 直径范围ø8-39.99，加工深度3D、 5D、 7D、 10D、 12D，其它规格可非标定制。
- 内冷带螺纹接口设计，方便外接高压冷却液，排屑顺畅。

- The tool body is made of high-quality tool steel that has undergone special heat treatment, with the entire surface treated by coating, which is wear-resistant and rust-proof.
- HB type side-fixed tool holder and sturdy flanged tool body to reduce vibration or jitter.
- Three types of channel-shaped solid carbide drill tips are suitable for processing materials such as carbon steel, cast iron, stainless steel, high-temperature alloys, and aluminum alloys.
- The drill tip adopts a side-fixing locking screw, making it more convenient to replace the drill tip.
- The diameter range is ø10-39.99, and the processing depth is 3D, 5D, 7D, 10Dand 12D. Other specifications can be customized non-standard.
- The internal cooling with threaded interface design facilitates the connection of high-pressure coolant externally and ensures smooth chip removal.

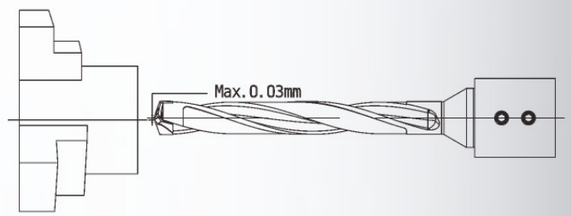
机床安装精度

Machine tool installation accuracy

跳动
Runout

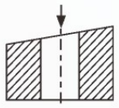
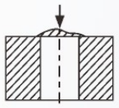
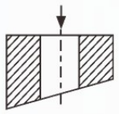
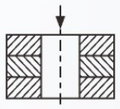
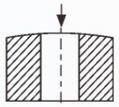
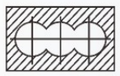
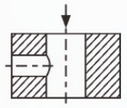
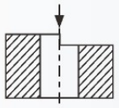


同心度
Concentricity



应用注意事项

Application precautions

工况 Operating Condition	说明 Instructions	工况 Operating Condition	说明 Instructions
	起始面为斜面 The entry surface is slanted 斜面进给率 Slope Feed Rate < 3° 50%		工件表面不平整 Uneven workpiece surface 加工前先锪平 Flatten before processing
	出孔为斜面 The outlet is slanted 斜面进给率 Slope Feed Rate < 3° 50%		钻叠层板 Stacked plates 原则上可以 Allowed in principle 需要良好的工件压紧 The workpiece shall be properly clamped 板之间不能有间隙 There must be no gaps between the plates
	起始面为弧面 The entry surface is arc 在中心处钻孔并降低进给是可以的 Drilling at the center at reduced feed rateis allowed 如起始点不在弧面中心需要将面锪平 If the starting point is not at the center of the curved surface, the surface needs to be flattened		钻型腔 Cavities 不建议 Not recommended
	钻贯穿孔 Through hole 不建议 Not recommended		起始面有台阶 Step on the entry surface 不可以(钻尖起始点必须为平面) Not allowed (the entry point must be on a horizontal plane)

CSJ皇冠钻钻杆型号编码规则

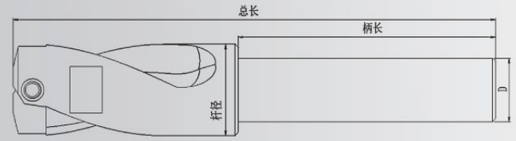
CSJ Crown drill pipe type code rules

CSJ1000/1049-3D-C16-2

刀杆型号 Tool holder type	钻尖直径范围 Drill point diameter range	有效加工深度 Effective machining depth	柄径 Shank diameter	刀座型号 Tool holder type
	1000/1049	3D	C16	2
CSJ	10.00mm～10.49mm	3D=ø×3	C16-ø16柄	2号刀座
		5D=ø×5	C20-ø20柄	
		7D=ø×7	C25-ø25柄	
		10D=ø×10	C32-ø32柄	
		12D=ø×12	C40-ø40柄	

CSJ皇冠钻钻尖修磨杆

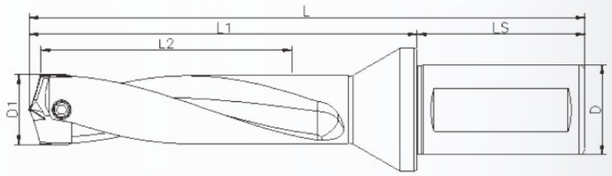
CSJ Crown drill tip grinding rod



规格型号 Specification and model	刀座型号 Model of knife holder	柄径 Handle diameter	杆径 Rod diameter	柄长 Handle length	总长 Total length	倍径 Double diameter	钻尖直径范围 The range of drill tip diameter		螺丝 Screw	扳手 Wrench
CSJ0800/0999-1.5D-C20-1	1	C20	7.2	80	113	1.5D	8.00	9.99	M2.2*7	T7
CSJ1000/1199-1.5D-C20-2	2	C20	9	80	118	1.5D	10.00	11.99	M2.2*9	
CSJ1200/1399-1.5D-C20-3	3	C20	11	80	123	1.5D	12.00	13.99	M2.2*10.5	
CSJ1400/1499-1.5D-C20-4	4	C20	13	80	129.5	1.5D	14.00	14.99	M2.5*12	T8
CSJ1500/1799-1.5D-C20-5	5	C20	14	80	132	1.5D	15.00	17.99	M2.5*12	
CSJ1800/1999-1.5D-C20-6	6	C20	17	80	136.5	1.5D	18.00	19.99	M3.0*16.5	T10
CSJ2000/2199-1.5D-C20-7	7	C20	19	80	139	1.5D	20.00	21.99	M3.0*18.5	
CSJ2200/2399-1.5D-C20-8	8	C20	21	80	145	1.5D	22.00	23.99	M3.0*20.5	
CSJ2400/2599-1.5D-C20-9	9	C20	22.8	80	150	1.5D	24.00	25.99	M4.0*22	T15
CSJ2600/2799-1.5D-C20-10	10	C20	24.8	80	150	1.5D	26.00	27.99	M4.0*24	
CSJ2800/2999-1.5D-C20-11	11	C20	26.8	80	150	1.5D	28.00	29.99	M4.0*26	
CSJ3000/3199-1.5D-C20-12	12	C20	28.8	80	150	1.5D	30.00	31.99	M5.0*28	T20
CSJ3200/3399-1.5D-C20-13	13	C20	30.8	80	150	1.5D	32.00	33.99	M5.0*30	
CSJ3400/3599-1.5D-C20-14	14	C20	32.3	80	150	1.5D	34.00	35.99		
CSJ3600/3799-1.5D-C20-15	15	C20	34.3	80	150	1.5D	36.00	37.99	M5.0*34	
CSJ3800/3999-1.5D-C20-16	16	C20	36.3	80	150	1.5D	38.00	39.99		

CSJ皇冠钻钻杆型号规格表-3D

CSJ Crown Drill Drill Pipe Model and Specification Table - 3D

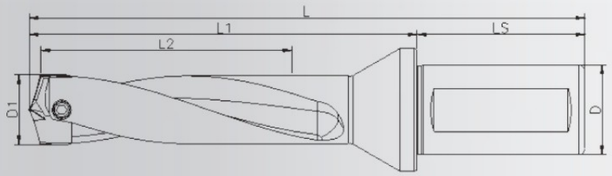


刀杆型号 Tool holder type	钻尖直径范围(D1) Drill point diameter range (D1)		刀座型号 Tool holder type	L	L1	L2	LS	D	锁紧螺丝 Lock screw	扳手 Wrench
CSJ0800/0849-3D-C16-1	8.00	8.49	1	106.4	58.4	25.5	48	ø16	M2.2*7	T7
CSJ0850/0899-3D-C16-1	8.50	8.99		107.9	59.9	27.0				
CSJ0900/0949-3D-C16-1	9.00	9.49		109.8	61.8	28.5			M2.2*8	
CSJ0950/0999-3D-C16-1	9.50	9.99		111.3	63.3	30.0				
CSJ1000/1049-3D-C16-2	10.00	10.49	2	117.8	69.8	31.5			M2.2*9	
CSJ1050/1099-3D-C16-2	10.50	10.99		119.3	71.3	33.0				
CSJ1100/1149-3D-C16-2	11.00	11.49		120.8	72.8	34.5				
CSJ1150/1199-3D-C16-2	11.50	11.99		122.3	74.3	36.0				
CSJ1200/1299-3D-C16-3	12.00	12.99	3	128.9	80.9	39.0			M2.2*10.5	
CSJ1300/1399-3D-C20-3	13.00	13.99		130.5	80.5	42.0	50	ø20		
CSJ1400/1499-3D-C20-4	14.00	14.99	4	135.5	85.5	45.0			M2.5*12	T8
CSJ1500/1599-3D-C20-5	15.00	15.99	5	139.7	89.7	48.0				
CSJ1600/1699-3D-C20-5	16.00	16.99		143.5	93.5	51.0			M2.5*14.5	
CSJ1700/1799-3D-C20-5	17.00	17.99		148.0	98.0	54.0				
CSJ1800/1899-3D-C25-6	18.00	18.99	6	160.3	104.3	57.0	56	ø25	M3.0*16.5	T10
CSJ1900/1999-3D-C25-6	19.00	19.99		164.4	108.4	60.0				
CSJ2000/2099-3D-C25-7	20.00	20.99	7	167.6	111.6	63.0			M3.0*18.5	
CSJ2100/2199-3D-C25-7	21.00	21.99		172.6	116.6	66.0				
CSJ2200/2299-3D-C25-8	22.00	22.99	8	176.6	120.6	69.0			M3.0*20.5	
CSJ2300/2399-3D-C25-8	23.00	23.99		181.2	125.2	72.0				
CSJ2400/2499-3D-C32-9	24.00	24.99	9	195.3	135.3	75.0	60	ø32	M4.0*22	T15
CSJ2500/2599-3D-C32-9	25.00	25.99		198.7	138.7	78.0				
CSJ2600/2699-3D-C32-10	26.00	26.99	10	203.9	143.9	81.0			M4.0*24	
CSJ2700/2799-3D-C32-10	27.00	27.99		208.0	148.0	84.0				
CSJ2800/2899-3D-C32-11	28.00	28.99	11	213.3	153.3	87.0			M4.0*26	
CSJ2900/2999-3D-C32-11	29.00	29.99		216.7	156.7	90.0				
CSJ3000/3099-3D-C32-12	30.00	30.99	12	218.8	158.8	93.0			M5.0*28	T20
CSJ3100/3199-3D-C32-12	31.00	31.99		222.6	162.6	96.0				
CSJ3200/3299-3D-C40-13	32.00	32.99	13	237.9	167.9	99.0	70	ø40	M5.0*30	
CSJ3300/3399-3D-C40-13	33.00	33.99		241.1	171.1	102.0				
CSJ3400/3499-3D-C40-14	34.00	34.99	14	244.3	174.3	105.0				
CSJ3500/3599-3D-C40-14	35.00	35.99		247.5	177.5	108.0				
CSJ3600/3699-3D-C40-15	36.00	36.99	15	249.3	179.3	111.0			M5.0*34	
CSJ3700/3799-3D-C40-15	37.00	37.99		252.3	182.3	114.0				
CSJ3800/3899-3D-C40-16	38.00	38.99	16	255.6	185.6	117.0				
CSJ3900/3999-3D-C40-16	39.00	39.99		259.2	189.2	120.0				

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

CSJ皇冠钻钻杆型号规格表-5D

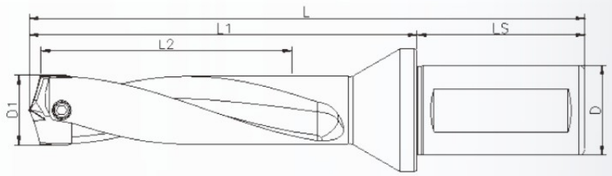
CSJ Crown Drill Drill Pipe Model and Specification Table-5D



刀杆型号 Tool holder type	钻尖直径范围(D1) Drill point diameter range (D1)		刀座型号 Tool holder type	L	L1	L2	LS	D	锁紧螺丝 Lock screw	扳手 Wrench
CSJ0800/0849-5D-C16-1	8.00	8.49	1	122.4	74.4	42.5	48	ø16	M2.2*7	T7
CSJ0850/0899-5D-C16-1	8.50	8.99		124.9	76.9	45.0				
CSJ0900/0949-5D-C16-1	9.00	9.49		127.8	79.8	47.5			M2.2*8	
CSJ0950/0999-5D-C16-1	9.50	9.99		130.3	82.3	50.0				
CSJ1000/1049-5D-C16-2	10.00	10.49	2	137.8	89.8	52.5			M2.2*9	
CSJ1050/1099-5D-C16-2	10.50	10.99		140.3	92.3	55.0				
CSJ1100/1149-5D-C16-2	11.00	11.49		142.8	94.8	57.5				
CSJ1150/1199-5D-C16-2	11.50	11.99		145.3	97.3	60.0				
CSJ1200/1299-5D-C16-3	12.00	12.99	3	152.9	104.9	65.0			M2.2*10.5	
CSJ1300/1399-5D-C20-3	13.00	13.99		155.5	105.5	70.0	50	ø20		
CSJ1400/1499-5D-C20-4	14.00	14.99	4	163.5	113.5	75.0			M2.5*12	T8
CSJ1500/1599-5D-C20-5	15.00	15.99	5	169.7	119.7	80.0				
CSJ1600/1699-5D-C20-5	16.00	16.99		175.5	125.5	85.0			M2.5*14.5	
CSJ1700/1799-5D-C20-5	17.00	17.99		182.0	132.0	90.0				
CSJ1800/1899-5D-C25-6	18.00	18.99	6	196.3	140.3	95.0	56	ø25	M3.0*16.5	T10
CSJ1900/1999-5D-C25-6	19.00	19.99		202.4	146.4	100.0				
CSJ2000/2099-5D-C25-7	20.00	20.99	7	207.6	151.6	105.0			M3.0*18.5	
CSJ2100/2199-5D-C25-7	21.00	21.99		214.6	158.6	110.0				
CSJ2200/2299-5D-C25-8	22.00	22.99	8	220.6	164.6	115.0			M3.0*20.5	
CSJ2300/2399-5D-C25-8	23.00	23.99		227.2	171.2	120.0				
CSJ2400/2499-5D-C32-9	24.00	24.99	9	243.3	183.3	125.0	60	ø32	M4.0*22	T15
CSJ2500/2599-5D-C32-9	25.00	25.99		248.7	188.7	130.0				
CSJ2600/2699-5D-C32-10	26.00	26.99	10	255.9	195.9	135.0			M4.0*24	
CSJ2700/2799-5D-C32-10	27.00	27.99		262.0	202.0	140.0				
CSJ2800/2899-5D-C32-11	28.00	28.99	11	269.3	209.3	145.0			M4.0*26	
CSJ2900/2999-5D-C32-11	29.00	29.99		274.7	214.7	150.0				
CSJ3000/3099-5D-C32-12	30.00	30.99	12	278.8	218.8	155.0			M5.0*28	T20
CSJ3100/3199-5D-C32-12	31.00	31.99		284.6	224.6	160.0				
CSJ3200/3299-5D-C40-13	32.00	32.99	13	301.9	231.9	165.0	70	ø40	M5.0*30	
CSJ3300/3399-5D-C40-13	33.00	33.99		307.1	237.1	170.0				
CSJ3400/3499-5D-C40-14	34.00	34.99	14	312.3	242.3	175.0				
CSJ3500/3599-5D-C40-14	35.00	35.99		317.5	247.5	180.0				
CSJ3600/3699-5D-C40-15	36.00	36.99	15	321.3	251.3	185.0			M5.0*34	
CSJ3700/3799-5D-C40-15	37.00	37.99		326.3	256.3	190.0				
CSJ3800/3899-5D-C40-16	38.00	38.99	16	331.6	261.6	195.0				
CSJ3900/3999-5D-C40-16	39.00	39.99		337.2	267.2	200.0				

CSJ皇冠钻钻杆型号规格表-7D

CSJ Crown Drill Drill Pipe Model and Specification Table-7D



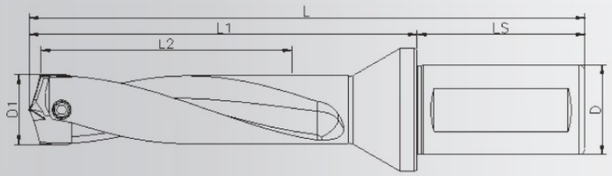
刀杆型号 Tool holder type	钻尖直径范围(D1) Drill point diameter range (D1)		刀座型号 Tool holder type	L	L1	L2	LS	D	锁紧螺丝 Lock screw	扳手 Wrench
CSJ0800/0849-7D-C16-1	8.00	8.49	1	138.4	90.4	59.5	48	ø16	M2.2*7	T7
CSJ0850/0899-7D-C16-1	8.50	8.99		141.9	93.9	63.0				
CSJ0900/0949-7D-C16-1	9.00	9.49		145.8	97.8	66.5			M2.2*8	
CSJ0950/0999-7D-C16-1	9.50	9.99		149.3	101.3	70.0				
CSJ1000/1049-7D-C16-2	10.00	10.49	2	157.8	109.8	73.5			M2.2*9	
CSJ1050/1099-7D-C16-2	10.50	10.99		161.3	113.3	77.0				
CSJ1100/1149-7D-C16-2	11.00	11.49		164.8	116.8	80.5				
CSJ1150/1199-7D-C16-2	11.50	11.99		168.3	120.3	84.0				
CSJ1200/1299-7D-C16-3	12.00	12.99	3	176.9	128.9	91.0			M2.2*10.5	
CSJ1300/1399-7D-C20-3	13.00	13.99		182.5	132.5	98.0	50	ø20		
CSJ1400/1499-7D-C20-4	14.00	14.99	4	191.5	141.5	105.0			M2.5*12	T8
CSJ1500/1599-7D-C20-5	15.00	15.99	5	199.7	149.7	112.0				
CSJ1600/1699-7D-C20-5	16.00	16.99		207.5	157.5	119.0			M2.5*14.5	
CSJ1700/1799-7D-C20-5	17.00	17.99		216.0	166.0	126.0				
CSJ1800/1899-7D-C25-6	18.00	18.99	6	232.3	176.3	133.0	56	ø25	M3.0*16.5	T10
CSJ1900/1999-7D-C25-6	19.00	19.99		240.4	184.4	140.0				
CSJ2000/2099-7D-C25-7	20.00	20.99	7	247.6	191.6	147.0			M3.0*18.5	
CSJ2100/2199-7D-C25-7	21.00	21.99		256.6	200.6	154.0				
CSJ2200/2299-7D-C25-8	22.00	22.99	8	264.4	208.4	161.0			M3.0*20.5	
CSJ2300/2399-7D-C25-8	23.00	23.99		273.2	217.2	168.0				
CSJ2400/2499-7D-C32-9	24.00	24.99	9	291.3	231.3	175.0	60	ø32	M4.0*22	T15
CSJ2500/2599-7D-C32-9	25.00	25.99		298.7	238.7	182.0				
CSJ2600/2699-7D-C32-10	26.00	26.99	10	307.9	247.9	189.0			M4.0*24	
CSJ2700/2799-7D-C32-10	27.00	27.99		316.0	256.0	196.0				
CSJ2800/2899-7D-C32-11	28.00	28.99	11	325.3	265.3	203.0			M4.0*26	
CSJ2900/2999-7D-C32-11	29.00	29.99		332.7	272.7	210.0				
CSJ3000/3099-7D-C32-12	30.00	30.99	12	338.8	278.8	217.0			M5.0*28	T20
CSJ3100/3199-7D-C32-12	31.00	31.99		346.6	286.6	224.0				
CSJ3200/3299-7D-C40-13	32.00	32.99	13	365.9	295.9	231.0	70	ø40	M5.0*30	
CSJ3300/3399-7D-C40-13	33.00	33.99		373.1	303.1	238.0				
CSJ3400/3499-7D-C40-14	34.00	34.99	14	380.3	310.3	245.0				
CSJ3500/3599-7D-C40-14	35.00	35.99		387.5	317.5	252.0				
CSJ3600/3699-7D-C40-15	36.00	36.99	15	393.3	323.3	259.0			M5.0*34	
CSJ3700/3799-7D-C40-15	37.00	37.99		400.3	330.3	266.0				
CSJ3800/3899-7D-C40-16	38.00	38.99	16	407.6	337.6	273.0				
CSJ3900/3999-7D-C40-16	39.00	39.99		415.2	345.2	280.0				

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

CSJ皇冠钻钻杆型号规格表-10D

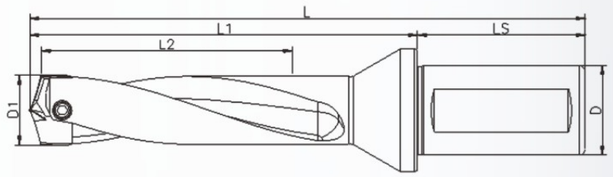
CSJ Crown Drill Drill Pipe Model and Specification Table-10D



刀杆型号 Tool holder type	钻尖直径范围(D1) Drill point diameter range (D1)		刀座型号 Tool holder type	L	L1	L2	LS	D	锁紧螺丝 Lock screw	扳手 Wrench
CSJ0800/0849-10D-C16-1	8.00	8.49	1	162.4	114.4	85	48	ø16	M2.2*7	T7
CSJ0850/0899-10D-C16-1	8.50	8.99		167.4	119.4	90				
CSJ0900/0949-10D-C16-1	9.00	9.49		172.8	124.8	95			M2.2*8	
CSJ0950/0999-10D-C16-1	9.50	9.99		177.8	129.8	100				
CSJ1000/1049-10D-C16-2	10.00	10.49	2	187.8	139.8	105			M2.2*9	
CSJ1050/1099-10D-C16-2	10.50	10.99		192.8	144.8	110				
CSJ1100/1149-10D-C16-2	11.00	11.49		197.8	149.8	115				
CSJ1150/1199-10D-C16-2	11.50	11.99		202.8	154.8	120				
CSJ1200/1299-10D-C16-3	12.00	12.99	3	212.9	164.9	130			M2.2*10.5	
CSJ1300/1399-10D-C20-3	13.00	13.99		221.5	171.5	140	50	ø20		
CSJ1400/1499-10D-C20-4	14.00	14.99	4	233.5	183.5	150			M2.5*12	T8
CSJ1500/1599-10D-C20-5	15.00	15.99	5	244.7	194.7	160				
CSJ1600/1699-10D-C20-5	16.00	16.99		255.5	205.5	170			M2.5*14.5	
CSJ1700/1799-10D-C20-5	17.00	17.99		267.0	217.0	180				
CSJ1800/1899-10D-C25-6	18.00	18.99	6	286.3	230.3	190	56	ø25	M3.0*16.5	T10
CSJ1900/1999-10D-C25-6	19.00	19.99		297.4	241.4	200				
CSJ2000/2099-10D-C25-7	20.00	20.99	7	307.6	251.6	210			M3.0*18.5	
CSJ2100/2199-10D-C25-7	21.00	21.99		319.6	263.6	220				
CSJ2200/2299-10D-C25-8	22.00	22.99	8	330.6	274.6	230			M3.0*20.5	
CSJ2300/2399-10D-C25-8	23.00	23.99		342.2	286.2	240				
CSJ2400/2499-10D-C32-9	24.00	24.99	9	363.3	303.3	250	60	ø32	M4.0*22	T15
CSJ2500/2599-10D-C32-9	25.00	25.99		373.7	313.7	260				
CSJ2600/2699-10D-C32-10	26.00	26.99	10	385.9	325.9	270			M4.0*24	
CSJ2700/2799-10D-C32-10	27.00	27.99		397.0	337.0	280				
CSJ2800/2899-10D-C32-11	28.00	28.99	11	409.3	349.3	290			M4.0*26	
CSJ2900/2999-10D-C32-11	29.00	29.99		419.7	359.7	300				
CSJ3000/3099-10D-C32-12	30.00	30.99	12	428.8	368.8	310			M5.0*28	T20
CSJ3100/3199-10D-C32-12	31.00	31.99		439.6	379.6	320				
CSJ3200/3299-10D-C40-13	32.00	32.99	13	461.9	391.9	330	70	ø40	M5.0*30	
CSJ3300/3399-10D-C40-13	33.00	33.99		472.1	402.1	340				
CSJ3400/3499-10D-C40-14	34.00	34.99	14	482.3	412.3	350				
CSJ3500/3599-10D-C40-14	35.00	35.99		492.5	422.5	360				
CSJ3600/3699-10D-C40-15	36.00	36.99	15	501.3	431.3	370			M5.0*34	
CSJ3700/3799-10D-C40-15	37.00	37.99		511.3	441.3	380				
CSJ3800/3899-10D-C40-16	38.00	38.99	16	521.6	451.6	390				
CSJ3900/3999-10D-C40-16	39.00	39.99		532.2	462.2	400				

CSJ皇冠钻钻杆型号规格表-12D

CSJ Crown Drill Drill Pipe Model and Specification Table-12D



刀杆型号 Tool holder type	钻尖直径范围(D1) Drill point diameter range (D1)		刀座型号 Tool holder type	L	L1	L2	LS	D	锁紧螺丝 Lock screw	扳手 Wrench
CSJ0800/0849-12D-C16-1	8.00	8.49	1	178.4	130.4	102	48	ø16	M2.2*7	T7
CSJ0850/0899-12D-C16-1	8.50	8.99		184.4	136.4	108				
CSJ0900/0949-12D-C16-1	9.00	9.49		190.8	142.8	114			M2.2*8	
CSJ0950/0999-12D-C16-1	9.50	9.99		196.8	148.8	120				
CSJ1000/1049-12D-C16-2	10.00	10.49	2	207.8	159.8	126			M2.2*9	
CSJ1050/1099-12D-C16-2	10.50	10.99		213.8	165.8	132				
CSJ1100/1149-12D-C16-2	11.00	11.49		219.8	171.8	138				
CSJ1150/1199-12D-C16-2	11.50	11.99		225.8	177.8	144				
CSJ1200/1299-12D-C16-3	12.00	12.99	3	236.9	188.9	156			M2.2*10.5	
CSJ1300/1399-12D-C20-3	13.00	13.99		248.5	198.5	168	50	ø20		
CSJ1400/1499-12D-C20-4	14.00	14.99	4	261.5	211.5	180			M2.5*12	T8
CSJ1500/1599-12D-C20-5	15.00	15.99	5	274.7	224.7	192				
CSJ1600/1699-12D-C20-5	16.00	16.99		287.5	237.5	204			M2.5*14.5	
CSJ1700/1799-12D-C20-5	17.00	17.99		301.0	251.0	216				
CSJ1800/1899-12D-C25-6	18.00	18.99	6	322.3	266.3	228	56	ø25	M3.0*16.5	T10
CSJ1900/1999-12D-C25-6	19.00	19.99		335.4	279.4	240				
CSJ2000/2099-12D-C25-7	20.00	20.99	7	347.6	291.6	252			M3.0*18.5	
CSJ2100/2199-12D-C25-7	21.00	21.99		361.6	305.6	264				
CSJ2200/2299-12D-C25-8	22.00	22.99	8	374.4	318.4	276			M3.0*20.5	
CSJ2300/2399-12D-C25-8	23.00	23.99		388.2	332.2	288				
CSJ2400/2499-12D-C32-9	24.00	24.99	9	411.3	351.3	300	60	ø32	M4.0*22	T15
CSJ2500/2599-12D-C32-9	25.00	25.99		423.7	363.7	312				
CSJ2600/2699-12D-C32-10	26.00	26.99	10	437.9	377.9	324			M4.0*24	
CSJ2700/2799-12D-C32-10	27.00	27.99		451.0	391.0	336				
CSJ2800/2899-12D-C32-11	28.00	28.99	11	465.3	405.3	348			M4.0*26	
CSJ2900/2999-12D-C32-11	29.00	29.99		477.7	417.7	360				
CSJ3000/3099-12D-C32-12	30.00	30.99	12	488.8	428.8	372			M5.0*28	T20
CSJ3100/3199-12D-C32-12	31.00	31.99		501.6	441.6	384				
CSJ3200/3299-12D-C40-13	32.00	32.99	13	525.9	455.9	396	70	ø40	M5.0*30	
CSJ3300/3399-12D-C40-13	33.00	33.99		538.1	468.1	408				
CSJ3400/3499-12D-C40-14	34.00	34.99	14	550.3	480.3	420				
CSJ3500/3599-12D-C40-14	35.00	35.99		562.5	492.5	432				
CSJ3600/3699-12D-C40-15	36.00	36.99	15	573.3	503.3	444			M5.0*34	
CSJ3700/3799-12D-C40-15	37.00	37.99		585.3	515.3	456				
CSJ3800/3899-12D-C40-16	38.00	38.99	16	597.6	527.6	468				
CSJ3900/3999-12D-C40-16	39.00	39.99		610.2	540.2	480				

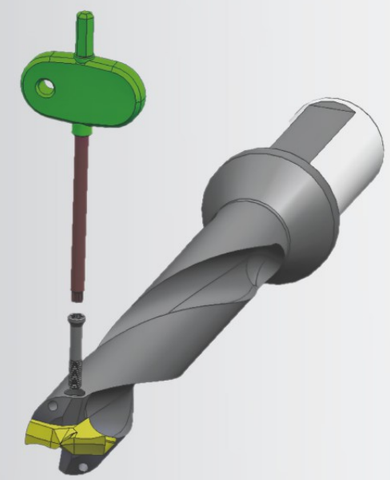
CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

安装方式

Installation method

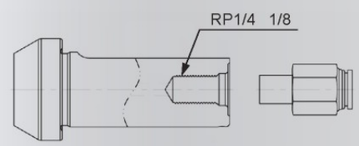
- 穿戴好护具，保护好您的眼睛和手。用压缩空气清洁刀片和刀体刀片座。
- 把刀片装入刀片座。
- 装入侧固螺丝，锁紧即可。
- 小规格扳手不宜用力过猛，小心拆装！

- Put on protective gear properly to protect your eyes and hands. Clean the blade and the blade seat of the blade body with compressed air.
- Insert the blade into the blade holder.
- Insert the side fixing screws and tighten them.
- Do not apply excessive force to small-sized wrenches. Be careful when disassembling and assembling them!

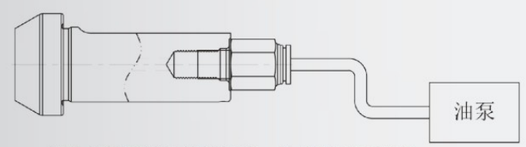


车床使用内冷安装方式

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。

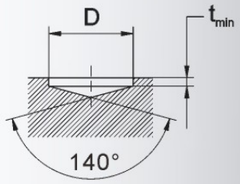
1.Internal cooling can be realized by connecting the drill shank, quick connector, oil hose and oil pump.
2.After pulling out the plug, it can be used in milling machine.

引导孔钻尖 应用数据
Guide hole drill point application data

工件表面不平整或者7D以上建议预加工引导孔
The surface of the workpiece is uneven or more than 7D is recommended for pre-machining guide holes

引孔建议 Pilot hole proposal

钻头直径(mm) Bit diameter (mm)	引导孔深度（t） Guide hole depth (t)
ø8-19.99	1mm
ø20-31.99	1.5mm
ø32-39.99	2mm



内冷压力要求
Internal cooling pressure requirements

内冷应用参数
Internal cooling Application parameters

最小冷却液量（升/每分钟）
Minimum coolant volume (L/min)

1bar=1.02公斤力/平方厘米

钻头长径比 Bit length to diameter ratio					
钻头直径(mm)	1-3D	5D	7D	10D	<12D
内冷压力要求	8 bar	12 bar	20 bar	30 bar	50 bar
ø8.00-9.99	5	6	8	9	12
ø10.00-13.99	6	7	10	12	15
ø14.00-15.99	8	10	13	17	21
ø16.00-17.99	10	12	15	18	25
ø18.00-19.00	12	14	18	23	29
ø20.00-21.99	14	16	20	26	33
ø22.00-23.99	15	18	23	29	37
ø24.00-25.99	17	20	26	32	41
ø26.00-27.99	18	22	29	35	45
ø28.00-29.99	20	25	32	39	51
ø30.00-31.99	23	29	37	45	59
ø32.00-35.99	27	33	43	52	67
ø36.00-39.99	30	37	48	58	73

注意:外冷只建议小于3倍径的钻头使用，不建议干切。
Note: External cooling is only recommended for drill bits less than 3 times diameter, and dry cutting is not recommended.

钻尖公差值
Drill Tip Tolerance Values

CSJ皇冠钻钻孔公差 CSJ Crown Diamond Hole Tolerance	
钻头直径D1 Drill diameter D1	公差H8 Tolerance h8
ø8.00-17.99	0.00/+0.03
ø18.00-29.99	0.00/+0.035
ø30.00-39.99	0.00/+0.04

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

CSJ皇冠钻钻尖型号编码规则
CSJ Crown Drill Drill tip model type

CSJ1250-3-KPM45-P

刀杆型号 Tool holder type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material		钻尖类型 Drill tip type		涂层 Coating
CSJ	1250	3	KPM45		P		
CSJ系列钻杆 CSJ series drill pipes	钻尖直径 ø12.50mm Diameter of the drill tip ø 12.50 mm	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	KPM45	• KPM45 切削刃可在钢材料苛刻条件加工中提高加工效率并延长刀具寿命。 • KPM45 采用韧性极佳的细晶粒硬质合金基体，同时采用先进的涂层。 • 该产品可以在极苛刻条件下对钢材料进行加工。 • The KPM45 cutting edge can enhance processing efficiency and extend tool life in the harsh conditions of steel material processing. • KPM45 adopts a fine-grained solid carbide substrate with excellent toughness and an advanced coating at the same time. • This product can process steel materials under extremely harsh conditions.	P	P通用钻尖型号 P Universal drill tip model	HS
			KMS35	• KMS35 采用韧性极佳的细晶粒硬质合金基体，这种材质具有很好的耐磨性和氧化安定性，同时其钻尖和切削刃部位具有卓越的抗崩刃性。 • 在不锈钢、高温合金、以及其它苛刻条件下的应用中具备卓越的钻削性能。 • KMS35 adopts a fine-grained solid carbide matrix with excellent toughness. This material has good wear resistance and oxidation stability, and at the same time, its drill tip and cutting edge have outstanding anti-chipping properties. • It has outstanding drilling performance in applications of stainless steel, superalloys, and other harsh conditions.	S	S不锈钢钻尖型号 S Stainless steel drill tip model	HS
			K7410	• K7410-K 材质在各种铸铁材料加工应用中可以延长刀具寿命，并提高加工稳定性。 • 它可以提高进给力，提高生产率。 • The K7410-K material can extend the tool life and improve the processing stability in various applications of cast iron material processing. • It can enhance the feed force and increase productivity.	K	K铸铁钻尖型号 K Cast iron drill tip model	JH

CSJ皇冠钻通用钻尖型号

CSJ Crown Drill universal drill point model

钻尖型号 Drill point type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material	钻尖类型 Drill point type	涂层 Coating
CSJ0800-1-KPM45-P	8.00	1	KPM45	P	HS
CSJ0850-1-KPM45-P	8.50	1	KPM45	P	HS
CSJ0900-1-KPM45-P	9.00	1	KPM45	P	HS
CSJ0950-1-KPM45-P	9.50	1	KPM45	P	HS
CSJ1000-2-KPM45-P	10.00	2	KPM45	P	HS
CSJ1050-2-KPM45-P	10.50	2	KPM45	P	HS
CSJ1100-2-KPM45-P	11.00	2	KPM45	P	HS
CSJ1150-2-KPM45-P	11.50	2	KPM45	P	HS
CSJ1200-3-KPM45-P	12.00	3	KPM45	P	HS
CSJ1250-3-KPM45-P	12.50	3	KPM45	P	HS
CSJ1300-3-KPM45-P	13.00	3	KPM45	P	HS
CSJ1350-3-KPM45-P	13.50	3	KPM45	P	HS
CSJ1400-4-KPM45-P	14.00	4	KPM45	P	HS
CSJ1450-4-KPM45-P	14.50	4	KPM45	P	HS
CSJ1500-5-KPM45-P	15.00	5	KPM45	P	HS
CSJ1550-5-KPM45-P	15.50	5	KPM45	P	HS
CSJ1600-5-KPM45-P	16.00	5	KPM45	P	HS
CSJ1650-5-KPM45-P	16.50	5	KPM45	P	HS
CSJ1700-5-KPM45-P	17.00	5	KPM45	P	HS
CSJ1750-5-KPM45-P	17.50	5	KPM45	P	HS
CSJ1800-6-KPM45-P	18.00	6	KPM45	P	HS
CSJ1850-6-KPM45-P	18.50	6	KPM45	P	HS
CSJ1900-6-KPM45-P	19.00	6	KPM45	P	HS
CSJ1950-6-KPM45-P	19.50	6	KPM45	P	HS
CSJ2000-7-KPM45-P	20.00	7	KPM45	P	HS
CSJ2050-7-KPM45-P	20.50	7	KPM45	P	HS
CSJ2100-7-KPM45-P	21.00	7	KPM45	P	HS
CSJ2150-7-KPM45-P	21.50	7	KPM45	P	HS
CSJ2200-8-KPM45-P	22.00	8	KPM45	P	HS
CSJ2250-8-KPM45-P	22.50	8	KPM45	P	HS
CSJ2300-8-KPM45-P	23.00	8	KPM45	P	HS
CSJ2350-8-KPM45-P	23.50	8	KPM45	P	HS

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

钻尖型号 Drill point type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material	钻尖类型 Drill point type	涂层 Coating
CSJ2400-9-KPM45-P	24.00	9	KPM45	P	HS
CSJ2450-9-KPM45-P	24.50	9	KPM45	P	HS
CSJ2500-9-KPM45-P	25.00	9	KPM45	P	HS
CSJ2550-9-KPM45-P	25.50	9	KPM45	P	HS
CSJ2600-10-KPM45-P	26.00	10	KPM45	P	HS
CSJ2650-10-KPM45-P	26.50	10	KPM45	P	HS
CSJ2700-10-KPM45-P	27.00	10	KPM45	P	HS
CSJ2750-10-KPM45-P	27.50	10	KPM45	P	HS
CSJ2800-11-KPM45-P	28.00	11	KPM45	P	HS
CSJ2850-11-KPM45-P	28.50	11	KPM45	P	HS
CSJ2900-11-KPM45-P	29.00	11	KPM45	P	HS
CSJ2950-11-KPM45-P	29.50	11	KPM45	P	HS
CSJ3000-12-KPM45-P	30.00	12	KPM45	P	HS
CSJ3050-12-KPM45-P	30.50	12	KPM45	P	HS
CSJ3100-12-KPM45-P	31.00	12	KPM45	P	HS
CSJ3150-12-KPM45-P	31.50	12	KPM45	P	HS
CSJ3200-13-KPM45-P	32.00	13	KPM45	P	HS
CSJ3250-13-KPM45-P	32.50	13	KPM45	P	HS
CSJ3300-13-KPM45-P	33.00	13	KPM45	P	HS
CSJ3350-13-KPM45-P	33.50	13	KPM45	P	HS
CSJ3400-14-KPM45-P	34.00	14	KPM45	P	HS
CSJ3450-14-KPM45-P	34.50	14	KPM45	P	HS
CSJ3500-14-KPM45-P	35.00	14	KPM45	P	HS
CSJ3550-14-KPM45-P	35.50	14	KPM45	P	HS
CSJ3600-15-KPM45-P	36.00	15	KPM45	P	HS
CSJ3650-15-KPM45-P	36.50	15	KPM45	P	HS
CSJ3700-15-KPM45-P	37.00	15	KPM45	P	HS
CSJ3750-15-KPM45-P	37.50	15	KPM45	P	HS
CSJ3800-16-KPM45-P	38.00	16	KPM45	P	HS
CSJ3850-16-KPM45-P	38.50	16	KPM45	P	HS
CSJ3900-16-KPM45-P	39.00	16	KPM45	P	HS
CSJ3950-16-KPM45-P	39.50	16	KPM45	P	HS

CSJ皇冠钻不锈钢钻尖型号

CSJ Crown drill stainless steel drill point model

钻尖型号 Drill point type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material	钻尖类型 Drill point type	涂层 Coating
CSJ0800-1-KMS35-S	8.00	1	KMS35	S	HS
CSJ0850-1-KMS35-S	8.50	1	KMS35	S	HS
CSJ0900-1-KMS35-S	9.00	1	KMS35	S	HS
CSJ0950-1-KMS35-S	9.50	1	KMS35	S	HS
CSJ1000-2-KMS35-S	10.00	2	KMS35	S	HS
CSJ1050-2-KMS35-S	10.50	2	KMS35	S	HS
CSJ1100-2-KMS35-S	11.00	2	KMS35	S	HS
CSJ1150-2-KMS35-S	11.50	2	KMS35	S	HS
CSJ1200-3-KMS35-S	12.00	3	KMS35	S	HS
CSJ1250-3-KMS35-S	12.50	3	KMS35	S	HS
CSJ1300-3-KMS35-S	13.00	3	KMS35	S	HS
CSJ1350-3-KMS35-S	13.50	3	KMS35	S	HS
CSJ1400-4-KMS35-S	14.00	4	KMS35	S	HS
CSJ1450-4-KMS35-S	14.50	4	KMS35	S	HS
CSJ1500-5-KMS35-S	15.00	5	KMS35	S	HS
CSJ1550-5-KMS35-S	15.50	5	KMS35	S	HS
CSJ1600-5-KMS35-S	16.00	5	KMS35	S	HS
CSJ1650-5-KMS35-S	16.50	5	KMS35	S	HS
CSJ1700-5-KMS35-S	17.00	5	KMS35	S	HS
CSJ1750-5-KMS35-S	17.50	5	KMS35	S	HS
CSJ1800-6-KMS35-S	18.00	6	KMS35	S	HS
CSJ1850-6-KMS35-S	18.50	6	KMS35	S	HS
CSJ1900-6-KMS35-S	19.00	6	KMS35	S	HS
CSJ1950-6-KMS35-S	19.50	6	KMS35	S	HS
CSJ2000-7-KMS35-S	20.00	7	KMS35	S	HS
CSJ2050-7-KMS35-S	20.50	7	KMS35	S	HS
CSJ2100-7-KMS35-S	21.00	7	KMS35	S	HS
CSJ2150-7-KMS35-S	21.50	7	KMS35	S	HS
CSJ2200-8-KMS35-S	22.00	8	KMS35	S	HS
CSJ2250-8-KMS35-S	22.50	8	KMS35	S	HS
CSJ2300-8-KMS35-S	23.00	8	KMS35	S	HS
CSJ2350-8-KMS35-S	23.50	8	KMS35	S	HS

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

钻尖型号 Drill point type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material	钻尖类型 Drill point type	涂层 Coating
CSJ2400-9-KMS35-S	24.00	9	KMS35	S	HS
CSJ2450-9-KMS35-S	24.50	9	KMS35	S	HS
CSJ2500-9-KMS35-S	25.00	9	KMS35	S	HS
CSJ2550-9-KMS35-S	25.50	9	KMS35	S	HS
CSJ2600-10-KMS35-S	26.00	10	KMS35	S	HS
CSJ2650-10-KMS35-S	26.50	10	KMS35	S	HS
CSJ2700-10-KMS35-S	27.00	10	KMS35	S	HS
CSJ2750-10-KMS35-S	27.50	10	KMS35	S	HS
CSJ2800-11-KMS35-S	28.00	11	KMS35	S	HS
CSJ2850-11-KMS35-S	28.50	11	KMS35	S	HS
CSJ2900-11-KMS35-S	29.00	11	KMS35	S	HS
CSJ2950-11-KMS35-S	29.50	11	KMS35	S	HS
CSJ3000-12-KMS35-S	30.00	12	KMS35	S	HS
CSJ3050-12-KMS35-S	30.50	12	KMS35	S	HS
CSJ3100-12-KMS35-S	31.00	12	KMS35	S	HS
CSJ3150-12-KMS35-S	31.50	12	KMS35	S	HS
CSJ3200-13-KMS35-S	32.00	13	KMS35	S	HS
CSJ3250-13-KMS35-S	32.50	13	KMS35	S	HS
CSJ3300-13-KMS35-S	33.00	13	KMS35	S	HS
CSJ3350-13-KMS35-S	33.50	13	KMS35	S	HS
CSJ3400-14-KMS35-S	34.00	14	KMS35	S	HS
CSJ3450-14-KMS35-S	34.50	14	KMS35	S	HS
CSJ3500-14-KMS35-S	35.00	14	KMS35	S	HS
CSJ3550-14-KMS35-S	35.50	14	KMS35	S	HS
CSJ3600-15-KMS35-S	36.00	15	KMS35	S	HS
CSJ3650-15-KMS35-S	36.50	15	KMS35	S	HS
CSJ3700-15-KMS35-S	37.00	15	KMS35	S	HS
CSJ3750-15-KMS35-S	37.50	15	KMS35	S	HS
CSJ3800-16-KMS35-S	38.00	16	KMS35	S	HS
CSJ3850-16-KMS35-S	38.50	16	KMS35	S	HS
CSJ3900-16-KMS35-S	39.00	16	KMS35	S	HS
CSJ3950-16-KMS35-S	39.50	16	KMS35	S	HS

CSJ皇冠钻铸铁钻尖型号

CSJ Crown drill cast iron drill point model

钻尖型号 Drill point type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material	钻尖类型 Drill point type	涂层 Coating
CSJ0800-1-K7410-K	8.00	1	K7410	K	JH
CSJ0850-1-K7410-K	8.50	1	K7410	K	JH
CSJ0900-1-K7410-K	9.00	1	K7410	K	JH
CSJ0950-1-K7410-K	9.50	1	K7410	K	JH
CSJ1000-2-K7410-K	10.00	2	K7410	K	JH
CSJ1050-2-K7410-K	10.50	2	K7410	K	JH
CSJ1100-2-K7410-K	11.00	2	K7410	K	JH
CSJ1150-2-K7410-K	11.50	2	K7410	K	JH
CSJ1200-3-K7410-K	12.00	3	K7410	K	JH
CSJ1250-3-K7410-K	12.50	3	K7410	K	JH
CSJ1300-3-K7410-K	13.00	3	K7410	K	JH
CSJ1350-3-K7410-K	13.50	3	K7410	K	JH
CSJ1400-4-K7410-K	14.00	4	K7410	K	JH
CSJ1450-4-K7410-K	14.50	4	K7410	K	JH
CSJ1500-5-K7410-K	15.00	5	K7410	K	JH
CSJ1550-5-K7410-K	15.50	5	K7410	K	JH
CSJ1600-5-K7410-K	16.00	5	K7410	K	JH
CSJ1650-5-K7410-K	16.50	5	K7410	K	JH
CSJ1700-5-K7410-K	17.00	5	K7410	K	JH
CSJ1750-5-K7410-K	17.50	5	K7410	K	JH
CSJ1800-6-K7410-K	18.00	6	K7410	K	JH
CSJ1850-6-K7410-K	18.50	6	K7410	K	JH
CSJ1900-6-K7410-K	19.00	6	K7410	K	JH
CSJ1950-6-K7410-K	19.50	6	K7410	K	JH
CSJ2000-7-K7410-K	20.00	7	K7410	K	JH
CSJ2050-7-K7410-K	20.50	7	K7410	K	JH
CSJ2100-7-K7410-K	21.00	7	K7410	K	JH
CSJ2150-7-K7410-K	21.50	7	K7410	K	JH
CSJ2200-8-K7410-K	22.00	8	K7410	K	JH
CSJ2250-8-K7410-K	22.50	8	K7410	K	JH
CSJ2300-8-K7410-K	23.00	8	K7410	K	JH
CSJ2350-8-K7410-K	23.50	8	K7410	K	JH

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

钻尖型号 Drill point type	钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	钻尖材质 Drill point material	钻尖类型 Drill point type	涂层 Coating
CSJ2400-9-K7410-K	24.00	9	K7410	K	JH
CSJ2450-9-K7410-K	24.50	9	K7410	K	JH
CSJ2500-9-K7410-K	25.00	9	K7410	K	JH
CSJ2550-9-K7410-K	25.50	9	K7410	K	JH
CSJ2600-10-K7410-K	26.00	10	K7410	K	JH
CSJ2650-10-K7410-K	26.50	10	K7410	K	JH
CSJ2700-10-K7410-K	27.00	10	K7410	K	JH
CSJ2750-10-K7410-K	27.50	10	K7410	K	JH
CSJ2800-11-K7410-K	28.00	11	K7410	K	JH
CSJ2850-11-K7410-K	28.50	11	K7410	K	JH
CSJ2900-11-K7410-K	29.00	11	K7410	K	JH
CSJ2950-11-K7410-K	29.50	11	K7410	K	JH
CSJ3000-12-K7410-K	30.00	12	K7410	K	JH
CSJ3050-12-K7410-K	30.50	12	K7410	K	JH
CSJ3100-12-K7410-K	31.00	12	K7410	K	JH
CSJ3150-12-K7410-K	31.50	12	K7410	K	JH
CSJ3200-13-K7410-K	32.00	13	K7410	K	JH
CSJ3250-13-K7410-K	32.50	13	K7410	K	JH
CSJ3300-13-K7410-K	33.00	13	K7410	K	JH
CSJ3350-13-K7410-K	33.50	13	K7410	K	JH
CSJ3400-14-K7410-K	34.00	14	K7410	K	JH
CSJ3450-14-K7410-K	34.50	14	K7410	K	JH
CSJ3500-14-K7410-K	35.00	14	K7410	K	JH
CSJ3550-14-K7410-K	35.50	14	K7410	K	JH
CSJ3600-15-K7410-K	36.00	15	K7410	K	JH
CSJ3650-15-K7410-K	36.50	15	K7410	K	JH
CSJ3700-15-K7410-K	37.00	15	K7410	K	JH
CSJ3750-15-K7410-K	37.50	15	K7410	K	JH
CSJ3800-16-K7410-K	38.00	16	K7410	K	JH
CSJ3850-16-K7410-K	38.50	16	K7410	K	JH
CSJ3900-16-K7410-K	39.00	16	K7410	K	JH
CSJ3950-16-K7410-K	39.50	16	K7410	K	JH

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

CSJ皇冠钻推荐切削参数

CSJ Crown drill recommended cutting parameters

$$转速S=\frac{Vc\times1000}{\pi\times直径}$$

进给速度vf=转速S×Fr

CSJ皇冠钻硬质合金KPM45-P（通用槽型）钻尖 切削参数
CSJ Crown drill solid carbide KPM45-P (General Slot Type) Drill Point Cutting Parameters

材料分组 Material grouping		切削速度-VC Cutting speed-VC m/min 最小值 Min	中间值 Median	最大值 Max	根据直径推荐进给率（Fr） Feed rate (Fr) is recommended according to diameter		ø8-12.5	ø12.5-16	ø16-20	ø20-25.4	ø25.4-32	ø32-40	ø40
P	1	100	110	120	mm/转		0.05-0.18	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	2	80	95	110	mm/转		0.05-0.18	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	3	65	70	80	mm/转		0.05-0.18	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	4	55	65	75	mm/转		0.05-0.17	0.15-0.28	0.14-0.31	0.16-0.36	0.20-0.46	0.23-0.53	0.30-0.60
	5	50	50	65	mm/转		0.05-0.17	0.09-0.15	0.11-0.18	0.12-0.21	0.15-0.25	0.17-0.29	0.20-0.33
	6	45	50	65	mm/转		0.05-0.16	0.12-0.23	0.14-0.26	0.16-0.29	0.20-0.38	0.23-0.43	0.26-0.54
M	1	30	60	90	mm/转		0.03-0.09	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	2	30	50	90	mm/转		0.03-0.09	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	3	20	40	60	mm/转		0.03-0.09	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31

CSJ皇冠钻硬质合金KMS35-S（不锈钢槽型）钻尖 切削参数
CSJ Crown drill solid carbide KMS35-S (Stainless Steel Slot Type) Drill Point Cutting Parameters

材料分组 Material grouping		切削速度-VC Cutting speed-VC m/min 最小值 Min	中间值 Median	最大值 Max	根据直径推荐进给率（Fr） Feed rate (Fr) is recommended according to diameter		ø8-12.5	ø12.5-16	ø16-20	ø20-25.4	ø25.4-32	ø32-40	ø40
P	1	110	140	170	mm/转		0.05-0.18	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	2	100	120	140	mm/转		0.05-0.18	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	3	80	100	120	mm/转		0.05-0.18	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
M	1	40	60	80	mm/转		0.03-0.09	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	2	35	55	70	mm/转		0.03-0.09	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	3	20	40	60	mm/转		0.03-0.09	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
N	1	90	155	220	mm/转		0.07-0.20	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
	2	90	155	220	mm/转		0.07-0.20	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
	3	80	120	160	mm/转		0.07-0.20	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
	4	90	155	220	mm/转		0.07-0.20	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
S	1	20	40	60	mm/转		0.02-0.08	0.05-0.10	0.07-0.12	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25
	2	15	30	45	mm/转		0.02-0.08	0.05-0.10	0.07-0.12	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25
	3	15	30	45	mm/转		0.02-0.08	0.05-0.10	0.07-0.12	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25
	4	10	25	40	mm/转		0.02-0.08	0.05-0.10	0.07-0.12	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31

CSJ皇冠钻硬质合金K7410-k（铸铁槽型）钻尖 切削参数
CSJ Crown drill solid carbide K7410-k (Cast Iron Slot Type) Drill Point Cutting Parameters

材料分组 Material grouping		切削速度-VC Cutting speed-VC m/min 最小值 Min	中间值 Median	最大值 Max	根据直径推荐进给率（Fr） Feed rate (Fr) is recommended according to diameter		ø8-12.5	ø12.5-16	ø16-20	ø20-25.4	ø25.4-32	ø32-40	ø40
P	1	100	175	200	mm/转		0.07-0.20	0.17-0.35	0.21-0.42	0.25-0.48	0.31-0.59	0.37-0.70	0.43-0.81
	2	100	160	180	mm/转		0.07-0.20	0.17-0.33	0.21-0.41	0.25-0.48	0.31-0.59	0.37-0.70	0.43-0.81
	3	70	85	100	mm/转		0.07-0.20	0.18-0.36	0.21-0.41	0.21-.044	0.23-0.48	0.25-0.53	0.27-0.57

CSJ皇冠钻(前锁式) CSJ Crown Drill(Front Lock Type)

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

CSJ皇冠钻螺丝、扳手规格

CSJ Crown Drill Screws and Wrench Specifications

名称 Name	钻头直径 Drill bit diameter	螺丝型号 Screw model	扳手 Wrench
CSJ皇冠钻锁紧螺丝	8.00-8.99	M2.2*7.0 D2.9 60° T7	T7
CSJ皇冠钻锁紧螺丝	9.00-9.99	M2.2*8.0 D2.9 60° T7	T7
CSJ皇冠钻锁紧螺丝	10.00-11.99	M2.2*9.0 D2.9 60° T7	T7
CSJ皇冠钻锁紧螺丝	12.00-13.99	M2.2*10.5 D2.9 60° T7	T7
CSJ皇冠钻锁紧螺丝	14.00-15.99	M2.5*12.0 D3.5 60° T8	T8
CSJ皇冠钻锁紧螺丝	16.00-17.99	M2.5*14.5 D3.5 60° T8	T8
CSJ皇冠钻锁紧螺丝	18.00-19.99	M3.0*16.5 D4.2 60° T10	T10
CSJ皇冠钻锁紧螺丝	20.00-21.99	M3.0*18.5 D4.2 60° T10	T10
CSJ皇冠钻锁紧螺丝	22.00-23.99	M3.0*20.5 D4.2 60° T10	T10
CSJ皇冠钻锁紧螺丝	24.00-25.99	M4.0*22.0 D5.6 60° T15	T15
CSJ皇冠钻锁紧螺丝	26.00-27.99	M4.0*24.0 D5.6 60° T15	T15
CSJ皇冠钻锁紧螺丝	28.00-29.99	M4.0*26.0 D5.6 60° T15	T15
CSJ皇冠钻锁紧螺丝	30.00-31.99	M5.0*28.0 D6.7 60° T20	T20
CSJ皇冠钻锁紧螺丝	32.00-35.99	M5.0*30.0 D6.7 60° T20	T20
CSJ皇冠钻锁紧螺丝	36.00-39.99	M5.0*34.0 D6.7 60° T20	T20

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

皇冠钻的特征与优势
The Characteristics and Advantages of Crown Drill

皇冠钻特征 Crown Diamond Features

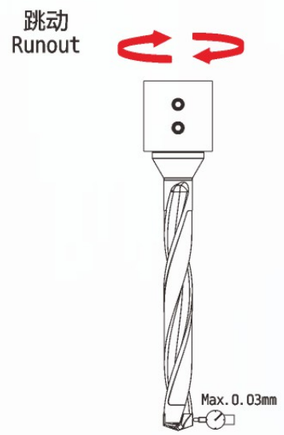
- KS皇冠钻模块钻头，采用可换钻尖结构，可轻松更换钻尖。
- 该产品刀座非常坚固，定位面不容易磨损，可延长硬质合金钻尖的更换次数。
- 5个定位面同时贴合，钻尖重复定位准确，大大提高钻尖的使用寿命和提高进给率。
- 性能非常可靠，效率比U钻提高3-5倍，孔径公差可达±0.03mm，标准型产品的钻孔深度可达12倍径，钻尖直径范围12.5-52mm，多种钻尖材质和钻尖类型可供选择。
- 刀片可修磨，更节约使用成本。
- 非标规格可提供定制服务。
- The KS Crown Drill module drill bit adopts a replaceable drill tip structure, making it easy to replace the drill tip.
- This product has a very sturdy tool holder, and the positioning surface is not easily worn, which can extend the replacement frequency of solid carbide drill tips.
- The five positioning surfaces are fitted at the same time, and the drilling tip is positioned accurately repeatedly, which greatly improves the service life of the drilling tip and the feed rate.
- The performance is very reliable, with an efficiency improvement of 3-5 times compared to U-drills. The aperture tolerance can reach ±0.03mm, and the drilling depth of standard products can reach 12 times the diameter. The drill tip diameter range is 12.5-52mm, and various drill tip materials and types are available for selection.
- The blade can be repaired and ground, which saves more usage costs.
- Non-standard specifications can be customized service.

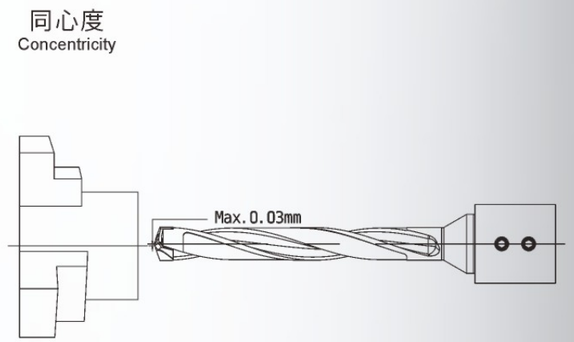
皇冠钻钻杆型号编码规则 Code Rules for Crown Drill Pipe Model

KS1250/1300-3D-C20

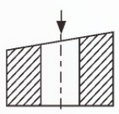
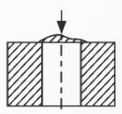
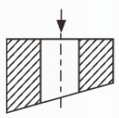
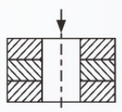
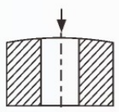
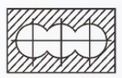
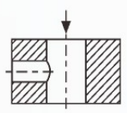
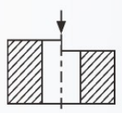
刀杆型号 Tool holder type	钻尖直径范围 Drill tip diameter range	有效加工深度 Effective machining depth	柄径 Shank diameter
KS	1250/1300	3D	C20
	12.5mm~13mm	3D=ø×3 5D=ø×5 7D=ø×7 8.5D=ø×8.5 10D=ø×10 12D=ø×12	C20-ø20柄 C25-ø25柄 C32-ø32柄 C40-ø40柄

机床安装精度
Machine tool installation accuracy





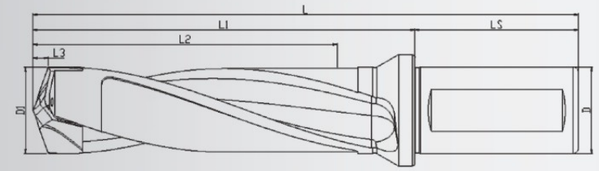
应用注意事项
Application precautions

工况 Operating Condition	说明 Instructions	工况 Operating Condition	说明 Instructions
	**起始面为斜面** The entry surface is slanted **斜面进给率** Slope Feed Rate < 3° 50%		**工件表面不平整** Uneven workpiece surface **加工前先锪平** Flatten before processing
	**出孔为斜面** The outlet is slanted **斜面进给率** Slope Feed Rate < 3° 50%		钻叠层板 Stacked plates 原则上可以 Allowed in principle 需要良好的工件压紧 The workpiece shall be properly clamped 板之间不能有间隙 There must be no gaps between the plates
	起始面为弧面 The entry surface is arc 在中心处钻孔并降低进给是可以的 Drilling at the center at reduced feed rateis allowed 如起始点不在弧面中心需要将面锪平 If the starting point is not at the center of the curved surface, the surface needs to be flattened		**钻型腔** Cavities **不建议** Not recommended
	钻贯穿孔 Through hole 不建议 Not recommended		起始面有台阶 Step on the entry surface 不可以(钻尖起始点必须为平面) Not allowed (the entry point must be on a horizontal plane)

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 1.5D
KS Crown Drill Rod 1.5D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS1250/1350-1.5D-C20	12.50	13.50	108.5	58.5	21	2.1	50	20	C	M3.0/M2.5*14	T6*156
KS1351/1450-1.5D-C20	13.51	14.50	112.5	62.5	22	2.3	50	20	B	M3.0/M2.5*14	T6*156
KS1451/1599-1.5D-C20	14.51	15.99	114.5	64.5	24	2.5	50	20	A	M3.0/M2.5*14	T6*156
KS1600/1800-1.5D-C20	16.00	18.00	119.0	69.0	27	2.9	50	20	1	M3.5/M2.5*16	1.5*185
KS1801/1999-1.5D-C25	18.01	19.99	132.0	76.0	30	3.2	56	25	2	M4.0/M3.0*19	2.0*210
KS2000/2200-1.5D-C25	20.00	22.00	138.0	82.0	33	3.5	56	25	3	M4.0/M3.0*19	2.0*210
KS2201/2400-1.5D-C25	22.01	24.00	144.0	88.0	36	3.8	56	25	4	M4.0/M3.0*19	2.0*210
KS2401/2600-1.5D-C32	24.01	26.00	160.0	100.0	39	4.0	60	32	5	M5.0/M4.0*23	2.5*240
KS2601/2800-1.5D-C32	26.01	28.00	165.0	105.0	42	4.3	60	32	6	M5.0/M4.0*23	2.5*240
KS2801/3000-1.5D-C32	28.01	30.00	171.0	111.0	45	4.6	60	32	7	M6.0/M5.0*28	3.0*265
KS3001/3200-1.5D-C32	30.01	32.00	175.0	115.0	48	4.9	60	32	8	M6.0/M5.0*28	3.0*265
KS3201/3600-1.5D-C40	32.01	36.00	190.0	120.0	54	5.5	70	40	9	M6.0/M6.0*32	3.0*265
KS3601/4000-1.5D-C40	36.01	40.00	196.0	126.0	60	6.2	70	40	10	M6.0/M6.0*32	3.0*265
KS4001/4500-1.5D-C40	40.01	45.00	213.0	143.0	68	6.2	70	40	11	M6.0/M6.0*32	3.0*265
KS4501/5200-1.5D-C50	45.01	52.00	220.5	150.5	78	6.2	70	50	12	M6.0/M6.0*32	3.0*265

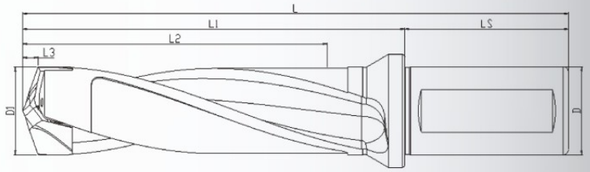
注:钻头直径大于40mm需要定制，价格按实际报价。

Attention: For drill bits with a diameter greater than 40mm, customization is required, and the price will be based on the actual quotation.

CSJ皇冠钻(前锁式) KS皇冠钻(后拉式) KS组合钻 U钻 单刃钻头 带定心U钻 VMD大钻头 铲钻 模块系统 技术资料

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 3D
KS Crown Drill Rod 3D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS1250/1300-3D-C20	12.50	13.00	127.5	77.5	39	2.0	50	20	C	M3.0/M2.5*14	T6*156
KS1301/1350-3D-C20	13.01	13.50	130.0	80.0	41	2.1	50	20	C	M3.0/M2.5*14	T6*156
KS1351/1400-3D-C20	13.51	14.00	132.5	82.5	42	2.2	50	20	B	M3.0/M2.5*14	T6*156
KS1401/1450-3D-C20	14.01	14.50	135.0	85.0	44	2.2	50	20	B	M3.0/M2.5*14	T6*156
KS1451/1499-3D-C20	14.51	14.99	136.5	86.5	45	2.3	50	20	A	M3.0/M2.5*14	T6*156
KS1500/1549-3D-C20	15.00	15.49	139.0	89.0	47	2.4	50	20	A	M3.0/M2.5*14	T6*156
KS1550/1599-3D-C20	15.50	15.99	141.5	91.5	48	2.5	50	20	A	M3.0/M2.5*14	T6*156
KS1600/1649-3D-C20	16.00	16.49	143.0	93.0	50	2.5	50	20	1	M3.5/M2.5*16	1.5*185
KS1650/1699-3D-C20	16.50	16.99	145.5	95.5	51	2.6	50	20	1	M3.5/M2.5*16	1.5*185
KS1700/1749-3D-C20	17.00	17.49	148.0	98.0	53	2.7	50	20	1	M3.5/M2.5*16	1.5*185
KS1750/1800-3D-C20	17.50	18.00	150.0	100.0	54	2.8	50	20	1	M3.5/M2.5*16	1.5*185
KS1801/1849-3D-C25	18.01	18.49	159.0	103.0	56	2.9	56	25	2	M4.0/M3.0*19	2.0*210
KS1850/1899-3D-C25	18.50	18.99	161.5	105.5	57	2.9	56	25	2	M4.0/M3.0*19	2.0*210
KS1900/1949-3D-C25	19.00	19.49	164.0	108.0	59	3.0	56	25	2	M4.0/M3.0*19	2.0*210
KS1950/1999-3D-C25	19.50	19.99	165.5	109.5	60	3.1	56	25	2	M4.0/M3.0*19	2.0*210
KS2000/2049-3D-C25	20.00	20.49	168.0	112.0	62	3.2	56	25	3	M4.0/M3.0*19	2.0*210
KS2050/2099-3D-C25	20.50	20.99	170.5	114.5	63	3.3	56	25	3	M4.0/M3.0*19	2.0*210
KS2100/2149-3D-C25	21.00	21.49	172.0	116.0	65	3.3	56	25	3	M4.0/M3.0*19	2.0*210
KS2150/2200-3D-C25	21.50	22.00	174.5	118.5	66	3.4	56	25	3	M4.0/M3.0*19	2.0*210
KS2201/2249-3D-C25	22.01	22.49	177.0	121.0	68	3.5	56	25	4	M4.0/M3.0*19	2.0*210
KS2250/2299-3D-C25	22.50	22.99	179.0	123.0	69	3.6	56	25	4	M4.0/M3.0*19	2.0*210
KS2300/2349-3D-C25	23.00	23.49	181.0	125.0	71	3.7	56	25	4	M4.0/M3.0*19	2.0*210
KS2350/2400-3D-C25	23.50	24.00	183.5	127.5	72	3.7	56	25	4	M4.0/M3.0*19	2.0*210
KS2401/2449-3D-C32	24.01	24.49	196.0	136.0	74	3.8	60	32	5	M5.0/M4.0*23	2.5*240
KS2450/2499-3D-C32	24.50	24.99	197.5	137.5	75	3.9	60	32	5	M5.0/M4.0*23	2.5*240
KS2500/2549-3D-C32	25.00	25.49	200.0	140.0	77	3.8	60	32	5	M5.0/M4.0*23	2.5*240
KS2550/2600-3D-C32	25.50	26.00	202.5	142.5	78	3.9	60	32	5	M5.0/M4.0*23	2.5*240

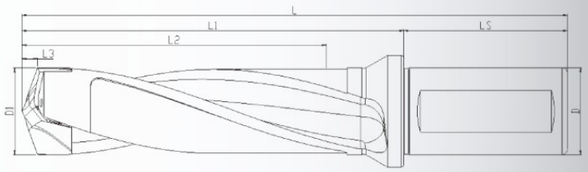
KS皇冠钻钻杆 3D
KS Crown Drill Rod 3D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS2601/2649-3D-C32	26.01	26.49	204.0	144.0	80	4.0	60	32	6	M5.0/M4.0*23	2.5*240
KS2650/2699-3D-C32	26.50	26.99	206.5	146.5	81	4.1	60	32	6	M5.0/M4.0*23	2.5*240
KS2700/2749-3D-C32	27.00	27.49	209.0	149.0	83	4.2	60	32	6	M5.0/M4.0*23	2.5*240
KS2750/2800-3D-C32	27.50	28.00	211.0	151.0	84	4.2	60	32	6	M5.0/M4.0*23	2.5*240
KS2801/2849-3D-C32	28.01	28.49	213.0	153.0	86	4.3	60	32	7	M6.0/M5.0*28	3.0*265
KS2850/2899-3D-C32	28.50	28.99	215.5	155.5	87	4.4	60	32	7	M6.0/M5.0*28	3.0*265
KS2900/2949-3D-C32	29.00	29.49	218.0	158.0	89	4.5	60	32	7	M6.0/M5.0*28	3.0*265
KS2950/3000-3D-C32	29.50	30.00	219.5	159.5	90	4.5	60	32	7	M6.0/M5.0*28	3.0*265
KS3001/3049-3D-C32	30.01	30.49	220.0	160.0	92	4.6	60	32	8	M6.0/M5.0*28	3.0*265
KS3050/3099-3D-C32	30.50	30.99	221.5	161.5	93	4.7	60	32	8	M6.0/M5.0*28	3.0*265
KS3100/3149-3D-C32	31.00	31.49	223.0	163.0	95	4.8	60	32	8	M6.0/M5.0*28	3.0*265
KS3150/3200-3D-C32	31.50	32.00	224.5	164.5	96	4.8	60	32	8	M6.0/M5.0*28	3.0*265
KS3201/3299-3D-C40	32.01	32.99	238.0	168.0	99	4.9	70	40	9	M6.0/M6.0*32	3.0*265
KS3300/3399-3D-C40	33.00	33.99	241.0	171.0	102	5.1	70	40	9	M6.0/M6.0*32	3.0*265
KS3400/3499-3D-C40	34.00	34.99	244.0	174.0	105	5.2	70	40	9	M6.0/M6.0*32	3.0*265
KS3500/3600-3D-C40	35.00	36.00	247.0	177.0	108	5.4	70	40	9	M6.0/M6.0*32	3.0*265
KS3601/3699-3D-C40	36.01	36.99	250.0	180.0	111	5.5	70	40	10	M6.0/M6.0*32	3.0*265
KS3700/3799-3D-C40	37.00	37.99	253.0	183.0	114	5.7	70	40	10	M6.0/M6.0*32	3.0*265
KS3800/3899-3D-C40	38.00	38.99	256.0	186.0	117	5.8	70	40	10	M6.0/M6.0*32	3.0*265
KS3900/4000-3D-C40	39.00	40.00	259.0	189.0	120	6.0	70	40	10	M6.0/M6.0*32	3.0*265
KS4001/4099-3D-C40	40.01	40.99	273.0	203.0	123	6.0	70	40	11	M6.0/M6.0*32	3.0*330
KS4100/4199-3D-C40	41.00	41.99	276.0	206.0	126	6.0	70	40	11	M6.0/M6.0*32	3.0*330
KS4200/4299-3D-C40	42.00	42.99	279.0	209.0	129	6.0	70	40	11	M6.0/M6.0*32	3.0*330
KS4300/4399-3D-C40	43.00	43.99	282.0	212.0	132	6.0	70	40	11	M6.0/M6.0*32	3.0*330
KS4400/4500-3D-C40	44.00	45.00	285.0	215.0	135	6.0	70	40	11	M6.0/M6.0*32	3.0*330
KS4501/4599-3D-C50	45.01	45.99	288.0	218.0	138	6.0	70	50	12	M6.0/M6.0*32	3.0*330
KS4600/4699-3D-C50	46.00	46.99	291.0	221.0	141	6.0	70	50	12	M6.0/M6.0*32	3.0*330
KS4700/4799-3D-C50	47.00	47.99	294.0	224.0	144	6.0	70	50	12	M6.0/M6.0*32	3.0*330
KS4800/4899-3D-C50	48.00	48.99	297.0	227.0	147	6.0	70	50	12	M6.0/M6.0*32	3.0*330
KS4900/4999-3D-C50	49.00	49.99	300.0	230.0	150	6.0	70	50	12	M6.0/M6.0*32	3.0*330
KS5000/5099-3D-C50	50.00	50.99	303.0	233.0	153	6.0	70	50	12	M6.0/M6.0*32	3.0*330
KS5100/5200-3D-C50	51.00	52.00	306.0	236.0	156	6.0	70	50	12	M6.0/M6.0*32	3.0*330

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 5D
KS Crown Drill Rod 5D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS1250/1300-5D-C20	12.50	13.00	152.5	102.5	65	2.0	50	20	C	M3.0/M2.5*14	T6*156
KS1301/1350-5D-C20	13.01	13.50	156.0	106.0	68	2.1	50	20	C	M3.0/M2.5*14	T6*156
KS1351/1400-5D-C20	13.51	14.00	159.5	109.5	70	2.2	50	20	B	M3.0/M2.5*14	T6*188
KS1401/1450-5D-C20	14.01	14.50	163.0	113.0	73	2.2	50	20	B	M3.0/M2.5*14	T6*188
KS1451/1499-5D-C20	14.51	14.99	165.5	115.5	75	2.3	50	20	A	M3.0/M2.5*14	T6*188
KS1500/1549-5D-C20	15.00	15.49	169.0	119.0	78	2.4	50	20	A	M3.0/M2.5*14	T6*188
KS1550/1599-5D-C20	15.50	15.99	172.5	122.5	80	2.5	50	20	A	M3.0/M2.5*14	T6*188
KS1600/1649-5D-C20	16.00	16.49	175.0	125.0	83	2.5	50	20	1	M3.5/M2.5*16	1.5*185
KS1650/1699-5D-C20	16.50	16.99	178.5	128.5	85	2.6	50	20	1	M3.5/M2.5*16	1.5*185
KS1700/1749-5D-C20	17.00	17.49	182.0	132.0	88	2.7	50	20	1	M3.5/M2.5*16	1.5*185
KS1750/1800-5D-C20	17.50	18.00	185.0	135.0	90	2.8	50	20	1	M3.5/M2.5*16	1.5*185
KS1801/1849-5D-C25	18.01	18.49	195.0	139.0	93	2.9	56	25	2	M4.0/M3.0*19	2.0*210
KS1850/1899-5D-C25	18.50	18.99	198.5	142.5	95	2.9	56	25	2	M4.0/M3.0*19	2.0*210
KS1900/1949-5D-C25	19.00	19.49	202.0	146.0	98	3.0	56	25	2	M4.0/M3.0*19	2.0*210
KS1950/1999-5D-C25	19.50	19.99	204.5	148.5	100	3.1	56	25	2	M4.0/M3.0*19	2.0*210
KS2000/2049-5D-C25	20.00	20.49	208.0	152.0	103	3.2	56	25	3	M4.0/M3.0*19	2.0*260
KS2050/2099-5D-C25	20.50	20.99	211.5	155.5	105	3.3	56	25	3	M4.0/M3.0*19	2.0*260
KS2100/2149-5D-C25	21.00	21.49	214.0	158.0	108	3.3	56	25	3	M4.0/M3.0*19	2.0*260
KS2150/2200-5D-C25	21.50	22.00	217.5	161.5	110	3.4	56	25	3	M4.0/M3.0*19	2.0*260
KS2201/2249-5D-C25	22.01	22.49	221.0	165.0	113	3.5	56	25	4	M4.0/M3.0*19	2.0*260
KS2250/2299-5D-C25	22.50	22.99	224.0	168.0	115	3.6	56	25	4	M4.0/M3.0*19	2.0*260
KS2300/2349-5D-C25	23.00	23.49	227.0	171.0	118	3.7	56	25	4	M4.0/M3.0*19	2.0*260
KS2350/2400-5D-C25	23.50	24.00	230.5	174.5	120	3.7	56	25	4	M4.0/M3.0*19	2.0*260
KS2401/2449-5D-C32	24.01	24.49	244.0	184.0	123	3.8	60	32	5	M5.0/M4.0*23	2.5*295
KS2450/2499-5D-C32	24.50	24.99	246.5	186.5	125	3.9	60	32	5	M5.0/M4.0*23	2.5*295
KS2500/2549-5D-C32	25.00	25.49	250.0	190.0	128	3.8	60	32	5	M5.0/M4.0*23	2.5*295
KS2550/2600-5D-C32	25.50	26.00	253.5	193.5	130	3.9	60	32	5	M5.0/M4.0*23	2.5*295

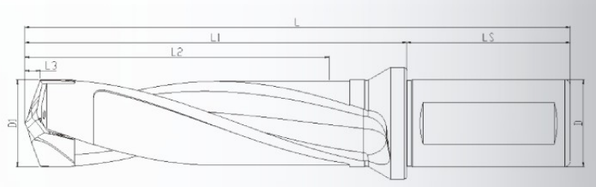
KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

KS皇冠钻钻杆 5D
KS Crown Drill Rod 5D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS2601/2649-5D-C32	26.01	26.49	256.0	196.0	133	4.0	60	32	6	M5.0/M4.0*23	2.5*295
KS2650/2699-5D-C32	26.50	26.99	259.5	199.5	135	4.1	60	32	6	M5.0/M4.0*23	2.5*295
KS2700/2749-5D-C32	27.00	27.49	263.0	203.0	138	4.2	60	32	6	M5.0/M4.0*23	2.5*295
KS2750/2800-5D-C32	27.50	28.00	266.0	206.0	140	4.2	60	32	6	M5.0/M4.0*23	2.5*295
KS2801/2849-5D-C32	28.01	28.49	269.0	209.0	143	4.3	60	32	7	M6.0/M5.0*28	3.0*330
KS2850/2899-5D-C32	28.50	28.99	272.5	212.5	145	4.4	60	32	7	M6.0/M5.0*28	3.0*330
KS2900/2949-5D-C32	29.00	29.49	276.0	216.0	148	4.5	60	32	7	M6.0/M5.0*28	3.0*330
KS2950/3000-5D-C32	29.50	30.00	278.5	218.5	150	4.5	60	32	7	M6.0/M5.0*28	3.0*330
KS3001/3049-5D-C32	30.01	30.49	280.0	220.0	153	4.6	60	32	8	M6.0/M5.0*28	3.0*330
KS3050/3099-5D-C32	30.50	30.99	282.5	222.5	155	4.7	60	32	8	M6.0/M5.0*28	3.0*330
KS3100/3149-5D-C32	31.00	31.49	285.0	225.0	158	4.8	60	32	8	M6.0/M5.0*28	3.0*330
KS3150/3200-5D-C32	31.50	32.00	287.5	227.5	160	4.8	60	32	8	M6.0/M5.0*28	3.0*330
KS3201/3299-5D-C40	32.01	32.99	302.0	232.0	165	4.9	70	40	9	M6.0/M6.0*32	3.0*330
KS3300/3399-5D-C40	33.00	33.99	307.0	237.0	170	5.1	70	40	9	M6.0/M6.0*32	3.0*330
KS3400/3499-5D-C40	34.00	34.99	312.0	242.0	175	5.2	70	40	9	M6.0/M6.0*32	3.0*330
KS3500/3600-5D-C40	35.00	36.00	317.0	247.0	180	5.4	70	40	9	M6.0/M6.0*32	3.0*330
KS3601/3699-5D-C40	36.01	36.99	322.0	252.0	185	5.5	70	40	10	M6.0/M6.0*32	3.0*330
KS3700/3799-5D-C40	37.00	37.99	327.0	257.0	190	5.7	70	40	10	M6.0/M6.0*32	3.0*330
KS3800/3899-5D-C40	38.00	38.99	332.0	262.0	195	5.8	70	40	10	M6.0/M6.0*32	3.0*330
KS3900/4000-5D-C40	39.00	40.00	337.0	267.0	200	6.0	70	40	10	M6.0/M6.0*32	3.0*330
KS4001/4099-5D-C40	40.01	40.99	353.0	283.0	205	6.0	70	40	11	M6.0/M6.0*32	3.0*439
KS4100/4199-5D-C40	41.00	41.99	358.0	288.0	210	6.0	70	40	11	M6.0/M6.0*32	3.0*439
KS4200/4299-5D-C40	42.00	42.99	363.0	293.0	215	6.0	70	40	11	M6.0/M6.0*32	3.0*439
KS4300/4399-5D-C40	43.00	43.99	368.0	298.0	220	6.0	70	40	11	M6.0/M6.0*32	3.0*439
KS4400/4500-5D-C40	44.00	45.00	373.0	303.0	225	6.0	70	40	11	M6.0/M6.0*32	3.0*439
KS4501/4599-5D-C50	45.01	45.99	378.0	308.0	230	6.0	70	50	12	M6.0/M6.0*32	3.0*439
KS4600/4699-5D-C50	46.00	46.99	383.0	313.0	235	6.0	70	50	12	M6.0/M6.0*32	3.0*439
KS4700/4799-5D-C50	47.00	47.99	388.0	318.0	240	6.0	70	50	12	M6.0/M6.0*32	3.0*439
KS4800/4899-5D-C50	48.00	48.99	393.0	323.0	245	6.0	70	50	12	M6.0/M6.0*32	3.0*439
KS4900/4999-5D-C50	49.00	49.99	398.0	328.0	250	6.0	70	50	12	M6.0/M6.0*32	3.0*439
KS5000/5099-5D-C50	50.00	50.99	403.0	333.0	255	6.0	70	50	12	M6.0/M6.0*32	3.0*439
KS5100/5200-5D-C50	51.00	52.00	408.0	338.0	260	6.0	70	50	12	M6.0/M6.0*32	3.0*439

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 7D
KS Crown Drill Rod 7D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size L	L1	L2	L3	LS	D	刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
KS1250/1300-7D-C20	12.50	13.00	177.5	127.5	91	2.0	50	20	C	M3.0/M2.5*14	T6*188
KS1301/1350-7D-C20	13.01	13.50	182.0	132.0	95	2.1	50	20	C	M3.0/M2.5*14	T6*188
KS1351/1400-7D-C20	13.51	14.00	186.5	136.5	98	2.2	50	20	B	M3.0/M2.5*14	T6*230
KS1401/1450-7D-C20	14.01	14.50	191.0	141.0	102	2.2	50	20	B	M3.0/M2.5*14	T6*230
KS1451/1499-7D-C20	14.51	14.99	194.5	144.5	105	2.3	50	20	A	M3.0/M2.5*14	T6*230
KS1500/1549-7D-C20	15.00	15.49	199.0	149.0	109	2.4	50	20	A	M3.0/M2.5*14	T6*230
KS1550/1599-7D-C20	15.50	15.99	203.5	153.5	112	2.5	50	20	A	M3.0/M2.5*14	T6*230
KS1600/1649-7D-C20	16.00	16.49	207.0	157.0	116	2.5	50	20	1	M3.5/M2.5*16	1.5*225
KS1650/1699-7D-C20	16.50	16.99	211.5	161.5	119	2.6	50	20	1	M3.5/M2.5*16	1.5*225
KS1700/1749-7D-C20	17.00	17.49	216.0	166.0	123	2.7	50	20	1	M3.5/M2.5*16	1.5*225
KS1750/1800-7D-C20	17.50	18.00	220.0	170.0	126	2.8	50	20	1	M3.5/M2.5*16	1.5*225
KS1801/1849-7D-C25	18.01	18.49	231.0	175.0	130	2.9	56	25	2	M4.0/M3.0*19	2.0*260
KS1850/1899-7D-C25	18.50	18.99	235.5	179.5	133	2.9	56	25	2	M4.0/M3.0*19	2.0*260
KS1900/1949-7D-C25	19.00	19.49	240.0	184.0	137	3.0	56	25	2	M4.0/M3.0*19	2.0*260
KS1950/1999-7D-C25	19.50	19.99	243.5	187.5	140	3.1	56	25	2	M4.0/M3.0*19	2.0*260
KS2000/2049-7D-C25	20.00	20.49	248.0	192.0	144	3.2	56	25	3	M4.0/M3.0*19	2.0*260
KS2050/2099-7D-C25	20.50	20.99	252.5	196.5	147	3.3	56	25	3	M4.0/M3.0*19	2.0*260
KS2100/2149-7D-C25	21.00	21.49	256.0	200.0	151	3.3	56	25	3	M4.0/M3.0*19	2.0*260
KS2150/2200-7D-C25	21.50	22.00	260.5	204.5	154	3.4	56	25	3	M4.0/M3.0*19	2.0*260
KS2201/2249-7D-C25	22.01	22.49	265.0	209.0	158	3.5	56	25	4	M4.0/M3.0*19	2.0*343
KS2250/2299-7D-C25	22.50	22.99	269.0	213.0	161	3.6	56	25	4	M4.0/M3.0*19	2.0*343
KS2300/2349-7D-C25	23.00	23.49	273.0	217.0	165	3.7	56	25	4	M4.0/M3.0*19	2.0*343
KS2350/2400-7D-C25	23.50	24.00	277.5	221.5	168	3.7	56	25	4	M4.0/M3.0*19	2.0*343
KS2401/2449-7D-C32	24.01	24.49	292.0	232.0	172	3.8	60	32	5	M5.0/M4.0*23	2.5*393
KS2450/2499-7D-C32	24.50	24.99	295.5	235.5	175	3.9	60	32	5	M5.0/M4.0*23	2.5*393
KS2500/2549-7D-C32	25.00	25.49	300.0	240.0	179	3.8	60	32	5	M5.0/M4.0*23	2.5*393
KS2550/2600-7D-C32	25.50	26.00	304.5	244.5	182	3.9	60	32	5	M5.0/M4.0*23	2.5*393

KS皇冠钻钻杆 7D
KS Crown Drill Rod 7D

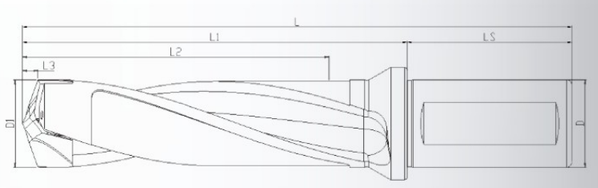
型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size L	L1	L2	L3	LS	D	刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
KS2601/2649-7D-C32	26.01	26.49	308.0	248.0	186	4.0	60	32	6	M5.0/M4.0*23	2.5*393
KS2650/2699-7D-C32	26.50	26.99	312.5	252.5	189	4.1	60	32	6	M5.0/M4.0*23	2.5*393
KS2700/2749-7D-C32	27.00	27.49	317.0	257.0	193	4.2	60	32	6	M5.0/M4.0*23	2.5*393
KS2750/2800-7D-C32	27.50	28.00	321.0	261.0	196	4.2	60	32	6	M5.0/M4.0*23	2.5*393
KS2801/2849-7D-C32	28.01	28.49	325.0	265.0	200	4.3	60	32	7	M6.0/M5.0*28	3.0*439
KS2850/2899-7D-C32	28.50	28.99	329.5	269.5	203	4.4	60	32	7	M6.0/M5.0*28	3.0*439
KS2900/2949-7D-C32	29.00	29.49	334.0	274.0	207	4.5	60	32	7	M6.0/M5.0*28	3.0*439
KS2950/3000-7D-C32	29.50	30.00	337.5	277.5	210	4.5	60	32	7	M6.0/M5.0*28	3.0*439
KS3001/3049-7D-C32	30.01	30.49	340.0	280.0	214	4.6	60	32	8	M6.0/M5.0*28	3.0*439
KS3050/3099-7D-C32	30.50	30.99	343.5	283.5	217	4.7	60	32	8	M6.0/M5.0*28	3.0*439
KS3100/3149-7D-C32	31.00	31.49	347.0	287.0	221	4.8	60	32	8	M6.0/M5.0*28	3.0*439
KS3150/3200-7D-C32	31.50	32.00	350.5	290.5	224	4.8	60	32	8	M6.0/M5.0*28	3.0*439
KS3201/3299-7D-C40	32.01	32.99	366.0	296.0	231	4.9	70	40	9	M6.0/M6.0*32	3.0*439
KS3300/3399-7D-C40	33.00	33.99	373.0	303.0	238	5.1	70	40	9	M6.0/M6.0*32	3.0*439
KS3400/3499-7D-C40	34.00	34.99	380.0	310.0	245	5.2	70	40	9	M6.0/M6.0*32	3.0*439
KS3500/3600-7D-C40	35.00	36.00	387.0	317.0	252	5.4	70	40	9	M6.0/M6.0*32	3.0*439
KS3601/3699-7D-C40	36.01	36.99	394.0	324.0	259	5.5	70	40	10	M6.0/M6.0*32	3.0*439
KS3700/3799-7D-C40	37.00	37.99	401.0	331.0	266	5.7	70	40	10	M6.0/M6.0*32	3.0*439
KS3800/3899-7D-C40	38.00	38.99	408.0	338.0	273	5.8	70	40	10	M6.0/M6.0*32	3.0*439
KS3900/4000-7D-C40	39.00	40.00	415.0	345.0	280	6.0	70	40	10	M6.0/M6.0*32	3.0*439
KS4001/4099-7D-C40	40.01	40.99	433.0	363.0	287	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4100/4199-7D-C40	41.00	41.99	440.0	370.0	294	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4200/4299-7D-C40	42.00	42.99	447.0	377.0	301	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4300/4399-7D-C40	43.00	43.99	454.0	384.0	308	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4400/4500-7D-C40	44.00	45.00	461.0	391.0	315	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4501/4599-7D-C50	45.01	45.99	468.0	398.0	322	6.0	70	50	12	M6.0/M6.0*32	3.0*530
KS4600/4699-7D-C50	46.00	46.99	475.0	405.0	329	6.0	70	50	12	M6.0/M6.0*32	3.0*530
KS4700/4799-7D-C50	47.00	47.99	482.0	412.0	336	6.0	70	50	12	M6.0/M6.0*32	3.0*530
KS4800/4899-7D-C50	48.00	48.99	489.0	419.0	343	6.0	70	50	12	M6.0/M6.0*32	3.0*530
KS4900/4999-7D-C50	49.00	49.99	496.0	426.0	350	6.0	70	50	12	M6.0/M6.0*32	3.0*530
KS5000/5099-7D-C50	50.00	50.99	503.0	433.0	357	6.0	70	50	12	M6.0/M6.0*32	3.0*530
KS5100/5200-7D-C50	51.00	52.00	510.0	440.0	364	6.0	70	50	12	M6.0/M6.0*32	3.0*530

CSJ皇冠钻(前锁式) KS皇冠钻(后拉式) KS组合钻 U钻 单刃钻头 带定心U钻 VMD大钻头 铲钻 模块系统 技术资料

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 8.5D
KS Crown Drill Rod 8.5D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS1250/1300-8.5D-C20	12.50	13.00	196.0	146.0	111	2.0	50	20	C	M3.0/M2.5*14	T6*230
KS1301/1350-8.5D-C20	13.01	13.50	201.5	151.5	115	2.1	50	20	C	M3.0/M2.5*14	T6*230
KS1351/1400-8.5D-C20	13.51	14.00	207.0	157.0	119	2.2	50	20	B	M3.0/M2.5*14	T6*230
KS1401/1450-8.5D-C20	14.01	14.50	212.0	162.0	124	2.2	50	20	B	M3.0/M2.5*14	T6*230
KS1451/1499-8.5D-C20	14.51	14.99	216.0	166.0	128	2.3	50	20	A	M3.0/M2.5*14	T6*230
KS1500/1549-8.5D-C20	15.00	15.49	221.5	171.5	132	2.4	50	20	A	M3.0/M2.5*14	T6*230
KS1550/1599-8.5D-C20	15.50	15.99	227.0	177.0	136	2.5	50	20	A	M3.0/M2.5*14	T6*230
KS1600/1649-8.5D-C20	16.00	16.49	231.0	181.0	141	2.5	50	20	1	M3.5/M2.5*16	1.5*297
KS1650/1699-8.5D-C20	16.50	16.99	236.0	186.0	145	2.6	50	20	1	M3.5/M2.5*16	1.5*297
KS1700/1749-8.5D-C20	17.00	17.49	241.5	191.5	149	2.7	50	20	1	M3.5/M2.5*16	1.5*297
KS1750/1800-8.5D-C20	17.50	18.00	246.5	196.5	153	2.8	50	20	1	M3.5/M2.5*16	1.5*297
KS1801/1849-8.5D-C25	18.01	18.49	258.0	202.0	158	2.9	56	25	2	M4.0/M3.0*19	2.0*343
KS1850/1899-8.5D-C25	18.50	18.99	263.0	207.0	162	2.9	56	25	2	M4.0/M3.0*19	2.0*343
KS1900/1949-8.5D-C25	19.00	19.49	268.5	212.5	166	3.0	56	25	2	M4.0/M3.0*19	2.0*343
KS1950/1999-8.5D-C25	19.50	19.99	273.0	217.0	170	3.1	56	25	2	M4.0/M3.0*19	2.0*343
KS2000/2049-8.5D-C25	20.00	20.49	278.0	222.0	175	3.2	56	25	3	M4.0/M3.0*19	2.0*343
KS2050/2099-8.5D-C25	20.50	20.99	283.0	227.0	179	3.3	56	25	3	M4.0/M3.0*19	2.0*343
KS2100/2149-8.5D-C25	21.00	21.49	287.5	231.5	183	3.3	56	25	3	M4.0/M3.0*19	2.0*343
KS2150/2200-8.5D-C25	21.50	22.00	293.0	237.0	187	3.4	56	25	3	M4.0/M3.0*19	2.0*343
KS2201/2249-8.5D-C25	22.01	22.49	298.0	242.0	192	3.5	56	25	4	M4.0/M3.0*19	2.0*343
KS2250/2299-8.5D-C25	22.50	22.99	302.5	246.5	196	3.6	56	25	4	M4.0/M3.0*19	2.0*343
KS2300/2349-8.5D-C25	23.00	23.49	307.5	251.5	200	3.7	56	25	4	M4.0/M3.0*19	2.0*343
KS2350/2400-8.5D-C25	23.50	24.00	313.0	257.0	204	3.7	56	25	4	M4.0/M3.0*19	2.0*343
KS2401/2449-8.5D-C32	24.01	24.49	328.0	268.0	209	3.8	60	32	5	M5.0/M4.0*23	2.5*393
KS2450/2499-8.5D-C32	24.50	24.99	332.0	272.0	213	3.9	60	32	5	M5.0/M4.0*23	2.5*393
KS2500/2549-8.5D-C32	25.00	25.49	337.5	277.5	217	3.8	60	32	5	M5.0/M4.0*23	2.5*393
KS2550/2600-8.5D-C32	25.50	26.00	343.0	282.0	221	3.9	60	32	5	M5.0/M4.0*23	2.5*393

注意：钻杆超过5D时，需进行预定心操作！ Attention: When the drill pipe exceeds 5D, pre centering operation is required!

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

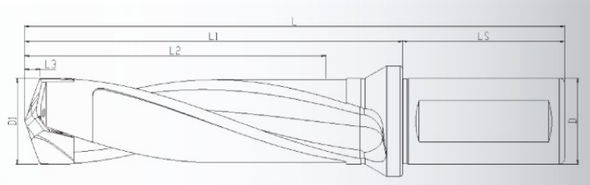
KS皇冠钻钻杆 8.5D
KS Crown Drill Rod 8.5D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS2601/2649-8.5D-C32	26.01	26.49	347.0	287.0	226	4.0	60	32	6	M5.0/M4.0*23	2.5*393
KS2650/2699-8.5D-C32	26.50	26.99	352.0	292.0	230	4.1	60	32	6	M5.0/M4.0*23	2.5*393
KS2700/2749-8.5D-C32	27.00	27.49	357.5	297.5	234	4.2	60	32	6	M5.0/M4.0*23	2.5*393
KS2750/2800-8.5D-C32	27.50	28.00	362.0	302.0	238	4.2	60	32	6	M5.0/M4.0*23	2.5*393
KS2801/2849-8.5D-C32	28.01	28.49	367.0	307.0	243	4.3	60	32	7	M6.0/M5.0*28	3.0*439
KS2850/2899-8.5D-C32	28.50	28.99	372.0	312.0	247	4.4	60	32	7	M6.0/M5.0*28	3.0*439
KS2900/2949-8.5D-C32	29.00	29.49	377.5	317.5	251	4.5	60	32	7	M6.0/M5.0*28	3.0*439
KS2950/3000-8.5D-C32	29.50	30.00	382.0	322.0	255	4.5	60	32	7	M6.0/M5.0*28	3.0*439
KS3001/3049-8.5D-C32	30.01	30.49	385.0	325.0	260	4.6	60	32	8	M6.0/M5.0*28	3.0*439
KS3050/3099-8.5D-C32	30.50	30.99	389.0	329.0	264	4.7	60	32	8	M6.0/M5.0*28	3.0*439
KS3100/3149-8.5D-C32	31.00	31.49	393.5	333.5	268	4.8	60	32	8	M6.0/M5.0*28	3.0*439
KS3150/3200-8.5D-C32	31.50	32.00	398.0	338.0	272	4.8	60	32	8	M6.0/M5.0*28	3.0*439
KS3201/3299-8.5D-C40	32.01	32.99	414.0	344.0	281	4.9	70	40	9	M6.0/M6.0*32	3.0*439
KS3300/3399-8.5D-C40	33.00	33.99	422.5	352.5	289	5.1	70	40	9	M6.0/M6.0*32	3.0*439
KS3400/3499-8.5D-C40	34.00	34.99	431.0	361.0	298	5.2	70	40	9	M6.0/M6.0*32	3.0*439
KS3500/3600-8.5D-C40	35.00	36.00	439.5	369.5	306	5.4	70	40	9	M6.0/M6.0*32	3.0*439
KS3601/3699-8.5D-C40	36.01	36.99	448.0	378.0	315	5.5	70	40	10	M6.0/M6.0*32	3.0*530
KS3700/3799-8.5D-C40	37.00	37.99	456.5	386.5	323	5.7	70	40	10	M6.0/M6.0*32	3.0*530
KS3800/3899-8.5D-C40	38.00	38.99	465.0	395.0	332	5.8	70	40	10	M6.0/M6.0*32	3.0*530
KS3900/4000-8.5D-C40	39.00	40.00	473.5	403.5	340	6.0	70	40	10	M6.0/M6.0*32	3.0*530
KS4001/4099-8.5D-C40	40.01	40.99	493.0	423.0	349	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4100/4199-8.5D-C40	41.00	41.99	501.5	431.5	357	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4200/4299-8.5D-C40	42.00	42.99	510.0	440.0	366	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4300/4399-8.5D-C40	43.00	43.99	518.5	448.5	374	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4400/4500-8.5D-C40	44.00	45.00	527.0	457.0	383	6.0	70	40	11	M6.0/M6.0*32	3.0*530
KS4501/4599-8.5D-C50	45.01	45.99	535.5	465.5	391	6.0	70	50	12	M6.0/M6.0*32	3.0*600
KS4600/4699-8.5D-C50	46.00	46.99	544.0	474.0	400	6.0	70	50	12	M6.0/M6.0*32	3.0*600
KS4700/4799-8.5D-C50	47.00	47.99	552.5	482.5	408	6.0	70	50	12	M6.0/M6.0*32	3.0*600
KS4800/4899-8.5D-C50	48.00	48.99	561.0	491.0	417	6.0	70	50	12	M6.0/M6.0*32	3.0*600
KS4900/4999-8.5D-C50	49.00	49.99	569.5	499.5	425	6.0	70	50	12	M6.0/M6.0*32	3.0*600
KS5000/5099-8.5D-C50	50.00	50.99	578.0	508.0	434	6.0	70	50	12	M6.0/M6.0*32	3.0*600
KS5100/5200-8.5D-C50	51.00	52.00	586.5	516.5	442	6.0	70	50	12	M6.0/M6.0*32	3.0*600

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 10D
KS Crown Drill Rod 10D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS1250/1300-10D-C20	12.50	13.00	215.0	165.0	130	2.0	50	20	C	M3.0/M2.5*14	T6*230
KS1301/1350-10D-C20	13.01	13.50	221.0	171.0	135	2.1	50	20	C	M3.0/M2.5*14	T6*230
KS1351/1400-10D-C20	13.51	14.00	227.0	177.0	140	2.2	50	20	B	M3.0/M2.5*14	T6*230
KS1401/1450-10D-C20	14.01	14.50	233.0	183.0	145	2.2	50	20	B	M3.0/M2.5*14	T6*230
KS1451/1499-10D-C20	14.51	14.99	238.0	188.0	150	2.3	50	20	A	M3.0/M2.5*14	T6*291
KS1500/1549-10D-C20	15.00	15.49	244.0	194.0	155	2.4	50	20	A	M3.0/M2.5*14	T6*291
KS1550/1599-10D-C20	15.50	15.99	250.0	200.0	160	2.5	50	20	A	M3.0/M2.5*14	T6*291
KS1600/1649-10D-C20	16.00	16.49	255.0	205.0	165	2.5	50	20	1	M3.5/M2.5*16	1.5*297
KS1650/1699-10D-C20	16.50	16.99	261.0	211.0	170	2.6	50	20	1	M3.5/M2.5*16	1.5*297
KS1700/1749-10D-C20	17.00	17.49	267.0	217.0	175	2.7	50	20	1	M3.5/M2.5*16	1.5*297
KS1750/1800-10D-C20	17.50	18.00	272.5	222.5	180	2.8	50	20	1	M3.5/M2.5*16	1.5*297
KS1801/1849-10D-C25	18.01	18.49	285.0	229.0	185	2.9	56	25	2	M4.0/M3.0*19	2.0*343
KS1850/1899-10D-C25	18.50	18.99	291.0	235.0	190	2.9	56	25	2	M4.0/M3.0*19	2.0*343
KS1900/1949-10D-C25	19.00	19.49	297.0	241.0	195	3.0	56	25	2	M4.0/M3.0*19	2.0*343
KS1950/1999-10D-C25	19.50	19.99	302.0	246.0	200	3.1	56	25	2	M4.0/M3.0*19	2.0*343
KS2000/2049-10D-C25	20.00	20.49	308.0	252.0	205	3.2	56	25	3	M4.0/M3.0*19	2.0*343
KS2050/2099-10D-C25	20.50	20.99	314.0	258.0	210	3.3	56	25	3	M4.0/M3.0*19	2.0*343
KS2100/2149-10D-C25	21.00	21.49	319.0	263.0	215	3.3	56	25	3	M4.0/M3.0*19	2.0*343
KS2150/2200-10D-C25	21.50	22.00	325.0	269.0	220	3.4	56	25	3	M4.0/M3.0*19	2.0*343
KS2201/2249-10D-C25	22.01	22.49	331.0	275.0	225	3.5	56	25	4	M4.0/M3.0*19	2.0*343
KS2250/2299-10D-C25	22.50	22.99	336.5	280.5	230	3.6	56	25	4	M4.0/M3.0*19	2.0*343
KS2300/2349-10D-C25	23.00	23.49	342.0	286.0	235	3.7	56	25	4	M4.0/M3.0*19	2.0*343
KS2350/2400-10D-C25	23.50	24.00	348.0	292.0	240	3.7	56	25	4	M4.0/M3.0*19	2.0*343
KS2401/2449-10D-C32	24.01	24.49	364.0	304.0	245	3.8	60	32	5	M5.0/M4.0*23	2.5*393
KS2450/2499-10D-C32	24.50	24.99	369.0	309.0	250	3.9	60	32	5	M5.0/M4.0*23	2.5*393
KS2500/2549-10D-C32	25.00	25.49	375.0	315.0	255	3.8	60	32	5	M5.0/M4.0*23	2.5*393
KS2550/2600-10D-C32	25.50	26.00	381.0	321.0	260	3.9	60	32	5	M5.0/M4.0*23	2.5*393

注意：钻杆超过5D时，需进行预定心操作！ Attention: When the drill pipe exceeds 5D, pre centering operation is required!

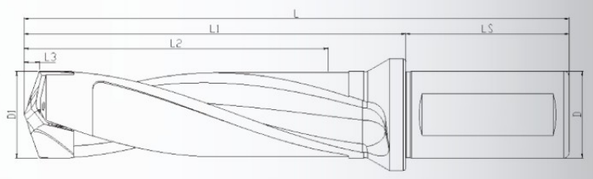
KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

KS皇冠钻钻杆 10D
KS Crown Drill Rod 10D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS2601/2649-10D-C32	26.01	26.49	386.0	326.0	265	4.0	60	32	6	M5.0/M4.0*23	2.5*393
KS2650/2699-10D-C32	26.50	26.99	392.0	332.0	270	4.1	60	32	6	M5.0/M4.0*23	2.5*393
KS2700/2749-10D-C32	27.00	27.49	398.0	338.0	275	4.2	60	32	6	M5.0/M4.0*23	2.5*393
KS2750/2800-10D-C32	27.50	28.00	403.5	343.5	280	4.2	60	32	6	M5.0/M4.0*23	2.5*393
KS2801/2849-10D-C32	28.01	28.49	409.0	349.0	285	4.3	60	32	7	M6.0/M5.0*28	3.0*439
KS2850/2899-10D-C32	28.50	28.99	415.0	355.0	290	4.4	60	32	7	M6.0/M5.0*28	3.0*439
KS2900/2949-10D-C32	29.00	29.49	421.0	361.0	295	4.5	60	32	7	M6.0/M5.0*28	3.0*439
KS2950/3000-10D-C32	29.50	30.00	426.0	366.0	300	4.5	60	32	7	M6.0/M5.0*28	3.0*439
KS3001/3049-10D-C32	30.01	30.49	430.0	270.0	305	4.6	60	32	8	M6.0/M5.0*28	3.0*439
KS3050/3099-10D-C32	30.50	30.99	435.0	375.0	310	4.7	60	32	8	M6.0/M5.0*28	3.0*439
KS3100/3149-10D-C32	31.00	31.49	440.0	380.0	315	4.8	60	32	8	M6.0/M5.0*28	3.0*439
KS3150/3200-10D-C32	31.50	32.00	445.0	385.0	320	4.8	60	32	8	M6.0/M5.0*28	3.0*439
KS3201/3299-10D-C40	32.01	32.99	462.0	392.0	330	4.9	70	40	9	M6.0/M6.0*32	3.0*530
KS3300/3399-10D-C40	33.00	33.99	472.0	402.0	340	5.1	70	40	9	M6.0/M6.0*32	3.0*530
KS3400/3499-10D-C40	34.00	34.99	482.0	412.0	350	5.2	70	40	9	M6.0/M6.0*32	3.0*530
KS3500/3600-10D-C40	35.00	36.00	492.0	422.0	360	5.4	70	40	9	M6.0/M6.0*32	3.0*530
KS3601/3699-10D-C40	36.01	36.99	502.0	432.0	370	5.5	70	40	10	M6.0/M6.0*32	3.0*530
KS3700/3799-10D-C40	37.00	37.99	512.0	442.0	380	5.7	70	40	10	M6.0/M6.0*32	3.0*530
KS3800/3899-10D-C40	38.00	38.99	522.0	452.0	390	5.8	70	40	10	M6.0/M6.0*32	3.0*530
KS3900/4000-10D-C40	39.00	40.00	532.0	462.0	400	6.0	70	40	10	M6.0/M6.0*32	3.0*530
KS4001/4099-10D-C40	40.01	40.99	553.0	483.0	410	6.0	70	40	11	M6.0/M6.0*32	3.0*600
KS4100/4199-10D-C40	41.00	41.99	563.0	493.0	420	6.0	70	40	11	M6.0/M6.0*32	3.0*600
KS4200/4299-10D-C40	42.00	42.99	573.0	503.0	430	6.0	70	40	11	M6.0/M6.0*32	3.0*600
KS4300/4399-10D-C40	43.00	43.99	583.0	513.0	440	6.0	70	40	11	M6.0/M6.0*32	3.0*600
KS4400/4500-10D-C40	44.00	45.00	593.0	523.0	450	6.0	70	40	11	M6.0/M6.0*32	3.0*600
KS4501/4599-10D-C50	45.01	45.99	603.0	533.0	460	6.0	70	50	12	M6.0/M6.0*32	3.0*680
KS4600/4699-10D-C50	46.00	46.99	613.0	543.0	470	6.0	70	50	12	M6.0/M6.0*32	3.0*680
KS4700/4799-10D-C50	47.00	47.99	623.0	553.0	480	6.0	70	50	12	M6.0/M6.0*32	3.0*680
KS4800/4899-10D-C50	48.00	48.99	633.0	563.0	490	6.0	70	50	12	M6.0/M6.0*32	3.0*680
KS4900/4999-10D-C50	49.00	49.99	643.0	573.0	500	6.0	70	50	12	M6.0/M6.0*32	3.0*680
KS5000/5099-10D-C50	50.00	50.99	653.0	583.0	510	6.0	70	50	12	M6.0/M6.0*32	3.0*680
KS5100/5200-10D-C50	51.00	52.00	663.0	593.0	520	6.0	70	50	12	M6.0/M6.0*32	3.0*680

- 所有钻杆应使用匹配型号的钻尖
- 钻杆配有中心锁紧螺丝和扳手
- 钻尖需单独订购

- All drill pipes should use matching drill tips
- The drill pipe is equipped with a central locking screw and wrench
- Drill tips need to be ordered separately



KS皇冠钻钻杆 12D
KS Crown Drill Rod 12D

型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS1250/1300-12D-C20	12.50	13.00	240.0	190.0	156	2.0	50	20	C	M3.0/M2.5*14	T6*291
KS1301/1350-12D-C20	13.01	13.50	247.0	197.0	162	2.1	50	20	C	M3.0/M2.5*14	T6*291
KS1351/1400-12D-C20	13.51	14.00	254.0	204.0	168	2.2	50	20	B	M3.0/M2.5*14	T6*291
KS1401/1450-12D-C20	14.01	14.50	261.0	211.0	174	2.2	50	20	B	M3.0/M2.5*14	T6*291
KS1451/1499-12D-C20	14.51	14.99	267.0	217.0	180	2.3	50	20	A	M3.0/M2.5*14	T6*291
KS1500/1549-12D-C20	15.00	15.49	274.0	224.0	186	2.4	50	20	A	M3.0/M2.5*14	T6*291
KS1550/1599-12D-C20	15.50	15.99	281.0	231.0	192	2.5	50	20	A	M3.0/M2.5*14	T6*291
KS1600/1649-12D-C20	16.00	16.49	287.0	237.0	198	2.5	50	20	1	M3.5/M2.5*16	1.5*350
KS1650/1699-12D-C20	16.50	16.99	294.0	244.0	204	2.6	50	20	1	M3.5/M2.5*16	1.5*350
KS1700/1749-12D-C20	17.00	17.49	301.0	251.0	210	2.7	50	20	1	M3.5/M2.5*16	1.5*350
KS1750/1800-12D-C20	17.50	18.00	307.5	257.5	216	2.8	50	20	1	M3.5/M2.5*16	1.5*350
KS1801/1849-12D-C25	18.01	18.49	321.0	265.0	222	2.9	56	25	2	M4.0/M3.0*19	2.0*410
KS1850/1899-12D-C25	18.50	18.99	328.0	272.0	228	2.9	56	25	2	M4.0/M3.0*19	2.0*410
KS1900/1949-12D-C25	19.00	19.49	335.0	279.0	234	3.0	56	25	2	M4.0/M3.0*19	2.0*410
KS1950/1999-12D-C25	19.50	19.99	341.0	285.0	240	3.1	56	25	2	M4.0/M3.0*19	2.0*410
KS2000/2049-12D-C25	20.00	20.49	348.0	292.0	246	3.2	56	25	3	M4.0/M3.0*19	2.0*410
KS2050/2099-12D-C25	20.50	20.99	355.0	299.0	252	3.3	56	25	3	M4.0/M3.0*19	2.0*410
KS2100/2149-12D-C25	21.00	21.49	361.0	305.0	258	3.3	56	25	3	M4.0/M3.0*19	2.0*410
KS2150/2200-12D-C25	21.50	22.00	368.0	312.0	264	3.4	56	25	3	M4.0/M3.0*19	2.0*410
KS2201/2249-12D-C25	22.01	22.49	375.0	319.0	270	3.5	56	25	4	M4.0/M3.0*19	2.0*410
KS2250/2299-12D-C25	22.50	22.99	381.5	325.0	276	3.6	56	25	4	M4.0/M3.0*19	2.0*410
KS2300/2349-12D-C25	23.00	23.49	388.0	332.0	282	3.7	56	25	4	M4.0/M3.0*19	2.0*410
KS2350/2400-12D-C25	23.50	24.00	395.0	339.0	288	3.7	56	25	4	M4.0/M3.0*19	2.0*410
KS2401/2449-12D-C32	24.01	24.49	412.0	352.0	294	3.8	60	32	5	M5.0/M4.0*23	2.5*460
KS2450/2499-12D-C32	24.50	24.99	418.0	358.0	300	3.9	60	32	5	M5.0/M4.0*23	2.5*460
KS2500/2549-12D-C32	25.00	25.49	425.0	365.0	306	3.8	60	32	5	M5.0/M4.0*23	2.5*460
KS2550/2600-12D-C32	25.50	26.00	432.0	372.0	312	3.9	60	32	5	M5.0/M4.0*23	2.5*460

注意：钻杆超过5D时，需进行预定心操作！ Attention: When the drill pipe exceeds 5D, pre centering operation is required!

KS皇冠钻钻杆 12D
KS Crown Drill Rod 12D

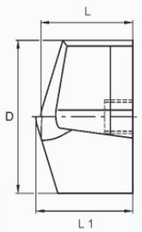
型号 Code No	钻尖直径范围 Drill tip diameter range		尺寸 Size						刀座型号 Knife holder model	中心锁紧螺丝 Center locking screw	扳手 Wrench
			L	L1	L2	L3	LS	D			
KS2601/2649-12D-C32	26.01	26.49	438.0	378.0	318	4.0	60	32	6	M5.0/M4.0*23	2.5*460
KS2650/2699-12D-C32	26.50	26.99	445.0	385.0	324	4.1	60	32	6	M5.0/M4.0*23	2.5*460
KS2700/2749-12D-C32	27.00	27.49	452.0	392.0	330	4.2	60	32	6	M5.0/M4.0*23	2.5*460
KS2750/2800-12D-C32	27.50	28.00	458.5	398.5	336	4.2	60	32	6	M5.0/M4.0*23	2.5*460
KS2801/2849-12D-C32	28.01	28.49	465.0	405.0	342	4.3	60	32	7	M6.0/M5.0*28	3.0*530
KS2850/2899-12D-C32	28.50	28.99	472.0	412.0	348	4.4	60	32	7	M6.0/M5.0*28	3.0*530
KS2900/2949-12D-C32	29.00	29.49	479.0	419.0	354	4.5	60	32	7	M6.0/M5.0*28	3.0*530
KS2950/3000-12D-C32	29.50	30.00	485.0	425.0	360	4.5	60	32	7	M6.0/M5.0*28	3.0*530
KS3001/3049-12D-C32	30.01	30.49	490.0	430.0	366	4.6	60	32	8	M6.0/M5.0*28	3.0*530
KS3050/3099-12D-C32	30.50	30.99	496.0	436.0	372	4.7	60	32	8	M6.0/M5.0*28	3.0*530
KS3100/3149-12D-C32	31.00	31.49	502.0	442.0	378	4.8	60	32	8	M6.0/M5.0*28	3.0*530
KS3150/3200-12D-C32	31.50	32.00	508.0	448.0	384	4.8	60	32	8	M6.0/M5.0*28	3.0*530
KS3201/3299-12D-C40	32.01	32.99	526.0	456.0	396	4.9	70	40	9	M6.0/M6.0*32	3.0*600
KS3300/3399-12D-C40	33.00	33.99	538.0	468.0	408	5.1	70	40	9	M6.0/M6.0*32	3.0*600
KS3400/3499-12D-C40	34.00	34.99	550.0	480.0	420	5.2	70	40	9	M6.0/M6.0*32	3.0*600
KS3500/3600-12D-C40	35.00	36.00	562.0	492.0	432	5.4	70	40	9	M6.0/M6.0*32	3.0*600
KS3601/3699-12D-C40	36.01	36.99	574.0	504.0	444	5.5	70	40	10	M6.0/M6.0*32	3.0*600
KS3700/3799-12D-C40	37.00	37.99	586.0	516.0	456	5.7	70	40	10	M6.0/M6.0*32	3.0*600
KS3800/3899-12D-C40	38.00	38.99	598.0	528.0	468	5.8	70	40	10	M6.0/M6.0*32	3.0*600
KS3900/4000-12D-C40	39.00	40.00	610.0	540.0	480	6.0	70	40	10	M6.0/M6.0*32	3.0*600
KS4001/4099-12D-C40	40.01	40.99	633.0	563.0	492	6.0	70	40	11	M6.0/M6.0*32	3.0*680
KS4100/4199-12D-C40	41.00	41.99	645.0	575.0	504	6.0	70	40	11	M6.0/M6.0*32	3.0*680
KS4200/4299-12D-C40	42.00	42.99	657.0	587.0	516	6.0	70	40	11	M6.0/M6.0*32	3.0*680
KS4300/4399-12D-C40	43.00	43.99	669.0	599.0	528	6.0	70	40	11	M6.0/M6.0*32	3.0*680
KS4400/4500-12D-C40	44.00	45.00	681.0	611.0	540	6.0	70	40	11	M6.0/M6.0*32	3.0*680
KS4501/4599-12D-C50	45.01	45.99	693.0	623.0	552	6.0	70	50	12	M6.0/M6.0*32	3.0*770
KS4600/4699-12D-C50	46.00	46.99	705.0	635.0	564	6.0	70	50	12	M6.0/M6.0*32	3.0*770
KS4700/4799-12D-C50	47.00	47.99	717.0	647.0	576	6.0	70	50	12	M6.0/M6.0*32	3.0*770
KS4800/4899-12D-C50	48.00	48.99	729.0	659.0	588	6.0	70	50	12	M6.0/M6.0*32	3.0*770
KS4900/4999-12D-C50	49.00	49.99	741.0	671.0	600	6.0	70	50	12	M6.0/M6.0*32	3.0*770
KS5000/5099-12D-C50	50.00	50.99	753.0	683.0	612	6.0	70	50	12	M6.0/M6.0*32	3.0*770
KS5100/5200-12D-C50	51.00	52.00	765.0	695.0	624	6.0	70	50	12	M6.0/M6.0*32	3.0*770

皇冠钻钻尖型号编码规则

Code Rules for Crown Drill Tip Models

KS1250-C-KPM45-P-HE

钻尖系列 Drill point series	钻尖直径 Diameter of drill point	匹配刀座 Matching tool holder	钻尖材质 Drill point material		钻尖类型 Drill point type		涂层 Coating
KS系列钻尖	12.50mm	C B A 1 2 3 4 5 6 7 8 9 10 11 12	KPM45	· KPM45 切削刃可在钢材料苛刻条件加工中提高加工效率并延长刀具寿命。 · KPM45 采用韧性极佳的细晶粒硬质合金基体，同时采用先进的TiAlN涂层。该产品可以在极苛刻条件下对钢材料进行加工。	P (通用槽型) 肯纳HPGM	· P 槽型切削力和进给力低，并具有非常好的定中心性能。加强型切削刃，卓越的切屑控制性能，并且可提高抗崩刃性能，可以延长刀具寿命。 · 弹性材料、堆叠板、交叉孔、斜钻、180°的平底孔，孔应用是展现 KPM45刀片卓越性能的部分应用实例。 · KPM45-P刀片产品还可作为不锈钢材料加工的备选产品。	HE
			KMS35	· KMS35 采用韧性极佳的细晶粒硬质合金基体，同时采用 AI 含量高的 TiAlN 涂层 · 这种材质具有很好的耐磨性和氧化安定性，同时其钻尖和切削刃部位具有卓越的抗崩刃性。	S (不锈钢槽型) 肯纳SPLM	· S 槽型在不锈钢、高温合金、以及其它苛刻条件下的应用中具备卓越的钻削性能。 · S 槽型具有很好的加工可靠性，在难加工材料加工应用中可确保更长的刀具寿命和更高的生产率。其先进的钻尖及钻心设计方案可以显著降低切削力 · 这种刀片形式特别适合重载加工应用，以及耐腐蚀端部管板和其它热交换装置配件的加工(特别适合M3和S型材料) · 刀片做为碳素钢和合金钢材料加工的高效替代刀具，同时还可用于重要的铝和铜材料加工应用。	PT
			K7410	· K7410 材质在各种铸铁材料加工应用中可以延长刀具寿命，并提高加工稳定性。它可以提高进给力，提高生产率。 · 是一种采用以 AlCr 为主的复合涂层的细晶粒硬质合金材质。它具有非常好的热硬性，在铸铁材料加工中有出色的耐磨性	K (铸铁槽型) 肯纳HPCCLM	· K 槽型刀片有一个宽型并且坚固的横刃，可以避免芯部出现淬火，从而提高进给率。产品采用刀尖倒角设计，切削刃强度大，因此可以加工高质量的钻孔，并延长刀具寿命。 · K7410-K 可用于各种铸铁材料加工，特别是在苛刻加工条件的应用以及 CGI和 ADI 铁材料的加工。	AlCr



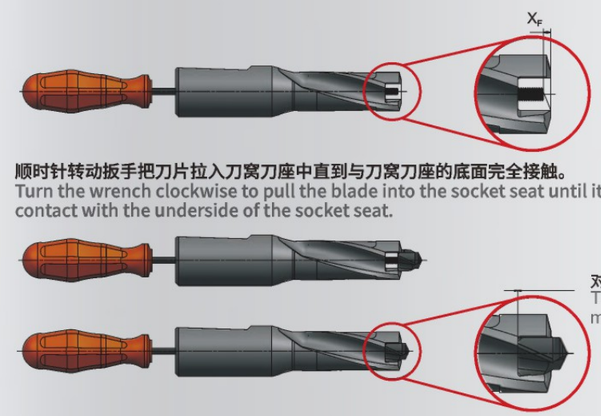
钻尖修磨最低值 Minimum value of drilling point trimming

直径范围D Diameter range	刀座尺寸 Cutter seat size	最新值L1 Latest value	修磨最低值L Minimum grinding value
ø12.50-13.50	C	9.6	8.4
ø13.51-14.50	B	10.1	8.8
ø14.51-15.99	A	10.6	9.3
ø16.00-18.00	1	11.6	10.2
ø18.01-19.99	2	12.6	11.1
ø20.00-22.00	3	13.6	12.0
ø22.01-24.00	4	14.6	13.0
ø24.01-26.00	5	15.6	13.8
ø26.01-28.00	6	16.6	14.7
ø28.01-30.00	7	17.6	15.6
ø30.01-32.00	8	18.6	16.5
ø32.01-36.00	9	20.6	18.3
ø36.01-40.00	10	22.6	20.1

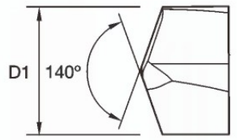
KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

钻尖的安装方法

Installation method of drill tip



1. 穿戴好护具，保护好您的眼睛和手。用压缩空气清洁刀片位和中心锁紧螺丝孔。
   Wear protective gear to protect your eyes and hands. Clean the blade position and center lock screw hole with compressed air.
2. 使用扳手对中心锁紧螺丝进行高度设置。
   Use a wrench to set the height of the center locking screw.
   - 钻尖小于 32以下，中心锁紧螺丝对齐钻杆最高点。
     Drill tip diameter less than 32, align the center lock screw with the highest point of the drill pipe
   - 钻尖大于 32以上，中心锁紧螺丝比钻杆最高点低2mm
     Drill tip diameter more than 32, align the center lock screw is 2mm lower than the highest point of the drill pipe
3. 把钻尖装入刀片座，使用扳手顺时针旋转中心锁紧螺丝，
   Put the drill point into the blade seat, turn the center locking screw clockwise with the wrench,
   直至钻尖底面与钻杆刀片位平面完全贴合。
   Until the bottom surface of the drill point is fully fitted to the position plane of the drill pipe blade.
4. 卸下钻尖时，逆时针旋转，直至钻尖松开。
   When removing the drill point, turn it counterclockwise until the drill point is released.
5. 小规格扳手不宜用力过猛，小心拆装！
   Small size wrench should not be too hard, careful disassembly!
6. 中心锁紧螺丝损坏联系厂家咨询维修。
   The center lock screw is damaged. Contact the manufacturer for consultation and maintenance.



P	M	K	N	S	H
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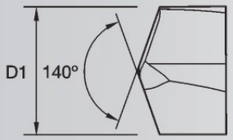
KPM45-P 通用槽型硬质合金钻尖

KPM45-P universal slot type solid carbide drill tip

型号 Code No	钻尖直径 Drill tip diameter	匹配刀座 Matching tool holder	钻尖材质 Drill tip material	钻尖类型 Drill tip type	涂层 coating	中心锁紧螺丝 Center locking screw
KS1250-C-KPM45-P	12.50	C	KPM45	P	HE	M2.5
KS1300-C-KPM45-P	13.00	C	KPM45	P	HE	M2.5
KS1350-C-KPM45-P	13.50	C	KPM45	P	HE	M2.5
KS1400-B-KPM45-P	14.00	B	KPM45	P	HE	M2.5
KS1450-B-KPM45-P	14.50	B	KPM45	P	HE	M2.5
KS1500-A-KPM45-P	15.00	A	KPM45	P	HE	M2.5
KS1550-A-KPM45-P	15.50	A	KPM45	P	HE	M2.5
KS1600-1-KPM45-P	16.00	1	KPM45	P	HE	M2.5
KS1650-1-KPM45-P	16.50	1	KPM45	P	HE	M2.5
KS1700-1-KPM45-P	17.00	1	KPM45	P	HE	M2.5
KS1750-1-KPM45-P	17.50	1	KPM45	P	HE	M2.5
KS1800-1-KPM45-P	18.00	1	KPM45	P	HE	M2.5
KS1850-2-KPM45-P	18.50	2	KPM45	P	HE	M3.0或M2.5
KS1900-2-KPM45-P	19.00	2	KPM45	P	HE	M3.0或M2.5
KS1950-2-KPM45-P	19.50	2	KPM45	P	HE	M3.0或M2.5
KS2000-3-KPM45-P	20.00	3	KPM45	P	HE	M3.0
KS2050-3-KPM45-P	20.50	3	KPM45	P	HE	M3.0
KS2100-3-KPM45-P	21.00	3	KPM45	P	HE	M3.0
KS2150-3-KPM45-P	21.50	3	KPM45	P	HE	M3.0
KS2200-3-KPM45-P	22.00	3	KPM45	P	HE	M3.0
KS2250-4-KPM45-P	22.50	4	KPM45	P	HE	M3.0
KS2300-4-KPM45-P	23.00	4	KPM45	P	HE	M3.0
KS2350-4-KPM45-P	23.50	4	KPM45	P	HE	M3.0
KS2400-4-KPM45-P	24.00	4	KPM45	P	HE	M3.0
KS2450-5-KPM45-P	24.50	5	KPM45	P	HE	M4.0
KS2500-5-KPM45-P	25.00	5	KPM45	P	HE	M4.0
KS2550-5-KPM45-P	25.50	5	KPM45	P	HE	M4.0
KS2600-5-KPM45-P	26.00	5	KPM45	P	HE	M4.0
KS2650-6-KPM45-P	26.50	6	KPM45	P	HE	M4.0
KS2700-6-KPM45-P	27.00	6	KPM45	P	HE	M4.0
KS2750-6-KPM45-P	27.50	6	KPM45	P	HE	M4.0
KS2800-6-KPM45-P	28.00	6	KPM45	P	HE	M4.0
KS2850-7-KPM45-P	28.50	7	KPM45	P	HE	M5.0
KS2900-7-KPM45-P	29.00	7	KPM45	P	HE	M5.0

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)



P	M	K	N	S	H
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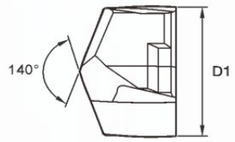
KPM45-P 通用槽型硬质合金钻尖

KPM45-P universal slot type solid carbide drill tip

型号 Code No	钻尖直径 Drill tip diameter	匹配刀座 Matching tool holder	钻尖材质 Drill tip material	钻尖类型 Drill tip type	涂层 coating	中心锁紧螺丝 Center locking screw
KS2950-7-KPM45-P	29.50	7	KPM45	P	HE	M5.0
KS3000-7-KPM45-P	30.00	7	KPM45	P	HE	M5.0
KS3050-8-KPM45-P	30.50	8	KPM45	P	HE	M5.0
KS3100-8-KPM45-P	31.00	8	KPM45	P	HE	M5.0
KS3150-8-KPM45-P	31.50	8	KPM45	P	HE	M5.0
KS3200-8-KPM45-P	32.00	8	KPM45	P	HE	M5.0
KS3250-9-KPM45-P	32.50	9	KPM45	P	HE	M6.0
KS3300-9-KPM45-P	33.00	9	KPM45	P	HE	M6.0
KS3350-9-KPM45-P	33.50	9	KPM45	P	HE	M6.0
KS3400-9-KPM45-P	34.00	9	KPM45	P	HE	M6.0
KS3450-9-KPM45-P	34.50	9	KPM45	P	HE	M6.0
KS3500-9-KPM45-P	35.00	9	KPM45	P	HE	M6.0
KS3550-9-KPM45-P	35.50	9	KPM45	P	HE	M6.0
KS3600-9-KPM45-P	36.00	9	KPM45	P	HE	M6.0
KS3650-10-KPM45-P	36.50	10	KPM45	P	HE	M6.0
KS3700-10-KPM45-P	37.00	10	KPM45	P	HE	M6.0
KS3750-10-KPM45-P	37.50	10	KPM45	P	HE	M6.0
KS3800-10-KPM45-P	38.00	10	KPM45	P	HE	M6.0
KS3850-10-KPM45-P	38.50	10	KPM45	P	HE	M6.0
KS3900-10-KPM45-P	39.00	10	KPM45	P	HE	M6.0
KS3950-10-KPM45-P	39.50	10	KPM45	P	HE	M6.0
KS4000-10-KPM45-P	40.00	10	KPM45	P	HE	M6.0
KS4100-11-KPM45-P	41.00	11	KPM45	P	HE	M6.0
KS4200-11-KPM45-P	42.00	11	KPM45	P	HE	M6.0
KS4300-11-KPM45-P	43.00	11	KPM45	P	HE	M6.0
KS4400-11-KPM45-P	44.00	11	KPM45	P	HE	M6.0
KS4500-11-KPM45-P	45.00	11	KPM45	P	HE	M6.0
KS4600-12-KPM45-P	46.00	12	KPM45	P	HE	M6.0
KS4700-12-KPM45-P	47.00	12	KPM45	P	HE	M6.0
KS4800-12-KPM45-P	48.00	12	KPM45	P	HE	M6.0
KS4900-12-KPM45-P	49.00	12	KPM45	P	HE	M6.0
KS5000-12-KPM45-P	50.00	12	KPM45	P	HE	M6.0
KS5100-12-KPM45-P	51.00	12	KPM45	P	HE	M6.0
KS5200-12-KPM45-P	52.00	12	KPM45	P	HE	M6.0



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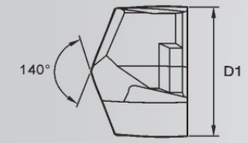
KMS35-S 不锈钢槽型 硬质合金钻尖
KMS35-S stainless steel groove type solid carbide drill tip

型号 Code No	钻尖直径 Drill tip diameter	匹配刀座 Matching tool holder	钻尖材质 Drill tip material	钻尖类型 Drill tip type	涂层 coating	中心锁紧螺丝 Center locking screw
KS1250-C-KMS35-S	12.50	C	KMS35	S	PT	M2.5
KS1300-C-KMS35-S	13.00	C	KMS35	S	PT	M2.5
KS1350-C-KMS35-S	13.50	C	KMS35	S	PT	M2.5
KS1400-B-KMS35-S	14.00	B	KMS35	S	PT	M2.5
KS1450-B-KMS35-S	14.50	B	KMS35	S	PT	M2.5
KS1500-A-KMS35-S	15.00	A	KMS35	S	PT	M2.5
KS1550-A-KMS35-S	15.50	A	KMS35	S	PT	M2.5
KS1600-1-KMS35-S	16.00	1	KMS35	S	PT	M2.5
KS1650-1-KMS35-S	16.50	1	KMS35	S	PT	M2.5
KS1700-1-KMS35-S	17.00	1	KMS35	S	PT	M2.5
KS1750-1-KMS35-S	17.50	1	KMS35	S	PT	M2.5
KS1800-1-KMS35-S	18.00	1	KMS35	S	PT	M2.5
KS1850-2-KMS35-S	18.50	2	KMS35	S	PT	M3.0或M2.5
KS1900-2-KMS35-S	19.00	2	KMS35	S	PT	M3.0或M2.5
KS1950-2-KMS35-S	19.50	2	KMS35	S	PT	M3.0或M2.5
KS2000-3-KMS35-S	20.00	3	KMS35	S	PT	M3.0
KS2050-3-KMS35-S	20.50	3	KMS35	S	PT	M3.0
KS2100-3-KMS35-S	21.00	3	KMS35	S	PT	M3.0
KS2150-3-KMS35-S	21.50	3	KMS35	S	PT	M3.0
KS2200-3-KMS35-S	22.00	3	KMS35	S	PT	M3.0
KS2250-4-KMS35-S	22.50	4	KMS35	S	PT	M3.0
KS2300-4-KMS35-S	23.00	4	KMS35	S	PT	M3.0
KS2350-4-KMS35-S	23.50	4	KMS35	S	PT	M3.0
KS2400-4-KMS35-S	24.00	4	KMS35	S	PT	M3.0
KS2450-5-KMS35-S	24.50	5	KMS35	S	PT	M4.0
KS2500-5-KMS35-S	25.00	5	KMS35	S	PT	M4.0
KS2550-5-KMS35-S	25.50	5	KMS35	S	PT	M4.0
KS2600-5-KMS35-S	26.00	5	KMS35	S	PT	M4.0
KS2650-6-KMS35-S	26.50	6	KMS35	S	PT	M4.0
KS2700-6-KMS35-S	27.00	6	KMS35	S	PT	M4.0
KS2750-6-KMS35-S	27.50	6	KMS35	S	PT	M4.0
KS2800-6-KMS35-S	28.00	6	KMS35	S	PT	M4.0
KS2850-7-KMS35-S	28.50	7	KMS35	S	PT	M5.0
KS2900-7-KMS35-S	29.00	7	KMS35	S	PT	M5.0

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)



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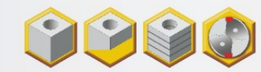
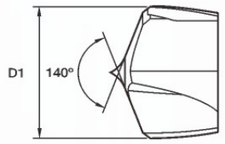


KMS35-S 不锈钢槽型 硬质合金钻尖
KMS35-S stainless steel groove type solid carbide drill tip

型号 Code No	钻尖直径 Drill tip diameter	匹配刀座 Matching tool holder	钻尖材质 Drill tip material	钻尖类型 Drill tip type	涂层 coating	中心锁紧螺丝 Center locking screw
KS2950-7-KMS35-S	29.50	7	KMS35	S	PT	M5.0
KS3000-7-KMS35-S	30.00	7	KMS35	S	PT	M5.0
KS3050-8-KMS35-S	30.50	8	KMS35	S	PT	M5.0
KS3100-8-KMS35-S	31.00	8	KMS35	S	PT	M5.0
KS3150-8-KMS35-S	31.50	8	KMS35	S	PT	M5.0
KS3200-8-KMS35-S	32.00	8	KMS35	S	PT	M5.0
KS3250-9-KMS35-S	32.50	9	KMS35	S	PT	M6.0
KS3300-9-KMS35-S	33.00	9	KMS35	S	PT	M6.0
KS3350-9-KMS35-S	33.50	9	KMS35	S	PT	M6.0
KS3400-9-KMS35-S	34.00	9	KMS35	S	PT	M6.0
KS3450-9-KMS35-S	34.50	9	KMS35	S	PT	M6.0
KS3500-9-KMS35-S	35.00	9	KMS35	S	PT	M6.0
KS3550-9-KMS35-S	35.50	9	KMS35	S	PT	M6.0
KS3600-9-KMS35-S	36.00	9	KMS35	S	PT	M6.0
KS3650-10-KMS35-S	36.50	10	KMS35	S	PT	M6.0
KS3700-10-KMS35-S	37.00	10	KMS35	S	PT	M6.0
KS3750-10-KMS35-S	37.50	10	KMS35	S	PT	M6.0
KS3800-10-KMS35-S	38.00	10	KMS35	S	PT	M6.0
KS3850-10-KMS35-S	38.50	10	KMS35	S	PT	M6.0
KS3900-10-KMS35-S	39.00	10	KMS35	S	PT	M6.0
KS3950-10-KMS35-S	39.50	10	KMS35	S	PT	M6.0
KS4000-10-KMS35-S	40.00	10	KMS35	S	PT	M6.0
KS4100-11-KMS35-S	41.00	11	KMS35	S	PT	M6.0
KS4200-11-KMS35-S	42.00	11	KMS35	S	PT	M6.0
KS4300-11-KMS35-S	43.00	11	KMS35	S	PT	M6.0
KS4400-11-KMS35-S	44.00	11	KMS35	S	PT	M6.0
KS4500-11-KMS35-S	45.00	11	KMS35	S	PT	M6.0
KS4600-12-KMS35-S	46.00	12	KMS35	S	PT	M6.0
KS4700-12-KMS35-S	47.00	12	KMS35	S	PT	M6.0
KS4800-12-KMS35-S	48.00	12	KMS35	S	PT	M6.0
KS4900-12-KMS35-S	49.00	12	KMS35	S	PT	M6.0
KS5000-12-KMS35-S	50.00	12	KMS35	S	PT	M6.0
KS5100-12-KMS35-S	51.00	12	KMS35	S	PT	M6.0
KS5200-12-KMS35-S	52.00	12	KMS35	S	PT	M6.0



P	M	K	N	S	H
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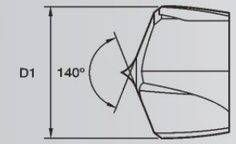
K7410-K 铸铁槽型硬质合金钻尖
K7410-K cast iron groove type solid carbide drill tip

型号 Code No	钻尖直径 Drill tip diameter	匹配刀座 Matching tool holder	钻尖材质 Drill tip material	钻尖类型 Drill tip type	涂层 coating	中心锁紧螺丝 Center locking screw
KS1250-C-K7410-K	12.50	C	K7410	K	AlCr	M2.5
KS1300-C-K7410-K	13.00	C	K7410	K	AlCr	M2.5
KS1350-C-K7410-K	13.50	C	K7410	K	AlCr	M2.5
KS1400-B-K7410-K	14.00	B	K7410	K	AlCr	M2.5
KS1450-B-K7410-K	14.50	B	K7410	K	AlCr	M2.5
KS1500-A-K7410-K	15.00	A	K7410	K	AlCr	M2.5
KS1550-A-K7410-K	15.50	A	K7410	K	AlCr	M2.5
KS1600-1-K7410-K	16.00	1	K7410	K	AlCr	M2.5
KS1650-1-K7410-K	16.50	1	K7410	K	AlCr	M2.5
KS1700-1-K7410-K	17.00	1	K7410	K	AlCr	M2.5
KS1750-1-K7410-K	17.50	1	K7410	K	AlCr	M2.5
KS1800-1-K7410-K	18.00	1	K7410	K	AlCr	M2.5
KS1850-2-K7410-K	18.50	2	K7410	K	AlCr	M3.0或M2.5
KS1900-2-K7410-K	19.00	2	K7410	K	AlCr	M3.0或M2.5
KS1950-2-K7410-K	19.50	2	K7410	K	AlCr	M3.0或M2.5
KS2000-3-K7410-K	20.00	3	K7410	K	AlCr	M3.0
KS2050-3-K7410-K	20.50	3	K7410	K	AlCr	M3.0
KS2100-3-K7410-K	21.00	3	K7410	K	AlCr	M3.0
KS2150-3-K7410-K	21.50	3	K7410	K	AlCr	M3.0
KS2200-3-K7410-K	22.00	3	K7410	K	AlCr	M3.0
KS2250-4-K7410-K	22.50	4	K7410	K	AlCr	M3.0
KS2300-4-K7410-K	23.00	4	K7410	K	AlCr	M3.0
KS2350-4-K7410-K	23.50	4	K7410	K	AlCr	M3.0
KS2400-4-K7410-K	24.00	4	K7410	K	AlCr	M3.0
KS2450-5-K7410-K	24.50	5	K7410	K	AlCr	M4.0
KS2500-5-K7410-K	25.00	5	K7410	K	AlCr	M4.0
KS2550-5-K7410-K	25.50	5	K7410	K	AlCr	M4.0
KS2600-5-K7410-K	26.00	5	K7410	K	AlCr	M4.0
KS2650-6-K7410-K	26.50	6	K7410	K	AlCr	M4.0
KS2700-6-K7410-K	27.00	6	K7410	K	AlCr	M4.0
KS2750-6-K7410-K	27.50	6	K7410	K	AlCr	M4.0
KS2800-6-K7410-K	28.00	6	K7410	K	AlCr	M4.0
KS2850-7-K7410-K	28.50	7	K7410	K	AlCr	M5.0
KS2900-7-K7410-K	29.00	7	K7410	K	AlCr	M5.0

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)



P	M	K	N	S	H
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K7410-K 铸铁槽型硬质合金钻尖
K7410-K cast iron groove type solid carbide drill tip

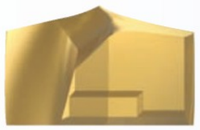
型号 Code No	钻尖直径 Drill tip diameter	匹配刀座 Matching tool holder	钻尖材质 Drill tip material	钻尖类型 Drill tip type	涂层 coating	中心锁紧螺丝 Center locking screw
KS2950-7-K7410-K	29.50	7	K7410	K	AlCr	M5.0
KS3000-7-K7410-K	30.00	7	K7410	K	AlCr	M5.0
KS3050-8-K7410-K	30.50	8	K7410	K	AlCr	M5.0
KS3100-8-K7410-K	31.00	8	K7410	K	AlCr	M5.0
KS3150-8-K7410-K	31.50	8	K7410	K	AlCr	M5.0
KS3200-8-K7410-K	32.00	8	K7410	K	AlCr	M5.0
KS3250-9-K7410-K	32.50	9	K7410	K	AlCr	M6.0
KS3300-9-K7410-K	33.00	9	K7410	K	AlCr	M6.0
KS3350-9-K7410-K	33.50	9	K7410	K	AlCr	M6.0
KS3400-9-K7410-K	34.00	9	K7410	K	AlCr	M6.0
KS3450-9-K7410-K	34.50	9	K7410	K	AlCr	M6.0
KS3500-9-K7410-K	35.00	9	K7410	K	AlCr	M6.0
KS3550-9-K7410-K	35.50	9	K7410	K	AlCr	M6.0
KS3600-9-K7410-K	36.00	9	K7410	K	AlCr	M6.0
KS3650-10-K7410-K	36.50	10	K7410	K	AlCr	M6.0
KS3700-10-K7410-K	37.00	10	K7410	K	AlCr	M6.0
KS3750-10-K7410-K	37.50	10	K7410	K	AlCr	M6.0
KS3800-10-K7410-K	38.00	10	K7410	K	AlCr	M6.0
KS3850-10-K7410-K	38.50	10	K7410	K	AlCr	M6.0
KS3900-10-K7410-K	39.00	10	K7410	K	AlCr	M6.0
KS3950-10-K7410-K	39.50	10	K7410	K	AlCr	M6.0
KS4000-10-K7410-K	40.00	10	K7410	K	AlCr	M6.0
KS4100-11-K7410-K	41.00	11	KPM45	K	AlCr	M6.0
KS4200-11-K7410-K	42.00	11	KPM45	K	AlCr	M6.0
KS4300-11-K7410-K	43.00	11	KPM45	K	AlCr	M6.0
KS4400-11-K7410-K	44.00	11	KPM45	K	AlCr	M6.0
KS4500-11-K7410-K	45.00	11	KPM45	K	AlCr	M6.0
KS4600-12-K7410-K	46.00	12	KPM45	K	AlCr	M6.0
KS4700-12-K7410-K	47.00	12	KPM45	K	AlCr	M6.0
KS4800-12-K7410-K	48.00	12	KPM45	K	AlCr	M6.0
KS4900-12-K7410-K	49.00	12	KPM45	K	AlCr	M6.0
KS5000-12-K7410-K	50.00	12	KPM45	K	AlCr	M6.0
KS5100-12-K7410-K	51.00	12	KPM45	K	AlCr	M6.0
KS5200-12-K7410-K	52.00	12	KPM45	K	AlCr	M6.0

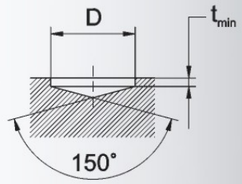
引导孔钻尖 应用数据
Guide hole drill point application data

工件表面不平整或者7D以上建议预加工引导孔
The surface of the workpiece is uneven or more than 7D is recommended for pre-machining guide holes

引孔建议 Pilot hole proposal

钻头直径(mm) Bit diameter (mm)	引导孔深度（t） Guide hole depth (t)
ø12.50 19.99	1mm
ø20.00 32.00	1.5mm
ø32.01 40.00	2mm





内冷压力要求
Internal cooling pressure requirements

内冷应用参数
Internal cooling Application parameters
最小冷却液量（升/每分钟）
Minimum coolant volume (L/min)

1bar=1.02公斤力/平方厘米

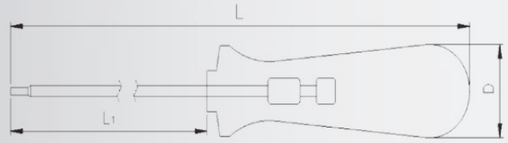
钻头长径比 Bit Length-diameter ratio						
钻头直径(mm)	1-3D	5D	7D	8.5D	10D	<12D
内冷压力要求	8 bar	12 bar	20 bar	25 bar	30 bar	50 bar
ø12.50 13.50	5	6	8	9	9	12
ø13.51 14.50	6	7	10	11	12	15
ø14.51 15.99	8	10	13	15	17	21
ø16.00 18.00	10	12	15	17	18	25
ø18.01 19.99	12	14	18	21	23	29
ø20.00 22.00	14	16	20	23	26	33
ø22.01 24.00	15	18	23	26	29	37
ø24.01 26.00	17	20	26	29	32	41
ø26.01 28.00	18	22	29	32	35	45
ø28.01 30.00	20	25	32	35	39	51
ø30.01 32.00	23	29	37	41	45	59
ø32.01 36.00	27	33	43	47	52	67
ø36.01 40.00	30	37	48	53	58	73

注意:外冷只建议小于3倍径的钻头使用，不建议干切。
Note: External cooling is only recommended for drill bits less than 3 times diameter, and dry cutting is not recommended.

钻尖公差值
Drill Tip Tolerance Values

KS皇冠钻钻孔公差 KS Crown Diamond Drilling Tolerance	
钻头直径D1 Drill diameter D1	公差h8 Tolerance h8
ø12.5-18	0.00/+0.03
ø18.01-30	0.00/+0.035
ø30.01-40	0.00/+0.04

KS皇冠钻扳手规格型号
KS Crown Drill Wrench Specification and Model



KS皇冠钻扳手型号规格表 KS Crown Drill Wrench Model Specification Table					
扳手型号 Wrench model	L	L1	手柄直径 Handle diameter	匹配刀座 Matching tool holder	匹配螺丝 Matching screws
T6*156	208	156	15.7	C B A	M3.0/M2.5*14
T6*188	240	188			
T6*230	282	230			
T6*291	343	291			
1.5*185	267	185	24.7	1	M3.5/M2.5*16
1.5*225	307	225			
1.5*297	379	297			
1.5*350	432	350			
2.0*210	292	210	24.7	2 3 4	M4.0/M3.0*19
2.0*260	342	260			
2.0*343	425	343			
2.0*410	492	410			
2.5*240	335	240	28.6	5 6	M5.0/M4.0*23
2.5*295	390	295			
2.5*393	488	393			
2.5*460	555	460			
3.0*265	360	265	28.6	7 8 9 10 11 12	M6.0/M5.0*28 M6.0/M6.0*32
3.0*330	425	330			
3.0*439	534	439			
3.0*530	625	530			
3.0*600	695	600			
3.0*680	775	680			
3.0*770	865	770			

KS皇冠钻钻杆配件规格 KS Crown Drill pipe fittings specification										
直径 Diameter	匹配刀座尺寸 Match the cutter seat size	中心锁紧螺丝 Center locking screw	扳手规格 Wrench specifications							
			1.5D	3D	5D	7D	8.5D	10D	12D
12.50 13.50	C	M3.0/M2.5*14	T6*156	T6*156	T6*156	T6*188	T6*230	T6*230	T6*291
13.51 14.50	B	M3.0/M2.5*14	T6*156	T6*156	T6*188	T6*230	T6*230	T6*230	T6*291
14.51 15.99	A	M3.0/M2.5*14	T6*156	T6*156	T6*188	T6*230	T6*230	T6*291	T6*291
16.00 18.00	1	M3.5/M2.5*16	1.5*185	1.5*185	1.5*185	1.5*225	1.5*297	1.5*297	1.5*350
18.01 19.99	2	M4.0/M3.0*19	2.0*210	2.0*210	2.0*210	2.0*260	2.0*343	2.0*343	2.0*410
20.00 22.00	3	M4.0/M3.0*19	2.0*210	2.0*210	2.0*260	2.0*260	2.0*343	2.0*343	2.0*410
22.01 24.00	4	M4.0/M3.0*19	2.0*210	2.0*210	2.0*260	2.0*343	2.0*343	2.0*343	2.0*410
24.01 26.00	5	M5.0/M4.0*23	2.5*240	2.5*240	2.5*295	2.5*393	2.5*393	2.5*393	2.5*460
26.01 28.00	6	M5.0/M4.0*23	2.5*240	2.5*240	2.5*295	2.5*393	2.5*393	2.5*393	2.5*460
28.01 30.00	7	M6.0/M5.0*28	3.0*265	3.0*265	3.0*330	3.0*439	3.0*439	3.0*439	3.0*530
30.01 32.00	8	M6.0/M5.0*28	3.0*265	3.0*265	3.0*330	3.0*439	3.0*439	3.0*439	3.0*530
32.01 36.00	9	M6.0/M6.0*32	3.0*265	3.0*265	3.0*330	3.0*439	3.0*439	3.0*530	3.0*600
36.01 40.00	10	M6.0/M6.0*32	3.0*265	3.0*265	3.0*330	3.0*439	3.0*530	3.0*530	3.0*600
40.01 45.00	11	M6.0/M6.0*32	3.0*265	3.0*330	3.0*439	3.0*530	3.0*530	3.0*600	3.0*680
45.01 52.00	12	M6.0/M6.0*32	3.0*265	3.0*330	3.0*439	3.0*530	3.0*600	3.0*680	3.0*770

KS皇冠钻非标刀杆 定制信息卡

Customized Information Card for KS Crown Drill Non standard Tool Rod

加工条件和刀具信息

PROCESSING CONDITIONS AND TOOL INFORMATION

孔 HOLE

☐ 通孔 THROUGH HOLE ☐ 盲孔 BLIND HOLIE

要求孔径:_____ mm 钻孔深度:_____ mm

APERTURE DEPTH

被加工材料 MATERIAL TO BE PROCESSED

☐ 碳素钢 CARBON ☐ 铜合金 COPPER ALLOY

☐ 合金钢 ALLOY STEEL ☐ 淬硬钢 HARDENED STEEL

☐ 不锈钢 STAINLESS STEEL ☐ 镍合金 NICKEL ALLOY

☐ 铸铁 CAST IRON ☐ 铝合金 ALUMINUM

☐ 钛合金 TITANIUM ☐ 其他 OTHER

加工方法 PROCESSING METHODS

☐ 湿式 WET ☐ 干式 DRY

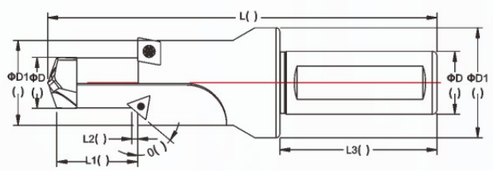
冷却方式 COOLING

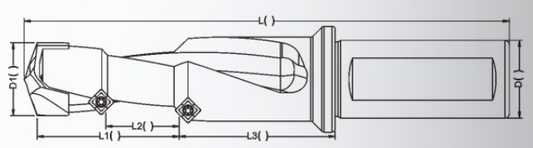
☐ 外冷 EXTERNAL COOLING ☐ 内冷 COOLED

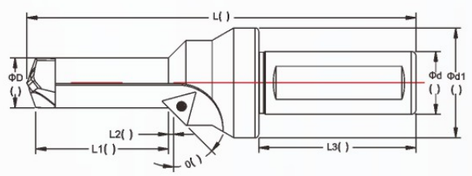
硬度 HARDNESS (HRC, HB)_____ 抗拉强度 TENSILE STRENGTH (N/mm2) _____

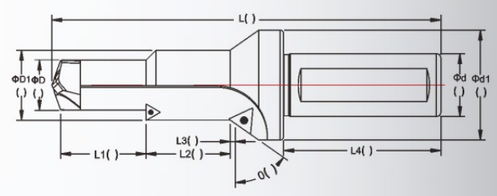
使用机床 MACHINE_____

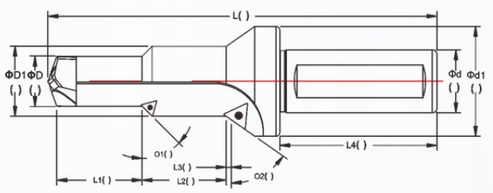
刀杆形式 KNIFE BAR FORM: ☐ 直槽 STRAIGHT ☐ 螺旋槽 HELICAL

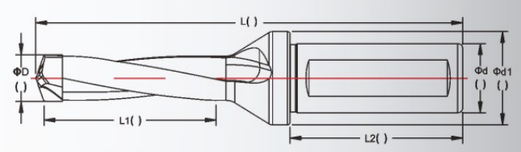








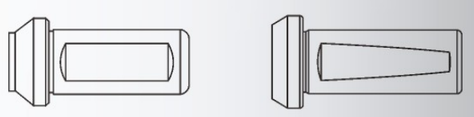




柄部型式 SHANK TYPE

☐ 侧固式法兰刀柄 FLANGED SHANK

☐ 侧固式法兰刀柄(斜面) FLANGED SHANK (INCLINED SURFACE)



提示:如未陈述以上内容,我们将采用川山甲标准。

TIP:IF THE ABOVE CONTENT IS NOT STATED, WE WILL USE THE CHUANSHANJIA STANDARD.

签名 SIGNATURE: 日期 DATE:

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

KS皇冠钻非标刀片 定制信息卡

KS Crown Drill Non standard Blade Customized Information Card

加工条件和刀具信息

PROCESSING CONDITIONS AND TOOL INFORMATION

孔 HOLE

☐ 通孔 THROUGH HOLE ☐ 盲孔 BLIND HOLIE

要求孔径:_____ mm 钻孔深度:_____ mm

APERTURE DEPTH

被加工材料 MATERIAL TO BE PROCESSED

☐ 碳素钢 CARBON ☐ 铜合金 COPPER ALLOY

☐ 合金钢 ALLOY STEEL ☐ 淬硬钢 HARDENED STEEL

☐ 不锈钢 STAINLESS STEEL ☐ 镍合金 NICKEL ALLOY

☐ 铸铁 CAST IRON ☐ 铝合金 ALUMINUM

☐ 钛合金 TITANIUM ☐ 其他 OTHER

加工方法 PROCESSING METHODS

☐ 湿式 WET ☐ 干式 DRY

冷却方式 COOLING

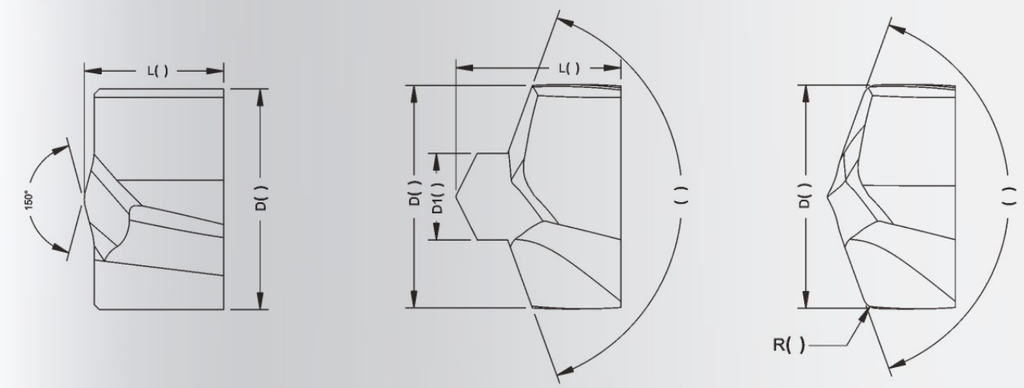
☐ 外冷 EXTERNAL COOLING ☐ 内冷 COOLED

硬度 HARDNESS (HRC, HB)_____ 抗拉强度 TENSILE STRENGTH (N/mm2)_____

使用机床 MACHINE_____

刀片涂层 BLADE COATINE: , _____ ☐

刀片类型 INSERT TYPE



其他类型(客户自定义) OTHER TYPE (CUSTOMIZABLE)

提示:如未陈述以上内容,我们将采用川山甲标准。

TIP:IF THE ABOVE CONTENT IS NOT STATED, WE WILL USE THE CHUANSHANJIA STANDARD.

签名 SIGNATURE: 日期 DATE:

KS皇冠钻(后拉式) KS Crown Drill(Rear Pull Type)

材料分组综览
An overview of material groups

KPM45-P (通用槽型) 钻尖 切削参数
KPM45-P (universal groove) drill tip cutting parameters

转速S= Vc × 1000 / π × 直径

进给速度 vf = 转速S × Fr

材料分组 Material grouping		切削速度 Cutting speed - VC m/min 最小值 Minimum	中间值 Intermediate	最大值 Maximum	根据直径推荐进给量（Fr） Recommended feed rate based on diameter (Fr)		ø12.5-16	ø16-20	ø20-25.4	ø25.4-32	ø32-40	ø40
P	1	100	110	120	mm/转	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	2	80	95	110	mm/转	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	3	65	70	80	mm/转	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	4	55	65	75	mm/转	0.15-0.28	0.14-0.31	0.16-0.36	0.20-0.46	0.23-0.53	0.30-0.60
	5	50	50	65	mm/转	0.09-0.15	0.11-0.18	0.12-0.21	0.15-0.25	0.17-0.29	0.20-0.33
	6	45	50	65	mm/转	0.12-0.23	0.14-0.26	0.16-0.29	0.20-0.38	0.23-0.43	0.26-0.54
M	1	30	60	90	mm/转	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	2	30	50	90	mm/转	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	3	20	40	60	mm/转	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31

KMS35-S (不锈钢槽型) 钻尖 切削参数
KMS35-S (stainless steel groove type) drill tip cutting parameters

转速S= Vc × 1000 / π × 直径

进给速度 vf = 转速S × Fr

材料分组 Material grouping		切削速度 Cutting speed - VC m/min 最小值 Minimum	中间值 Intermediate	最大值 Maximum	根据直径推荐进给量（Fr） Recommended feed rate based on diameter (Fr)		ø12.5-16	ø16-20	ø20-25.4	ø25.4-32	ø32-40	ø40
P	1	110	140	170	mm/转	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	2	100	120	140	mm/转	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
	3	80	100	120	mm/转	0.15-0.31	0.17-0.36	0.19-0.41	0.25-0.53	0.29-0.60	0.33-0.69
M	1	40	60	80	mm/转	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	2	35	55	70	mm/转	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
	3	20	40	60	mm/转	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31
N	1	90	155	220	mm/转	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
	2	90	155	220	mm/转	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
	3	80	120	160	mm/转	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
	4	90	155	220	mm/转	0.19-0.40	0.25-0.50	0.28-0.56	0.32-0.63	0.32-0.7	0.32-0.7
S	1	20	40	60	mm/转	0.05-0.10	0.07-0.12	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25
	2	15	30	45	mm/转	0.05-0.10	0.07-0.12	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25
	3	15	30	45	mm/转	0.05-0.10	0.07-0.12	0.09-0.14	0.11-0.17	0.13-0.20	0.16-0.25
	4	10	25	40	mm/转	0.05-0.10	0.07-0.12	0.13-0.20	0.16-0.25	0.18-0.28	0.21-0.31

应用建议：在使用KMS35-S钻尖进行>5xD钻孔 加工时，建议在加工前进行预定心处理 。
Application suggestion: When using KMS35-S drill tip for>5xD drilling processing, it is recommended to perform pre centering treatment before processing.

K7410-K (铸铁槽型) 钻尖 切削参数
Cutting parameters of K7410-K (cast iron groove type) drill tip

转速S= Vc × 1000 / π × 直径

进给速度 vf = 转速S × Fr

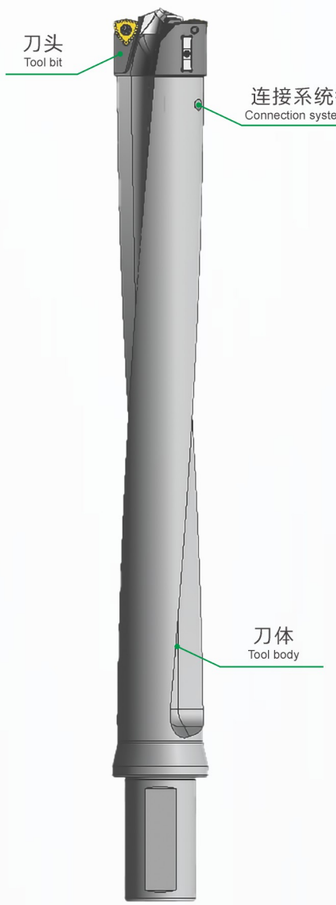
材料分组 Material grouping		切削速度 Cutting speed - VC m/min 最小值 Minimum	中间值 Intermediate	最大值 Maximum	根据直径推荐进给量（Fr） Recommended feed rate based on diameter (Fr)		ø12.5-16	ø16-20	ø20-25.4	ø25.4-32	ø32-40	ø40
K	1	100	175	200	mm/转	0.17-0.35	0.21-0.42	0.25-0.48	0.31-0.59	0.37-0.70	0.43-0.81
	2	100	160	180	mm/转	0.17-0.33	0.21-0.41	0.25-0.48	0.31-0.59	0.37-0.70	0.43-0.81
	3	70	85	100	mm/转	0.18-0.36	0.21-0.41	0.21-.044	0.23-0.48	0.25-0.53	0.27-0.57

产品特征和优势

Product features and advantages

KS组合钻适用于碳钢、铸铁、不锈钢、高温合金等材料的加工，完美替换大直径的锥柄钻、U钻、铲钻、VMD大钻头等。直径范围 28-100，加工深度直径的4-12倍径任意选择。在CNC立式加工中优势突出。采用硬质合金的KS皇冠钻钻尖作为中心导向钻，大大提高了加工速度，效率翻倍提升。这款产品在风电机轴承挡圈、发动机壳体、风电法兰、模胚、回转支撑法兰等大直径深孔加工中广泛适用。

The KS combined drill is suitable for processing materials such as carbon steel, cast iron, stainless steel and superalloys. It can perfectly replace large - diameter taper - shank drills, U - drills, spade drills, VMD large - diameter drills, etc. The diameter ranges from φ28 to 100, and the machining depth can be arbitrarily selected from 4 to 12 times the diameter. It has outstanding advantages in CNC vertical machining. Using the KS crown drill tip made of carbide as the central guiding drill greatly increases the machining speed and doubles the efficiency. This product is widely applied in the machining of large - diameter deep holes, such as wind turbine bearing retaining rings, engine casings, wind power flanges, mold blanks, slewing bearing flanges, etc.

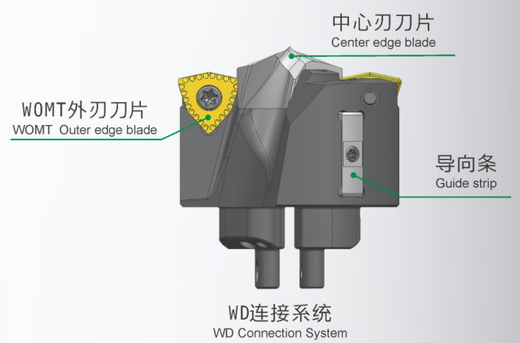


A1、B1刀头可共用刀体

The tool bodies can be shared by A1 and B1 tool bits.

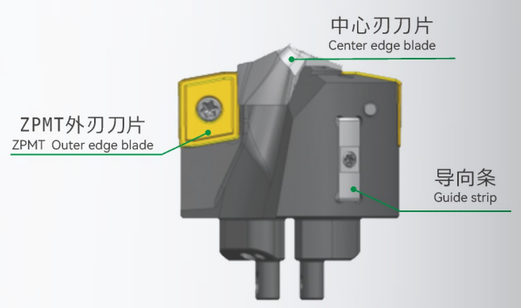
KS组合A1刀头系列，刀片经济，长切削材料加工中断削性能卓越。

The KS combined A1 tool bit series features cost - effective inserts and exhibits excellent chip - breaking performance during the processing of long - cutting materials.



KS组合钻头-B1刀头系列适用于恶劣条件的高性能孔加工，并提供更好的表面光洁度

The KS combined drill-B1 tool bit series is suitable for high-performance hole machining under harsh conditions and provides better surface finish.

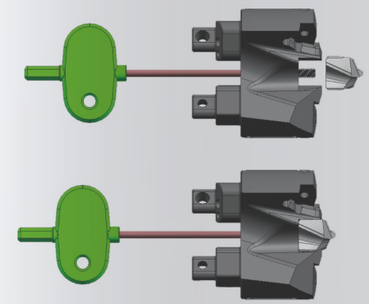


装配方法

Assembly method

1.将中心刃刀片装配到KS组合钻刀头。

1. Assemble the center edge blade to the cutter head of the KS combined drill.



a.使用扳手将螺丝高度调整到要求高度(刀头外侧有标识)

a. Use a wrench to adjust the height of the screw to the required height (there is a mark on the outer side of the cutter head).

b.使用扳手拧紧刀片，观察刀片底面完全和刀头贴上。

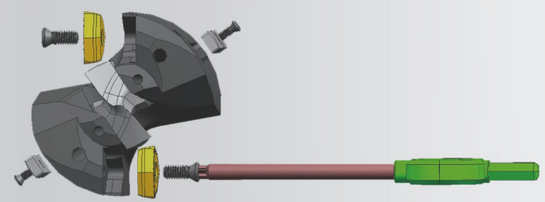
b. Use a wrench to tighten the blade and observe that the bottom surface of the blade is completely attached to the cutter head.

c.要松开刀片，相反方向拧转扳手即可。

c. To loosen the blade, turn the wrench in the opposite direction.

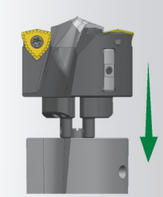
2.在KS组合钻刀头上安装外刃刀片和导向条

2. Install the outer edge blade and guide strip on the cutter head of the KS combined drill.



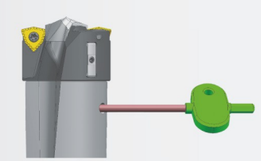
3.将KS组合钻刀头安装到侧固式刀体上

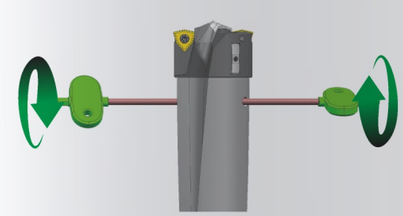
3. Install the cutter head of the KS combined drill onto the side - fixed tool body.



a.将KS组合钻刀头、刀体用风枪吹干净，对应好连接系统要同一个规格，安装到侧固式刀体上，观察是否贴合

a. Use an air gun to blow clean the cutter head and tool body of the KS combined drill. Ensure that the connection systems are of the same specification. Install the cutter head onto the side - fixed tool body and check if they fit well.



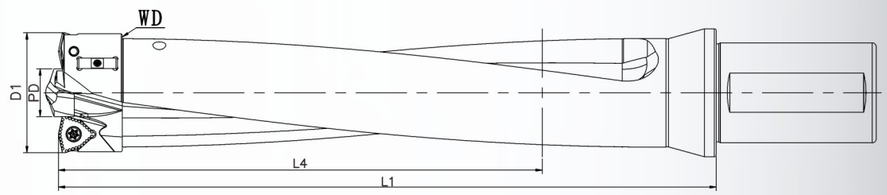


b.将两边的连接系统锁紧螺丝装上，两边均匀受力交替锁紧，观察刀头和刀体完成贴合即可。

b. Install the locking screws of the connection systems on both sides. Apply force evenly on both sides and tighten them alternately. Stop when you observe that the cutter head and the tool body are completely fitted.

KS组合钻-A1系列 刀头刀体组合系统

Cutter head and cutter body combination system for KS combined drill - A1 series

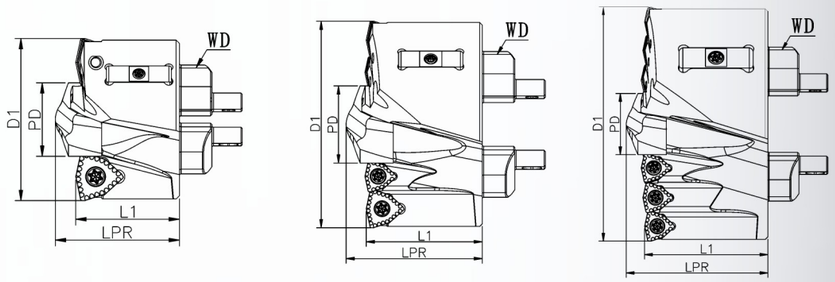


刀头规格型号 Cutter head specification models	钻头直径D1 Drill bit diameter D1	中心钻刀片直径PD Center drill insert diameter PD	外刃刀片型号 Outer edge insert model	WD连接系统 WD Connection System	匹配侧固式刀体型号 Matched side-fixed tool body model	长经比 Length-diameter ratio	装配尺寸L4 Assembly dimension L4	装配尺寸L1 Assembly dimension L1
KS3200WD32PD15W0MT05-A1	32	15	W0MT05T308	32	WD32/35-140L-C32	4 x D	140	206
KS3300WD32PD16W0MT05-A1	33	16	W0MT05T308	32	WD32/35-210L-C32	6 x D	210	276
KS3400WD32PD17W0MT05-A1	34	17	W0MT05T308	32	WD32/35-280L-C32	8 x D	280	346
KS3500WD32PD18W0MT05-A1	35	18	W0MT05T308	32	WD32/35-350L-C32	10 x D	350	416
KS3600WD36PD13W0MT06-A1	36	13	W0MT06T308	36	WD36/39-156L-C32	4 x D	156	230
KS3700WD36PD14W0MT06-A1	37	14	W0MT06T308	36	WD36/39-234L-C32	6 x D	234	308
KS3800WD36PD15W0MT06-A1	38	15	W0MT06T308	36	WD36/39-312L-C32	8 x D	312	386
KS3900WD36PD16W0MT06-A1	39	16	W0MT06T308	36	WD36/39-390L-C32	10 x D	390	464
KS4000WD40PD17W0MT06-A1	40	17	W0MT06T308	40	WD40/44-176L-C40	4 x D	176	257
KS4100WD40PD18W0MT06-A1	41	18	W0MT06T308	40	WD40/44-264L-C40	6 x D	264	345
KS4200WD40PD19W0MT06-A1	42	19	W0MT06T308	40	WD40/44-352L-C40	8 x D	352	433
KS4300WD40PD20W0MT06-A1	43	20	W0MT06T308	40	WD40/44-440L-C40	10 x D	440	521
KS4400WD40PD21W0MT06-A1	44	21	W0MT06T308	40	WD40/44-528L-C40	12 x D	528	609
KS4500WD45PD18W0MT07-A1	45	18	W0MT070408	45	WD45/49-196L-C40	4 x D	196	285
KS4600WD45PD19W0MT07-A1	46	19	W0MT070408	45	WD45/49-294L-C40	6 x D	294	383
KS4700WD45PD20W0MT07-A1	47	20	W0MT070408	45	WD45/49-392L-C40	8 x D	392	481
KS4800WD45PD21W0MT07-A1	48	21	W0MT070408	45	WD45/49-490L-C40	10 x D	490	579
KS4900WD45PD22W0MT07-A1	49	22	W0MT070408	45	WD45/49-588L-C40	12 x D	588	677
KS5000WD50PD23W0MT07-A1	50	23	W0MT070408	50	WD50/55-220L-C50	4 x D	220	318
KS5100WD50PD24W0MT07-A1	51	24	W0MT070408	50	WD50/55-330L-C50	6 x D	330	428
KS5200WD50PD25W0MT07-A1	52	25	W0MT070408	50	WD50/55-440L-C50	8 x D	440	538
KS5300WD50PD26W0MT07-A1	53	26	W0MT070408	50	WD50/55-550L-C50	10 x D	550	648
KS5400WD50PD27W0MT07-A1	54	27	W0MT070408	50	WD50/55-660L-C50	12 x D	660	758
KS5500WD50PD28W0MT07-A1	55	28	W0MT070408	50				
KS5600WD56PD20W0MT09-A1	56	20	W0MT090508	56	WD56/62-248L-C50	4 x D	248	356
KS5700WD56PD21W0MT09-A1	57	21	W0MT090508	56	WD56/62-372L-C50	6 x D	372	480
KS5800WD56PD22W0MT09-A1	58	22	W0MT090508	56	WD56/62-496L-C50	8 x D	496	604
KS5900WD56PD23W0MT09-A1	59	23	W0MT090508	56	WD56/62-620L-C50	10 x D	620	728
KS6000WD56PD24W0MT09-A1	60	24	W0MT090508	56	WD56/62-744L-C50	12 x D	744	852
KS6100WD56PD25W0MT09-A1	61	25	W0MT090508	56				

刀头规格型号 Cutter head specification models	钻头直径D1 Drill bit diameter D1	中心钻刀片直径PD Center drill insert diameter PD	外刃刀片型号 Outer edge insert model	WD连接系统 WD Connection System	匹配侧固式刀体型号 Matched side-fixed tool body model	长经比 Length-diameter ratio	装配尺寸L4 Assembly dimension L4	装配尺寸L1 Assembly dimension L1
KS6300WD63PD27W0MT09-A1	63	27	W0MT090508	63	WD63/70-280L-C50	4 x D	280	399
KS6400WD63PD28W0MT09-A1	64	28	W0MT090508	63	WD63/70-420L-C50	6 x D	420	539
KS6500WD63PD29W0MT09-A1	65	29	W0MT090508	63	WD63/70-560L-C50	8 x D	560	679
KS6600WD63PD30W0MT09-A1	66	30	W0MT090508	63	WD63/70-700L-C50	10 x D	700	819
KS6700WD63PD31W0MT09-A1	67	31	W0MT090508	63	WD63/70-840L-C50	12 x D	840	959
KS6800WD63PD32W0MT09-A1	68	32	W0MT090508	63				
KS6900WD63PD33W0MT09-A1	69	33	W0MT090508	63				
KS7000WD63PD34W0MT09-A1	70	34	W0MT090508	63				
KS7100WD71PD26W0MT06-A1	71	26	4*W0MT06T308	71	WD71/79-316L-C50	4 x D	316	418
KS7200WD71PD27W0MT06-A1	72	27	4*W0MT06T308	71	WD71/79-474L-C50	6 x D	474	576
KS7300WD71PD28W0MT06-A1	73	28	4*W0MT06T308	71	WD71/79-632L-C50	8 x D	632	734
KS7400WD71PD29W0MT06-A1	74	29	4*W0MT06T308	71	WD71/79-790L-C50	10 x D	790	892
KS7500WD71PD30W0MT06-A1	75	30	4*W0MT06T308	71	WD71/79-948L-C50	12 x D	948	1050
KS7600WD71PD31W0MT06-A1	76	31	4*W0MT06T308	71				
KS7700WD71PD32W0MT06-A1	77	32	4*W0MT06T308	71				
KS7800WD71PD33W0MT06-A1	78	33	4*W0MT06T308	71				
KS7900WD71PD34W0MT06-A1	79	34	4*W0MT06T308	71				
KS8000WD80PD31W0MT0607-A1	80	31	2*W0MT06T308 2*W0MT070408	80	WD80/89-356L-C50	4 x D	356	466
KS8100WD80PD32W0MT0607-A1	81	32		80	WD80/89-534L-C50	6 x D	534	644
KS8200WD80PD33W0MT0607-A1	82	33		80	WD80/89-712L-C50	8 x D	712	822
KS8300WD80PD34W0MT0607-A1	83	34		80	WD80/89-890L-C50	10 x D	890	1000
KS8400WD80PD35W0MT0607-A1	84	35		80	WD80/89-1068L-C50	12 x D	1068	1178
KS8500WD80PD36W0MT0607-A1	85	36		80				
KS8600WD80PD37W0MT0607-A1	86	37		80				
KS8700WD80PD38W0MT0607-A1	87	38		80				
KS8800WD80PD39W0MT0607-A1	88	39		80				
KS8900WD80PD40W0MT0607-A1	89	40		80				
KS9000WD90PD37W0MT07-A1	90	37	4*W0MT070408	90	WD90/100-400L-C50	4 x D	400	515
KS9100WD90PD38W0MT07-A1	91	38	4*W0MT070408	90	WD90/100-600L-C50	6 x D	600	715
KS9200WD90PD39W0MT07-A1	92	39	4*W0MT070408	90	WD90/100-800L-C50	8 x D	800	915
KS9300WD90PD40W0MT07-A1	93	40	4*W0MT070408	90	WD90/100-1000L-C50	10 x D	1000	1115
KS9400WD90PD26W0MT06-A1	94	26	6*W0MT06T308	90	WD90/100-1200L-C50	12 x D	1200	1315
KS9500WD90PD27W0MT06-A1	95	27	6*W0MT06T308	90				
KS9600WD90PD28W0MT06-A1	96	28	6*W0MT06T308	90				
KS9700WD90PD29W0MT06-A1	97	29	6*W0MT06T308	90				
KS9800WD90PD30W0MT06-A1	98	30	6*W0MT06T308	90				
KS9900WD90PD31W0MT06-A1	99	31	6*W0MT06T308	90				
KS10000WD90PD32W0MT06-A1	100	32	6*W0MT06T308	90				

KS组合钻-A1系列 刀头规格型号

Specification and model of cutter heads for KS combined drill - A1 series



例如：KS3200WD32PD15WOMT05-A1

KS3200	WD32	PD15	WOMT05-A1
KS系列组合钻-Ø32	匹配链接系统尺寸WD32系列侧固式刀体规格	匹配中心钻刀片-ø15	匹配外刃刀片WOMT05 A1系列

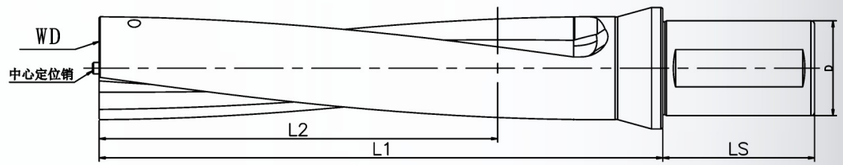
刀头规格型号 Drill Bit Specifications And Models	钻头 øD1 Drill Bit øD1	中心钻刀片 øPD Center Drill Insert øPD	外刃刀片型号 Outer Edge Insert Model	外刃刀片数量 Quantity of Outer Edge Inserts	WD连接系统 WD Connection System	LPR	L1	中心钻刀片螺丝 Center Drill Insert Screw	中心钻刀片扳手 Center Drill Insert Wrench	外刃刀片螺丝 Outer Edge Insert Screw	外刃刀片扳手 Outer Edge Insert Wrench	导向条 Guide Strip	导向条螺丝 Guide Strip Screw	扳手 Wrench
KS3200WD32PD15WOMT05-A1	32	15	WOMT05T308	2	32	29.2	25	M3.0/M2.5*14	T6	M3*7.2	T8	GP04-16-045	M2.2*6	T7
KS3300WD32PD16WOMT05-A1	33	16	WOMT05T308	2	32	29.4	25	M3.5/M2.5*16	1.5mm	M3*7.2	T8	GP04-16-045	M2.2*6	T7
KS3400WD32PD17WOMT05-A1	34	17	WOMT05T308	2	32	29.6	25	M3.5/M2.5*16	1.5mm	M3*7.2	T8	GP04-16-045	M2.2*6	T7
KS3500WD32PD18WOMT05-A1	35	18	WOMT05T308	2	32	29.8	25	M3.5/M2.5*16	1.5mm	M3*7.2	T8	GP04-16-045	M2.2*6	T7
KS3600WD36PD13WOMT06-A1	36	13	WOMT06T308	2	36	28.9	25	M3.0/M2.5*14	T6	M4*10	T15	GP04-16-045	M2.2*6	T7
KS3700WD36PD14WOMT06-A1	37	14	WOMT06T308	2	36	29.1	25	M3.0/M2.5*14	T6	M4*10	T15	GP04-16-045	M2.2*6	T7
KS3800WD36PD15WOMT06-A1	38	15	WOMT06T308	2	36	29.3	25	M3.0/M2.5*14	T6	M4*10	T15	GP04-16-045	M2.2*6	T7
KS3900WD36PD16WOMT06-A1	39	16	WOMT06T308	2	36	29.5	25	M3.5/M2.5*16	1.5mm	M4*10	T15	GP04-16-045	M2.2*6	T7
KS4000WD40PD17WOMT06-A1	40	17	WOMT06T308	2	40	32.6	28	M3.5/M2.5*16	1.5mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4100WD40PD18WOMT06-A1	41	18	WOMT06T308	2	40	32.8	28	M3.5/M2.5*16	1.5mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4200WD40PD19WOMT06-A1	42	19	WOMT06T308	2	40	33.0	28	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4300WD40PD20WOMT06-A1	43	20	WOMT06T308	2	40	35.1	30	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4400WD40PD21WOMT06-A1	44	21	WOMT06T308	2	40	35.3	30	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4500WD45PD18WOMT07-A1	45	18	WOMT070408	2	45	32.8	28	M3.5/M2.5*16	1.5mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4600WD45PD19WOMT07-A1	46	19	WOMT070408	2	45	33.0	28	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4700WD45PD20WOMT07-A1	47	20	WOMT070408	2	45	35.2	30	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4800WD45PD21WOMT07-A1	48	21	WOMT070408	2	45	35.3	30	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS4900WD45PD22WOMT07-A1	49	22	WOMT070408	2	45	35.4	30	M4.0/M3.0*19	2mm	M4*10	T15	GP05-18-060	M2.2*6	T7
KS5000WD50PD23WOMT07-A1	50	23	WOMT070408	2	50	37.6	32	M4.0/M3.0*19	2mm	M4*10	T15	GP06-20-100	M2.5*6	T8
KS5100WD50PD24WOMT07-A1	51	24	WOMT070408	2	50	37.8	32	M4.0/M3.0*19	2mm	M4*10	T15	GP06-20-100	M2.5*6	T8
KS5200WD50PD25WOMT07-A1	52	25	WOMT070408	2	50	41.0	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GP06-20-100	M2.5*6	T8
KS5300WD50PD26WOMT07-A1	53	26	WOMT070408	2	50	41.2	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GP06-20-100	M2.5*6	T8
KS5400WD50PD27WOMT07-A1	54	27	WOMT070408	2	50	41.4	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GP06-20-100	M2.5*6	T8
KS5500WD50PD28WOMT07-A1	55	28	WOMT070408	2	50	41.6	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GP06-20-100	M2.5*6	T8

刀头规格型号 Drill Bit Specifications And Models	钻头 øD1 Drill Bit øD1	中心钻刀片 øPD Center Drill Insert øPD	外刃刀片型号 Outer Edge Insert Model	外刃刀片数量 Quantity of Outer Edge Inserts	WD连接系统 WD Connection System	LPR	L1	中心钻刀片螺丝 Center Drill Insert Screw	中心钻刀片扳手 Center Drill Insert Wrench	外刃刀片螺丝 Outer Edge Insert Screw	外刃刀片扳手 Outer Edge Insert Wrench	导向条 Guide Strip	导向条螺丝 Guide Strip Screw	扳手 Wrench
KS5700WD56PD21WOMT09-A1	57	21	WOMT090508	2	56	37.1	32	M4.0/M3.0*19	2mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS5600WD56PD20WOMT09-A1	56	20	WOMT090508	2	56	37.3	32	M4.0/M3.0*19	2mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS5800WD56PD22WOMT09-A1	58	22	WOMT090508	2	56	37.5	32	M4.0/M3.0*19	2mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS5900WD56PD23WOMT09-A1	59	23	WOMT090508	2	56	37.7	32	M4.0/M3.0*19	2mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS6000WD56PD24WOMT09-A1	60	24	WOMT090508	2	56	37.9	32	M4.0/M3.0*19	2mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS6100WD56PD25WOMT09-A1	61	25	WOMT090508	2	56	41.0	35	M5.0/M4.0*23	2.5mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS6200WD56PD26WOMT09-A1	62	26	WOMT090508	2	56	41.2	35	M5.0/M4.0*23	2.5mm	M5*12	T20	GP06-20-100	M2.5*6	T8
KS6300WD63PD27WOMT09-A1	63	27	WOMT090508	2	63	42.4	36	M5.0/M4.0*23	2.5mm	M5*12	T20	GP07-20-120	M3*8	T8
KS6400WD63PD28WOMT09-A1	64	28	WOMT090508	2	63	42.6	36	M5.0/M4.0*23	2.5mm	M5*12	T20	GP07-20-120	M3*8	T8
KS6500WD63PD29WOMT09-A1	65	29	WOMT090508	2	63	46.7	40	M6.0/M5.0*28	3mm	M5*12	T20	GP07-20-120	M3*8	T8
KS6600WD63PD30WOMT09-A1	66	30	WOMT090508	2	63	46.9	40	M6.0/M5.0*28	3mm	M5*12	T20	GP07-20-120	M3*8	T8
KS6700WD63PD31WOMT09-A1	67	31	WOMT090508	2	63	47.1	40	M6.0/M5.0*28	3mm	M5*12	T20	GP07-20-120	M3*8	T8
KS6800WD63PD32WOMT09-A1	68	32	WOMT090508	2	63	47.3	40	M6.0/M5.0*28	3mm	M5*12	T20	GP07-20-120	M3*8	T8
KS6900WD63PD33WOMT09-A1	69	33	WOMT090508	2	63	52.4	45	M6.0/M6.0*32	3mm	M5*12	T20	GP07-20-120	M3*8	T8
KS7000WD63PD34WOMT09-A1	70	34	WOMT090508	2	63	52.6	45	M6.0/M6.0*32	3mm	M5*12	T20	GP07-20-120	M3*8	T8
KS7100WD71PD26WOMT06-A1	71	26	4*WOMT06T308	4	71	46.2	40	M5.0/M4.0*23	2.5mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7200WD71PD27WOMT06-A1	72	27	4*WOMT06T308	4	71	46.4	40	M5.0/M4.0*23	2.5mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7300WD71PD28WOMT06-A1	73	28	4*WOMT06T308	4	71	46.6	40	M5.0/M4.0*23	2.5mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7400WD71PD29WOMT06-A1	74	29	4*WOMT06T308	4	71	46.7	40	M6.0/M5.0*28	3mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7500WD71PD30WOMT06-A1	75	30	4*WOMT06T308	4	71	46.9	40	M6.0/M5.0*28	3mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7600WD71PD31WOMT06-A1	76	31	4*WOMT06T308	4	71	47.1	40	M6.0/M5.0*28	3mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7700WD71PD32WOMT06-A1	77	32	4*WOMT06T308	4	71	47.3	40	M6.0/M5.0*28	3mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7800WD71PD33WOMT06-A1	78	33	4*WOMT06T308	4	71	52.4	45	M6.0/M6.0*32	3mm	M4*10	T15	GP07-20-120	M3*8	T8
KS7900WD71PD34WOMT06-A1	79	34	4*WOMT06T308	4	71	52.6	45	M6.0/M6.0*32	3mm	M4*10	T15	GP07-20-120	M3*8	T8
KS8000WD80PD31WOMT0607-A1	80	31		4	80	52.8	45	M6.0/M5.0*28	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8100WD80PD32WOMT0607-A1	81	32		4	80	53	45	M6.0/M5.0*28	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8200WD80PD33WOMT0607-A1	82	33		4	80	53.2	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8300WD80PD34WOMT0607-A1	83	34		4	80	53.4	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8400WD80PD35WOMT0607-A1	84	35	2*WOMT06T308	4	80	53.6	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8500WD80PD36WOMT0607-A1	85	36	2*WOMT070408	4	80	53.8	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8600WD80PD37WOMT0607-A1	86	37		4	80	54	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8700WD80PD38WOMT0607-A1	87	38		4	80	54.2	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8800WD80PD39WOMT0607-A1	88	39		4	80	54.4	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS8900WD80PD40WOMT0607-A1	89	40		4	80	54.6	45	M6.0/M6.0*32	3mm	M4*10	T15	GP08-25-155	M3*8	T8
KS9000WD90PD37WOMT07-A1	90	37	4*WOMT070408	4	90	58.8	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9100WD90PD38WOMT07-A1	91	38	4*WOMT070408	4	90	58.8	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9200WD90PD39WOMT07-A1	92	39	4*WOMT070408	4	90	58.8	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9300WD90PD40WOMT07-A1	93	40	4*WOMT070408	4	90	58.8	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9400WD90PD26WOMT06-A1	94	26	6*WOMT06T308	6	90	57.3	50	M5.0/M4.0*32	2.5mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9500WD90PD27WOMT06-A1	95	27	6*WOMT06T308	6	90	57.5	50	M5.0/M4.0*32	2.5mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9600WD90PD28WOMT06-A1	96	28	6*WOMT06T308	6	90	57.7	50	M5.0/M4.0*32	2.5mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9700WD90PD29WOMT06-A1	97	29	6*WOMT06T308	6	90	57.9	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9800WD90PD30WOMT06-A1	98	30	6*WOMT06T308	6	90	58.1	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS9900WD90PD31WOMT06-A1	99	31	6*WOMT06T308	6	90	58.3	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS10000WD90PD32WOMT06-A1	100	32	6*WOMT06T308	6	90	58.5	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

KS组合钻-A1系列 侧固式刀体规格型号

KS combined drill - A1 series, side - fixing tool body specifications and models



例如：WD32/35-140L-C32

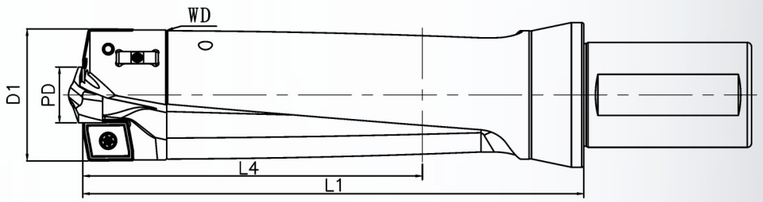
WD32/35	140L	C32
可匹配ø32~35的KS系列组合钻刀头	刀体有效加工深度140mm	刀体夹持侧固式柄径ø32

侧固式刀体型号 Side-Fixed Tool Body Model	钻头直径 Drill Bit Diameter	WD连接系统 WD Connection System	倍径 Diameter Multiple	柄径D Shank Diameter D	L1	L2	LS	中心定位销 Center Locating Pin	链接系统锁紧螺丝 Link System Locking Screw	扳手 Wrench
WD32/35-140L-C32	32-35	32	4	32	181	115	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-210L-C32		32	6	32	251	185	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-280L-C32		32	8	32	321	255	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-350L-C32		32	10	32	391	325	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-156L-C32	36-39	36	4	32	205	131	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-234L-C32		36	6	32	283	209	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-312L-C32		36	8	32	361	287	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-390L-C32		36	10	32	439	365	60	M4*ø5*15	M4x0.5x9	2mm
WD40/44-176L-C40	40-44	40	4	40	227	146	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-264L-C40		40	6	40	315	234	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-352L-C40		40	8	40	403	322	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-440L-C40		40	10	40	491	410	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-528L-C40		40	12	40	579	498	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-176L-C40	45-49	45	4	40	255	166	70	M5*ø6*15	M5x0.5x10	2.5mm
WD40/44-264L-C40		45	6	40	353	264	70	M5*ø6*15	M5x0.5x10	2.5mm
WD40/44-352L-C40		45	8	40	451	362	70	M5*ø6*15	M5x0.5x10	2.5mm
WD40/44-440L-C40		45	10	40	549	460	70	M5*ø6*15	M5x0.5x10	2.5mm
WD40/44-528L-C40		45	12	40	647	558	70	M5*ø6*15	M5x0.5x10	2.5mm

侧固式刀体型号 Side-Fixed Tool Body Model	钻头直径 Drill Bit Diameter	WD连接系统 WD Connection System	倍径 Diameter Multiple	柄径D Shank Diameter D	L1	L2	LS	中心定位销 Center Locating Pin	链接系统锁紧螺丝 Link System Locking Screw	扳手 Wrench
WD50/55-220L-C50	50-55	50	4	50	283	185	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-330L-C50		50	6	50	393	295	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-440L-C50		50	8	50	503	405	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-550L-C50		50	10	50	613	515	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-660L-C50		50	12	50	723	625	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-620L-C50	56-62	56	4	50	321	213	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-744L-C50		56	6	50	445	337	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-248L-C50		56	8	50	569	461	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-372L-C50		56	10	50	693	585	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-496L-C50		56	12	50	817	709	80	M5*ø6*15	M6x0.75x12	3mm
WD63/70-280L-C50	63-70	63	4	50	359	240	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-420L-C50		63	6	50	499	380	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-560L-C50		63	8	50	639	520	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-700L-C50		63	10	50	779	660	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-840L-C50		63	12	50	919	800	80	M6*ø7*17	M6x0.75x12	3mm
WD71/79-316L-C50	71-79	71	4	50	378	276	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-474L-C50		71	6	50	536	434	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-632L-C50		71	8	50	694	592	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-790L-C50		71	10	50	852	750	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-948L-C50		71	12	50	1010	908	80	M6*ø7*17	M8x0.75x15	4mm
WD80/89-356L-C50	80-89	80	4	50	421	311	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-534L-C50		80	6	50	599	489	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-712L-C50		80	8	50	777	667	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-890L-C50		80	10	50	955	845	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-1068L-C50		80	12	50	1133	1023	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-400L-C50	90-100	90	4	50	465	350	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-600L-C50		90	6	50	665	550	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-800L-C50		90	8	50	865	750	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-1000L-C50		90	10	50	1065	950	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-1200L-C50		90	12	50	1265	1150	80	M6*ø8*18	M8x0.75x15	4mm

KS组合钻-B1系列 刀头刀体组合系统

KS combined drill - B1 series, drill bit and tool body combination system



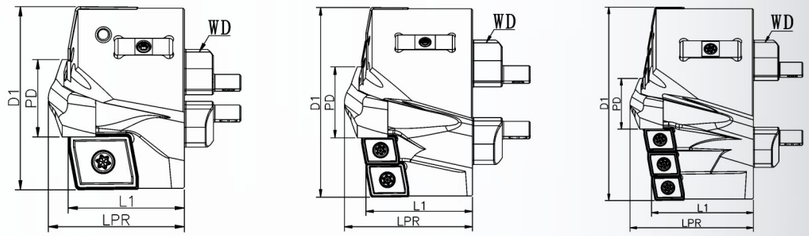
刀头规格型号 Cutter head specification models	钻头直径D1 Drill bit diameter D1	中心钻刀片直径PD Center drill insert diameter PD	外刃刀片型号 Outer edge insert model	WD连接系统 WD Connection System	匹配侧固式刀体型号 Matched side-fixed tool body model	长经比 Length-diameter ratio	装配尺寸L4 Assembly dimension L4	装配尺寸L1 Assembly dimension L1
KS2800WD28PD14ZPMT04-B1	28	14	ZPMT040310	28	WD28/31-124L-C32	4 x D	124	184
KS2900WD28PD15ZPMT04-B1	29	15	ZPMT040310	28	WD28/31-186L-C32	6 x D	186	246
KS3000WD28PD16ZPMT04-B1	30	16	ZPMT040310	28	WD28/31-248L-C32	8 x D	248	308
KS3100WD28PD17ZPMT04-B1	31	17	ZPMT040310	28	WD28/31-310L-C32	10 x D	310	370
KS3200WD32PD15ZPMT05-B1	32	15	ZPMT05T312	32	WD32/35-140L-C32	4 x D	140	206
KS3300WD32PD16ZPMT05-B1	33	16	ZPMT05T312	32	WD32/35-210L-C32	6 x D	210	276
KS3400WD32PD17ZPMT05-B1	34	17	ZPMT05T312	32	WD32/35-280L-C32	8 x D	280	346
KS3500WD32PD18ZPMT05-B1	35	18	ZPMT05T312	32	WD32/35-350L-C32	10 x D	350	416
KS3600WD36PD13ZPMT06-B1	36	13	ZPMT06T312	36	WD36/39-156L-C32	4 x D	156	230
KS3700WD36PD14ZPMT06-B1	37	14	ZPMT06T312	36	WD36/39-234L-C32	6 x D	234	308
KS3800WD36PD15ZPMT06-B1	38	15	ZPMT06T312	36	WD36/39-312L-C32	8 x D	312	386
KS3900WD36PD16ZPMT06-B1	39	16	ZPMT06T312	36	WD36/39-390L-C32	10 x D	390	464
KS4000WD40PD17ZPMT06-B1	40	17	ZPMT06T312	40	WD40/44-176L-C40	4 x D	176	257
KS4100WD40PD18ZPMT06-B1	41	18	ZPMT06T312	40	WD40/44-264L-C40	6 x D	264	345
KS4200WD40PD19ZPMT06-B1	42	19	ZPMT06T312	40	WD40/44-352L-C40	8 x D	352	433
KS4300WD40PD20ZPMT06-B1	43	20	ZPMT06T312	40	WD40/44-440L-C40	10 x D	440	521
KS4400WD40PD21ZPMT06-B1	44	21	ZPMT06T312	40	WD40/44-528L-C40	12 x D	528	609
KS4500WD45PD18ZPMT07-B1	45	18	ZPMT070416	45	WD45/49-196L-C40	4 x D	196	285
KS4600WD45PD19ZPMT07-B1	46	19	ZPMT070416	45	WD45/49-294L-C40	6 x D	294	383
KS4700WD45PD20ZPMT07-B1	47	20	ZPMT070416	45	WD45/49-392L-C40	8 x D	392	481
KS4800WD45PD21ZPMT07-B1	48	21	ZPMT070416	45	WD45/49-490L-C40	10 x D	490	579
KS4900WD45PD22ZPMT07-B1	49	22	ZPMT070416	45	WD45/49-588L-C40	12 x D	588	677
KS5000WD50PD23ZPMT07-B1	50	23	ZPMT070416	50	WD50/55-220L-C50	4 x D	220	318
KS5100WD50PD24ZPMT07-B1	51	24	ZPMT070416	50	WD50/55-330L-C50	6 x D	330	428
KS5200WD50PD25ZPMT07-B1	52	25	ZPMT070416	50	WD50/55-440L-C50	8 x D	440	538
KS5300WD50PD26ZPMT07-B1	53	26	ZPMT070416	50	WD50/55-550L-C50	10 x D	550	648
KS5400WD50PD27ZPMT07-B1	54	27	ZPMT070416	50	WD50/55-660L-C50	12 x D	660	758
KS5500WD50PD28ZPMT07-B1	55	28	ZPMT070416	50				

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

刀头规格型号 Cutter head specification models	钻头直径D1 Drill bit diameter D1	中心钻刀片直径PD Center drill insert diameter PD	外刃刀片型号 Outer edge insert model	WD连接系统 WD Connection System	匹配侧固式刀体型号 Matched side-fixed tool body model	长经比 Length-diameter ratio	装配尺寸L4 Assembly dimension L4	装配尺寸L1 Assembly dimension L1
KS5600WD56PD20ZPMT09-B1	56	20	ZPMT090520	56				
KS5700WD56PD21ZPMT09-B1	57	21	ZPMT090520	56	WD56/62-248L-C50	4 x D	248	356
KS5800WD56PD22ZPMT09-B1	58	22	ZPMT090520	56	WD56/62-372L-C50	6 x D	372	480
KS5900WD56PD23ZPMT09-B1	59	23	ZPMT090520	56	WD56/62-496L-C50	8 x D	496	604
KS6000WD56PD24ZPMT09-B1	60	24	ZPMT090520	56	WD56/62-620L-C50	10 x D	620	728
KS6100WD56PD25ZPMT09-B1	61	25	ZPMT090520	56	WD56/62-744L-C50	12 x D	744	852
KS6200WD56PD26ZPMT09-B1	62	26	ZPMT090520	56				
KS6300WD63PD27ZPMT09-B1	63	27	ZPMT090520	63				
KS6400WD63PD28ZPMT09-B1	64	28	ZPMT090520	63				
KS6500WD63PD29ZPMT09-B1	65	29	ZPMT090520	63	WD63/70-280L-C50	4 x D	280	399
KS6600WD63PD30ZPMT09-B1	66	30	ZPMT090520	63	WD63/70-420L-C50	6 x D	420	539
KS6700WD63PD31ZPMT09-B1	67	31	ZPMT090520	63	WD63/70-560L-C50	8 x D	560	679
KS6800WD63PD32ZPMT09-B1	68	32	ZPMT090520	63	WD63/70-700L-C50	10 x D	700	819
KS6900WD63PD33ZPMT09-B1	69	33	ZPMT090520	63	WD63/70-840L-C50	12 x D	840	959
KS7000WD63PD34ZPMT09-B1	70	34	ZPMT090520	63				
KS7100WD71PD26ZPMT06-B1	71	26	4x ZPMT06T312	71				
KS7200WD71PD27ZPMT06-B1	72	27	4x ZPMT06T312	71				
KS7300WD71PD28ZPMT06-B1	73	28	4x ZPMT06T312	71	WD71/79-316L-C50	4 x D	316	418
KS7400WD71PD29ZPMT06-B1	74	29	4x ZPMT06T312	71	WD71/79-474L-C50	6 x D	474	576
KS7500WD71PD30ZPMT06-B1	75	30	4x ZPMT06T312	71	WD71/79-632L-C50	8 x D	632	734
KS7600WD71PD31ZPMT06-B1	76	31	4x ZPMT06T312	71	WD71/79-790L-C50	10 x D	790	892
KS7700WD71PD32ZPMT06-B1	77	32	4x ZPMT06T312	71	WD71/79-948L-C50	12 x D	948	1050
KS7800WD71PD33ZPMT06-B1	78	33	4x ZPMT06T312	71				
KS7900WD71PD34ZPMT06-B1	79	34	4x ZPMT06T312	71				
KS8000WD80PD31ZPMT0607-B1	80	31		80				
KS8100WD80PD32ZPMT0607-B1	81	32		80				
KS8200WD80PD33ZPMT0607-B1	82	33		80				
KS8300WD80PD34ZPMT0607-B1	83	34		80	WD80/89-356L-C50	4 x D	356	466
KS8400WD80PD35ZPMT0607-B1	84	35	2x ZPMT06T312	80	WD80/89-534L-C50	6 x D	534	644
KS8500WD80PD36ZPMT0607-B1	85	36	2x ZPMT070416	80	WD80/79-712L-C50	8 x D	712	822
KS8600WD80PD37ZPMT0607-B1	86	37		80	WD80/79-890L-C50	10 x D	890	1000
KS8700WD80PD38ZPMT0607-B1	87	38		80	WD80/79-1068L-C50	12 x D	1068	1178
KS8800WD80PD39ZPMT0607-B1	88	39		80				
KS8900WD80PD40ZPMT0607-B1	89	40		80				
KS9000WD90PD37ZPMT07-B1	90	37	4x ZPMT070416	90				
KS9100WD90PD38ZPMT07-B1	91	38	4x ZPMT070416	90				
KS9200WD90PD39ZPMT07-B1	92	39	4x ZPMT070416	90				
KS9300WD90PD40ZPMT07-B1	93	40	4x ZPMT070416	90	WD90/100-400L-C50	4 x D	400	515
KS9400WD90PD26ZPMT06-B1	94	26	6x ZPMT06T312	90	WD90/100-600L-C50	6 x D	600	715
KS9500WD90PD27ZPMT06-B1	95	27	6x ZPMT06T312	90	WD90/100-800L-C50	8 x D	800	915
KS9600WD90PD28ZPMT06-B1	96	28	6x ZPMT06T312	90	WD90/100-1000L-C50	10 x D	1000	1115
KS9700WD90PD29ZPMT06-B1	97	29	6x ZPMT06T312	90	WD90/100-1200L-C50	12 x D	1200	1315
KS9800WD90PD30ZPMT06-B1	98	30	6x ZPMT06T312	90				
KS9900WD90PD31ZPMT06-B1	99	31	6x ZPMT06T312	90				
KS10000WD90PD32ZPMT06-B1	100	32	6x ZPMT06T312	90				

KS组合钻-B1系列 刀头规格型号

KS combined drill - B1 series, drill bit specifications and models



例如：KS3200WD32PD15ZPMT05-B1

KS3200	WD32	PD15	ZPMT05-B1
KS系列组合钻-ø32	匹配链接系统尺寸WD32系列侧固式刀体规格	匹配中心钻刀片-ø15	匹配外刃刀片ZPMT05 B1系列

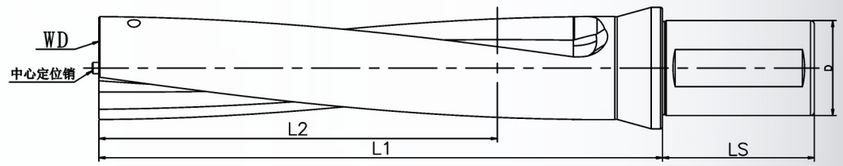
刀头规格型号 Drill Bit Specifications And Models	钻头 øD1 Drill Bit øD1	中心钻刀片 øPD Center Drill Insert øPD	外刃刀片型号 Outer Edge Insert Model	外刃刀片数量 Quantity of Outer Edge Inserts	WD连接系统 WD Connection System	LPR	L1	中心钻刀片螺丝 Center Drill Insert Screw	中心钻刀片扳手 Center Drill Insert Wrench	外刃刀片螺丝 Outer Edge Insert Screw	外刃刀片扳手 Outer Edge Insert Wrench	导向条 Guide Strip	导向条螺丝 Guide Strip Screw	扳手 Wrench
KS28OOWD28PD14ZPMTO4-B1	28	14	ZPMTO40310	2	28	29.0	25	M3.0/M2.5*14	T6	M2.5*5.9	T8	GPO4-16-045	M2.2*6	T7
KS29OOWD28PD15ZPMTO4-B1	29	15	ZPMTO40310	2	28	29.2	25	M3.0/M2.5*14	T6	M2.5*5.9	T8	GPO4-16-045	M2.2*6	T7
KS3OOOWD28PD16ZPMTO4-B1	30	16	ZPMTO40310	2	28	29.4	25	M3.5/M2.5*16	1.5mm	M2.5*5.9	T8	GPO4-16-045	M2.2*6	T7
KS31OOWD28PD17ZPMTO4-B1	31	17	ZPMTO40310	2	28	29.6	25	M3.5/M2.5*16	1.5mm	M2.5*5.9	T8	GPO4-16-045	M2.2*6	T7
KS32OOWD32PD15ZPMTO5-B1	32	15	ZPMTO5T312	2	32	29.5	25	M3.0/M2.5*14	T6	M3*7.2	T8	GPO4-16-045	M2.2*6	T7
KS33OOWD32PD16ZPMTO5-B1	33	16	ZPMTO5T312	2	32	29.8	25	M3.5/M2.5*16	1.5mm	M3*7.2	T8	GPO4-16-045	M2.2*6	T7
KS34OOWD32PD17ZPMTO5-B1	34	17	ZPMTO5T312	2	32	30.1	25	M3.5/M2.5*16	1.5mm	M3*7.2	T8	GPO4-16-045	M2.2*6	T7
KS35OOWD32PD18ZPMTO5-B1	35	18	ZPMTO5T312	2	32	30.3	25	M3.5/M2.5*16	1.5mm	M3*7.2	T8	GPO4-16-045	M2.2*6	T7
KS36OOWD36PD13ZPMTO6-B1	36	13	ZPMTO6T312	2	36	29.4	25	M3.0/M2.5*14	T6	M4*10	T15	GPO4-16-045	M2.2*6	T7
KS37OOWD36PD14ZPMTO6-B1	37	14	ZPMTO6T312	2	36	29.6	25	M3.0/M2.5*14	T6	M4*10	T15	GPO4-16-045	M2.2*6	T7
KS38OOWD36PD15ZPMTO6-B1	38	15	ZPMTO6T312	2	36	29.8	25	M3.0/M2.5*14	T6	M4*10	T15	GPO4-16-045	M2.2*6	T7
KS39OOWD36PD16ZPMTO6-B1	39	16	ZPMTO6T312	2	36	30.0	25	M3.5/M2.5*16	1.5mm	M4*10	T15	GPO4-16-045	M2.2*6	T7
KS4OOOWD4OPD17ZPMTO6-B1	40	17	ZPMTO6T312	2	40	33.1	28	M3.5/M2.5*16	1.5mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS41OOWD4OPD18ZPMTO6-B1	41	18	ZPMTO6T312	2	40	33.2	28	M3.5/M2.5*16	1.5mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS42OOWD4OPD19ZPMTO6-B1	42	19	ZPMTO6T312	2	40	33.4	28	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS43OOWD4OPD2OZPMTO6-B1	43	20	ZPMTO6T312	2	40	35.4	30	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS44OOWD4OPD21ZPMTO6-B1	44	21	ZPMTO6T312	2	40	35.5	30	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS45OOWD45PD18ZPMTO7-B1	45	18	ZPMTO70416	2	45	35.3	30	M3.5/M2.5*16	1.5mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS46OOWD45PD19ZPMTO7-B1	46	19	ZPMTO70416	2	45	35.5	30	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS47OOWD45PD2OZPMTO7-B1	47	20	ZPMTO70416	2	45	35.7	30	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS48OOWD45PD21ZPMTO7-B1	48	21	ZPMTO70416	2	45	35.9	30	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS49OOWD45PD22ZPMTO7-B1	49	22	ZPMTO70416	2	45	35.8	30	M4.0/M3.0*19	2mm	M4*10	T15	GPO5-18-060	M2.2*6	T7
KS5OOOWD5OPD23ZPMTO7-B1	50	23	ZPMTO70416	2	50	41.3	35	M4.0/M3.0*19	2mm	M4*10	T15	GPO6-20-100	M2.5*6	T8
KS51OOWD5OPD24ZPMTO7-B1	51	24	ZPMTO70416	2	50	41.4	35	M4.0/M3.0*19	2mm	M4*10	T15	GPO6-20-100	M2.5*6	T8
KS52OOWD5OPD25ZPMTO7-B1	52	25	ZPMTO70416	2	50	41.5	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO6-20-100	M2.5*6	T8
KS53OOWD5OPD26ZPMTO7-B1	53	26	ZPMTO70416	2	50	41.6	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO6-20-100	M2.5*6	T8
KS54OOWD5OPD27ZPMTO7-B1	54	27	ZPMTO70416	2	50	41.8	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO6-20-100	M2.5*6	T8
KS55OOWD5OPD28ZPMTO7-B1	55	28	ZPMTO70416	2	50	42.0	35	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO6-20-100	M2.5*6	T8

刀头规格型号 Drill Bit Specifications And Models	钻头 øD1 Drill Bit øD1	中心钻刀片 øPD Center Drill Insert øPD	外刃刀片型号 Outer Edge Insert Model	外刃刀片数量 Quantity of Outer Edge Inserts	WD连接系统 WD Connection System	LPR	L1	中心钻刀片螺丝 Center Drill Insert Screw	中心钻刀片扳手 Center Drill Insert Wrench	外刃刀片螺丝 Outer Edge Insert Screw	外刃刀片扳手 Outer Edge Insert Wrench	导向条 Guide Strip	导向条螺丝 Guide Strip Screw	扳手 Wrench
KS56OOWD56PD2OZPMTO9-B1	56	20	ZPMTO90520	2	56	40.6	35	M4.0/M3.0*19	2mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS57OOWD56PD21ZPMTO9-B1	57	21	ZPMTO90520	2	56	39.7	35	M4.0/M3.0*19	2mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS58OOWD56PD22ZPMTO9-B1	58	22	ZPMTO90520	2	56	39.9	35	M4.0/M3.0*19	2mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS59OOWD56PD23ZPMTO9-B1	59	23	ZPMTO90520	2	56	40.0	35	M4.0/M3.0*19	2mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS6OOOWD56PD24ZPMTO9-B1	60	24	ZPMTO90520	2	56	40.2	35	M4.0/M3.0*19	2mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS61OOWD56PD25ZPMTO9-B1	61	25	ZPMTO90520	2	56	40.4	35	M5.0/M4.0*23	2.5mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS62OOWD56PD26ZPMTO9-B1	62	26	ZPMTO90520	2	56	40.6	35	M5.0/M4.0*23	2.5mm	M5*12	T20	GPO6-20-100	M2.5*6	T8
KS63OOWD63PD27ZPMTO9-B1	63	27	ZPMTO90520	2	63	46.0	40	M5.0/M4.0*23	2.5mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS64OOWD63PD28ZPMTO9-B1	64	28	ZPMTO90520	2	63	46.1	40	M5.0/M4.0*23	2.5mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS65OOWD63PD29ZPMTO9-B1	65	29	ZPMTO90520	2	63	46.3	40	M6.0/M5.0*28	3mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS66OOWD63PD3OZPMTO9-B1	66	30	ZPMTO90520	2	63	46.5	40	M6.0/M5.0*28	3mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS67OOWD63PD31ZPMTO9-B1	67	31	ZPMTO90520	2	63	46.7	40	M6.0/M5.0*28	3mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS68OOWD63PD32ZPMTO9-B1	68	32	ZPMTO90520	2	63	46.8	40	M6.0/M5.0*28	3mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS69OOWD63PD33ZPMTO9-B1	69	33	ZPMTO90520	2	63	47.0	40	M6.0/M6.0*32	3mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS7OOOWD63PD34ZPMTO9-B1	70	34	ZPMTO90520	2	63	47.2	40	M6.0/M6.0*32	3mm	M5*12	T20	GPO7-20-120	M3*8	T8
KS71OOWD71PD26ZPMTO6-B1	71	26	4x ZPMTO6T312	4	71	47.9	40	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS72OOWD71PD27ZPMTO6-B1	72	27	4x ZPMTO6T312	4	71	48.1	40	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS73OOWD71PD28ZPMTO6-B1	73	28	4x ZPMTO6T312	4	71	48.2	40	M5.0/M4.0*23	2.5mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS74OOWD71PD29ZPMTO6-B1	74	29	4x ZPMTO6T312	4	71	48.4	40	M6.0/M5.0*28	3mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS75OOWD71PD3OZPMTO6-B1	75	30	4x ZPMTO6T312	4	71	48.6	40	M6.0/M5.0*28	3mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS76OOWD71PD31ZPMTO6-B1	76	31	4x ZPMTO6T312	4	71	48.8	40	M6.0/M5.0*28	3mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS77OOWD71PD32ZPMTO6-B1	77	32	4x ZPMTO6T312	4	71	48.9	40	M6.0/M5.0*28	3mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS78OOWD71PD33ZPMTO6-B1	78	33	4x ZPMTO6T312	4	71	49.1	40	M6.0/M6.0*32	3mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS79OOWD71PD34ZPMTO6-B1	79	34	4x ZPMTO6T312	4	71	49.3	40	M6.0/M6.0*32	3mm	M4*10	T15	GPO7-20-120	M3*8	T8
KS8OOOWD8OPD31ZPMTO607-B1	80	31		4	80	54.1	45	M6.0/M5.0*28	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS81OOWD8OPD32ZPMTO607-B1	81	32		4	80	54.2	45	M6.0/M5.0*28	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS82OOWD8OPD33ZPMTO607-B1	82	33		4	80	54.4	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS83OOWD8OPD34ZPMTO607-B1	83	34		4	80	54.6	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS84OOWD8OPD35ZPMTO607-B1	84	35	2x ZPMTO6T312	4	80	54.8	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS85OOWD8OPD36ZPMTO607-B1	85	36	2x ZPMTO70416	4	80	54.9	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS86OOWD8OPD37ZPMTO607-B1	86	37		4	80	55.1	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS87OOWD8OPD38ZPMTO607-B1	87	38		4	80	55.3	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS88OOWD8OPD39ZPMTO607-B1	88	39		4	80	55.5	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS89OOWD8OPD4OZPMTO607-B1	89	40		4	80	55.6	45	M6.0/M6.0*32	3mm	M4*10	T15	GPO8-25-155	M3*8	T8
KS9OOOWD9OPD37ZPMTO7-B1	90	37	4x ZPMTO70416	4	90	60.3	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS91OOWD9OPD38ZPMTO7-B1	91	38	4x ZPMTO70416	4	90	60.5	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS92OOWD9OPD39ZPMTO7-B1	92	39	4x ZPMTO70416	4	90	60.7	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS93OOWD9OPD4OZPMTO7-B1	93	40	4x ZPMTO70416	4	90	60.8	50	M6.0/M6.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS94OOWD9OPD26ZPMTO6-B1	94	26	6x ZPMTO6T312	6	90	60.4	50	M5.0/M4.0*32	2.5mm	M4*10	T15	GP10-30-200	M4*10	T15
KS95OOWD9OPD27ZPMTO6-B1	95	27	6x ZPMTO6T312	6	90	60.6	50	M5.0/M4.0*32	2.5mm	M4*10	T15	GP10-30-200	M4*10	T15
KS96OOWD9OPD28ZPMTO6-B1	96	28	6x ZPMTO6T312	6	90	60.7	50	M5.0/M4.0*32	2.5mm	M4*10	T15	GP10-30-200	M4*10	T15
KS97OOWD9OPD29ZPMTO6-B1	97	29	6x ZPMTO6T312	6	90	60.9	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS98OOWD9OPD3OZPMTO6-B1	98	30	6x ZPMTO6T312	6	90	61.1	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS99OOWD9OPD31ZPMTO6-B1	99	31	6x ZPMTO6T312	6	90	61.3	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15
KS1OOOOWD9OPD32ZPMTO6-B1	100	32	6x ZPMTO6T312	6	90	61.4	50	M6.0/M5.0*32	3mm	M4*10	T15	GP10-30-200	M4*10	T15

CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料

KS组合钻-B1系列 侧固式刀体规格型号

KS combined drill - B1 series, side - fixed tool body specifications and models



例如：WD32/35-210L-C32

WD32/35	210L	C32
可匹配ø32~35的KS系列组合钻刀头	刀体有效加工深度210mm	刀体夹持柄径ø32

侧固式刀体型号 Side-Fixed Tool Body Model	钻头直径 Drill Bit Diameter	WD连接系统 WD Connection System	倍径 Diameter Multiple	柄径D Shank Diameter D	L1	L2	LS	中心定位销 Center Locating Pin	链接系统锁紧螺丝 Link System Locking Screw	扳手 Wrench
WD28/31-124L-C32	28-31	28	4	32	159	99	60	M4*ø5*15	M4x0.5x9	2mm
WD28/31-186L-C32		28	6	32	221	161	60	M4*ø5*15	M4x0.5x9	2mm
WD28/31-248L-C32		28	8	32	283	223	60	M4*ø5*15	M4x0.5x9	2mm
WD28/31-310L-C32		28	10	32	345	285	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-140L-C32	32-35	32	4	32	181	115	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-210L-C32		32	6	32	251	185	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-280L-C32		32	8	32	321	255	60	M4*ø5*15	M4x0.5x9	2mm
WD32/35-350L-C32		32	10	32	391	325	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-156L-C32	36-39	36	4	32	205	131	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-234L-C32		36	6	32	283	209	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-312L-C32		36	8	32	361	287	60	M4*ø5*15	M4x0.5x9	2mm
WD36/39-390L-C32		36	10	32	439	365	60	M4*ø5*15	M4x0.5x9	2mm
WD40/44-176L-C40	40-44	40	4	40	227	146	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-264L-C40		40	6	40	315	234	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-352L-C40		40	8	40	403	322	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-440L-C40		40	10	40	491	410	70	M4*ø5*15	M5x0.5x10	2.5mm
WD40/44-528L-C40		40	12	40	579	498	70	M4*ø5*15	M5x0.5x10	2.5mm

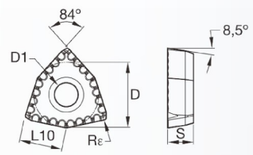
侧固式刀体型号 Side-Fixed Tool Body Model	钻头直径 Drill Bit Diameter	WD连接系统 WD Connection System	倍径 Diameter Multiple	柄径D Shank Diameter D	L1	L2	LS	中心定位销 Center Locating Pin	链接系统锁紧螺丝 Link System Locking Screw	扳手 Wrench
WD45/49-196L-C40	45-49	45	4	40	255	166	70	M5*ø6*15	M5x0.5x10	2.5mm
WD45/49-294L-C40		45	6	40	353	264	70	M5*ø6*15	M5x0.5x10	2.5mm
WD45/49-392L-C40		45	8	40	451	362	70	M5*ø6*15	M5x0.5x10	2.5mm
WD45/49-490L-C40		45	10	40	549	460	70	M5*ø6*15	M5x0.5x10	2.5mm
WD45/49-588L-C40		45	12	40	647	558	70	M5*ø6*15	M5x0.5x10	2.5mm
WD50/55-220L-C50	50-55	50	4	50	283	185	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-330L-C50		50	6	50	393	295	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-440L-C50		50	8	50	503	405	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-550L-C50		50	10	50	613	515	80	M5*ø6*15	M6x0.75x12	3mm
WD50/55-660L-C50		50	12	50	723	625	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-248L-C50	56-62	56	4	50	321	213	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-372L-C50		56	6	50	445	337	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-496L-C50		56	8	50	569	461	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-620L-C50		56	10	50	693	585	80	M5*ø6*15	M6x0.75x12	3mm
WD56/62-744L-C50		56	12	50	817	709	80	M5*ø6*15	M6x0.75x12	3mm
WD63/70-280L-C50	63-70	63	4	50	359	240	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-420L-C50		63	6	50	499	380	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-560L-C50		63	8	50	639	520	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-700L-C50		63	10	50	779	660	80	M6*ø7*17	M6x0.75x12	3mm
WD63/70-840L-C50		63	12	50	919	800	80	M6*ø7*17	M6x0.75x12	3mm
WD71/79-316L-C50	71-79	71	4	50	378	276	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-474L-C50		71	6	50	536	434	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-632L-C50		71	8	50	694	592	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-790L-C50		71	10	50	852	750	80	M6*ø7*17	M8x0.75x15	4mm
WD71/79-948L-C50		71	12	50	1010	908	80	M6*ø7*17	M8x0.75x15	4mm
WD80/89-356L-C50	80-89	80	4	50	421	311	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-534L-C50		80	6	50	599	489	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-712L-C50		80	8	50	777	667	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-890L-C50		80	10	50	955	845	80	M6*ø8*18	M8x0.75x15	4mm
WD80/89-1068L-C50		80	12	50	1133	1023	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-400L-C50	90-100	90	4	50	465	350	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-600L-C50		90	6	50	665	550	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-800L-C50		90	8	50	865	750	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-1000L-C50		90	10	50	1065	950	80	M6*ø8*18	M8x0.75x15	4mm
WD90/100-1200L-C50		90	12.0	50	1265	1150	80	M6*ø8*18	M8x0.75x15	4mm

KS组合钻(A1)刀头系列外刃刀片

Outer edge inserts for KS combined drill (A1) cutter head series

WOMT-WP(波形刃)

WOMT-WP (Wave Edge)



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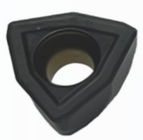
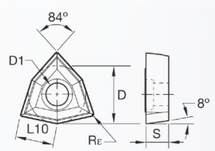
M	○
K	
N	○
S	○
H	

刀片型号 Insert Model	螺丝 Screw	扳手 Wrench	L10	D	D1	S	Rε
WOMT05T308-WP	M3.0*7.2	T8	5.29	8	3.4	3.75	0.8
WOMT06T308-WP	M4.0*10.0	T15	6.62	10	4.4	3.73	0.8
WOMT070408-WP	M4.0*10.0	T15	7.94	12	4.4	4.75	0.8
WOMT090508-WP	M5.0*12.5	T20	9.92	15	5.5	5.25	0.8

WOMT-W(直边刃)

WOMT-W (Straight-edge Blade)





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刀片型号 Insert Model	螺丝 Screw	扳手 Wrench	L10	D	D1	S	Rε
WOMT05T308-W	M3.0*7.2	T8	5.29	8	3.4	3.75	0.8
WOMT06T308-W	M4.0*10.0	T15	6.62	10	4.4	3.73	0.8
WOMT070408-W	M4.0*10.0	T15	7.94	12	4.4	4.75	0.8
WOMT090508-W	M5.0*12.5	T20	9.92	15	5.5	5.25	0.8

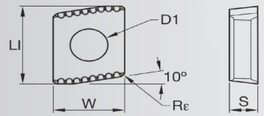
KS组合钻 KS combined drill

KS组合钻(B1) 刀头系列外刃刀片

Outer edge inserts of drill bit series for KS combined drill (B1)

ZPMT-WP(波形刃)

ZPMT-WP (Wave Edge)



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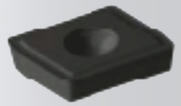
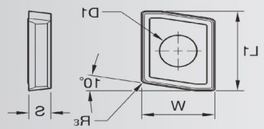
刀片型号 Insert Model	螺丝 Screw	扳手 Wrench	L10	D	D1	S	Rε
ZPMT040310-WP	M2.5*5.9	T8	10	7.6	2.85	3.18	1
ZPMT05T312-WP	M3.0*7.2	T8	12	9.4	3.4	3.75	1.2
ZPMT06T312-WP	M4.0*10.0	T15	16	12.4	4.4	3.75	1.2
ZPMT070416-WP	M4.0*10.0	T15	18	14.5	4.4	4.75	1.6
ZPMT090520-WP	M5.0*12.5	T20	24	19	5.5	5.25	2

ZPMT-W(直边刃)

ZPMT-W (Straight-edge Blade)





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K	●	○
N	○	○
S	○	●
H		

刀片型号 Insert Model	螺丝 Screw	扳手 Wrench	L10	D	D1	S	Rε
ZPMT040310-W	M2.5*5.9	T8	10	7.6	2.85	3.18	1
ZPMT05T312-W	M3.0*7.2	T8	12	9.4	3.4	3.75	1.2
ZPMT06T312-W	M4.0*10.0	T15	16	12.4	4.4	3.75	1.2
ZPMT070416-W	M4.0*10.0	T15	18	14.5	4.4	4.75	1.6
ZPMT090520-W	M5.0*12.5	T20	24	19	5.5	5.25	2

KS组合钻-A1/B1系列 中心刃刀片规格

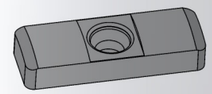
Specification of center edge inserts for KS combined drill - A1/B1 series

型号 Model			钻尖直径 Drill point diameter	匹配刀座 Matching tool holder	中心锁紧螺丝 Center clamping screw	面价 List price
KS1300-C-KPM45-P	KS1300-C-KMS35-S	KS1300-C-K7410-K	13.00	C	M2.5	232
KS1400-B-KPM45-P	KS1400-B-KMS35-S	KS1400-B-K7410-K	14.00	B	M2.5	248
KS1500-A-KPM45-P	KS1500-A-KMS35-S	KS1500-A-K7410-K	15.00	A	M2.5	278
KS1600-1-KPM45-P	KS1600-1-KMS35-S	KS1600-1-K7410-K	16.00	1	M2.5	316
KS1700-1-KPM45-P	KS1700-1-KMS35-S	KS1700-1-K7410-K	17.00	1	M2.5	316
KS1800-1-KPM45-P	KS1800-1-KMS35-S	KS1800-1-K7410-K	18.00	1	M2.5	316
KS1900-2-KPM45-P	KS1900-2-KMS35-S	KS1900-2-K7410-K	19.00	2	M3.0	358
KS2000-3-KPM45-P	KS2000-3-KMS35-S	KS2000-3-K7410-K	20.00	3	M3.0	400
KS2100-3-KPM45-P	KS2100-3-KMS35-S	KS2100-3-K7410-K	21.00	3	M3.0	400
KS2200-3-KPM45-P	KS2200-3-KMS35-S	KS2200-3-K7410-K	22.00	3	M3.0	400
KS2300-4-KPM45-P	KS2300-4-KMS35-S	KS2300-4-K7410-K	23.00	4	M3.0	446
KS2400-4-KPM45-P	KS2400-4-KMS35-S	KS2400-4-K7410-K	24.00	4	M3.0	446
KS2500-5-KPM45-P	KS2500-5-KMS35-S	KS2500-5-K7410-K	25.00	5	M4.0	506
KS2600-5-KPM45-P	KS2600-5-KMS35-S	KS2600-5-K7410-K	26.00	5	M4.0	506
KS2700-6-KPM45-P	KS2700-6-KMS35-S	KS2700-6-K7410-K	27.00	6	M4.0	574
KS2800-6-KPM45-P	KS2800-6-KMS35-S	KS2800-6-K7410-K	28.00	6	M4.0	574
KS2900-7-KPM45-P	KS2900-7-KMS35-S	KS2900-7-K7410-K	29.00	7	M5.0	632
KS3000-7-KPM45-P	KS3000-7-KMS35-S	KS3000-7-K7410-K	30.00	7	M5.0	632
KS3100-8-KPM45-P	KS3100-8-KMS35-S	KS3100-8-K7410-K	31.00	8	M5.0	674
KS3200-8-KPM45-P	KS3200-8-KMS35-S	KS3200-8-K7410-K	32.00	8	M5.0	674
KS3300-9-KPM45-P	KS3300-9-KMS35-S	KS3300-9-K7410-K	33.00	9	M6.0	744
KS3400-9-KPM45-P	KS3400-9-KMS35-S	KS3400-9-K7410-K	34.00	9	M6.0	744

KS组合钻 KS combined drill

KS组合钻-A1/B1系列 导向条刀片规格

Specification of guide strip inserts for KS combined drill - A1/B1 series



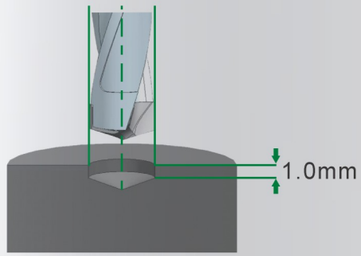
导向条型号 Guide strip model	螺丝 Screw	扳手 Wrench	导向条尺寸 Guide strip size			
			长 Length	宽 Width	厚 Thickness	圆弧尺寸 Arc size
GP04-16-045	M2.2*6.0	T7	16.0	4.0	1.8	4.5
GP05-18-060	M2.2*6.0	T7	18.0	5.0	2.5	6.0
GP06-20-100	M2.5*6.0	T8	20.0	6.0	3.0	10.0
GP07-20-120	M3.0*8.0	T8	20.0	7.0	3.5	12.0
GP08-25-155	M3.0*8.0	T8	25.0	8.0	4.5	15.5
GP10-30-200	M4.0*10.0	T15	30.0	10.0	4.5	20.0

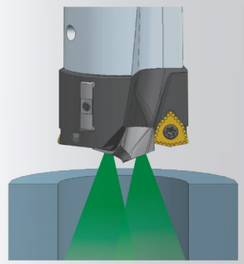
应用推荐

Application recommendations

钻头有效加工深度超过6倍径，建议用KS皇冠钻打导向孔,导向孔的直径和中心刃刀片规格一样

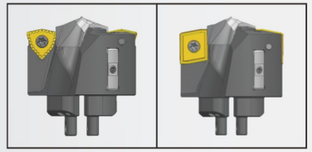
When the effective machining depth of the drill bit is more than 6 times the diameter, it is advisable to use the KS crown drill to drill a guiding hole. The diameter of the guiding hole isidentical to the specification of the center cutting - edge insert.





建议使用内部冷却液

It is recommended to use internal coolant.



应用推荐 Application recommendations	工件形状 Workpiece shape	刀头类型 Tool bit type	
		A1	B1
平面 Flat surface		✓	✓
半圆孔 Semicircular hole		✗	✗
凹面 Concave surface		✗	✗
扩孔 Reaming		✗	✓
堆叠板 Stacked plates		✗	✓
出口是斜面 The outlet is beveled		✓ <3°	✓ 最大15° Maximum 15°
入口是斜面 The inlet is beveled		✓ <3°	✓ <3°
交叉孔 Cross - hole		✗	✓ 最大D1的50% Maximum: 50% of D1

切削参数
Cutting parameters

材料分组 Material Group		切削条件 Condition	切削速度 vc 范围 — m/min Cutting Speed — vc Range — m/min 最小值 Min	初始值 Starting Value	最大值 Max	根据直径推荐进给（fz）Feed recommended (fz) according to the diameter Ø	Ø28.00–32.00	Ø32.00–36.00	Ø36.00–45.00	Ø45.00–56.00	Ø56.00–100.00
P 钢 Steel	1	S	115	235	290	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	90	160	215	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	65	100	140	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
	2	S	90	190	230	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.360	0.200 - 0.400	0.200 - 0.450
		U	71	130	170	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.360	0.200 - 0.400	0.200 - 0.450
		I	50	80	110	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
	3	S	90	180	230	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		U	70	120	170	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		I	50	70	106	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
	4	S	90	140	220	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		U	70	110	160	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		I	50	80	110	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
	5	S	90	130	210	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		U	70	100	150	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		I	50	70	100	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
	6	S	70	90	180	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		U	50	75	120	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
		I	40	60	100	mm/r	0.160 - 0.280	0.160 - 0.280	0.200 - 0.320	0.200 - 0.400	0.200 - 0.450
M 不锈钢 Stainless steel	1	S	60	110	135	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	40	70	90	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	30	50	65	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
	2	S	60	100	135	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	40	60	90	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	30	50	65	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
	3	S	50	90	135	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	40	60	90	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	25	40	65	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360

切削参数
Cutting parameters

材料分组 Material Group		切削条件 Condition	切削速度 vc 范围 — m/min Cutting Speed — vc Range — m/min 最小值 Min	初始值 Starting Value	最大值 Max	根据直径推荐进给（fz）Feed recommended (fz) according to the diameter Ø	Ø28.00–32.00	Ø32.00–36.00	Ø36.00–45.00	Ø45.00–56.00	Ø56.00–100.00
K 铸铁 Cast iron	1	S	90	170	230	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
		U	60	120	160	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
		I	40	70	90	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
	2	S	90	160	220	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
		U	60	110	160	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
		I	40	70	100	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
	3	S	90	150	210	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
		U	60	100	150	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
		I	35	60	90	mm/r	0.180 - 0.300	0.180 - 0.300	0.216 - 0.360	0.240 - 0.420	0.300 - 0.480
S 高温合金 High-temperature alloy	1	S	25	50	75	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	20	40	60	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	15	30	50	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
	2	S	20	40	60	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	15	30	45	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	12	25	35	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
	3	S	20	40	60	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	15	30	45	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	12	25	40	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
	4	S	20	40	60	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		U	15	30	45	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360
		I	12	25	40	mm/r	0.130 - 0.250	0.130 - 0.250	0.160 - 0.280	0.160 - 0.320	0.200 - 0.360

S:稳定工况 S: Stable working conditions
U:一般工况 U: General working conditions
I:不稳定工况 I: Unstable working conditions

U钻的特征和优势

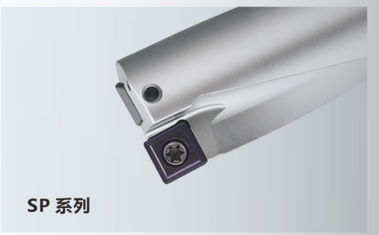
Characteristics and advantages of U drill

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ø10mm~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 U drill and ordinary drill is that U drill 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. Moreover, 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.
- U drill can realize drilling of multi-step holes, and can boring, chamfering and eccentric drilling.
- The drilling cuttings of U drill 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.
- U drill 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

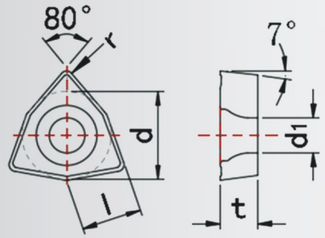
钻头型号编码规则 Drill bit type code rules

SD18-3D-C25

大类 Class	刀杆直径 Tool rod diameter	长径比 Length-diameter ratio	柄径 Shank diameter
SD(WC刀片系列)	18(表示刀杆ø18mm)	2D(直径的2倍)	C20(柄径ø20mm)
SP(SP刀片系列)		3D(直径的3倍)	C25(柄径ø25mm)
		4D(直径的4倍)	C32(柄径ø32mm)
		5D(直径的5倍)	C40(柄径ø40mm)

WCMX 刀片

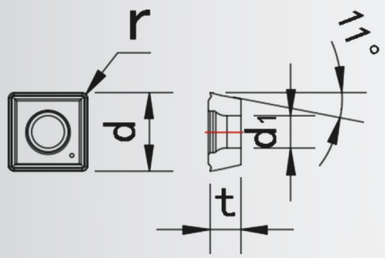
WCMX Insert



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	M1.8X3.8	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

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 and outside groove ratio 6:4, better chip removal.

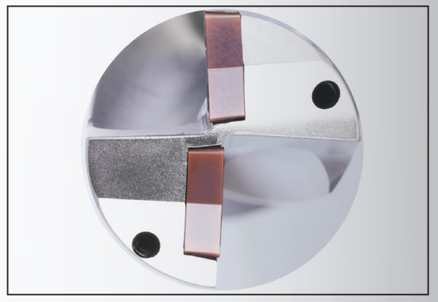
刀片位 The blade position

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.

刀杆刚性 Tool rod rigid

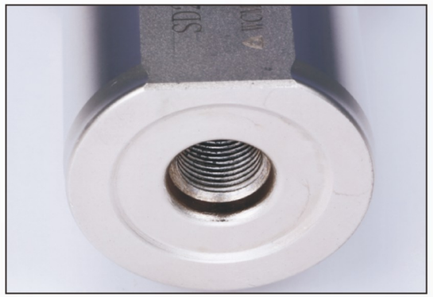
边缘倒角更小，提高刀杆刚性，拥抱式排屑有效保护刀体磨损。
The edge chamfer is smaller, improve the rigidity of the cutter bar, and embrace chip discharge effectively protects the cutter body from wear.

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.

车床油冷接口 Cold connection for lathe oil

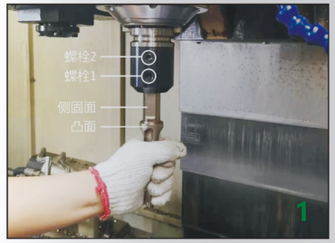


刀柄尾部带管牙螺丝，方便车床接油冷使用。
Handle tail with tube screw, easy to use lathe oil cold.

优秀的断屑控制 Excellent chip breaking control

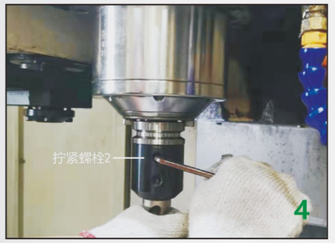
更新后的刀片位角度，断削更优秀。
Updated blade Angle, better cutting.

钻头侧固式刀柄的安装方式
Installation of the bit side - grip

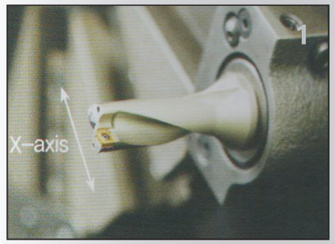


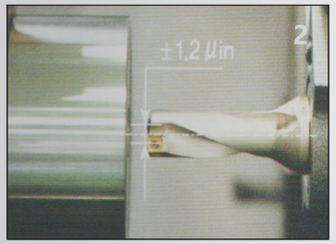
1. 插入钻头时，钻头的侧固面方向和刀柄螺丝方向一致。
2. 将钻头装入刀柄，钻头法兰面与刀柄安装面紧密贴合。
3. 首先拧紧1号螺栓。
4. 下一步拧紧2号螺栓。

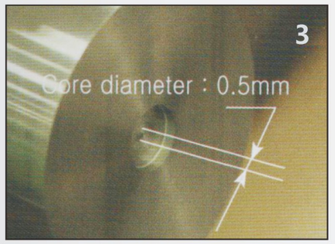
1. Insert the bit in the same direction as the shank screw.
2. Install the drill bit into the tool holder, and the flange surface of the drill bit is closely attached to the mounting surface of the tool holder.
3. Tighten bolt No. 1 first.
4. Next, tighten bolt No. 2.



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)

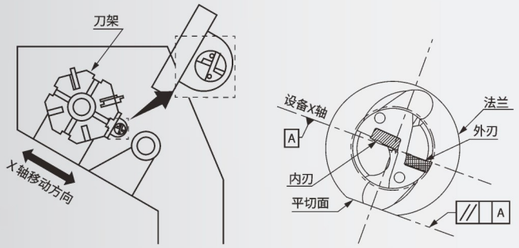


图 1 安装到车床上的状态
FIG. 1 Mounting state on lathe

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°)

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ø20的钻头时，孔径不能小于ø19.8。

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 ø 20 drill bit, the hole diameter should not be less than ø 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)ø20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ø21.1。

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) ø 20 drill, "radius of eccentricity range" is +0.55mm, through the eccentric setting, the maximum hole reaming to ø 21.1.

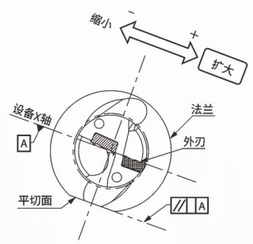


图 2 外刃表面向上时

FIG. 2 When the outer edge surface is upward

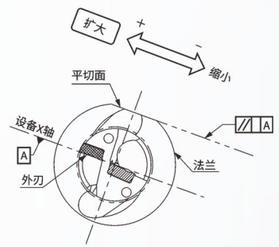


图 3 外刃表面向下时

FIG. 3 When the outer edge surface is downward

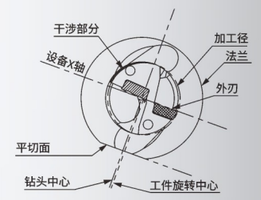


图 4 孔径过时

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

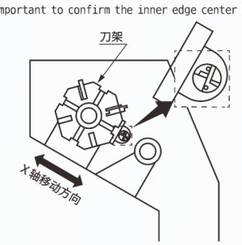
如图 1 所示安装时，内刃中心高设定低于中心0.05mm左右。(图 2)此为标准中心高，设计・制造时，钻头自身的内刃比中心高降低0.05mm左右。

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.



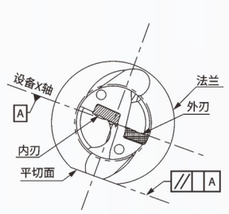


图 1 安装到车床上的状态

FIG. 1 Mounting state on lathe

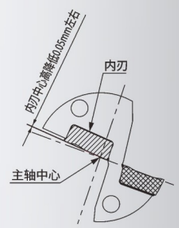


图 2 钻头正面图

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.

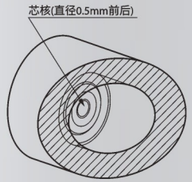


图3 中心芯核

FIG. 3. Core core

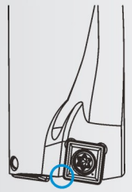


图4 内刃的钻头中心部附近的崩损

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)

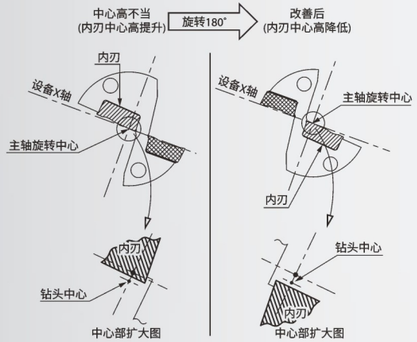


图 5 FIG. 5

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 sideThe 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.

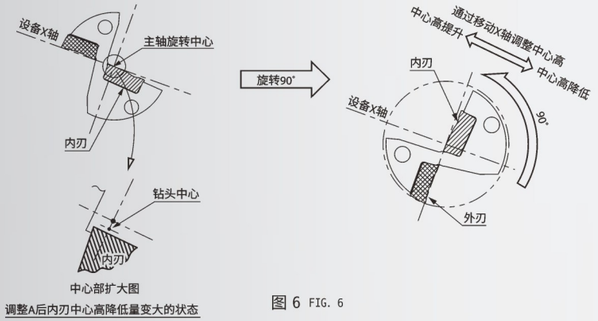


图 6 FIG. 6

安装与使用 Installation and use

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.

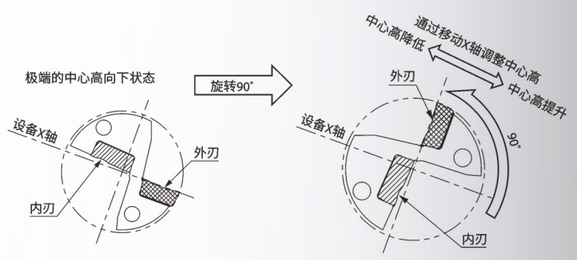
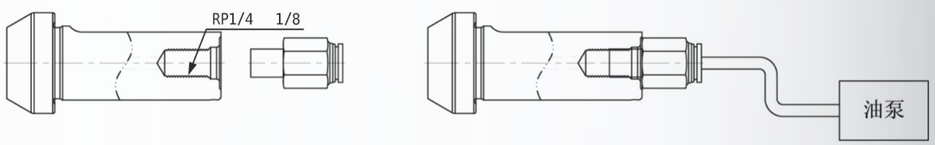


图 7 FIG. 7

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。

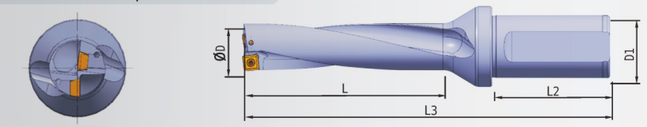
1. Internal cooling can be realized by connecting the drill shank, quick connector, oil hose and oil pump.
2. After pulling out the plug, it can be used in milling machine.

钻头参数 Drilling parameters

钻头公差和孔径公差

Bit tolerance and aperture tolerance

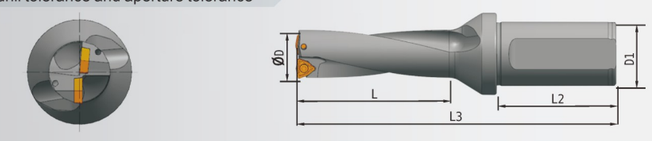
SP系列钻头公差和孔径公差 SP series drill tolerance and aperture tolerance



钻头直径		ø10~ø12	ø12.5~ø21.5	ø22~ø33.5	ø34~ø50.5	ø51~ø60
2D~3D	钻头公差（øD)	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（øD)	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		ø14	ø14.5~ø23.5	ø24~ø30.5	ø31~ø41.5	ø51~ø60
2D~3D	钻头公差（øD)	+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（øD)	+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
ø10-ø12	SPMT040204	SPMT040204	M1.8*3.8	2.4	60	T6
ø12.5-ø16.5	SPMG050204	SPMG050204	M2.2*5	2.7	60	T6
ø16-ø21.5	SPMG060204	SPMG060204	M2.2*6	3	60	T7
ø22-ø27.5	SPMG07T308	SPMG07T308	M2.5*8	3.6	60	T8
ø28-ø33.5	SPMG090408	SPMG090408	M3.5*10	5.2	48	T15
ø34-ø41.5	SPMG110408	SPMG110408	M4*10	5.7	60	T15
ø42-ø50	SPMG140512	SPMG140512	M5*12	6.8	60	T20
ø51-ø55	SPMG07T308	SPMG07T308	M2.5*8	3.6	60	T8
ø56-ø61	SPMG090408	SPMG090408	M3.5*10	5.2	48	T15
ø62-ø70	SPMG110408	SPMG110408	M4*10	5.7	60	T15

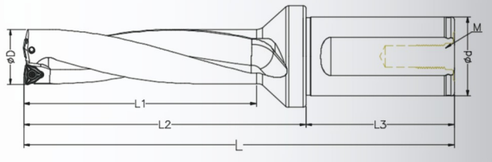
夹紧刀片时，清理刀片位置。 When clamping the blade, clear the position of the blade.

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
ø14	WCMXO30208	WCMXO30208	M2.5*5	3.6	60	T8
ø14.5-ø19.5	WCMXO30208	WCMXO30208	M2.5*6	3.6	60	T8
ø20-ø23.5	WCMXO40208	WCMXO40208	M2.5*6	3.6	60	T8
ø24-ø30.5	WCMTO50308	WCMTO50308	M3*8	4	60	T8
ø31-ø41.5	WCMTO6T308	WCMTO6T308	M3.5*10	5.2	48	T15
ø42-ø60	WCMTO80412	WCMTO80412	M4*10	5.7	60	T15
ø61-ø63	WCMTO50308	WCMTO50308	M3*8	4	60	T8
ø64-ø70	WCMTO6T308	WCMTO6T308	M3.5*10	5.2	48	T15

夹紧刀片时，清理刀片位置。 When clamping the blade, clear the position of the blade.

U钻 U drill

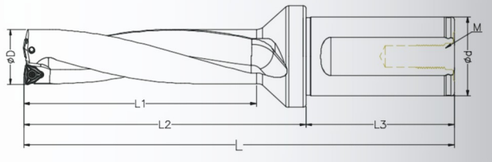


WC刀片 2D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
SD20-2D-C25	20	115.5	42	59.5	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8
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	WCMT 05 03 08	M3.0X8	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			
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					
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	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
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					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	G 1/4	40	WCMT 08 04 12	M4.0X10	T15
SD42.5-2D-C40	42.5	182	87	112	70					
SD43-2D-C40	43	183	88	113	70					
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					
SD61-2D-C40	61	226	122	156	70	G 1/4	40	WCMT 05 03 08	M3.0X8	T8
SD62-2D-C40	62	228	124	158	70					
SD63-2D-C40	63	230	126	160	70					
SD64-2D-C40	64	232	128	162	70					
SD65-2D-C40	65	233.5	132	163.5	70			WCMT 06 T3 08	M3.5X10	T15
SD66-2D-C40	66	236	132	166	70					
SD67-2D-C40	67	238	134	168	70					
SD68-2D-C40	68	240	138	170	70					
SD69-2D-C40	69	242	138	172	70					
SD70-2D-C40	70	232	142	162	70					

U钻 U drill

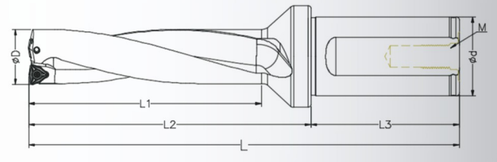


WC刀片 3D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
SD20-3D-C25	20	135.5	62	79.5	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8
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	G 1/8	25	WCMT 05 03 08	M3.0X8	T8
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	G 1/4	32			
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	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
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					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
SD61-3D-C40	61	287	183	217	70	G 1/4	40	WCMT 05 03 08	M3.0X8	T8
SD62-3D-C40	62	290	186	220	70					
SD63-3D-C40	63	293	189	223	70					
SD64-3D-C40	64	296	192	226	70			WCMT 06 T3 08	M3.5X10	T15
SD65-3D-C40	65	298.5	197	228.5	70					
SD66-3D-C40	66	302	198	232	70					
SD67-3D-C40	67	305	201	235	70					
SD68-3D-C40	68	308	206	238	70					
SD69-3D-C40	69	311	207	241	70					
SD70-3D-C40	70	302	212	232	70					

U钻 U drill

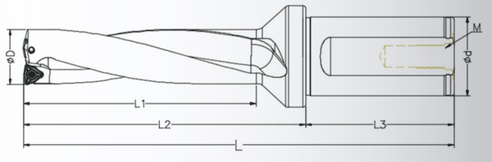


WC刀片 4D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
SD20-4D-C25	20	155.5	82	99.5	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8
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	WCMT 05 03 08	M3.0X8	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			
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					
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	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
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					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
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	G 1/4	40	WCMT 08 04 12	M4.0X10	T15
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					
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					
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					
SD58-4D-C40	58	329	234	259	70					
SD59-4D-C40	59	333	238	263	70					
SD60-4D-C40	60	337	242	267	70					
SD61-4D-C40	61	348	244	278	70	G 1/4	40	WCMT 05 03 08	M3.0X8	T8
SD62-4D-C40	62	352	248	282	70					
SD63-4D-C40	63	356	252	286	70					
SD64-4D-C40	64	360	256	290	70			WCMT 06 T3 08	M3.5X10	T15
SD65-4D-C40	65	363.5	262	293.5	70					
SD66-4D-C40	66	368	264	298	70					
SD67-4D-C40	67	372	268	302	70					
SD68-4D-C40	68	376	274	306	70					
SD69-4D-C40	69	380	276	310	70					
SD70-4D-C40	70	372	282	302	70					

U钻 U drill

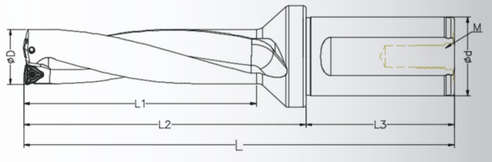


WC刀片 5D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
SD20-5D-C25	20	175.5	102	119.5	56	G 1/8	25	WCMX 04 02 08	M2.5X6	T8
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	G 1/8	25	WCMT 05 03 08	M3.0X8	T8
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	G 1/4	32			
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					
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	G 1/4	32	WCMT 06 T3 08	M3.5X10	T15
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					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
SD61-5D-C40	61	409	305	339	70	G 1/4	40	WCMT 05 03 08	M3.0X8	T8
SD62-5D-C40	62	414	310	343	70					
SD63-5D-C40	63	419	315	349	70					
SD64-5D-C40	64	424	320	354	70			WCMT 06 T3 08	M3.5X10	T15
SD65-5D-C40	65	428.5	327	358.5	70					
SD66-5D-C40	66	434	330	364	70					
SD67-5D-C40	67	439	335	265	70					
SD68-5D-C40	68	444	342	374	70					
SD69-5D-C40	69	449	345	275	70					
SD70-5D-C40	70	442	352	372	70					

U钻 U drill



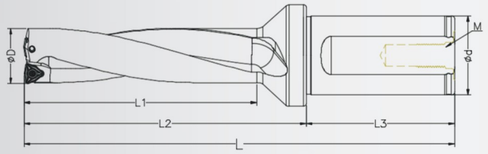
WC刀片 2D-C20

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	WCMX 03 02 08	M2.5X6	T8
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					
SD19.5-2D-C20	19.5	108	41	58	50					
SD20-2D-C20	20	109.5	42	59.5	50	G 1/8	20	WCMX 04 02 08	M2.5X6	T8
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 øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	WCMX 03 02 08	M2.5X6	T8
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					
SD19.5-3D-C20	19.5	127.5	60.5	77.5	50					
SD20-3D-C20	20	129.5	62	79.5	50	G 1/8	20	WCMX 04 02 08	M2.5X6	T8
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



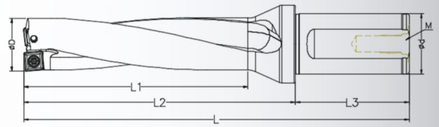
WC刀片 4D-C20

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	WCMX 03 02 08	M2.5X6	T8
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					
SD19.5-4D-C20	19.5	147	80	97	50					
SD20-4D-C20	20	149.5	82	99.5	50	G 1/8	20	WCMX 04 02 08	M2.5X6	T8
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 øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	WCMX 03 02 08	M2.5X6	T8
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					
SD19.5-5D-C20	19.5	166.5	99.5	116.5	50					
SD20-5D-C20	20	169.5	102	119.5	50	G 1/8	20	WCMX 04 02 08	M2.5X6	T8
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

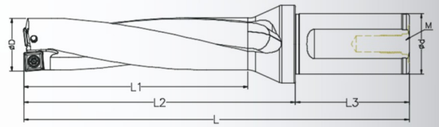


SP刀片 2D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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			
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	G 1/8	25	SPMG 05 02 04	M2.2X5	T6
SP16.5-2D-C25	16.5	112	35	56	56			SPMG 06 02 04	M2.2X6	T7
SP17-2D-C25	17	111	36	55	56	G 1/8	25	SPMG 06 02 04	M2.2X6	T7
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					
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					
SP22-2D-C25	22	121	46	65	56	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
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					
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	G 1/4	32			
SP25.5-2D-C32	25.5	138	53	78	60					
SP26-2D-C32	26	139	54	79	60					
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	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP28.5-2D-C32	28.5	144	59	84	60					
SP29-2D-C32	29	145	60	85	60					
SP29.5-2D-C32	29.5	146	61	86	60					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
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	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP34.5-2D-C32	34.5	157	71	97	60					
SP35-2D-C32	35	158	72	98	60					
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					
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					
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	G 1/4	40	SPMG 14 05 12	M5X12	T20
SP43-2D-C40	43	181	88	111	70					
SP44-2D-C40	44	186	90	116	70					
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					
SP50-2D-C40	50	199	102	129	70					
SP51-2D-C40	51	201	104	131	70	G 1/4	40	SPMG 07 T3 08	M2.5X8	T8
SP52-2D-C40	52	203	106	133	70					
SP53-2D-C40	53	205	108	135	70					
SP54-2D-C40	54	207	110	137	70					
SP55-2D-C40	55	209	112	139	70					
SP56-2D-C40	56	211	114	141	70	G 1/4	40	SPMG 09 04 08	M3.5X10	T15
SP57-2D-C40	57	213	116	143	70					
SP58-2D-C40	58	215	118	145	70					
SP59-2D-C40	59	218	120	148	70					
SP60-2D-C40	60	220	122	150	70					
SP61-2D-C40	61	222	122	152	70					
SP62-2D-C40	62	224	124	154	70	G 1/4	40	SPMG 11 04 08	M4X10	T15
SP63-2D-C40	63	226	126	156	70					
SP64-2D-C40	64	228	128	158	70					
SP65-2D-C40	65	230	130	160	70					
SP66-2D-C40	66	233	132	163	70					
SP67-2D-C40	67	234	134	164	70					
SP68-2D-C40	68	236	136	166	70					
SP69-2D-C40	69	238	138	168	70					
SP70-2D-C40	70	240	140	170	70					

U钻 U drill

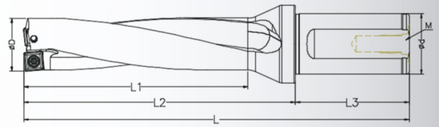


SP刀片 3D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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			
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	G 1/8	25	SPMG 05 02 04	M2.2X5	T6
SP16.5-3D-C25	16.5	128.5	51.5	72.5	56			SPMG 06 02 04	M2.2X6	T7
SP17-3D-C25	17	128	53	72	56	G 1/8	25	SPMG 06 02 04	M2.2X6	T7
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					
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					
SP22-3D-C25	22	143	68	87	56	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
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					
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	G 1/4	32			
SP25.5-3D-C32	25.5	163.5	78.5	103.5	60					
SP26-3D-C32	26	165	80	105	60					
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	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP28.5-3D-C32	28.5	172.5	87.5	122.5	60					
SP29-3D-C32	29	174	89	114	60					
SP29.5-3D-C32	29.5	175.5	90.5	115.5	60					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
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	G 1/4	32	SPMG 11 04 08	M4X10	T15
SP34.5-3D-C32	34.5	191.5	105.5	131.5	60					
SP35-3D-C32	35	193	107	133	60					
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					
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					
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	G 1/4	40	SPMG 14 05 12	M5X12	T20
SP43-3D-C40	43	224	131	154	70					
SP44-3D-C40	44	230	134	160	70					
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					
SP50-3D-C40	50	249	152	179	70					
SP51-3D-C40	51	252	155	182	70	G 1/4	40	SPMG 07 T3 08	M2.5X8	T8
SP52-3D-C40	52	255	158	185	70					
SP53-3D-C40	53	258	161	188	70					
SP54-3D-C40	54	261	164	191	70					
SP55-3D-C40	55	264	167	194	70					
SP56-3D-C40	56	267	170	197	70	G 1/4	40	SPMG 09 04 08	M3.5X10	T15
SP57-3D-C40	57	270	173	200	70					
SP58-3D-C40	58	273	176	203	70					
SP59-3D-C40	59	277	179	207	70					
SP60-3D-C40	60	280	182	210	70					
SP61-3D-C40	61	283	183	213	70					
SP62-3D-C40	62	286	186	216	70	G 1/4	40	SPMG 11 04 08	M4X10	T15
SP63-3D-C40	63	289	189	219	70					
SP64-3D-C40	64	292	192	222	70					
SP65-3D-C40	65	295	195	225	70					
SP66-3D-C40	66	299	198	229	70					
SP67-3D-C40	67	301	201	231	70					
SP68-3D-C40	68	304	204	234	70					
SP69-3D-C40	69	307	207	237	70					
SP70-3D-C40	70	310	210	240	70					

U钻 U drill

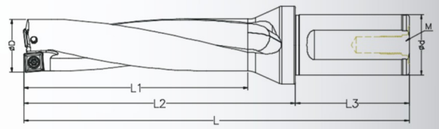


SP刀片 4D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	G 1/8	25			
SP14.5-4D-C25	14.5	137	60	81	56					
SP15-4D-C25	15	139	62	83	56					
SP15.5-4D-C25	15.5	141	64	85	56					
SP16-4D-C25	16	143	66	87	56	G 1/8	25	SPMG 05 02 04	M2.2X5	T6
SP16.5-4D-C25	16.5	145	68	89	56			SPMG 06 02 04	M2.2X6	T7
SP17-4D-C25	17	145	70	89	56	G 1/8	25	SPMG 06 02 04	M2.2X6	T7
SP17.5-4D-C25	17.5	147	72	91	56					
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					
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	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
SP22.5-4D-C25	22.5	167	92	111	56					
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					
SP25-4D-C32	25	187	102	127	60	G 1/4	32			
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					
SP27.5-4D-C32	27.5	197	112	137	60					
SP28-4D-C32	28	199	114	139	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
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					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
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 14 05 12	M5X12	T20
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					
SP51-4D-C40	51	303	206	233	70	G 1/4	40	SPMG 07 T3 08	M2.5X8	T8
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	G 1/4	40	SPMG 09 04 08	M3.5X10	T15
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					
SP61-4D-C40	61	344	244	274	70					
SP62-4D-C40	62	348	248	278	70	G 1/4	40	SPMG 11 04 08	M4X10	T15
SP63-4D-C40	63	352	252	282	70					
SP64-4D-C40	64	356	256	286	70					
SP65-4D-C40	65	360	260	290	70					
SP66-4D-C40	66	365	264	295	70					
SP67-4D-C40	67	368	268	298	70					
SP68-4D-C40	68	372	272	302	70					
SP69-4D-C40	69	376	276	306	70					
SP70-4D-C40	70	380	280	310	70					

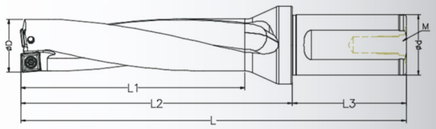
U钻 U drill



SP刀片 5D

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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			
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					
SP16-5D-C25	16	159	82	103	56	G 1/8	25	SPMG 05 02 04	M2.2X5	T6
SP16.5-5D-C25	16.5	161.5	84.5	105.5	56			SPMG 06 02 04	M2.2X6	T7
SP17-5D-C25	17	162	87	106	56	G 1/8	25	SPMG 06 02 04	M2.2X6	T7
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					
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					
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					
SP22-5D-C25	22	187	112	131	56	G 1/8	25	SPMG 07 T3 08	M2.5X8	T8
SP22.5-5D-C25	22.5	189.5	114.5	133.5	56					
SP23-5D-C25	23	192	117	136	56					
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					
SP25-5D-C25	25	203	127	147	56					
SP25-5D-C32	25	212	127	152	60	G 1/4	32			
SP25.5-5D-C32	25.5	214.5	129.5	154.5	60					
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					
SP27.5-5D-C32	27.5	224.5	139.5	164.5	60					
SP28-5D-C32	28	227	142	167	60	G 1/4	32	SPMG 09 04 08	M3.5X10	T15
SP28.5-5D-C32	28.5	229.5	144.5	169.5	60					
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					
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					
SP32-5D-C32	32	244	162	184	60					

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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					
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					
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					
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					
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					
SP46-5D-C40	46	329	232	259	70					
SP47-5D-C40	47	334	237	264	70					
SP48-5D-C40	48	339	242	269	70					
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					
SP55-5D-C40	55	374	277	304	70					
SP56-5D-C40	56	379	282	309	70	G 1/4	40	SPMG 09 04 08	M3.5X10	T15
SP57-5D-C40	57	384	287	314	70					
SP58-5D-C40	58	389	292	319	70					
SP59-5D-C40	59	395	297	325	70					
SP60-5D-C40	60	400	302	330	70					
SP61-5D-C40	61	405	305	335	70					
SP62-5D-C40	62	410	310	340	70	G 1/4	40	SPMG 11 04 08	M4X10	T15
SP63-5D-C40	63	415	315	345	70					
SP64-5D-C40	64	420	320	350	70					
SP65-5D-C40	65	425	325	355	70					
SP66-5D-C40	66	431	330	361	70					
SP67-5D-C40	67	435	335	365	70					
SP68-5D-C40	68	440	340	370	70					
SP69-5D-C40	69	445	345	375	70					
SP70-5D-C40	70	450	350	380	70					

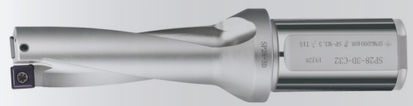


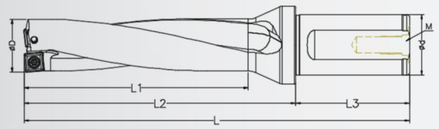
SP刀片 2D-C20

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	G 1/8	20	SPMG 06 02 04	M2.2X6	T7
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					
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	G 1/8	20	SPMG 07 T3 08	M2.5X8	T8
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					

SP刀片 3D-C20

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	G 1/8	20	SPMG 06 02 04	M2.2X6	T7
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					
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	G 1/8	20	SPMG 07 T3 08	M2.5X8	T8
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					





SP刀片 4D-C20

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	G 1/8	20	SPMG 06 02 04	M2.2X6	T7
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					
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	G 1/8	20	SPMG 07 T3 08	M2.5X8	T8
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					

SP刀片 5D-C20

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	ød	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
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	G 1/8	20	SPMG 06 02 04	M2.2X6	T7
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					
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	G 1/8	20	SPMG 07 T3 08	M2.5X8	T8
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					

U钻 2D

钻头直径	建议主轴功率	低碳钢 S10C-S25C	中碳钢 SS30C-S50C	结构钢 SS,SM	铸铁 FC,FCD	合金钢 SCr,SCM	工具钢 H13,SKD	不锈钢 SUS	铝合金
ø10～ø12	5.5千瓦以上	S3000-S2500	S3000-S2500	S2800-S2300	S2800-S2300	S2600-S2100	S2600-S2100	S2500-S2000	S3000-S2500
		Fz 0.02-0.03	Fz 0.02-0.03	Fz 0.02-0.03	Fz 0.02-0.03	Fz 0.02-0.03	Fz 0.02-0.03	Fz 0.02-0.03	Fz 0.02-0.03
		F 40-80	F 40-80	F 35-75	F 35-75	F 35-70	F 35-70	F 30-65	F 50-90
ø12.5～ø15.5	5.5千瓦以上	S1800-S1500	S1800-S1500	S1800-S1500	S2000-S1700	S1500-S1200	S1500-S1200	S1500-S1300	S2000-S1700
		Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07
		F 60-90	F 60-90	F 60-90	F 70-140	F 50-90	F 50-90	F 40-80	F 70-140
ø16～ø18.5	7.5千瓦以上BT40	S1600-S1300	S1600-S1300	S1600-S1300	S1700-S1500	S1500-S1200	S1500-S1200	S1400-S1200	S1700-S1500
		Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1
		F 70-100	F 70-100	F 70-100	F 90-160	F 85-120	F 85-120	F 50-90	F 90-160
ø19～ø21.5	7.5千瓦以上BT40	S1500-S1200	S1500-S1200	S1500-S1200	S1600-S1300	S1400-S1100	S1400-S1100	S1300-S1100	S1600-S1300
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.1-0.12
		F 80-120	F 80-120	F 80-120	F 100-180	F 75-130	F 75-130	F 55-90	F 100-180
ø22～ø24.5	7.5千瓦以上BT40	S1400-S1100	S1400-S1100	S1400-S1100	S1500-S1200	S1300-S1000	S1300-S1000	S1200-S1000	S1500-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.1-0.12
		F 90-130	F 90-130	F 90-130	F 100-170	F 80-130	F 80-130	F 55-90	F 100-170
ø25～ø28.5	7.5千瓦以上BT40	S1400-S1100	S1400-S1100	S1400-S1100	S1500-S1200	S1300-S1000	S1300-S1000	S1100-S900	S1500-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 100-140	F 100-140	F 100-140	F 90-160	F 90-120	F 90-120	F 60-100	F 90-160
ø29～ø30.5	7.5千瓦以上BT40	S1100-S850	S1100-S850	S1100-S850	S1300-S1000	S1000-S800	S1000-S800	S900-S700	S1300-S1000
		Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13
		F 85-140	F 85-140	F 85-140	F 90-150	F 80-100	F 80-100	F 60-90	F 90-150
ø31～ø35.5	11千瓦以上 BT50主轴	S900-S700	S900-S700	S900-S700	S1200-S900	S800-S600	S800-S600	S800-S600	S1200-S900
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12
		F 70-110	F 70-110	F 70-110	F 80-140	F 60-75	F 60-75	F 60-80	F 80-140
ø36～ø39.5	11千瓦以上 BT50主轴	S900-S700	S900-S700	S900-S700	S1000-S700	S700-S600	S700-S600	S800-S600	S1000-S700
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12
		F 70-100	F 70-100	F 70-100	F 70-120	F 60-75	F 60-75	F 50-75	F 70-120
ø40～ø42.5	11千瓦以上 BT50主轴	S850-S650	S850-S650	S850-S650	S1000-S700	S650-S550	S650-S550	S700-S550	S1000-S700
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 65-90	F 65-90	F 65-90	F 65-110	F 55-65	F 55-65	F 45-70	F 65-110
ø43～ø45.5	15千瓦以上/带齿轮头	S700-S600	S700-S600	S700-S600	S900-S600	S650-S550	S650-S550	S650-S550	S900-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-85	F 50-85	F 50-85	F 60-110	F 55-65	F 55-65	F 40-65	F 60-110
ø46～ø50.5	15千瓦以上/带齿轮头	S650-S550	S650-S550	S650-S550	S800-S600	S600-S500	S600-S500	S600-S500	S800-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 60-100	F 40-60	F 40-60	F 40-60	F 60-100
ø51～ø55.5	15千瓦以上/带齿轮头	S650-S500	S650-S500	S650-S500	S700-S500	S550-S500	S550-S500	S550-S500	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 50-90	F 40-60	F 40-60	F 40-60	F 50-90
ø56～ø60	15千瓦以上/带齿轮头	S600-S500	S600-S500	S600-S500	S700-S500	S550-S450	S550-S450	S550-S450	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 50-90	F 40-55	F 40-55	F 35-50	F 50-90

备注： S=转速　Fz= 每转进刀量　F=进给

・初始钻削时，推荐采用中间范围切削数值，之后(根据刀具磨损情况)调整切削参数以达到最佳切削效果。

・上述切削参数，是针对2D，3D类型而言，如对4D类型的钻削参数应相应降低15%。

・冷却方式仅采用外冷时，切削速度应降低10%。

・对于奥氏体不锈钢加工，必需采用内冷却方式。

・在斜面上开始钻孔或零件有预钻孔及相贯孔或钻削堆叠的多层板材时，进给量须减小到推荐值的1/3左右。

・Initial drilling, to recommend the use of cutting conditions in the middle range, followedby (in accordance with wear) to adjust the cutting Parameters to achieve the best cuttingeffect.

・The above cutting parameters is for 3D, 4D drilling tools, the cutting parameters need to decrease 15%.

・Cooling mode using only cold outside, cutting speed should be reduced by 10%

・lt must adopt inner cooling mode for austenitic stainless steel maching.

・Diling onthe slope or the parts have pre-drilingihole or intersection hole, The drilling feedrate must decrease to 1/3 of the recommended data.

U钻 3D

钻头直径	建议主轴功率	低碳钢 S10C-S25C	中碳钢 SS30C-S50C	结构钢 SS,SM	铸铁 FC,FCD	合金钢 SCr,SCM	工具钢 H13,SKD	不锈钢 SUS	铝合金
ø10～ø12	5.5千瓦以上	S3200-S2600	S3200-S2600	S3000-S2500	S3000-S2500	S2800-S2200	S2800-S2200	S2600-S2000	S3000-S2500
		Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.03
		F 40-65	F 40-65	F 35-60	F 35-60	F 30-55	F 30-55	F 30-50	F 40-70
ø12.5～ø15.5	5.5千瓦以上	S1800-S1500	S1800-S1500	S1800-S1500	S2000-S1700	S1400-S1200	S1400-S1200	S1500-S1300	S2000-S1700
		Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.03-0.06	Fz 0.03-0.06	Fz 0.04-0.07	Fz 0.04-0.07
		F 60-90	F 60-90	F 60-90	F 70-140	F 40-90	F 40-90	F 40-80	F 70-140
ø16～ø18.5	7.5千瓦以上	S1600-S1300	S1600-S1300	S1600-S1300	S1700-S1500	S1400-S1100	S1400-S1100	S1400-S1200	S1700-S1500
		Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.06-0.1	Fz 0.06-0.1	Fz 0.07-0.1	Fz 0.07-0.1
		F 70-100	F 70-100	F 70-100	F 90-160	F 65-110	F 65-110	F 50-90	F 90-160
ø19～ø21.5	7.5千瓦以上	S1500-S1200	S1500-S1200	S1500-S1200	S1600-S1300	S1300-S1000	S1300-S1000	S1300-S1100	S1600-S1300
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.07-0.1	Fz 0.1-0.12
		F 80-120	F 80-120	F 80-120	F 100-180	F 80-100	F 80-100	F 55-90	F 100-180
ø22～ø24.5	7.5千瓦以上	S1400-S1100	S1400-S1100	S1400-S1100	S1500-S1200	S1200-S900	S1200-S900	S1200-S1000	S1500-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.10	Fz 0.1-0.12
		F 90-130	F 90-130	F 90-130	F 100-170	F 70-90	F 70-90	F 55-90	F 100-170
ø25～ø28.5	7.5千瓦以上	S1400-S1100	S1400-S1100	S1400-S1100	S1500-S1200	S1200-S900	S1200-S900	S1100-S900	S1500-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 100-140	F 100-140	F 100-140	F 90-160	F 72-110	F 72-110	F 60-100	F 90-160
ø29～ø30.5	7.5千瓦以上	S1100-S850	S1100-S850	S1100-S850	S1300-S1000	S1000-S800	S1000-S800	S900-S700	S1300-S1000
		Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.1-0.13	Fz 0.1-0.13	Fz 0.10-0.13	Fz 0.10-0.13
		F 85-140	F 85-140	F 85-140	F 90-150	F 80-100	F 80-100	F 60-90	F 90-150
ø31～ø35.5	11千瓦以上	S900-S700	S900-S700	S900-S700	S1200-S900	S800-S600	S800-S600	S800-S600	S1200-S900
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.10-0.12	Fz 0.10-0.12
		F 70-110	F 70-110	F 70-110	F 80-140	F 50-60	F 50-60	F 60-80	F 80-140
ø36～ø39.5	11千瓦以上	S900-S700	S900-S700	S900-S700	S1000-S700	S700-S600	S700-S600	S800-S600	S1000-S700
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.10-0.12	Fz 0.10-0.12
		F 70-100	F 70-100	F 70-100	F 70-120	F 50-75	F 50-75	F 50-75	F 70-120
ø40～ø42.5	11千瓦以上	S850-S650	S850-S650	S850-S650	S1000-S700	S650-S550	S650-S550	S700-S550	S1000-S700
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 65-90	F 65-90	F 65-90	F 65-110	F 50-65	F 50-65	F 45-70	F 65-110
ø43～ø45.5	15千瓦以上/带齿轮头	S700-S600	S700-S600	S700-S600	S900-S600	S650-S550	S650-S550	S650-S550	S900-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-85	F 50-85	F 50-85	F 60-110	F 50-65	F 50-65	F 40-65	F 60-110
ø46～ø50.5	15千瓦以上/带齿轮头	S650-S550	S650-S550	S650-S550	S800-S600	S600-S500	S600-S500	S600-S500	S800-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 60-100	F 50-60	F 50-60	F 40-60	F 60-100
ø51～ø55.5	15千瓦以上/带齿轮头	S650-S500	S650-S500	S650-S500	S700-S500	S550-S500	S550-S500	S550-S500	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 50-90	F 50-60	F 50-60	F 40-60	F 50-90
ø56～ø60	15千瓦以上/带齿轮头	S600-S500	S600-S500	S600-S500	S700-S500	S550-S450	S550-S450	S550-S450	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 50-90	F 45-55	F 45-55	F 35-50	F 50-90

备注： S=转速　Fz= 每转进刀量　F=进给

・初始钻削时，推荐采用中间范围切削数值，之后(根据刀具磨损情况)调整切削参数以达到最佳切削效果。

・上述切削参数，是针对2D，3D类型而言，如对4D类型的钻削参数应相应降低15%。

・冷却方式仅采用外冷时，切削速度应降低10%。

・对于奥氏体不锈钢加工，必需采用内冷却方式。

・在斜面上开始钻孔或零件有预钻孔及相贯孔或钻削堆叠的多层板材时，进给量须减小到推荐值的1/3左右。

・Initial drilling, to recommend the use of cutting conditions in the middle range, followedby (in accordance with wear) to adjust the cutting Parameters to achieve the best cuttingeffect.

・The above cutting parameters is for 3D, 4D drilling tools, the cutting parameters need to decrease 15%.

・Cooling mode using only cold outside, cutting speed should be reduced by 10%

・lt must adopt inner cooling mode for austenitic stainless steel maching.

・Diling onthe slope or the parts have pre-drilingihole or intersection hole, The drilling feedrate must decrease to 1/3 of the recommended data.

U钻 4D

钻头直径	建议主轴功率	低碳钢 S10C-S25C	中碳钢 SS30C-S50C	结构钢 SS,SM	铸铁 FC,FCD	合金钢 SCr,SCM	工具钢 H13,SKD	不锈钢 SUS	铝合金
ø10～ø12	5.5千瓦以上	S3500-S2800	S3500-S2800	S3300-S2600	S3300-S2600	S3200-S2500	S3200-S2500	S3000-S2400	S3300-S2600
		Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02	Fz 0.015-0.02
		F 40-65	F 40-65	F 35-60	F 35-60	F 40-60	F 40-60	F 35-50	F 40-60
ø12.5～ø15.5	5.5千瓦以上	S1800-S1500	S1800-S1500	S1800-S1500	S1800-S1600	S1300-S1200	S1300-S1200	S1300-S1100	S1800-S1600
		Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.03-0.05	Fz 0.03-0.05	Fz 0.04-0.07	Fz 0.04-0.07
		F 50-80	F 50-80	F 50-80	F 60-120	F 35-60	F 35-60	F 40-80	F 60-120
ø16～ø18.5	7.5千瓦以上	S1600-S1300	S1600-S1300	S1600-S1300	S1600-S1400	S1300-S1100	S1300-S1100	S1300-S1100	S1600-S1400
		Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.05-0.07	Fz 0.05-0.07	Fz 0.07-0.1	Fz 0.07-0.1
		F 60-90	F 60-90	F 60-90	F 80-120	F 55-80	F 55-80	F 50-90	F 80-120
ø19～ø21.5	7.5千瓦以上	S1500-S1200	S1500-S1200	S1500-S1200	S1500-S1300	S1200-S900	S1200-S900	S1200-S900	S1500-S1300
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.1-0.12
		F 70-110	F 70-110	F 70-110	F 90-130	F 65-90	F 65-90	F 55-85	F 90-130
ø22～ø24.5	7.5千瓦以上	S1400-S1100	S1400-S1100	S1400-S1100	S1500-S1200	S1200-S800	S1200-S800	S1200-S800	S1500-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.10	Fz 0.1-0.12
		F 80-100	F 80-100	F 80-100	F 90-150	F 65-80	F 65-80	F 55-80	F 90-150
ø25～ø28.5	7.5千瓦以上	S1400-S1100	S1400-S1100	S1400-S1100	S1400-S1200	S1100-S800	S1100-S800	S1000-S800	S1400-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 90-130	F 90-130	F 90-130	F 90-140	F 65-80	F 65-80	F 55-80	F 90-140
ø29～ø30.5	7.5千瓦以上	S1100-S850	S1100-S850	S1100-S850	S1300-S1000	S900-S700	S900-S700	S900-S700	S1300-S1000
		Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.10-0.13	Fz 0.10-0.13
		F 80-120	F 80-120	F 80-120	F 90-150	F 65-70	F 65-70	F 60-80	F 90-150
ø31～ø35.5	11千瓦以上	S900-S700	S900-S700	S900-S700	S1200-S1000	S700-S550	S700-S550	S800-S600	S1200-S1000
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.07-0.09	Fz 0.07-0.09	Fz 0.10-0.12	Fz 0.10-0.12
		F 60-100	F 60-100	F 60-100	F 80-130	F 40-50	F 40-50	F 60-80	F 80-130
ø36～ø39.5	11千瓦以上	S900-S700	S900-S700	S900-S700	S1100-S900	S700-S500	S700-S500	S800-S600	S1100-S900
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.10-0.12	Fz 0.10-0.12
		F 60-90	F 60-90	F 60-90	F 70-120	F 40-50	F 40-50	F 50-75	F 70-120
ø40～ø42.5	11千瓦以上	S850-S650	S850-S650	S850-S650	S900-S700	S650-S550	S650-S550	S700-S550	S900-S700
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 55-80	F 55-80	F 55-80	F 60-110	F 45-55	F 45-55	F 45-70	F 60-110
ø43～ø45.5	15千瓦以上/带齿轮头	S700-S600	S700-S600	S700-S600	S800-S600	S650-S550	S650-S550	S650-S550	S800-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 55-100	F 45-55	F 45-55	F 40-60	F 55-100
ø46～ø50.5	15千瓦以上/带齿轮头	S650-S550	S650-S550	S650-S550	S800-S600	S600-S500	S600-S500	S600-S500	S800-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 45-70	F 45-70	F 45-70	F 55-90	F 45-50	F 45-50	F 40-50	F 55-90
ø51～ø55.5	15千瓦以上/带齿轮头	S650-S500	S650-S500	S650-S500	S700-S500	S550-S500	S550-S500	S550-S500	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 45-70	F 45-70	F 45-70	F 45-80	F 40-50	F 40-50	F 35-50	F 45-80
ø56～ø60	15千瓦以上/带齿轮头	S600-S500	S600-S500	S600-S500	S700-S500	S550-S450	S550-S450	S550-S450	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 40-70	F 40-70	F 40-70	F 45-80	F 35-45	F 35-45	F 35-45	F 45-80

备注： S=转速　Fz= 每转进刀量　F=进给

・初始钻削时，推荐采用中间范围切削数值，之后(根据刀具磨损情况)调整切削参数以达到最佳切削效果。

・冷却方式仅采用外冷时，切削速度应降低10%。

・对于奥氏体不锈钢加工，必需采用内冷却方式。

・在斜面上开始钻孔或零件有预钻孔及相贯孔或钻削堆叠的多层板材时，进给量须减小到推荐值的1/3左右。

・Initial drilling, to recommend the use of cutting conditions in the middle range, followedby (in accordance with wear) to adjust the cutting Parameters to achieve the best cuttingeffect.

・Cooling mode using only cold outside, cutting speed should be reduced by 10%

・lt must adopt inner cooling mode for austenitic stainless steel maching.

・Diling onthe slope or the parts have pre-drilingihole or intersection hole, The drilling feedrate must decrease to 1/3 of the recommended data.

切削参数 Cutting parameters

U钻 5D

钻头直径	建议主轴功率	低碳钢 S10C-S25C	中碳钢 SS30C-S50C	结构钢 SS,SM	铸铁 FC,FCD	合金钢 SCr,SCM	工具钢 H13,SKD	不锈钢 SUS	铝合金
ø10～ø12	5.5千瓦以上	S3600-S3000	S3600-S3000	S3500-S3000	S3500-S3000	S3400-S2800	S3400-S2800	S3200-S2800	S3600-S3000
		Fz 0.01-0.02	Fz 0.01-0.02	Fz 0.01-0.02	Fz 0.01-0.02	Fz 0.01-0.02	Fz 0.01-0.02	Fz 0.01-0.02	Fz 0.01-0.02
		F 30-65	F 30-65	F 30-70	F 30-70	F 30-60	F 25-60	F 25-55	F 30-70
ø12.5～ø15.5	5.5千瓦以上	S1800-S1500	S1800-S1500	S1800-S1500	S1800-S1600	S1300-S1200	S1300-S1200	S1300-S1100	S1800-S1600
		Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.04-0.07	Fz 0.03-0.05	Fz 0.03-0.05	Fz 0.04-0.07	Fz 0.04-0.07
		F 50-80	F 50-80	F 50-80	F 60-120	F 35-60	F 35-60	F 40-80	F 60-120
ø16～ø18.5	7.5千瓦以上	S1600-S1300	S1600-S1300	S1600-S1300	S1600-S1400	S1300-S1100	S1300-S1100	S1300-S1100	S1600-S1400
		Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.05-0.07	Fz 0.05-0.07	Fz 0.07-0.1	Fz 0.07-0.1
		F 60-90	F 60-90	F 60-90	F 80-120	F 55-80	F 55-80	F 50-90	F 80-120
ø19～ø21.5	7.5千瓦以上	S1500-S1200	S1500-S1200	S1500-S1200	S1500-S1300	S1200-S900	S1200-S900	S1200-S900	S1500-S1300
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.1-0.12
		F 70-110	F 70-110	F 70-110	F 90-130	F 65-90	F 65-90	F 55-85	F 90-130
ø22～ø24.5	7.5千瓦以上	S1400-S1100	S1400-S1100	S1400-S1100	S1500-S1200	S1200-S800	S1200-S800	S1200-S800	S1500-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.10	Fz 0.1-0.12
		F 80-100	F 80-100	F 80-100	F 90-150	F 65-80	F 65-80	F 55-80	F 90-150
ø25～ø28.5	7.5千瓦以上	S1400-S1100	S1400-S1100	S1400-S1100	S1400-S1200	S1100-S800	S1100-S800	S1000-S800	S1400-S1200
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 90-130	F 90-130	F 90-130	F 90-140	F 65-80	F 65-80	F 55-80	F 90-140
ø29～ø30.5	7.5千瓦以上	S1100-S850	S1100-S850	S1100-S850	S1300-S1000	S900-S700	S900-S700	S900-S700	S1300-S1000
		Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.10-0.13	Fz 0.10-0.13
		F 80-120	F 80-120	F 80-120	F 90-150	F 65-70	F 65-70	F 60-80	F 90-150
ø31～ø35.5	11千瓦以上	S900-S700	S900-S700	S900-S700	S1200-S1000	S700-S550	S700-S550	S800-S600	S1200-S1000
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.07-0.09	Fz 0.07-0.09	Fz 0.10-0.12	Fz 0.10-0.12
		F 60-100	F 60-100	F 60-100	F 80-130	F 40-50	F 40-50	F 60-80	F 80-130
ø36～ø39.5	11千瓦以上	S900-S700	S900-S700	S900-S700	S1100-S900	S700-S500	S700-S500	S800-S600	S1100-S900
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.10-0.12	Fz 0.10-0.12
		F 60-90	F 60-90	F 60-90	F 70-120	F 40-50	F 40-50	F 50-75	F 70-120
ø40～ø42.5	11千瓦以上	S850-S650	S850-S650	S850-S650	S900-S700	S650-S550	S650-S550	S700-S550	S900-S700
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 55-80	F 55-80	F 55-80	F 60-110	F 45-55	F 45-55	F 45-70	F 60-110
ø43～ø45.5	15千瓦以上/带齿轮头	S700-S600	S700-S600	S700-S600	S800-S600	S650-S550	S650-S550	S650-S550	S800-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 50-80	F 50-80	F 50-80	F 55-100	F 45-55	F 45-55	F 40-60	F 55-100
ø46～ø50.5	15千瓦以上/带齿轮头	S650-S550	S650-S550	S650-S550	S800-S600	S600-S500	S600-S500	S600-S500	S800-S600
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 45-70	F 45-70	F 45-70	F 55-90	F 45-50	F 45-50	F 40-50	F 55-90
ø51～ø55.5	15千瓦以上/带齿轮头	S650-S500	S650-S500	S650-S500	S700-S500	S550-S500	S550-S500	S550-S500	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 45-70	F 45-70	F 45-70	F 45-80	F 40-50	F 40-50	F 35-50	F 45-80
ø56～ø60	15千瓦以上/带齿轮头	S600-S500	S600-S500	S600-S500	S700-S500	S550-S450	S550-S450	S550-S450	S700-S500
		Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12
		F 40-70	F 40-70	F 40-70	F 45-80	F 35-45	F 35-45	F 35-45	F 45-80

备注： S=转速　Fz= 每转进刀量　F=进给

・初始钻削时，推荐采用中间范围切削数值，之后(根据刀具磨损情况)调整切削参数以达到最佳切削效果。

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・对于奥氏体不锈钢加工，必需采用内冷却方式。

・在斜面上开始钻孔或零件有预钻孔及相贯孔或钻削堆叠的多层板材时，进给量须减小到推荐值的1/3左右。

・Initial drilling, to recommend the use of cutting conditions in the middle range, followedby (in accordance with wear) to adjust the cutting Parameters to achieve the best cuttingeffect.

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・lt must adopt inner cooling mode for austenitic stainless steel maching.

・Diling onthe slope or the parts have pre-drilingihole or intersection hole, The drilling feedrate must decrease to 1/3 of the recommended data.

加工要求 Processing requirements

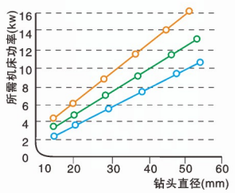
加工功率要求

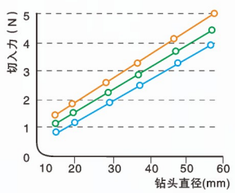
Machining power requirement

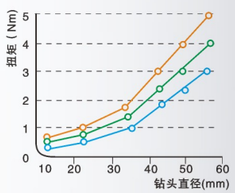
下方图表显示出钻削加工所需的切削力/高刚性高功率机床配合进行加工

- 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

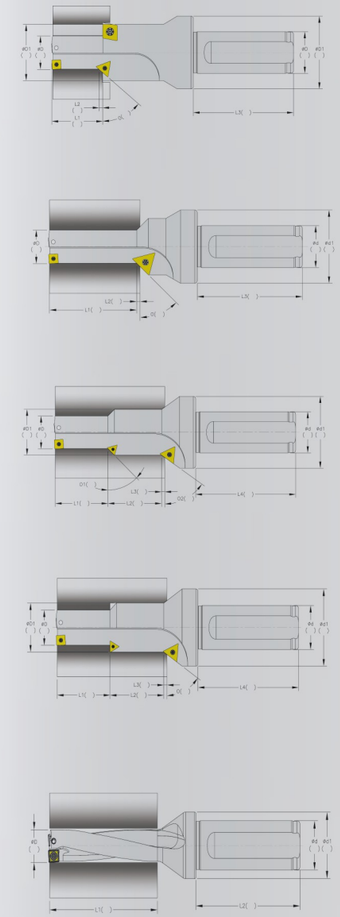
问题	具体情况	解决方案
加工同一孔时 孔径发生变化	加工同一孔时期孔径发生变化 →底部孔径变大	增强冷却液，检查冷却液排出情况 更换长径比小的钻头 更改切削条件，获得更好的切屑控制
孔径变大或变小	孔径变大或变小	铣削　→增强冷却液 　　→检查冷却液排出情况 车削　→检查钻头中心及被加工情况 　　→钻头旋转180°
震动	加工震动	更换长径比小的钻头　稳定的夹持力 降低切削速度和进给　检查机床扭矩
排屑不良	长切屑	低碳钢/不锈钢 →提高切削速度，进给以及冷却油压 合金钢/碳钢 →提高切削速度和进给
表面精度差	短切屑	提高切削速度，进给以及冷却油压
	加工表面有刀痕	更换切削条件，获得更好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

非标钻头定制 Non-standard drill bit customization

非标钻头订货单

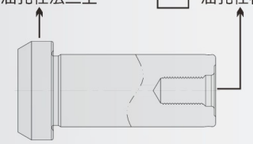
Non-standard drill bit order

方框内填写“√”



冷却方式 Cooling mode

☐ 油孔在法兰上　☐ 油孔在柄部

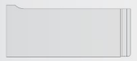


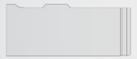
钻孔类型 Borehole type

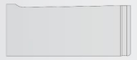
☐ 盲孔加工　☐ 有底孔

☐ 通孔加工　☐ 无底孔

柄部类型 Handle type

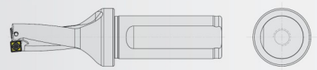
☐  平头型

☐  韦尔登类型

☐  惠式哨型

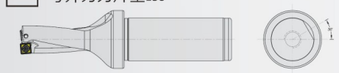
侧固面位置 Position of side fixing surface

☐ 与外刃刀片平行(标准)



☐ 与外刃刀片呈90°

☐ 与外刃刀片呈150°



☐ 与外刃刀片呈180°

注明:

现在使用的刀具	Knives in use today
现在的切削条件	Current cutting conditions
-RPM or vc(m/min)	-RPM or vc(m/min)
-vc(mm/min)or fn(mm/rev)	-vc(mm/min)or fn(mm/rev)
-孔深（mm）	- Hole depth (mm)
标准刀具寿命使用设备	Standard tool life using equipment
-加工中心	- Machining center
-普通车床	- General lathe
-CNC车床	- CNC lathe

CNC车床专用：SF单刃钻头

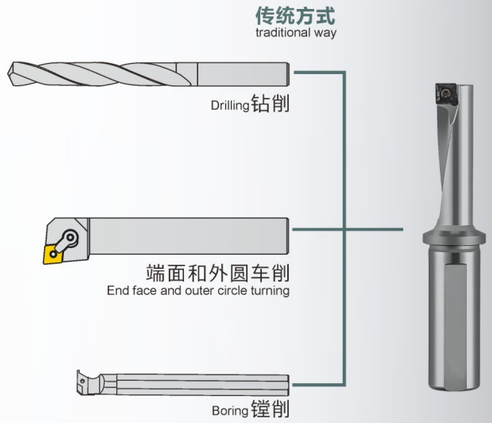
Special for CNC lathes: SF single-edge drill bit

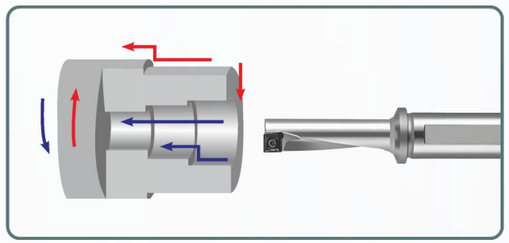
- 车削、镗削、钻削,一把刀具完成
- 节约安装时间，缩短换刀节拍
- 减少刀具使用数量，节约刀具成本

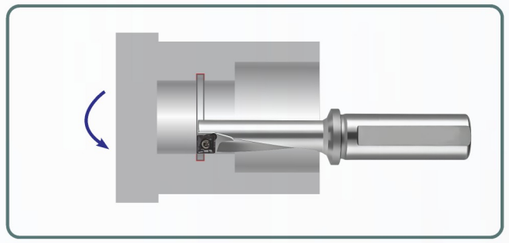
- Turning, boring, drilling - all done with one tool.
- Saves installation time, shortens tool change cycle.
- Reduces the number of tools used, saves tool costs

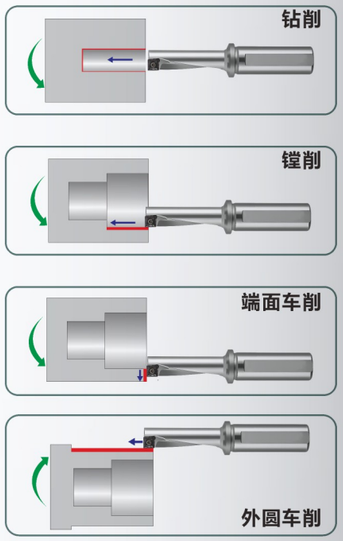
应用

Application



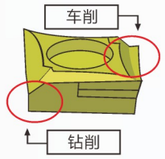






特点

Characteristics



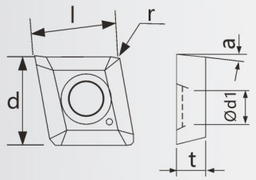
- 内冷型
- 大螺旋槽易于排屑
- 大排屑槽排屑流畅
- 刀片两种功效设计适于钻削和车削加工
- 大螺旋角切削刃降低切削力
- 小进给、小切深时排屑流畅

- Internal cooling type
- The large helical groove facilitates chip removal
- The large chip removal groove ensures smooth chip discharge
- The two-function design of the blade is suitable for drilling and turning processes
- The large helical angle cutting edge reduces cutting force
- Smooth chip removal at low feed and small depth of cut

单刃钻头 Single-edge drill

适用刀片

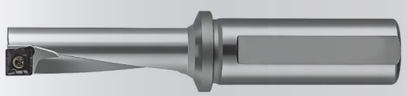
Applicable blades

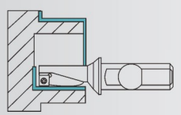


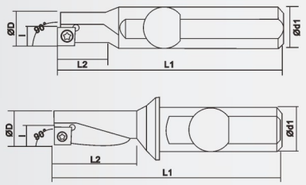
型号 Model	涂层 Coating	尺寸 Size				
		l	d	t	r	Ød1
QCMT 050204	●	5.0	5.4	2.10	0.4	2.3
QCMT 060204	●	6.0	6.4	2.38	0.4	2.5
QCMT 070304	●	7.0	7.4	3.18	0.4	2.8
QCMT 080304	●	8.0	8.4	3.18	0.4	3.4
QCMT 10T308	●	10.0	10.4	3.97	0.4	4.0

SF单刃钻头

SF single-edge drill bit







型号 Model	尺寸 Size				刀片 Blade	螺钉 Clamp screw	扳手 Wrench	内冷接口 Internal cooling interface
	D	d1	L2	L1				
SF-10R-2.5D-C12	10	12	25	74	QCMT050204	M2.2X 4	T7	M6
SF-10R-3.5D-C12	10	12	35	84	QCMT050204	M2.2X 4	T7	M6
SF-12R-2.5D-C16	12	16	30	89	QCMT060204	M2.2X 5	T7	RP 1/8
SF-12R-3.5D-C16	12	16	42	101	QCMT060204	M2.2X 5	T7	RP 1/8
SF-14R-2.5D-C16	14	16	35	93	QCMT070304	M2.5X 6	T8	RP 1/8
SF-14R-3.5D-C16	14	16	49	107	QCMT070304	M2.5X 6	T8	RP 1/8
SF-16R-2.5D-C20	16	20	40	99	QCMT080304	M3X 6	T8	RP 1/8
SF-16R-3.5D-C20	16	20	56	115	QCMT080304	M3X 6	T8	RP 1/8
SF-18R-2.5D-C20	18	20	45	104	QCMT10T308	M3.5X 8	T15	RP 1/8
SF-18R-3.5D-C20	18	20	63	122	QCMT10T308	M3.5X 8	T15	RP 1/8
SF-20R-2.5D-C25	20	25	50	117.4	QCMT10T308	M3.5X 8	T15	RP 1/8
SF-20R-3.5D-C25	20	25	70	137.4	QCMT10T308	M3.5X 8	T15	RP 1/8

带定心U钻的特点和优势

Characteristics and advantages of centering bit

特征优势 Main feature

带定心U钻，是U钻延伸的孔加工刀具，使用U钻刀片，容纳U钻的优点，加上利用加装定心钻的设计，可实现更长倍径的钻孔。标准库存直径18mm~40mm，，加工深度6~8倍径可选择。

With centering drill, is the extension of U drill hole processing tool, the use of U drill blade, accommodate the advantages of U drill, coupled with the use of fixed core drill design, can achieve longer diameter drilling. Standard stock diameter 18mm~40mm, processing depth 6~8 times diameter can be selected.

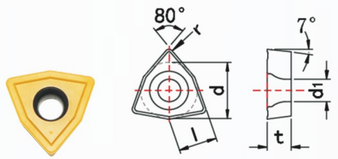
型号编码规则 Model coding rule

SP18-6D-C25-H06

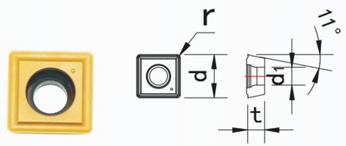
大类 Class	刀杆直径 Tool rod diameter	长径比 Length-diameter ratio	柄径 Shank diameter	中心钻型号 Center drill type
SD(WC刀片系列) SP(SP刀片系列)	18(表示刀杆ø18mm)	2D(直径的2倍) 3D(直径的3倍) 4D(直径的4倍) 5D(直径的5倍)	C20(柄径ø20mm) C25(柄径ø25mm) C32(柄径ø32mm) C40(柄径ø40mm)	H06(中心钻型号)

刀片型号

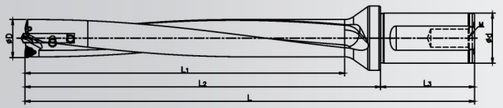
The blade model



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

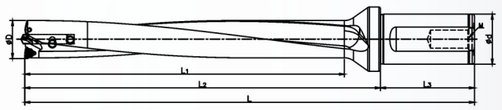


型号 Code No	尺寸 Size				螺钉 Clamp screw	扳手 Wrench
	d	t	r	d1		
SPMT04T102	4	1.98	0.2	2	M1.8X4	T6
SPMG050204	5	2.38	0.4	2.25	M2.2X5	T6
SPMG060204	6	2.38	0.4	2.61	M2.2X6	T7
SPMG07T308	7.94	3.97	0.8	2.85	M2.5X8	T8
SPMG090408	9.8	4.3	0.8	4.05	M3.5X10	T15
SPMG110408	11.5	4.8	0.8	4.45	M4X10	T15
SPMG140512	14.3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



WC DX6

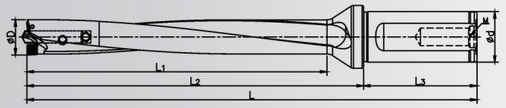
型号 Code No	尺寸 Size							导向钻 Pilot Drill	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
	øD	L	L1	L2	L3	M	Φd				
SD25-6D-C32-H06	25	237	154	177	60	G 1/4	32	HSS-V0630Tin	WCMX030208	M2.5X6	T8
SD25.5-6D-C32-H06	25.5	240	157	180	60				WCMX040208	M2.5X6	T8
SD26-6D-C32-H06	26	243	160	183	60						
SD26.5-6D-C32-H06	26.5	246	163	186	60						
SD27-6D-C32-H06	27	249	166	189	60						
SD27.5-6D-C32-H06	27.5	252	169	192	60						
SD28-6D-C32-H06	28	255	172	195	60						
SD28.5-6D-C32-H06	28.5	298	175	198	60						
SD29-6D-C32-H06	29	261	178	201	60						
SD29.5-6D-C32-H06	29.5	264	181	204	60						
SD30-6D-C32-H06	30	267	184	207	60						
SD30.5-6D-C32-H06	30.5	270	187	210	60						
SD31-6D-C32-H06	31	273	190	213	60			HSS-V0835Tin	WCMX050308	M3.0X8	T8
SD31.5-6D-C32-H06	31.5	276	193	216	60						
SD32-6D-C32-H08	32	279	196	219	60						
SD32.5-6D-C32-H08	32.5	282	199	222	60						
SD33-6D-C32-H08	33	285	202	225	60						
SD33.5-6D-C32-H08	33.5	288	205	228	60						
SD34-6D-C32-H08	34	290	208	230	60						
SD34.5-6D-C32-H08	34.5	293	211	233	60						
SD35-6D-C32-H08	35	297	214	237	60						
SD35.5-6D-C32-H08	35.5	300	217	240	60						
SD36-6D-C32-H08	36	303	220	243	60						
SD36.5-6D-C32-H08	36.5	306	223	246	60						
SD37-6D-C32-H08	37	309	226	249	60						
SD37.5-6D-C32-H08	37.5	312	229	252	60						
SD38-6D-C32-H08	38	315	232	255	60						
SD38.5-6D-C32-H08	38.5	318	235	258	60						
SD39-6D-C32-H08	39	321	238	261	60						
SD39.5-6D-C32-H08	39.5	324	241	264	60						
SD40-6D-C32-H08	40	324	244	264	60						
SD40.5-6D-C32-H08	40.5	327	247	267	60						
SD41-6D-C40-H10	41	330	250	270	60						
SD41.5-6D-C40-H10	41.5	333	253	273	60						
SD42-6D-C40-H10	42	351	256	281	70		40	HSS-V1035Tin	WCMX06T308	M3.5X10	T15
SD42.5-6D-C40-H10	42.5	354	259	284	70						
SD43-6D-C40-H10	43	357	262	287	70						
SD43.5-6D-C40-H10	43.5	360	265	290	70						
SD44-6D-C40-H10	44	363	268	293	70						
SD44.5-6D-C40-H10	44.5	366	271	296	70						
SD45-6D-C40-H10	45	369	274	299	70						



WC DX8

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	Φd	导向钻 Pilot Drill	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
SD25-8D-C32-H06	25	287	204	227	60	G 1/4	32	HSS-V0630Tin	WCMX030208	M2.5X6	T8
SD25.5-8D-C32-H06	25.5	291	208	231	60				WCMX040208	M2.5X6	T8
SD26-8D-C32-H06	26	295	212	235	60						
SD26.5-8D-C32-H06	26.5	299	216	239	60						
SD27-8D-C32-H06	27	303	220	243	60						
SD27.5-8D-C32-H06	27.5	307	224	247	60						
SD28-8D-C32-H06	28	311	228	251	60						
SD28.5-8D-C32-H06	28.5	315	232	255	60						
SD29-8D-C32-H06	29	319	236	259	60						
SD29.5-8D-C32-H06	29.5	323	240	263	60						
SD30-8D-C32-H06	30	327	244	267	60						
SD30.5-8D-C32-H06	30.5	331	248	271	60						
SD31-8D-C32-H06	31	335	252	275	60			HSS-V0835Tin	WCMX050308	M3.0X8	T8
SD31.5-8D-C32-H06	31.5	339	256	279	60						
SD32-8D-C32-H08	32	343	260	283	60						
SD32.5-8D-C32-H08	32.5	347	264	287	60						
SD33-8D-C32-H08	33	351	268	291	60						
SD33.5-8D-C32-H08	33.5	355	272	295	60						
SD34-8D-C32-H08	34	358	276	298	60						
SD34.5-8D-C32-H08	34.5	362	280	302	60						
SD35-8D-C32-H08	35	367	284	307	60						
SD35.5-8D-C32-H08	35.5	371	288	311	60						
SD36-8D-C32-H08	36	375	292	315	60						
SD36.5-8D-C32-H08	36.5	379	296	319	60						
SD37-8D-C32-H08	37	383	300	323	60						
SD37.5-8D-C32-H08	37.5	387	304	327	60						
SD38-8D-C32-H08	38	391	308	331	60						
SD38.5-8D-C32-H08	38.5	395	312	335	60						
SD39-8D-C32-H08	39	399	316	339	60						
SD39.5-8D-C32-H08	39.5	403	320	343	60						
SD40-8D-C32-H08	40	404	324	344	60						
SD40.5-8D-C32-H08	40.5	408	328	348	60						
SD41-8D-C40-H10	41	412	332	352	60						
SD41.5-8D-C40-H10	41.5	416	336	356	60						
SD42-8D-C40-H10	42	435	340	365	70		40	HSS-V1035Tin	WCMX06T308	M3.5X10	T15
SD42.5-8D-C40-H10	42.5	439	344	369	70						
SD43-8D-C40-H10	43	443	348	373	70						
SD43.5-8D-C40-H10	43.5	447	352	377	70						
SD44-8D-C40-H10	44	451	356	381	70						
SD44.5-8D-C40-H10	44.5	455	360	385	70						
SD45-8D-C40-H10	45	459	364	389	70						

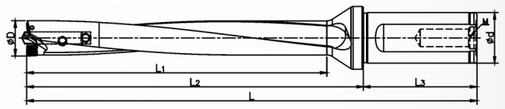
带定心U钻 Spot U-drill



SP DX6

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	Φd	导向钻 Pilot Drill	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
SP18-6D-C25	18.0	186	112	130	56	G 1/8	25	HSS-V0630Tin	WCMG050204	M2.2X5	T6
SP18.5-6D-C25	18.5	189	115	133	56						
SP19-6D-C25	19.0	192	118	136	56						
SP19.5-6D-C25	19.5	195	121	139	56						
SP20-6D-C25	20.0	198	124	142	56				WCMG060204	M2.2X6	T7
SP20.5-6D-C25	20.5	201	127	145	56						
SP21-6D-C25	21.0	204	130	148	56						
SP21.5-6D-C25	21.5	207	133	151	56						
SP22-6D-C25	22.0	210	136	154	56						
SP22.5-6D-C25	22.5	213	139	157	56						
SP23-6D-C25	23.0	216	142	160	56						
SP23.5-6D-C25	23.5	219	145	163	56						
SP24-6D-C25	24.0	222	148	166	56						
SP24.5-6D-C25	24.5	225	151	169	56						
SP25-6D-C25	25.0	228	154	172	56						
SP25.5-6D-C32	25.5	242	157	182	60	G 1/4	32	HSS-V0835Tin	WCMG07T308	M2.5X8	T8
SP26-6D-C32	26.0	245	160	185	60						
SP26.5-6D-C32	26.5	248	163	188	60						
SP27-6D-C32	27.0	251	166	191	60						
SP27.5-6D-C32	27.5	254	169	194	60						
SP28-6D-C32	28.0	257	172	197	60						
SP28.5-6D-C32	28.5	260	175	200	60						
SP29-6D-C32	29.0	263	178	203	60						
SP29.5-6D-C32	29.5	266	181	206	60						
SP30-6D-C32	30.0	269	184	209	60						

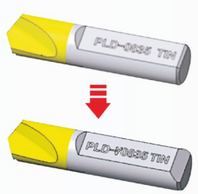
CSJ皇冠钻(前锁式)
KS皇冠钻(后拉式)
KS组合钻
U钻
单刃钻头
带定心U钻
VMD大钻头
铲钻
模块系统
技术资料



SP DX8

型号 Code No	尺寸 Size øD	L	L1	L2	L3	M	Φd	导向钻 Pilot Drill	刀片 Insert	螺钉 Clamp screw	扳手 Wrench
SP18-8D-C25	18.0	222	148	166	56	G 1/8	25	HSS-V0630Tin	WCMG050204	M2.2X5	T6
SP18.5-8D-C25	18.5	226	152	170	56						
SP19-8D-C25	19.0	230	156	174	56						
SP19.5-8D-C25	19.5	234	160	178	56						
SP20-8D-C25	20.0	238	164	182	56				WCMG060204	M2.2X6	T7
SP20.5-8D-C25	20.5	242	168	186	56						
SP21-8D-C25	21.0	246	172	190	56						
SP21.5-8D-C25	21.5	250	176	194	56						
SP22-8D-C25	22.0	254	180	198	56						
SP22.5-8D-C25	22.5	258	184	202	56						
SP23-8D-C25	23.0	262	188	206	56						
SP23.5-8D-C25	23.5	266	192	210	56						
SP24-8D-C25	24.0	270	196	214	56						
SP24.5-8D-C25	24.5	274	200	218	56						
SP25-8D-C25	25.0	278	204	222	56						
SP25.5-8D-C32	25.5	293	208	233	60	G 1/4	32	HSS-V0835Tin	WCMG07T308	M2.5X8	T8
SP26-8D-C32	26.0	297	212	237	60						
SP26.5-8D-C32	26.5	301	216	241	60						
SP27-8D-C32	27.0	305	220	245	60						
SP27.5-8D-C32	27.5	309	224	249	60						
SP28-8D-C32	28.0	313	228	253	60						
SP28.5-8D-C32	28.5	317	232	257	60						
SP29-8D-C32	29.0	321	236	261	60						
SP29.5-8D-C32	29.5	325	240	265	60						
SP30-8D-C32	30.0	329	244	269	60						

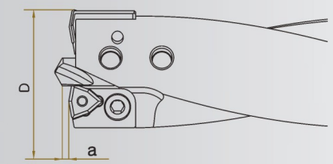
导向钻
Guide drill



型号 Code No	尺寸 Size Φd	L
HSS-V0630Tin	6	30
HSS-V0835Tin	8	35
HSS-V1035Tin	10	35
HSS-V1240Tin	12	40
HSS-V1645Tin	16	45
HSS-V2050Tin	20	50
HSS-V2560Tin	25	60

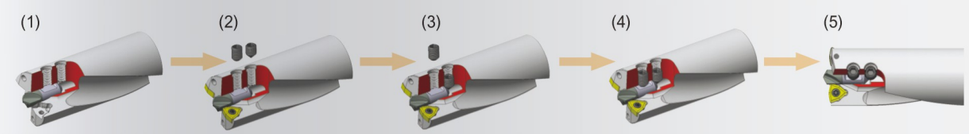
用户指南
User Guide

导向钻的高度设置 Pilot drill(PLD) setting



钻头直径(D) Bit diameter (D)	a 非合金钢	合金钢	有色金属
25-30	1.2	1	1.5
31-40	1.5	1.3	1.8
41-50	1.8	1.5	2.2
51-59	2.2	1.8	2.5
60-75	2.5	2	2.8
75-80	3	2.5	3.5

使用方法
Method of use



(1) 插入孔导向钻；
(2) 安装刀片；
(3) 调整好导向钻高度；
(4) 锁紧螺丝；
(5) 导向钻底部必须紧贴导向钻，高度调整螺丝，不可有缝隙。

(1) Insert hole guide drill;
(2) Install the blade;
(3) Adjust the guide drill height;
(4) Lock screws;
(5) The bottom of the guide drill must be close to the guide drill, height adjustment screws, no gaps.

导向钻高度调整螺丝，涂上防松动胶，防止使用中松动。

Guide drill height adjustment screw, coated with anti-loosening adhesive, to prevent loose in use.

带定心U钻 Spot U-drill

带定心U钻WC系列切削参数

钻头直径	建议主轴功率	低碳钢 S10C-S25C	中碳钢 SS30C-S50C	结构钢 SS,SM	铸铁 FC,FCD	合金钢 SCr,SCM	工具钢 H13,SKD	不锈钢 SUS	铝合金
ø25～ø31.5	7.5千瓦以上 BT40	S1200-S900	S1100-S850	S1200-S900	S1300-S1000	S1300-S1000	S1100-S800	S1000-S700	S1300-S1000
		Fz 0.1-0.12	Fz 0.08-0.11	Fz 0.08-0.12	Fz 0.09-0.12	Fz 0.1-0.12	Fz 0.08-0.10	Fz 0.08-0.10	Fz 0.1-0.12
		F 90-120	F 80-110	F 80-120	F 90-130	F 90-120	F 70-110	F 60-100	F 100-150
ø32～ø36.5	11千瓦以上 BT40	S1000-S800	S1100-S850	S1000-S750	S1000-S700	S1000-S700	S900-S650	S900-S650	S1200-S800
		Fz 0.10-0.13	Fz 0.10-0.12	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13	Fz 0.10-0.13
		F 80-130	F 85-120	F 75-130	F 70-130	F 70-130	F 65-100	F 65-100	F 80-130
ø37～ø40.5	15千瓦以上 BT50主轴	S1000-S700	S100-S700	S1000-S650	S1000-S650	S900-S600	S800-S600	S800-S600	S1000-S800
		Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.12	Fz 0.10-0.12	Fz 0.10-0.12
		F 60-100	F 65-100	F 65-110	F 65-120	F 60-120	F 55-100	F 55-100	F 80-120
ø41～ø43.5	15千瓦以上 BT50主轴	S100-S700	S100-S700	S900-S700	S900-S700	S800-S600	S800-S600	S800-S600	S1000-S700
		Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.10	Fz 0.10-0.12
		F 70-110	F 70-110	F 70-110	F 70-110	F 60-100	F 60-100	F 50-80	F 70-120
ø44～ø45	15千瓦以上 BT50主轴	S900-S650	S900-S650	S850-S650	S850-S650	S750-S550	S750-S550	S700-S550	S1000-S700
		Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.09-0.12
		F 60-110	F 60-110	F 65-90	F 65-110	F 50-65	F 50-65	F 45-80	F 65-120

备注： S=转速 Fz= 每转进刀量 F=进给

带定心U钻SP系列切削参数

钻头直径	建议主轴功率	低碳钢 S10C-S25C	中碳钢 SS30C-S50C	结构钢 SS,SM	铸铁 FC,FCD	合金钢 SCr,SCM	工具钢 H13,SKD	不锈钢 SUS	铝合金
ø18～ø19.5	7.5千瓦以上 BT40	S1400-S1200	S1400-S1200	S1300-S1100	S1300-S1100	S1400-S1100	S1400-S1000	S1400-S1000	S1600-S1200
		Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.1-0.12
		F 85-100	F 85-120	F 90-110	F 90-110	F 70-110	F 60-100	F 60-90	F 100-150
ø20～ø22.5	11千瓦以上 BT40	S1300-S1000	S1300-S1000	S1200-S1000	S1200-S1000	S1200-S900	S1200-S900	S1100-S900	S1500-S1100
		Fz 0.07-0.1	Fz 0.07-0.1	Fz 0.08-0.12	Fz 0.08-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.1
		F 70-110	F 70-110	F 80-120	F 80-120	F 75-120	F 75-120	F 70-90	F 90-150
ø23～ø25.5	15千瓦以上 BT50主轴	S1200-S1000	S1200-S1000	S1100-S900	S1100-S900	S1100-S900	S1000-S800	S1000-S700	S1400-S1200
		Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.1	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.12
		F 80-120	F 80-120	F 75-110	F 75-110	F 90-110	F 70-100	F 60-100	F 100-140
ø26～ø27.5	15千瓦以上 BT50主轴	S1100-S900	S1100-S900	S1100-S900	S1100-S900	S1000-S800	S1000-S800	S900-S700	S1200-S900
		Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.10-0.12	Fz 0.08-0.1	Fz 0.10-0.12
		F 75-110	F 75-110	F 90-130	F 90-130	F 80-120	F 80-120	F 60-90	F 90-140
ø28～ø30	15千瓦以上 BT50主轴	S1000-S800	S1000-S800	S1000-S800	S1000-S800	S900-S700	S900-S700	S800-S600	S1200-S900
		Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12	Fz 0.1-0.12	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.08-0.1	Fz 0.1-0.12
		F 65-100	F 65-100	F 80-120	F 80-120	F 65-90	F 65-90	F 55-80	F 90-140

备注： S=转速 Fz= 每转进刀量 F=进给

VMD 大钻头 VMD large bit

VMD大钻头的特点和优势

Features and advantages of VMD large bit

特征优势 Main feature

- VMD大直径暴力钻头，专门针对直径45mm-180mm大孔经加工，由刀体、连接杆、刀片座、导向钻、连接环等组成。
- 带导向钻的定芯设计，深孔加工起到导向作用。
- 与U钻通用WC系列刀片，方便采购。
- 刀片座模块化设计，刀夹可换，刃径可调范围直径0-5mm。
- 刀体和连接杆可根据孔加工深度适配，有效减少刀具库存。
- 自带内冷出水系统，可连续加工使用。

- VMD large diameter violent bit is specially processed for large holes with diameters of 45mm-180mm. It is composed of cutter body, connecting rod, blade holder, guide drill, connecting ring, etc.
- Positioning design with guide drill, and deep hole processing plays a guiding role.
- Universal WC series blade with U drill, convenient to purchase.
- Modular design of blade holder, replaceable blade holder, adjustable blade diameter range of 0-5mm.
- The tool body and connecting rod can be adapted according to the depth of hole processing, effectively reducing tool inventory.
- With internal cooling water system, can be used for continuous processing.

模块化系统，连接强度卓越，刀体与连接杆组合，加工深度自由调节。

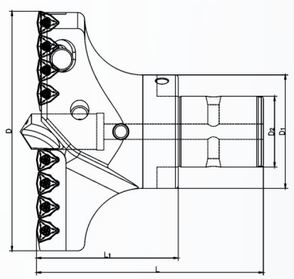
Modular system, excellent connection strength, combination of cutter body and connecting rod, free adjustment of machining depth.

型号编码规则
Model coding rule

VMD-045/050-13-WC03

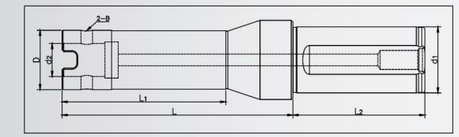
大类 Class	可调节直径范围 Adjustable diameter range	柄径 Shank diameter	刀片型号 Blade model
VMD	045/050（表示最小钻孔直径45mm，最大钻孔直径50mm）	13（表示柄径13mm）	WC03

VMD 大钻头
VMD Drll



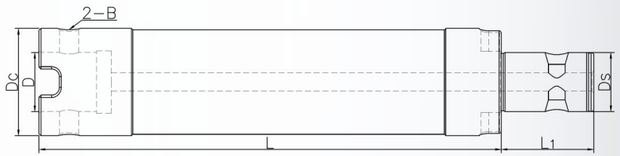
型号 Code No	尺寸 Size D	D2	D1	L1	L	导向钻 Guide drill	刀片座 Insert Seat	刀片 Insert	螺钉 Clamp screw	扳手 Wrench	可匹配DVL连接环 Compatible with DVL Connecting ring	可匹配MXL侧固式连接杆 Can be matched with the fixed connection rod on the MXL side	可匹配MXB延长杆 Can be matched with MXB extension rod
VMD-045/050-13-WC03	45-50	13	28	50	85	HSS-V1035	VMC-045050N/T	WCMX030204	M2.5X5	T8	DVL-281310	MXL13-115L-C32 MXL13-150L-C32 MXL13-200L-C32 MXL13-250L-C32 MXL13-300L-C32 MXL13-350L-C32	MXB-2813115 MXB-2813150 MXB-2813200 MXB-2813300 MXB-2813400
VMD-050/055-13-WC03	50-55	13	28	50	85		VMC-050055N/T				DVL-281310		
VMD-055/060-16-WC04	55-60	16	32	60	100	HSS-V1238	VMC-055060N/T	WCMX040204	M2.5X6		DVL-321610	MXL16-125L-C40 MXL16-150L-C40 MXL16-200L-C40 MXL16-250L-C40 MXL16-300L-C40 MXL16-400L-C40	MXB-3216115 MXB-3216150 MXB-3216200 MXB-3216300 MXB-3216400
VMD-060/065-16-WC05	60-65	16	32	60	100		VMC-060065N/T	WCMX050308	M3.0X8	T8	DVL-321610		
VMD-065/070-16-WC05	65-70	16	32	60	100		VMC-065070N/T				DVL-321610		
VMD-070/075-22-WC05	70-75	22	40	70	115		VMC-070075N/T				DVL-402212	MXL22-148L-C40 MXL22-200L-C40 MXL22-250L-C40 MXL22-300L-C40 MXL22-400L-C40	MXB-4022115 MXB-4022150 MXB-4022200 MXB-4022300 MXB-4022400
VMD-075/080-22-WC06	75-80	22	40	70	115	HSS-V1645	VMC-075080N/T	WCMX06T308	M3.5X10	T15	DVL-402212		
VMD-080/085-22-WC06	80-85	22	40	70	115		VMC-080085N/T				DVL-402212		
VMD-085/090-27-WC06	85-90	27	48	70	120		VMC-085090N/T				DVL-482712	MXL27-168L-C40 MXL27-200L-C40 MXL27-300L-C40 MXL27-400L-C40	MXB-4827115 MXB-4827150 MXB-4827200 MXB-4827300 MXB-4827400
VMD-090/095-27-WC06	90-95	27	48	70	120		VMC-090095N/T				DVL-482712		
VMD-095/100-27-WC06	95-100	27	48	70	120		VMC-095100N/T				DVL-482712		
VMD-100/105-32-WC05	100-105	32	58	80	130	HSS-2045	VMC-100105N/T	WCMX050308	M3.0X8	T8	DVL-583214	MXL32-186L-C40 MXL32-250L-C40 MXL32-300L-C40 MXL32-400L-C40	MXB-5832150 MXB-5832200 MXB-5832300 MXB-5832400
VMD-105/110-32-WC06	105-110	32	58	80	130		VMC-105110N/T	WCMX06T308	M3.5X10	T15	DVL-583214		
VMD-110/115-32-WC06	110-115	32	58	80	130		VMC-110115N/T				DVL-583214		
VMD-115/120-40-WC06	115-120	40	70	90	145		VMC-115120N/T				DVL-704012	MXL40-186L-C50 MXL40-300L-C50 MXL40-400L-C50 MXL40-500L-C50	MXB-7040150 MXB-7040200 MXB-7040300 MXB-7040400 MXB-7040500 MXB-7040600
VMD-120/125-40-WC06	120-125	40	70	90	145	HSS-2556	VMC-120125N/T				DVL-704012		
VMD-125/130-40-WC06	125-130	40	70	90	145		VMC-125130N/T				DVL-704012		
VMD-130/135-40-WC06	130-135	40	70	90	145		VMC-130135N/T				DVL-704012		
VMD-135/140-40-WC06	135-140	40	70	90	145		VMC-135140N/T				DVL-704012		
VMD-140/150-50-WC08	140-150	50	80	100	160		VMC-140150N/T	WCMX080408	M4.0X10		DVL-805016	MXL50-184L-C50 MXL50-300L-C50 MXL50-400L-C50 MXL50-500L-C50	MXB-8050150 MXB-8050200 MXB-8050300 MXB-8050400 MXB-8050500 MXB-8050600 MXB-8050700
VMD-150/160-50-WC08	150-160	50	80	100	160		VMC-150160N/T				DVL-805016		
VMD-160/170-50-WC08	160-170	50	80	100	160	HSS-3068	VMC-160170N/T				DVL-805016		
VMD-170/180-50-WC08	170-180	50	80	100	160		VMC-170180N/T				DVL-805016		

MXL 侧固式连接杆
MXL side-mounted fixed connecting rod



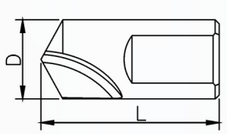
型号 Code No	尺寸 Size d1	d2	L	L1	D	L2	锁紧螺钉 Connecting screw	连接环 Drive Ring
MXL13-115L-C32	32	13	115	77	28	70	M8-115	DVL-281310
MXL13-150L-C32		13	150	112	28			
MXL13-200L-C32		13	200	165	28			
MXL13-250L-C32		13	250	215	28			
MXL13-300L-C32		13	300	265	28			
MXL13-350L-C32		13	350	315	28			
MXL16-125L-C40	40	16	125	86	32	80		DVL-321610
MXL16-150L-C40		16	150	112	32			
MXL16-200L-C40		16	200	165	32			
MXL16-250L-C40		16	250	215	32			
MXL16-300L-C40		16	300	265	32			
MXL16-400L-C40		16	400	365	32			
MXL22-148L-C40		22	148	109	40		M10-145	DVL-402212
MXL22-200L-C40		22	200	165	40			
MXL22-250L-C40		22	250	215	40			
MXL22-300L-C40		22	300	265	40			
MXL22-400L-C40		22	400	365	40			
MXL27-168L-C40		27	168	133	48		M12-175	DVL-482712
MXL27-200L-C40		27	200	165	48			
MXL27-300L-C40		27	300	265	48			
MXL27-400L-C40		27	400	365	48			
MXL32-186L-C40		32	186	151	58		M12-195	DVL-583214
MXL32-250L-C40		32	250	215	58			
MXL32-300L-C40		32	300	265	58			
MXL32-400L-C40		32	400	365	58			
MXL40-186L-C50	50	40	186	151	70		M16-260	DVL-704012
MXL40-300L-C50		40	300	265	70			
MXL40-400L-C50		40	400	365	70			
MXL40-500L-C50		40	500	465	70			
MXL50-184L-C50		50	184	149	80			DVL-805016
MXL50-300L-C50		50	300	265	80			
MXL50-400L-C50		50	400	365	80			
MXL50-500L-C50		50	500	465	80			

MXB 延长杆
MXB Extension Rod



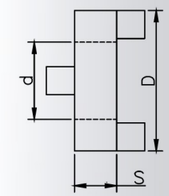
型号 Code No	外径 0Dc	内孔 0d	长度 L	柄部 0Ds	锁紧螺钉 2-B Locking screw 2-B	连接环 d/Drive Ring
MXB-2813115	28	13	115	13	M8-115	DVL-281310
MXB-2813150	28	13	150	13	M8-115	DVL-281310
MXB-2813200	28	13	200	13	M8-115	DVL-281310
MXB-2813300	28	13	300	13	M8-115	DVL-281310
MXB-2813400	28	13	400	13	M8-115	DVL-281310
MXB-3216115	32	16	115	16	M8-115	DVL-321610
MXB-3216150	32	16	150	16	M8-115	DVL-321610
MXB-3216200	32	16	200	16	M8-115	DVL-321610
MXB-3216300	32	16	300	16	M8-115	DVL-321610
MXB-3216400	32	16	400	16	M8-115	DVL-321610
MXB-4022113	40	22	113	22	M10-145	DVL-402212
MXB-4022150	40	22	150	22	M10-145	DVL-402212
MXB-4022200	40	22	200	22	M10-145	DVL-402212
MXB-4022300	40	22	300	22	M10-145	DVL-402212
MXB-4022400	40	22	400	22	M10-145	DVL-402212
MXB-4827113	48	27	113	27	M12-175	DVL-482712
MXB-4827150	48	27	150	27	M12-175	DVL-482712
MXB-4827200	48	27	200	27	M12-175	DVL-482712
MXB-4827300	48	27	300	27	M12-175	DVL-482712
MXB-4827400	48	27	400	27	M12-175	DVL-482712
MXB-5832186	58	32	186	32	M12-195	DVL-583214
MXB-5832250	58	32	250	32	M12-195	DVL-583214
MXB-5832300	58	32	300	32	M12-195	DVL-583214
MXB-5832400	58	32	400	32	M12-195	DVL-583214
MXB-7040186	70	40	186	40	M16-260	DVL-704014
MXB-7040250	70	40	250	40	M16-260	DVL-704014
MXB-7040300	70	40	300	40	M16-260	DVL-704014
MXB-7040400	70	40	400	40	M16-260	DVL-704014
MXB-7040500	70	40	500	40	M16-260	DVL-704014
MXB-7040600	70	40	600	40	M16-260	DVL-704014
MXB-8050150	80	50	150	50	M16-260	DVL-805016
MXB-8050204	80	50	204	50	M16-260	DVL-805016
MXB-8050300	80	50	300	50	M16-260	DVL-805016
MXB-8050400	80	50	400	50	M16-260	DVL-805016
MXB-8050500	80	50	500	50	M16-260	DVL-805016
MXB-8050600	80	50	600	50	M16-260	DVL-805016
MXB-8050700	80	50	700	50	M16-260	DVL-805016

HSS 导向钻
HSS Guided Drill



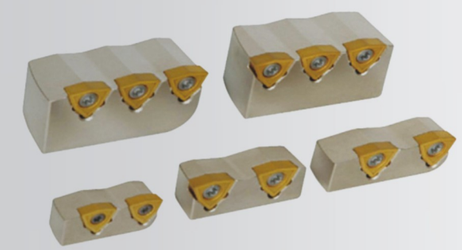
型号 Code No	直径 D	长度 L
HSS-V1035	10	35
HSS-V1238	12	38
HSS-V1645	16	45
HSS-2045	20	45
HSS-2556	25	56
HSS-3068	30	68

连接环
Adapter ring



型号 Code No	外径 D	内径 d	厚度 S
DVL-281310	28	13	10
DVL-321610	32	16	10
DVL-402212	40	22	12
DVL-482712	48	27	12
DVL-583214	58	32	14
DVL-704012	70	40	14
DVL-805016	80	50	16

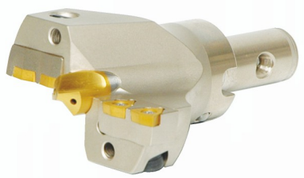
刀片座
Blade bearing

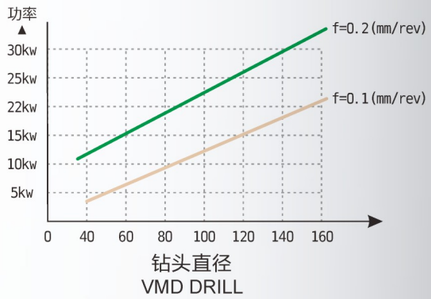


型号 Code No	刀片座内 Blade Bearing	刀片座外 Blade Bearing	刀片 Insert	刃数 Z	螺钉 Clamp screw	扳手 Wrench
45-50	VMC-045050N	VMC-045050T	WCMX030204	2	M2.5X5	T8
50-55	VMC-050055N	VMC-050055T				
55-60	VMC-055060N	VMC-055060T	WCMX040204	2	M2.5X6	T10
60-65	VMC-060065N	VMC-060065T	WCMX050308	2	M3.0X8	
65-70	VMC-065070N	VMC-065070T				
70-75	VMC-070075N	VMC-070075T				
75-80	VMC-075080N	VMC-075080T	WCMX06T308	2	M3.5X10	T15
80-85	VMC-080085N	VMC-080085T				
85-90	VMC-085090N	VMC-085090T				
90-95	VMC-090095N	VMC-090095T				
95-100	VMC-095100N	VMC-095100T				
100-105	VMC-100105N	VMC-100105T	WCMX050308	3	M3.0X8	T10
105-110	VMC-105110N	VMC-105110T	WCMX06T308	3	M3.5X10	T15
110-115	VMC-110115N	VMC-110115T				
115-120	VMC-115120N	VMC-115120T				
120-125	VMC-120125N	VMC-120125T				
125-130	VMC-125130N	VMC-125130T				
130-135	VMC-130135N	VMC-130135T				
135-140	VMC-135140N	VMC-135140T				
140-150	VMC-140150N	VMC-140150T	WCMX080408	3	M4.0X10	
150-160	VMC-150160N	VMC-150160T				
160-170	VMC-160170N	VMC-160170T				
170-180	VMC-170180N	VMC-170180T				

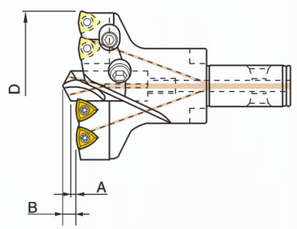
VMD 大钻头 VMD large bit

信息技术
Technical Data





导向钻高度设置 Pilot Drill



型号 Code No	2～4XD		4～6XD		6～8XD	
	A	B	A	B	A	B
45-55	1.6	4.0	1.8	4.2	2.0	4.4
55-75	1.8	5.4	2.0	5.6	2.2	5.8
75-100	2.2	6.5	2.5	6.8	2.8	7.1
100-120	2.4	7.7	2.8	8.1	3.2	8.5
120-170	3.2	9.9	3.6	10.3	4.0	10.7
170-180	3.5	12.2	3.9	12.6	4.3	13.0

推荐切削参数(VMD) Recommended Cutting Values For VMD

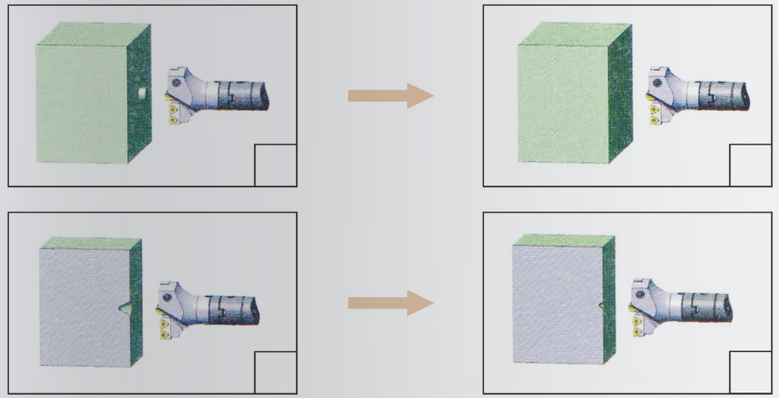
ISO	被削材	硬度	切削速 VC(m/min) 下限-推荐-上限	进给量fz(mm/rev) 下限-推荐-上限							刀片材质
				ø45～ø55	ø55～ø60	ø60～ø75	ø75～ø100	ø100～ø105	ø105～ø150	ø150～ø180	
P	(-0.25%) 低碳钢	180～280HB	120-150-180	0.06-0.08-0.1	0.07-0.08-0.11	0.08-0.1-0.12	0.1-0.12-0.14	0.14-0.17-0.2	0.08-0.1-0.12	0.1-0.12-0.14	AC330
P	(0.25%-) 低碳钢	180～280HB	110-140-170	0.06-0.08-0.1	0.07-0.08-0.11	0.08-0.1-0.12	0.1-0.12-0.14	0.12-0.15-0.18	0.08-0.1-0.12	0.1-0.12-0.14	1030
P	(-Hb300) 低合金钢	180～300HB	90-110-130	0.06-0.08-0.1	0.07-0.08-0.11	0.08-0.1-0.12	0.1-0.12-0.14	0.12-0.15-0.18	0.08-0.1-0.12	0.1-0.12-0.14	1030
P	(Hb300-) 高合金钢	180～300HB	60-80-100	0.05-0.06-0.07	0.05-0.06-0.07	0.06-0.07-0.08	o.o6-o.o8-0.1	0.09-0.11-0.13	0.06-0.07-0.08	0.06-0.08-0.1	MU7025
M	不锈钢	200～330HB	60-90-110	0.04-0.05-0.07	0.04-0.07-0.11	0.06-0.09-0.12	0.08-0.11-0.14	0.1-0.14-0.18	0.06-0.1-0.12	0.08-0.11-0.14	1025
K	灰口铸铁	250HB	120-150-180	0.07-0.1-0.13	0.07-0.11-0.15	0.08-0.12-0.16	0.1-0.14-0.18	0.12-0.17-0.22	0.08-0.12-0.16	0.1-0.14-0.18	AC330
K	球墨铸铁	250HB	100-140-180	0.04-0.08-0.13	0.07-0.11-0.15	0.08-0.12-0.16	0.1-0.18-0.25	0.12-0.19-0.26	0.08-0.12-0.16	0.1-0.18-0.25	MU7025
N	锻造铝合金	-	180-230-280	0.04-0.05-0.06	0.07-0.01-0.12	0.08-0.1-0.13	0.09-0.12-0.15	0.12-0.16-0.2	0.08-0.1-0.13	0.09-0.12-0.15	MU3225
N	铸造铝合金	-	120-210-270	0.04-0.05-0.06	0.06-0.09-0.12	0.08-0.1-0.13	0.09-0.12-0.15	0.12-0.16-.02	0.08-0.1-0.13	0.09-0.12-0.15	MU3225

注:*以上切削条件为大致基准，需要根据机械刚性和工件刚性、切深等进行调整。
*转数n(min-1)=切削速度Vc(m/min)×1000÷3.14÷刀具直径(mm)
*进给速度Vf(mm/min)=n(min-1)×每齿进给量fz(mm/t)×Z(刀齿数)

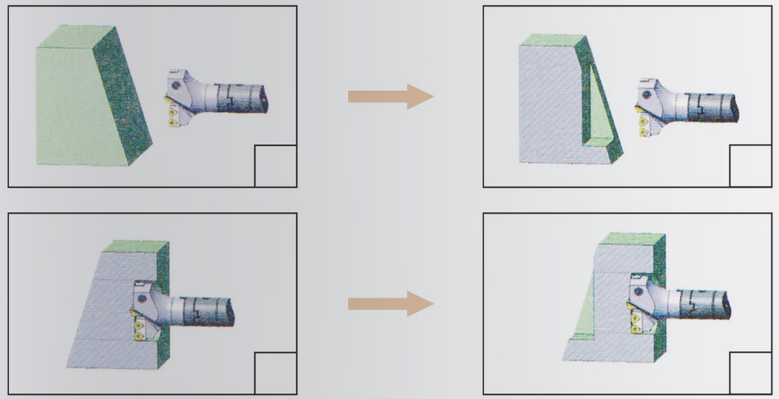
VMD 大钻头 VMD large bit

使用时注意事项
Precautions when using

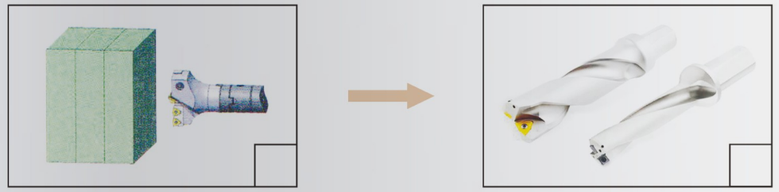
和下图相同的加工表面，有比导向钻直径大的孔直接加工会出现剧烈振动，导向钻头与刀片可能会损伤。
On the same machined surface as the figure below, direct machining of holes larger than the diameter of theguide drill will cause severe vibration, and the guide drill bit and blade may be damaged。



斜面加工时，铣平后，再用钻头钻孔作业。
In the case that there is inclined side, after make the part flat by mill ng work , please do drilling work。



VMD系列不可以重叠加工
VMD series can not overlap processing



铲钻 Spade Drill

铲钻的特征和优势
Characteristics and advantages of Spade Drilling

介绍 Introduction

· 铲钻是川山甲新推出的一款可换刀片的机夹式钻头，根据直径、加工深度和材质不同，可以灵活切换。
· 铲钻可以在传统机床和数控机床上使用，在线更换钻尖，方便快捷效率大幅提高。
· 铲钻由刀杆和刀片用螺丝固定而组成，刀杆与刀片之间的高精度接口可以确保刀片装夹精度，且刀片更换方便，刀杆采用韧性好、耐磨性高的优质钢材，真空热处理调质加工而成；刀片采用进口高端粉末高速钢和硬质合金制造，切削刃口设计有断屑槽，刀尖有自定心刃口。刀杆采用内冷设计，可连接机床内冷系统。
· 铲钻效率高，操作简单，性价比高，其钻孔综合效率是普通麻花钻的2~5倍以上，寿命比普通麻花钻提高3~5倍。孔加工精度公差在+0.05~-0.05范围。加工深度可达25倍径。

· Spade Drill is a kind of machine clip drill with replaceable blade, which can be flexibly changed according to diameter, processing depth and material.
· Spade Drill can be used in traditional machine tools and CNC machine tools, on-line replacement drill tip, convenient and efficient greatly improved.
· Spade Drill is composed of knife bar and blade fixed with screws. The high-precision interface between the knife bar and blade can ensure the clamping accuracy of the blade, and the blade is easy to replace. The knife bar is made of high-quality steel with good toughness and high wear resistance, and is processed by vacuum heat treatment and tempering. The blade is made of imported high-end powder high speed steel and solid carbide. The cutting edge is designed with chip breaking groove, and the tip has self-centering edge. The tool rod adopts internal cooling design, which can be connected to the internal cooling system of the machine tool.
· Spade Drilling efficiency is high, the operation is simple, cost-effective, its comprehensive drilling efficiency is more than 2~5 times of ordinary twist drill, life than ordinary twist drill 3~5 times. The tolerance of hole machining accuracy is in the range of +0.05~-0.05. Machining depth up to 25 times diameter.

优势 Advantages

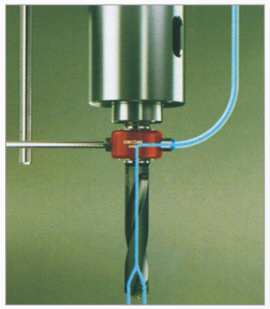
· 简单便捷的刀片接口，可在机床上在线更换刀片，节约刃磨时间。
· 刀片多款不同性能的涂层，可覆盖不锈钢、结构钢等各种金属和非金属材料的钻孔加工。
· 刀杆采用内冷却设计，在深孔钻削时也能及时将切屑排出以及良好冷却。
· 铲钻只需16个刀杆，就可以满足从ø9.5mm~ø114mm的钻孔需求，刀杆柄型有侧固式直柄和锥柄两大系列，通用性强，与各种机床连接方便。

· Simple and convenient blade interface, blade can be replaced online on the machine tool, saving grinding time.
· The blades are coated with different properties, which can cover drilling of various metal and non-metal materials such as stainless steel and structural steel.
· The knife rod adopts internal cooling design, which can discharge chips in time and cool well when drilling deep holes.
· Spade Drill only 16 knife rod, can meet the drilling needs from ø9.5mm ~ ø114mm, knife rod handle type has two series of fixed straight handle and taper handle, strong versatility, and convenient connection with a variety of machine tools.

铲钻的选择 Spade drill selection

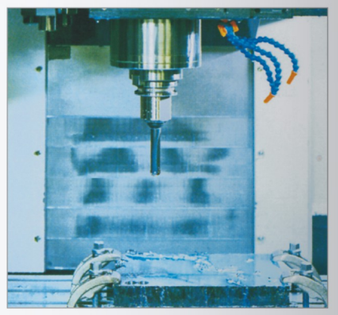
铲钻由刀杆和刀片组成，刀杆中心采用内冷却设计，一种刀杆规格可适配多个规格刀片，减少刀杆的购置成本。刀片有进口粉末高速钢和进口硬质合金两大系列请根据您的加工工况选择合适的类型。

The Spade Drill is composed of a cutter bar and a blade. The center of the cutter bar is designed with internal cooling. A cutter bar specification can be adapted to multiple specifications of the blade, reducing the cost of the cutter bar. Blade imported powder HSS and imported solid carbide two series please choose the right type according to your processing conditions.



传统机床，请选择粉末高速钢系列

For traditional machine tools,pleasechoose powder high speed steelseries.

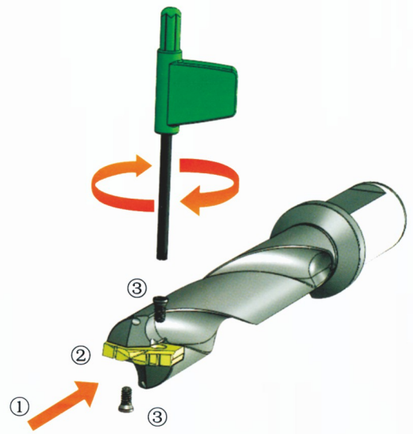


CNC数控机床，中低速钻削时请选择粉末高速钢系列，高速钻削时请选择硬质合金系列。

CNC machine tools, medium and low speed drilling please choose powder high speedSteel series, please choose carbide series when high-speed drilling.

安装示意图
Instllation diagram

刀片的安装 Installation procedure



直径范围Φ Range of Diameter Φ	拧紧力矩(Nm) Tightening Torque (Nm)	扳手 Wrench
9.5-12.5	0.5	T7
13.0-17.5	1.0	T8
18.0-24.5	1.8	T9
25.0-35.5	3.5	T15
36.0-65.0	5.0	T20
66.0-114.0	7.0	T25

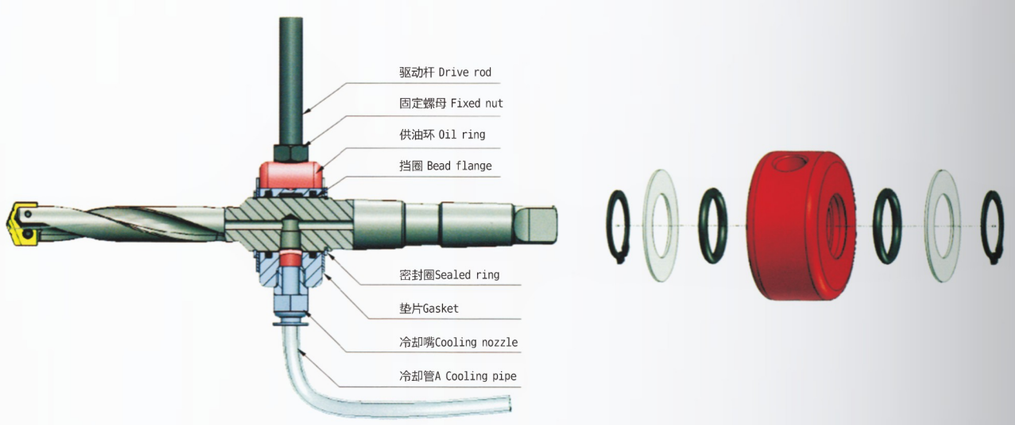
①用压缩空气清洁刀片和刀片槽。

②将刀片插入刀杆安装槽内轻按刀片。

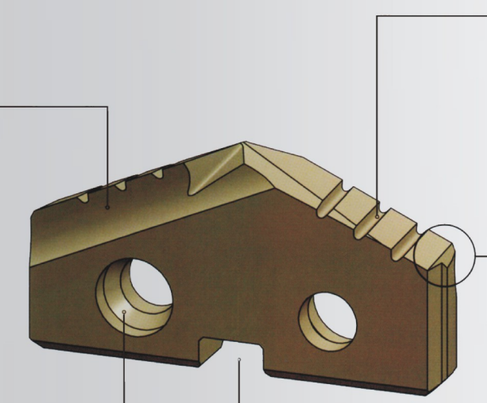
③用紧固螺钉锁紧刀片。有条件的用户推荐采用力矩扳手锁紧，锁紧力矩值如图所示。

①First, clean the insert and mounting groove with compressed air.
②Load the insert into the mounting groove in the holder and slightly push theinsert.
③Fix the insert with the fastening bolt.it is recommended that users use a torquewrench as far as possible and the tightening torques are shown in the figure.

供油环装配示意图 Schematic diagram of oil ring assembly



刀片介绍
Blade introduction



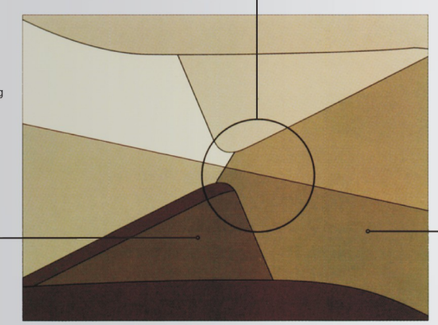
断屑槽
Chip breaker
- 折断切屑、易于排屑
- Broken chips, easy to remove chips

分屑槽
Chip dividing groove
- 减小切屑宽度
- 易于排屑
- 减小钻削扭矩
- Educe cutting width
- Better chip removal
- Reduce drilling torque

倒角
Beveling
- 增加刀片的强度
- 减少角的磨损
- 提高工件表面光洁度
- Increase the strength of insert
- Reduce the wear & tear of outer diameter
- lmprove the smoothness on the surface of workpiece

固定螺丝孔
Fix screw holes
- 安全可靠的装夹、确保钻削过程中的稳定性
- Safe and reliable clamping, Ensurethe stability during drilling

定位槽
Positioning slot
- 保证径向的平衡
- Ensure the accuracy of the radial direction



钻芯
Core drilling
- 钻芯薄与一般钻头产品相比降低20%的轴向阻力
- 良好的自定心
- Thinner core drilling, which reduce 20% axialresistance compared with nomal drilling products.
- Better self -centering

XR型横刃修磨
XR chisel edge regninding
- 提高刃口强度
- 增强稳定性
- lmprove the strength of cutting edges
- Ncrease the stability

两个后刀面
TWO back flank surface
- 减少与工件的磨擦
- 良好的自定心
- 降低轴向阻力
- Reduce the friction with the workpiece
- Better self-centering
- Reduce the axial resistance

铲钻刀片
Spade drill insert

型号编码规则 Model coding rule

SZ2-M0250-15XH

大类 Class	小类 Subclass	接口代码 Connector code			公英制 Metrical and Imperial	刀片直径 Insert diameter	材质 Material	几何 Geometry	涂层 Coating
		接口 Connector	公制 Metric	英制 Imperia					
S-铲钻	Z-刀片	Y	9.50～11.49	0.374" ～0.452"	M-公制	M0250-25mm	10-粉末高速钢	X-标准钻尖	H-C500
		Z	11.50～12.97	0.453" ～0.511"	I-英制	I0984-0.984"	15-含钴粉末高速钢	V-双顶角钻尖	A-C300
		0	12.98～17.85	0.511" ～0.703"			25-高钴粉末高速钢		
		1	17.86～24.60	0.703" ～0.969"			50-硬质合金		
		2	24.61～35.5	0.969" ～1.398"					
		3	35.51～47.99	1.398" ～1.889"					
		4	48.00～65.00	1.89" ～2.559"					
		5	63.50～76.99	2.5" ～3.031"					
		6	77.00～89.09	3.031" ～3.507"					
		7	89.10～101.60	3.508" ～4"					
		8	101.61～114.30	4" ～4.5"					

铲钻刀杆
Spade drill shank

型号编码规则 Model coding rule

SLH20-ML032-187N

大类 Class	小类 Subclass	槽形 Groove	接口代码 Connector code			公英制 Metrical and Imperial	柄部类型 Shank type	刀柄直径 The handle diameter	长度(L1) Length (L1)	表面处理 Surface treatment
			接口 Connector	公制 Metric	英制 Imperia					
S-铲钻	L-刀杆	H-螺旋槽	Y0	9.50～1.49	0.374" ～0.452"	M-公制	L-侧固式	016- 16mm	实际刃长:	N-黑色
		S-直槽	Z0	11.50～12.97	0.453" ～0.511"	I-英制	M-莫氏锥柄	020- 20mm	L1的尺寸	氧化
			00	12.98～15.49	0.511" ～0.61"			025- 25mm		处理
			05	15.50～17.85	0.61" ～0.703"			032- 32mm		T-银灰色
			10	17.86～21.99	0.703" ～0.866"			040- 40mm		电镀
			15	22.00～24.60	0.866" ～0.969"			075-3/4"		处理
			20	24.61～29.99	0.969" ～1.181"			063-5/8"		
			25	30.00～35.50	1.181" ～1.398"			125-1-1/4"		
			30	35.51～41.99	1.398" ～1.653"			150-1-1/2"		
			35	42.00～47.99	1.654" ～1.889"			MT2-#2		
			40	48.00～55.99	1.89" ～2.204"			MT3-#3		
			45	56.00～63.49	2.205" ～2.5"			MT4-#4		
			50	63.50～76.99	2.5" ～3.031"			MT5-#5		
			60	77.00～89.09	3.031" ～3.507"					
			70	89.10～101.60	3.508" ～4"					
			80	101.61～114.30	4" ～4.5"					

粉末高速钢刀片

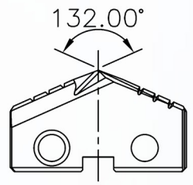
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材；
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁；
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

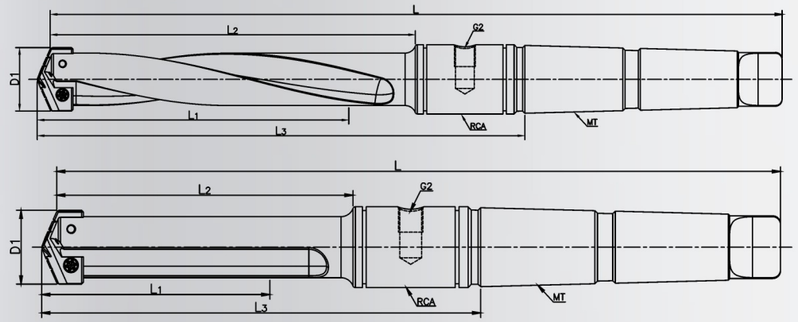
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
Y	2.38 3/32"	9.50		0.374			SZY-M0095-25XH
		9.53	3/8"	0.375			SZY-I0375-25XH
		9.80		0.386			SZY-M0098-25XH
		10.00		0.394			SZY-M0100-25XH
		10.20		0.402			SZY-M0102-25XH
		10.50		0.413			SZY-M0105-25XH
		10.72	27/64"	0.422			SZY-I0421-25XH
		10.80		0.425			SZY-M0108-25XH
		11.00		0.433			SZY-M0110-25XH
		11.11	7/16"	0.437			SZY-I0437-25XH
Z	2.38 3/32"	11.50		0.453			SZZ-M0115-25XH
		11.51	29/64"	0.453			SZZ-I0453-25XH
		12.00		0.472			SZZ-M0120-25XH
		12.30	31/64"	0.484			SZZ-I0484-25XH
		12.50		0.492			SZZ-M0125-25XH
		12.70	1/2"	0.500			SZZ-I0500-25XH
0	3.18 1/8"	13.00		0.512	SZO-M0130-10XH	SZO-M0130-15XH	SZO-M0130-25XH
		13.50		0.531	SZO-M0135-10XH	SZO-M0135-15XH	SZO-M0135-25XH
		14.00		0.551	SZO-M0140-10XH	SZO-M0140-15XH	SZO-M0140-25XH
		14.29	9/16"	0.563	SZO-I0562-10XH	SZO-I0562-15XH	SZO-I0562-25XH
		14.50		0.571	SZO-M0145-10XH	SZO-M0145-15XH	SZO-M0145-25XH
		15.00		0.591	SZO-M0150-10XH	SZO-M0150-15XH	SZO-M0150-25XH
0	3.18 1/8"	15.50		0.610	SZO-M0155-10XH	SZO-M0155-15XH	SZO-M0155-25XH
		15.88	5/8"	0.625	SZO-I0625-10XH	SZO-I0625-15XH	SZO-I0625-25XH
		16.00		0.630	SZO-M0160-10XH	SZO-M0160-15XH	SZO-M0160-25XH
		16.50		0.650	SZO-M0165-10XH	SZO-M0165-15XH	SZO-M0165-25XH
		17.00		0.669	SZO-M0170-10XH	SZO-M0170-15XH	SZO-M0170-25XH
		17.46	11/16"	0.687	SZO-I0687-10XH	SZO-I0687-15XH	SZO-I0687-25XH
		17.50		0.689	SZO-M0175-10XH	SZO-M0175-15XH	SZO-M0175-25XH

锥柄螺旋槽/直槽刀杆

Taper shank spiral groove / straight groove Arbor



型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLHYO-MMMT2-32N	YO	9.50～11.49 0.374"～0.452"	32	52	88	160	MT2	1/16"	SH-1905R	M2X4	T7X35
SLSYO-MMMT2-32N			32	52	88	160					
SLHYO-MMMT2-60N			60	80	117	189					
SLHYO-MMMT2-111N			111	131	167	240					
SLHZO-MMMT2-32N	ZO	11.50～12.97 0.453"～0.511"	32	52	88	160	MT2	1/16"	SH-1905R	M2X4.8	T7X35
SLSZO-MMMT2-32N			32	52	88	160					
SLHZO-MMMT2-60N			60	80	117	189					
SLHZO-MMMT2-111N			111	131	167	240					
SLHOO-MMMT2-35N	OO	12.98～15.49 0.511"～0.61"	35	56	92	164	MT2	1/16"	SH-1905R	M2.5X5.8	T8X40
SLSOO-MMMT2-35N			35	56	92	164					
SLHOO-MMMT2-64N			64	84	121	193					
SLHOO-MMMT2-114N			114	135	172	244					
SLHOO-MMMT2-178N			178	199	235	307					
SLHO5-MMMT2-35N	O5	15.50～17.85 0.61"～0.703"	35	56	92	164	MT2	1/16"	SH-1905R	M2.5X7	T8X40
SLSO5-MMMT2-35N			35	56	92	164					
SLHO5-MMMT2-64N			64	84	121	193					
SLHO5-MMMT2-114N			114	135	172	244					
SLHO5-MMMT2-178N			178	199	235	307					

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

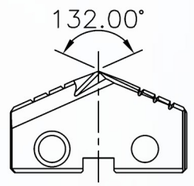
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材；
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁；
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

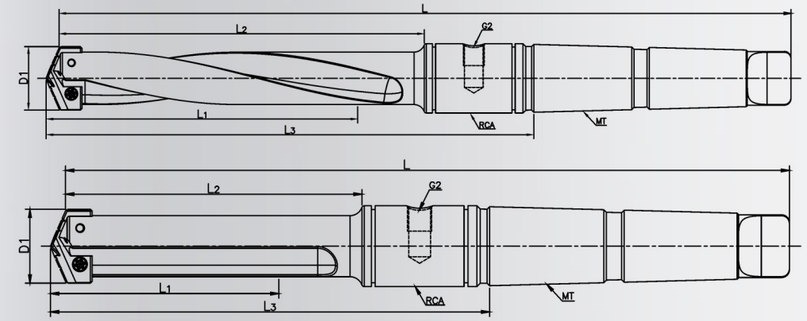
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter mm	Frcationl Equivalent	inch	可选刀片材质 Optional blade material HPM10	HPM15	HPM25
1	3.97 5/32"	18.00		0.709	SZ1-M0180-10XH	SZ1-M0180-15XH	SZ1-M0180-25XH
		18.50		0.728	SZ1-M0185-10XH	SZ1-M0185-15XH	SZ1-M0185-25XH
		19.00		0.748	SZ1-M0190-10XH	SZ1-M0190-15XH	SZ1-M0190-25XH
		19.05	3/4"	0.750	SZ1-I0750-10XH	SZ1-I0750-15XH	SZ1-I0750-25XH
		19.50		0.768	SZ1-M0195-10XH	SZ1-M0195-15XH	SZ1-M0195-25XH
		20.00		0.787	SZ1-M0200-10XH	SZ1-M0200-15XH	SZ1-M0200-25XH
		20.50		0.807	SZ1-M0205-10XH	SZ1-M0205-15XH	SZ1-M0205-25XH
		20.64	13/16"	0.813	SZ1-I0812-10XH	SZ1-I0812-15XH	SZ1-I0812-25XH
		21.00		0.827	SZ1-M0210-10XH	SZ1-M0210-15XH	SZ1-M0210-25XH
		21.50		0.846	SZ1-M0215-10XH	SZ1-M0215-15XH	SZ1-M0215-25XH
1	3.97 5/32"	22.00		0.866	SZ1-M0220-10XH	SZ1-M0220-15XH	SZ1-M0220-25XH
		22.23	7/8"	0.875	SZ1-I0875-10XH	SZ1-I0875-15XH	SZ1-I0875-25XH
		23.00		0.906	SZ1-M0230-10XH	SZ1-M0230-15XH	SZ1-M0230-25XH
		23.81	15/16"	0.937	SZ1-I0937-10XH	SZ1-I0937-15XH	SZ1-I0937-25XH
		24.00		0.945	SZ1-M0240-10XH	SZ1-M0240-15XH	SZ1-M0240-25XH
2	4.76 3/16"	25.00		0.984	SZ2-M0250-10XH	SZ2-M0250-15XH	SZ2-M0250-25XH
		25.40	1"	1.000	SZ2-I1000-10XH	SZ2-I1000-15XH	SZ2-I1000-25XH
		26.00		1.024	SZ2-M0260-10XH	SZ2-M0260-15XH	SZ2-M0260-25XH
		26.99	1-1/16"	1.063	SZ2-I1062-10XH	SZ2-I1062-15XH	SZ2-I1062-25XH
		27.00		1.063	SZ2-M0270-10XH	SZ2-M0270-15XH	SZ2-M0270-25XH
		28.00		1.102	SZ2-M0280-10XH	SZ2-M0280-15XH	SZ2-M0280-25XH
		28.58	1-1/8"	1.125	SZ2-I1125-10XH	SZ2-I1125-15XH	SZ2-I1125-25XH
		29.00		1.142	SZ2-M0290-10XH	SZ2-M0290-15XH	SZ2-M0290-25XH
2	4.76 3/16"	30.00		1.181	SZ2-M0300-10XH	SZ2-M0300-15XH	SZ2-M0300-25XH
		30.16	1-3/16"	1.187	SZ2-I1187-10XH	SZ2-I1187-15XH	SZ2-I1187-25XH
		31.00		1.220	SZ2-M0310-10XH	SZ2-M0310-15XH	SZ2-M0310-25XH
		31.75	1-1/4"	1.250	SZ2-I1250-10XH	SZ2-I1250-15XH	SZ2-I1250-25XH
		32.00		1.260	SZ2-M0320-10XH	SZ2-M0320-15XH	SZ2-M0320-25XH
		33.00		1.299	SZ2-M0330-10XH	SZ2-M0330-15XH	SZ2-M0330-25XH
		33.34	1-5/16"	1.313	SZ2-I1312-10XH	SZ2-I1312-15XH	SZ2-I1312-25XH
		34.00		1.339	SZ2-M0340-10XH	SZ2-M0340-15XH	SZ2-M0340-25XH
		34.13	1-11/32"	1.344	SZ2-I1343-10XH	SZ2-I1343-15XH	SZ2-I1343-25XH
		34.93	1-3/8"	1.375	SZ2-I1375-10XH	SZ2-I1375-15XH	SZ2-I1375-25XH
		35.00		1.378	SZ2-M0350-10XH	SZ2-M0350-15XH	SZ2-M0350-25XH

锥柄螺旋槽/直槽刀杆

Taper shank spiral groove / straight groove Arbor



型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLH10-MMMT3-70N	10	17.86～21.99 0.703"～0.866"	70	98	143	233	MT3	1/8"	SH-2540R	M3X7	T9X40
SLS10-MMMT3-70N			70	98	143	233					
SLH10-MMMT3-121N			121	149	193	283					
SLH10-MMMT3-172N			172	200	244	334					
SLH10-MMMT3-273N			273	302	346	436					
SLH15-MMMT3-70N	15	22.00～24.60 0.866"～0.969"	70	98	143	233	MT3	1/8"	SH-2540R	M3X7	T9X40
SLS15-MMMT3-70N			70	98	143	233					
SLH15-MMMT3-121N			121	149	193	283					
SLH15-MMMT3-172N			172	200	244	334					
SLH15-MMMT3-273N			273	302	346	436					
SLH20-MMMT4-86N	20	24.61～29.99 0.969"～1.181"	86	114	160	274	MT4	1/8"	SH-2540R	M4X10	T15X45
SLS20-MMMT3-86N			86	114	160	274					
SLH20-MMMT4-137N			137	165	211	325					
SLH20-MMMT4-187N			187	216	262	375					
SLH20-MMMT4-289N			289	318	364	477					
SLH25-MMMT4-86N	25	30.00～35.50 1.181"～1.398"	86	114	168	281	MT4	1/4"	SH-3175R	M4X10	T15X45
SLS25-MMMT3-86N			86	114	168	274					
SLH25-MMMT4-137N			137	165	218	332					
SLH25-MMMT4-187N			187	216	269	383					
SLH25-MMMT4-289N			289	318	371	484					
SLH25-MMMT4-400N			400	429	482	595					

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

HSS-PM insert series

HSS PM | HPC

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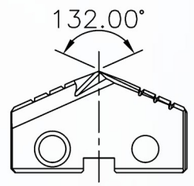
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁；
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

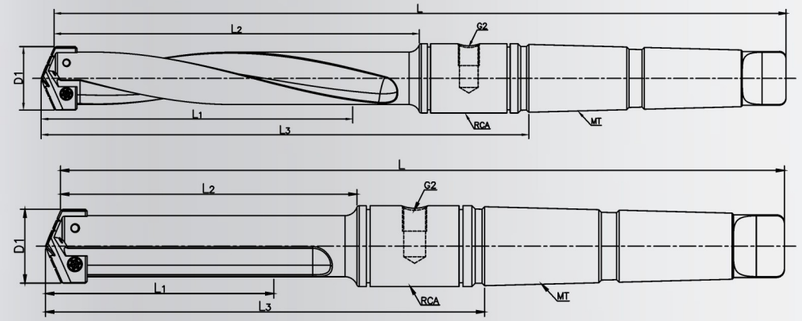
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
3	6.35 1/4"	36.00		1.417	SZ3-M0360-10XH	SZ3-M0360-15XH	SZ3-M0360-25XH
		36.51	1-7/16"	1.437	SZ3-I1437-10XH	SZ3-I1437-15XH	SZ3-I1437-25XH
		37.00		1.457	SZ3-M0370-10XH	SZ3-M0370-15XH	SZ3-M0370-25XH
		38.00		1.496	SZ3-M0380-10XH	SZ3-M0380-15XH	SZ3-M0380-25XH
		38.10	1-1/2"	1.500	SZ3-I1500-10XH	SZ3-I1500-15XH	SZ3-I1500-25XH
		39.00		1.535	SZ3-M0390-10XH	SZ3-M0390-15XH	SZ3-M0390-25XH
		39.69	1-9/16"	1.563	SZ3-I1562-10XH	SZ3-I1562-15XH	SZ3-I1562-25XH
		40.00		1.575	SZ3-M0400-10XH	SZ3-M0400-15XH	SZ3-M0400-25XH
		41.00		1.614	SZ3-M0410-10XH	SZ3-M0410-15XH	SZ3-M0410-25XH
		41.28	1-5/8"	1.625	SZ3-I1625-10XH	SZ3-I1625-15XH	SZ3-I1625-25XH
3	6.35 1/4"	42.00		1.654	SZ3-M0420-10XH	SZ3-M0420-15XH	SZ3-M0420-25XH
		42.86	1-11/16"	1.687	SZ3-I1687-10XH	SZ3-I1687-15XH	SZ3-I1687-25XH
		43.00		1.693	SZ3-M0430-10XH	SZ3-M0430-15XH	SZ3-M0430-25XH
		44.00		1.732	SZ3-M0440-10XH	SZ3-M0440-15XH	SZ3-M0440-25XH
		44.45	1-3/4"	1.750	SZ3-I1750-10XH	SZ3-I1750-15XH	SZ3-I1750-25XH
		45.00		1.772	SZ3-M0450-10XH	SZ3-M0450-15XH	SZ3-M0450-25XH
		46.00		1.811	SZ3-M0460-10XH	SZ3-M0460-15XH	SZ3-M0460-25XH
		46.04	1-13/16"	1.813	SZ3-I1812-10XH	SZ3-I1812-15XH	SZ3-I1812-25XH
		47.00		1.850	SZ3-M0470-10XH	SZ3-M0470-15XH	SZ3-M0470-25XH
		47.63	1-7/8"	1.875	SZ3-I1875-10XH	SZ3-I1875-15XH	SZ3-I1875-25XH

锥柄螺旋槽/直槽刀杆

Taper shank spiral groove / straight groove Arbor



型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLH30-MMMT4-121N	30	35.51～41.99 1.398"～1.653"	121	152	206	319	MT4	1/4"	SH-3175R	M5X14	T20X45
SLS30-MMMT4-121N			121	152	206	319					
SLH30-MMMT4-165N			165	197	251	364					
SLH30-MMMT4-210N			210	241	295	408					
SLH30-MMMT4-349N			349	381	435	548					
SLS30-MMMT4-349N			349	381	435	548					
SLS30-MMMT4-559N			559	591	645	757					
SLS30-MMMT4-787N			787	819	873	986					
SLH35-MMMT4-121N	35	42.00～47.99 1.654"～1.899"	121	152	206	319	MT4	1/4"	SH-3175R	M5X14	T20X45
SLS35-MMMT4-121N			121	152	206	319					
SLH35-MMMT4-165N			165	197	251	364					
SLH35-MMMT4-210N			210	241	295	408					
SLH35-MMMT4-349N			349	381	435	548					
SLS35-MMMT4-349N			349	381	435	548					
SLS35-MMMT4-559N			559	591	645	757					
SLS35-MMMT4-787N			787	819	873	986					

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

HSS-PM insert series

HSS PM | HPC

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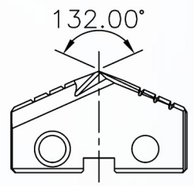
HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁；
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

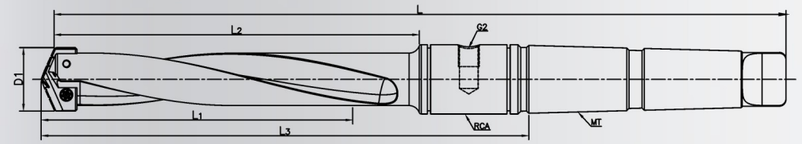
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.

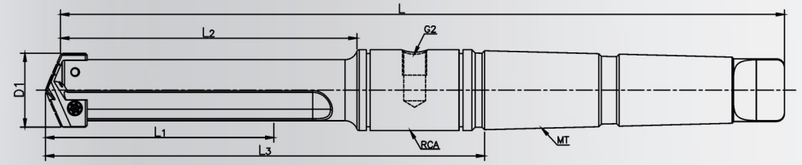


接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
4	7.94 5/16"	48.00		1.890	SZ4-M0480-10XH	SZ4-M0480-15XH	SZ4-M0480-25XH
		49.21	1-15/16"	1.937	SZ4-I1937-10XH	SZ4-I1937-15XH	SZ4-I1937-25XH
		50.00		1.969	SZ4-M0500-10XH	SZ4-M0500-15XH	SZ4-M0500-25XH
		50.80	2"	2.000	SZ4-I2000-10XH	SZ4-I2000-15XH	SZ4-I2000-25XH
		51.00		2.008	SZ4-M0510-10XH	SZ4-M0510-15XH	SZ4-M0510-25XH
		52.00		2.047	SZ4-M0520-10XH	SZ4-M0520-15XH	SZ4-M0520-25XH
		52.39	2-1/16"	2.063	SZ4-I2062-10XH	SZ4-I2062-15XH	SZ4-I2062-25XH
		53.00		2.087	SZ4-M0530-10XH	SZ4-M0530-15XH	SZ4-M0530-25XH
		53.98	2-1/8"	2.125	SZ4-I2125-10XH	SZ4-I2125-15XH	SZ4-I2125-25XH
		54.00		2.126	SZ4-M0540-10XH	SZ4-M0540-15XH	SZ4-M0540-25XH
		55.00		2.165	SZ4-M0550-10XH	SZ4-M0550-15XH	SZ4-M0550-25XH
		55.56	2-3/16"	2.187	SZ4-I2187-10XH	SZ4-I2187-15XH	SZ4-I2187-25XH
4	7.94 5/16"	56.00		2.205	SZ4-M0560-10XH	SZ4-M0560-15XH	SZ4-M0560-25XH
		57.00		2.244	SZ4-M0570-10XH	SZ4-M0570-15XH	SZ4-M0570-25XH
		57.15	2-1/4"	2.250	SZ4-I2250-10XH	SZ4-I2250-15XH	SZ4-I2250-25XH
		58.00		2.283	SZ4-M0580-10XH	SZ4-M0580-15XH	SZ4-M0580-25XH
		58.74	2-5/16"	2.313	SZ4-I2312-10XH	SZ4-I2312-15XH	SZ4-I2312-25XH
		59.00		2.323	SZ4-M0590-10XH	SZ4-M0590-15XH	SZ4-M0590-25XH
		60.00		2.362	SZ4-M0600-10XH	SZ4-M0600-15XH	SZ4-M0600-25XH
		60.33	2-3/8"	2.375	SZ4-I2375-10XH	SZ4-I2375-15XH	SZ4-I2375-25XH
		61.00		2.402	SZ4-M0610-10XH	SZ4-M0610-15XH	SZ4-M0610-25XH
		61.91	2-7/16"	2.437	SZ4-I2437-10XH	SZ4-I2437-15XH	SZ4-I2437-25XH
		62.00		2.441	SZ4-M0620-10XH	SZ4-M0620-15XH	SZ4-M0620-25XH
		63.00		2.480	SZ4-M0630-10XH	SZ4-M0630-15XH	SZ4-M0630-25XH
		63.50	2-1/2"	2.500	SZ4-I2500-10XH	SZ4-I2500-15XH	SZ4-I2500-25XH
		64.00		2.520	SZ4-M0640-10XH	SZ4-M0640-15XH	SZ4-M0640-25XH
		65.00		2.559	SZ4-M0650-10XH	SZ4-M0650-15XH	SZ4-M0650-25XH
		65.09	2-9/16"	2.563	SZ4-I2562-10XH	SZ4-I2562-15XH	SZ4-I2562-25XH

锥柄螺旋槽/直槽刀杆

Taper shank spiral groove / straight groove Arbor





型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLH40-MMMT5-130N	40	48.00～55.99 1.89"～2.204"	130	165	219	364	MT5	1/4"	SH-4445R	M5X14	T20X45
SLS40-MMMT5-130N			130	165	219	364					
SLH40-MMMT5-232N			232	267	321	465					
SLH40-MMMT5-350N			350	385	439	583					
SLH40-MMMT5-422N			422	457	511	656					
SLS40-MMMT5-422N			422	457	511	656					
SLS40-MMMT5-625N			625	660	714	859					
SLS40-MMMT5-879N			879	914	968	1113					
SLH45-MMMT5-130N	45	56.00～65.19 2.205"～2.563"	130	165	219	364	MT5	1/4"	SH-4445R	M5X14	T20X45
SLS45-MMMT5-130N			130	165	219	364					
SLH45-MMMT5-232N			232	267	321	465					
SLH45-MMMT5-350N			350	385	439	583					
SLH45-MMMT5-422N			422	457	511	656					
SLS45-MMMT5-422N			422	457	511	656					
SLS45-MMMT5-625N			625	660	714	859					
SLS45-MMMT5-879N			879	914	968	1113					

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

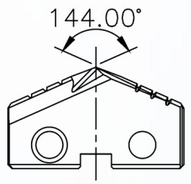
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材·
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁;
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

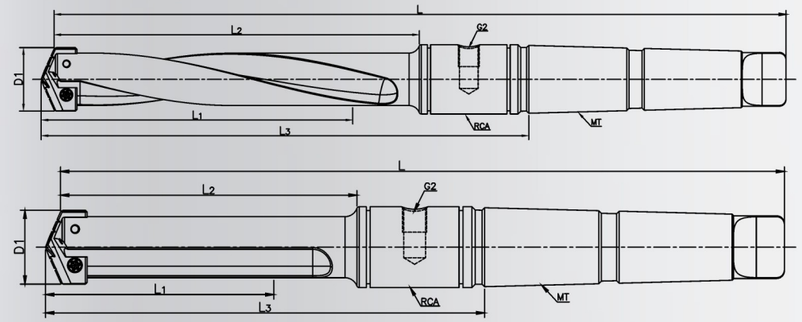
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
5	11.11 7/16"	63.50	2-1/2"	2.500	SZ5-I2500-10XH	SZ5-I2500-15XH	
		64.00		2.520	SZ5-M0640-10XH	SZ5-M0640-15XH	
		65.00		2.559	SZ5-M0650-10XH	SZ5-M0650-15XH	
		65.09	2-9/16"	2.563	SZ5-I2562-10XH	SZ5-I2562-15XH	
		66.00		2.598	SZ5-M0660-10XH	SZ5-M0660-15XH	
		66.68	2-5/8"	2.625	SZ5-I2625-10XH	SZ5-I2625-15XH	
		68.00		2.677	SZ5-M0680-10XH	SZ5-M0680-15XH	
		70.00		2.756	SZ5-M0700-10XH	SZ5-M0700-15XH	
		71.44	2-13/16"	2.813	SZ5-I2812-10XH	SZ5-I2812-15XH	
		72.00		2.835	SZ5-M0720-10XH	SZ5-M0720-15XH	
		73.03	2-7/8"	2.875	SZ5-I2875-10XH	SZ5-I2875-15XH	
		74.00		2.913	SZ5-M0740-10XH	SZ5-M0740-15XH	
		74.61	2-15/16"	2.937	SZ5-I2937-10XH	SZ5-I2937-15XH	
		76.00		2.992	SZ5-M0760-10XH	SZ5-M0760-15XH	
		76.20	3"	3.000	SZ5-I3000-10XH	SZ5-I3000-15XH	
		76.99	3-1/32"	3.031	SZ5-I3031-10XH	SZ5-I3031-15XH	
6	11.11 7/16"	77.00		3.031	SZ6-M0770-10XH	SZ6-M0770-15XH	
		77.79	3-1/16"	3.063	SZ6-I3062-10XH	SZ6-I3062-15XH	
		78.00		3.071	SZ6-M0780-10XH	SZ6-M0780-15XH	
		79.38	3-1/8"	3.125	SZ6-I3125-10XH	SZ6-I3125-15XH	
		80.00		3.150	SZ6-M0800-10XH	SZ6-M0800-15XH	
		80.96	3-3/16"	3.187	SZ6-I3187-10XH	SZ6-I3187-15XH	
		82.00		3.228	SZ6-M0820-10XH	SZ6-M0820-15XH	
		82.55	3-1/4"	3.250	SZ6-I3250-10XH	SZ6-I3250-15XH	
		84.00		3.307	SZ6-M0840-10XH	SZ6-M0840-15XH	
		84.14	3-5/16"	3.313	SZ6-I3312-10XH	SZ6-I3312-15XH	
		85.73	3-3/8"	3.375	SZ6-I3375-10XH	SZ6-I3375-15XH	
		86.00		3.386	SZ6-M0860-10XH	SZ6-M0860-15XH	
		87.31	3-7/16"	3.437	SZ6-I3437-10XH	SZ6-I3437-15XH	
		88.00		3.465	SZ6-M0880-10XH	SZ6-M0880-15XH	
		88.90	3-1/2"	3.500	SZ6-I3500-10XH	SZ6-I3500-15XH	
		89.00		3.504	SZ6-M0890-10XH	SZ6-M0890-15XH	

锥柄螺旋槽/直槽刀杆

Taper shank spiral groove / straight groove Arbor



型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLH50-MMMT5-172N	50	63.50～76.99 2.5"～3.031"	172	216	287	430	MT5	1/2"	SH-5715R	M6X19	T25X100
SLS50-MMMT5-172N			172	216	287	430					
SLH50-MMMT5-273N			273	318	389	532					
SLS50-MMMT5-368N			368	413	484	627					
SLH50-MMMT5-464N			464	508	579	722					
SLS50-MMMT5-464N			464	508	579	722					
SLS50-MMMT5-660N			660	705	776	919					
SLS50-MMMT5-889N			889	933	1005	1148					
SLH55-MMMT5-172N	55	77.00～89.09 3.031"～3.507"	172	216	287	430	MT5	1/2"	SH-5715R	M6X19	T25X100
SLS55-MMMT5-172N			172	216	287	430					
SLH55-MMMT5-273N			273	318	389	532					
SLH55-MMMT5-464N			464	508	579	722					
SLS55-MMMT5-464N			464	508	579	722					
SLS55-MMMT5-660N			660	705	776	919					
SLS55-MMMT5-889N			889	933	1005	1148					

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

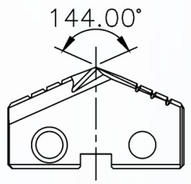
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材；
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁；
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

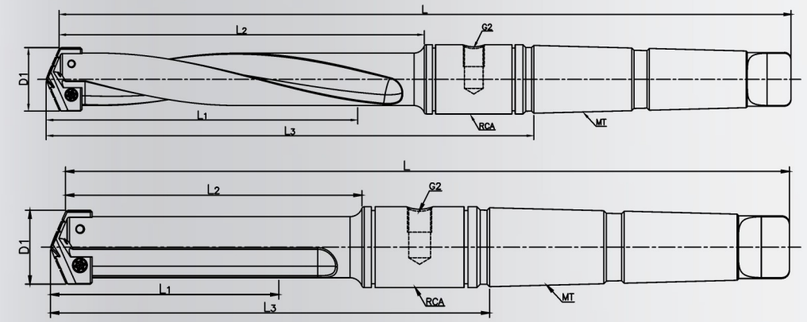
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
7	11.11 7/16"	89.96	3-17/32"	3.542	SZ7-I3531-10XH	SZ7-I3531-15XH	
		90.00		3.543	SZ7-M0900-10XH	SZ7-M0900-15XH	
		90.49	3-9/16"	3.563	SZ7-I3562-10XH	SZ7-I3562-15XH	
		92.00		3.622	SZ7-M0920-10XH	SZ7-M0920-15XH	
		92.08	3-5/8"	3.625	SZ7-I3625-10XH	SZ7-I3625-15XH	
		93.66	3-11/16"	3.687	SZ7-I3687-10XH	SZ7-I3687-15XH	
		94.00		3.701	SZ7-M0940-10XH	SZ7-M0940-15XH	
		95.25	3-3/4"	3.750	SZ7-I3750-10XH	SZ7-I3750-15XH	
		96.00		3.780	SZ7-M0960-10XH	SZ7-M0960-15XH	
		96.84	3-13/16"	3.813	SZ7-I3812-10XH	SZ7-I3812-15XH	
		98.00		3.858	SZ7-M0980-10XH	SZ7-M0980-15XH	
		98.43	3-7/8"	3.875	SZ7-I3875-10XH	SZ7-I3875-15XH	
		100.00		3.937	SZ7-M1000-10XH	SZ7-M1000-15XH	
		100.01	3-15/16"	3.937	SZ7-I3937-10XH	SZ7-I3937-15XH	
		101.60	4"	4.000	SZ7-I4000-10XH	SZ7-I4000-15XH	
8	11.11 7/16"	102.00		4.016	SZ8-M1020-10XH	SZ8-M1020-15XH	
		104.00		4.094	SZ8-M1040-10XH	SZ8-M1040-15XH	
		104.78	4-1/8"	4.125	SZ8-I4125-10XH	SZ8-I4125-15XH	
		106.00		4.173	SZ8-M1060-10XH	SZ8-M1060-15XH	
		107.95	4-1/4"	4.250	SZ8-I4250-10XH	SZ8-I4250-15XH	
		108.00		4.252	SZ8-M1080-10XH	SZ8-M1080-15XH	
		110.00		4.331	SZ8-M1100-10XH	SZ8-M1100-15XH	
		112.00		4.409	SZ8-M1120-10XH	SZ8-M1120-15XH	
		114.00		4.488	SZ8-M1140-10XH	SZ8-M1140-15XH	
		114.30	4-1/2"	4.500	SZ8-I4500-10XH	SZ8-I4500-15XH	

锥柄螺旋槽/直槽刀杆

Taper shank spiral groove / straight groove Arbor



型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLH70-MMMT5-172N	70	89.10～101.60 3.508"～4"	172	225	297	440	MT5	1/2"	SH-5715R	M6X19	T25X100
SLS70-MMMT5-172N			172	225	297	440					
SLH70-MMMT5-273N			273	327	399	541					
SLH70-MMMT5-556N			556	610	681	824					
SLS70-MMMT5-556N			556	610	681	824					
SLS70-MMMT5-685N			685	740	811	954					
SLS70-MMMT5-939N			939	994	1065	1208					
SLH80-MMMT5-172N	80	101.61～114.30 4"～4.5"	172	225	297	440	MT5	1/2"	SH-5715R	M6X19	T25X100
SLS80-MMMT5-172N			172	225	297	440					
SLH80-MMMT5-273N			273	327	399	541					
SLH80-MMMT5-556N			556	610	681	824					
SLS80-MMMT5-556N			556	610	681	824					
SLS80-MMMT5-685N			685	740	811	954					
SLS80-MMMT5-939N			939	994	1065	1208					

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

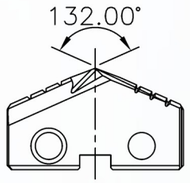
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材·
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁;
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

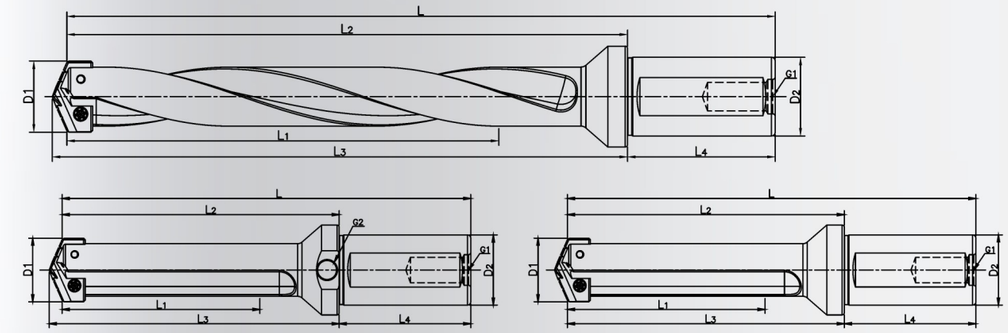
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter mm	Frcationl Equivalent	inch	可选刀片材质 Optional blade material HPM10	HPM15	HPM25
Y	2.38 3/32"	9.50		0.374			SZY-M0095-25XH
		9.53	3/8"	0.375			SZY-I0375-25XH
		9.80		0.386			SZY-M0098-25XH
		10.00		0.394			SZY-M0100-25XH
		10.20		0.402			SZY-M0102-25XH
		10.50		0.413			SZY-M0105-25XH
		10.72	27/64"	0.422			SZY-I0421-25XH
		10.80		0.425			SZY-M0108-25XH
		11.00		0.433			SZY-M0110-25XH
		11.11	7/16"	0.437			SZY-I0437-25XH
Z	2.38 3/32"	11.50		0.453			SZZ-M0115-25XH
		11.51	29/64"	0.453			SZZ-I0453-25XH
		12.00		0.472			SZZ-M0120-25XH
		12.30	31/64"	0.484			SZZ-I0484-25XH
		12.50		0.492			SZZ-M0125-25XH
		12.70	1/2"	0.500			SZZ-I0500-25XH
0	3.18 1/8"	13.00		0.512	SZO-M0130-10XH	SZO-M0130-15XH	SZO-M0130-25XH
		13.50		0.531	SZO-M0135-10XH	SZO-M0135-15XH	SZO-M0135-25XH
		14.00		0.551	SZO-M0140-10XH	SZO-M0140-15XH	SZO-M0140-25XH
		14.29	9/16"	0.563	SZO-I0562-10XH	SZO-I0562-15XH	SZO-I0562-25XH
		14.50		0.571	SZO-M0145-10XH	SZO-M0145-15XH	SZO-M0145-25XH
		15.00		0.591	SZO-M0150-10XH	SZO-M0150-15XH	SZO-M0150-25XH
0	3.18 1/8"	15.50		0.610	SZO-M0155-10XH	SZO-M0155-15XH	SZO-M0155-25XH
		15.88	5/8"	0.625	SZO-I0625-10XH	SZO-I0625-15XH	SZO-I0625-25XH
		16.00		0.630	SZO-M0160-10XH	SZO-M0160-15XH	SZO-M0160-25XH
		16.50		0.650	SZO-M0165-10XH	SZO-M0165-15XH	SZO-M0165-25XH
		17.00		0.669	SZO-M0170-10XH	SZO-M0170-15XH	SZO-M0170-25XH
		17.46	11/16"	0.687	SZO-I0687-10XH	SZO-I0687-15XH	SZO-I0687-25XH
		17.50		0.689	SZO-M0175-10XH	SZO-M0175-15XH	SZO-M0175-25XH

侧固式柄螺旋槽/直槽刀杆

Side fixed handle spiral groove / straight groove cutter bar



型号 Code No	接口 Connector	D1	L1	L2	L3	L	D2	L4	G1	G2		
SLSYO-MLO16-19N	YO	9.50～11.49 0.374"～0.452"	19	48	50	96	16	48	1/16"	1/8"	M2X4	T7X35
SLSYO-MLO20-32N			32	61	64	111	20	50	1/8"			
SLHYO-MLO20-60N			60	90	92	140	20	50	1/8"			
SLHYO-MLO20-111N			111	141	143	191	20	50	1/8"			
SLSYO-MLO20-222N			222	252	254	302	20	50	1/8"			
SLSYO-MLO20-290N			290	320	322	370	20	50	1/8"			
SLSZO-MLO16-19N	ZO	11.50～12.97 0.453"～0.511"	19	48	50	96	16	48	1/16"	1/8"	M2X4.8	T7X35
SLSZO-MLO20-32N			32	61	64	111	20	50	1/8"			
SLHZO-MLO20-60N			60	90	92	140	20	50	1/8"			
SLHZO-MLO20-111N			111	141	143	191	20	50	1/8"			
SLSZO-MLO20-222N			222	252	254	302	20	50	1/8"			
SLSZO-MLO20-290N			290	320	322	370	20	50	1/8"			
SLSOO-MLO20-22N	OO	12.98～15.49 0.511"～0.61"	22	48	50	98	20	50	1/8"	1/8"	M2.5X5.8	T8X40
SLSOO-MLO20-35N			35	64	66	114						
SLHOO-MLO20-64N			64	92	95	142						
SLHOO-MLO20-114N			114	143	146	193						
SLHOO-MLO20-178N			178	206	209	256						
SLSOO-MLO20-240N			240	268	271	318						
SLSOO-MLO20-295N			295	324	327	374						
SLSOO-MLO20-387N			387	416	419	466						
SLSO5-MLO20-22N	O5	15.50～17.85 0.61～0.703	22	48	50	98	20	50	1/8"	1/8"	M2.5X7	T8X40
SLSO5-MLO20-35N			35	64	66	114						
SLHO5-MLO20-64N			64	92	95	142						
SLHO5-MLO20-114N			114	143	146	193						
SLHO5-MLO20-178N			178	206	209	256						
SLSO5-MLO20-240N			240	268	271	318						
SLSO5-MLO20-295N			295	324	327	374						
SLSO5-MLO20-387N			387	416	419	466						

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材·
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

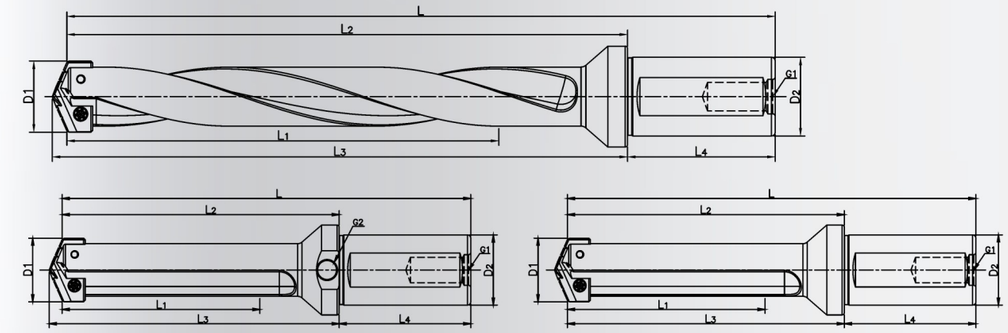
HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁;
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.

接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
1	3.97 5/32"	18.00		0.709	SZ1-M0180-10XH	SZ1-M0180-15XH	SZ1-M0180-25XH
		18.50		0.728	SZ1-M0185-10XH	SZ1-M0185-15XH	SZ1-M0185-25XH
		19.00		0.748	SZ1-M0190-10XH	SZ1-M0190-15XH	SZ1-M0190-25XH
		19.05	3/4"	0.750	SZ1-I0750-10XH	SZ1-I0750-15XH	SZ1-I0750-25XH
		19.50		0.768	SZ1-M0195-10XH	SZ1-M0195-15XH	SZ1-M0195-25XH
		20.00		0.787	SZ1-M0200-10XH	SZ1-M0200-15XH	SZ1-M0200-25XH
		20.50		0.807	SZ1-M0205-10XH	SZ1-M0205-15XH	SZ1-M0205-25XH
		20.64	13/16"	0.813	SZ1-I0812-10XH	SZ1-I0812-15XH	SZ1-I0812-25XH
		21.00		0.827	SZ1-M0210-10XH	SZ1-M0210-15XH	SZ1-M0210-25XH
		21.50		0.846	SZ1-M0215-10XH	SZ1-M0215-15XH	SZ1-M0215-25XH
1	3.97 5/32"	22.00		0.866	SZ1-M0220-10XH	SZ1-M0220-15XH	SZ1-M0220-25XH
		22.23	7/8"	0.875	SZ1-I0875-10XH	SZ1-I0875-15XH	SZ1-I0875-25XH
		23.00		0.906	SZ1-M0230-10XH	SZ1-M0230-15XH	SZ1-M0230-25XH
		23.81	15/16"	0.937	SZ1-I0937-10XH	SZ1-I0937-15XH	SZ1-I0937-25XH
		24.00		0.945	SZ1-M0240-10XH	SZ1-M0240-15XH	SZ1-M0240-25XH
2	4.76 3/16"	25.00		0.984	SZ2-M0250-10XH	SZ2-M0250-15XH	SZ2-M0250-25XH
		25.40	1"	1.000	SZ2-I1000-10XH	SZ2-I1000-15XH	SZ2-I1000-25XH
		26.00		1.024	SZ2-M0260-10XH	SZ2-M0260-15XH	SZ2-M0260-25XH
		26.99	1-1/16"	1.063	SZ2-I1062-10XH	SZ2-I1062-15XH	SZ2-I1062-25XH
		27.00		1.063	SZ2-M0270-10XH	SZ2-M0270-15XH	SZ2-M0270-25XH
		28.00		1.102	SZ2-M0280-10XH	SZ2-M0280-15XH	SZ2-M0280-25XH
		28.58	1-1/8"	1.125	SZ2-I1125-10XH	SZ2-I1125-15XH	SZ2-I1125-25XH
		29.00		1.142	SZ2-M0290-10XH	SZ2-M0290-15XH	SZ2-M0290-25XH
2	4.76 3/16"	30.00		1.181	SZ2-M0300-10XH	SZ2-M0300-15XH	SZ2-M0300-25XH
		30.16	1-3/16"	1.187	SZ2-I1187-10XH	SZ2-I1187-15XH	SZ2-I1187-25XH
		31.00		1.220	SZ2-M0310-10XH	SZ2-M0310-15XH	SZ2-M0310-25XH
		31.75	1-1/4"	1.250	SZ2-I1250-10XH	SZ2-I1250-15XH	SZ2-I1250-25XH
		32.00		1.260	SZ2-M0320-10XH	SZ2-M0320-15XH	SZ2-M0320-25XH
		33.00		1.299	SZ2-M0330-10XH	SZ2-M0330-15XH	SZ2-M0330-25XH
		33.34	1-5/16"	1.313	SZ2-I1312-10XH	SZ2-I1312-15XH	SZ2-I1312-25XH
		34.00		1.339	SZ2-M0340-10XH	SZ2-M0340-15XH	SZ2-M0340-25XH
		34.13	1-11/32"	1.344	SZ2-I1343-10XH	SZ2-I1343-15XH	SZ2-I1343-25XH
		34.93	1-3/8"	1.375	SZ2-I1375-10XH	SZ2-I1375-15XH	SZ2-I1375-25XH
		35.00		1.378	SZ2-M0350-10XH	SZ2-M0350-15XH	SZ2-M0350-25XH

侧固式柄螺旋槽/直槽刀杆

Side fixed handle spiral groove / straight groove cutter bar



型号 Code No	接口 Connector	D1	L1	L2	L3	L	D2	L4	G1	G2		
SLS10-MLO25-48N	10	17.86～21.99 0.703"～0.866"	48	76	79	132	25	56	1/8"	1/8"	M3X7	T9X40
SLS10-MLO25-67N			67	107	111	163						
SLH10-MLO25-118N			118	155	158	211						
SLH10-MLO25-168N			168	206	209	262						
SLH10-MLO25-222N			222	260	263	316						
SLH10-MLO25-270N			270	307	311	363						
SLS10-MLO25-365N			365	402	406	458						
SLS10-MLO25-457N			457	495	498	551						
SLS10-MLO25-569N			569	603	606	659						
SLS15-MLO25-48N	15	22.00～24.60 0.866"～0.969"	48	76	79	132	25	56	1/8"	1/8"	M3X7	T9X40
SLS15-MLO25-67N			67	107	111	163						
SLH15-MLO25-118N			118	155	158	211						
SLH15-MLO25-168N			168	206	209	262						
SLH15-MLO25-222N			222	260	263	316						
SLH15-MLO25-270N			270	307	311	363						
SLS15-MLO25-365N			365	402	406	458						
SLS15-MLO25-457N			457	495	498	551						
SLS15-MLO25-569N			569	603	606	659						
SLS20-MLO32-57N	20	24.61～29.99 0.969"～1.181"	57	89	92	149	32	60	1/4"	1/8"	M4X10	T15X45
SLS20-MLO32-86N			86	129	132	189						
SLH20-MLO32-137N			137	179	183	239						
SLH20-MLO32-187N			187	230	234	290						
SLH20-MLO32-237N			237	280	284	340						
SLH20-MLO32-289N			289	332	335	392						
SLS20-MLO32-400N			400	443	446	503						
SLS20-MLO32-511N			511	554	558	618						
SLS20-MLO32-492N			692	735	739	795						
SLS25-MLO32-57N	25	30.00～35.50 1.181"～1.398"	57	89	92	149	32	60	1/4"	1/8"	M4X10	T15X45
SLS25-MLO32-86N			86	129	132	189						
SLH25-MLO32-137N			137	179	183	239						
SLH25-MLO32-187N			187	230	234	290						
SLH20-MLO32-237N			237	280	284	340						
SLH25-MLO32-289N			289	332	335	392						
SLS25-MLO32-400N			400	443	446	503						
SLS25-MLO32-511N			511	554	558	618						
SLS25-MLO32-492N			692	735	739	795						

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

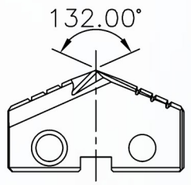
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材·
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁;
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

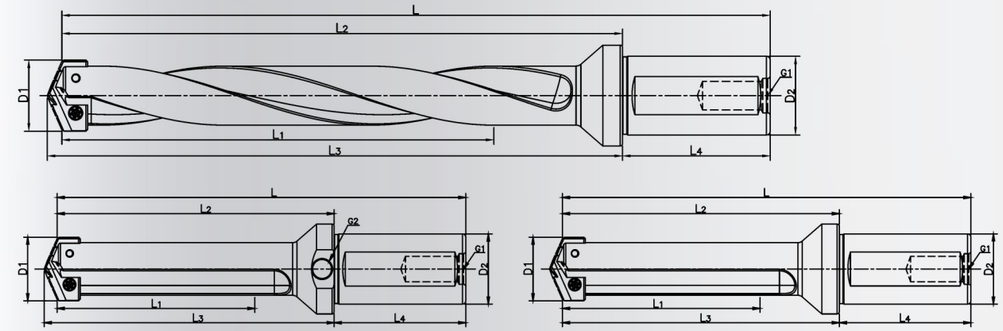
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
3	6.35 1/4"	36.00		1.417	SZ3-M0360-10XH	SZ3-M0360-15XH	SZ3-M0360-25XH
		36.51	1-7/16"	1.437	SZ3-I1437-10XH	SZ3-I1437-15XH	SZ3-I1437-25XH
		37.00		1.457	SZ3-M0370-10XH	SZ3-M0370-15XH	SZ3-M0370-25XH
		38.00		1.496	SZ3-M0380-10XH	SZ3-M0380-15XH	SZ3-M0380-25XH
		38.10	1-1/2"	1.500	SZ3-I1500-10XH	SZ3-I1500-15XH	SZ3-I1500-25XH
		39.00		1.535	SZ3-M0390-10XH	SZ3-M0390-15XH	SZ3-M0390-25XH
		39.69	1-9/16"	1.563	SZ3-I1562-10XH	SZ3-I1562-15XH	SZ3-I1562-25XH
		40.00		1.575	SZ3-M0400-10XH	SZ3-M0400-15XH	SZ3-M0400-25XH
		41.00		1.614	SZ3-M0410-10XH	SZ3-M0410-15XH	SZ3-M0410-25XH
		41.28	1-5/8"	1.625	SZ3-I1625-10XH	SZ3-I1625-15XH	SZ3-I1625-25XH
3	6.35 1/4"	42.00		1.654	SZ3-M0420-10XH	SZ3-M0420-15XH	SZ3-M0420-25XH
		42.86	1-11/16"	1.687	SZ3-I1687-10XH	SZ3-I1687-15XH	SZ3-I1687-25XH
		43.00		1.693	SZ3-M0430-10XH	SZ3-M0430-15XH	SZ3-M0430-25XH
		44.00		1.732	SZ3-M0440-10XH	SZ3-M0440-15XH	SZ3-M0440-25XH
		44.45	1-3/4"	1.750	SZ3-I1750-10XH	SZ3-I1750-15XH	SZ3-I1750-25XH
		45.00		1.772	SZ3-M0450-10XH	SZ3-M0450-15XH	SZ3-M0450-25XH
		46.00		1.811	SZ3-M0460-10XH	SZ3-M0460-15XH	SZ3-M0460-25XH
		46.04	1-13/16"	1.813	SZ3-I1812-10XH	SZ3-I1812-15XH	SZ3-I1812-25XH
		47.00		1.850	SZ3-M0470-10XH	SZ3-M0470-15XH	SZ3-M0470-25XH
		47.63	1-7/8"	1.875	SZ3-I1875-10XH	SZ3-I1875-15XH	SZ3-I1875-25XH

侧固式柄螺旋槽/直槽刀杆

Side fixed handle spiral groove / straight groove cutter bar



型号 Code No	接口 Connector	D1	L1	L2	L3	L	D2	L4	G1	G2		
SLS30-ML040-76N	30	35.51～41.99 1.398"～1.653"	76	125	130	195	40	70	1/4"	1/4"	M5X14	T20X45
SLS30-ML040-121N			121	173	178	243						
SLH30-ML040-165N			165	218	222	288						
SLH30-ML040-210N			210	262	267	332						
SLH30-ML040-260N			260	312	317	382						
SLH30-ML040-349N			349	402	406	472						
SLS30-ML040-349N			349	402	406	472						
SLS30-ML040-559N			559	611	616	681						
SLS30-ML040-787N			787	840	845	910						
SLS35-ML040-76N	35	42.00～47.99 1.654"～1.899"	76	125	130	195	40	70	1/4"	1/4"	M5X14	T20X45
SLS35-ML040-121N			121	173	178	243						
SLH35-ML040-165N			165	218	222	288						
SLH35-ML040-210N			210	262	267	332						
SLH35-ML040-260N			260	312	317	382						
SLH35-ML040-349N			349	402	406	472						
SLS35-ML040-349N			349	402	406	472						
SLS35-ML040-559N			559	611	616	681						
SLS35-ML040-787N			787	840	845	910						

注：SLH-螺旋槽　SLS-直槽

粉末高速钢刀片

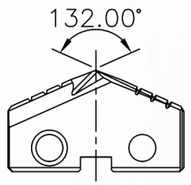
HSS-PM insert series

HSS PM | HPC

HPM10 - 粉末高速钢，适用于硬度HB275以下的钢材·
Powder high speed steel, apply to process carbon steel with hardness is till Hb275;

HPM15 - 含钴粉末高速钢，适用于硬度HB350以下的钢、不锈钢、铸铁;
Powder cobalt high speed steel apply to process carbon steel, stainless steel, cast iron and other materials which hardness is ill Hb350;

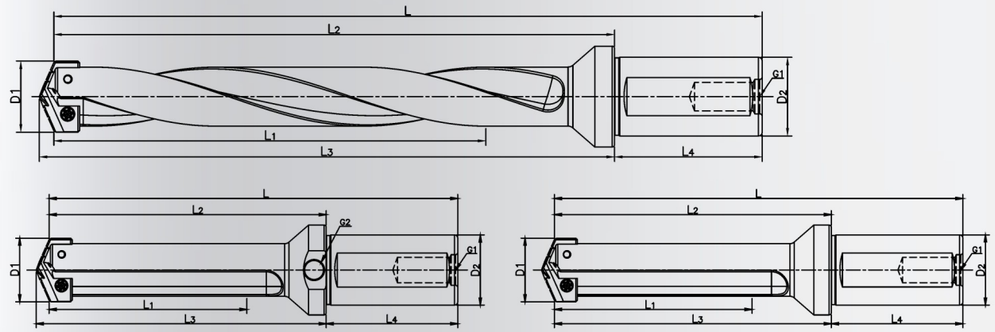
HPM25 - 高钴粉末高速钢，适用于硬度HB400以下的钢、不锈钢、铸铁。
Powder cobalt-rich high speed steel, apply to process alloy steel stainless steel, cast iron and other materials which hardness is ill Hb400.



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter			可选刀片材质 Optional blade material		
		mm	Frcationl Equivalent	inch	HPM10	HPM15	HPM25
4	7.94 5/16"	48.00		1.890	SZ4-M0480-10XH	SZ4-M0480-15XH	SZ4-M0480-25XH
		49.21	1-15/16"	1.937	SZ4-I1937-10XH	SZ4-I1937-15XH	SZ4-I1937-25XH
		50.00		1.969	SZ4-M0500-10XH	SZ4-M0500-15XH	SZ4-M0500-25XH
		50.80	2"	2.000	SZ4-I2000-10XH	SZ4-I2000-15XH	SZ4-I2000-25XH
		51.00		2.008	SZ4-M0510-10XH	SZ4-M0510-15XH	SZ4-M0510-25XH
		52.00		2.047	SZ4-M0520-10XH	SZ4-M0520-15XH	SZ4-M0520-25XH
		52.39	2-1/16"	2.063	SZ4-I2062-10XH	SZ4-I2062-15XH	SZ4-I2062-25XH
		53.00		2.087	SZ4-M0530-10XH	SZ4-M0530-15XH	SZ4-M0530-25XH
		53.98	2-1/8"	2.125	SZ4-I2125-10XH	SZ4-I2125-15XH	SZ4-I2125-25XH
		54.00		2.126	SZ4-M0540-10XH	SZ4-M0540-15XH	SZ4-M0540-25XH
		55.00		2.165	SZ4-M0550-10XH	SZ4-M0550-15XH	SZ4-M0550-25XH
		55.56	2-3/16"	2.187	SZ4-I2187-10XH	SZ4-I2187-15XH	SZ4-I2187-25XH
4	7.94 5/16"	56.00		2.205	SZ4-M0560-10XH	SZ4-M0560-15XH	SZ4-M0560-25XH
		57.00		2.244	SZ4-M0570-10XH	SZ4-M0570-15XH	SZ4-M0570-25XH
		57.15	2-1/4"	2.250	SZ4-I2250-10XH	SZ4-I2250-15XH	SZ4-I2250-25XH
		58.00		2.283	SZ4-M0580-10XH	SZ4-M0580-15XH	SZ4-M0580-25XH
		58.74	2-5/16"	2.313	SZ4-I2312-10XH	SZ4-I2312-15XH	SZ4-I2312-25XH
		59.00		2.323	SZ4-M0590-10XH	SZ4-M0590-15XH	SZ4-M0590-25XH
		60.00		2.362	SZ4-M0600-10XH	SZ4-M0600-15XH	SZ4-M0600-25XH
		60.33	2-3/8"	2.375	SZ4-I2375-10XH	SZ4-I2375-15XH	SZ4-I2375-25XH
		61.00		2.402	SZ4-M0610-10XH	SZ4-M0610-15XH	SZ4-M0610-25XH
		61.91	2-7/16"	2.437	SZ4-I2437-10XH	SZ4-I2437-15XH	SZ4-I2437-25XH
		62.00		2.441	SZ4-M0620-10XH	SZ4-M0620-15XH	SZ4-M0620-25XH
		63.00		2.480	SZ4-M0630-10XH	SZ4-M0630-15XH	SZ4-M0630-25XH
		63.50	2-1/2"	2.500	SZ4-I2500-10XH	SZ4-I2500-15XH	SZ4-I2500-25XH
		64.00		2.520	SZ4-M0640-10XH	SZ4-M0640-15XH	SZ4-M0640-25XH
		65.00		2.559	SZ4-M0650-10XH	SZ4-M0650-15XH	SZ4-M0650-25XH
		65.09	2-9/16"	2.563	SZ4-I2562-10XH	SZ4-I2562-15XH	SZ4-I2562-25XH

侧固式柄螺旋槽/直槽刀杆

Side fixed handle spiral groove / straight groove cutter bar

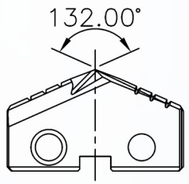


型号 Code No	接口 Connector	D1	L1	L2	L3	L	D2	L4	G1	G2		
SLS40-ML040-130N	40	48.00～55.99 1.89"～2.204"	130	179	184	249	40	70	1/4"	-	M5X14	T20X45
SLH40-ML040-232N			232	281	286	351						
SLH40-ML040-350N			350	399	404	469						
SLH40-ML040-422N			422	472	476	542						
SLS40-ML040-422N			422	472	476	542						
SLS40-ML040-525N			525	575	579	645						
SLS40-ML040-625N			625	675	680	745						
SLS40-ML040-879N			879	929	934	999						
SLS45-ML040-130N	45	56.00～65.09 2.205"～2.563"	130	179	184	249	40	70	1/4"	-	M5X14	T20X45
SLH45-ML040-232N			232	281	286	351						
SLH45-ML040-350N			350	399	404	469						
SLH45-ML040-422N			422	472	476	542						
SLS45-ML040-422N			422	472	476	542						
SLS45-ML040-525N			525	575	579	645						
SLS45-ML040-625N			625	675	680	745						
SLS45-ML040-879N			879	929	934	999						

注：SLH-螺旋槽　SLS-直槽

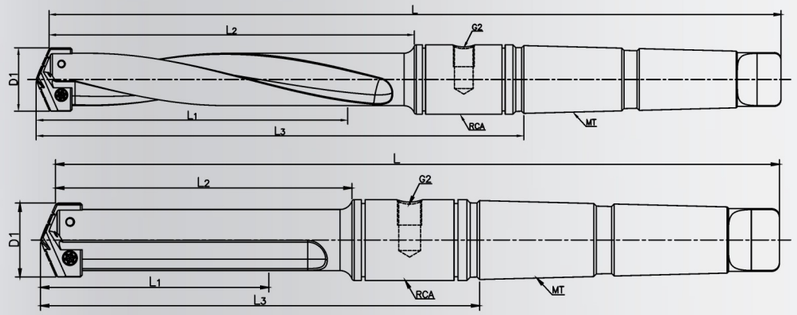
硬质合金刀片
Carbide inserts

Carbide | Micro grain | HPC



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter mm	Frcationl Equivalent	inch	应用 Application P	K	N
Y	2.38 3/32"	9.50		0.374	SZY-M0095-50XH	SZY-M0095-50CH	SZY-M0095-50SC
		9.53	3/8"	0.375	SZY-I0375-50XH	SZY-I0375-50CH	SZY-I0375-50SC
		9.80		0.386	SZY-M0098-50XH	SZY-M0098-50CH	SZY-M0098-50SC
		10.00		0.394	SZY-M0100-50XH	SZY-M0100-50CH	SZY-M0100-50SC
		10.20		0.402	SZY-M0102-50XH	SZY-M0102-50CH	SZY-M0102-50SC
		10.50		0.413	SZY-M0105-50XH	SZY-M0105-50CH	SZY-M0105-50SC
		10.72	27/64"	0.422	SZY-I0421-50XH	SZY-I0421-50CH	SZY-I0421-50SC
		10.80		0.425	SZY-M0108-50XH	SZY-M0108-50CH	SZY-M0108-50SC
		11.00		0.433	SZY-M0110-50XH	SZY-M0110-50CH	SZY-M0110-50SC
		11.11	7/16"	0.437	SZY-I0437-50XH	SZY-I0437-50CH	SZY-I0437-50SC
Z	2.38 3/32"	11.50		0.453	SZZ-M0115-50XH	SZZ-M0115-50CH	SZZ-M0115-50SC
		11.51	29/64"	0.453	SZZ-I0453-50XH	SZZ-I0453-50CH	SZZ-I0453-50SC
		12.00		0.472	SZZ-M0120-50XH	SZZ-M0120-50CH	SZZ-M0120-50SC
		12.30	31/64"	0.484	SZZ-I0484-50XH	SZZ-I0484-50CH	SZZ-I0484-50SC
		12.50		0.492	SZZ-M0125-50XH	SZZ-M0125-50CH	SZZ-M0125-50SC
		12.70	1/2"	0.500	SZZ-I0500-50XH	SZZ-I0500-50CH	SZZ-I0500-50SC
O	3.18 1/8"	13.00		0.512	SZO-M0130-50XH	SZO-M0130-50CH	SZO-M0130-50SC
		13.50		0.531	SZO-M0135-50XH	SZO-M0135-50CH	SZO-M0135-50SC
		14.00		0.551	SZO-M0140-50XH	SZO-M0140-50CH	SZO-M0140-50SC
		14.29	9/16"	0.563	SZO-I0562-50XH	SZO-I0562-50CH	SZO-I0562-50SC
		14.50		0.571	SZO-M0145-50XH	SZO-M0145-50CH	SZO-M0145-50SC
		15.00		0.591	SZO-M0150-50XH	SZO-M0150-50CH	SZO-M0150-50SC
O	3.18 1/8"	15.50		0.610	SZO-M0155-50XH	SZO-M0155-50CH	SZO-M0155-50SC
		15.88	5/8"	0.625	SZO-I0625-50XH	SZO-I0625-50CH	SZO-I0625-50SC
		16.00		0.630	SZO-M0160-50XH	SZO-M0160-50CH	SZO-M0160-50SC
		16.50		0.650	SZO-M0165-50XH	SZO-M0165-50CH	SZO-M0165-50SC
		17.00		0.669	SZO-M0170-50XH	SZO-M0170-50CH	SZO-M0170-50SC
		17.46	11/16"	0.687	SZO-I0687-50XH	SZO-I0687-50CH	SZO-I0687-50SC
		17.50		0.689	SZO-M0175-50XH	SZO-M0175-50CH	SZO-M0175-50SC

锥柄螺旋槽/直槽刀杆
Taper shank spiral groove / straight groove Arbor

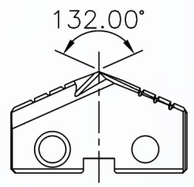


型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLHYO-MMMT2-32N	YO	9.50～11.49 0.374"～0.452"	32	52	88	160	MT2	1/16"	SH-1905R	M2X4	T7X35
SLSYO-MMMT2-32N			32	52	88	160					
SLHYO-MMMT2-60N			60	80	117	189					
SLHYO-MMMT2-111N			111	131	167	240					
SLHZO-MMMT2-32N	ZO	11.50～12.97 0.453"～0.511"	32	52	88	160	MT2	1/16"	SH-1905R	M2X4.8	T7X35
SLSZO-MMMT2-32N			32	52	88	160					
SLHZO-MMMT2-60N			60	80	117	189					
SLHZO-MMMT2-111N			111	131	167	240					
SLHOO-MMMT2-35N	OO	12.98～15.49 0.511"～0.61"	35	56	92	164	MT2	1/16"	SH-1905R	M2.5X5.8	T8X40
SLSOO-MMMT2-35N			35	56	92	164					
SLHOO-MMMT2-64N			64	84	121	193					
SLHOO-MMMT2-114N			114	135	172	244					
SLHOO-MMMT2-178N			178	199	235	307					
SLHO5-MMMT2-35N	O5	15.50～17.85 0.61～0.703	35	56	92	164	MT2	1/16"	SH-1905R	M2.5X7	T8X40
SLSO5-MMMT2-35N			35	56	92	164					
SLHO5-MMMT2-64N			64	84	121	193					
SLHO5-MMMT2-114N			114	135	172	244					
SLHO5-MMMT2-178N			178	199	235	307					

注：SLH-螺旋槽　SLS-直槽

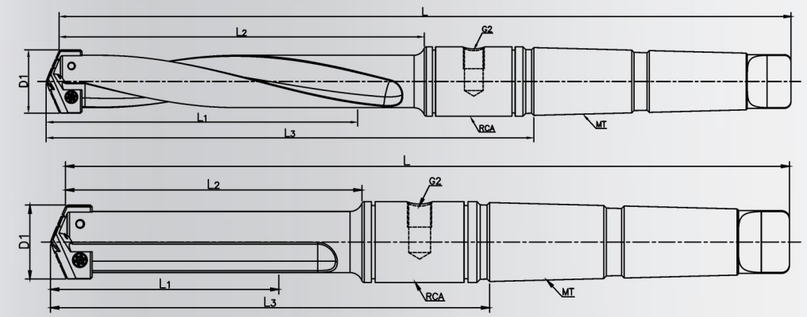
硬质合金刀片
Carbide inserts

Carbide | Micro grain | HPC



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter mm	Frcationl Equivalent	inch	应用 Application P	K	N
1	3.97 5/32"	18.00		0.709	SZ1-M0180-50XH	SZ1-M0180-50CH	SZ1-M0180-50SC
		18.50		0.728	SZ1-M0185-50XH	SZ1-M0185-50CH	SZ1-M0185-50SC
		19.00		0.748	SZ1-M0190-50XH	SZ1-M0190-50CH	SZ1-M0190-50SC
		19.05	3/4"	0.750	SZ1-I0750-50XH	SZ1-I0750-50CH	SZ1-I0750-50SC
		19.50		0.768	SZ1-M0195-50XH	SZ1-M0195-50CH	SZ1-M0195-50SC
		20.00		0.787	SZ1-M0200-50XH	SZ1-M0200-50CH	SZ1-M0200-50SC
		20.50		0.807	SZ1-M0205-50XH	SZ1-M0205-50CH	SZ1-M0205-50SC
		20.64	13/16"	0.813	SZ1-I0812-50XH	SZ1-I0812-50CH	SZ1-I0812-50SC
		21.00		0.827	SZ1-M0210-50XH	SZ1-M0210-50CH	SZ1-M0210-50SC
		21.50		0.846	SZ1-M0215-50XH	SZ1-M0215-50CH	SZ1-M0215-50SC
1	3.97 5/32"	22.00		0.866	SZ1-M0220-50XH	SZ1-M0220-50CH	SZ1-M0220-50SC
		22.23	7/8"	0.875	SZ1-I0875-50XH	SZ1-I0875-50CH	SZ1-I0875-50SC
		23.00		0.906	SZ1-M0230-50XH	SZ1-M0230-50CH	SZ1-M0230-50SC
		23.81	15/16"	0.937	SZ1-I0937-50XH	SZ1-I0937-50CH	SZ1-I0937-50SC
		24.00		0.945	SZ1-M0240-50XH	SZ1-M0240-50CH	SZ1-M0240-50SC
2	4.76 3/16"	25.00		0.984	SZ2-M0250-50XH	SZ2-M0250-50CH	SZ2-M0250-50SC
		25.40	1"	1.000	SZ2-I1000-50XH	SZ2-I1000-50CH	SZ2-I1000-50SC
		26.00		1.024	SZ2-M0260-50XH	SZ2-M0260-50CH	SZ2-M0260-50SC
		26.99	1-1/16"	1.063	SZ2-I1062-50XH	SZ2-I1062-50CH	SZ2-I1062-50SC
		27.00		1.063	SZ2-M0270-10XH	SZ2-M0270-10CH	SZ2-M0270-10SC
		28.00		1.102	SZ2-M0280-50XH	SZ2-M0280-50CH	SZ2-M0280-50SC
		28.58	1-1/8"	1.125	SZ2-I1125-50XH	SZ2-I1125-50CH	SZ2-I1125-50SC
		29.00		1.142	SZ2-M0290-50XH	SZ2-M0290-50CH	SZ2-M0290-50SC
2	4.76 3/16"	30.00		1.181	SZ2-M0300-50XH	SZ2-M0300-50CH	SZ2-M0300-50SC
		30.16	1-3/16"	1.187	SZ2-I1187-50XH	SZ2-I1187-50CH	SZ2-I1187-50SC
		31.00		1.220	SZ2-M0310-50XH	SZ2-M0310-50CH	SZ2-M0310-50SC
		31.75	1-1/4"	1.250	SZ2-I1250-50XH	SZ2-I1250-50CH	SZ2-I1250-50SC
		32.00		1.260	SZ2-M0320-50XH	SZ2-M0320-50CH	SZ2-M0320-50SC
		33.00		1.299	SZ2-M0330-50XH	SZ2-M0330-50CH	SZ2-M0330-50SC
		33.34	1-5/16"	1.313	SZ2-I1312-50XH	SZ2-I1312-50CH	SZ2-I1312-50SC
		34.00		1.339	SZ2-M0340-50XH	SZ2-M0340-50CH	SZ2-M0340-50SC
		34.13	1-11/32"	1.344	SZ2-I1343-50XH	SZ2-I1343-50CH	SZ2-I1343-50SC
		34.93	1-3/8"	1.375	SZ2-I1375-50XH	SZ2-I1375-50CH	SZ2-I1375-50SC
		35.00		1.378	SZ2-M0350-50XH	SZ2-M0350-50CH	SZ2-M0350-50SC

锥柄螺旋槽/直槽刀杆
Taper shank spiral groove / straight groove Arbor



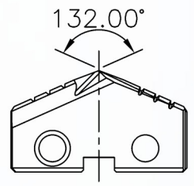
型号 Code No	接口 Connector	D1	L1	L2	L3	L	MT	G2	RCA		
SLH10-MMMT3-70N	10	17.86～21.99 0.703"～0.866"	70	98	143	233	MT3	1/8"	SH-2540R	M3X7	T9X40
SLS10-MMMT3-70N			70	98	143	233					
SLH10-MMMT3-121N			121	149	193	283					
SLH10-MMMT3-172N			172	200	244	334					
SLH10-MMMT3-273N			273	302	346	436					
SLH15-MMMT3-70N	15	22.00～24.60 0.866"～0.969"	70	98	143	233	MT3	1/8"	SH-2540R	M3X7	T9X40
SLS15-MMMT3-70N			70	98	143	233					
SLH15-MMMT3-121N			121	149	193	283					
SLH15-MMMT3-172N			172	200	244	334					
SLH15-MMMT3-273N			273	302	346	436					
SLH20-MMMT4-86N	20	24.61～29.99 0.969"～1.181"	86	144	160	274	MT4	1/8"	SH-2540R	M4X10	T15X45
SLS20-MMMT3-86N			86	144	160	274					
SLH20-MMMT4-137N			137	165	211	325					
SLH20-MMMT4-187N			187	216	262	375					
SLH20-MMMT4-289N			289	318	364	477					
SLH25-MMMT4-86N	25	30.00～35.50 1.181"～1.398"	86	144	168	281	MT4	1/4"	SH-3175R	M4X10	T15X45
SLS25-MMMT3-86N			86	144	168	274					
SLH25-MMMT4-137N			137	165	218	332					
SLH25-MMMT4-187N			187	216	269	383					
SLH25-MMMT4-289N			289	318	371	484					

注：SLH-螺旋槽　SLS-直槽

硬质合金刀片

Carbide inserts

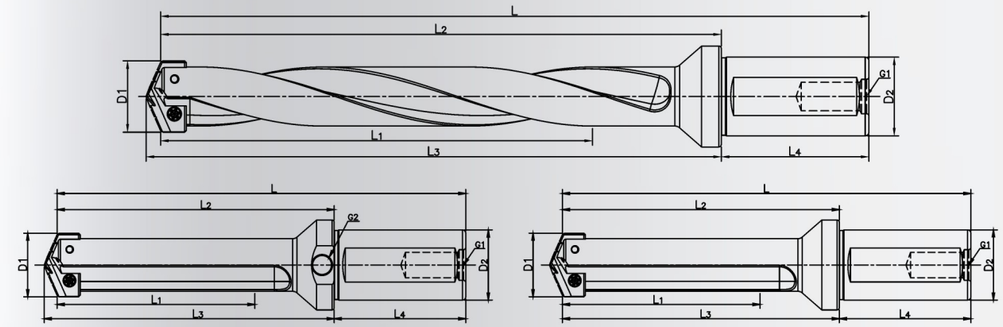
Carbide | Micro grain | HPC



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter mm	Frcationl Equivalent	inch	应用 Application P	K	N
Y	2.38 3/32"	9.50		0.374	SZY-M0095-50XH	SZY-M0095-50CH	SZY-M0095-50SC
		9.53	3/8"	0.375	SZY-I0375-50XH	SZY-I0375-50CH	SZY-I0375-50SC
		9.80		0.386	SZY-M0098-50XH	SZY-M0098-50CH	SZY-M0098-50SC
		10.00		0.394	SZY-M0100-50XH	SZY-M0100-50CH	SZY-M0100-50SC
		10.20		0.402	SZY-M0102-50XH	SZY-M0102-50CH	SZY-M0102-50SC
		10.50		0.413	SZY-M0105-50XH	SZY-M0105-50CH	SZY-M0105-50SC
		10.72	27/64"	0.422	SZY-I0421-50XH	SZY-I0421-50CH	SZY-I0421-50SC
		10.80		0.425	SZY-M0108-50XH	SZY-M0108-50CH	SZY-M0108-50SC
		11.00		0.433	SZY-M0110-50XH	SZY-M0110-50CH	SZY-M0110-50SC
		11.11	7/16"	0.437	SZY-I0437-50XH	SZY-I0437-50CH	SZY-I0437-50SC
Z	2.38 3/32"	11.50		0.453	SZZ-M0115-50XH	SZZ-M0115-50CH	SZZ-M0115-50SC
		11.51	29/64"	0.453	SZZ-I0453-50XH	SZZ-I0453-50CH	SZZ-I0453-50SC
		12.00		0.472	SZZ-M0120-50XH	SZZ-M0120-50CH	SZZ-M0120-50SC
		12.30	31/64"	0.484	SZZ-I0484-50XH	SZZ-I0484-50CH	SZZ-I0484-50SC
		12.50		0.492	SZZ-M0125-50XH	SZZ-M0125-50CH	SZZ-M0125-50SC
		12.70	1/2"	0.500	SZZ-I0500-50XH	SZZ-I0500-50CH	SZZ-I0500-50SC
0	3.18 1/8"	13.00		0.512	SZO-M0130-50XH	SZO-M0130-50CH	SZO-M0130-50SC
		13.50		0.531	SZO-M0135-50XH	SZO-M0135-50CH	SZO-M0135-50SC
		14.00		0.551	SZO-M0140-50XH	SZO-M0140-50CH	SZO-M0140-50SC
		14.29	9/16"	0.563	SZO-I0562-50XH	SZO-I0562-50CH	SZO-I0562-50SC
		14.50		0.571	SZO-M0145-50XH	SZO-M0145-50CH	SZO-M0145-50SC
		15.00		0.591	SZO-M0150-50XH	SZO-M0150-50CH	SZO-M0150-50SC
0	3.18 1/8"	15.50		0.610	SZO-M0155-50XH	SZO-M0155-50CH	SZO-M0155-50SC
		15.88	5/8"	0.625	SZO-I0625-50XH	SZO-I0625-50CH	SZO-I0625-50SC
		16.00		0.630	SZO-M0160-50XH	SZO-M0160-50CH	SZO-M0160-50SC
		16.50		0.650	SZO-M0165-50XH	SZO-M0165-50CH	SZO-M0165-50SC
		17.00		0.669	SZO-M0170-50XH	SZO-M0170-50CH	SZO-M0170-50SC
		17.46	11/16"	0.687	SZO-I0687-50XH	SZO-I0687-50CH	SZO-I0687-50SC
		17.50		0.689	SZO-M0175-50XH	SZO-M0175-50CH	SZO-M0175-50SC

侧固式柄螺旋槽/直槽刀杆

Side fixed handle spiral groove / straight groove cutter bar

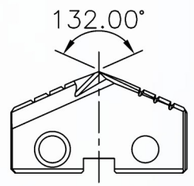


型号 Code No	接口 Connector	D1	L1	L2	L3	L	D2	L4	G1	G2		
SLSYO-MLO16-19N	YO	9.50～11.49 0.374"～0.452"	19	48	50	96	16	48	1/16"	1/8"	M2X4	T7X35
SLSYO-MLO20-32N			32	61	64	111	20	50	1/8"			
SLHYO-MLO20-60N			60	90	92	140	20	50	1/8"			
SLHYO-MLO20-111N			111	141	143	191	20	50	1/8"			
SLSYO-MLO20-222N			222	252	254	302	20	50	1/8"			
SLSYO-MLO20-290N			290	320	322	370	20	50	1/8"			
SLSZO-MLO16-19N	ZO	11.50～12.97 0.453"～0.511"	19	48	50	96	16	48	1/16"	1/8"	M2X4.8	T7X35
SLSZO-MLO20-32N			32	61	64	111	20	50	1/8"			
SLHZO-MLO20-60N			60	90	92	140	20	50	1/8"			
SLHZO-MLO20-111N			111	141	143	191	20	50	1/8"			
SLSZO-MLO20-222N			222	252	254	302	20	50	1/8"			
SLSZO-MLO20-290N			290	320	322	370	20	50	1/8"			
SLSOO-MLO20-22N	OO	12.98～15.49 0.511"～0.61"	22	48	50	98	20	50	1/8"	1/8"	M2.5X5.8	T8X40
SLSOO-MLO20-35N			35	64	66	114						
SLHOO-MLO20-64N			64	92	95	142						
SLHOO-MLO20-114N			114	143	146	193						
SLHOO-MLO20-178N			178	206	209	256						
SLSOO-MLO20-295N			295	324	327	374						
SLSOO-MLO20-387N			387	416	419	466						
SLSO5-MLO20-22N	O5	15.50～17.85 0.61～0.703	22	48	50	98	20	50	1/8"	1/8"	M2.5X7	T8X40
SLSO5-MLO20-35N			35	64	66	114						
SLHO5-MLO20-64N			64	92	95	142						
SLHO5-MLO20-114N			114	143	146	193						
SLHO5-MLO20-178N			178	206	209	256						
SLSO5-MLO20-295N			295	324	327	374						
SLSO5-MLO20-387N			387	416	419	466						

注：SLH-螺旋槽　SLS-直槽

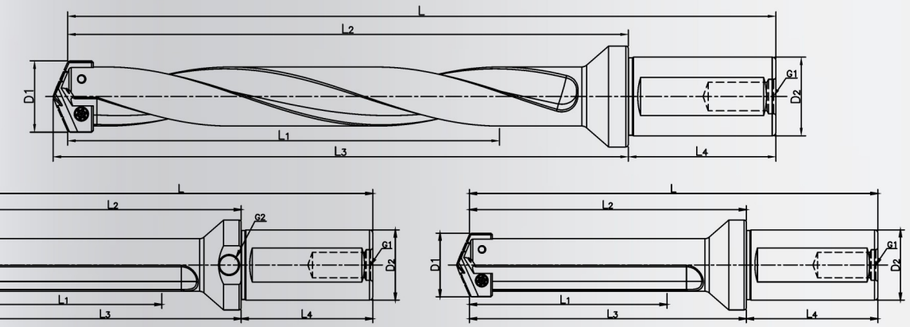
硬质合金刀片
Carbide inserts

Carbide | Micro grain | HPC



接口 Connector	厚度 Thickness (mm/inch)	直径 Diameter mm	Frcationl Equivalent	inch	应用 Application P	K	N
1	3.97 5/32"	18.00		0.709	SZ1-M0180-50XH	SZ1-M0180-50CH	SZ1-M0180-50SC
		18.50		0.728	SZ1-M0185-50XH	SZ1-M0185-50CH	SZ1-M0185-50SC
		19.00		0.748	SZ1-M0190-50XH	SZ1-M0190-50CH	SZ1-M0190-50SC
		19.05	3/4"	0.750	SZ1-I0750-50XH	SZ1-I0750-50CH	SZ1-I0750-50SC
		19.50		0.768	SZ1-M0195-50XH	SZ1-M0195-50CH	SZ1-M0195-50SC
		20.00		0.787	SZ1-M0200-50XH	SZ1-M0200-50CH	SZ1-M0200-50SC
		20.50		0.807	SZ1-M0205-50XH	SZ1-M0205-50CH	SZ1-M0205-50SC
		20.64	13/16"	0.813	SZ1-I0812-50XH	SZ1-I0812-50CH	SZ1-I0812-50SC
		21.00		0.827	SZ1-M0210-50XH	SZ1-M0210-50CH	SZ1-M0210-50SC
		21.50		0.846	SZ1-M0215-50XH	SZ1-M0215-50CH	SZ1-M0215-50SC
1	3.97 5/32"	22.00		0.866	SZ1-M0220-50XH	SZ1-M0220-50CH	SZ1-M0220-50SC
		22.23	7/8"	0.875	SZ1-I0875-50XH	SZ1-I0875-50CH	SZ1-I0875-50SC
		23.00		0.906	SZ1-M0230-50XH	SZ1-M0230-50CH	SZ1-M0230-50SC
		23.81	15/16"	0.937	SZ1-I0937-50XH	SZ1-I0937-50CH	SZ1-I0937-50SC
		24.00		0.945	SZ1-M0240-50XH	SZ1-M0240-50CH	SZ1-M0240-50SC
2	4.76 3/16"	25.00		0.984	SZ2-M0250-50XH	SZ2-M0250-50CH	SZ2-M0250-50SC
		25.40	1"	1.000	SZ2-I1000-50XH	SZ2-I1000-50CH	SZ2-I1000-50SC
		26.00		1.024	SZ2-M0260-50XH	SZ2-M0260-50CH	SZ2-M0260-50SC
		26.99	1-1/16"	1.063	SZ2-I1062-50XH	SZ2-I1062-50CH	SZ2-I1062-50SC
		27.00		1.063	SZ2-M0270-10XH	SZ2-M0270-10CH	SZ2-M0270-10SC
		28.00		1.102	SZ2-M0280-50XH	SZ2-M0280-50CH	SZ2-M0280-50SC
		28.58	1-1/8"	1.125	SZ2-I1125-50XH	SZ2-I1125-50CH	SZ2-I1125-50SC
		29.00		1.142	SZ2-M0290-50XH	SZ2-M0290-50CH	SZ2-M0290-50SC
2	4.76 3/16"	30.00		1.181	SZ2-M0300-50XH	SZ2-M0300-50CH	SZ2-M0300-50SC
		30.16	1-3/16"	1.187	SZ2-I1187-50XH	SZ2-I1187-50CH	SZ2-I1187-50SC
		31.00		1.220	SZ2-M0310-50XH	SZ2-M0310-50CH	SZ2-M0310-50SC
		31.75	1-1/4"	1.250	SZ2-I1250-50XH	SZ2-I1250-50CH	SZ2-I1250-50SC
		32.00		1.260	SZ2-M0320-50XH	SZ2-M0320-50CH	SZ2-M0320-50SC
		33.00		1.299	SZ2-M0330-50XH	SZ2-M0330-50CH	SZ2-M0330-50SC
		33.34	1-5/16"	1.313	SZ2-I1312-50XH	SZ2-I1312-50CH	SZ2-I1312-50SC
		34.00		1.339	SZ2-M0340-50XH	SZ2-M0340-50CH	SZ2-M0340-50SC
		34.13	1-11/32"	1.344	SZ2-I1343-50XH	SZ2-I1343-50CH	SZ2-I1343-50SC
		34.93	1-3/8"	1.375	SZ2-I1375-50XH	SZ2-I1375-50CH	SZ2-I1375-50SC
		35.00		1.378	SZ2-M0350-50XH	SZ2-M0350-50CH	SZ2-M0350-50SC

侧固式柄螺旋槽/直槽刀杆
Side fixed handle spiral groove / straight groove cutter bar

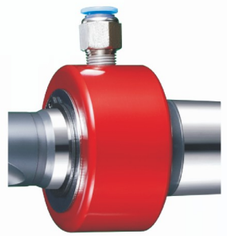


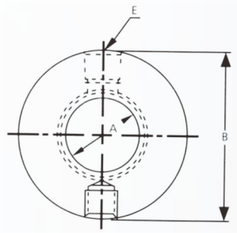
型号 Code No	接口 Connector	D1	L1	L2	L3	L	D2	L4	G1	G2		
SLS10-MLO25-48N	10	17.86～21.99 0.703"～0.866"	48	76	79	132	25	56	1/8"	1/8"	M3X7	T9X40
SLS10-MLO25-67N			67	107	111	163						
SLH10-MLO25-118N			118	155	158	211						
SLH10-MLO25-168N			168	206	209	262						
SLH10-MLO25-270N			270	307	311	363						
SLS10-MLO25-457N			457	495	498	551						
SLS10-MLO25-569N			569	603	606	659						
SLS15-MLO25-48N	15	22.00～24.60 0.866"～0.969"	48	76	79	132	25	56	1/8"	1/8"	M3X7	T9X40
SLS15-MLO25-67N			67	107	111	163						
SLH15-MLO25-118N			118	155	158	211						
SLH15-MLO25-168N			168	206	209	262						
SLH15-MLO25-270N			270	307	311	363						
SLS15-MLO25-457N			457	495	498	551						
SLS15-MLO25-569N			569	603	606	659						
SLS20-MLO32-57N	20	24.61～29.99 0.969"～1.181"	57	89	92	149	32	60	1/4"	1/8"	M4X10	T15X45
SLS20-MLO32-86N			86	129	132	189						
SLH20-MLO32-137N			137	179	183	239						
SLH20-MLO32-187N			187	230	234	290						
SLH20-MLO32-289N			289	332	335	392						
SLS20-MLO32-511N			511	554	558	618						
SLS20-MLO32-492N			692	735	739	795						
SLS25-MLO32-57N	25	30.00～35.50 1.181"～1.398"	57	89	92	149	32	60	1/4"	1/8"	M4X10	T15X45
SLS25-MLO32-86N			86	129	132	189						
SLH25-MLO32-137N			137	179	183	239						
SLH25-MLO32-187N			187	230	234	290						
SLH25-MLO32-289N			289	332	335	392						
SLS25-MLO32-511N			511	554	558	618						
SLS25-MLO32-492N			692	735	739	795						

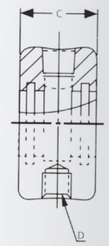
注：SLH-螺旋槽　SLS-直槽

配件
Accessories

供油环
Rotary Coolant Adapter







型号 Code No	内径(A) Inside diameter	外径(B) Outside diameter	厚度(C) Thickness	驱动杆螺纹(D) Driving rod thread	冷却嘴螺纹(E) Cooling nozzle thread
SH-1905R	19.05	44.45	22.23	M8X1.25	1/8"
SH-2540R	25.40	53.97	28.57	M8X1.25	1/8"
SH-3175R	31.75	63.50	34.92	M10X1.5	1/4"
SH-4445R	44.45	76.20	34.92	M10X1.5	1/4"
SH-5715R	57 15	95.27	44.45	M12X1.75	1/2"

驱动杆
Drive rod

型号 Code No	螺纹 Thread	总长 Total length	匹配的供油环 Matched oil ring
SG-M8-250	M8X1.25	250	SH-1905R
SG-M8-250	M8X1.25	250	SH-2540R
SG-M10-250	M10X1.5	250	SH-3175R
SG-M10-250	M10X1.5	250	SH-4445R
SG-M12-250	M12X1.75	250	SH-5715R

应用要点、注意事项
Essentials of use and precautions

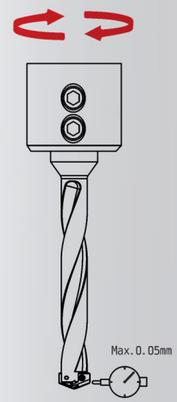
安装 Assembly

应用场合的稳定性对于获得最佳的刀具寿命与孔的精度是重要的。检查机床主轴、夹具与工件的装夹情况，确保最大的稳定性与刚性。不稳定的工况会引起钻头的折断。

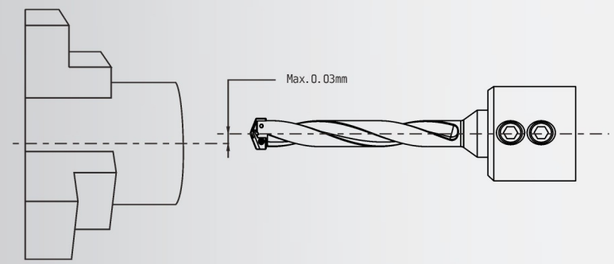
The stability of the applications is essential for optimal tol lfe and hole accuracy. Guarantee the maximum stability and rigidity by checking theholding of the machine tool spindle, fixtures and workpiece. Unstable operating conditions will cause fracture of drills bits.

最大跳动和同心度 Max.Runout and Misalignment

跳动
Runout

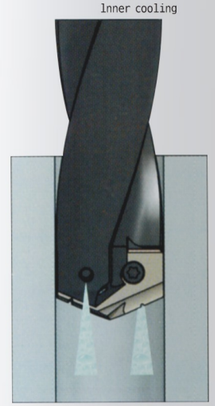


同心度
Concentricity



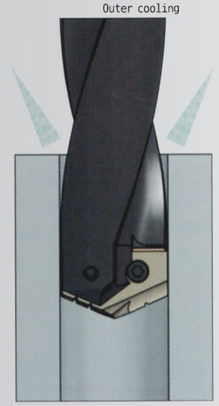
冷却压力 Cooling Pressure

内部冷却
Inner cooling



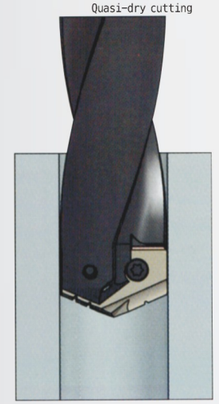
5-6D:5bar √
7-8D:10bar √
8-12D:15bar √
11-14D:20bar √

外部冷却
Outer cooling



3-4D:5bar √
7-8D:10bar ×
8-12D:15bar ×
11-14D:20bar ×

准干式切削
Quasi-dry cutting

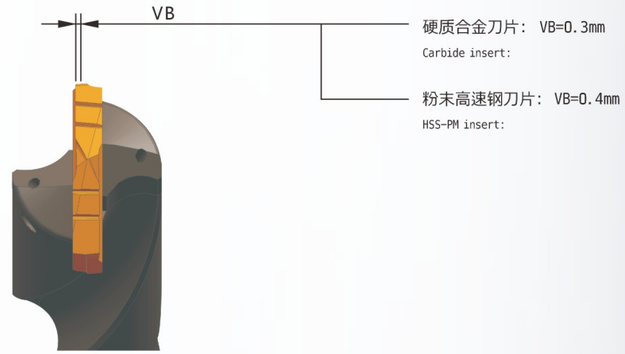


3-4D: MQL √
(仅硬质合金/Only carbide)

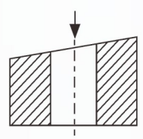
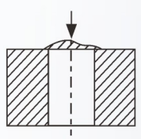
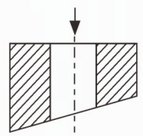
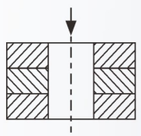
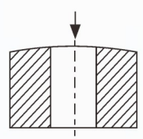
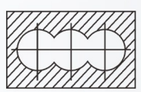
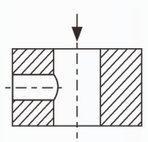
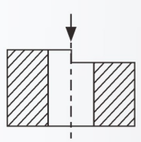
应用要点、注意事项
Essentials of use and precautions

钻头更换判断标准 Standardfor drill bit replacement

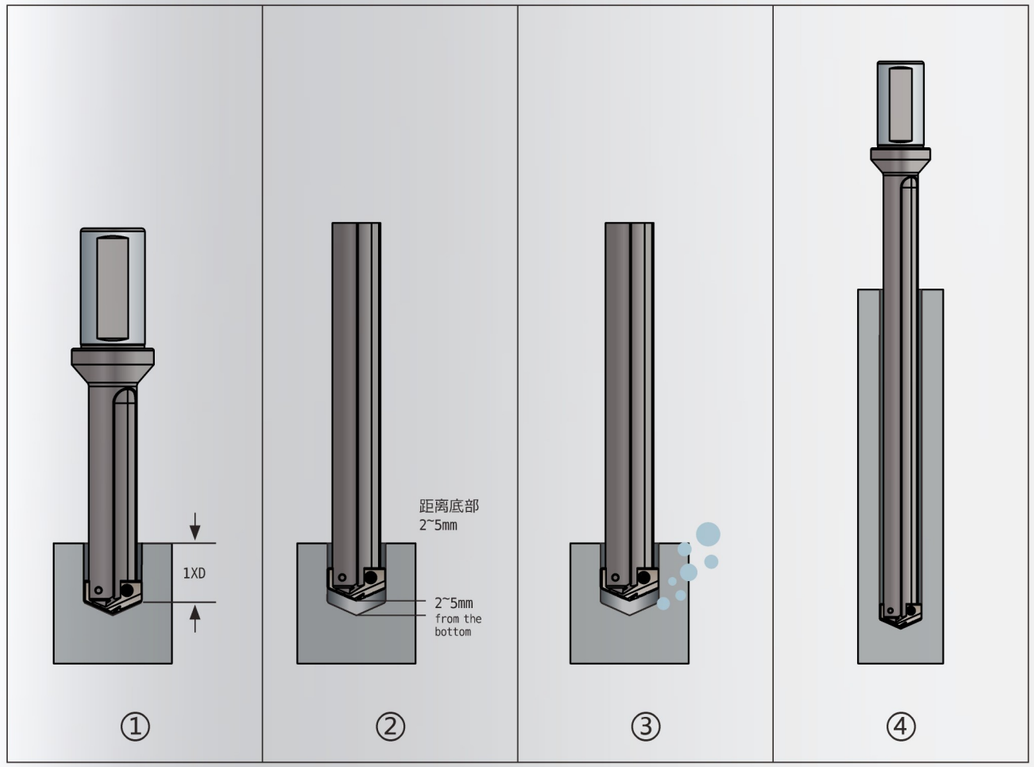
磨损极限 Wear limit



应用 Application

工况 Operating Condition	说明 Instructions	工况 Operating Condition	说明 Instructions
	起始面为斜面 The entry surface is slanted 斜面进给率 Slope Feed Rate <3° 50%		工件表面不平整 Uneven workpiece surface 加工前先忽平 Level it through spot facing before machining
	出孔为斜面 The outlet is slanted 斜面进给率 Slope Feed Rate <3° 50%		钻叠层板 Stacked plates 原则上可以 Allowed in principle 需要良好的工件压紧 The workpiece shall be properly clamped 板之间不能有间隙 There must be no gaps between the plates
	起始面为弧面 The entry surface is arc 在中心处钻孔并降低进给是可以的 Drilling at the center at reduced feed rateis allowed 如起始点不在弧面中心需要将面惚平 Spot facing is required if the entry pointis not at the center of the arc		钻型腔 Cavities 不可以 Not allowed
	钻贯穿孔 Through hole 不可以 Not allowed		起始面有台阶 Step on the entry surface 不可以(钻尖起始点必须为平面) Not allowed (the entry point must be on a horizontal plane)

长径系列钻削工艺
Long diameter series drilling process



①短钻头钻引导孔至1D~1.5D
Drill a pilot hole to 1D to 1 .5Dwith a short drill bit

②低转速和低进给进入引导孔
Enter the pilot hole at a low speedand low feed rate

③让冷却液停留2~3秒
Keep the coolant for 2 to 3s

④按推荐的参数连续加工出口时降低速度和进给
Carry out continuouSpeeddirlling according to therecommended parametersReduce the speed and feedrate at the outlet

硬质合金刀片系列 Carbide inserts series				布氏硬度 HB	强度 N/mm²
ISO	被加工材料 Material		条件 Heattreatment		
P	易切屑钢 Non-alloy steel Y13 1215 1.0736 Y15 1213 1.0715	<0.25%C	退火 Annealed	100-150	370-500
		≧0.25%C	退火 Annealed	175-225	600-775
		<0.55%C	退火和调质 Quenched and tempered	225-275	775-940
	碳钢、结构钢 Low carbon steel 45 1045 1.0503 Q345B 1140 1.7026	≧0.55%C	退火 Annealed	275-325	940-1090
			退火和调质 Quenched and tempered	300	1000
	低合金钢 Low alloy steel 40Cr 5140 1.7035 42CrMo 4140 1.7225		退火 Annealed	175-225	600-775
			退火 Annealed	225-275	775-940
			退火 Annealed	275-325	940-1090
			调质 Tempered	325-375	1090-1265
	高合金钢,工具钢,铸钢,锰钢 High alloy steel, tool steel, Cast steel Cr12,D3,1.2080; 4Cr5MoSiV,H13,1.2344		退火 Annealed	225-300	600-1020
			调质 Tempered	300-350	1020-1180
	铁素体/马氏体不锈钢 Stainless steel Ferritic/martensitic 0Cr13 403 1.400 2Cr13 410 1.4021		铁素体 Ferrtic	185-275	640-940
			马氏体 Martensitic	275-350	940-1180
M	奥氏体不锈钢 Stainless steel Austenitic 0Cr18Ni9 304 1.4301 0Cr17Ni11Mo2 316 1.4401		退火/淬硬 Annealed/Harden	135-185	480-640
			铸造+未处理 Cast+Unhandled	185-275	640-940
	超级双相不锈钢 Super Duplex Stainless Steel	N<0.1%	>60%铁素体 Ferrtic	135-185	480-640
		N≧0.1%	<60%铁素体 Ferrtic	185-275	640-940
K	灰口铸铁 Grey cast iron HT200 NO.30 GG20 HT250 NO.35 GG25		铁素体 Ferrtic	120-150	430-500
			珠光体 Pearlitic	150-200	500-700
	球墨铸铁 Cast iron nodular QT400-18 60-40-18 GGG40 QT600-3 80-60-03 GGG60		铁素体 Ferrtic	200-220	700-755
			珠光体 Pearlitic	220-260	755-890
	可锻铸铁 Malleabie cast iron		铁素体 Ferrtic	120-150	430-500
			珠光体 Pearlitic	260-320	890-1020
N	锻铝 Wrought Alumi		未固化 Not cureabie	30	100
			固化Cured	180	600
	铸铝 Cast Aluminium	≦12% Si	未固化 Not cureabie	30	100
			固化 Cured	180	600
		>12% Si	高温处理 High temperature	-	-
	铜合金 Copper Alloys	>1% Pb	易切 Free cutting	100-200	370-670
			黄铜 Brass	200-250	670-855
			电解铜 Electrolitic copper	100	370
	非铁金属 Non metallic		塑料科纤维 Duroplastics fiber plastics	-	-
			硬橡胶 Hard rubber	60	200
S	高温合金 High Temp.Alloy Hastelloy B,Inconel 600,	铁基 Fe base	退火 Annealed	140-220	480-755
			固化 Cured	223-310	755-990
		镍基或钴基 Nior co base	退火 Annealed	250	-
			固化 Cured	350	-
			铸造 Cast	320	-
	钛合金 Titanium Alloy		-	320	Rm 400
			+ 合金固化 + alloys Cured	-	Rm 1050
H	哈氏耐磨护板 Wear PlateHardox,AR400,T-1,		淬硬 Harden	400	1365
			淬硬 Harden	500	1600
	淬火钢 Hardened Steel		淬硬 Harden	300-400	1020-1365
			淬硬 Harden	400-500	1365+

注意:上述推荐的切削参数以3-4D系列为准。当使用5-6D、7-8D、8-12D、12-14D、14-22D等系列时，根据工况适当降低参数。

参数:3-4D系列=100%; 5-6D、7-8D系列=80%以下; ≥8-12D系列=70%以下。

切削速度 Vc(m/min)			进给量 (fn)mm/r												
			Φ9.5-12.5mm			Φ13.0-17.5mm			Φ18.0-24.0mm			Φ25.0-35.0mm		
最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.
75	94	117	0.09	0.12	0.17	0.13	0.17	0.23	0.17	0.22	0.31	0.21	0.28	0.39
55	69	86	0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34
49	61	76	0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34
41	51	64	0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29
41	51	64	0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29
54	67	84	0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34
49	61	76	0.07	0.09	0.12	0.09	0.12	0.17	0.13	0.17	0.23	0.19	0.25	0.34
45	56	70	0.05	0.07	0.10	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29
40	50	62	0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29
40	50	62	0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23
30	38	47	0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23
37	46	58	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.13	0.17	0.23
29	36	45	0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19	0.10	0.14	0.19
37	46	58	0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
29	36	45	0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
19	24	30	0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
15	19	24	0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
78	98	122	0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47
75	94	117	0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43
67	84	105	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39
58	72	90	0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29
75	94	117	0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47
52	66	82	0.05	0.07	0.10	0.08	0.10	0.14	0.09	0.12	0.17	0.12	0.16	0.22
105	150	195	0.05	0.07	0.10	0.08	0.10	0.14	0.13	0.17	0.23	0.16	0.21	0.29
91	130	169	0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
105	150	195	0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.26	0.34	0.47
91	130	169	0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
91	130	169	0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
105	150	195	0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43
105	150	195	0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29
105	150	195	0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47
105	150	195	0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
105	150	195	0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43
19	24	30	0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
15	18	23	0.04	0.06	0.08	0.08	0.10	0.10	0.09	0.12	0.17	0.10	0.14	0.19
19	24	30	0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
15	18	23	0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
15	18	23	0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
22	27	34	0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23
17	21	26	0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19
23	29	36	0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22
19	24	30	0.02	0.03	0.04	0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19
24	30	38	0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22
19	24	30	0.02	0.03	0.04	0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19

Nmle: The above recomended cutting parameters are baecd on the 3-4D seres. When using series 5-6D/7-8D/8-12D/12-14D/14-22D etc, the parameters should be appropriately reduced according to the working condition.

Parameter: 3-4D series=100%, 5-6D/7-8D series=below 80%, ≥8-12D series=below 70%.

粉末高速钢系列 Powder high speed steel series					布氏硬度 HB	强度 N/mm²	切削速度 Vc(m/min)		
ISO	被加工材料 Material		条件 Heattreatment				最小 Min.	推荐 Recommended	最大 Max.
P	易切屑钢 Non-alloy steel	Y13 1215 1.0736	<0.25%C	退火 Annealed	100-150	370-500	23	54	70
		Y15 1213 1.0715	≧0.25%C	退火 Annealed	175-225	600-775	35	50	64
	碳钢、结构钢 Low carbon steel	45 1045 1.0503	<0.55%C	退火和调质 Quenched and tempered	225-275	775-940	32	45	59
		Q345B 1140 1.7026	≧0.55%C	退火 Annealed	275-325	940-1090	25	36	47
				退火和调质 Quenched and tempered	300	1000	22	32	41
	低合金钢 Low alloy steel	40Cr 5140 1.7035		退火 Annealed	175-225	600-775	33	47	62
		42CrMo 4140 1.7225		退火 Annealed	225-275	775-940	32	45	59
				退火 Annealed	275-325	940-1090	28	41	53
				调质 Tempered	325-375	1090-1265	24	34	44
	高合金钢,工具钢,铸钢,锰钢 High alloy steel, tool steel, Cast steel	Cr12,D3,1.2080; 4Cr5MoSiV,H13,1.2344		退火 Annealed	225-300	600-1020	22	32	41
				调质 Tempered	300-350	1020-1180	19	27	35
	铁素体/马氏体不锈钢 Stainless steel Ferritic/martensitic	OCr13 403 1.400		铁素体 Ferrtic	185-275	640-940	16	23	29
		2Cr13 410 1.4021		马氏体 Martensitic	275-350	940-1180	19	27	35
M	奥氏体不锈钢 Stainless steel Austenitic	OCr18Ni9 304 1.4301		退火/淬硬 Annealed/Harden	135-185	480-640	18	25	32
		OCr17Ni11Mo2 316 1.4401		铸造+未处理 Cast+Unhandled	185-275	640-940	18	25	32
	超级双相不锈钢 Super Duplex Stainless Steel		N<0.1%	>60%铁素体 Ferrtic	135-185	480-640	19	27	35
			N≧0.1%	<60%铁素体 Ferrtic	185-275	640-940	16	23	29
K	灰口铸铁 Grey cast iron	HT200 NO.30 GG20		铁素体 Ferrtic	120-150	430-500	38	54	70
		HT250 NO.35 GG25		珠光体 Pearlitic	150-200	500-700	35	50	64
	球墨铸铁 Cast iron nodular	QT400-18 60-40-18 GGG40		铁素体 Ferrtic	200-220	700-755	32	45	59
		QT600-3 80-60-03 GGG60		珠光体 Pearlitic	220-260	755-890	32	45	59
	可锻铸铁 Malleabie cast iron			铁素体 Ferrtic	120-150	430-500	32	45	59
				珠光体 Pearlitic	260-320	890-1020	32	45	59
N	锻铝 Wrought Alumi			未固化 Not cureabie	30	100	47	68	88
				固化Cured	180	600	41	59	76
	铸铝 Cast Aluminium		≦12% Si	未固化 Not cureabie	30	100	47	68	88
				固化 Cured	180	600	41	59	76
			>12% Si	高温处理 High temperature	-	-	41	59	76
	铜合金 Copper Alloys		>1% Pb	易切 Free cutting	100-200	370-670	47	68	88
				黄铜 Brass	200-250	670-855	47	68	88
				电解铜 Electrolitic copper	100	370	47	68	88
	非铁金属 Non metallic			塑料科纤维 Duroplastics fiber plastics	-	-	47	68	88
				硬橡胶 Hard rubber	60	200	47	68	88
S	高温合金 High Temp.Alloy Hastelloy B,Inconel 600,		铁基 Fe base	退火 Annealed	140-220	480-755	14	20	27
				固化 Cured	223-310	755-990	11	16	21
			镍基或钴基 Nior co base	退火 Annealed	250	-	11	16	21
				固化 Cured	350	-	11	16	21
				铸造 Cast	320	-	11	16	21
	钛合金 Titanium Alloy			-	320	Rm 400	11	16	21
				+ 合金固化 + alloys Cured	-	Rm 1050	11	16	21
H	哈氏耐磨护板 Wear PlateHardox,AR400,T-1,			淬硬 Harden	400	1365	7	10	13
				淬硬 Harden	500	1600	-	-	-
	淬火钢 Hardened Steel			淬硬 Harden	300-400	1020-1365	9	13	16
				淬硬 Harden	400-500	1365+	-	-	-

注意:上述推荐的切削参数以3-4D系列为准。当使用5-6D、7-8D、8-12D、12-14D、14-22D等系列时，根据工况适当降低参数。

参数:3-4D系列=100%; 5-6D、7-8D系列=80%以下; ≥8-12D系列=70%以下。

进给量 (fn)mm/r																							
Φ9.5-12.5mm			Φ13.0-17.5mm			Φ18.0-24.0mm			Φ25.0-35.0mm			Φ36.0-47.0mm			Φ48.0-65.0mm			Φ66.0-114.0mm		
最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.	最小 Min.	推荐 Recommended	最大 Max.
0.09	0.12	0.17	0.13	0.17	0.23	0.17	0.22	0.31	0.21	0.28	0.39	0.26	0.34	0.47	0.29	0.39	0.54	0.36	0.48	0.66
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.23	0.31	0.43	0.27	0.36	0.50	0.31	0.42	0.57
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.23	0.31	0.43	0.27	0.36	0.50	0.31	0.42	0.57
0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.25	0.33	0.45	0.29	0.38	0.53
0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.26	0.35	0.22	0.30	0.41	0.26	0.34	0.47
0.07	0.09	0.12	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.25	0.33	0.45	0.29	0.38	0.53
0.07	0.09	0.12	0.09	0.12	0.17	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.25	0.33	0.45	0.29	0.38	0.53
0.05	0.07	0.10	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.26	0.35	0.22	0.30	0.41	0.26	0.34	0.47
0.04	0.06	0.08	0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.26	0.35	0.22	0.30	0.41	0.26	0.34	0.47
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.05	0.07	0.10	0.09	0.12	0.17	0.12	0.16	0.22	0.13	0.17	0.23	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.13	0.17	0.23	0.19	0.25	0.34	0.21	0.28	0.39	0.26	0.34	0.47
0.07	0.09	0.12	0.09	0.12	0.17	0.10	0.14	0.19	0.10	0.14	0.19	0.16	0.21	0.29	0.19	0.25	0.34	0.23	0.31	0.43
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.21	0.28	0.39	0.26	0.34	0.47
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.16	0.21	0.29	0.19	0.25	0.34	0.23	0.31	0.43
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.19	0.25	0.34	0.21	0.28	0.39	0.26	0.34	0.47
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.16	0.21	0.29	0.19	0.25	0.34	0.23	0.31	0.43
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47	0.31	0.42	0.57	0.35	0.47	0.65	0.39	0.52	0.72
0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.36	0.48	0.66
0.08	0.10	0.14	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.23	0.31	0.43	0.27	0.36	0.50	0.31	0.42	0.57
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47	0.31	0.42	0.57	0.35	0.47	0.65	0.39	0.52	0.72
0.05	0.07	0.10	0.08	0.10	0.14	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.25	0.34	0.21	0.28	0.39
0.05	0.07	0.10	0.08	0.10	0.14	0.13	0.17	0.23	0.16	0.21	0.29	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.26	0.34	0.47	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.08	0.10	0.14	0.14	0.19	0.26	0.19	0.25	0.34	0.23	0.31	0.43	0.29	0.38	0.53	0.34	0.45	0.62	0.36	0.48	0.66
0.07	0.09	0.12	0.09	0.12	0.17	0.12	0.16	0.22	0.16	0.21	0.29	0.19	0.25	0.34	0.22	0.30	0.41	0.26	0.34	0.47
0.09	0.12	0.17	0.16	0.21	0.29	0.21	0.28	0.39	0.26	0.34	0.47	0.31	0.42	0.57	0.36	0.48	0.66	0.39	0.52	0.72
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.10	0.14	0.19	0.17	0.22	0.31	0.21	0.28	0.39	0.23	0.31	0.43	0.29	0.38	0.53	0.32	0.43	0.59	0.32	0.43	0.59
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	0.19	0.26	0.35	-	-	-
0.04	0.06	0.08	0.08	0.10	0.10	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	0.19	0.26	0.35	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	0.19	0.26	0.35	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.09	0.12	0.17	0.10	0.14	0.19	0.13	0.17	0.23	0.16	0.21	0.29	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.23	0.31	0.43
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	0.06	0.08	0.08	0.10	0.14	0.10	0.14	0.19	0.12	0.16	0.22	0.16	0.21	0.29	0.21	0.28	0.39	0.23	0.31	0.43
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Nmle: The above recomended cutting parameters are baecd on the 3-4D seres. When using series 5-6D/7-8D/8-12D/12-14D/14-22D etc, the parameters should be appropriately reduced according to the working condition.

Parameter: 3-4D series=100%, 5-6D/7-8D series=below 80%, ≥8-12D series=below 70%.

铲钻刀杆非标定制卡

Spade drill holder non-standard customized card

☐ 询问 Inquiry ☐ 定购 Order

公司 Company_____ 客户编号 Customer number_____

联系人 Contact Person_____ 电话 TeL_____

手机 M.B_____ 传真 FaX_____

地址 Add_____ 电子邮件 E-MaiL_____

订货号 Order number_____ 购买数量 Order Quantity_____

交货期 Delivery_____

加工条件和刀具信息

孔 HOLE

☐ 通孔 THROUGH HOLE ☐ 盲孔 BLIND HOLIE

要求孔径:_____ mm 钻孔深度:_____ mm

APERTURE DEPTH

加工方法 PROCESSING METHODS

☐ 湿式WET ☐ 干式DRY

冷却方式 COOLING

☐ 外冷EXTERNAL COOLING ☐ 内冷 COOLED

被加工材料 MATERIAL TO BE PROCESSED

☐ 碳素钢 CARBON ☐ 铜合金 COPPER ALLOY

☐ 合金钢ALLOY STEEL ☐ 淬硬钢HARDENED STEEL

☐ 不锈钢STAINLESS STEEL ☐ 镍合金 NICKEL ALLOY

☐ 铸铁CAST IRON ☐ 铝合金 ALUMINUM

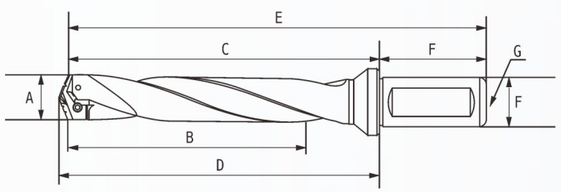
☐ 钛合金 TITANIUM ☐ 其他 OTHER

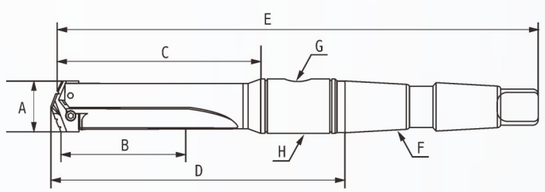
硬度HARDNESS (HRC, HB)_____ 抗拉强度TENSILE STRENGTH (N/mm2)_____

使用机床MACHINE_____

沟槽形式 FUTEMODALITY:

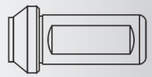
☐ 直槽STRAIGHT ☐ 螺旋槽HELICAL



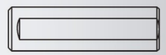


柄部型式 SHANK TYPE

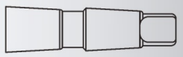
☐ 侧固式法兰柄 FLANGED SHANK



☐ 侧固式直柄 LATHE SHANK



☐ 莫氏锥柄 MORSE TAPER



A:_____ B:_____ C:_____ D:_____ E:_____ F:_____ G:_____ H:_____

提示:如未陈述以上内容,我们将米用CHTOOLS标准。

TIP:IF NOT STATED ABOVE,AND WE WILL USE THE STANDARD CHTOOLS

签名 SIGNATURE: 日期 DATE:

铲钻 Spade Drill

CSJ皇冠钻(前锁式) KS皇冠钻(后拉式) KS组合钻 U钻 单刃钻头 带定心U钻 VMD大钻头 铲钻 模块系统 技术资料

铲钻刀杆非标定制卡
Spade drill holder non-standard customized card

☐ 询问 Inquiry ☐ 定购 Order

公司 Company_____ 客户编号 Customer number_____

联系人 Contact Person_____ 电话 TeL_____

手机 M.B_____ 传真 FaX_____

地址 Add_____ 电子邮件 E-MaiL_____

订货号 Order number_____ 购买数量 Order Quantity_____

交货期 Delivery_____

加工条件和刀具信息

孔 HOLE

☐ 通孔 THROUGH HOLE ☐ 盲孔 BLIND HOLIE

要求孔径:_____ mm 钻孔深度:_____ mm

APERTURE DEPTH

加工方法 PROCESSING METHODS

☐ 湿式WET ☐ 干式DRY

冷却方式 COOLING

☐ 外冷EXTERNAL COOLING ☐ 内冷 COOLED

被加工材料 MATERIAL TO BE PROCESSED

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☐ 合金钢ALLOY STEEL ☐ 淬硬钢HARDENED STEEL

☐ 不锈钢STAINLESS STEEL ☐ 镍合金 NICKEL ALLOY

☐ 铸铁CAST IRON ☐ 铝合金 ALUMINUM

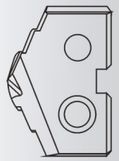
☐ 钛合金 TITANIUM ☐ 其他 OTHER

硬度HARDNESS (HRC, HB)_____ 抗拉强度TENSILE STRENGTH (N/mm2)_____

使用机床MACHINE_____

刀片涂层 BLADE COATINE:TiCN ☐, TiN ☐, TiALN ☐, 无 ☐ ,_____ ☐

刀片类型 INSERT TYPE



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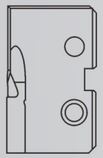

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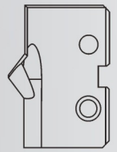


☐

☐

☐

其他类型(客户自定义) OTHER TYPE (CUSTOMIZABLE)

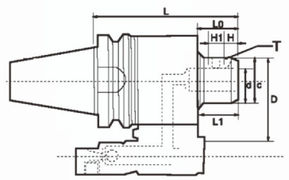
提示:如未陈述以上内容,我们将米用CHTOOLS标准。

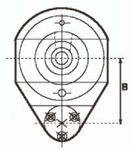
TIP:IF NOT STATED ABOVE,AND WE WILL USE THE STANDARD CHTOOLS

签名 SIGNATURE: 日期 DATE:

SLO 侧固式自动换刀油路刀柄

SLO side fixed automatic tool changing oil path tool holder

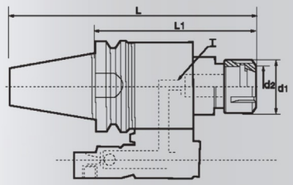


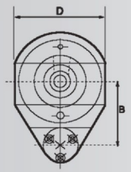


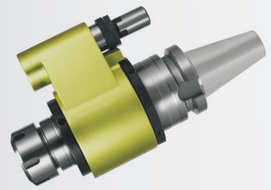
型号 Code No	尺寸 Size								
	L	L1	H	H1	D	d	c	B	T
BT40-SL016-165	165	58	25	-	82	16	46.5	65	M12x1.75P
BT40-SL020-165	165	60	25	-	82	20	46.5	65	M12x1.75P
BT40-SL025-165	165	66	15	20	82	25	46.5	65	M12x1.75P
BT40-SL032-165	165	70	15	20	82	32	47	65	M12x1.75P
BT40-SL016-165S	165	48	25	-	82	16	46.5	60	M12x1.75P
BT40-SL020-165S	165	50	25	-	82	20	46.5	60	M12x1.75P
BT40-SL025-165S	165	56	15	20	82	25	47	60	M12x1.75P
BT40-SL032-165S	165	60	15	20	82	32	56	60	M12x1.75P
BT50-SL016-165	165	58	24	-	98	16	56	80	M14x2.0P
BT50-SL020-165	165	60	25	-	98	20	56	80	M12x1.75P
BT50-SL025-165	165	70	15	20	98	25	56	80	M16x2.0P
BT50-SL032-165	165	70	15	20	98	32	56	80	M16x2.0P
BT50-SL040-170	170	70	15	25	105	40	56	80	M14x2.0P
BT50-SL016-165M	165	48	25	-	98	16	56	82	M14x2.0P
BT50-SL020-165M	165	50	25	-	98	20	56	82	M12x1.75P
BT50-SL025-165M	165	56	15	20	98	25	56	82	M16x2.0P
BT50-SL032-165M	165	60	15	20	98	32	56	82	M16x2.0P
BT50-SL040-170M	170	62	15	25	105	40	56	82	M14x2.0P
BT50-SL016-165L	165	48	25	-	98	16	56	85	M14x2.0P
BT50-SL020-165L	165	50	25	-	98	20	56	85	M12x1.75P
BT50-SL025-165L	165	56	15	20	98	25	56	85	M16x2.0P
BT50-SL032-165L	165	60	15	20	98	32	56	85	M16x2.0P
BT50-SL040-170L	170	62	15	25	105	40	56	85	M14x2.0P

ERO 自动换刀油路刀柄

Ero automatic tool changing oil path tool holder



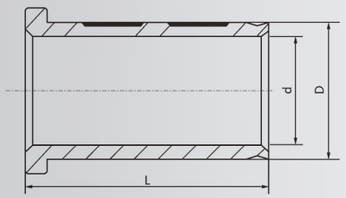




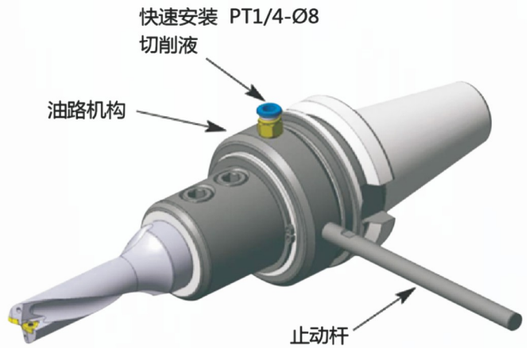
型号 Code No	尺寸 Size						
	L1	L	D	d1	d2	B	T
BT40-ER016-160	160	225.4	82	28	16	65	M10
BT40-ER020-160				34	20		M12
BT40-ER025-160				42	25		M16
BT40-ER032-160				50	32		
BT50-ER016-160		261.8	98	28	16	80	M10
BT50-ER020-160				34	20		M12
BT50-ER025-160				42	25		M16
BT50-ER032-160				50	32		
BT50-ER040-160				63	40		M20

转换套

Conversion kit



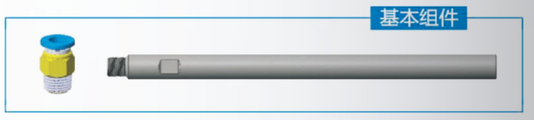
型号 Code No	尺寸 Size		
	L	D	d
40-32	71	40	32
40-25	71	40	25
40-20	66	40	20
32-25	71	32	25
32-20	60	32	20
25-20	58	25	20



· 油路刀柄可快速实现刀具内冷却功能，使用简单方便。
· 提高刀具切削速度，有效降低切削刃口温度。
· 高压内冷可快速的排除铁屑，延长刀具使用寿命。
· 主要应用于VMD钻头。
· 内部专用密封结构，可快速进行密封圈更换。
· 允许最高转速2000RPM，允许冷却液压强为1MPa。
· 从油路机构外部90度处可以看到两条螺纹:一个用于提供切削油的功能，另一个用于安装止动杆的功能。

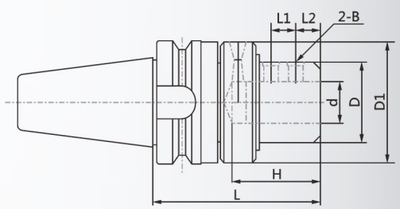
· Oil handle can quickly realize the tool cooling function, simple and convenient to use.
· Improve the cutting speed of the tool and effectively reduce the temperature of the cutting edge.
· High pressure internal cooling can quickly remove iron filings and extend the service life of the tool.
· Mainly used in VMD bits.
· Internal special sealing structure, sealing ring can be quickly replaced.
· The maximum allowable speed is 2000RPM, and the allowable cooling hydraulic strength is 1MPa.
· Two threads can be seen 90 degrees from the outside of the oil path mechanism: one for the cutting oil function and the other for the mounting stop rod function.

基本组件



BT-OMS手动换刀油路刀柄

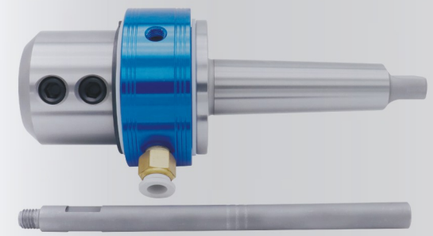
BT - OMS manual tool changing oil path tool holder

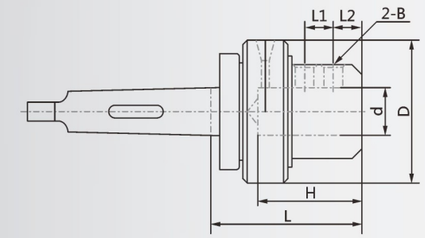


型号 Code No	尺寸 Size							
	d	L	D	D1	H	L1	L2	B
BT40-OMS-20105	20	105	50	78	50	20	/	M12
BT40-OMS-25120	25	120	50	78	60	20	20	M12
BT40-OMS-32125	32	125	65	88	70	20	20	M14
BT50-OMS-20120	20	120	50	78	50	20	/	M12
BT50-OMS-25135	25	135	50	78	60	20	20	M12
BT50-OMS-32135	32	135	65	98	70	20	20	M14
BT50-OMS-40145	40	145	65	98	80	20	25	M16X1.5
BT50-OMS-50170	50	170	90	123	90	35	35	M20

MT-OML手动换刀油路刀柄

MT - OML manual tool change oil path tool holder





型号 Code No	尺寸 Size						
	d	D	L1	L2	H	L1	B
MT4-OMS-20080	20	83	20	/	60	80	M12
MT4-OMS-25095	25	83	20	20	75	95	M12
MT4-OMS-32100	32	88	20	20	78	100	M14
MT5-OMS-20080	20	83	20	/	60	80	M12
MT5-OMS-25095	25	83	20	20	75	95	M12
MT5-OMS-32100	32	88	20	20	78	100	M14
MT5-OMS-40110	40	88	20	25	82	110	M16X1.5
MT6-OMS-20085	20	83	20	/	60	85	M12
MT6-OMS-25100	25	83	20	20	75	100	M12
MT6-OMS-32105	32	88	20	20	78	105	M14
MT6-OMS-40120	40	88	20	25	82	120	M16X1.5

BT-SLA 侧固式刀柄

BT-SLA side fixed shank

型号 Code No		尺寸 Size					
		d1	d2	L1	L2	L3	T
TB40	-SLA16-75	16	48	75	22	18	M12X1.75P
	-SLA20-75	20	52		25	20	M16X2.0P
	-SLA25-90	25	65	90	30	22	
	-SLA32-90	32	72		30	22	
	-SLA40-100	40	90	100	35	25	
TB50	-SLA20-90	20	52	90	25	20	M16X2.0P
	-SLA25-105	25	60	105	30	22	M16X2.0P
	-SLA32-105	32	63	105	30	22	M16X2.0P
	-SLA40-105	40	78/90	105	35	25	M16X2.0P

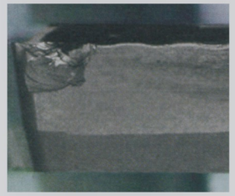
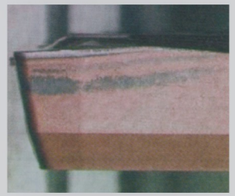
莫式侧固式刀柄
MOE side fixed shank

型号 Code No	尺寸 Size								
	D1	d1	d2	L1	L2	Σ1	Σ2	Σ3	d3
MTA4-SLA25-80	31.267	25	65	117.5	100	54	24	25	M16
MTA4-SLA32-85	31.267	32	72	117.5	100	58	24	28	M16
MTA5-SLA25-80	44.399	25	65	149.5	100	54	24	25	M16
MTA5-SLA32-85	44.399	32	72	149.5	100	58	24	28	M16
MTA5-SLA40-95	44.399	40	90	149.5	100	68	30	32	M20

U钻车床刀座
U-drill lathe tool holder

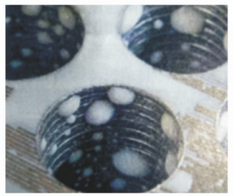
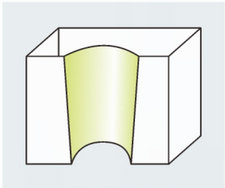
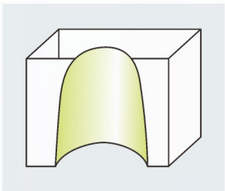
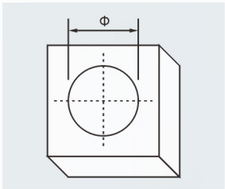
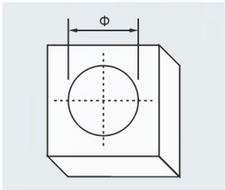
型号 Code No	尺寸 Size			
	H	H1	L	D
DK20-16	20	37	60	16
DK20-20		47	65	20
DK20-25		47	65	25
DK20-32		55	85	32
DK25-16	25	42	65	16
DK25-25		53	70	25
DK25-32		60	85	32
DK25-40		65	90	40
DK32-40	32	83	100	40
DK32-50		83	100	50

问题分析和解决措施
Problem analysis and solution

磨损类型 The wear types	特征 Characteristics	措施 measures
刀具寿命短，可转位刀片磨损严重	1. 切削参数错误 2. 刀具材料的耐磨性不足 3. 冷却液不足 4. 刀片座损坏 5. 钻头刀体过长 6. 夹紧系统不稳定 7. 调整错误(针对车床)	1. 校正切削参数 2. 选择更耐磨的切削材质 3. 检查冷却液压力；如果过低，提高流量 4. 检查钻头刀体，必要时更换 5. 如有可能，使用较短的刀具 6. 提高夹紧装置的稳定性 7. 检查机床对正
中心刀片崩刃 	1. 刀具中心高度过高/过低(针对车床) 2. 进给过高 3. 切削度过硬 4. 可转位刀片槽型遇到过大切削力 5. 夹紧系统不稳定	1. 检查中心高度并调整 2. 减小进给量 3. 使用更硬的刀具材料 4. 使用刀刃更锋利的槽型 5. 检查精度；如果无法改善钻头夹紧和/或无法保证最佳稳定性；减小进给量
周边刀片崩刃 	1. 进给过高 2. 断续切削 3. 可转位刀片槽型需要更大切削力	1. 减小进给量 2. 使用更硬的切削材质和更强的槽型 3. 使用槽型更锋利的可转位刀片
形成积屑瘤 	1. 冷却液不足 2. 切削参数错误	1. 检查冷却液压力；如果过低，提高流量 2. 提高切削速度，降低进给
排屑效果或断屑不佳 	1. 冷却液不足 2. 切削参数错误	1. 提高冷却液压力和流量(为了改善排屑效果以及切削刃冷却) 2. 优化该应用的切削参数和切屑控制；提高切削速度，降低进给
侧面有摩擦痕迹 	1. 钻孔直径过小 2. 排屑效果差 3. 由于刀刃钝化导致弯曲应力提高	1. 检查调整情况 2. 优化切削参数，检查可转位刀片槽型 3. 选择更锋利的槽型

问题分析和解决措施

Problem analysis and solution

磨损类型 The wear types		特征 Characteristics	措施 measures
钻孔质量差		1. 冷却液不足 2. 切削参数错误 3. 夹紧系统不稳定 4. 调整错误(针对车床)	1. 提高冷却液压力和体积流量 2a. 提高切削速度，降低进给 2b. 检查(刀具和工件的)装夹精度，必要时改进 3. 优化装夹的稳定性 4. 检查机床对正
喇叭孔		1. 切屑积聚在外部可转位刀片槽中 2. 材料非常软	1. 选择备选断屑槽型，必要时提高进给 2a. 提高切削速度，降低进给 2b. 使用其他切削槽型
钟形孔		1. 切屑积聚在中央可转位刀片槽中	1. 选择其他槽型，必要时提高进给
孔径过小或者过大		1. 机床不在零位上运转(针对车床) 2. 机床坐标轴偏移(针对车床) 3. 偏心套调整错误	1. 检查调整情况并校正 2. 检查调整情况并校正 3. 检查调整情况并校正
刀夹式钻头的孔径过小或者过大		1. 调刀错误(在外部刀夹上)	1. 检查调整情况并校正

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) Cutting speed (Vc)

$$Vc = \frac{Dc \times \pi \times n}{1000}$$

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ø20mm，其切削速度为:

$$Vc = \frac{Dc \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100(m/min)$$

进给速度 Feed rate

$$Vf = fr \times n$$

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ø0.1mm/rev，其进给速度为:

$$Vf = fr \times n = 0.1 \times 1500 = 150(mm/min)$$

孔加工时间 Drilling time

$$Tc = \frac{Id \times i}{n \times f}$$

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ø20mm，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。

$$Ve = \frac{Vc \times 1000}{Dc \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600(rev/min)$$

$$Tc = \frac{Id \times i}{n \times f} = \frac{40 \times 1}{1600 \times 0.1} = 0.25(min)$$

金属去除率 Metal removal rate

$$Q = \frac{Vf \times \pi \times Dc^2}{4 \times 1000}$$

Q(cm^3/min):金属去除率
Dc(mm):钻头直径
Vf(mm/min):进给速度

实例

一个ø20mm的钻头，加工时的进给速度为160mm/rev，其金属去除率为:

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

所需动力(标准指) Required power (as per standard)

$$Pc = \frac{Dc}{20} \times \frac{Vc}{100} \times \left(1 + \left(\frac{2.5 \times f}{0.1}\right)\right)$$

Pc : 所需动力[kW]
Dc : 钻头径[mm]
Vc : 切削速度[m/min]
f : 每转进给[mm/rev]

材料分组综览

Overview of Material Grouping

P 钢 Steel | M 不锈钢 Stainless steel | K 铸铁 Cast iron | N 非铁金属 Non-ferrous metals | S 高温合金 High-temperature alloys | H 硬材料 Hard materials | C CERP材料 CERP materials

材料分组 Material grouping	描述 Description	组成 Composition	抗拉强度 RM (Mpa)* Tensile strength RM (Mpa)*	硬度(HB) Hardness (HB)	硬度(HRC) Hardness (HRC)	材料编号 Material number
P0	低碳钢、长切屑	C<0.25%	<530	<125	-	-
P1	低碳钢，短切屑，易切削	C<0.25%	<530	<125	-	C15, CK22, ST37-2, S235JR, 9SMnPb28, GS38
P2	中碳钢和高碳钢	C>0.25%	>530	<220	<25	ST52, S355JR, C35, GS60, Cf53
P3	合金钢和工具钢	C>0.25%	600-850	<330	<35	16MnCr5, Ck45, 21CrMoV5-7, 38SMn28
P4	合金钢和工具钢	C>0.25%	850-1400	340-450	35-48	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P5	铁素体、马氏体、和PH不锈钢	-	600-900	<330	<35	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P6	高强度铁素体、马氏体、和PH不锈钢	-	900-1350	350-450	35-48	X102CrMo17, G-X120Cr29
M1	奥氏体不锈钢	-	<600	130-200	-	X5CrNi 18 10, X2CrNiMo 17 13 2, G-X25CrNiSi18 9, X15CrNiSi 20 12
M2	高温度鬼氏体不锈钢和铸造不锈钢	-	600-800	150-230	<25	X2CrNiMo 13 4, X5NiCr 32 21, X5CrNiNb 18 10, G-X15CrNi25-20
M3	双相不锈钢	-	<800	135-275	<30	X8CrNiMo27 5, X2CrNiMoN22 5 3, X20CrNiSi25 4, G-X40CrNiSi27 4
K1	灰铸铁	-	125-500	120-290	<32	GG15, GG25, GG30, GG40, GTW40
K2	低-中强度延性铁(球墨铸铁)及蠕墨铸铁	-	<600	130-260	<28	GGG40, GTS35
K3	高强度延性铁和奥氏体回火处理延性铁(ADI)	-	>600	180-350	<43	GGG60, GTW55, GTS65
N1	可锻铝	-	-	-	-	AlMg1, Al99.5, AlCuMg1, AlCuBiPb, AlMgSi1, ALMgSiPb
N2	低硅铝合金和锰合金	Si<12.2%	-	-	-	GAlSiCu4, GDAISi10Mg
N3	高硅铝合金和锰合金	Si>12.2%	-	-	-	G-ALSi12, G-AlSi17Cu4, G-AlSi21CuNiMg
N4	在机械加工性能指数70-100范围内的铜基材料、黄铜基材料和锌基材料	-	-	-	-	CuZn40, Ms60, G-CuSn5ZnPb, CuZn37, CuSi3Mn
N5	尼龙、塑料、橡胶、酚醛塑料、树脂、玻璃纤维	-	-	-	-	Lexan®. HostalenTM, Polystyrol, Makrolon ®
N6	碳材料、石墨复合材料，以及CFRP材料	-	-	-	-	CFK, GFK
N7	金属基复合材料(MMC)	-	-	-	-	-
S1	铁基耐热合金	-	500-1200	160-260	25-48	X1NiCrMoCu32 28 7, X12NiCrSi36 16, X5NiCrAITi31 20, X40CoCrNi20 20
S2	钴基耐热合金	-	1000-1450	250-450	25-48	Haynes® 188, Stellite® 6, 21, 31
S3	镍基耐热合金	-	600-1700	160-450	<48	INCONEL® 690, INCONEL625, Hastelloy®, NIMONIC® 75
S4	钛及钛合金	-	900-1600	300-400	33-48	Ti1, TiAl5Sn2, TiAI6V4, TiAl4MO4Sn2
H1	硬化材料	-	-	-	44-48	GX260NiCr42, GX330MiCr42, GX300CrNiSi952, GX300CrMo153, Hardox® 400
H2	硬化材料	-	-	-	48-55	-
H3	硬化材料	-	-	-	56-60	-
H4	硬化材料	-	-	-	>60	-
C1	CERP, CFRP/CFR	-	-	-	-	-
C2	CFRP/非铁材料	-	-	-	-	-
C3	CFRP/高温合金	-	-	-	-	-
C4	CFRP/不锈钢	-	-	-	-	-
C5	CFRP/非铁材料/高温合金材料	-	-	-	-	-

钢的维氏硬度换算表

Table for Conversion of Rockwell Hardness of Steel

维氏硬度 (HV)	布氏硬度 1'0mm球 负荷3,000kgf (HB) 标准球	碳化钨球	洛氏硬度(2) A标度 负荷60kgf 金刚石圆锥压子 (HRA)	B标度 负荷100kgf 直径1.6mm (1/16in)球 (HRB)	C标度 负荷150kgf 金刚石圆锥压子 (HRC)	肖氏硬度 (HS)	抗压强度(近似值) MPa(1)
940	-	-	85.6	-	68.0	97	
920	-	-	85.3	-	67.5	96	
900	-	-	85.0	-	67.0	95	
880	-	(767)	84.7	-	66.4	93	
860	-	(757)	84.4	-	65.9	92	
840	-	(745)	84.1	-	65.3	91	
820	-	(733)	83.8	-	64.7	90	
800	-	(722)	83.4	-	64.0	88	
780	-	(710)	83.0	-	63.3	87	
760	-	(698)	82.6	-	62.5	86	
740	-	(684)	82.2	-	61.8	84	
720	-	(670)	81.8	-	61.0	83	
700	-	(656)	81.3	-	60.1	81	
690	-	(647)	81.1	-	59.7	-	
680	-	(638)	80.8	-	59.2	80	
670	-	630	80.6	-	58.8	-	
660	-	620	80.3	-	58.3	79	
650	-	611	80.0	-	57.8	-	
640	-	601	79.8	-	57.3	77	
630	-	591	79.5	-	56.8	-	
620	-	582	79.2	-	56.3	75	
610	-	573	78.9	-	55.7	-	
600	-	564	78.6	-	55.2	74	
590	-	554	78.4	-	54.7	-	2055
580	-	545	78.0	-	54.1	72	2020
570	-	535	77.8	-	53.6	-	1985
560	-	525	77.4	-	53.0	71	1950
550	505	517	77.0	-	52.3	-	1905
540	496	507	76.7	-	51.7	69	1860
530	488	497	76.4	-	51.1	-	1825
520	480	488	76.1	-	50.5	67	1795
510	473	479	75.7	-	49.8	-	1750
500	465	471	75.3	-	49.1	66	1705
490	456	460	74.9	-	48.4	-	1660
480	448	452	74.5	-	47.7	64	1620
470	441	442	74.1	-	46.9	-	1570
460	433	433	73.6	-	46.1	62	1530
450	425	425	73.3	-	45.3	-	1495
440	415	415	72.8	-	44.5	59	1460
430	405	405	72.3	-	43.6	-	1410
420	397	397	71.8	-	42.7	57	1370
410	388	388	71.4	-	41.8	-	1330
400	379	379	70.8	-	40.8	55	1290
390	369	369	70.3	-	39.8	-	1240
380	360	360	69.8	(110.0)	38.8	52	1205
370	350	350	69.2	-	37.7	-	1170
360	341	341	68.7	(109.0)	36.6	50	1130
350	331	331	68.1	-	35.5	-	1095
340	322	322	67.6	(108.0)	34.4	47	1070
330	313	313	67.0	-	33.3	-	1035

维氏硬度 (HV)	布氏硬度 1'0mm球 负荷3,000kgf (HB) 标准球	碳化钨球	洛氏硬度(2) A标度 负荷60kgf 金刚石圆锥压子 (HRA)	B标度 负荷100kgf 直径1.6mm (1/16in)球 (HRB)	C标度 负荷150kgf 金刚石圆锥压子 (HRC)	肖氏硬度 (HS)	抗压强度(近似值) MPa(1)
320	303	303	66.4	(107.0)	32.2	97	
310	294	294	65.8	-	31.0	96	
300	284	284	65.2	(105.5)	29.8	95	
295	280	280	64.8	-	29.2	93	
290	275	275	64.5	(104.5)	28.5	92	
285	270	270	64.2	-	27.8	91	
280	265	265	63.8	(103.5)	27.1	90	
275	261	261	63.5	-	26.4	88	
270	256	256	63.1	(102.0)	25.6	87	
265	252	252	62.7	-	24.8	86	
260	247	247	62.4	(101.0)	24.0	84	
255	243	243	62.0	-	23.1	83	
250	238	238	61.6	99.5	22.2	81	
245	233	233	61.2	-	21.3	-	
240	228	228	60.7	98.1	20.3	80	
230	219	219	-	96.7	(18.0)	-	
220	209	209	-	95.0	(15.7)	79	
210	200	200	-	93.4	(13.4)	-	
200	190	190	-	91.5	(11.0)	77	
190	181	181	-	89.5	(8.5)	-	
180	171	171	-	87.1	(6.0)	75	
170	162	162	-	85.0	(3.0)	-	
160	152	152	-	81.7	(0.0)	74	
150	143	143	-	78.7	-	-	
140	133	133	-	75.0	-	72	
130	124	124	-	71.2	-	-	
120	114	114	-	66.7	-	71	
110	105	105	-	62.3	-	-	
100	95	95	-	56.2	-	69	
95	90	90	-	52.0	-	-	
90	86	86	-	48.0	-	67	
85	81	81	-	41.0	-	-	

· 此表为JIS钢铁手册的摘要.(SAEJ417内容)

注 (1)1MPA=1N/mm²

(2)表中（ ）内的数值为非常用范围数值,仅作参考使用。

表面粗糙度（基于JIS B 0601-2001）

Surface roughness (based on JIS B 0601-2001)

理论(几何学)表面粗糙度 Theoretical (geometric) surface roughness

车削加工的理论粗糙度是指设定切削参数所得的最小值、用以下公式表示。

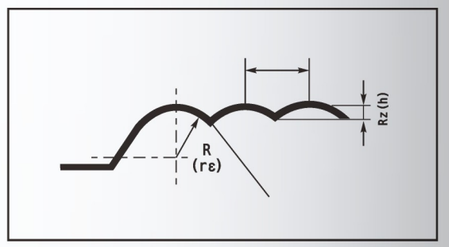
The theoretical roughness of turning processing refers to the minimum value obtained by setting the cutting parameters, and can be expressed by the following formula.

$$Rz(h) = \frac{f^2}{8R(r\varepsilon)} \times 10^3$$

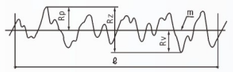
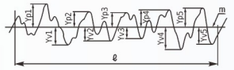
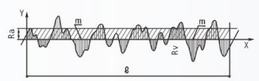
Rz(h)：理论表面粗糙度（μm）

f　：每转进给（mm/rev）

R(rε)：刀片的刀尖半径（mm）



表面粗糙度的算法

种类	符号	计算方法	说明图
最大高度	Rz	从粗糙度曲线沿平均线方向抽取基准长度，检测抽取的部分的峰顶与谷底的间隔作为粗糙度曲线的纵倍率方向来测量，此值用微米（μm）表示。 备注:计算Rz时避开有伤痕、取无峰顶和谷底的部位作为基准长测量。 Rz=Rp+Rv	
十点平均粗糙度	RZJIS	从粗糙度曲线沿其平均线方向抽取基准长度，从抽取的部分分别算出5个最高峰的平均值(Yp)和5个最低谷的平均值(Yv)求和，以微米(μm)表示即Rz值。 $R_{ZJIS} = \frac{(Yp1+Yp2+Yp3+Yp4+Yp5)+(Yv1+Yv2+Yv3+Yv4+Yv5)}{5}$	 Yp1, Yp2, Yp3, Yp4, Yp5: 基准长度ℓ的抽取部分中、最高峰至第五峰为止的山顶标高 Yv1, Yv2, Yv3, Yv4, Yv5: 基准长度ℓ的抽取部分中、最低谷至第五谷为止的谷底标高
计算平均粗糙度	Ra	从粗糙度曲线沿平均线方向抽取基准长度，将抽取的部分横向部分看成X轴，与其垂直的方向为Y轴，若粗糙度曲线用y=f(x)表示时，则可以由以下方程式求出以微米（μm）表示RA值 $Ra=\frac{1}{\ell}\int_0^{\ell}\{f(x)\}dx$	

与三角符号符号的关系

计算平均粗糙度 Ra(μm)	最大高度 Rz(μm)	十点平均粗糙度 RZJIS(μm)	※(三角符号)
0.025 0.05 0.1 0.2	0.1 0.2 0.4 0.8	0.1 0.2 0.4 0.8	▽▽▽▽
0.4 0.8 1.6	1.6 3.2 6.3	1.6 3.2 6.3	▽▽▽
3.2 6.3	12.5 25	12.5 25	▽▽
12.5 25	50 100	50 100	▽

※精加工符号（三角符号V及波形符号~）因为1994年的修正JIS已经停止使用。

读法举例

①Ra1.6μm时 → 1.6μmRa

②Rz为6.3μm时→6.3μmRz

③RZJIS 为6.3μm时→6.3μmRZJIS

JIS的表示例

有Ra指定时的表示例		有Rz指定时的表示例	
①当只指定上限时 （上限为6.3μmRa时）	6.3	①当只指定上限时 在参数后继续记入表面粗糙度的指定值	Rz6.3
②当只指定上下限时 （上限为6.3μmRa、下限为1.6μmRa时）	6.3 1.6	②当只指定上下限时 在参数符号之后继续以「上限~下限」所示计入表面粗糙度的指定值	Rz6.3~1.6

（注）请注意Ra与Rz的表示方法不同。

表面粗糙度符号注意 Surface roughness symbol notice

上表基于JIS B 0601-2001记载。
为了配合ISO标准与符号，从JIS B 0601-2001版开始变更为右表符号。
十点平均粗糙度（Rz)从2001年度版开始不再使用,但由于它在日本比较普及依然作为RZJIS参考值保留下来。

种类	JIS B 0601-1994 符合		JIS B 0601-2001 符合
最大高度	Ry	→	Rz
十点平均粗糙度	Rz	→	(RZJIS)
计算平均粗糙度	Ra	→	Ra

金属加工安全事项

Safety precautions in metal processing

在使用本目录中刀具产品之前，请仔细阅读以下内容破裂碎片伤害危险:

Before using the cutting tools in this catalogue, please read the following content carefully: Risk of injury from broken fragments:

在金属切削加工应用中，主轴转速和切削速度很高，切削力大，并且还伴随着高温现象。在金属切削过程中，炙热的金属切屑可能会从工件内飞出。尽管在切削刀具的设计和制造过程中，考虑了如何避免大切削力和高温现象，但仍然有出现破碎的风险，特别是在高应力、强冲击，或是其它不利加工条件存在的情况下。

In metal cutting processing applications, the spindle speed and cutting speed are very high, resulting in significant cutting forces, and accompanied by high temperatures. During the metal cutting process, hot metal chips may fly out from the workpiece. Although in the design and manufacturing of cutting tools, measures have been taken to avoid large cutting forces and high temperatures, there is still a risk of breakage, especially under conditions of high stress, strong impact, or other unfavorable processing conditions.

如何避免伤害:

How to Avoid Injuries:

※ 在操作金属切削设备或在附近工作时，应穿戴适当的个人防护用品，包括护目镜。
※ 确保设备的所有防护装置工作正常。

※ When operating metal-cutting equipment or working nearby, appropriate personal protective equipment should be worn, including safety glasses.
※ Ensure that all protective devices of the equipment are functioning properly.

吸入及皮肤接触危险:

Inhalation and skin contact hazards:

在对硬质合金或其它高级刀具进行磨削时，会产生包括金属颗粒的粉尘或烟雾。吸入这种粉尘或烟雾，特别是在长时间吸入的情况下，会导致急性或慢性肺病,或是加重现有的病情。接触这种粉尘或烟雾，会对眼睛、皮肤，以及黏膜造成刺激，或加重现有皮肤病的病情。

When grinding solid carbides or other high-grade cutting tools, dust or smoke containing metal particles will be produced. Inhaling such dust or smoke, especially over a long period of time, can lead to acute or chronic lung diseases, or aggravate existing conditions. Exposure to this dust or smoke can cause irritation to the eyes, skin, and mucous membranes, or worsen the condition of existing skin diseases.

如何避免伤害:

How to Avoid Injuries:

※ 在对刀具进行磨削时，应穿戴呼吸防护用具和护目镜。
※ 确保良好的通风，收集并恰当处理磨削刀具时产生的粉尘、烟雾或残渣。
※ 避免皮肤接触这些粉尘或烟雾。

※ When grinding the tools, it is necessary to wear respiratory protection equipment and safety goggles.
※ Ensure good ventilation, collect and properly dispose of the dust, smoke or residues generated during the grinding of the tools.
※ Avoid skin contact with these dusts or fumes.