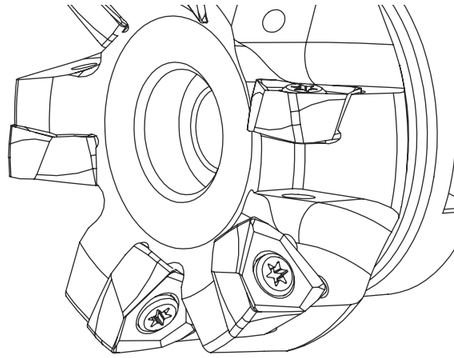
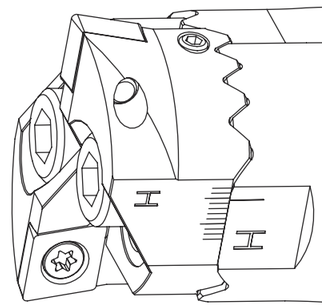
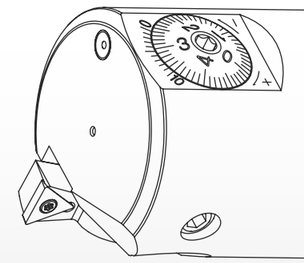
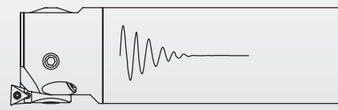
PAVO®

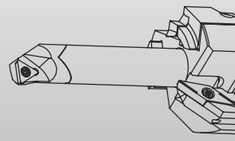
TOOLING SYSTEM











2026

穆格精密工具

PAVO

PAVO®

穆格精密工具(杭州)有限公司

PAVO TOOLS (HANGZHOU) CO., LTD.

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WEB：www.pavo-tools.com

TOOLING
SYSTEM



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企业愿景

成为刀具行业领先品牌

价值观

匠心、诚信、创新、共赢

穆格精密工具（杭州）有限公司成立于2010年，是一家专注从事数控刀具及非标刀具研发、生产、销售和服务的现代化型企业，是国家高新技术企业和浙江省科技型中小企业，是工业和信息化部认定的“专精特新中小企业”，公司获得国家颁发的2项发明专利，二十余项实用新型专利技术等荣誉，并通过ISO9001质量管理体系认证、ISO14001环境管理体系认证和ISO45001职业健康安全管理体系认证。

企业秉承“成为刀具行业领先品牌”的发展愿景；整合人才、科技资源，始终坚持为客户“提供合理切削方案”的理念；坚持以“匠心、诚信、创新、共赢”为价值观。不断提高产品品质和服务水平，项目覆盖全国，赢得了客户的信任和支持。

创新是企业发展的灵魂。穆格刀具始终坚持创新驱动，拥有一支强大的技术研发团队。历经多年的潜心开发，穆格刀具逐步形成了镗削系列、铣削系列、刀柄系列、钻削刀柄、非标系列，以及附件系列等六大产品体系，产品性能卓越、质量稳定。

十余载艰辛耕耘，穆格刀具已成为国内优质精密加工刀具品牌，公司目前在全国拥有直销、经销网点近十家，产品行销全国20多个省市，并且远销意大利、俄罗斯、日本等国家和地区。公司的未来发展方向是智能化、数字化、绿色化。公司计划通过技术创新和品质提升，不断提高产品竞争力和市场占有率。



PAVO Tools (Hangzhou) Co., Ltd. established in 2010, is a modern enterprise specializing in the R&D, production, sales, and service of CNC cutting tools and special cutting tools. It is a national high-tech enterprise, a science and technology-based small and medium-sized enterprise in Zhejiang Province, and a "specialized, refined, unique, and innovative small and medium-sized enterprise" recognized by the Ministry of Industry and Information Technology. The company has obtained 2 national invention patents and more than 20 utility model patent technologies, and other honors, and has passed the ISO9001 quality management system certification, ISO14001 environmental management system certification, and ISO45001 occupational health and safety management system certification.

The enterprise adheres to the development vision of "becoming a leading brand in the cutting tool industry". By integrating talent and technological resources, it always adheres to the concept of "providing reasonable cutting solutions" for customers, and takes "ingenuity, integrity, innovation, and win-win" as its values. It continuously improves product quality and service levels, with projects covering the whole country, winning the trust and support of customers.

Innovation is the soul of the enterprise's development. PAVO Tools has always adhered to innovation-driven development and has a strong technical R&D team. After years of dedicated development, PAVO Tools has gradually formed 6 major product systems: boring system, milling cutters series, tool holder series, drilling tool holder series, special tools series, and accessory series. The products are excellent inperformance and stable in quality.

After more than 15 years of hard work, PAVO Tools has become a high-quality precision machining tool brand in China. At present, the company has more than 10 direct sales and distribution outlets across the country, and its products are selling in more than 20 provinces and cities across the country, and are also exported to countries and regions such as Italy, Russia, and Japan. The company's future development direction is intelligence, digitization, and greenization. It plans to continuously improve product competitiveness and market share through technological innovation and quality improvement.

HONOR SYSTEM
荣誉体系









ENTERPRISE PATENTS
企业专利

自主研发近三十项专利和软著成果，
加速科技成果的转化与产业化









生产设备

DMG MORI车铣复合中心

MAZAK数控车床

MAZAK五轴加工中心

HARDINGE数控复合磨床

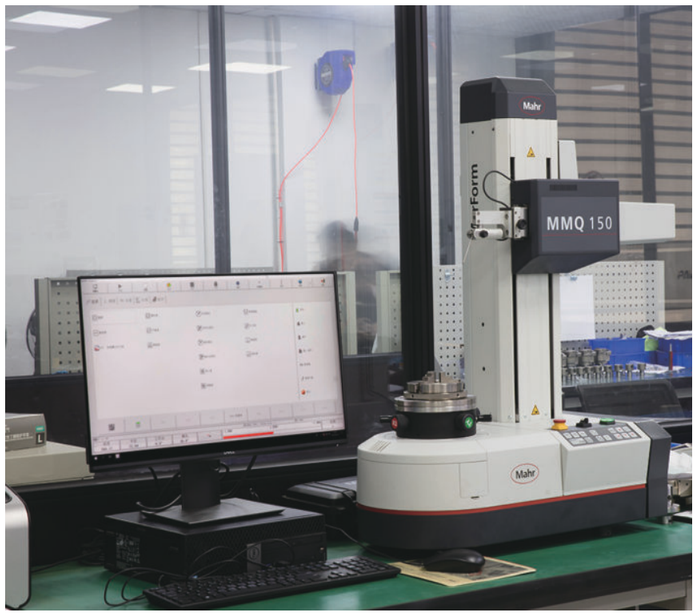
检验设备

ZOLLER刀具检测仪

Mahr高精度圆柱度仪

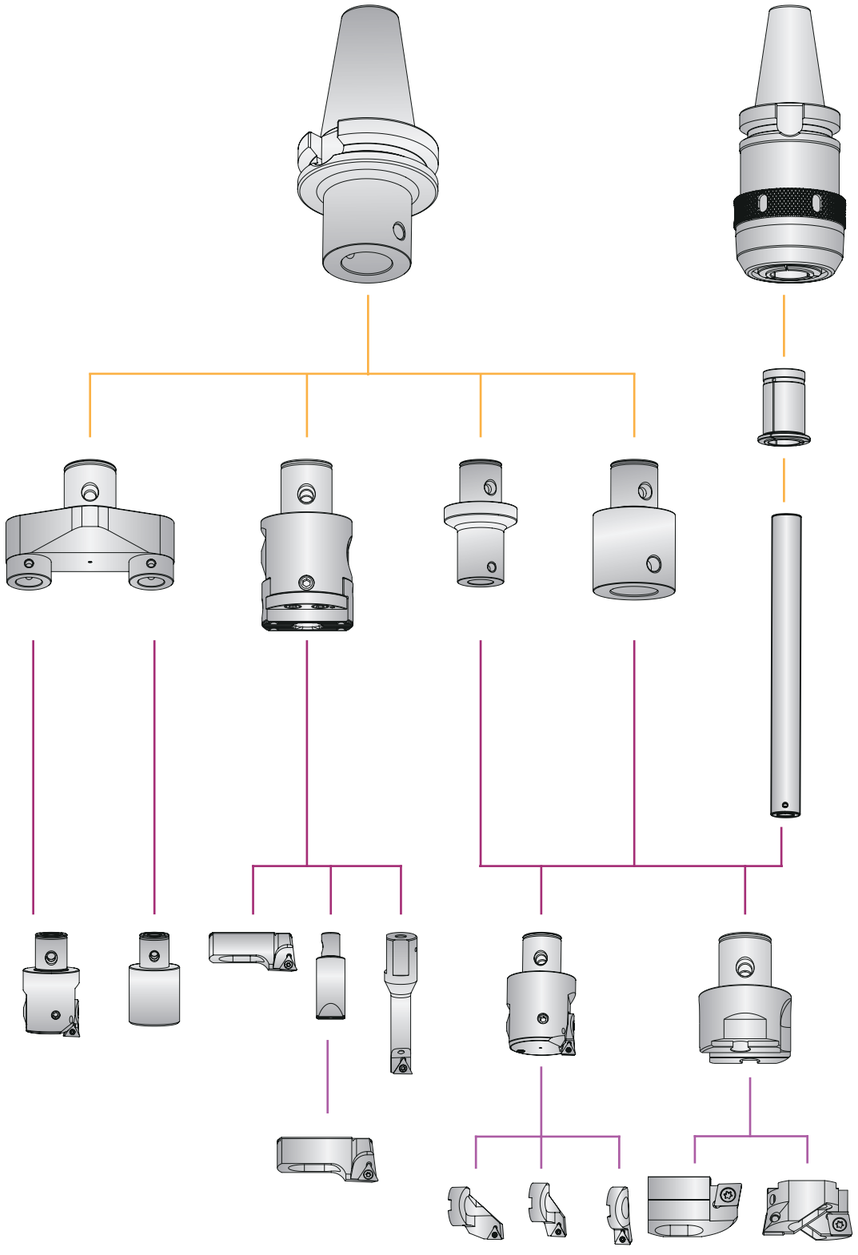
ZEISS三坐标测量机







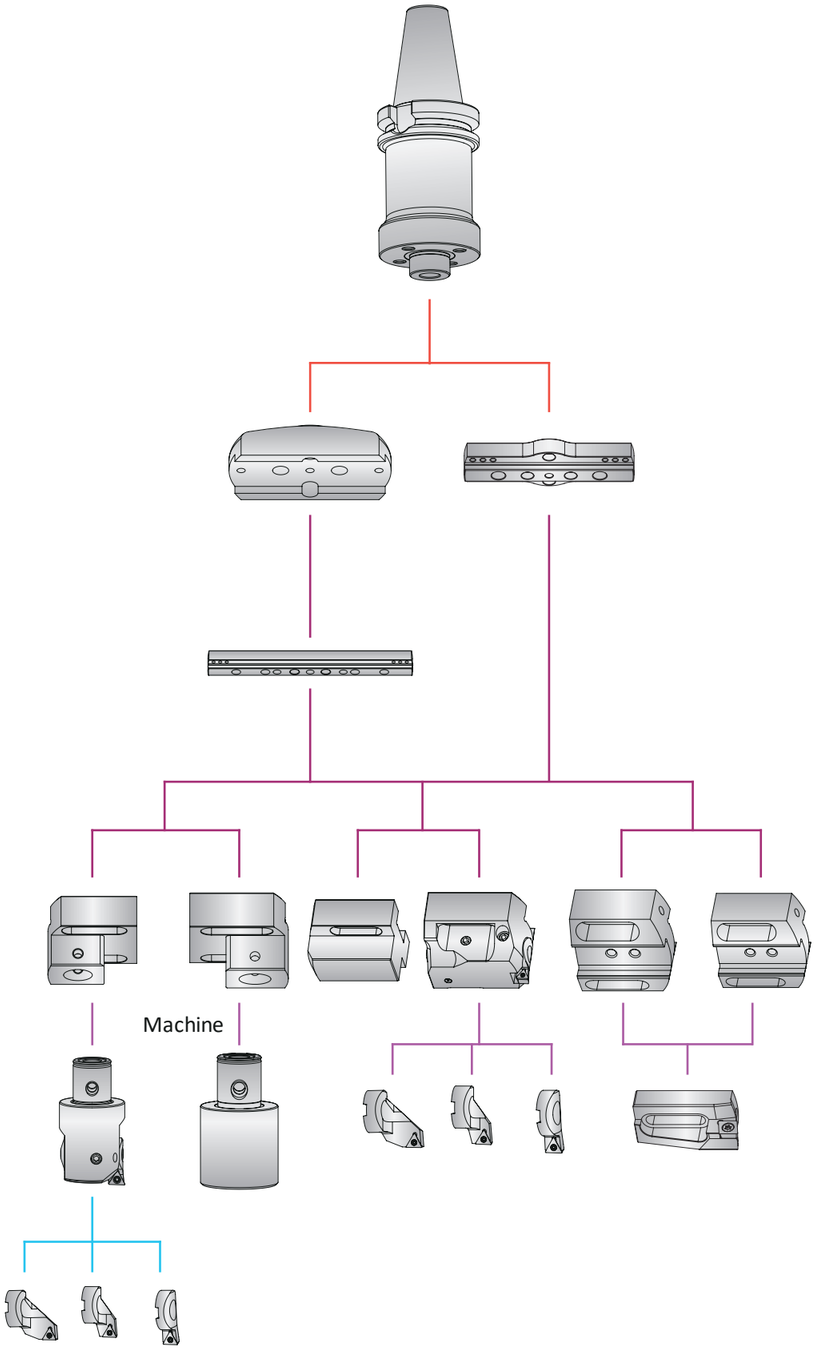
镗刀组合
Boring system



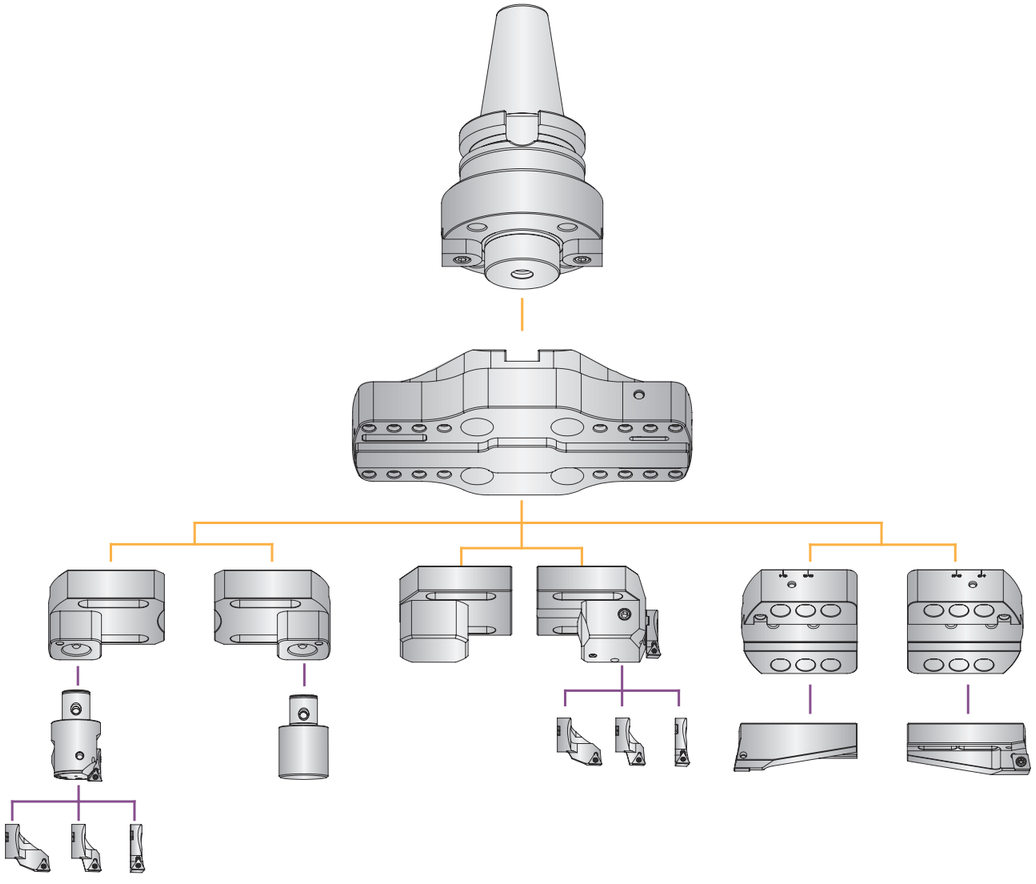
BORING SYSTEM

孔加工系列

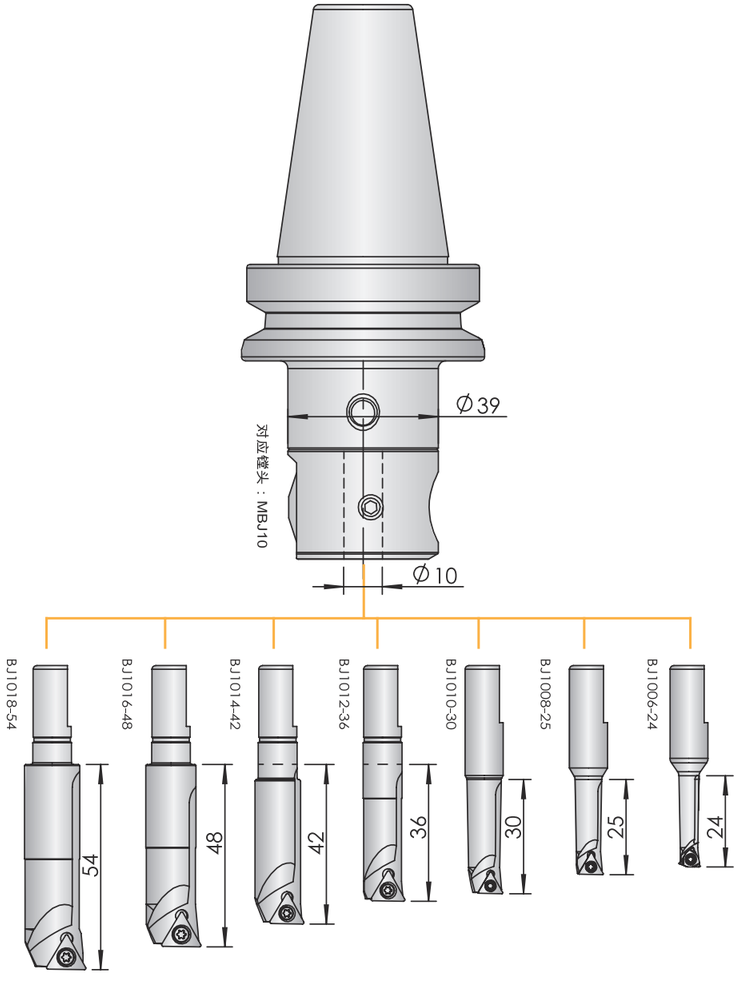
镗刀组合
Boring system



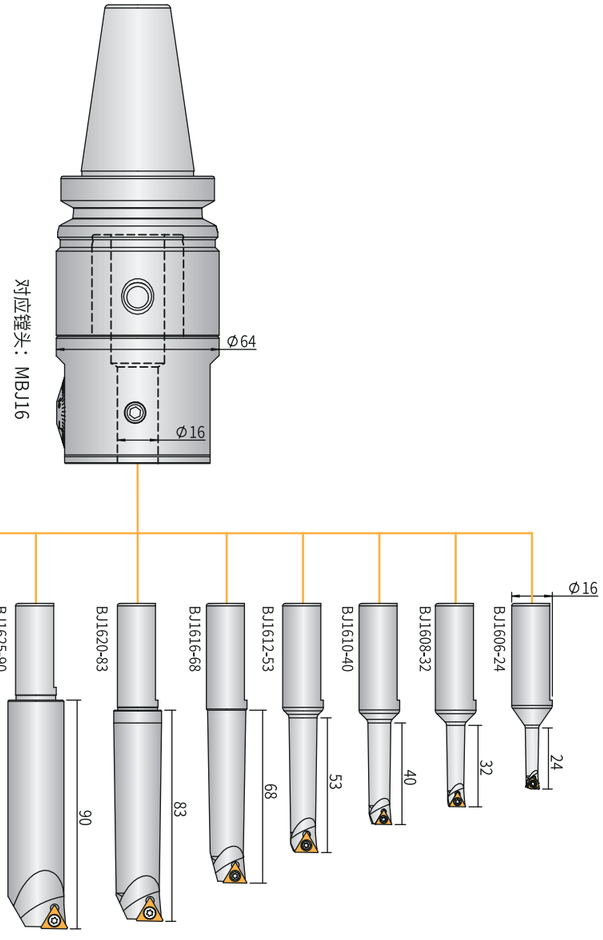
内冷大孔径镗刀组合
Internal coolant large bore boring tool assembly



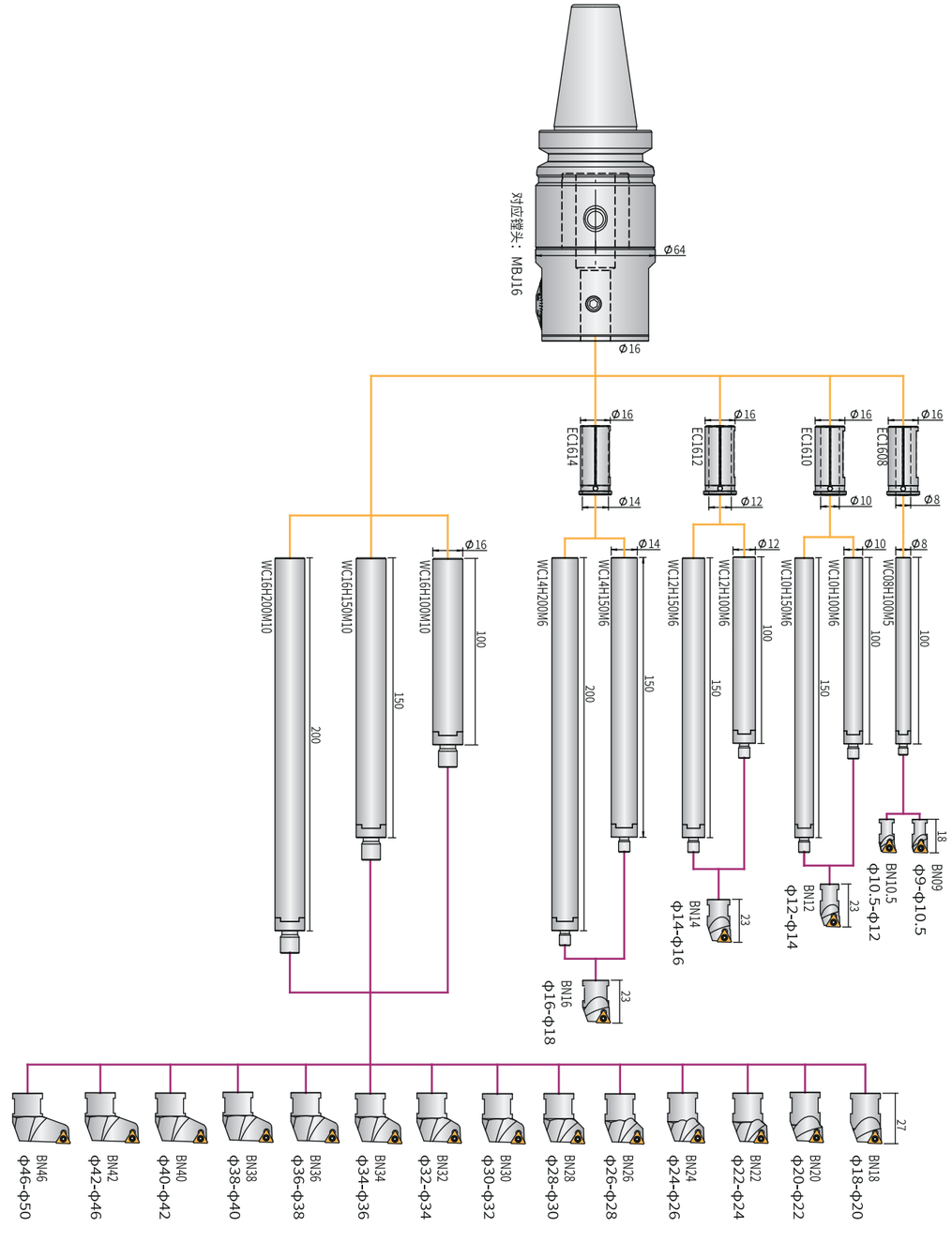
小径镗刀组合
Small diameter boring tool assembly



小径镗刀组合
Small bore combination

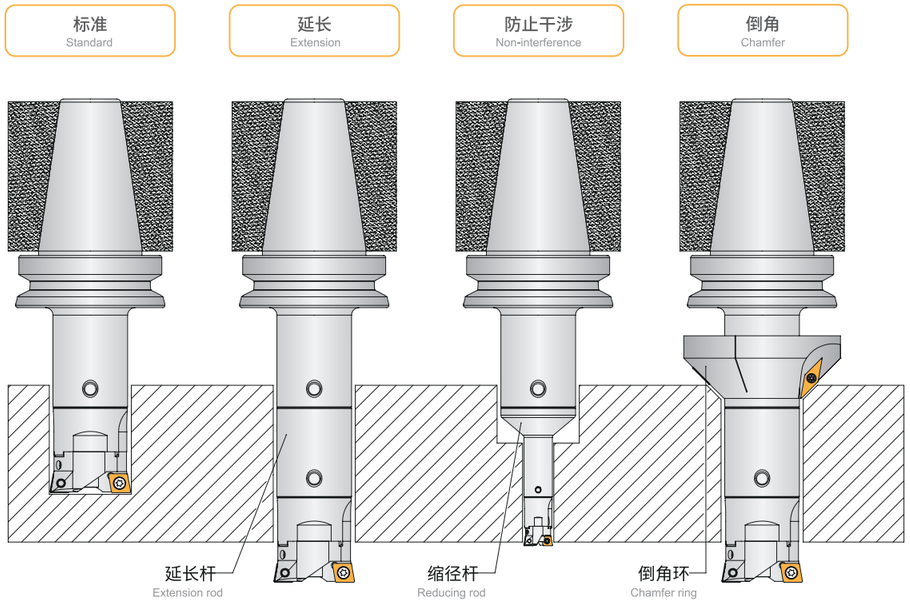


小径镗刀组合
Small bore combination

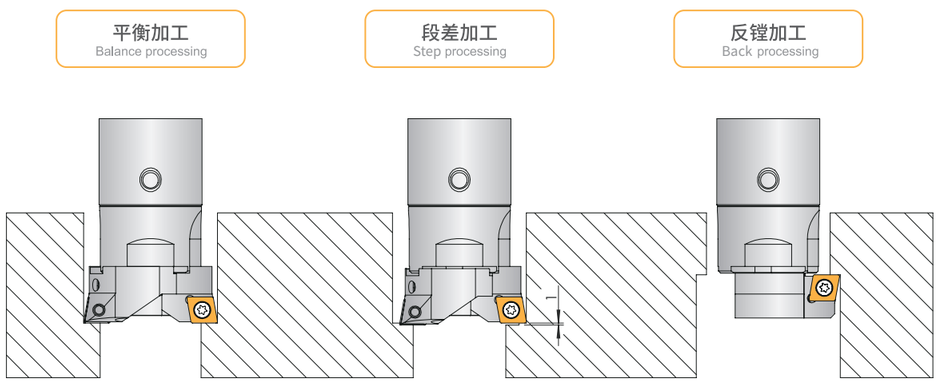


粗镗系列
Rough boring series

连接形式
Connection form



加工方式
Processing methods

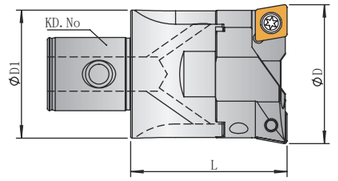


盲孔型粗镗头
Blind hole type rough boring head

加工范围Φ20-Φ203
processing range Φ20-Φ203

- 适用单双刃镗孔加工，最小加工直径Φ20
- 可依照各种不同加工需求，轻易调整镗刀做少量多样加工，加工深度可配合延长杆延伸至所需长度
- 清晰侧面刻度，协助使用者轻易调整到所需的范围，无须在刀具预定设定仪上预设
- Suitable for single and double edge boring , mini processing diameter is 20
- According to various processing
- Requirements, the boring tool can be easily adjusted to make small amount but various processing, the processing depth can be extended to the required length with the extension rod
- Clear side scales allow the user adjust to the required range easily, don't have to preset on the tool presetter



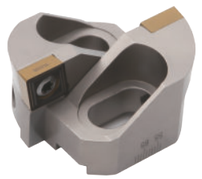


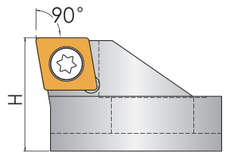
加工直径ΦD Processing diameter	订货组合型号 Order combination model	KD.NO.	刀体型号 Cutter body model	刀片座型号 Insert holder model	ΦD1	L	锁紧螺丝组合 Lock screw combination	重量kg Weight
20-26	CMR20-26KD1(RSC2026)	1	CMR20-26KD1	RSC-2026	18.7	32.5	RMM4x16	0.06
25-33	CMR25-33KD2(RSC2533)	2	CMR25-33KD2	RSC-2533	23.5	35.5	RMM5x16	0.11
32-42	CMR32-42KD3(RSC3242)	3	CMR32-42KD3	RSC-3242	30.5	40	RMM6x20	0.19
41-51	CMR32-42KD3(RSC4151)			RSC-4151				0.21
41-54	CMR41-54KD4(RSC4154)	4	CMR41-54KD4	RSC-4154	38.5	47	RMM8x25	0.38
53-66	CMR41-54KD4(RSC5366)			RSC-5366				0.42
53-70	CMR53-70KD5(RSC5370)	5	CMR53-70KD5	RSC-5370	49.5	57	RMM10x30	0.75
69-86	CMR53-70KD5(RSC6986)			RSC-6986				0.87
68-90	CMR68-110KD6(RSC6890)	6	CMR68-110KD6	RSC-6890	64	71	RMM10x35	1.6
88-110	CMR68-110KD6(RSC88110)			RSC-88110				1.73
98-126	CMR98-153KD6(RSC98126)	6	CMR98-153KD6	RSC-98126	93	71	RMM12x40	2.32
125-153	CMR98-153KD6(RSC125153)			RSC-125153				2.58
98-126	CMR98-153KD7(RSC98126)	7	CMR98-153KD7	RSC-98126	93	87		3.85
125-153	CMR98-153KD7(RSC125153)			RSC-125153				4.11
148-176	CMR148-203KD6(RSC98126)	6	CMR148-203KD6	RSC-98126	138	71		2.9
175-203	CMR148-203KD6(RSC125153)			RSC-125153				3.15

- **可提供相应CK接口镗头，KD转换成CK即可**
- 附带一组紧固螺丝，垫圈及L型扳手1把
- 所有CMR镗刀都带内冷孔
- 标配附带盲孔型刀座
- Attached with a set of locking screws.shims and a L-shaped wrench
- No inserts attached,please purchase according to your needs
- All the CMR boring tools are with internal coolant
- Blind hole type insert holders are included as standard



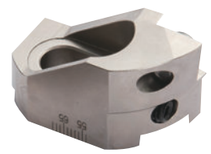
盲孔型粗镗刀片座
Insert holder for rough boring

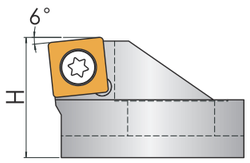




刀片座型号 Designation	适配刀体型号 Cutter boby model	H	适配刀片 Insert	刀片螺丝组合 Screws
RSC-2026	CMR20-26KD1	13	CC 06	DM2.5x6-T8
RSC-2533	CMR25-33KD2	14		
RSC-3242	CMR32-42KD3	19.5	CC 09	DM4x10-T15
RSC-4151				
RSC-4154	CMR41-54KD4	21.5		
RSC-5366				
RSC-5370	CMR53-70KD5	27.5	CC 12	DM5x12-T20
RSC-6986				
RSC-6890	CMR68-110KD6	30		
RSC-88110				
RSC-98126	CMR98-153KD6 CMR98-153KD7 CMR148-203KD6	30		
RSC-125153				

通孔型粗镗刀片座
Insert holder for through hole rough boring

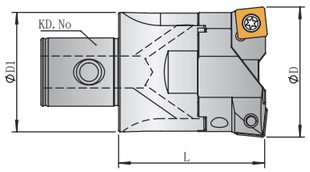




刀片座型号 Designation	适配刀体型号 Cutter boby model	H	适配刀片 Insert	刀片螺丝组合 Screws
RSS-2026-B	CMR20-26KD1	13.6	SC 06	DM2.5x6-T8
RSS-2533-B	CMR25-33KD2	14.6		
RSS-3242-B	CMR32-42KD3	20.5	SC 09	DM4x10-T15
RSS-4154-B	CMR41-54KD4	22.5		
RSS-5370-B	CMR53-70KD5	27.7	SC 12	DM5x12-T20
RSS-6890-B	CMR68-110KD6	30.3		
RSS-88110-B				
RSS-98126-B	CMR98-153KD6 CMR98-153KD7 CMR148-203KD6	30.3		
RSS-125153-B				

通孔型粗镗刀
Through-hole rough boring head





- 不附带刀片，请另外订购
- 各型号中包含刀片螺丝及扳手一把
- No inserts attached,please purchase according to your needs
- Attached with screws and wrenches



加工直径ΦD Processing diameter	订货组合型号 Order combination model	KD.NO.	刀体型号 Cutter body model	刀片座型号 Insert holder	ΦD1	L	锁紧螺丝组合 Lock screw combination	重量kg Weight
20-26	CMR20-26KD1(RSS2026-B)	1	CMR20-26KD1	RSS-2026-B	18.7	32.5	RMM4x16	0.06
25-33	CMR25-33KD2(RSS2533-B)	2	CMR25-33KD2	RSS-2533-B	23.5	35.5	RMM5x16	0.11
32-42	CMR32-42KD3(RSS3242-B)	3	CMR32-42KD3	RSS-3242-B	30.5	40	RMM6x20	0.19
41-54	CMR41-54KD4(RSS4154-B)	4	CMR41-54KD4	RSS-4154-B	38.5	47	RMM8x25	0.38
53-70	CMR53-70KD5(RSS5370-B)	5	CMR53-70KD5	RSS-5370-B	49.5	57	RMM10x30	0.75
68-90	CMR68-110KD6(RSS6890-B)	6	CMR68-110KD6	RSS-6890-B	64	71	RMM10x35	1.6
88-110	CMR68-110KD6(RSS88110-B)			RSS-88110-B				1.73
98-126	CMR98-153KD6(RSS98126-B)	6	CMR98-153KD6	RSS-98126-B	93	71	RMM12x40	2.32
125-153	CMR98-153KD6(RSS125153-B)			RSS-125153-B				2.58
98-126	CMR98-153KD7(RSS98126-B)	7	CMR98-153KD7	RSS-98126-B	93	87		3.85
125-153	CMR98-153KD7(RSS125153-B)			RSS-125153-B				4.11
148-176	CMR148-203KD6(RSS98126-B)	6	CMR148-203KD6	RSS-98126-B	138	71		2.9
175-203	CMR148-203KD6(RSS125153-B)			RSS-125153-B				3.15

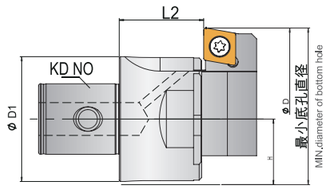
粗镗头（反镗）

Rough boring head（Back boring）

加工范围Φ25-Φ153

processing range φ25-φ153





最小底孔直径=H+（反镗加工直径/2）

MIN.diameter of bottom hole=H+(Count Bore Diameter/2)

加工范围 ΦD Processing range φD	适配刀体型号 Cutter body model	KD.NO.	订货刀座型号 Insert holder model	ΦD1	L2	锁紧螺丝 Locking screw	H	重量kg Weight
25-31	CMR20-26KD1	KD1	RSC-F2531	18.7	21.5	RMM4×16	10	0.06
30-35			RSC-F3035					0.06
32-40	CMR25-33KD2	KD2	RSC-F3240	23.5	23.5	RMM5×16	12.5	0.11
39-47			RSC-F3947					0.11
41-51	CMR32-42KD3	KD3	RSC-F4151	30.5	23.5	RMM6×20	16	0.18
50-60			RSC-F5060					0.19
50-63	CMR41-54KD4	KD4	RSC-F5063	38.5	28.5	RMM8×25	20	0.36
61-74			RSC-F6174					0.38
65-82	CMR53-70KD5	KD5	RSC-F6582	49.5	33.5	RMM10×30	25.5	0.7
78-95			RSC-F7895					0.75
80-102	CMR68-110KD6	KD6	RSC-F80102	63	45.5	RMM10×35	32.5	1.5
100-122			RSC-F100122					1.6
98-126	CMR98-153KD6	KD6	RSC-F98126	93	45.5	RMM12×40	46.5	2.25
125-153			RSC-F125153					2.45



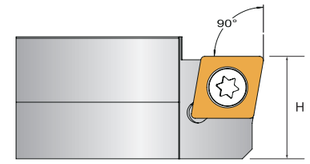
P46-P49

- 不附带刀片，请另外订购
- 各型号中包含刀片螺丝及扳手一把
- No inserts attached,please purchase according to your needs
- Attached with screw and wrench

粗镗刀片座（反镗）

Rough boring insert holder (back boring)





反镗刀座型号 Designation	适配刀体型号 Cutter body model	H	适配刀片 Insert	刀片螺丝组合 Insert Screw
RSC-F2531	CMR20-26KD1	9.5	CC 0602	DM2.5x6-T8
RSC-F3035				
RSC-F3240	CMR25-33KD2	11		
RSC-F3947				
RSC-F4151	CMR32-42KD3	13.5	CC 09T3	DM4x10-T15
RSC-F5060				
RSC-F5063	CMR41-54KD4	17.5		
RSC-F6174				
RSC-F6582	CMR53-70KD5	20.5	CC 1204	DM5x12-T20
RSC-F7895				
RSC-F80102	CMR68-110KD6	22.5		
RSC-F100122				
RSC-F98126	CMR98-153KD6	25		
RSC-F125153				

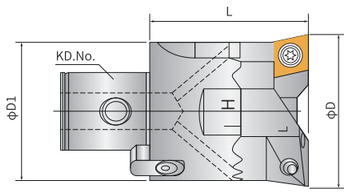


P78

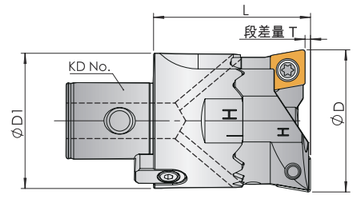
- 不附带刀片，请另外订购
- 各型号中包含刀片螺丝及扳手一把
- No inserts attached,please purchase according to your needs
- Attached with screw and wrench

SMR系列粗镗刀
SMR rough boring head





平衡切削：HL/LH
Balance cutting



段差切削：HH/LL
Step cutting

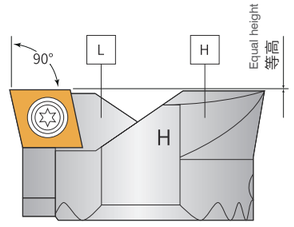
加工直径ΦD Processing diameter	组合型号 Order combination model	KD.NO.	刀体型号 Cutter body model	刀片座型号 Insert holder model	ΦD1	L	段差量T	锁紧螺丝组合 Lock screw combination	重量kg Weight
20-26	SMR20-26KD1(SMC2026)	KD1	SMR20-26KD1	SMC-2026	18.7	32.5	0.2	RMM4x16	0.08
25-33	SMR25-33KD2(SMC2533)	KD2	SMR25-33KD2	SMC-2533	23.5	35.5	0.2	RMM5x16	0.12
32-42	SMR32-42KD3(SMC3242)	KD3	SMR32-42KD3	SMC-3242	30.5	40	0.2	RMM6x20	0.22
41-54	SMR41-54KD4(SMC4154)	KD4	SMR41-54KD4	SMC-4154	38.5	47	0.4	RMM8x25	0.42
53-70	SMR53-70KD5(SMC5370)	KD5	SMR53-70KD5	SMC-5370	49.5	57	0.4	RMM10x30	0.8
68-90	SMR68-110KD6(SMC6890)	KD6	SMR68-110KD6	SMC-6890	64	71	0.4	LRM8x30	1.75
88-110	SMR68-110KD6(SMC88110)			SMC-88110					1.85
98-126	SMR98-153KD6(SMC98126)		SMR98-153KD6	SMC-98126	93	71	0.4	RMM12x40	2.9
125-153	SMR98-153KD6(SMC125153)			SMC-125153					3.15

- 附带一组紧固螺丝，垫圈及L型扳手1把
- 不附带刀片，请另外选购
- 所有SMR镗刀都带内冷孔
- 标配附带SMC齿形刀座
- Attached with a set of locking screws.shims and a L-shaped wrench
- No inserts attached,please purchase according to your needs
- All the SMR boring tools with internal coolant
- SMC toothed toolholders are included as standard

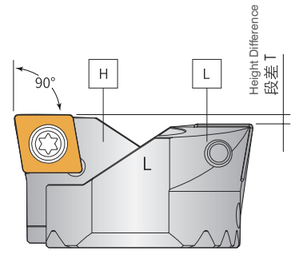

P46-P49

SMC粗镗刀座
SMC insert holder for rough boring head





平衡切削
Balance cutting



段差切削
Step cutting

刀片座型号 Designation	适配刀体型号 Cutter boby model	适配刀片 Insert	刀片螺丝组合 Insert Screw
SMC-2026	SMR20-26KD1	CC 0602	DM2.5x6-T8
SMC-2533	SMR25-33KD2		
SMC-3242	SMR32-42KD3	CC 09T3	DM4x10-T15
SMC-4154	SMR41-54KD4		
SMC-5370	SMR53-70KD5	CC1204	DM5x12-T20
SMC-6890	SMR68-110KD6		
SMC-88110			
SMC-98126	SMR98-153KD6		
SMC-125153			

- 各型号包含两个刀片座
- 平衡切削和段差切削只需要将两边刀座调换即可
- Each model includes two insert holders
- Balance cutting and step cutting only require the insert holder on both sides to be swapped

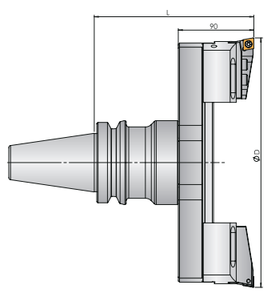

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粗镗头(大孔径)
Rough boring head (large bore)

加工范围φ150-φ530
processing range φ150-φ530

- 由于是模块式，只需组合各部件，即可对应各种范围的加工，从而简化工具管理。
- 另有铝合金桥架选购可以用于降低刀具重量
- Modular design simplifies tool management, for it only needs to combine the componets to meet various ranges of processing
- Aluminum alloy bridge rough boring tool available to reduce the weight of tool





标准型钢制桥式粗镗刀
Standard type steel bridge rough boring tool

加工范围ΦD Processing range φD	组合型号 Designation	重量kg Weight	连接盘 Link plate		钢制桥架 Steel bridge		粗镗滑块(2个一组) Rough boring slider (2 PCS)		刀片座(2个一组) Insert holder		适配刀片 Insert
			型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	
150-210	CLR 150-210	5.5	/	/	CL 150-210	2.5	LR 150	1.9(一组)	RS 150	0.6(一组)	CC 1204
210-290	CLR 210-290	6.7			CL 210-290	3.7					
290-370	CLR 290-370	8.05			CL 290-370	5.05					
370-450	CLR 370-450	9.8			CL 370-450	6.8					
450-530	CLR 450-530	11.4			CL 450-530	8.4					
530-610	CLR 530-610	17.2	CL40-200	4.7	CL 530-610	9.5					
610-690	CLR 610-690	18.7			CL 610-690	11					
690-770	CLR 690-770	20.4			CL 690-770	12.7					
770-850	CLR 770-850	22.7			CL 770-850	15					

- 组合中不包含刀片，请另外订购
- 组合中不包含拉钉，请注意，机器不同使用的拉钉的形式也不一样
- 也可制作加长型桥式镗刀柄(非标)需要时请指示
- 标准品的刀尖和传动的方向是同相位
- No inserts attached,please purchase according to your need
- No pull studs attached. Please note it, different machines use different type rivets
- If you need, extended bridge type shank (Non-standard) is available.
- The tip and direction of otation of the standard product are in the same phase



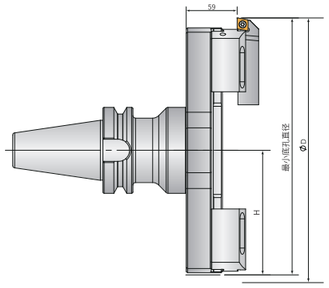
轻量型铝制桥式粗镗刀
Lightweight aluminum bridge rough boring tool

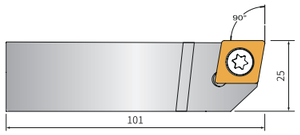
加工直径φD Processing diameter	组合型号 Designation	组合重量kg Weight	铝制桥架 Aluminum bridge		粗镗滑块(2个一组) Rough boring slider (2 PCS)		刀片座(2个一组) Insert holder		适配刀片 Insert
			型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	
150-210	CLR 150-210 AL	3.9	CL 150-210 AL	0.9	LR 150	1.9(一组)	RS 150	0.6(一组)	CC 12
210-290	CLR 210-290 AL	4.3	CL 210-290 AL	1.3					
290-370	CLR 290-370 AL	5	CL 290-370 AL	2					
370-450	CLR 370-450 AL	5.5	CL 370-450 AL	2.5					
450-530	CLR 450-530 AL	6	CL 450-530 AL	3					

- 各部件也可以单独销售
- 更大范围可定制
- Componets can be sold separately
- OEM service available

粗镗头(大孔径)反镗

Rough boring head (large bore)back boring





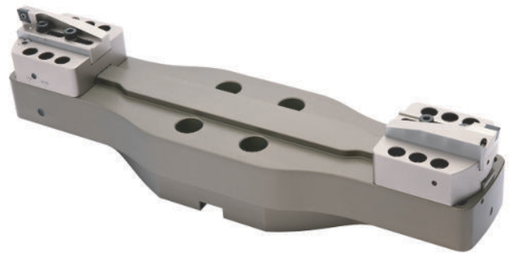
最小底孔直径=H+（反镗加工直径/2）

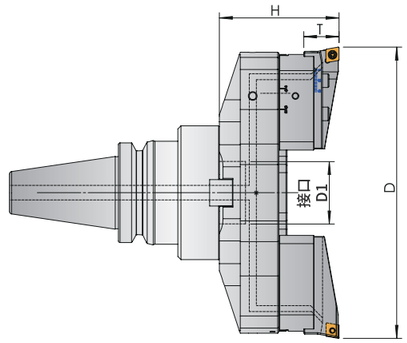
MIN.diameter of bottom hole=H+(Back Bore Diameter/2)

加工范围ΦD Processing range	钢制桥架 Steel Bridge		H	粗镗滑块(2个一组) Rough boring slider (2 PCS)		反粗镗刀片座（1个） Back rough boring insert holder (1 PCS)		适配刀片 Insert
	型号 Designabon	重量kg Weight		型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	
165-205	CL 150-210	2.5	75	LR 150	1.9(一组)	RSC-F150-A	0.6	CC 12
225-265	CL 210-290	3.7	105					
305-345	CL 290-370	5.05	145					
385-425	CL 370-450	6.8	185					
465-505	CL 450-530	8.4	225					

内冷大孔径粗镗刀(全系列铝基桥架)

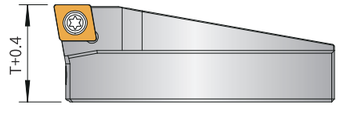
Internal coolant large boring head(full series AL-base bridge）





加工直径ΦD Processing diameter	组合型号 Designation	组合重量kg Weight	接口D1 Interface	高度H Height	铝制桥架 Aluminum bridge		粗镗滑块(2个一组) Rough boring slider (2 PCS)		刀片座(2个一组) Insert holder (2 PCS)		适配刀片 Insert
					型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	型号 Designabon	重量kg Weight	
200-280	CNR 200-280AL	6.9	CL40	115	NL 200-280AL	2.8	NR 200	3.2(一组)	RNC 200	0.9(一组)	CC 1204
280-360	CNR 280-360AL	8.1	FMB60	115	NL 280-360AL	4					
360-440	CNR 360-440AL	10.3		125	NL 360-440AL	6.2					
440-520	CNR 440-520AL	11.8		125	NL 440-520AL	7.7					
520-600	CNR 520-600AL	13.8		135	NL 520-600AL	9.7					
600-680	CNR 600-680AL	15.3		135	NL 600-680AL	11.2					
680-760	CNR 680-760AL	18.2		145	NL 680-760AL	14.1					
760-840	CNR 760-840AL	19.5		145	NL 760-840AL	15.4					

P51-P52



段差粗镗刀座

Insert holder for height difference rough boring head

粗镗刀片座 Rough boring insert holder	适配刀片
RNC 200H	CC 1204

- 遇到大余量切削时使用，配合标准RNC 200刀座，可以实现高度差0.4mm的段差加工。
- When used in large margin cutting, with the standard RNC 200 toolholder, it is possible to achieve a height difference of 0.4 mm.

双刃粗镗刀杆
Double-edged rough boring bar



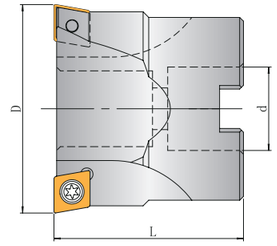
型号 Designation	刃数 Edge	D	d	L1	L	适配刀片 Insert	刀片螺钉 Insert screws	扳手 Wrench	重量kg Weight
TB-15.7-160-C16	2	15.7	16	70	160	CCMT060204	DM2.5x6	T8	0.14
TB-16.7-160-C16	2	16.7							0.15
TB-17.7-160-C16	2	17.7							0.15
TB-18.7-160-C16	2	18.7							0.15
TB-19.7-160-C16	2	19.7							0.16
TB-20.7-180-C20	2	20.7	20		180				0.26
TB-21.7-180-C20	2	21.7							0.27
TB-22.7-180-C20	2	22.7							0.27
TB-23.7-180-C20	2	23.7				CCMT09T304	DM4x10	T15	0.27
TB-24.7-180-C20	2	24.7							0.28
TB-25.7-180-C20	2	25.7							0.28
TB-26.7-200-C20	2	26.7			200				0.28
TB-27.7-200-C25	2	27.7	25						0.29
TB-29.7-200-C25	2	29.7							0.53
TB-31.7-220-C25	2	31.7			220				0.54
TB-34.7-250-C32	2	34.7	32		250				0.69
TB-36.7-250-C32	2	36.7							0.58
TB-39.7-250-C32	2	39.7							0.61
TB-41.7-250-C32	2	41.7							0.64
TB-44.7-250-C40	2	44.7	40						0.64
TB-46.7-250-C40	2	46.7							1.38
TB-49.7-250-C40	2	49.7							1.54
TB-59.7-250-C40	2	59.7							1.24

P78

BORING SYSTEM

孔加工系列

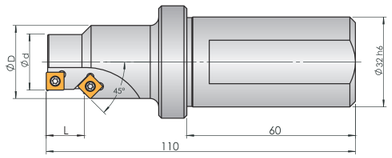
双刃粗镗刀杆
Double-edged rough boring bar



型号 Designation	刃数 Edge	D	d	L	适配刀片 Insert	刀片螺钉 Insert screws	扳手 Wrench	重量kg Weight
MR-45-FMB22	2	44.7	22	50	CCMT09T308	DM4x10	T15	0.25
MR-50-FMB22	2	49.7						0.3
MR-55-FMB22	2	54.7						0.35
MR-60-FMB22	2	59.7						0.47
MR-60-FMB27	2	59.7	27					0.55
MR-65-FMB27	2	64.7						0.61
MR-70-FMB27	2	69.7						0.8
MR-75-FMB27	2	74.7						0.85
MR-80-FMB27	2	79.7						0.95
MR-85-FMB27	2	84.7						1.05
MR-90-FMB27	2	89.7						1.1
MR-95-FMB27	2	94.7						1.12
MR-100-FMB27	2	99.7						1.2
MR-105-FMB32	2	104.7	32	63				1.9
MR-110-FMB32	2	109.7						2.15
MR-115-FMB32	2	114.7						2.2
MR-120-FMB32	2	119.7						2.3
MR-125-FMB32	2	124.7						2.4
MR-130-FMB32	2	129.7						2.6

P78

机夹式沉头刀
Machine clamped countersunk head tool

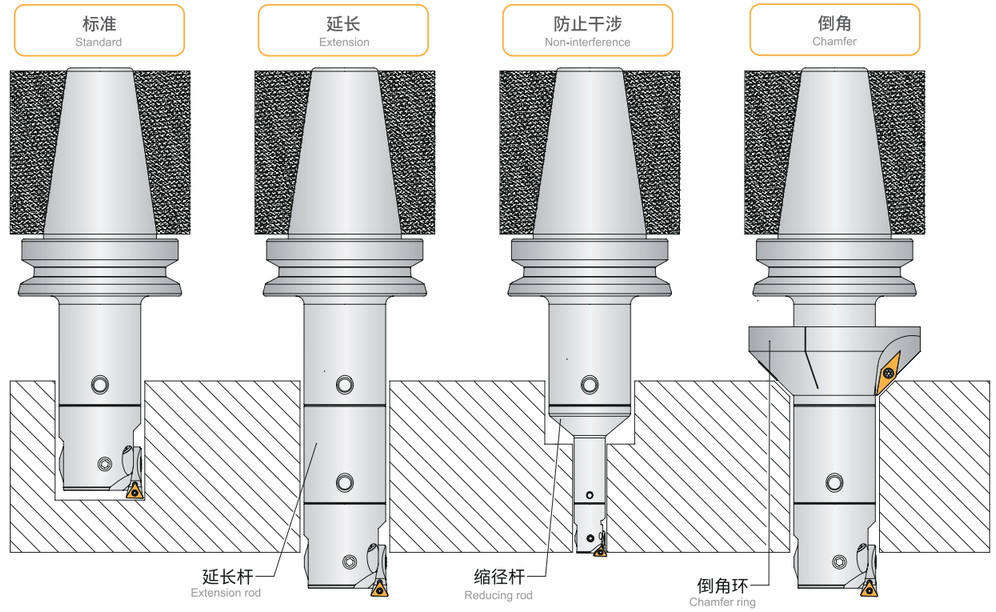


型号 Designation	d	D	L	C	适配刀片 Insert
MR-11-W32	11	19	7	1C	SP 0602
MR-14-W32	14	20	9		
MR-18-W32	18	24	11		
MR-20-W32	20	26	13.5		
MR-23-W32	23	31	15	2C	SP 1104
MR-26-W32	26	34	18		
MR-32-W32	32	40	22		
MR-39-W32	39	47	26		

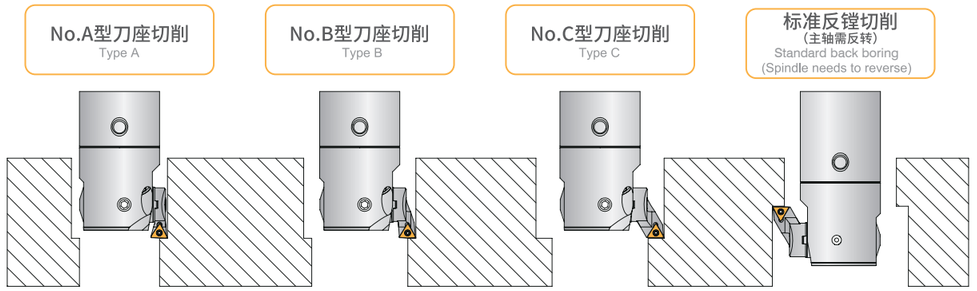
- 内孔和孔口倒角一次加工成型，提升加工效率
- 尺寸外可接受非标定做
- Inner hole and hole chamfer are processed at the same time to improve processing efficiency.
- OEM service available.

精镗系列
Fine boring series

连接形式
Connection form



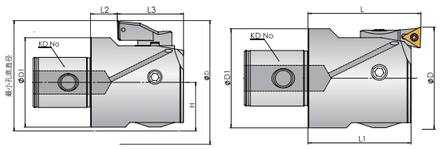
加工方式
Processing methods



精镗头
Fine boring head

加工范围Φ20-Φ203
processing range φ20-φ203





最小底 孔直径=H+（反镗加工直径/2）
MIN.diameter of bottom hole=H+(Back Bore Diameter/2)

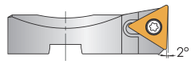
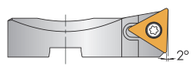
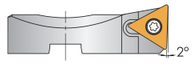
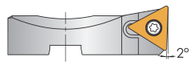
- 标准对应反镗加工，使用范围广，增大附加值
- CMP精镗刀适用于精切削镗孔，最小加工范围Φ20
- 精密螺杆位于内部，不受铁屑、磨耗、生锈等影响，具有内部润滑，精准耐用
- Standard corresponds to the reverse processing, which has a wide range of use and increases the added value.
- CMP series are suitable for precision boring, mini processing diameter is φ20.
- The precision screw is located inside,so it won't affected by iron filings, abrasion, rust, etc. Internal lubrication makes it precision and durability.

型号 Designation	KD.NO.	刀片座 Insert seat	正镗 Forward Boring				反镗 Back boring				重量kg Weight	适配刀片 Insert	
			加工范围ΦD	L	L1	D1	加工范围ΦD	L2	L3	H			
CMP20-36KD1	1	FS*-1A	20-26	32.5	30.5	19	/	10.5	20	10	0.07	TP 0802	/
		FS*-1B	25-31				30–31						
		FS*-1C	30-36				30–36						
CMP25-47KD2	2	FS*-2A	25-33	35.5	33	24	/	11.5	21.5	12.5	0.12		
		FS*-2B	32-40				36–40						
		FS*-2C	39-47				39–47						
CMP32-60KD3	3	FS*-3A	32-42	40	37	31	/	10	27	16	0.22		
		FS*-3B	41-51				46–51						
		FS*-3C	50-60				50–60						
CMP41-74KD4	4	FS*-4A	41-54	47	43	40	/	12	31	20	0.42	TC 1102	CC 0602
		FS*-4B	50-63				53–63						
		FS*-4C	61-74				61–74						
CMP53-95KD5	5	FS*-5A	53-70	57	52	50	62–70	15	37	25.5	0.85		
		FS*-5B	65-82				65–82						
		FS*-5C	78-95				78–95						
CMP68-150KD6	6	FS*-6A	68-100	71	67	64	80–100	23	44	32.5	1.85		CC 09T3
		FS*-6B	94-126				94–126						
		FS*-6C	118-150				118–150						
CMP100-203KD6	6	FS*-6A	100-153	71	67	64	112–153	23	44	46.5	2.7		
		FS*-6B	126-179				126–179						
		FS*-6C	150-203				150–203						
CMP100-203KD7	7	FS*-6A	100-153	87	83	90	112–153	39	44	46.5	4.05		
		FS*-6B	126-179				126–179						
		FS*-6C	150-203				150–203						

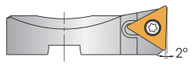
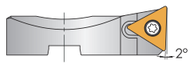
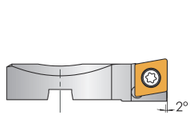
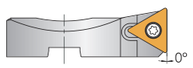
- **可提供相应CK接口镗头，KD转换成CK即可**
- 加工范围是指刀片的刀尖半径R0.2，TC11刀片的刀尖半径R0.4的值
- 所有CMP镗头都内冷
- Processing range refers to the value of insert tip radius R0.2 and R0.4.
- No inserts attached,please purchase according to your needs
- All the CMP boring tools with internal coolant.


P46-P49

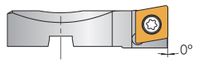
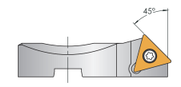
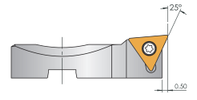
精镗刀片座
Fine boring insert holder

示意图 Diagram	刀片座型号 Designation	适配镗头 Adapted boring head	加工范围ΦD Processing range	适配刀片 Insert	刀片螺丝组合 Insert screws
	FST-1A	CMP20-36KD1	/	TP 0802	DM2x4-T6
	FST-1B				
	FST-1C				
	FST-2A	CMP25-47KD2			
	FST-2B				
	FST-2C				
	FST-3A	CMP32-60KD3			
	FST-3B				
	FST-3C				
	FST-4A	CMP41-74KD4	/	TC 1102	DM2.5x6-T8
	FST-4B				
	FST-4C				
	FST-5A	CMP53-95KD5			
	FST-5B				
	FST-5C				
	FST-6A	CMP68-150KD6 CMP100-203KD6			
	FST-6B				
	FST-6C				
	FST-1A(TC06)	CMP20-36KD1	20-26	TC 06T1	DM2x4-T6
	FST-1B(TC06)		25-31		
	FST-1C(TC06)		30-36		
	FST-2A(TC06)	CMP25-47KD2	25-33		
	FST-2B(TC06)		32-40		
	FST-2C(TC06)		39-47		
	FST-3A(TC06)	CMP32-60KD3	32-42		
	FST-3B(TC06)		41-51		
	FST-3C(TC06)		50-60		
	FST-3A(TP09)	CMP32-60KD3	32-42	TP 0902	DM2.5x6-T8
	FST-3B(TP09)		41-51		
	FST-3C(TP09)		50-60		
	FST-4A(TP09)	CMP41-74KD4	41-54		
	FST-4B(TP09)		50-63		
	FST-4C(TP09)		61-74		
	FST-5A(TP09)	CMP53-90KD5	53-70		
	FST-5B(TP09)		65-82		
	FST-5C(TP09)		78-95		
	FST-6A(TP09)	CMP68-150KD6 CMP100-203KD6	68-100/100-153		
	FST-6B(TP09)		94-126/126-179		
	FST-6C(TP09)		118-150/150-203		
	FST-4A(TC1103)	CMP41-74KD4	41-54	TC 1103	DM2.5x6-T8
	FST-4B(TC1103)		50-63		
	FST-4C(TC1103)		61-74		

精镗刀片座
Fine boring insert holder

示意图 Diagram	刀片座型号 Designation	适配镗头 Adapted boring head	加工范围ΦD Processing range	适配刀片 Insert	刀片螺丝组合 Insert screws
	FST-5A(TC1103)	CMP53-90KD5	53-70	TC 1103	DM2.5x6-T8
	FST-5B(TC1103)		65-82		
	FST-5C(TC1103)		78-95		
	FST-6A(TC1103)	CMP68-150KD6 CMP100-203KD6	68-100/100-153		
	FST-6B(TC1103)		94-126/126-179		
	FST-6C(TC1103)		118-150/150-203		
	FST-4A(TP1103)	CMP41-74KD4	41-54	TP 1103	DM3.0x7-T10
	FST-4B(TP1103)		50-63		
	FST-4C(TP1103)		61-74		
	FST-5A(TP1103)	CMP53-90KD5	53-70		
	FST-5B(TP1103)		65-82		
	FST-5C(TP1103)		78-95		
	FST-6A(TP1103)	CMP68-150KD6 CMP100-203KD6	68-100/100-153		
	FST-6B(TP1103)		94-126/126-179		
	FST-6C(TP1103)		118-150/150-203		
	FSC-2A+2(CC06)	CMP25-47KD2	27-33	CC 0602	DM2.5x6-T8
	FSC-2B(CC06)		32-40		
	FSC-2C(CC06)		39-47		
	FSC-3A(CC06)	CMP32-60KD3	32-42		
	FSC-3B(CC06)		41-51		
	FSC-3C(CC06)		50-60		
	FSC-4A(CC06)	CMP41-74KD4	41-54		
	FSC-4B(CC06)		50-63		
	FSC-4C(CC06)		61-74		
	FSC-5A(CC06)	CMP53-95KD5	53-70		
	FSC-5B(CC06)		65-82		
	FSC-5C(CC06)		78-95		
	FSC-6A(CC09)	CMP68-150KD6 CMP100-203KD6	68-100/100-153	CC 09T3	DM4.0x10-T15
	FSC-6B(CC09)		94-126/126-179		
	FSC-6C(CC09)		118-150/150-203		
	FST-1A0	CMP20-36KD1	20-26	TP 0802	DM2x4-T6
	FST-2A0	CMP25-47KD2	25-33		
	FST-3A0	CMP32-60KD3	32-42		
	FST-3B0		41-51		
	FST-3C0		50-60		
	FST-4A0	CMP41-74KD4	41-54	TC 1102	DM2.5x6-T8
	FST-4B0		50-63		
	FST-4C0		61-74		
	FST-5A0	CMP53-95KD5	53-70		
	FST-5B0		65-82		
	FST-5C0		78-95		
	FST-6A0	CMP68-150KD6 CMP100-203KD6	68-100/100-153		
	FST-6B0		94-126/126-179		
	FST-6C0		118-150/150-203		

精镗刀片座
Fine boring insert holder

示意图 Diagram	刀片座型号 Designation	适配镗头 Adapted boring head	加工范围ΦD Processing range	适配刀片 Insert	刀片螺丝组合 Insert screws
	FSC-4A0	CMP41-74KD4	41-54	CC 0602	DM2.5x6-T8
	FSC-4B0		50-63		
	FSC-4C0		61-74		
	FSC-5A0	CMP53-95KD5	53-70		
	FSC-5B0		65-82		
	FSC-5C0		78-95		
	FSC-6A0	CMP68-150KD6 CMP100-203KD6	68-100/100-153	CC 09T3	DM4.0x10-T15
	FSC-6B0		94-126/126-179		
	FSD-3A30+2.5	CMP32-60KD3	37-42	DC 0702	DM2.5x6-T8
	FSD-3B30		41-51		
	FSD-3C30		50-60		
	FSD-4A30+1.5	CMP41-74KD4	44-54		
	FSD-4B30		50-63		
	FSD-4C30		61-74		
	FSD-5A30	CMP53-95KD5	53-70		
	FSD-5B30		65-82		
	FSD-5C30		78-95		
	FSD-6A30	CMP68-150KD6 CMP100-203KD6	68-100/100-153		
	FSD-6B30		94-126/126-179		
	FSD-6C30		118-150/150-203		
	FST-4A45	CMP41-74KD4	41-54	TC 1102	DM2.5x6-T8
	FST-5A45	CMP53-95KD5	53-70		
	FST-6A45	CMP68-150KD6	68-100		
		CMP100-203KD6	100-153		
	FST-3A25	CMP32-60KD3	32-42	TP 0802	DM2x4-T6
	FST-4A25	CMP41-74KD4	41-54		
	FST-5A25	CMP53-95KD5	53-70		
	FST-6A25	CMP68-150KD6	68-100	TC 1102	DM2.5x6-T8
		CMP100-203KD6	100-153		

- 不附带刀片，请另外订购
- 各型号中包含刀片螺丝及扳手一把
- No inserts attached,please purchase according to your needs
- Attached with screws and wrench.



精镗头(自平衡系列)

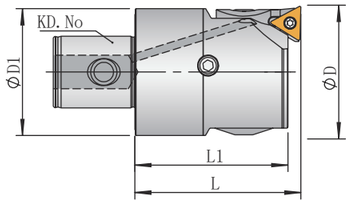
Fine boring head(Self-balancing)

加工范围Φ32-Φ105

processing range Φ32-Φ105

- 内置自平衡补偿机构,适用于高速加工领域中,实现稳定加工。
- 最小调整刻度为Φ0.01mm的精密精镗头。
- The built-in self-balancing compensation mechanism is suitable for high-speed machining to achieve stable machining.
- Precision fine boring head with the smallest adjustment scale of Φ0.01mm.





型号 Designation	KD.NO	刀片座 Insert holder	加工范围ΦD Processing range	L	L1	D1	重量kg Weight	适配刀片 Insert
CMB32-42KD3	3	FST-3A	32-42	45	37	31	0.25	TP 0802
CMB41-54KD4	4	FST-4A	41-54	51	43	40	0.45	TC 1102
CMB53-70KD5	5	FST-5A	53-70	65	52	50	0.86	
CMB68-88KD6	6	FST-6A	68-88	79	67	64	1.85	
CMB85-105KD6		FST-6B	85-105				1.96	

- 加工范围是指刀片的刀尖半径R0.2,TC11刀片的刀尖半径RO.4的值
- 不推荐使用B/C刀片座,会影响自平衡效果
- 不附带刀片,需另购
- 所有CMB镗头都内冷

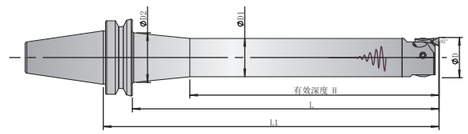
- Processing range refers to the value of insert tip radius R0.2 and R0.4.
- It is not recommended to use the B/C insert holder, which will affect the self-balancing effect
- No inserts attached,please purchase according to your needs
- All the CMP boring tools with internal coolant.


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阻尼防震精镗头

Anti-vibration fine boring head





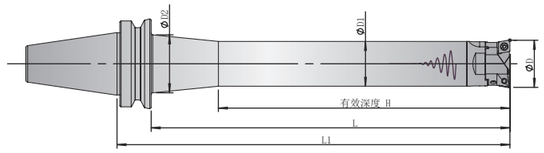
型号 Designation	刀座 Insert holder	加工范围D Processing range	D1	D2	有效深H Effective depth	L	L1	质量kg Weight	适配刀片 Insert
BBT50CMP41-74KH280	FS*-4A	41-54	40	55	280	320	358	7.4	TC 1102
	FS*-4B	50-63							
	FS*-4C	61-71							
BBT50CMP53-95KH350	FS*-5A	53-70	50	65	350	400	438	11	
	FS*-5B	65-82							
	FS*-5C	78-95							
BBT50CMP68-150KH450	FS*-6A	68-100	64	80	450	512	550	18.9	
	FS*-6B	94-126							
	FS*-6C	118-150							
BBT50CMP100-203KH525	FS*-6A	100-153	70	85	525	525	563	23.5	
	FS*-6B	126-179							
	FS*-6C	150-203							

- 大孔径的可以接受定制
- 当遇到特殊情况时， 请根据现场情况提供表格中相应的刀具尺寸，并向穆格刀具工程师进行技术沟通

- Large bore can be customized
- When encountering special circumstances, please provide the corresponding tool size in the table according to the on-site situation, and carry out technical communication with the Mugt tool engineer

阻尼防震粗镗刀
Anti-vibration rough boring tool

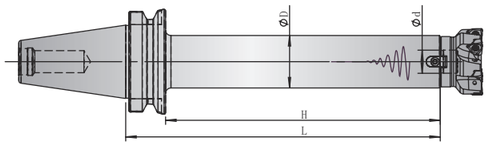




型号 Designation	刀片座 Insert holder	加工范围ΦD Processing range	D1	D2	有效深H Effective depth	L	L1	重量kg Weight	适配刀片 Insert
BBT50CMR41-54KH280	RSC-4154	41-54	40	55	280	320	358	7.9	CC 09T3
BBT50CMR53-70KH350	RSC-5370	53-70	50	65	350	400	438	11.8	CC 1204
BBT50CMR68-110KH450	RSC-6890	68-90	64	80	450	512	550	19.8	
	RSC-88110	88-110							
BBT50CMR98-153KH525	RSC-98126	98-126	70	85	525	525	563	24.9	
	RSC-125153	126-153							
BBT50CMR148-203KH525	RSC-98126	148-176	70	85	525	525	563	26.8	
	RSC-125153	175-203							

阻尼防震面铣刀柄
Anti-vibration face milling tool holder





型号 Designation	d	D	H	L
BBT50D49-FMB22KH350	22	49	350	388
BBT50D49-FMB22KH400			400	438

- 当遇到特殊情况时，请根据现场情况提供表格中相应的刀具尺寸，并向穆格刀具工程师进行技术沟通
- When encountering special circumstances, please provide the corresponding tool size in the table according to the on-site situation, and carry out technical communication with the Mugt tool engineer

精镗头(大孔径)
Fine boring head(large bore)

加工范围φ150-φ850
processing range φ150-φ850

- CLP系列的大孔径模块式精镗头，平衡性好、加工精度高。
- 粗精镗刀使用相同基础组件，且可另选配附件搭配使用。
- 另有铝合金桥架，配重块选购，可用于降低刀具重量。
- CLP series of large aperture modular fine boring head with good balance and high accuracy
- Same components with rough boring tools, so optional accessories can be used together
- Aluminum alloy bridge rough boring tool available to reduce the weight of tool.



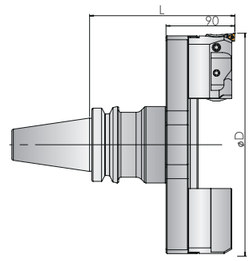
标准型钢制桥式精镗刀
The standard type of steel bridge of fine boring

加工范围 ΦD Processing range	组合型号 Designation	重量 kg Weight	连接盘 Link plate		钢制桥架 Steel bridge		精镗微调滑块 Fine boring slider (2 PCS)		精镗平衡块 Balance block		选购刀片座 Inser holder			
			型号 Model	重量kg Weight	型号 Model	重量kg Weight	型号 Model	重量kg Weight	型号 Model	重量kg Weight	适配刀片座 Inser holder	适配刀片 Insert	适配刀片座 Inser holder	适配刀片 Insert
150-210	CLP 150-210	6.2	-	-	CL 150-210	2.5	LP 150	1.6	LM 150	1.05	FST-6A FST-6B FST-6C	TC 1102	FSC-6A FSC-6B FSC-6C	CC 09T3
210-290	CLP 210-290	7.5			CL 210-290	3.7			LM 200	1.6				
290-370	CLP 290-370	8.5			CL 290-370	5.05								
370-450	CLP 370-450	10.2			CL 370-450	6.8								
450-530	CLP 450-530	11.6			CL 450-530	8.4								
530-610	CLP 530-610	17.5	CL40-200	4.7	CL 530-610	9.5								
610-690	CLP 610-690	19			CL 610-690	11								
690-770	CLP 690-770	20.8			CL 690-770	12.7								
770-850	CLP 770-850	23			CL 770-850	15								

- 组合中不包含刀片，请另外订购
- 组合中不包含拉钉，请注意机器不同使用的拉钉的形式也不一样
- 也可制作加长型桥式镗刀柄(非标)需要时请指示
- No inserts attached,please purchase according to your needs
- No pull studs attached, rivet type is different for different machines.
- OEM service available.



轻量型铝制桥式精镗刀
Light weight aluminum bridge fine boring



加工范围 ΦD Processing range	组合型号 Designation	重量 kg Weight	铝制桥架 Aluminum bridge		精镗微调滑块 Fine boring slide		精镗平衡块 Balance block		选购刀片座 Inser holder			
			型号 Designation	重量kg Weight	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight	适配刀片座 Insert holder	适配刀片 Insert	适配刀片座 Inser holder	适配刀片 Insert
150-210	CLP 150-210 AL	4.6	CL 150-210 AL	0.9	LP 150	1.6	LM 150	1.05	FST-6A FST-6B FST-6C	TC 1102	FSC-6A FSC-6B FSC-6C	CC 09T3
210-290	CLP 210-290 AL	5.1	CL 210-290 AL	1.3			LM 200	1.6				
290-370	CLP 290-370 AL	5.5	CL 290-370 AL	2								
370-450	CLP 370-450 AL	5.9	CL 370-450 AL	2.5								
450-530	CLP 450-530 AL	6.2	CL 450-530 AL	3								

更大范围可定制
OEM service available.

LP150精镗头的拓展功能
The expanding function of LP 150fine boring head

通过交换刀片座，增大镗头的加工范围。需反装刀片座即可进行反镗加工。提高加工效率和精度。
The processing range will increase by exchanging insert seat. A reverse installation achieves reverse boring, to improve efficiency and accuracy

交换刀片座的加工范围
The machining range of the exchange blade holder

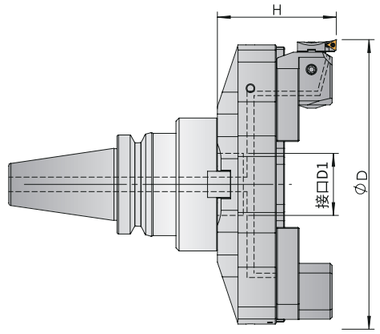
加工范围 Processing range	桥架 Bridge	刀片座 Inser holder	加工范围 Processing range	桥架 Bridge	刀片座 Insert holder	加工范围 Processing range	桥架 Bridge	刀片座 Insert holder
150-210	CL 150-210	FS*-6A	370-450	CL 370-450	FS*-6A	610-690	CL 610-690	FS*-6A
176-236		FS*-6B	396-476		FS*-6B	636-716		FS*-6B
200-260		FS*-6C	420-500		FS*-6C	660-740		FS*-6C
210-290	CL 210-290	FS*-6A	450-530	CL 450-530	FS*-6A	610-770	CL 690-770	FS*-6A
236-315		FS*-6B	476-556		FS*-6B	716-746		FS*-6B
260-340		FS*-6C	500-580		FS*-6C	740-820		FS*-6C
290-370	CL 290-370	FS*-6A	530-610	CL 530-610	FS*-6A	770-850	CL 770-850	FS*-6A
316-396		FS*-6B	556-636		FS*-6B	796-876		FS*-6B
340-420		FS*-6C	580-660		FS*-6C	820-900		FS*-6C

更大范围可定制
OEM service available.

内冷大孔径精镗刀(全系列铝基桥架)

Internal coolant large bore fine boring tool (full series of aluminum-based bridges)





加工直径ΦD Processing diameter	组合型号 Designation	组合重量kg Weight	接口D1 Interface	高度H Height	铝制桥架 Aluminum bridge 型号 Designabon	铝制桥架 重量kg Weight	精镗微调滑块 Fine boring fine adjustment slider 型号 Designabon	精镗微调滑块 重量kg Weight	精镗平衡块 Fine boring balance block 型号 Designabon	精镗平衡块 重量kg Weight	选购刀片座 Adapted insert holder 适配刀片座 Insert holder	选购刀片座 适配刀片 Insert	选购刀片座 其他刀片 Other inserts
200-280	CNP 200-280AL	6.3	CL40	115	NL 200-280AL	2.8							
280-360	CNP 280-360AL	7.5		115	NL 280-360AL	4.1							
360-440	CNP 360-440AL	9.7		125	NL 360-440AL	6.2							
440-520	CNP 440-520AL	11.2	FMB60	125	NL 440-520AL	7.7							
520-600	CNP 520-600AL	13.2		135	NL 520-600AL	9.7	LNP 200	1.75	LNM 200	1.75	FST-6A	TC 1102	CC 09T3 TC 1103 TP 1103 TP 0902 DC 0702
600-680	CNP 600-680AL	14.7		135	NL 600-680AL	11.2							
680-760	CNP 680-760AL	17.5		145	NL 680-760AL	14.1							
760-840	CNP 760-840AL	18.8		145	NL 760-840AL	15.4							

P51-P52

小孔径精镗头

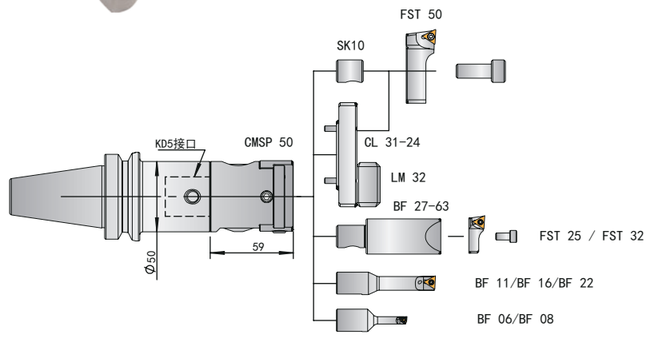
Small bore fine boring head

加工范围Φ6-Φ108

processing range Φ6-Φ108



- CMSP精镗刀适用于精切削镗孔。
- 调整刻度每格调整尺寸为直径0.01mm。
- 刀片座由齿型结构固定，切削稳定，加工范围广范。
- CMSP Micro adjustment boring head is suitable for fineboring with working ranges.
- The dial adjustment is each 0.001mm on diameter.
- The insert holder is fixed by toothed instruction, proving high stability and width working range.



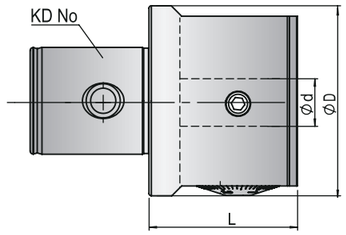
名称 Name	型号 Designation	加工范围 Processing range	深度 Depth	适配刀片 Insert	螺丝 Screw	扳手 Wrench	重量Kg Weight
精镗刀头 Fine boring head	CMSP 50	Φ6-Φ108	59	–	–	–	0.95
镗杆 Boring bar	BF 06	Φ6-Φ9	21	WBGT 0601	DM2x4	T6	0.04
镗杆 Boring bar	BF 08	Φ8-Φ12	28				0.04
镗杆 Boring bar	BF 11	Φ11-Φ17	40	TPGH 0902	DM2.5x6	T8	0.06
镗杆 Boring bar	BF 16	Φ16-Φ23	50				0.08
镗杆 Boring bar	BF 22	Φ22-Φ28	68				0.11
可拆卸镗杆 Removable boring bar	BF 27-63	配合FST 25 or FST 32使用	52				0.22
精镗刀座 Fine boring insert holder	FST 25	Φ28-Φ42	52+11				0.01
精镗刀座 Fine boring insert holder	FST 32	Φ36-Φ54	52+11				0.02
精镗刀座 Fine boring insert holder	FST 50	Φ54-Φ84	59+20	TPGH 1103	DM3x7	T10	0.08
连接桥块 Connecting bridge block	CL 31-24	配合FST 50 使用 Φ80-Φ108	59+13+20	–	–	–	0.15
小配重 Balance weight block	LM 32		–	–	–	–	0.04
锁紧块 Locking block	SK 10		–	–	–	–	0.03

P73-P75

小孔径精镗头
Small bore fine boring head

加工范围Φ6-Φ50
processing range φ6-φ50



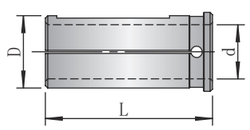


型号 Designation	加工范围 Processing range	KD NO.	D	d	L	行程 Stroke	重量 Kg Weight
MBJ10	6-20	4	40	10	28.5	1.5	0.35
MBJ16	6-50	6	64	16	50	6	1.25

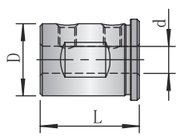


转换套
Conversion sleeve





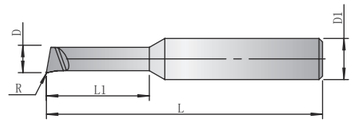
图一



图二

型号 Designation	图示 Picture	D	d	L	组合钨钢刀杆 Combined tungsten steel cutter rod	适配镗头 Boring heads
EC1006	—	10	6	26	WC06	MBJ10
EC1008	—	10	8	26	WC08	MBJ10
EC1606	—	16	6	37	WC06	MBJ16
EC1608	—	16	8	37	WC08	MBJ16
EC1610	—	16	10	37	WC10	MBJ16
EC1612	—	16	12	37	WC12	MBJ16
EC1614	—	16	14	37	WC14	MBJ16
EC16W06	二	16	6	22	WC06	CMSP50

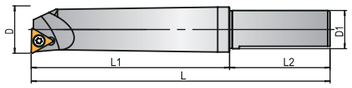
小径合金镗刀杆
Small bore alloy boring bar



型号 Designation	加工范围 Processing range	D1	D	R	L1
WC06030-12	3.0-3.5	6	3.0	0.1	12
WC06035-15	3.5-4.0	6	3.5	0.1	15
WC06040-15	4.0-4. 5	6	4.0	0.1	15
WC06045-18	4.5-5.0	6	4.5	0.1	18
WC06050-22	5.0-6.0	6	5.0	0.1	22
WC06060-25	6.0-8.0	6	6.0	0.1	25
WC08080-35	8.0-10.0	8	8.0	0.1	35

钢制镗刀杆
steel boring bar





型号 Designation	加工范围 Processing range	D	D1	L1	L2	L	适配刀片 Insert	刀片螺丝 Insert screw	刀片扳手 Insert wrench	重量 Kg Weight
BJ1006-24	6-8	6	10 (MBJ10)	24	29	53	WBGT 0601	DM2x4	T6	0.05
BJ1008-25	8-10	8		25	30	55	TBGT 0601			0.06
BJ1010-30	10-12	10		30	30	60				0.07
BJ1012-36	12-14	12		36	26	62	TPGH 0902	DM2.5x6	T8	0.09
BJ1014-42	14-16	14		42	26	68				0.12
BJ1016-48	16-18	16		48	26	74	TPGH 1103	DM3x7	T10	0.14
BJ1018-54	18-20	18		54	26	80				0.2
BJ1606-24	6-8	6	16 (MBJ16)	24	49	73	WBGT 0601	DM2x4	T6	0.07
BJ1608-32	8-11	8		32	48	80	TBGT 0601			0.08
BJ1610-40	10-13	10		40	47	87				0.08
BJ1612-53	12-17	12		53	45	98	TPGH 0902	DM2.5x6	T8	0.11
BJ1616-68	16-21	16		68	42	110				0.14
BJ1620-83	20-26	20		83	42	125	TPGH 1103	DM3x7	T10	0.21
BJ1625-90	25-32	25		90	38	128				0.3
BJ1630-90	30-42	30		90	38	128				0.32
BJ1640-90	40-50	40		90	38	128				0.41



硬质合金抗震刀杆
Carbide anti-vibration tool bar

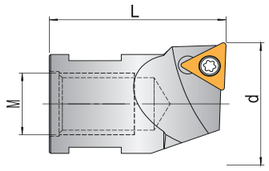




型号 Designation	D	L	M	转换套 Conversion sleeve	重量 Kg Weight	组合镗刀头 Combined boring head
WC08H100M5	8	100	M5	EC1608	0.08	BN09,BN10.5
WC10H100M6	10	100	M6	EC1610	0.15	BN12
WC10H150M6	10	150			0.23	
WC12H100M6	12	100		EC1612	0.24	BN14
WC12H150M6	12	150			0.33	
WC14H150M6	14	150		EC1614	0.43	BN16
WC14H200M6	14	200			0.58	
WC16H100M10	16	100	M10	-	0.42	BN18,BN20,BN22,BN24,BN26,BN28,
WC16H150M10	16	150	M10		0.61	BN30,BN32,BN34,BN36,BN38,BN40,
WC16H200M10	16	200	M10		0.82	BN42 ,BN46,

镗刀头
Boring cutter head





型号 Designation	加工范围 Processing range	d	L	M	适配刀片 Insert	刀片螺丝 Insert screw	刀片扳手 Insert wrench	重量 Kg Weight
BN09	9-10.5	9	18	M5	TPGT 0802	DM2.2X5	T6	0.03
BN10.5	10.5-12	10.5	18	M5				0.03
BN12	12-14	12	23	M6				0.03
BN14	14-16	14						0.03
BN16	16-18	16						0.04
BN18	18-20	18	27	M10				0.04
BN20	20-22	20						0.05
BN22	22-24	22						0.05
BN24	24-26	24						0.05
BN26	26-28	26						0.05
BN28	28-30	28						0.06
BN30	30-32	30						0.06
BN32	32-34	32						0.07
BN34	34-36	34						0.09
BN36	36-38	36						0.11
BN38	38-40	38						0.15
BN40	40-42	40						0.16
BN42	42-46	42						0.19
BN46	46-50	46						0.26

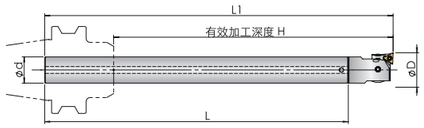


硬质合金抗震刀杆
Carbide anti-vibration tool bar

加工范围Φ20-Φ60
processing range φ20-φ60

- 超硬碳化钨钢镗刀杆、坚硬耐用，实现高硬变，高钢性、高抗震性，可施行超深孔镗孔加工
- 各规格均有内冷水孔，深孔加工时排漏及内冷效果良好
- 直柄式结构，加工深度可根据加工深度自行调整
- Super-hard tungsten carbide boring bar, hard and durable, high hardness, high rigidity,high shock resistance, can be used to deep hole boring.
- With internal coolant, and the drainage and with good chip removal and internal cooling effect when deep hole processing.
- Straight shank,the machining depth can be adjusted according to your needs.





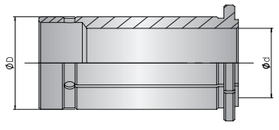
型号 Designation	Φd	加工范围ΦD Processing range	L1	L	H	适配精镗头 Fine boring head
WC19H150KD1	19	20-26	182.5	150	130	CMP 20-36KD1
WC19H200KD1			232.5	200	170	
WC19H250KD1			282.5	250	210	
WC24H200KD2	24	25-33	235.5	200	170	CMP 25-47KD2
WC24H250KD2			285.5	250	210	
WC24H300KD2			335.5	300	260	
WC32H250KD3	32	32.5-42	290	250	180	CMP 32-60KD3
WC32H300KD3			340	300	230	
WC32H350KD3			390	350	300	

- 不附带CMP精镗头
- 注意：根据工件材质的不同，加工深度有可能不能达到(目的选用最佳刚性)
- No CMP fine boring head ,please purchase
- Note: The machining depth may not reach the effective machining depth depending on the material of the workpiece.

硬质合金直柄用强力筒夹
Carbide straight shank strong collet

型号 Designation	Φd	ΦD
C 32-19	19	32
C 32-24	24	
C 42-19	19	42
C 42-24	24	
C 42-32	32	



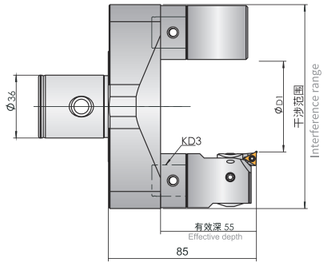


- 筒夹请用于强力铣刀柄上
- Collet should be used on the powerful milling shank

外圆套刀
External boring sleeve tool

加工范围Φ25-Φ102
processing range Φ25-Φ102





加工范围ΦD1 Processing range	连接架 Connection bracket			精镗头 Fine boring head		平衡块 Balance block		刀片座 Insert holder	适配刀片 Insert
	型号 Designation	重量kg Weight	干涉范围 Interference range	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight		
25-34	CMPT 25-52KD6	1.5kg	Φ118	CMP 32-60KD3	0.22kg	BZ-KD3	0.22kg	FS*-3C	TP 0802
34-43								FS*-3B	
43-52								FS*-3A	
50-59	CMPT 50-77KD6	1.8kg	Φ143					FS*-3C	
59-68								FS*-3B	
68-77								FS*-3A	
75-84	CMPT 75-102KD6	1.9kg	Φ168					FS*-3C	
84-93								FS*-3B	
93-102								FS*-3A	

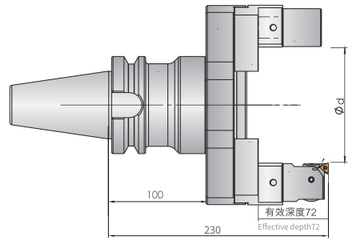
- 不包括刀片，需另购
- 外圆加工时主轴应反转
- 镗头反向装时可用于镗孔加工，此时主轴应正转
- Inserts are not included, please order it separately.
- Please reverse the spindle when machining the outer circle.
- When the fine is installed in the opposite direction,
  it can be used for boring At this time,the spindle should be rotated forward.



外圆套刀
External boring sleeve tool

加工范围 φ41-φ404
processing range φ41-φ404





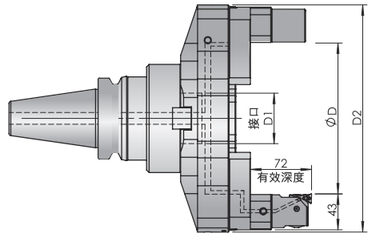
加工范围Φd Processing range	桥架 Bridge		套镗滑块 Set block		精镗头 Fine boring head		精镗平衡块 Balance block	
	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight
41-96	CL 150-210	2.5	LP 150-KD4	0.75	CMP 41-74KD4	0.42	BZ-KD4	0.43
84-164	CL 210-290	3.7			刀片座			
164-244	CL 290-370	5.05			FST-4A			
244-324	CL 370-450	6.8			适用刀片			
324-404	CL 450-530	8.4			TC 1102			

- 加工外圆最小行程时，需要配CMP41-74KD4精镗刀的调节行程才能实现
- 不包括刀片，需另购
- 外圆加工时主轴应反转
- 镗头反向装时可用于镗孔加工，此时主轴应正转
- Inserts are not included, please order it separately.
- Please reverse the spindle when machining the outer circle.
- When the fine is installed in the opposite direction,
  it can be used for boring At this time, the spindle should be rotated forward.
- When machining the minimum stroke of the outer circle, it is necessary to
  adjust the stroke with CMP41-74KD4 fine boring cutter.



内冷外圆套刀

Internal coolant external boring sleeve tool



加工范围Φd Processing range	铝制桥架 Aluminum bridge				套镗滑块x2 Boring sleeve sliders		精镗平衡块 Balance block		精镗头 Fine boring head		选购刀片座 Shop blade holders		
	型号 Designation	重量kg Weight	接口 D1	D2	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight	型号 Designation	重量kg Weight	适配刀座 Insert holder	适配刀座 Insert holder	其他刀片 Insert
100-180	NL 200-280AL	2.8	CL40	195	NP200-KD4	1.3 (单个)	BZ-KD4	0.43	CMP 41-74KD4	0.42	FST-4A (标配)	TC 1102	CC 0602 TC 1103 TP 1103 TP 0902 DC 0702
180-260	NL 280-360AL	4.1		275									
260-340	NL 360-440AL	6.2		355									
340-420	NL 440-520AL	7.7		435									
420-500	NL 520-600AL	9.7	FMB60	515									
500-580	NL 600-680AL	11.2		595									
580-660	NL 680-760AL	14.1		675									
660-740	NL 760-840AL	15.4		755									

- 不包括刀片，需另购
- 外圆加工时主轴应反转
- 镗头反向装时可用于镗孔加工，此时主轴应正转
- Inserts are not included, please order it separately.
- Please reverse the spindle when machining the outer circle.
- When the fine is installed in the opposite direction, it can be used for boring At this time, the spindle should be rotated forward.

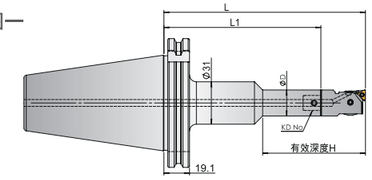


SK镗刀柄

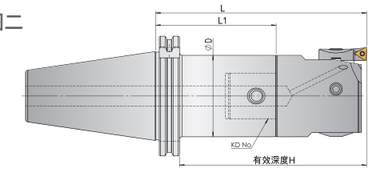
SK TOOL HOLDER



图一



图二



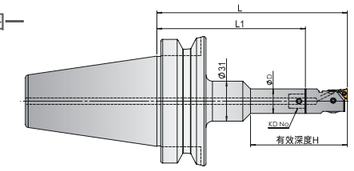
镗刀型号 Designation	图示 Picture	KD NO.	ΦD	L	L1	H(有效深) H(effective depth)	质量kg Weight (kg)
SK40H075KD1	二	1	19	107.5	75	88	0.8
SK40H085KD2		2	24	120.5	85	101	1.05
SK40H095KD3		3	31	135	95	115.5	1
SK40H125KD3				165	125	145.5	1.3
SK40H050KD4		4	39	97	50	77.5	0.95
SK40H085KD4				132	85	112.5	1.2
SK40H130KD4				177	130	157.5	1.8
SK40H050KD5		5	50	107	50	87.5	1.15
SK40H075KD5				132	75	112.5	1.2
SK40H125KD5				182	125	162.5	2.3
SK40H065KD6		6	64	136	65	116.5	1.25
SK40H115KD6				186	115	166.5	2.65
SK40H165KD6				236	165	216.5	3.85
SK50H115KD1	一	1	19	147.5	115	75	3.2
SK50H085KD2	二	2	24	120.5	85	101	3.1
SK50H110KD2				145.5	110	126	3.2
SK50H090KD3		3	31	130	90	110.5	3.2
SK50H125KD3				165	125	145.5	3.4
SK50H065KD4		4	39	112	65	92.5	3.3
SK50H115KD4				162	115	142.5	3.8
SK50H145KD4				192	145	172.5	4
SK50H065KD5		5	50	122	65	102.5	3.4
SK50H105KD5				162	105	142.5	3.9
SK50H150KD5				207	150	187.5	4.5
SK 50H180KD5				237	180	217.5	5.0
SK50H240KD5				297	240	277.5	5.8
SK50H095KD6		6	64	166	95	146.5	4
SK50H170KD6				241	170	221.5	5.8
SK50H230KD6				301	230	281.5	7.2
SK50H290KD6				361	290	341.5	8.5

注:另外SK50H350KD6-80型号的加粗刀柄也常备库存，有加工孔径φ 80以上深度大于340的可以参考选配。

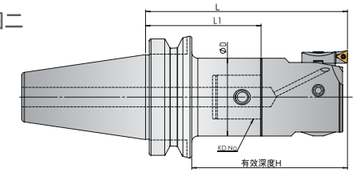
BT镗刀柄
BT TOOL HOLDER



图一



图二

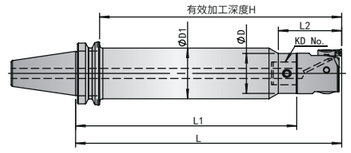


型号 Designation	图示 Picture	KD No.	ΦD	L	L1	H（有效深） H(effective depth)	重量kg Weight
BT30H070KD1	二	1	19	102.5	70	80.5	0.5
BT30H070KD2		2	24	105.5	70	83.5	0.6
BT30H080KD3		3	31	120	80	98	0.7
BT30H070KD4		4	39	117	70	95	0.8
BT30H070KD5		5	50	127	70	105	0.8
BT30H070KD6		6	64	141	70	119	1.2
BT40H075KD1	二	1	19	107.5	75	80.5	1
BT40H105KD1				137.5	105	110.5	1.2
BT40H085KD2		2	24	120.5	85	93.5	1.1
BT40H115KD2				150.5	115	123.5	1.4
BT40H095KD3		3	31	135	95	108	1.2
BT40H125KD3				165	125	138	1.5
BT40H050KD4		4	39	97	50	70	1.1
BT40H085KD4				132	85	105	1.3
BT40H130KD4				177	130	150	1.9
BT40H175KD4				222	175	195	2.2
BT40H050KD5		5	50	107	50	80	1.2
BT40H075KD5				132	75	105	1.3
BT40H125KD5				182	125	155	2.4
BT40H175KD5				232	175	205	3
BT40H065KD6		6	64	136	65	109	1.3
BT40H115KD6				186	115	159	2.7
BT40H165KD6				236	165	209	3.9

型号 Designation	图示 Picture	KD No.	ΦD	L	L1	H（有效深） H(effective depth)	重量kg Weight
BT50H115KD1	—	1	19	147.5	115	75	4
BT50H085KD2	二	2	24	120.5	85	82.5	3.8
BT50H110KD2				145.5	110	107.5	3.9
BT50H090KD3	二	3	31	130	90	92	3.9
BT50H125KD3				165	125	127	4.1
BT50H065KD4	二	4	39	112	65	74	3.95
BT50H115KD4				162	115	124	4.3
BT50H145KD4				192	145	154	4.5
BT50H175KD4				222	175	184	4.8
BT50H065KD5	二	5	50	122	65	84	3.85
BT50H105KD5				162	105	124	4.5
BT50H150KD5				207	150	169	5.1
BT50H180KD5				237	180	199	5.5
BT50H240KD5				297	240	259	6.2
BT50H095KD6	二	6	64	166	95	128	4.5
BT50H170KD6				241	170	203	6.3
BT50H230KD6				301	230	263	7.7
BT50H290KD6				361	290	323	9
BT50H170KD7	二	7	90	257	170	219	9.1
BT50H230KD7				317	230	279	11.8
BT50H290KD7				377	290	339	14.6
BT50H350KD7				437	350	399	17.45

加粗镗刀柄
Thickening boring cutter handle



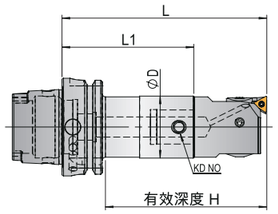


型号 Designation	KD No.	ΦD	ΦD1	L	L1	L2	H（有效深） H(effective depth)	重量kg Weight
BT50H190KD4-46	4	39	46	237	190	65	199	5.6
BT50H235KD4-46				282	235		244	6.2
BT50H240KD5-61	5	50	61	297	240	80	259	8.2
BT50H300KD5-61				357	300		319	9.6
BT50H260KD6-71	6	64	71	331	260	100	293	10.3
BT50H315KD6-71				386	315		348	12.2
BT50H290KD6-80			80	361	290		323	13.2
BT50H350KD6-80				421	350		383	15.3

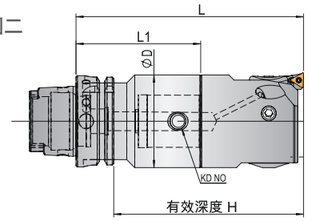
HSK 镗刀柄
HSK TOOL HOLDER



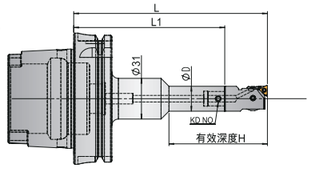
图一



图二



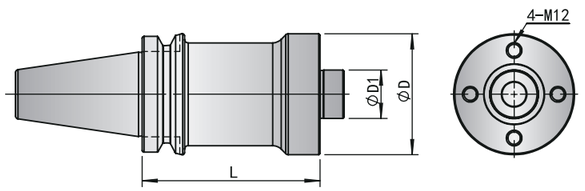
图三



型号 Designation	图示 Picture	KD NO.	ϕD	L	L1	H(有效深) H(effective depth)	重量 Kg Weight
HSK63AH075KD1		KD1	19	107.5	75	81.5	0.9
HSK63AH100KD1				132.5	100	106.5	1.3
HSK63AH085KD2		KD2	24	120.5	85	94.5	1.7
HSK63AH115KD2				150.5	115	124.5	2.2
HSK63AH095KD3		KD3	31	135	95	109	2.3
HSK63AH125KD3	—			165	125	139	2.6
HSK63AH055KD4		KD4	39	102	55	76	1.8
HSK63AH085KD4				132	85	106	2.1
HSK63AH130KD4				177	130	151	2.7
HSK63AH075KD5		KD5	50	132	75	106	2.3
HSK63AH100KD5				157	100	131	2.7
HSK63AH135KD5				192	135	166	2.8
HSK63AH075KD6		KD6	64	146	75	120	2.3
HSK63AH115KD6	二			186	115	160	2.8
HSK63AH165KD6				236	165	210	3.1
HSK100AH105KD1	三	KD1	19	137.5	105	75	2.6
HSK100AH115KD2		KD2	24	150.5	115	121.5	2.7
HSK100AH125KD3		KD3	31	165	125	136	2.9
HSK100AH060KD4		KD4	39	107	60	78	2.6
HSK100AH120KD4				167	120	138	3.1
HSK100AH180KD4				227	180	198	3.7
HSK100AH070KD5		KD5	50	127	70	98	2.9
HSK100AH110KD5	—			167	110	138	3.5
HSK100AH185KD5				242	185	213	4.6
HSK100AH230KD5				287	230	258	5.3
HSK100AH095KD6		KD6	64	166	95	137	3.6
HSK100AH170KD6				241	170	212	5.5
HSK100AH230KD6				301	230	272	7.1
HSK100AH290KD6				361	290	332	8.7

BT桥镗镗刀柄
BT tool holder for bridge boring tool





型号 Designation	ΦD	ΦD1	L	固定螺丝组合 Fastening screw	重量 Kg Weight
BT40H070CL40	100	40	70	CLM12x35	2.8
BT50H100CL40			100		6.1
BT50H150CL40			150		7.9
BT50H200CL40			200		9.7
BT50H250CL40			250		10.9
BT50H300CL40			300		12.5
BT50H350CL40			350		13.9



SK桥镗刀柄
SK tool holder for bridge boring tool

型号 Designation	ΦD	ΦD1	L	固定螺丝组合 Fastening screw	重量 Kg Weight
SK40H070CL40	100	40	70	CLM12x35	2.8
SK50H080CL40			80		5.1
SK50H150CL40			150		7.3
SK50H200CL40			200		9.4
SK50H250CL40			250		10.5

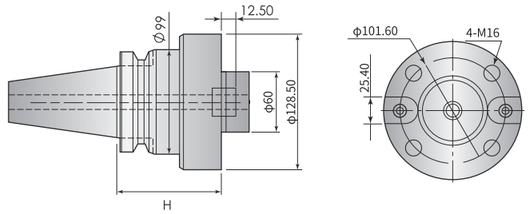


HSK桥镗刀柄
HSK tool holder for bridge boring tool

型号 Designation	ΦD	ΦD1	L	固定螺丝组合 Fastening screw	重量 Kg Weight
HSK63AH070CL40	100	40	70	CLM12x35	2.8
HSK100AH080CL40			80		5.1
HSK100AH150CL40			150		7.3
HSK100AH200CL40			200		9.3
HSK100AH250CL40			250		10.5
HSK100AH300CL40			300		12.4

BT内冷桥镗刀柄

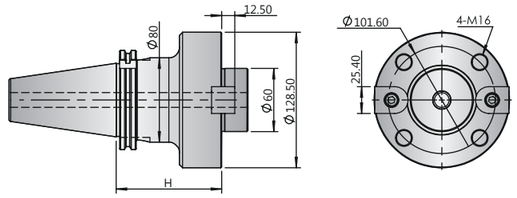
BT tool holder for internal coolant bridge boring tool



型号 Designation	L	固定螺丝 Fastening screw	重量 Kg Weight
BT50H100FMB60	100	M16	9.2
BT50H150FMB60	150	M16	12.1
BT50H200FMB60	200	M16	14.9
BT50H250FMB60	250	M16	17.9
BT50H300FMB60	300	M16	20.8
BT50H350FMB60	350	M16	23.7

SK内冷桥镗刀柄

SK tool holder for internal coolant bridge boring tool



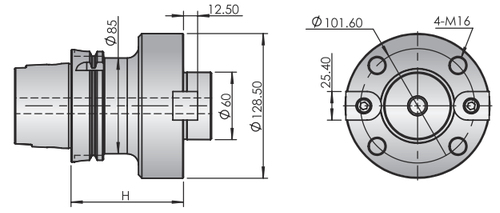
型号 Designation	L	固定螺丝 Fastening screw	重量 Kg Weight
SK50H100FMB60	100	M16	8.6
SK50H150FMB60	150	M16	10.6
SK50H200FMB60	200	M16	12.4
SK50H250FMB60	250	M16	14.2

BORING SYSTEM

孔加工系列

HSK内冷桥镗刀柄

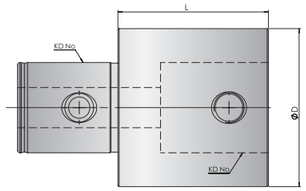
HSK tool holder for internal coolant bridge boring tool



型号 Designation	L	固定螺丝 Fastening screw	重量 Kg Weight
HSK100AH100FMB60	100	M16	7.9
HSK100AH150FMB60	150	M16	10.1
HSK100AH200FMB60	200	M16	12.2
HSK100AH250FMB60	250	M16	14.4

延长杆
Extensions



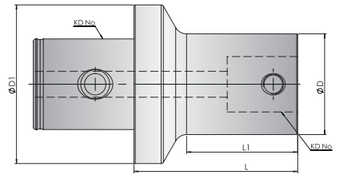


型号 Designation	KD No.	L	ΦD	重量 Kg Weight
KD11-30	1	30	19	0.07
KD22-30	2	30	24	0.1
KD33-30	3	30	31	0.15
KD44-45	4	45	39	0.4
KD44-60		60		0.53
KD55-60	5	60	50	0.8
KD55-90		90		1.25
KD66-60	6	60	64	1.4
KD66-100		100		2.33

- 请注意使用延长后，长径比增大，有可能影响加工条件
- 有内冷中心孔
- Please note that after using the extension bar,length to diameter ratio will becomes larger may affect processing conditions.
- With internal coolant

缩径杆
Reductions



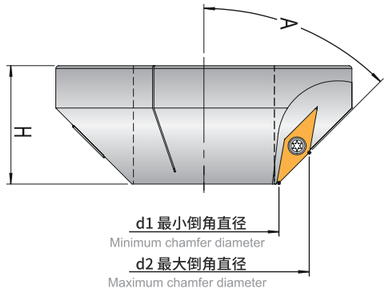


型号 Designation	KD No.（轴端）	KD No.（孔端）	ΦD	ΦD1	L	L1	重量 Kg Weight
KD21-36	2	1	19	24	36	30	0.1
KD31-41	3			31	41		0.15
KD32-37		2	24		37	25	
KD41-58	4	1	19	39	58	40	0.3
KD42-50		2	24		50	36	
KD43-50		3	31			37	0.35
KD51-60	5	1	19	50	60	40	0.45
KD52-54		2	24		54	35	
KD52-75					75	55	0.47
KD53-47		3	31		47	29	0.5
KD53-75					75	55	0.57
KD54-42		4	39		42	25	0.5
KD54-75					75	55	0.66
KD61-70	6	1	19	64	70	40	0.9
KD62-63		2	24		63	45	0.7
KD62-90					90	72	0.72
KD63-56		3	31		56	39	0.75
KD63-90					90	73	0.88
KD64-51		4	39		51	35	0.85
KD64-90					90	75	1.08
KD65-41		5	50		41	25	0.85
KD65-90					90	74	1.45
KD76-60-A90	7	6	64	90	60	25	2.3

- 请注意使用延长后，长径比增大，有可能影响加工条件
- 有内冷中心孔
- A90表示为头部的锁紧螺孔与柄部的锁紧锥孔为90°错开设计，便于特殊情况使用
- Please note that after using the extension bar,length to diameter ratio will becomes larger may affect processing conditions.
- With internal coolant
- A90 indicates that the locking screw hole of the head and the locking taper hole of the handle are 90° staggered design, which is convenient for special situations.

倒角环
Chamfer ring

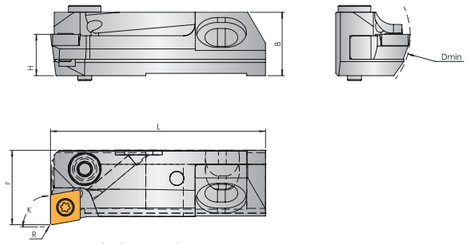




型号 Designation	刃数 Edge	角度 A Angle A	d1	d2	H	适配刀柄 Holder	适配刀片 Insert	刀片螺丝组合 Insert screw	锁紧螺丝 Locking screw	重量kg Weight
MC1-34-45	1	45	21	34	22	KD1	VCGT110302	DM3x7-T10	M5x16	0.06
MC2-39-45			26	39	25	KD2				0.12
MC3-54-45			34	54	35	KD3	VCGT 160404	DM4x10-T15	M6x20	0.52
MC4-62-45			42	62	38	KD4				0.7
MC5-93-45	2		53	93	43	KD5			M6x25	1.31
MC6-107-45			67	107	46	KD6			M8x25	1.82
MC6-138-45			98	138						3.85
MC6-160-45			120	160						5.58
MC1-41-30		30	23	41	30	KD1	VCGT110302	DM3x7-T10	M5x16	0.11
MC2-46-30			28	46	35	KD2				0.22
MC3-53-30			35	53		KD3			M6x20	0.35
MC4-61-30			43	61		KD4				0.42
MC5-84-30			56	84	48	KD5	VCGT 160404	DM4x10-T15	M8x25	1.3
MC6-98-30			70	98		KD6				1.2
MC6-120-30			92	120						3.05
MC6-142-30			114	142						4.1

微调刀座
Micro adjustment insert holder





图示为右手刀座（R）
The picture is the right hand tool holder

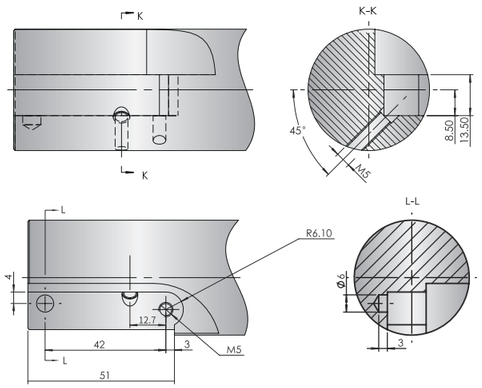
型号 Designation	Dmin	L	F	B	H	K	R	适配刀片 Insert	刀片螺丝组合 Insert screw
FSC-8516A0-06-R/L	28	45.8	16	13.5	8.8	90°	0.4	CC 0602	DM2.5x6-T8
FSC-8516A5-06-R/L						95°			
FST-8516A0-09-R/L						90°		TP 0902	DM2.5x6-T8
FST-8516A5-09-R/L						95°			
FSD-8516A30-07-R/L		47.8				120°		DC 0702	DM2.5x6-T8
FST-8520A0-11C-R/L	36	45.8	20			90°		TC 1102	
FST-8520A5-11C-R/L						95°			
FST-8520A0-11P-R/L						90°		TP 1103	DM3x6-T10
FST-8520A5-11P-R/L						95°			

- 刀片请单独订购
- 微调精度为直径φ0.01mm
- 径向调整行程0-φ0.6mm,轴向行程0-1.0mm
- Please order the insert separately
- Fine adjustment accuracy diameter is φ0.01mm
- Radial range:0-φ6mm，Axial range:0-10mm

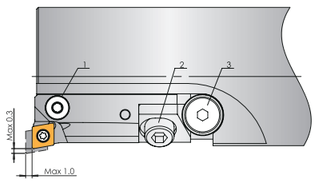
备件 Spare Parts	名称 Name	型号 Designation
	轴向调节块 Axial adjustment block	SV-12
	轴向调整螺丝 Axial adjustment screw	SVM5-20
	刀座固定螺丝 Tool holder fixing screw	RMM5-20
	刀座固定扳手 Tool holder fixing Wrench	PS-4B
	径向调整扳手 Radial adjustment Wrench	PS-2.5B
	轴向调整扳手 Axial adjustment Wrench	PS-3B

微调刀座说明
Micro adjustment insert holder

刀座安装尺寸说明
Insert holder mounting dimension description



刀座调整说明
Insert holder adjustment instructions



1.径向调整螺丝
2.刀座固定螺丝
3.轴向调整螺丝
1. Screw for radial adjustment
2. Screw for tool holder fixing
3. Screw for adjust the axis direction

轴向调整操作
- 稍微松开刀座锁紧螺丝2。
- 顺时针旋转轴向调整螺丝3，刀座向前移动至所需尺寸。
- 拧紧刀座锁紧螺丝2。

直径调整操作
- 顺时针方向旋转径向调整螺丝1，刀具直径变大（每格φ0.01mm）
- 逆时针方向旋转径向调整螺丝1，刀具直径变小（每格φ0.01mm）

注意：若刀座需要轴向往后调整，应当松开刀座锁紧螺丝，并将刀座移至最后位置，然后逐渐向前调整至所需尺寸。

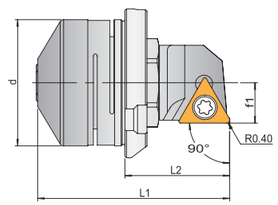
Adjust axis direction operation
- Slightly loosen the screw 2
- Turn clockwise the screw 3,Move the tool holder forward to the required size.
- Tighten the screw 2.

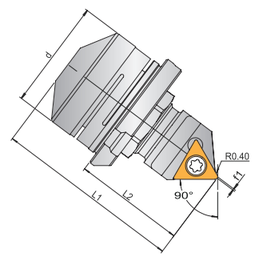
Adjust diameter operation
- Turn the screw 1 clockwise.tool diameter becomes larger(φ0.01mm/grid)
- Turn the screw 1 counterclockwise,tool diameter becomes smaller(φ0.01 mm/grid)

Notice:If the tool holder needs to adjust the axis direction backwards,you should loosen the screw 2, and move the tool holder to the last position,gradually move forward to the desired position

微调单元
Micro adjustment unit



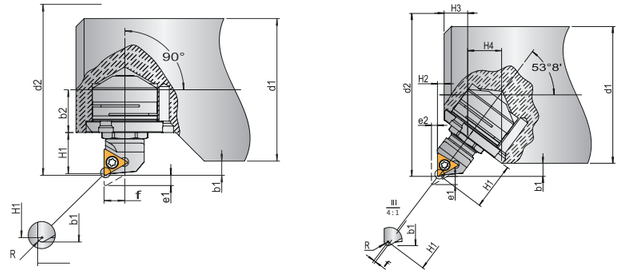




安装方式 Installation Method	型号 Designation	主偏角 Approach angle	切入角 Cutting edce angle	Dmin 最小加工直径 Minimum machining diameter	d	L1	L2	f1	适配刀片 Insert	刀片螺丝组 Insert screw
Side angle installation 角度安装 	R/L148C-31-CC06	90°	0°	25.5	16	25.15	14.3	0.45	CC 0602	DM2.5x6-T8
	R/L148C-31-TC06			24.8		25.3	14.3	0.45	TC 06T1	DM2x4-T6
	R/L148C-31-TB06								TB 0601	
	R/L148C-32-TC09			32.5	20	33.7	19.1	0.9	TC 0902	DM2.2x6-T6
	R/L148C-32-TP09								TP 0902	DM2.5x6-T8
	R/L148C-33-TC1102			42	22	45.3	23	1.1	TC 1102	
	R/L148C-33-TP1103								TP 1103	DM3x7-T10
	R/L148C-34-TC16			59.5	32	62.3	33.3	1.2	TC 16T3	DM4x10-T15
Right angle installation 直角安装 	R/L148C-11-CC06	90°	0°	27	16	24.2	13.3	5.1	CC 0602	DM2.5x6-T8
	R/L148C-11-TC06								TC 06T1	DM2x4-T6
	R/L148C-11-TB06								TB 0601	
	R/L148C-12-TC09			36.5	20	32.9	18.3	6.3	TC 0902	DM2.2x6-T6
	R/L148C-12-TP09								TP 0902	DM2.5x6-T8
	R/L148C-13-TC1102			48.5	22	44.3	22.1	7.2	TC 1102	
	R/L148C-13-TP1103								TP 1103	DM3x7-T10
	R/L148C-14-TC16			68.4	32	62.7	32	10.3	TC 16T3	DM4x10-T15

- 刀片请单独订购
- 安装尺寸，请参照 P59页面
- 刀尖与最小镗孔直径的选择，请参照 P60页面
- Inserts are not included, please order it separately.
- Please refer to P59 for installation dimensions.
- For the choice of tool tip and minimum machining diameter, please refer to P60

微调单元安装尺寸
Micro adjustment unit dimensions

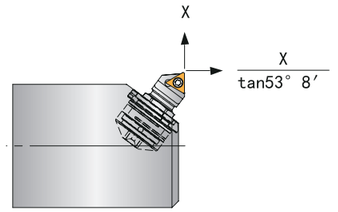


安装方式 Installation Method	刀片 Insert			d1	d2	b1	e1	e2	b2	H1	H2	H3	H4	f
		iC	R	min	min	min	max	max	min	min				
Right angle installation 直角安装	06	6.35	0.2	26	27.9	0.6	2.5	-	3.6	9.8	-	-	-	5.1
			0.4		27.6	0.55				9.6				
			0.8		27	0.5				9.1				
	06	3.96	0.2	25	26.9	0.6		-		8.8	-	-	-	5.1
			0.4		26.6	0.55				8.6				
			0.8		26	0.5				8.1				
	09	5.56	0.2	34.5	37.4	1.45	3.5	-	4.55	13.95	-	-	-	6.3
			0.4		37.1	1.3				13.6				
			0.8		36.5	1				12.9				
	11	6.35	0.2	46.5	49.7	1.45	6	-	7.75	16.75	-	-	-	7.2
			0.4		49.1	1.3				16.4				
			0.8		48.5	1				15.7				
	16	9.525	0.4	67	69.6	1.3	10	-	9.4	25	-	-	-	10.3
			0.8		69	1				24.3				
			1.2		68.4	0.7				23.6				
Side angle installation 角度安装	06	6.35	0.2	22	26.2	1.7	2	1.5	-	11	0.5	6.6	9.55	0.4
			0.4		25.9	1.65				10.7				0.4
			0.8		25.3	1.6				10.1				0.45
	06	3.96	0.2		25.7	1.5			-	10.9	0.5	6.6	9.55	0.4
			0.4		25.4	1.45				10.6				0.4
			0.8		24.8	1.4				10				0.45
	09	5.56	0.2	28.5	33.4	2.45	2.8	2.1	-	14.9	0.5	9.4	12.15	0.95
			0.4		33.1	2.3				14.5				1
			0.8		32.5	2				13.7				1.1
	11	6.35	0.2	38	42.9	2.45	4.8	3.6	-	17.6	0.5	11.2	14.85	1.15
			0.4		42.6	2.3				17.2				1.2
			0.8		42	2				16.4				1.3
	16	9.525	0.4	55	60.6	2.8	8	6	-	26.2	0.5	16.65	12.7	1.3
			0.8		60	2.5				25.4				1.4
			1.2		59.4	2.2				24.6				1.5

- 安装尺寸，请参照 P60页面
- Please refer to P60 for installation dimensions

微调单元应用
Micro adjustment unit application

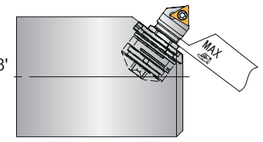
微调单元应用于非标刀具的精镗加工
Micro adjustment unit applies to fine boring of non-standard tools

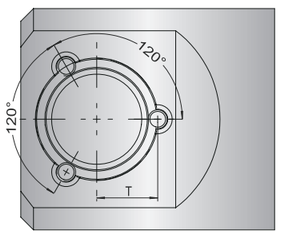


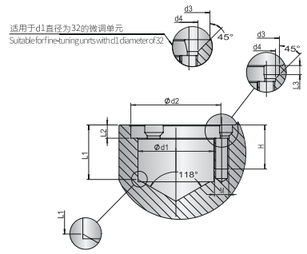
- 盲孔安装，不受加工直径大小的影响。
- 尺寸前端调节，操作方便简单。
- 微调单元能自锁，尺寸调节前无需解锁，调节后也无需锁定。
- 微调螺母有刻度盘，每一刻度值径向调整尺寸为φ0.02mm。
- Blind hole installation, not affected by the diameter of the machining
- Size can be adjusted at the front end, easy to operate
- The fine-tuning device can be self-locking, no need to unlock when adjusting the size, and no need to lock after adjustment
- The fine-tuning nut has a scale plate, and the radial adjustment of each scale is φ0.02mm

注意：
- 角度安装的微调单元其轴向移动量=径向移动量/tan53°8′
- 千万不要将刀头拧松到超出相应于微调单元的调整扳手所指示的调整范围。如果超出调整范围，会导致微调单元无法修理。

Notice:
- Axial movement amount of side angle installation's fine turning unit=Radial movement amount/tan53°8′
- Never loosen the cutter head beyond the adjustment range indicated by the wrench corresponding to
- the fine adjustment unit. If this happens, it will cause the fine tuning unit not to be repaired

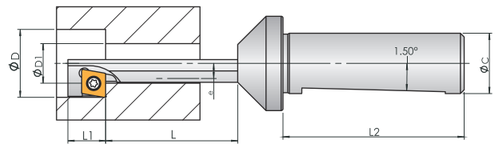






ΦD 直径 diameter	d1 H7	d2	d3	d4	L1	L2	L3	H	T	M
16	16	19	4.6	3.2	11.5	2.8	1.6	9	9.65±0.02	M3
20	20	25	4.6	3.2	15.5	4	1.6	9	12.5±0.05	M3
22	22	30	6.5	4.3	24	5	1.8	13	15.4±0.05	M4
32	32	46	11.9	5.4	33	6.3	——	16	23±0.05	M5

机夹式反拉刀
Machine clamped back broach



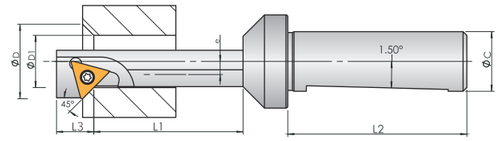
型号 Designation	D	D1	C	L2	L	L1	e	适配刀片 Insert
MRF-18-W16	18	10.5	16	48	35	10	4	CC 0602
MRF-20-W16	20	13	16	48	40		4	
MRF-23-W20	23	15	20	50	50		4.5	
MRF-26-W20	26	17	20	50	50	13	5	CC 09T3
MRF-33-W25	33	21	25	56	70		6.5	
MRF-40-W25	40	25	25	56	80		8	

- 减少二次装夹，保证孔的位置度要求
- 不用正反转，减少损坏几率
- 非标设计刀体刚性做到最佳
- 尺寸外可接受非标定做
- Avoid secondary clamping to ensure accurate position of the hole
- One direction tuming to reduce the chance of damage
- Non-standard design body with best rigidity
- Non-standard customization is acceptable

反拉加工步骤

1.主轴定向
2.偏心移位(e值)
3.Z轴下移
4.位移至孔中心(e值)
5.主轴正转向上反拉加工
6.主轴定向
7.偏心移位(e值)
8.向上移位至安全位置，加工完成
1. Spindle orientation
2. Eccentric shift (e value)
3. Z axis down
4. Displacement to the center of the hole (e value)
5. Spindle makes upward rotation and reverse pulling process.
6. Spindle orientation
7. Eccentric shift (e value)
8. Move up to a safe position and finish processing

机夹式反拉倒角刀
Machine clamped back chamfer broach



型号 Designation	D	D1	C	L2	L1	L3	e	适配刀片 Insert
MCF-14-W16	20	14	16	48	40	10	3.5	TC 1102
MCF-17-W20	23	17	20	50	50			
MCF-21-W25	27	21	25	56	70			
MCF-24-W25	31	24	25	56	80		4	

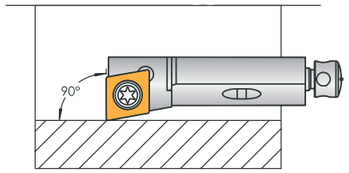
- 减少二次装夹，保证孔的位置度要求
- 不用正反转，减少损坏几率
- 非标设计刀体刚性做到最佳
- 尺寸外可接受非标定做
- Avoid secondary clamping to ensure accurate position of the hole
- One direction tuming to reduce the chance of damage
- Non-standard design body with best rigidity
- Non-standard customization is acceptable

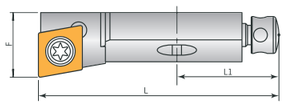
反拉加工步骤

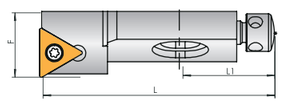
Reverse pulling process step

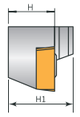
1.主轴定向
2.偏心移位(e值)
3.Z轴下移
4.位移至孔中心(e值)
5.主轴正转向上反拉加工
6.主轴定向
7.偏心移位(e值)
8.向上移位至安全位置，加工完成
1. Spindle orientation
2. Eccentric shift (e value)
3. Z axis down
4. Displacement to the center of the hole (e value)
5. Spindle makes upward rotation and reverse pulling process.
6. Spindle orientation
7. Eccentric shift (e value)
8. Move up to a safe position and finish processing

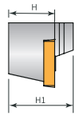
F系列90°卡式刀座
F Series 90° Cartridge







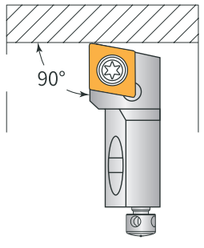


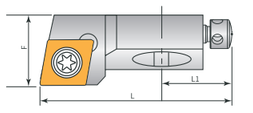


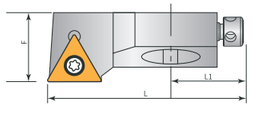
型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCFCR-06CA-06 QJ	●	–	8.5	6	29	13	8.5	18	0.4	CC 0602
SCFCR/L-08CA-06	●	○	10	8	32	17	10	25	0.4	CC 0602
SCFCR/L-10CA-09	●	○	14	10	50	20	13.5	40	0.4	CC 09T3
SCFCR/L-12CA-12	●	○	20	12	55	20	18	50	0.8	CC 1204
SCFCR-12CA-12-42L	●	–	20	12	42	18	16	50	0.8	CC 1204
STFCR/L-08CA-09	○	○	10	8	32	17	10	25	0.4	TC 0902
STFCR/L-10CA-11	●	○	14	10	50	20	14	40	0.4	TC 1102
STFCR/L-12CA-16	●	○	20	12	55	20	20	50	0.8	TC 16T3
STFCR-12CA-16-M	●	–	20.3	12	55	20	20	50	0.4	TC 16T3
STFPR-10CA-11	●	–	14	10	10	20	14	40	0.4	TP 1103
STFPR-12CA-16	●	–	20	12	55	20	20	50	0.8	TP 1603

- SCFCR-06CA-06 QJ型号注意侧面无径向调整螺丝，锁紧螺丝需要配半圆头螺丝。
- SCFCR-12CA-12-42L型号注意侧面无径向调整螺丝。
- SCFCR-06CA-06 QJ model should pay attention to the side without radial adjustment screws, locking screws need to be equipped with semi-round head screws.
- SCFCR-12CA-12-42L fortunately note that there are no radial adjustment screws on the sides. Insert to be ordered separately

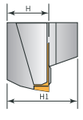
G系列90°卡式刀座
G Series 90° Cartridge





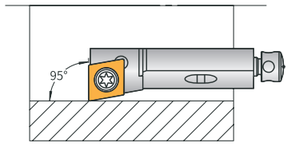


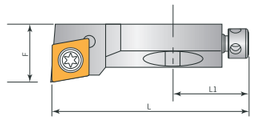


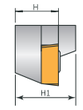


型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCGCR/L-08CA-06	○	○	10	8	32	17	11	25	0.4	CC 0602
SCGCR/L-10CA-09	○	○	14	10	50	20	15	40	0.4	CC 09T3
SCGCR/L-12CA-12	○	○	20	12	55	20	20	50	0.8	CC 1204
STGCR/L-10CA-11	○	○	14	10	50	20	15	40	0.4	TC 1102
STGCR/L-12CA-16	○	●	20	12	55	20	20	50	0.8	TC 16T3

L系列95°卡式刀座
L Series 95° Cartridge

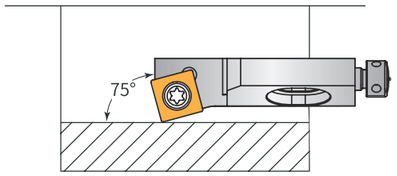


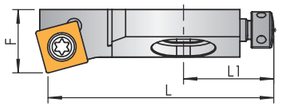


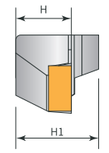


型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCLCR/L-08CA-06	○	○	10	8	32	17	11	25	0.4	CC 0602
SCLCR/L-10CA-09	●	○	14	10	50	20	13.5	40	0.4	CC 09T3
SCLCR/L-12CA-12	○	○	20	12	55	20	20	50	0.8	CC 1204
SCLCL-10CA-09-L42	–	●	14	10	42	20	13.5	40	0.4	CC 09T3

K系列75°卡式刀座
K Series 75° Cartridge

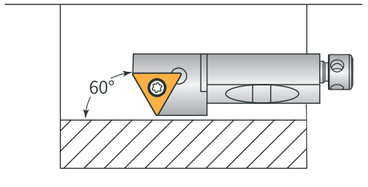


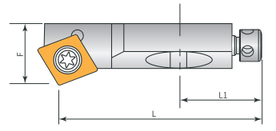


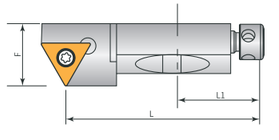


型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SSKCR/L-10CA-09	●	●	14	10	50	20	15	40	0.4	SC 09T3
SSKCR/L-12CA-12	○	○	20	12	55	20	20	50	0.8	SC 1204

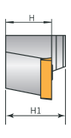
W系列60°卡式刀座
W series 60° Cartridge





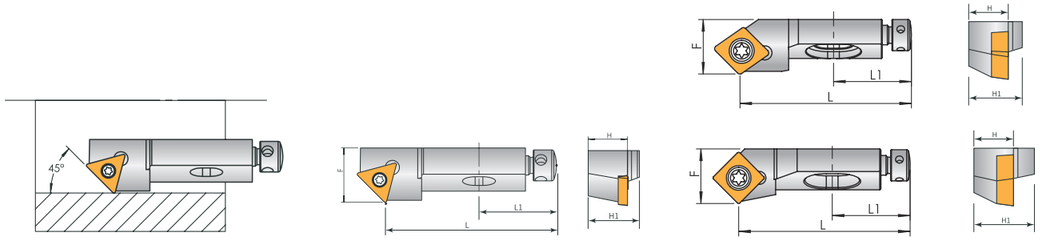






型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCWCR/L-08CA-06	○	○	10	8	28	17	11	25	0.4	CC 0602
SCWCR/L-10CA-09	●	●	14	10	44	20	13.5	40	0.4	CC 09T3
STWCR/L-08CA-09	●	○	10	8	28	17	11	25	0.4	TC 0902
STWCR/L-10CA-11	●	○	14	10	44	20	15	40	0.4	TC 1102
STWCR/L-12CA-16	●	○	20	12	47	20	20	50	0.8	TC 16T3

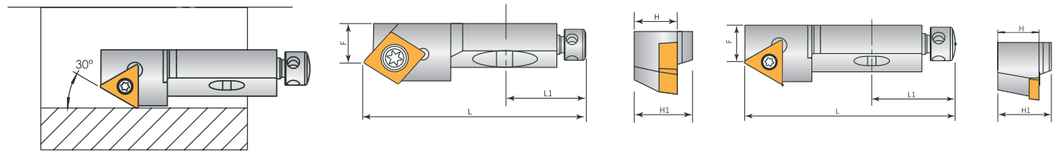
S系列45°卡式刀座
S series 45° Cartridge



型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCSCR/L-08CA-06	●	○	10	8	28	17	11	25	0.4	CC 0602
SCSCR/L-08CA-06-B	●	●	10	8	28	17	11	25	0.4	CC 0602
SCSCR/L-10CA-09	●	○	14	10	44	20	13.5	40	0.4	CC 09T3
SCSCR/L-12CA-12-L46	●	–	20	12	37.2	19	16	50	0.8	CC 1204
SCSCR/L-10CA-09-42L	●	–	14	10	35.5	18	13.5	40	0.8	CC 09T3
SSSCR/L-10CA-09	●	○	14	10	44	20	15	40	0.4	SC 09T3
SSSCR-10CA-09-B	●	–	14	10	34	19	15	40	0.4	SC 09T3
SSSCR/L-12CA-12	○	○	20	12	47	20	20	50	0.8	SC 1204
STSCR/L-08CA-09	●	○	10	8	28	17	11	25	0.4	TC 0902
STSCR/L-10CA-11	●	○	14	10	44	20	14	40	0.4	TC 1102
STSCR/L-12CA-16	●	○	20	12	47	20	20	50	0.8	TC 16T3
STSCR-10CA-11-5	●	–	14	10	45	21	14	40	0.4	TC 1102
STSCR-10CA-11-TJ4	●	–	14	10	44	20	14	40	0.4	TC 1102

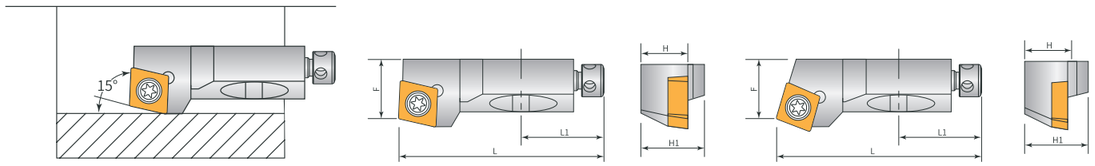
• STSCR-10CA-11-TJ4型号设计为轴向调整长度为4mm。
• The STSCR-10CA-11-TJ4 model is designed with axial adjustment length of 4mm.

T系列30°卡式刀座
T Series 30° Cartridge



型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCTCR/L-08CA-06	●	○	6	8	34.5	17	11	25	0.4	CC 0602
SCTCR/L-10CA-09	●	○	9	10	50	20	13.5	40	0.4	CC 09T3
STTCR/L-08CA-09	●	●	6	8	32	17	11	25	0.4	TC 0902
STTCR/L-10CA-11	●	○	9	10	50	20	14	40	0.4	TC 1102
STTCR-10CA-11-B1	●	–	8.8	10	49.5	20	15	40	0.4	TC 1103
STTCR/L-12CA-16	●	○	13	12	55	20	20	50	0.8	TC 16T3

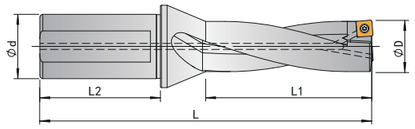
R系列15°卡式刀座
R Series 15° Cartridge



型号 Designation	库存 inventory R型	库存 inventory L型	F	H	L	L1	H1	最小加工直径 Dmin	刀尖R角 Radius	适配刀片 Insert
SCRCR/L-08CA-06	○	○	10	8	32	17	11	25	0.4	CC 0602
SCRCR/L-10CA-09	●	○	14	10	50	20	15	40	0.4	CC 09T3
SSRCR/L-10CA-09	●	○	14	10	50	20	15	40	0.4	SC 09T3

2D-快速钻
2D high speed drill

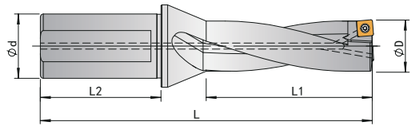




型号 Designation	D	L1	L	L2	d	适配刀片 Insert
SP05.D25.140.2D	14	28	106	56	25	SPMG050204
SP05.D25.145.2D	14.5	29	107			
SP05.D25.150.2D	15	30	108			
SP06.D25.155.2D	15.5	31	109			SPMG060204
SP06.D25.160.2D	16	32	110			
SP06.D25.165.2D	16.5	33	111			
SP06.D25.170.2D	17	34	112			
SP06.D25.175.2D	17.5	35	113			
SP06.D25.180.2D	18	36	114			
SP06.D25.185.2D	18.5	37	115			
SP06.D25.190.2D	19	38	116			
SP06.D25.195.2D	19.5	39	117			
SP06.D25.200.2D	20	40	119			
SP06.D25.205.2D	20.5	41	120			
SP06.D25.210.2D	21	42	121			
SP06.D25.215.2D	21.5	43	122			
SP07.D25.220.2D	22	44	123			SPMG07T308
SP07.D25.225.2D	22.5	45	124			
SP07.D25.230.2D	23	46	125			
SP07.D25.235.2D	23.5	47	126			
SP07.D25.240.2D	24	48	127			
SP07.D25.245.2D	24.5	49	128			
SP07.D32.250.2D	25	50	141	60	32	
SP07.D32.255.2D	25.5	51	142			
SP07.D32.260.2D	26	52	143			
SP07.D32.265.2D	26.5	53	144			
SP07.D32.270.2D	27	54	145			
SP07.D32.275.2D	27.5	55	146			
SP09.D32.280.2D	28	56	147			SPMG090408
SP09.D32.285.2D	28.5	57	148			
SP09.D32.290.2D	29	58	149			
SP09.D32.295.2D	29.5	59	150			
SP09.D32.300.2D	30	60	151			
SP09.D32.305.2D	30.5	61	152			
SP09.D32.310.2D	31	62	153			
SP09.D32.315.2D	31.5	63	154			

2D-快速钻
2D high speed drill

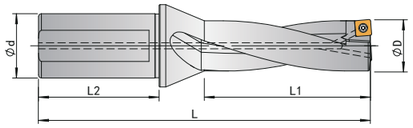




型号 Designation	D	L1	L	L2	d	适配刀片 Insert
SP09.D32.320.2D	32	64	155	60	32	SPMG090408
SP09.D32.325.2D	32.5	65	156			
SP09.D32.330.2D	33	66	157			
SP11.D32.335.2D	33.5	67	158			SPMG110408
SP11.D32.340.2D	34	68	159			
SP11.D32.345.2D	34.5	69	160			
SP11.D32.350.2D	35	70	161			
SP11.D32.355.2D	35.5	71	162			
SP11.D32.360.2D	36	72	163			
SP11.D32.365.2D	36.5	73	164			
SP11.D32.370.2D	37	74	165			
SP11.D32.375.2D	37.5	75	166			
SP11.D32.380.2D	38	76	167			
SP11.D32.385.2D	38.5	77	168			
SP11.D32.390.2D	39	78	169			
SP11.D32.395.2D	39.5	79	170			
SP11.D32.400.2D	40	80	171			
SP14.D32.410.2D	41	82	173			SPMG140512
SP14.D32.420.2D	42	84	175			
SP14.D40.430.2D	43	86	186	65	40	
SP14.D40.440.2D	44	88	188			
SP14.D40.450.2D	45	90	190			
SP14.D40.460.2D	46	92	192			
SP14.D40.470.2D	47	94	194			
SP14.D40.480.2D	48	96	196			
SP14.D40.490.2D	49	98	198			
SP14.D40.500.2D	50	100	200			
SP14.D40.510.2D	51	102	202			
SP09.D40.520.2D	52	104	204			SPMG090408
SP09.D40.530.2D	53	106	206			
SP09.D40.540.2D	54	108	208			
SP09.D40.550.2D	55	110	210			
SP09.D40.560.2D	56	112	212			
SP09.D40.570.2D	57	114	214			
SP09.D40.580.2D	58	116	216			
SP09.D40.590.2D	59	118	218			
SP09.D40.600.2D	60	120	220			

3D-快速钻
3D high speed drill





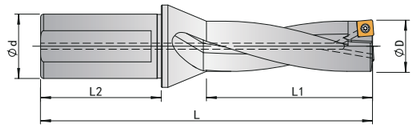
型号 Designation	D	L1	L	L2	d	适配刀片 Insert
SP05.D25.140.3D	14	42	120	56	25	SPMG050204
SP05.D25.145.3D	14.5	43.5	122			
SP05.D25.150.3D	15	45	123			
SP06.D25.155.3D	15.5	46.5	124			SPMG060204
SP06.D25.160.3D	16	48	126			
SP06.D25.165.3D	16.5	49.5	127			
SP06.D25.170.3D	17	51	129			
SP06 D25.175.3D	17.5	52.5	130			
SP06.D25.180.3D	18	54	132			
SP06.D25.185.3D	18.5	55.5	133			
SP06.D25.190.3D	19	57	135			
SP06.D25.195.3D	19.5	58.5	135			
SP06.D25.200.3D	20	60	139			
SP06.D25.205.3D	20.5	61.5	140			
SP06.D25.210.3D	21	63	142			
SP06.D25.215.3D	21.5	64.5	143			
SP07.D25.220.3D	22	66	145			SPMG07T308
SP07.D25.225.3D	22.5	67.5	148			
SP07.D25.230.3D	23	69	148			
SP07.D25.235.3D	23.5	70.5	149			
SP07.D25.240.3D	24	72	151			
SP07.D25.245.3D	24.5	73.5	152			
SP07.D32.250.3D	25	75	166	60	32	
SP07.D32.255.3D	25.5	76.5	167			
SP07.D32.260.3D	26	78	169			
SP07.D32.265.3D	26.5	79.5	170			
SP07.D32.270.3D	27	81	172			
SP07.D32.275.3D	27.5	82.5	173			
SP09.D32.280.3D	28	84	175			SPMG090408
SP09.D32.285.3D	28.5	85.5	176			
SP09.D32.290.3D	29	87	178			
SP09.D32.295.3D	29.5	88.5	179			
SP09.D32.300.3D	30	90	181			
SP09.D32.305.3D	30.5	91.5	182			
SP09.D32.310.3D	31	93	184			
SP09.D32.315.3D	31.5	94.5	185			

BORING SYSTEM

孔加工系列

3D-快速钻
3D high speed drill

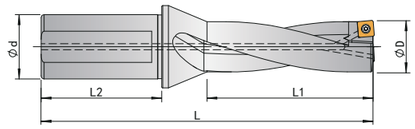




型号 Designation	D	L1	L	L2	d	适配刀片 Insert
SP09.D32.320.3D	32	96	187	60	32	SPMG090408
SP09.D32.325.3D	32.5	97.5	188			
SP09.D32.330.3D	33	99	190			
SP11.D32.335.3D	33.5	100.5	191			SPMG110408
SP11.D32.340.3D	34	102	193			
SP11.D32.345.3D	34.5	103.5	194			
SP11.D32.350.3D	35	105	196			
SP11 D32.355.3D	35.5	106.5	197			
SP11.D32.360.3D	36	108	199			
SP11.D32.365.3D	36.5	109.5	200			
SP11.D32.370.3D	37	111	202			
SP11.D32.375.3D	37.5	112.5	203			
SP11.D32.380.3D	38	114	205			
SP11.D32.385.3D	38.5	115.5	206			
SP11.D32.390.3D	39	117	206			
SP11.D32.395.3D	39.5	118.5	209			
SP11.D32.400.3D	40	120	211			
SP14.D32.410.3D	41	123	214			SPMG140512
SP14.D32.420.3D	42	126	217			
SP14.D40.430.3D	43	129	229	65	40	
SP14.D40.440.3D	44	132	232			
SP14.D40.450.3D	45	135	235			
SP14.D40.460.3D	46	138	238			
SP14.D40.470.3D	47	141	241			
SP14.D40.480.3D	48	144	244			
SP14.D40.490.3D	49	147	247			
SP14.D40.500.3D	50	150	250			
SP14.D40.510.3D	51	153	253			
SP09.D40.520.3D	52	156	256			SPMG090408
SP09.D40.530.3D	53	159	259			
SP09.D40.540.3D	54	162	262			
SP09.D40.550.3D	55	165	265			
SP09.D40.560.3D	56	168	268			
SP09.D40.570.3D	57	171	271			
SP09.D40.580.3D	58	174	274			
SP09.D40.590.3D	59	177	277			
SP09.D40.600.3D	60	180	280			

4D-快速钻
4D high speed drill

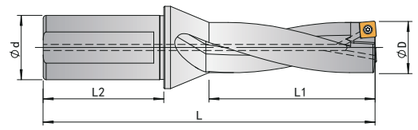




型号 Designation	D	L1	L	L2	d	适配刀片 Insert
SP05.D25.140.4D	14	56	134	56	25	SPMG050204
SP05.D25.145.4D	14.5	58	136			
SP05.D25.150.4D	15	60	138			
SP06.D25.155.4D	15.5	62	140			SPMG060204
SP06.D25.160.4D	16	64	142			
SP06.D25.165.4D	16.5	66	144			
SP06.D25.170.4D	17	68	146			
SP06.D25.175.4D	17.5	70	148			
SP06.D25.180.4D	18	72	150			
SP06.D25.185.4D	18.5	74	152			
SP06.D25.190.4D	19	76	154			
SP06.D25.195.4D	19.5	78	155			
SP06.D25.200.4D	20	80	159			
SP06.D25.205.4D	20.5	82	161			
SP06.D25.210.4D	21	84	163			
SP06.D25.215.4D	21.5	86	165			
SP07.D25.220.4D	22	88	167			SPMG07T308
SP07.D25.225.4D	22.5	90	169			
SP07.D25.230.4D	23	92	171			
SP07.D25.235.4D	23.5	94	173			
SP07.D25.240.4D	24	96	175			
SP07.D25.245.4D	24.5	98	177			
SP07.D32.250.4D	25	100	191	60	32	SPMG090408
SP07.D32.255.4D	25.5	102	193			
SP07.D32.260.4D	26	104	195			
SP07.D32.265.4D	26.5	106	197			
SP07.D32.270.4D	27	108	199			
SP07.D32.275.4D	27.5	110	201			
SP09.D32.280.4D	28	112	203			
SP09.D32.285.4D	28.5	114	205			
SP09.D32.290.4D	29	116	207			
SP09.D32.295.4D	29.5	118	209			
SP09.D32.300.4D	30	120	211			
SP09.D32.305.4D	30.5	122	213			
SP09.D32.310.4D	31	124	215			
SP09.D32.315.4D	31.5	126	217			

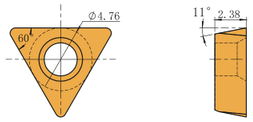
4D-快速钻
4D high speed drill





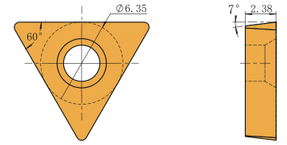
型号 Designation	D	L1	L	L2	d	适配刀片 Insert
SP09.D32.320.4D	32	128	219	60	32	SPMG090408
SP09.D32.325.4D	32.5	130	221			
SP09.D32.330.4D	33	132	223			
SP11.D32.335.4D	33.5	134	225			SPMG110408
SP11.D32.340.4D	34	136	227			
SP11.D32.345.4D	34.5	138	229			
SP11.D32.350.4D	35	140	231			
SP11.D32.355.4D	35.5	142	233			
SP11.D32.360.4D	36	144	235			
SP11.D32.365.4D	36.5	146	237			
SP11.D32.370.4D	37	148	239			
SP11.D32.375.4D	37.5	150	241			
SP11.D32.380.4D	38	152	243			
SP11.D32.385.4D	38.5	154	245			
SP11.D32.390.4D	39	156	247			
SP11.D32.395.4D	39.5	158	249			
SP11.D32.400.4D	40	160	251			
SP14.D32.410.4D	41	164	255			SPMG140512
SP14.D32.420.4D	42	168	259			
SP14.D40.430.4D	43	172	272	65	40	
SP14.D40.440.4D	44	176	276			
SP14.D40.450.4D	45	180	280			
SP14.D40.460.4D	46	184	284			
SP14.D40.470.4D	47	188	288			
SP14.D40.480.4D	48	192	292			
SP14.D40.490.4D	49	196	296			
SP14.D40.500.4D	50	200	300			
SP14.D40.510.4D	51	204	304			
SP09.D40.520.4D	52	208	308			SPMG090408
SP09.D40.530.4D	53	212	312			
SP09.D40.540.4D	54	216	316			
SP09.D40.550.4D	55	220	320			
SP09.D40.560.4D	56	224	324			
SP09.D40.570.4D	57	228	328			
SP09.D40.580.4D	58	232	332			
SP09.D40.590.4D	59	236	336			
SP09.D40.600.4D	60	240	340			

TP08



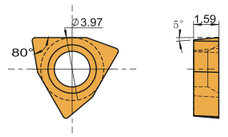
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	刀尖数 Tip edge	P	M	K	N	种类 Class
TPGT 080202FB-L	MG1510P	0.2	3	●	◎			金属陶瓷 Cermet
TPGT 080204FB-L		0.4	3					
TPGT 080204FB-L	MG1510PM	0.4	3	●	◎			金属陶瓷涂层 Cermet coating
TPGT 080202FN	CN2100	0.2	1			●		CBN/铸铁 CBN / Cast iron
TPGT 080204FN		0.4	1					
TPGT 080202FN	CNT2100	0.2	1			●		CBN涂层/铸铁 CBN Coating/ cast iron
TPGT 080204FN		0.4	1					
TPGT 080202FN	MG3610K	0.2	3			●		硬质合金(涂层) Carbide（coating）
TPGT 080204FN		0.4	3					
TPGT 080202FN	CN2200	0.2	1			●		CBN/球铁 CBN / Ductile iron
TPGT 080204FN		0.4	1					
TPGT 080202FN	CNT2200	0.2	1			●		CBN涂层/球铁 CBN Coating / ductile iron
TPGT 080204FN		0.4	1					
TPGT 080202FA-L	MG4610N	0.2	3				●	硬质合金 Carbide
TPGT 080204FA-L		0.4	3					
TPGT 080202FN	PD4000	0.2	1				●	金刚石PCD Diamond PCD
TPGT 080204FN		0.4	1					

TC11



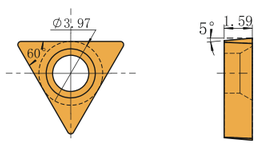
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	刀尖数 Tip edge	P	M	K	N	种类 Class
TCGT 110202FB-L	MG1510P	0.2	3	●	◎			金属陶瓷 Cermet
TCGT 110204FB-L		0.4	3					
TCGT 110204FB-L	MG1510PM	0.4	3	●	◎			金属陶瓷涂层 Cermet coating
TCGT 110202FN	CN2100	0.2	1			●		CBN/铸铁 CBN / Cast iron
TCGT 110204FN		0.4	1					
TCGT 110202FN	CNT2100	0.2	1			●		CBN涂层/铸铁 CBN Coating/cast iron
TCGT 110204FN		0.4	1					
TCGT 110202FN	MG3610K	0.2	3			●		硬质合金(涂层) Carbide（coating）
TCGT 110204FN		0.4	3					
TCGT 110202FN	CN2200	0.2	1			●		CBN/球铁 CBN / Ductile iron
TCGT 110204FN		0.4	1					
TCGT 110204FN	CNT2200	0.4	1			●		CBN涂层/球铁 CBN Coating / ductile iron
TCGT 110202FA-L	MG4610N	0.2	3				●	硬质合金 Carbide
TCGT 110204FA-L		0.4	3					
TCGT 110202FN	PD4000	0.2	1				●	金刚石PCD Diamond PCD
TCGT 110204FN		0.4	1					

WB06



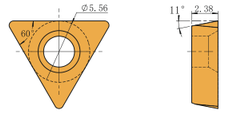
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	刀尖数 Tip edge	P	M	K	N	种类 Class
WBGT 060102FB-L	MG1510P	0.2	3	●	◎			金属陶瓷 Cermet
WBGT 060104FB-L		0.4	3	●	◎			
WBGT 060102FN	MG3610K	0.2	3			●		硬质合金(涂层) Carbide（coating）
WBGT 060102FA-L	MG4610N	0.2	3				●	硬质合金 Carbide
WBGT 060102FN	PD4000	0.2	1				●	金刚石PCD Diamond PCD

TB06



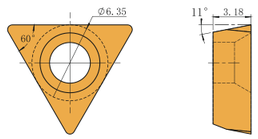
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	刀尖数 Tip edge	P	M	K	N	种类 Class
TBGT 060102FB-L	MG1510P	0.2	3	●	◎			金属陶瓷 Cermet
TBGT 060104FB-L		0.4	3	●	◎			
TBGT 060102FN	MG3610K	0.2	3			●		硬质合金(涂层) Carbide（coating）
TBGT 060102FA-L	MG4610N	0.2	3				●	硬质合金 Carbide
TBGT 060102FN	PD4000	0.2	1				●	金刚石PCD Diamond PCD

TP09



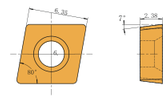
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	刀尖数 Tip edge	P	M	K	N	种类 Class
TPGH 090202FB-L	MG1510P	0.2	3	●	◎			金属陶瓷 Cermet
TPGH 090204FB-L		0.4	3					
TPGH 090202FN	CN2100	0.2	3			●		CBN/铸铁 CBN / Cast iron
TPGH 090204FN		0.4	1					
TPGH 090202FN	CN2200	0.2	1			●		CBN/球铁 CBN / Ductile iron
TPGH 090204FN		0.4	1					
TPGH 090202FN	MG3610K	0.2	3			●		硬质合金(涂层) Carbide（coating）
TPGH 090204FN		0.4	3					
TPGH 090202FA-L	MG4610N	0.2	3				●	硬质合金 Carbide
TPGH 090204FA-L		0.4	3					
TPGH 090202FN	PD4000	0.2	1				●	金刚石PCD Diamond PCD
TPGH 090204FN		0.4	1					

TP11



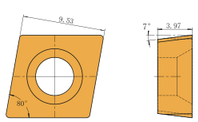
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	刀尖数 Tip edge	P	M	K	N	种类 Class
TPGH 110302FB-L	MG1510P	0.2	3	●	◎			金属陶瓷 Cermet
TPGH 110304FB-L		0.4	3					
TPGH 110302FN	CN2100	0.2	1			●		CBN/铸铁 CBN / Cast iron
TPGH 110304FN		0.4	1					
TPGH 110302FN	CN2200	0.2	1			●		CBN/球铁 CBN / Ductile iron
TPGH 110304FN		0.4	1					
TPGH 110302FN	MG3610K	0.2	3			●		硬质合金(涂层) Carbide（coating）
TPGH 110304FN		0.4	3					
TPGH 110302FA-L	MG4610N	0.2	3				●	硬质合金 Carbide
TPGH 110304FA-L		0.4	3					
TPGH 110302FN	PD4000	0.2	1				●	金刚石PCD Diamond PCD
TPGH 110304FN		0.4	1					

CC06



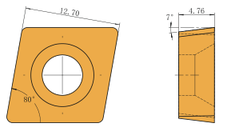
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	P	M	K	N	种类 Class
CCMT 060204RB	MG1010P	0.4	●	◎			硬质合金(涂层) Carbide（coating）
CCMT 060204RB	MG3010K				●		
CCGT 060202RA-L	MG4010N	0.2				●	硬质合金 Carbide
CCGT 060204RA-L		0.4					

CC09



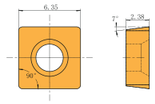
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	P	M	K	N	种类 Class
CCMT 09T304RB	MG1010P	0.4	●	◎			硬质合金(涂层) Carbide（coating）
CCMT 09T308RB		0.8					
CCMT 09T304RB	MG3010K	0.4			●		
CCMT 09T308RB		0.8					
CCGT 09T304RA-L	MG4010N	0.4				●	硬质合金 Carbide

CC12



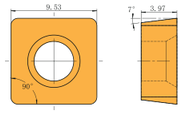
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	P	M	K	N	种类 Class
CCMT 120404RB	MG1010P	0.4	●	◎			硬质合金(涂层) Carbide（coating）
CCMT 120408RB		0.8					
CCMT 120404RB	MG3010K	0.4			●		
CCMT 120408RB		0.8					
CCGT 120404RA-L	MG4010N	0.4				●	硬质合金 Carbide
CCGT 120408RA-L		0.8					

SC06



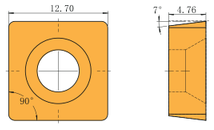
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	P	M	K	N	种类 Class
SCMT 060204RB	MG1010P	0.4	●	◎			硬质合金(涂层) Carbide（coating）
SCMT 060204RB	MG3010K				●		

SC09



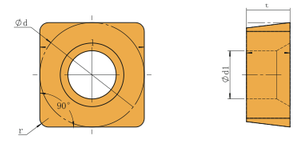
型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	P	M	K	N	种类 Class
SCMT 09T304RB	MG1010P	0.4	●	◎			硬质合金(涂层) Carbide（coating）
SCMT 09T308RB		0.8					
SCMT 09T304RB	MG3010K	0.4			●		
SCMT 09T308RB		0.8					

SC12



型号 Designation	刀片材质 Insert material	刀尖半径R Tip radius	P	M	K	N	种类 Class
SCMT 120404RB	MG1010P	0.4	●	◎			硬质合金(涂层) Carbide（coating）
SCMT 120408RB		0.8					
SCMT 120404RB	MG3010K	0.4			●		
SCMT 120408RB		0.8					

SP快速钻刀片
SP high speed drill insert

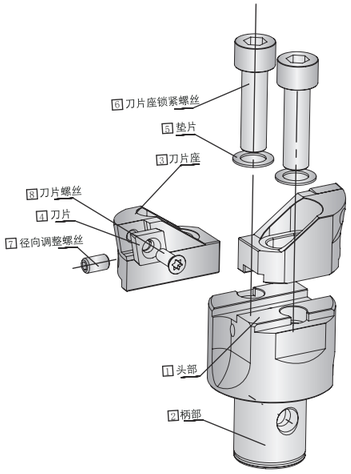


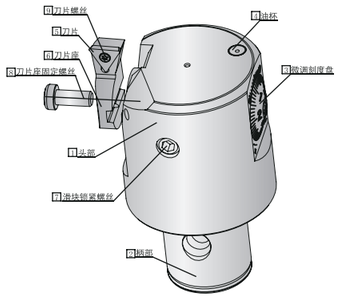
型号 Designation	d	d1	t	r	刀片材质 Insert material	P	M	K	N	种类 Class
SPMG 050204-OPM	5	2.2	2.38	0.4	MG1215	●	◎	●		硬质合金(涂层) Carbide（coating）
SPMG 060204-OPM	6	2.6	2.38	0.4	MG1215	●	◎	●		
SPMG 07T308-OPM	7.94	2.8	3.97	0.8	MG1215	●	◎	●		
SPMG 090408-OPM	9.8	4.2	4.3	0.8	MG1215	●	◎	●		
SPMG 110408-OPM	11.5	4.4	4.8	0.8	MG1215	●	◎	●		
SPMG 140512-OPM	14.3	5.75	5.75	1.2	MG1215	●	◎	●		

各种镗头各部分螺丝名称
Various boring heads of all part of the screw name

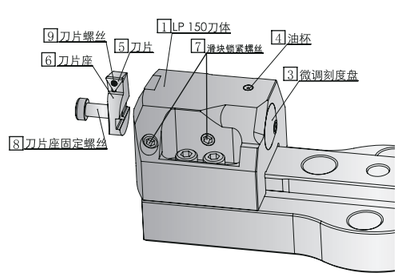
CMR 粗镗头
CMR rough boring head

镗刀型号 Designation	⑧刀片螺丝 Insert Screw	⑦径向调整螺丝 Radial Adjustable Screw	径向调整扳手 Radial Adjustable Wrench
RSC-2026	DM2.5x6 (CC06)	PMM3x6	PS-1.5B
RSC-2533			
RSC-3242	DM4x10 (CC09)	PMM4x8	PS-2B
RSC-4154		PMM5x10	PS-2.5B
RSC-5370	DM5x12 (CC12)	PMM6x12	PS-3B
RSC-6890		PMM6x14	
RSC-88110		PMM6x20	
RSC-98126		PMM8x20	PS-4B
RSC-125153		PMM8x25	





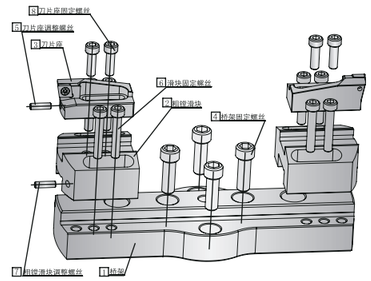
CMP精镗头
CMP Fine Bore Head

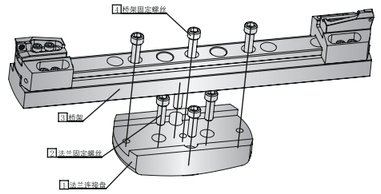


CLP精镗头
CLP Fine Bore Head

CMP/CLP 精镗头
CMR/CLP fine boring head

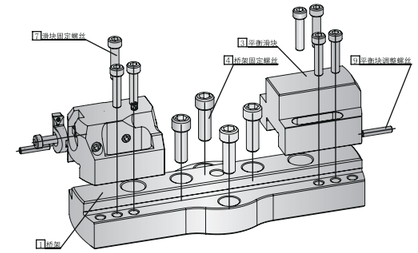
镗刀型号 Designation	⑦滑块固定螺丝 Slider Fastening Screw	滑块固定板手 Slider Fastening Wrench	⑧刀座固定螺丝 Insert Holder Fastening Screw	刀座固定扳手 Insert Holder Fastening Wrench	⑨刀片螺丝 Insert Holder Screw
CMP20-36KD1	PFM4x4(KD1)	TS2	SFM3x4.5(KD1)	TS2	DM2x4 (TP08)
CMP25-47KD2	PFM4x6(KD2)		SFM3x6(KD2)		
CMP32-60KD3	PFM5x8(KD3)	TS2.5	SFM4x8(KD3)	TS2.5	
CMP41-74KD4	PFM6x10(KD4)	TS3	SFM5x10(KD4)	TS3	DM2.5x6 (TC1102)
CMP53-95KD5	PFM8x12(KD5)	TS4	SFM5x10(KD5)	TS4	
CMP68-150KD6	PFM10x16(KD6)	TS5	SFM8x12(KD6)	TS5	
CMP100-203KD6			SFM8x16(KD6)		
LP 150	PFM10x16(KD6)	PS-5B	SFM8x16(KD6)	PS-5B	
	PMM10x8				

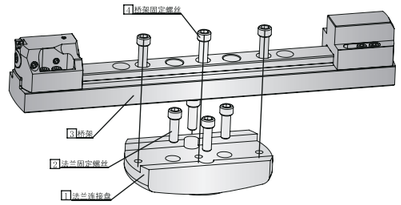




CLR 粗镗头
CLR rough boring head

镗刀型号 Designation	②法兰固定螺丝 Flange Fixed Screw	④桥架固定螺丝 Bridge Fixed Screw	⑥滑块固定螺丝 Slide Fixed Screw	⑧刀座固定螺丝 Seat Fixed Screw	⑦滑块调整螺丝 Slider Adjustment Screw	⑤刀座调整螺丝 Insert Holder Adjustment Screw
CLR150-530	/	CLM12x35	LM8x45	LRM8x30	PMM6x20	PMM6x20
CLR530-850	CLM12x35	CLM12x70				



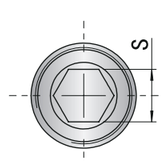


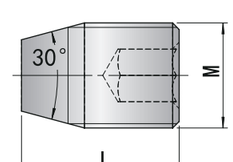
CLP 精镗头
CLP fine boring head

镗刀型号 Designation	②法兰固定螺丝 Flange Fixed Screw	④桥架固定螺丝 Bridge Fixed Screw	⑦滑块固定螺丝 Slide Fixed Screw	⑧微调滑块调整螺丝 Adjustable Screwof fine-tuningBlock	⑨平衡块调整螺丝 Adjustable Screwof Balance Block
CLP150-210	/	CLM12x35	LM8x45	PMM6x30	PMM6x16
CLP210-530	/				PMM6x20
CLP530-850	CLM12x35	CLM12x70			PMM6x20

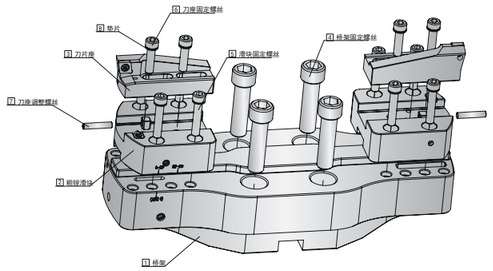
KD连接螺丝
KD connection screw

型号	KD NO.	扳手/S Wrench	M	L
KM4X5	KD1	PS-2B	M4x0.5	5
KM5X6.5	KD2	PS-2.5B	M5x0.5	6.5
KM6X8.5	KD3	PS-3B	M6x0.75	8.5
KM8X11	KD4	PS-4B	M8x0.75	11.6
KM10X14	KD5	PS-5B	M10x1	14
KM12X18	KD6	PS-6B	M12x1	18
KM20X31	KD7	PS-10B	M20x1.5	31



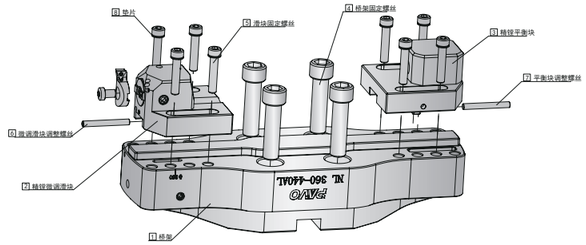


内冷桥镗配件
Fittings for internal coolant bridge



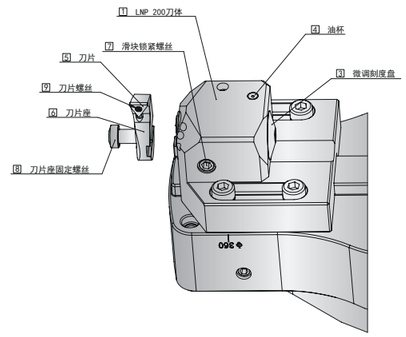
CNR 粗镗头
CNR rough boring head

镗刀型号 Designation	④ 桥架固定螺丝 Bridge Fixed Screw	⑤ 滑块固定螺丝 Slide Fixed Screw	⑥ 刀座固定螺丝 Insert Holder Fixed Screw	⑦ 刀座调整螺丝 Insert Holder Adjustabie Screw	⑧ 垫片 Shim
CNR 200-280	M12×60	M8×40	LRM8×30	PMM6×30	MR-φ8
CNR 280-360	M16×50				
CNR 360-840	M16×60				



CNP 精镗头
CNP fine boring head

镗刀型号 Designation	④ 桥架固定螺丝 Bridge Fixed Screw	⑤ 滑块固定螺丝 Slide Fixed Screw	⑥ 微调滑块调整螺丝 Fine-tune the slider adjustment screws	⑦ 平衡块调整螺丝 Adjustable Screwof Balance Block	⑧ 垫片 Gasket
CNP 200-280	M12×60	M8×40	PMM6×50	PMM6×50	MR-φ8
CNP 280-360	M16×50				
CNP 360-840	M16×60				



LNP精镗头
LNP Fine Bore Head

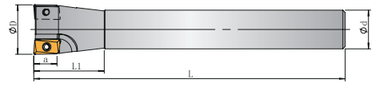
LNP 精镗头
LNP fine boring head

镗刀型号 Designation	⑦滑块固定螺丝 Slide Fixed Screw	滑块固定板手 Slide Fixed Wrench	⑧刀座固定螺丝 Insert Holder Fixed Screw	刀座固定扳手 Insert Holder Fixed Wrench	⑨刀片螺丝 Insert Screw
LNP 200	PMM10×12	PS-5B	SFM8×12(KD6)	PS-5B	DM2.5×6(TC1102)

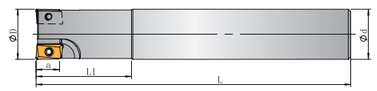
直角高速立铣刀
Right angle high-speed end mill



图一



图二

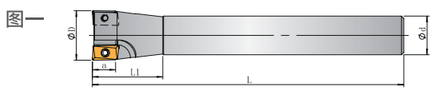


型号 Designation	刃数 Flutes	图示 Picture	D	d	a	L1	L2	L	适配刀片 Insert	刀片螺钉 Insert Screw	扳手 Wrench	重量kg Weight
300R-C10-10-100-1T	1	—	10	10	9	25	/	100	APMT1135	DHM2.5X6	T8	0.05
300R-C12-12-130-1T	1	—	12	12	9	25	/	130				0.1
300R-C15-16-120-2T	2	—	16	15	9	40	120	/				0.26
300R-C15-16-160-2T	2	—	16	15	9	40	160	/				0.29
300R-C16-16-180-2T	2	二	16	16	9	60	90	180				0.26
300R-C16-16-200-2T	2	二	16	16	9	60	100	200				0.36
300R-C16-17-120-2T	2	—	17	16	9	50	120	/				0.46
300R-C16-17-160-2T	2	—	17	16	9	50	160	/				0.17
300R-C19-20-120-2T	2	—	20	19	9	50	120	/				0.24
300R-C19-20-200-2T	2	—	20	19	9	50	200	/				0.33
300R-C20-21-160-2T	2	—	21	20	9	50	160	/				0.42
300R-C20-21-200-2T	2	—	21	20	9	50	200	/				0.39
300R-C20-20-120-2T	2	—	20	20	9	50	/	120				0.47
300R-C20-20-160-2T	2	—	20	20	9	60	/	160				0.15
300R-C20-20-200-2T	2	二	20	20	9	70	100	200				0.21

直角高速立铣刀
Right angle high-speed end mill



图一



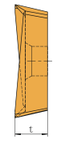
图二

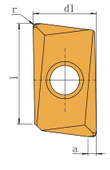


型号 Designation	刃数 Flutes	图示 Picture	D	d	a	L1	L2	L	适配刀片 Insert	刀片螺钉 Insert Screw	扳手 Wrench	重量kg Weight
400R-C25-25-160-2T	2	—	25	25	14	70	/	160	APMT1604	DHM4X10	T15	0.55
400R-C25-25-200-2T	2	二	25	25	14	70	100	200				0.7
400R-C25-25-250-2T	2	二	25	25	14	80	115	250				0.89
400R-C25-25-300-2T	2	二	25	25	14	80	165	300				1.07
400R-C25-30-160-2T	2	—	30	25	14	48	/	160				0.81
400R-C25-30-200-2T	2	二	30	25	14	48	100	200				1.11
400R-C25-30-250-2T	2	二	30	25	14	48	115	250				1.42
400R-C32-32-160-2T	2	—	32	32	14	48	/	160				0.86
400R-C32-32-200-2T	2	二	32	32	14	48	100	200				1.16
400R-C32-32-250-2T	2	二	32	32	14	48	115	250				1.47
400R-C32-32-300-2T	2	二	32	32	14	48	165	300				1.77
400R-C32-40-200-3T	3	—	40	32	14	60	/	200				1.24
400R-C32-40-250-3T	3	—	40	32	14	60	/	250				1.55
400R-C32-40-300-3T	3	—	40	32	14	60	/	300				1.88

- 标准刀杆不带内冷
- 刀片需单独订购
- Standard shank without internal cooling
- Insert to be ordered separately

刀片
Insert



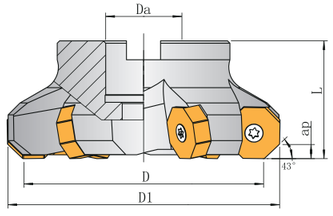


型号 Designation	d1	l	t	a	r	刀片材质 Insert material	P	M	K	N	H
APMT 1135PDER-XDU	6.2	11.39	2.8	1.2	0.8	MG1220	●				
						MG3320			●		
APMT 1604PDER-XDU	9.2	17.12	4.76	3	0.8	MG1220	●				
						MG3320			●		

铣加工系列

43°面铣刀盘
43° face milling cutter head

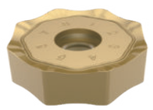


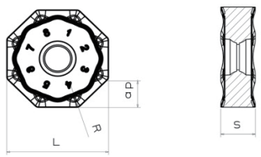


型号 Designation	刃数 Flutes	D	D1	L	ap	Da	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
FL43ON-563A22R-07	5	63	78	40	6	22	A	ONKU 0707	DHM5X12	T20	0.6
FL43ON-680A27R-07	6	80	95	50	6	27	A				1.1
FL43ON-7100B32R-07	7	100	115	50	6	32	B				1.8
FL43ON-8125B40R-07	8	125	140	63	6	40	B				3.0
FL43ON-10160C40R-07	10	160	175	63	6	40	C				4.4
FL43ON-12200C60R-07	12	200	215	63	6	60	C				6.2
FL43ON-16250C60R-07	16	250	265	63	6	60	C				13.5
FL43ON-20315D60R-07	20	315	330	80	6	60	D				27.8

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

刀片
Insert



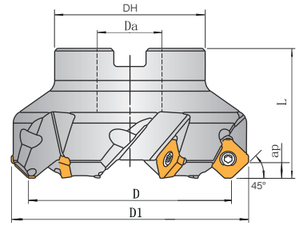


型号 Designation	L	s	r	刀片材质 Insert material	P	M	K	N	H
ONKU 070708-M	19.0	7.0	0.8	MG1215	●				
				MG2315		●			
				MG3320			●		

铣加工系列

45°高速平面铣刀盘
45°high-speed face milling head



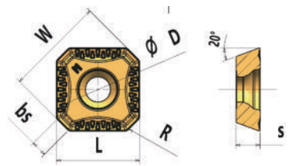


型号 Designation	刃数 Flutes	DC	DCX	Da	L	ap	接口类型 Interface type	适配刀片 Insert	刀片螺钉 Insert screw	扳手 Wrench	重量kg Weight
CFM45SE-450A22R-12	4	50	62	22	40	6	A	SEKT12T3	DHM3.5X9	T15	0.3
CFM45SE-563A22R-12	5	63	75	22	40	6	A				0.5
CFM45SE-680A27R-12	6	80	92	27	50	6	A				1.2
CFM45SE-7100B32R-12	7	100	112	32	50	6	B				1.2
CFM45SE-8125B40R-12	8	125	137	40	63	6	B				2.6
CFM45SE-10160C40R-12	10	160	172	40	63	6	C				3.4
CFM45SE-12200C60R-12	12	200	212	60	63	6	C				7.6
CFM45SE-14250C60R-12	14	250	262	60	63	6	C				13.5

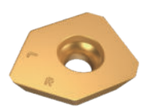
- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

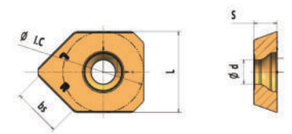
刀片
Insert





型号 Designation	L	D	S	bs	R	W	刀片材质 Insert material	P	M	K	N	H
SEKT 12T3AFTN-M	13.15	13.15	3.8	2.5	0.8	15.75	MG1315	●	●			
							MG3320			●		

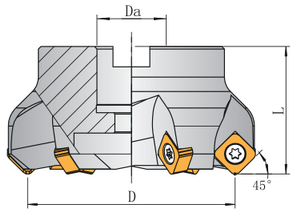




型号 Designation	L	ΦI.C	S	Φd	bs	R	刀片材质 Insert material	P	M	K	N	H
SEKT 12T3AFTN-WC	13.4	13.4	3.97	4.1	2.55	-	MG1315	●	●			
							MG3320			●		

45°面铣刀盘
45° face milling cutter head



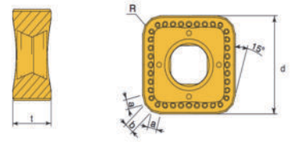


型号 Designation	刃数 Flutes	D	Da	L	ap	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
FL45SN-450-22R-12	4	50	22	40	6	A	SNKX 1206	DHM4x10-A(R5)	T15	0.3
FL45SN-563-22R-12	5	63	22	40	6	A				0.5
FL45SN-663-22R-12	6	63	22	40	6	A				0.5
FL45SN-680-27R-12	6	80	27	50	6	A				1.2
FL45SN-1080-27R-12	10	80	27	50	6	A				1.2
FL45SN-8100-32R-12	8	100	32	50	6	B				1.8
FL45SN-12100-32R-12	12	100	32	50	6	B				1.8
FL45SN-10125-40R-12	10	125	40	63	6	B				3.0
FL45SN-16125-40R-12	16	125	40	63	6	B				3.0
FL45SN-12160-40R-12	12	160	40	63	6	C				4.6
FL45SN-10200-60R-12	10	200	60	63	6	C				6.5
FL45SN-18200-60R-12	18	200	60	63	6	C				6.5
FL45SN-12250-60R-12	12	250	60	63	6	C				10.2
FL45SN-20250-60R-12	20	250	60	63	6	C				10.2
FL45SN-15315-60R-12	15	315	60	63	6	D				18.0
FL45SN-22315-60R-12	22	315	60	63	6	D				18.0

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

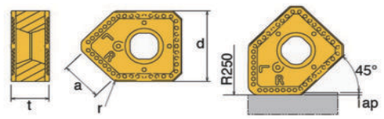
刀片
Insert





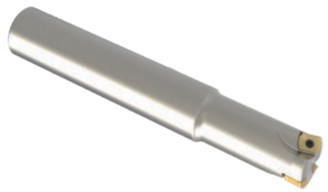
型号 Designation	d	t	a	b	r	刀片材质 Insert material	P	M	K	N	H
SNKX 1206XTN	12.7	6.35	1.25	1.3	0.4	MG1315	●	●			
						MG3320			●		





型号 Designation	d	t	a	b	r	刀片材质 Insert material	P	M	K	N	H
SNKX 1206ANSN-W	12.7	6.45	6.9	-	0.4	MG3320			●		

快进给立铣刀杆
Fast feed end mill holders



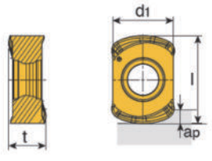


型号 Designation	刃数 Flutes	D	d	L	H	ap	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench
TEBL 216-15-06-L150	2	16	15	150	40	0.7	BLMP 0603	DHM2.5X6	T8
TEBL 216-15-06	2	16	16	150	40	0.7			
TEBL 220-20-06-L200	2	20	20	200	80	1.0			
TEBL 320-19-06-L180	3	20	19	180	80	1.0			
TEBL 320-20-06-S	3	20	20	130	50	1.0			
TEBL 320-20-06	3	20	20	160	80	1.0			
TEBL 325-25-06-L220	3	25	25	220	50	1.0			
TEBL 425-24-06-L180	4	25	24	180	60	1.0			
TEBL 425-25-06-S	4	25	25	140	60	1.0			
TEBL 425-25-06	4	25	25	180	60	1.0			
TEBL 432-32-06-S	4	32	32	150	70	1.0			
TEBL 532-32-06-S	5	32	32	150	70	1.0			
TEBL 532-32-06-L200	5	32	32	200	120	1.0			
TEBL 540-32-06-L220	5	40	32	220	40	1.0			
TEBL 640-32-06-S	6	40	32	150	40	1.0			
TEBL 640-32-06-L220	6	40	32	220	40	1.0			

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

刀片
Insert

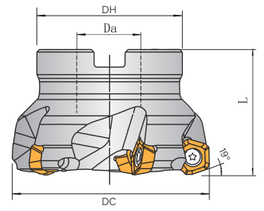




型号 Designation	1	d1	t	ap	进给mm/齿 Feed mm/ teeth	切深 mm Cut depth	刀片材质 Insert material	P	M	K	N	H
BLMP 0603R-M	9.0	6.39	3.73	1.0	0.3-2.5	0.1-1.0	MG1215	●	◎			
BLMP 0904R-M	11.9	9.18	4.80	1.5	0.3-3.5	0.1-1.5	MG1215	●	◎			
BLMP 1105R-M	14.6	11.2	6.54	2.0	0.3-4.0	0.3-2.0	MG1215	●	◎			
BLMP 1105R-ML	14.6	11.2	6.54	2.0	0.3-4.0	0.3-2.0	MG1215	●	◎			

快进给铣刀
Fast feed milling cutter

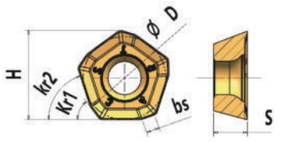




型号 Designation	刃数 Flutes	DCX	Da	L	kr°	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
CFM19PD-342A16R-09	3	42	16	40	19	A	PDKT 0905	DHM5X12	T20	0.18
CFM19PD-450A22R-09	4	50	22	40	19	A				0.23
CFM19PD-452A22R-09	4	52	22	40	19	A				0.24
CFM19PD-563A22R-09	5	63	22	40	19	A				0.31
CFM19PD-666A22R-09	6	66	22	40	19	A				0.32
CFM19PD-580A27R-09	5	80	27	50	19	A				0.83
CFM19PD-6100B32R-09	6	100	32	50	19	B				1.40
CFM19PD-8100B32R-09	8	100	32	50	19	B				1.38

刀片
Insert

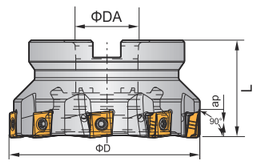




型号 Designation	D	H	S	kr1°	kr2°	bs	刀片材质 Insert material	P	M	K	N	H
PDKT 090508R-MW	13.5	14.46	5.45	19	72	2.1	MG1215	●	◎			
PDKT 090508L-MW	13.5	14.46	5.45	19	72	2.1	MG1215	●	◎			
PDKT 090530R-M	13.5	14.46	5.45	-	72	-	MG1215	●	◎			

直角平面铣刀
Right angle plane milling cutter

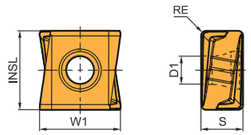




型号 Designation	刃数 Flutes	D	Da	L	ap	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
FL90LN-340A16-12	3	40	16	40	11.5	A	LNKT 1206	DHM4X12-A	T15	0.2
FL90LN-440A16-12	4									0.2
FL90LN-550A22-12	5	50	22	40		A				0.3
FL90LN-650A22-12	6									0.3
FL90LN-663A22-12	6	63	22	40		A				0.54
FL90LN-863A22-12	8									0.54
FL90LN-780A27-12	7	80	27	50		A				1.18
FL90LN-1080A27-12	10									1.18
FL90LN-9100B32-12	9	100	32	50		B				1.64
FL90LN-13100B32-12	13									1.64
FL90LN-11125B40-12	11	125	40	63		B				2.75
FL90LN-16125B40-12	16									2.75

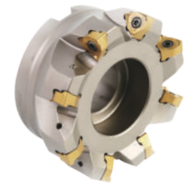
刀片
Insert

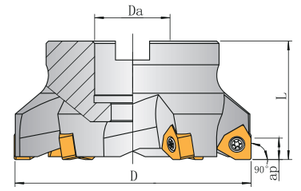




型号 Designation	INSL	W1	S	D1	RE	刀片材质 Insert material	P	M	K	N	H
LNKT 120608PNR-GM	12.7	13	6.75	4.4	0.8	MG1215	●	◎			
						MG3320			●		
LNKT 120612PNR-GM	12.7	13	6.75	4.4	1.2	MG1215	●	◎			
						MG3320			●		
LNKT 120616PNR-GM	12.7	13	6.75	4.4	1.6	MG1125	●	◎			
						MG3320			●		

直角平面铣刀盘
Right angle plane milling cutter head



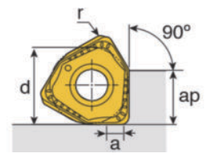


型号 Designation	刃数 Flutes	D	Da	L	ap	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
FL90XN-550A22R-09	5	50	22	40	9.2	A	XNGU 0905	DHM4x10-A(R5)	T15	0.4
FL90XN-663A22R-09	6	63	22	40	9.2	A				0.5
FL90XN-763A22R-09	7	63	22	40	9.2	A				0.5
FL90XN-780A27R-09	7	80	27	50	9.2	A				1.1
FL90XN-980A27R-09	9	80	27	50	9.2	A				1.1
FL90XN-8100B32R-09	8	100	32	50	9.2	B				1.8
FL90XN-11100B32R-09	11	100	32	50	9.2	B				1.9
FL90XN-11125B40R-09	11	125	40	63	9.2	B				3.1
FL90XN-14125B40R-09	14	125	40	63	9.2	B				3.2
FL90XN-12160C40R-09	12	160	40	63	9.2	C				4.3
FL90XN-16160C40R-09	16	160	40	63	9.2	C				4.3
FL90XN-14200C60R-09	14	200	60	63	9.2	C				5.9
FL90XN-18200C60R-09	18	200	60	63	9.2	C				5.9
FL90XN-18250C60R-09	18	250	60	63	9.2	C				10.7
FL90XN-22250C60R-09	22	250	60	63	9.2	C				10.8

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

刀片
Insert

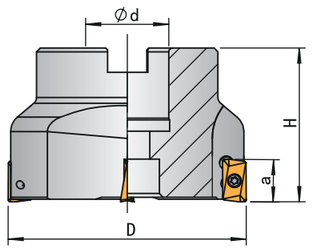




型号 Designation	d	t	a	r	进给mm/齿	刀片材质 Insert material	P	M	K	N	H
XNGU 090508-M	13.05	6.7	2	0.8	0.1-0.2	MG1315	●	●			
						MG3320			●		
XNGU 090508-ML	13.05	6.7	2	0.8	0.05-0.1	MG1315	●	●			
						MG3320			●		

直角平面铣刀盘
Right angle plane milling cutter head

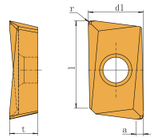




型号 Designation	刃数 Flutes	D	d	a	H	适配刀片 Insert	刀片螺钉 Insert Screw	扳手 Wrench	重量kg Weight
400R-50-22-4T	4	50	22	16	50	APMT1604	DHM4x10	T15	0.4
400R-63-22-5T	5	63	22	16	50				0.65
400R-80-27-6T	6	80	27	16	50				1
400R-100-32-6T	6	100	32	16	50				1.25
400R-125-40-8T	8	125	40	16	63				3.1
400R-160-40-8T	8	160	40	16	63				5.1

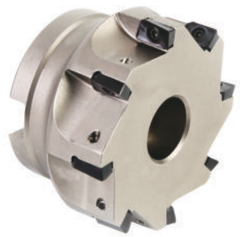
- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

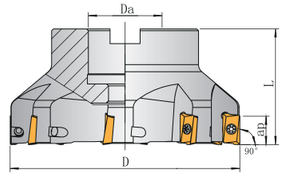
刀片
Insert



型号 Designation	d1	1	t	a	r	刀片材质 Insert material	P	M	K	N	H
APMT 1604PDER-XDU	9.2	17.12	4.76	3	0.8	MG1220	●				
						MG3320			●		
APMT 160408PDER-N						MG4220				●	

直角平面铣刀盘
Right angle plane milling cutter head

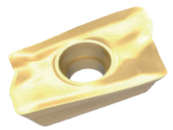


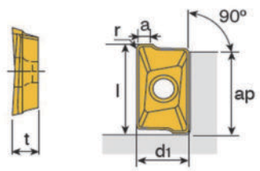


型号 Designation	刃数 Flutes	D	Da	L	ap	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
FL90AP 550-22R-17	5	50	22	40	16.1	A	APKT 1705	DHM4x10	T15	0.4
FL90AP 663-22R-17	6	63	22	40	16.1	A				0.5
FL90AP 780-27R-17	7	80	27	50	16.1	A				0.9
FL90AP 8100-32R-17	8	100	32	50	16.1	B				1.5
FL90AP 8125-40R-17	8	125	40	63	16.1	B				3.0
FL90AP 9125-40R-17	9	125	40	63	16.1	B				3.1
FL90AP 10160-40R-17	10	160	40	63	16.1	C				4.2
FL90AP 12200-60R-17	12	200	60	63	16.1	C				6.1

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

刀片
Insert

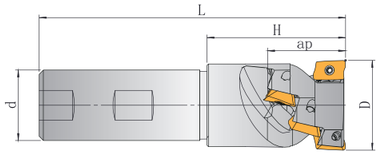




型号 Designation	d	l	t	a	r	刀片材质 Insert material	P	M	K	N	H
APKT 170508-EM	10.7	18.5	5.56	3.0	0.8	MG1315	●	●			
						MG3320			●		

玉米铣刀
Corn milling cutter

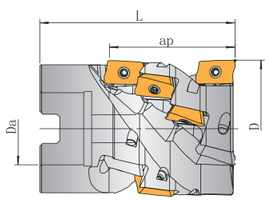




型号 Designation	刃数 Flutes	齿数 Tooth number	D	d	H	L	ap	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
ML90AP-2232L120Z32-17	2	4	32	32	50	120	30	APKT 1705	DHM4X10	T15	0.82
ML90AP-2340L140Z32-17	2	6	40	32	65	140	44				1.15

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

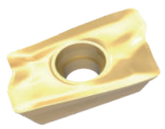




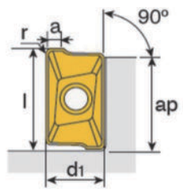
型号 Designation	刃数 Flutes	齿数 Tooth number	D	L	ap	Da	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
ML90AP-2350H44A22R-17	2	6	50	60	44	22	A	APKT 1705	DHM4X10	T15	0.5
ML90AP-3363H44A27R-17	3	9	63	63	44	27	A				0.9
ML90AP-4363H44A27R-17	4	12	63	63	44	27	A				0.9
ML90AP-4480H58A32R-17	4	16	80	75	58	32	A				1.9
ML90AP-56100H88A40R-17	5	30	100	110	88	40	A				4.8

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

刀片
Insert



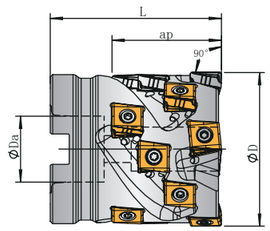




型号 Designation	d	l	t	a	r	刀片材质 Insert material	P	M	K	N	H
APKT 170508-EM	10.7	18.5	5.56	3.0	0.8	MG1315	●	●			
						MG3320			●		

玉米铣刀
Corn milling cutter

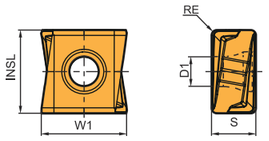




型号 Designation	刃数 Flutes	齿数 Tooth number	D	Da	L	ap	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
ML90LN-2340A16-12	2	6	40	16	55	33	A	LNKT 1206	DHM4X12-A	T15	0.3
ML90LN-2440A16-12	2	8			65	43					0.35
ML90LN-3350A22-12	3	9	50	22	55	33	A				0.5
ML90LN-3450A22-12	3	12			70	43					0.65
ML90LN-4463A27-12	4	16	63	27	70	43	A				1.05
ML90LN-4563A27-12	4	20			80	53					1.2
ML90LN-5480A27-12	5	20	80	27	70	43	A				1.93
ML90LN-5580A27-12	5	25			80	53					2.12
ML90LN-66100A27-12	6	36	100	27	90	63	A				3.35

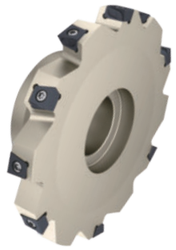
刀片
Insert

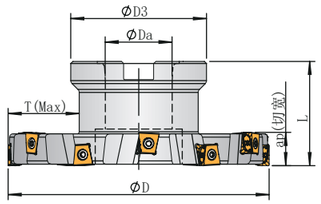




型号 Designation	INSL	W1	S	D1	RE	刀片材质 Insert material	P	M	K	N	H
LNKT 120608PNR-GM	12.7	13	6.75	4.4	0.8	MG1215	●	◎			
						MG3320			●		
LNKT 120612PNR-GM	12.7	13	6.75	4.4	1.2	MG1215	●	◎			
						MG3320			●		
LNKT 120616PNR-GM	12.7	13	6.75	4.4	1.6	MG1125	●	◎			
						MG3320			●		

立装三面刃铣刀
Vertical three-sided milling cutter

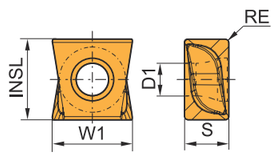




型号 Designation	刃数 Flutes	ap	D	Da	D3	L	Tmax	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
SMFLN-10100W14B27R-10	5+5	14	100	27	55	50	24	B	LNGX 1005	DHM3.5X8P-A	T10IP	0.7
SMFLN-12125W14B32R-10	6+6		125	32	65		32	B				1.2
SMFLN-14160W14B40R-10	7+7		160	40	80		42	B				2.4
SMFLN-16200W14C40R-10	8+8		200	40	92		53	C				3.6
SMFLN-12125W16B32R-10	6+6	16	125	32	65	50	32	B	LNGX 1005	DHM3.5X8P-A	T10IP	1.4
SMFLN-14160W16B40R-10	7+7		160	40	80		42	B				2.6
SMFLN-16200W16C40R-10	8+8		200	40	92		53	C				4
SMFLN-10125W20B32R-14	5+5	20	125	32	65	50	32	B	LNGX 1407	DHM4X12-A	T15	1.6
SMFLN-12160W20B40R-14	6+6		160	40	80		42	B				2.7
SMFLN-14200W20C40R-14	7+7		200	40	92		53	C				4.6
SMFLN-16250W20C60R-14	8+8		250	60	132		58	C				7.4
SMFLN-12160W25B40R-14	6+6	25	160	40	80	50	42	B	LNGX 1407	DHM4X12-A	T15	3.2
SMFLN-14200W25C40R-14	7+7		200	40	92		53	C				5.2
SMFLN-16250W25C60R-14	8+8		250	60	132		58	C				8.6
SMFLN-20315W25C60R-14	10+10		315	60	132		90	C				13.2

刀片
Insert

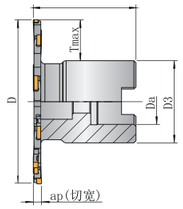


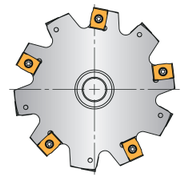


型号 Designation	INSL	W1	S	D1	RE	刀片材质 Insert material	P	M	K	N	H
LNGX 100504-GM	10	9.9	5.5	4.1	0.4	MG1215	●	◎	●		
LNGX 100508-GM	10	9.9	5.5	4.1	0.8	MG1215	●	◎	●		
LNGX 100512-GM	10	9.9	5.5	4.1	1.2	MG1215	●	◎	●		
LNGX 140704-GM	14	13.4	7.5	4.4	0.4	MG1215	●	◎	●		
LNGX 140708-GM	14	13.4	7.5	4.4	0.8	MG1215	●	◎	●		
LNGX 140712-GM	14	13.4	7.5	4.4	1.2	MG1215	●	◎	●		

法兰式三面刃铣刀盘
Flange type three edge milling cutter head



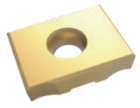


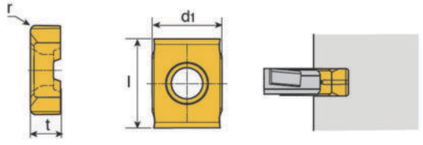


型号 Designation	刃数 Flutes	ap (mm)	D	da	D3	L	Tmax	接口类型 Interface type	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 Kg Weight
SMFZN-1080W04A22R-023	5+5	4	80	22	40	50	20.0	A	ZNHT 023	CSX2535	T8	0.4
SMFZN-12100W04A27R-023	6+6	4	100	27	48	50	26.0	A				0.6
SMFZN-1080W05A22R-028	5+5	5	80	22	40	50	20.0	A	ZNHT 028	CSX2542	T8	0.5
SMFZN-12100W05A27R-028	6+6	5	100	27	48	50	26.0	A				0.7
SMFZN-1080W06A22R-033	5+5	6	80	22	40	50	20.0	A	ZNHT 033	CSX2553	T8	0.6
SMFZN-12100W06A27R-033	6+6	6	100	27	48	50	26.0	A				0.7
SMFZN-14125W06B40R-033	7+7	6	125	40	70	50	25.0	B				1.2
SMFZN-18160W06B40R-033	9+9	6	160	40	70	50	43.0	B				1.5
SMFZN-880W07A22R-038	4+4	7	80	22	40	50	20.0	A	ZNHT 038	CSX4051	T15	0.5
SMFZN-10100W07A27R-038	5+5	7	100	27	48	50	25.5	A				0.7
SMFZN-12125W07B40R-038	6+6	7	125	40	70	50	24.5	B				1.2
SMFZN-16160W07B40R-038	8+8	7	160	40	70	50	42.0	B				1.5
SMFZN-880W08A22R-043	4+4	8	80	22	40	50	20.0	A	ZNHT 043	CSX4061	T15	0.5
SMFZN-10100W08A27R-043	5+5	8	100	27	48	50	25.5	A				0.8
SMFZN-12125W08B40R-043	6+6	8	125	40	70	50	24.5	B				1.2
SMFZN-16160W08B40R-043	8+8	8	160	40	70	50	42.0	B				1.6
SMFZN-10100W09A27R-048	5+5	9	100	27	48	50	26.0	A	ZNHT 048	CSX4070	T15	0.8
SMFZN-12125W09B40R-048	6+6	9	125	40	70	50	24.5	B				1.3
SMFZN-16160W09B40R-048	8+8	9	160	40	70	50	42.0	B				1.7
SMFZN-10100W10A27R-053	5+5	10	100	27	48	50	26.0	A	ZNHT 053	CSX4080	T15	0.8
SMFZN-12125W10B40R-053	6+6	10	125	40	70	50	24.5	B				1.4
SMFZN-16160W10B40R-053	8+8	10	160	40	70	50	42.0	B				1.9
SMFZN-8100W11A27R-058	4+4	11	100	27	48	50	26.0	A	ZNHT 058	CSY5012	T20	0.8
SMFZN-10125W11B40R-058	5+5	11	125	40	70	50	24.5	B				1.4
SMFZN-14160W11B40R-058	7+7	11	160	40	70	50	42.0	B				1.9
SMFZN-8100W12A27R-063	4+4	12	100	27	48	50	26.0	A	ZNHT 063	CSY5012	T20	0.8
SMFZN-10125W12B40R-063	5+5	12	125	40	70	50	24.5	B				1.4
SMFZN-14160W12B40R-063	7+7	12	160	40	70	50	42.0	B				1.9
SMFZN-8100W14A27R-073	4+4	14	100	27	48	50	26 0	A	ZNHT 073	CSY5012	T20	0.8
SMFZN-10125W14B40R-073	5+5	14	125	40	70	50	24.5	B				1.4
SMFZN-14160W14B40R-073	7+7	14	160	40	70	50	42.0	B				1.9

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

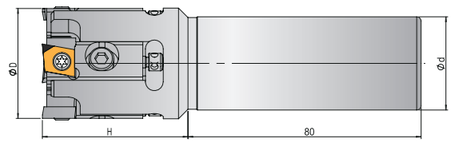
刀片
Insert



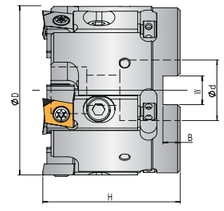


型号 Designation	l	d1	t	r	进给mm/齿 Feed mm/ teeth	刀片材质 Insert material	P	M	K	N	H
ZNHT 018-04-ML	10	7.5	1.8	0.4	0.05～0.08	MG1315	●	●			
ZNHT 023-04-ML	10	7.5	2.3	0.4	0.05～0.08	MG1315	●	●			
ZNHT 028-04-ML	10	7.5	2.8	0.4	0.05～0.08	MG1315	●	●			
ZNHT 033-04-ML	10	7.5	3.3	0.4	0.05～0.12	MG1315	●	●			
ZNHT 038-04-ML	13	10	3.8	0.4	0.05～0.12	MG1315	●	●			
ZNHT 043-04-ML	13	10	4.3	0.4	0.05～0.12	MG1315	●	●			
ZNHT 048-04-ML	13	10	4.8	0.4	0.05～0.12	MG1315	●	●			
ZNHT 053-04-ML	13	10	5.3	0.4	0.05～0.12	MG1315	●	●			
ZNHT 058-04-ML	15	12	5.8	0.4	0.05～0.12	MG1315	●	●			
ZNHT 058-08-ML	15	12	5.8	0.8	0.05～0.12	MG1315	●	●			
ZNHT 063-04-ML	15	12	6.3	0.4	0.05～0.12	MG1315	●	●			
ZNHT 063-08-ML	15	12	6.3	0.8	0.05～0.12	MG1315	●	●			
ZNHT 073-08-ML	15	12	7.3	0.8	0.05～0.12	MG1315	●	●			
ZNHT 073-12-ML	15	12	7.3	1.2	0.05～0.12	MG1315	●	●			

铝合金高速加工铣刀盘
High speed milling cutter for aluminum alloy



图一



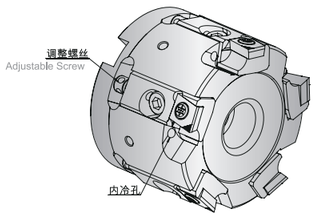
图二

型号 Designation	图示 Picture	刃数 Flutes	D	d	H	W	B	适配刀夹 Cartridge	重量kg Weight
CAL 04004	—	4	40	32	50	-	-	XCALBSS	0.9
CAL 05005	二	5	50	22		10.4	6.3		0.3
CAL 06306		6	63	22		10.4	6.3		0.4
CAL 08008		8	80	27		12.4	7		0.7
CAL 10010		10	100	32	54.8	14.4	8		1.1
CAL 12512		12	125	40		16.4	9		1.6

- 标准刀盘不带内冷
- 刀片需单独订购
- Standard cutter head without internal cooling
- Insert to be ordered separately

可换刀夹
Convertible cartridge

名称 Name	型号 Designation	形状 Shape	适配刀片(PCD) Insert	刀片螺丝组合 Screw
刀夹	XCALBSS		XCBGW 09T3-R	SRM4-T15



- 通过简单调整（调整螺丝）可保证刀尖跳动0.01mm以内。
- 刀体有内冷孔，可以准确的喷到刀 尖提供冷却。
- Through simple adjust(adjust screw) can assure tip runout within 0.01mm
- Tool body with internal coolant hole , can provide coolant to tip accurately

铣加工系列

45° 倒角刀
45 degree chamfering tool



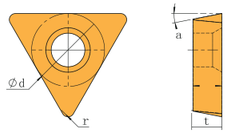


型号 Designation	刃数 Flutes	D	D1	d	a	L1	L	倒角范围 Chamfer Range	适配刀片 Insert	刀片螺钉 Insert Screw	扳手 Wrench	重量kg Weight
MCT-C20-20-130-1T	1	20	6	20	11.3	20	130	6-20	TCMX16T308	DHM4x10	T15	0.28

- 标准刀杆不带内冷
- 刀片需单独订购
- Standard shank without internal cooling
- Insert to be ordered separately

刀片
Insert

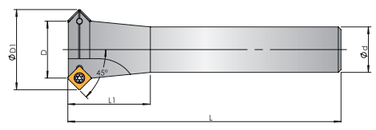




型号 Designation	d	t	a	r	刀片材质 Insert material	P	M	K	N	H
TCMX 16T308	9.525	3.97	7°	0.8	MG1315	●	●			

45°内外倒角刀
45 degree inside and outside chamfering tool

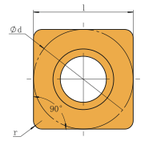


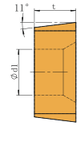


型号 Designation	刃数 Flutes	D	D1	d	L1	L	适配刀片 Insert	刀片螺钉 Screw	扳手 Wrench	重量kg Weight
MCT45-C3/4-25-110-2T	2	25	38	19.05	45	110	SPMW090304	DHM4X10	T15	0.26
MCT45-C20-25-110-2T	2	25	38	20	45	110				0.4
MCT45-C25-25-150-2T	2	25	38	25	45	150				0.55
MCT45-C25-30-150-2T	2	30	43	25	45	150				0.59

- 标准刀杆不带内冷
- 刀片需单独订购
- Standard shank without internal cooling
- Insert to be ordered separately

刀片
Insert



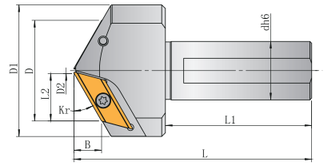


型号 Designation	d	l	t	r	刀片材质 Insert material	P	M	K	N	H
SPMW 090304	9.525	9.525	3.18	0.4	MG1610	●	◎	◎		

铣加工系列

C型倒角刀
Type C chamfering tool

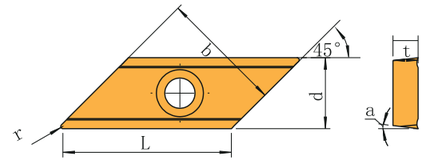




型号 Designation	刃数 Flutes	Kr	B	L2	D	D1	D2	L	L1	d	H	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench
CCF60XC-134L130W32R-31	1	60	25.5	14.5	34	40	5	130	80	32	—	XCET310404	DHM5X12	T20
CCF45XC-246L130W32R-31	2	45	20.5	20.5	46	56	5	130	80	32	45			
CCF30XC-255L130W32R-31	2	30	14.5	25.5	55	72	5	130	80	32	50			

- 标准刀杆不带内冷，刀片需单独订购
- 最小加工孔径φ5mm
- Standard shank without internal cooling, Insert to be ordered separately
- Minimum machining aperture ϕ5mm

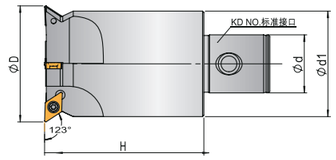
刀片
Insert



型号 Designation	L	b	d	t	a	r	刀片材质 Insert material	P	M	K	N	H
XCET 310404	29.2	22	12.7	4.5	7°	0.4	MG1315	●	●			
							MG3320			●		

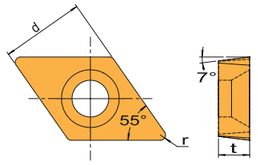
燕尾槽铣刀
Dovetail milling cutter





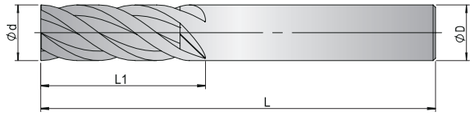
型号 Designation	刃数 Edge	D	d	d1	H	KD NO	适配刀片 Insert	刀片螺丝 Insert screw	扳手 Wrench	重量 kg Weight
FL123DC-444KD4-07	4	44	22	40	60	KD4	DCMT 070204	DHM2.5X6	T8	0.3
FL123DC-463KD5-07	4	63	28	55	80	KD5				1.35
FL123DC-594KD6-07	5	94	36	85.5	93	KD6				3.1

刀片
Insert



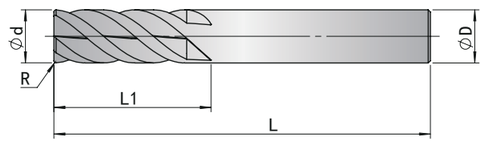
型号 Designation	d	t	r	刀片材质 Insert material	P	M	K	N	H
DCMT 070204	6.35	2.38	0.4	MG1215	●	◎			
				MG3320			●		

平底立铣刀（HRC55用）
Flat End Mill (HRC55)



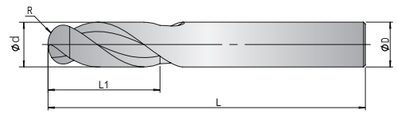
型号 Designation	刃径d Flute diameter	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XLP403-04L50	3.0	4	4	8	50
XLP403-03L50	3.0	3	4	8	50
XLP404-04L50	4.0	4	4	10	50
XLP405-06L50	5.0	6	4	13	50
XLP406-06L50	6.0	6	4	15	50
XLP407-08L60	7.0	8	4	18	60
XLP408-08L60	8.0	8	4	20	60
XLP409-10L75	9.0	10	4	23	75
XLP410-10L75	10.0	10	4	25	75
XLP412-12L75	12.0	12	4	30	75
XLP414-14L100	14.0	14	4	35	100
XLP416-16L100	16.0	16	4	45	100
XLP418-18L100	18.0	18	4	45	100
XLP420-20L100	20.0	20	4	50	100

圆鼻立铣刀（HRC55用）
End Mill with round nose (HRC55)



型号 Designation	刃径d Flute diameter	圆角R Corner R	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XLR403-04L50R02	3.0	0.2	4	4	8	50
XLR403-04L50R05	3.0	0.5	4	4	8	50
XLR404-04L50R02	4.0	0.2	4	4	10	50
XLR404-04L50R05	4.0	0.5	4	4	10	50
XLR404-04L50R10	4.0	1.0	4	4	10	50
XLR405-05L50R05	5.0	0.5	5	4	13	50

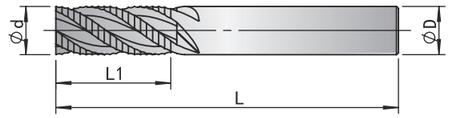
球头立铣刀（HRC55用）
Ball nose end mill(HRC55)



型号 Designation	刃径d Flute diameter	圆角R Corner R	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XLQ201-04L50	1.0	0.5	4	2	2	50
XLQ2015-04L50	1.5	0.75	4	2	3	50
XLQ202-04L50	2.0	1.0	4	2	4	50
XLQ2025-04L50	2.5	1.25	4	2	5	50
XLQ203-04L50	3.0	1.5	4	2	6	50
XLQ204-04L50	4.0	2.0	4	2	8	50
XLQ205-06L50	5.0	2.5	6	2	10	50
XLQ206-06L50	6.0	3.0	6	2	12	50
XLQ208-08L60	8.0	4.0	8	2	16	60
XLQ210-10L75	10.0	5.0	10	2	20	75

铣加工系列

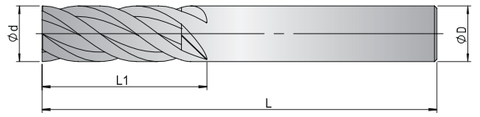
粗皮立铣刀（HRC55用）
Rough End Mill (HRC55)



型号 Designation	刃径d Flute diameter	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XLC406-06L50	6.0	6	4	16	50
XLC408-08L60	8.0	8	4	20	60
XLC410-10L75	10.0	10	4	25	75
XLC412-12L75	12.0	12	4	30	75
XLC414-14L100	14.0	14	4	35	100
XLC416-16L100	16.0	16	4	45	100
XLC418-18L100	18.0	18	4	45	100
XLC420-20L100	20.0	20	4	45	100

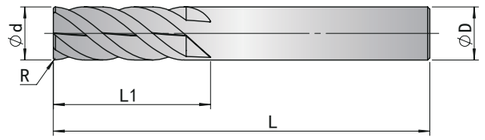
铣加工系列

平底立铣刀（HRC70用）
Flat End Mill (HRC70)



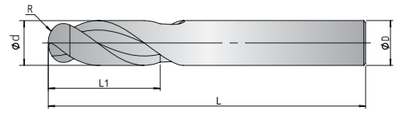
型号 Designation	刃径d Flute diameter	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XHP403-04L50	3.0	4	4	8	50
XHP404-04L50	4.0	4	4	10	50
XHP405-06L60	5.0	6	4	13	60
XHP406-06L60	6.0	6	4	13	60
XHP408-08L60	8.0	8	4	19	60
XHP410-10L75	10.0	10	4	22	75
XHP412-12L75	12.0	12	4	26	75
XHP404-04L75	4.0	4	4	12	75
XHP406-06L75	6.0	6	4	20	75
XHP408-08L75	8.0	8	4	25	75
XHP406-06L100	6.0	6	4	20	100
XHP408-08L100	8.0	8	4	25	100
XHP410-10L100	10.0	10	4	33	100
XHP412-12L100	12.0	12	4	37	100

圆鼻立铣刀（HRC70用）
End Mill with round nose (HRC70)



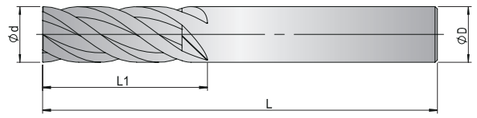
型号 Designation	刃径d Flute diameter	圆角R Corner R	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XHR403- 04L50R02	3.0	0.2	4	4	4.5	50
XHR403-04L50R03	3.0	0.3	4	4	4.5	50
XHR403-04L50R05	3.0	0.5	4	4	4.5	50
XHR404-04L50R02	4.0	0.2	4	4	6	50
XHR404-04L50R03	4.0	0.3	4	4	6	50
XHR404-04L50R05	4.0	0.5	4	4	6	50
XHR405-06L60R05	5.0	0.5	6	4	7.5	60
XHR405-06L60R10	5.0	1	6	4	7.5	60
XHR406-06L60R02	6.0	0.2	6	4	9	60
XHR406-06L60R05	6.0	0.5	6	4	9	60
XHR406-06L60R10	6.0	1	6	4	9	60
XHR408-08L60R02	8.0	0.2	8	4	12	60
XHR408-08L60R05	8.0	0.5	8	4	12	60
XHR408-08160R10	8.0	1	8	4	12	60
XHR410-10L75R02	10.0	0.2	10	4	15	75
XHR410-10L75R05	10.0	0.5	10	4	15	75
XHR410-10L75R10	10.0	1	10	4	15	75
XHR412-12L75R05	12.0	0.5	12	4	18	75
XHR412-12L75R10	12.0	1	12	4	18	75

球头立铣刀（HRC70用）
Ball nose end mill(HRC70)



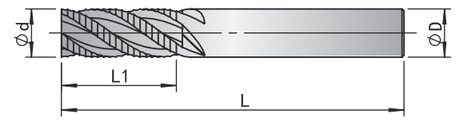
型号 Designation	刃径d Flute diameter	圆角R Corner R	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XHQ201-04L50	1	0.5	4	2	1	50
XHQ2015-04L50	1.5	0.75	4	2	1.5	50
XHQ202-04L50	2	1.0	4	2	2	50
XHQ203-04L50	3	1.5	4	2	3	50
XHQ204- 04L50	4	2.0	4	2	4	50
XHQ205-06L60	5	2.5	6	2	5	60
XHQ206 -06L60	6	3.0	6	2	6	60
XHQ204-04L75	4	2.0	4	2	4	75
XHQ204-06 L75	4	2.0	6	2	4	75
XHQ206-06L100	6	3.0	6	2	6	100
XHQ208-08L100	8	4.0	8	2	8	100

平底立铣刀（AL用）
Flat End Mill (AL)



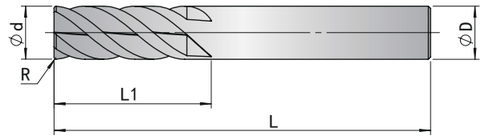
型号 Designation	刃径d Flute diameter	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XAP303-04L50	3.0	4	3	8	50
XAP304-04L50	4.0	4	3	12	50
XAP305-05L50	5.0	5	3	15	50
XAP306-06L50	6.0	6	3	18	50
XAP308-08L60	8.0	8	3	20	60
XAP310 -10L75	10.0	10	3	30	75
XAP312 -12L75	12.0	12	3	30	75
XAP316-16L100	16.0	16	3	45	100
XAP320-20L100	20.0	20	3	45	100

粗皮立铣刀（AL用）
Rough End Mill (AL)



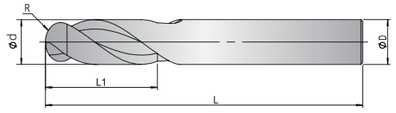
型号 Designation	刃径d Flute diameter	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XAC306-06L50	6.0	6	3	15	50
XAC308-08L60	8.0	8	3	20	60
XAC310-10L75	10.0	10	3	25	75
XAC312-12L75	12.0	12	3	30	75
XAC314-14L100	14.0	14	3	35	100
XAC316-16L100	16.0	16	3	45	100
XAC318-18L100	18.0	18	3	45	100
XAC320-20L100	20.0	20	3	45	100

圆鼻立铣刀（AL用）
End Mill with round nose (AL)



型号 Designation	刃径d Flute diameter	圆角R Corner R	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XAR303-04L50R05	3.0	0.5	4	3	8	50
XAR304-04L50R05	4.0	0.5	4	3	10	50
XAR306-06L50R05	6.0	0.5	6	3	16	50
XAR306-06L50R10	6.0	1.0	6	3	16	50
XAR308-08L60R05	8.0	0.5	8	3	20	60
XAR308-08L60R10	8.0	1.0	8	3	20	60
XAR310-10L75R05	10.0	0.5	10	3	25	75
XAR310-10L75R10	10.0	1.0	10	3	25	75
XAR312-12L75R05	12.0	0.5	12	3	30	75
XAR312-12L75R10	12.0	1.0	12	3	30	75
XAR316-16L100R05	16.0	0.5	16	3	40	100
XAR316-16L100R10	16.0	1.0	16	3	40	100
XAR316-16L100R30	16.0	3.0	16	3	40	100
XAR320-20L100R05	20.0	0.5	20	3	45	100
XAR320-20L100R10	20.0	1.0	20	3	45	100
XAR320-20L100R30	20.0	3.0	20	3	45	100

球头立铣刀（AL用）
Ball nose end mill(AL)

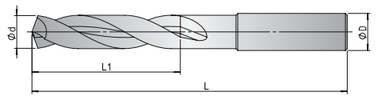


型号 Designation	刃径d Flute diameter	圆角R Corner R	柄径D Shank dia	刃数 Flutes	刃长L1 Flute length	全长L Overall length
XAQ201-04L50	1	0.5	4	2	4	50
XAQ202-04L50	2	1.0	4	2	8	50
XAQ203-06L50	3	1.5	6	2	12	50
XAQ204-08L60	4	2.0	8	2	16	60
XAQ205-10L75	5	2.5	10	2	20	75
XAQ206-12L75	6	3.0	12	2	24	75
XAQ201-04L75	1	0.5	4	2	4	75
XAQ202-04L75	2	1.0	4	2	8	75
XAQ203-06L75	3	1.5	6	2	12	75
XAQ204-08L75	4	2.0	8	2	16	75
XAQ202-04L100	2	1.0	4	2	8	100
XAQ203-06L100	3	1.5	6	2	12	100
XAQ204-08L100	4	2.0	8	2	16	100
XAQ205-10L100	5	2.5	10	2	20	100
XAQ206-12L100	6	3.0	12	2	24	100
XAQ203-06L150	3	1.5	6	2	12	150
XAQ204-08L50	4	2.0	8	2	16	150
XAQ205-10L150	5	2.5	10	2	20	150
XAQ206-12L150	6	3.0	12	2	24	150

铣加工系列

硬质合金钻头3D
Carbide drill 3D





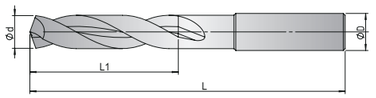
型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D033-3D	3.3	20	6	62	外冷 External Coolant
ZH-D034-3D	3.4				
ZH-D035-3D	3.5				
ZH-D036-3D	3.6				
ZH-D037-3D	3.7				
ZH-D038-3D	3.8	24	6	66	外冷 External Coolant
ZH-D039-3D	3.9				
ZH-D040-3D	4.0				
ZH-D041-3D	4.1				
ZH-D042-3D	4.2				
ZH-D043-3D	4.3				
ZH-D044-3D	4.4				
ZH-D045-3D	4.5				
ZH-D046-3D	4.6				
ZH-D047-3D	4.7				
ZH-D048-3D	4.8	28	6	66	外冷 External Coolant
ZH-D049-3D	4.9				
ZH-D050-3D	5.0				
ZH-D051-3D	5.1				
ZH-D052-3D	5.2				
ZH-D053-3D	5.3				
ZH-D054-3D	5.4				
ZH-D055-3D	5.5				
ZH-D056-3D	5.6				
ZH-D057-3D	5.7				
ZH-D058-3D	5.8				
ZH-D059-3D	5.9				
ZH-D060-3D	6.0				
ZH-D061-3D	6.1	34	8	79	外冷 External Coolant
ZH-D062-3D	6.2				
ZH-D063-3D	6.3				
ZH-D064-3D	6.4				
ZH-D065-3D	6.5				
ZH-D066-3D	6.6				
ZH-D067-3D	6.7				
ZH-D068-3D	6.8				
ZH-D069-3D	6.9				
ZH-D070-3D	7.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D071-3D	7.1	41	8	79	外冷 External Coolant
ZH-D072-3D	7.2				
ZH-D073-3D	7.3				
ZH-D074-3D	7.4				
ZH-D075-3D	7.5				
ZH-D076-3D	7.6				
ZH-D077-3D	7.7				
ZH-D078-3D	7.8				
ZH-D079-3D	7.9				
ZH-D080-3D	8.0				
ZH-D081-3D	8.1	47	10	89	外冷 External Coolant
ZH-D082-3D	8.2				
ZH-D083-3D	8.3				
ZH-D084-3D	8.4				
ZH-D085-3D	8.5				
ZH-D086-3D	8.6				
ZH-D087-3D	8.7				
ZH-D088-3D	8.8				
ZH-D089-3D	8.9				
ZH-D090-3D	9.0				
ZH-D091-3D	9.1				
ZH-D092-3D	9.2				
ZH-D093-3D	9.3				
ZH-D094-3D	9.4				
ZH-D095-3D	9.5				
ZH-D096-3D	9.6				
ZH-D097-3D	9.7				
ZH-D098-3D	9.8				
ZH-D099-3D	9.9				
ZH-D100-3D	10.0				

铣加工系列

硬质合金钻头3D
Carbide drill 3D



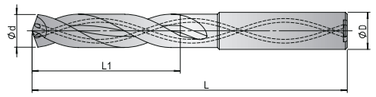


型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D101-3D	10.1	55	12	102	外冷 External Coolant
ZH-D102-3D	10.2				
ZH-D103-3D	10.3				
ZH-D104-3D	10.4				
ZH-D105-3D	10.5				
ZH-D106-3D	10.6				
ZH-D107-3D	10.7				
ZH-D108-3D	10.8				
ZH-D109-3D	10.9				
ZH-D110-3D	11.0				
ZH-D111-3D	11.1				
ZH-D112-3D	11.2				
ZH-D113-3D	11.3				
ZH-D114-3D	11.4				
ZH-D115-3D	11.5				
ZH-D116-3D	11.6				
ZH-D117-3D	11.7				
ZH-D118-3D	11.8				
ZH-D119-3D	11.9				
ZH-D120-3D	12.0				
ZH-D121-3D	12.1	60	14	107	外冷 External Coolant
ZH-D122-3D	12.2				
ZH-D123-3D	12.3				
ZH-D124-3D	12.4				
ZH-D125-3D	12.5				
ZH-D126-3D	12.6				
ZH-D127-3D	12.7				
ZH-D128-3D	12.8				
ZH-D129-3D	12.9				
ZH-D130-3D	13.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D131-3D	13.1	60	14	107	外冷 External Coolant
ZH-D132-3D	13.2				
ZH-D133-3D	13.3				
ZH-D134-3D	13.4				
ZH-D135-3D	13.5				
ZH-D136-3D	13.6				
ZH-D137-3D	13.7				
ZH-D138-3D	13.8				
ZH-D139-3D	13.9				
ZH-D140-3D	14.0				
ZH-D141-3D	14.1	65	16	115	外冷 External Coolant
ZH-D142-3D	14.2				
ZH-D143-3D	14.3				
ZH-D144-3D	14.4				
ZH-D145-3D	14.5				
ZH-D146-3D	14.6				
ZH-D147-3D	14.7				
ZH-D148-3D	14.8				
ZH-D149-3D	14.9				
ZH-D150-3D	15.0				
ZH-D151-3D	15.1				
ZH-D152-3D	15.2				
ZH-D153-3D	15.3				
ZH-D154-3D	15.4				
ZH-D155-3D	15.5				
ZH-D156-3D	15.6				
ZH-D157-3D	15.7				
ZH-D158-3D	15.8				
ZH-D159-3D	15.9				
ZH-D160-3D	16.0				

硬质合金钻头内冷3D
Carbide drill Internal cooling 3D



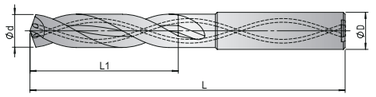


型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D033-3D-C	3.3	20	6	62	内冷 Internal Coolant
ZH-D034-3D-C	3.4				
ZH-D035-3D-C	3.5				
ZH-D036-3D-C	3.6				
ZH-D037-3D-C	3.7				
ZH-D038-3D-C	3.8	24	4	58	内冷 Internal Coolant
ZH-D039-3D-C	3.9				
ZH-D040-3D-C	4.0				
ZH-D041-3D-C	4.1	24	6	66	内冷 Internal Coolant
ZH-D042-3D-C	4.2				
ZH-D043-3D-C	4.3				
ZH-D044-3D-C	4.4				
ZH-D045-3D-C	4.5				
ZH-D046-3D-C	4.6				
ZH-D047-3D-C	4.7				
ZH-D048-3D-C	4.8	28	6	66	内冷 Internal Coolant
ZH-D049-3D-C	4.9				
ZH-D050-3D-C	5.0				
ZH-D051-3D-C	5.1				
ZH-D052-3D-C	5.2				
ZH-D053-3D-C	5.3				
ZH-D054-3D-C	5.4				
ZH-D055-3D-C	5.5				
ZH-D056-3D-C	5.6				
ZH-D057-3D-C	5.7				
ZH-D058-3D-C	5.8				
ZH-D059-3D-C	5.9				
ZH-D060-3D-C	6.0				
ZH-D061-3D-C	6.1	34	8	79	内冷 Internal Coolant
ZH-D062-3D-C	6.2				
ZH-D063-3D-C	6.3				
ZH-D064-3D-C	6.4				
ZH-D065-3D-C	6.5				
ZH-D066-3D-C	6.6				
ZH-D067-3D-C	6.7				
ZH-D068-3D-C	6.8				
ZH-D069-3D-C	6.9				
ZH-D070-3D-C	7.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D071-3D-C	7.1	41	8	79	内冷 Internal Coolant
ZH-D072-3D-C	7.2				
ZH-D073-3D-C	7.3				
ZH-D074-3D-C	7.4				
ZH-D075-3D-C	7.5				
ZH-D076-3D-C	7.6				
ZH-D077-3D-C	7.7				
ZH-D078-3D-C	7.8				
ZH-D079-3D-C	7.9				
ZH-D080-3D-C	8.0				
ZH-D081-3D-C	8.1	47	10	89	内冷 Internal Coolant
ZH-D082-3D-C	8.2				
ZH-D083-3D-C	8.3				
ZH-D084-3D-C	8.4				
ZH-D085-3D-C	8.5				
ZH-D086-3D-C	8.6				
ZH-D087-3D-C	8.7				
ZH-D088-3D-C	8.8				
ZH-D089-3D-C	8.9				
ZH-D090-3D-C	9.0				
ZH-D091-3D-C	9.1				
ZH-D092-3D-C	9.2				
ZH-D093-3D-C	9.3				
ZH-D094-3D-C	9.4				
ZH-D095-3D-C	9.5				
ZH-D096-3D-C	9.6				
ZH-D097-3D-C	9.7				
ZH-D098-3D-C	9.8				
ZH-D099-3D-C	9.9				
ZH-D100-3D-C	10.0				

硬质合金钻头内冷3D
Carbide drill Internal cooling 3D



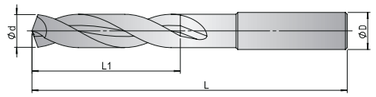


型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D101-3D-C	10.1	55	12	102	内冷 Internal Coolant
ZH-D102-3D-C	10.2				
ZH-D103-3D-C	10.3				
ZH-D104-3D-C	10.4				
ZH-D105-3D-C	10.5				
ZH-D106-3D-C	10.6				
ZH-D107-3D-C	10.7				
ZH-D108-3D-C	10.8				
ZH-D109-3D-C	10.9				
ZH-D110-3D-C	11.0				
ZH-D111-3D-C	11.1				
ZH-D112-3D-C	11.2				
ZH-D113-3D-C	11.3				
ZH-D114-3D-C	11.4				
ZH-D115-3D-C	11.5				
ZH-D116-3D-C	11.6				
ZH-D117-3D-C	11.7				
ZH-D118-3D-C	11.8				
ZH-D119-3D-C	11.9				
ZH-D120-3D-C	12.0				
ZH-D121-3D-C	12.1	60	14	107	内冷 Internal Coolant
ZH-D122-3D-C	12.2				
ZH-D123-3D-C	12.3				
ZH-D124-3D-C	12.4				
ZH-D125-3D-C	12.5				
ZH-D126-3D-C	12.6				
ZH-D127-3D-C	12.7				
ZH-D128-3D-C	12.8				
ZH-D129-3D-C	12.9				
ZH-D130-3D-C	13.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D131-3D-C	13.1	60	14	107	内冷 Internal Coolant
ZH-D132-3D-C	13.2				
ZH-D133-3D-C	13.3				
ZH-D134-3D-C	13.4				
ZH-D135-3D-C	13.5				
ZH-D136-3D-C	13.6				
ZH-D137-3D-C	13.7				
ZH-D138-3D-C	13.8				
ZH-D139-3D-C	13.9				
ZH-D140-3D-C	14.0				
ZH-D141-3D-C	14.1	65	16	115	内冷 Internal Coolant
ZH-D142-3D-C	14.2				
ZH-D143-3D-C	14.3				
ZH-D144-3D-C	14.4				
ZH-D145-3D-C	14.5				
ZH-D146-3D-C	14.6				
ZH-D147-3D-C	14.7				
ZH-D148-3D-C	14.8				
ZH-D149-3D-C	14.9				
ZH-D150-3D-C	15.0				
ZH-D151-3D-C	15.1				
ZH-D152-3D-C	15.2				
ZH-D153-3D-C	15.3				
ZH-D154-3D-C	15.4				
ZH-D155-3D-C	15.5				
ZH-D156-3D-C	15.6				
ZH-D157-3D-C	15.7				
ZH-D158-3D-C	15.8				
ZH-D159-3D-C	15.9				
ZH-D160-3D-C	16.0				

硬质合金钻头5D
Carbide drill 5D



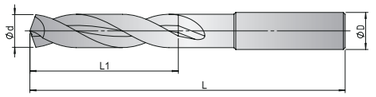


型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D033-5D	3.3	28	6	66	外冷 External Coolant
ZH-D034-5D	3.4				
ZH-D035-5D	3.5				
ZH-D036-5D	3.6				
ZH-D037-5D	3.7				
ZH-D038-5D	3.8	36	6	74	外冷 External Coolant
ZH-D039-5D	3.9				
ZH-D040-5D	4.0				
ZH-D041-5D	4.1				
ZH-D042-5D	4.2				
ZH-D043-5D	4.3				
ZH-D044-5D	4.4				
ZH-D045-5D	4.5				
ZH-D046-5D	4.6				
ZH-D047-5D	4.7				
ZH-D048-5D	4.8	44	6	82	外冷 External Coolant
ZH-D049-5D	4.9				
ZH-D050-5D	5.0				
ZH-D051-5D	5.1				
ZH-D052-5D	5.2				
ZH-D053-5D	5.3				
ZH-D054-5D	5.4				
ZH-D055-5D	5.5				
ZH-D056-5D	5.6				
ZH-D057-5D	5.7				
ZH-D058-5D	5.8				
ZH-D059-5D	5.9				
ZH-D060-5D	6.0				
ZH-D061-5D	6.1	53	8	91	外冷 External Coolant
ZH-D062-5D	6.2				
ZH-D063-5D	6.3				
ZH-D064-5D	6.4				
ZH-D065-5D	6.5				
ZH-D066-5D	6.6				
ZH-D067-5D	6.7				
ZH-D068-5D	6.8				
ZH-D069-5D	6.9				
ZH-D070-5D	7.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D071-5D	7.1	53	8	91	外冷 External Coolant
ZH-D072-5D	7.2				
ZH-D073-5D	7.3				
ZH-D074-5D	7.4				
ZH-D075-5D	7.5				
ZH-D076-5D	7.6				
ZH-D077-5D	7.7				
ZH-D078-5D	7.8				
ZH-D079-5D	7.9				
ZH-D080-5D	8.0				
ZH-D081-5D	8.1	61	10	103	外冷 External Coolant
ZH-D082-5D	8.2				
ZH-D083-5D	8.3				
ZH-D084-5D	8.4				
ZH-D085-5D	8.5				
ZH-D086-5D	8.6				
ZH-D087-5D	8.7				
ZH-D088-5D	8.8				
ZH-D089-5D	8.9				
ZH-D090-5D	9.0				
ZH-D091-5D	9.1				
ZH-D092-5D	9.2				
ZH-D093-5D	9.3				
ZH-D094-5D	9.4				
ZH-D095-5D	9.5				
ZH-D096-5D	9.6				
ZH-D097-5D	9.7				
ZH-D098-5D	9.8				
ZH-D099-5D	9.9				
ZH-D100-5D	10.0				

硬质合金钻头5D
Carbide drill 5D





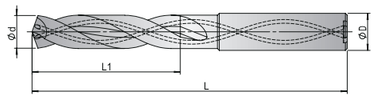
型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D101-5D	10.1	71	12	118	外冷 External Coolant
ZH-D102-5D	10.2				
ZH-D103-5D	10.3				
ZH-D104-5D	10.4				
ZH-D105-5D	10.5				
ZH-D106-5D	10.6				
ZH-D107-5D	10.7				
ZH-D108-5D	10.8				
ZH-D109-5D	10.9				
ZH-D110-5D	11.0				
ZH-D111-5D	11.1				
ZH-D112-5D	11.2				
ZH-D113-5D	11.3				
ZH-D114-5D	11.4				
ZH-D115-5D	11.5				
ZH-D116-5D	11.6				
ZH-D117-5D	11.7				
ZH-D118-5D	11.8				
ZH-D119-5D	11.9				
ZH-D120-5D	12.0				
ZH-D121-5D	12.1	77	14	124	外冷 External Coolant
ZH-D122-5D	12.2				
ZH-D123-5D	12.3				
ZH-D124-5D	12.4				
ZH-D125-5D	12.5				
ZH-D126-5D	12.6				
ZH-D127-5D	12.7				
ZH-D128-5D	12.8				
ZH-D129-5D	12.9				
ZH-D130-5D	13.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D131-5D	13.1	77	14	127	外冷 External Coolant
ZH-D132-5D	13.2				
ZH-D133-5D	13.3				
ZH-D134-5D	13.4				
ZH-D135-5D	13.5				
ZH-D136-5D	13.6				
ZH-D137-5D	13.7				
ZH-D138-5D	13.8				
ZH-D139-5D	13.9				
ZH-D140-5D	14.0				
ZH-D141-5D	14.1	83	16	133	外冷 External Coolant
ZH-D142-5D	14.2				
ZH-D143-5D	14.3				
ZH-D144-5D	14.4				
ZH-D145-5D	14.5				
ZH-D146-5D	14.6				
ZH-D147-5D	14.7				
ZH-D148-5D	14.8				
ZH-D149-5D	14.9				
ZH-D150-5D	15.0				
ZH-D151-5D	15.1				
ZH-D152-5D	15.2				
ZH-D153-5D	15.3				
ZH-D154-5D	15.4				
ZH-D155-5D	15.5				
ZH-D156-5D	15.6				
ZH-D157-5D	15.7				
ZH-D158-5D	15.8				
ZH-D159-5D	15.9				
ZH-D160-5D	16.0				

铣加工系列

硬质合金钻头内冷5D
Carbide drill Internal cooling 5D





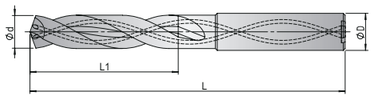
型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D033-5D-C	3.3	28	4	58	内冷 Internal Coolant
ZH-D034-5D-C	3.4				
ZH-D035-5D-C	3.5				
ZH-D036-5D-C	3.6				
ZH-D037-5D-C	3.7				
ZH-D038-5D-C	3.8	36	4	66	内冷 Internal Coolant
ZH-D039-5D-C	3.9				
ZH-D040-5D-C	4.0				
ZH-D041-5D-C	4.1	36	6	74	内冷 Internal Coolant
ZH-D042-5D-C	4.2				
ZH-D043-5D-C	4.3				
ZH-D044-5D-C	4.4				
ZH-D045-5D-C	4.5				
ZH-D046-5D-C	4.6				
ZH-D047-5D-C	4.7				
ZH-D048-5D-C	4.8	44	6	82	内冷 Internal Coolant
ZH-D049-5D-C	4.9				
ZH-D050-5D-C	5.0				
ZH-D051-5D-C	5.1				
ZH-D052-5D-C	5.2				
ZH-D053-5D-C	5.3				
ZH-D054-5D-C	5.4				
ZH-D055-5D-C	5.5				
ZH-D056-5D-C	5.6				
ZH-D057-5D-C	5.7				
ZH-D058-5D-C	5.8				
ZH-D059-5D-C	5.9				
ZH-D060-5D-C	6.0				
ZH-D061-5D-C	6.1	53	8	91	内冷 Internal Coolant
ZH-D062-5D-C	6.2				
ZH-D063-5D-C	6.3				
ZH-D064-5D-C	6.4				
ZH-D065-5D-C	6.5				
ZH-D066-5D-C	6.6				
ZH-D067-5D-C	6.7				
ZH-D068-5D-C	6.8				
ZH-D069-5D-C	6.9				
ZH-D070-5D-C	7.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D071-5D-C	7.1	53	8	91	内冷 Internal Coolant
ZH-D072-5D-C	7.2				
ZH-D073-5D-C	7.3				
ZH-D074-5D-C	7.4				
ZH-D075-5D-C	7.5				
ZH-D076-5D-C	7.6				
ZH-D077-5D-C	7.7				
ZH-D078-5D-C	7.8				
ZH-D079-5D-C	7.9				
ZH-D080-5D-C	8.0				
ZH-D081-5D-C	8.1	61	10	103	内冷 Internal Coolant
ZH-D082-5D-C	8.2				
ZH-D083-5D-C	8.3				
ZH-D084-5D-C	8.4				
ZH-D085-5D-C	8.5				
ZH-D086-5D-C	8.6				
ZH-D087-5D-C	8.7				
ZH-D088-5D-C	8.8				
ZH-D089-5D-C	8.9				
ZH-D090-5D-C	9.0				
ZH-D091-5D-C	9.1				
ZH-D092-5D-C	9.2				
ZH-D093-5D-C	9.3				
ZH-D094-5D-C	9.4				
ZH-D095-5D-C	9.5				
ZH-D096-5D-C	9.6				
ZH-D097-5D-C	9.7				
ZH-D098-5D-C	9.8				
ZH-D099-5D-C	9.9				
ZH-D100-5D-C	10.0				

铣加工系列

硬质合金钻头内冷5D
Carbide drill Internal cooling 5D





型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D101-5D-C	10.1	71	12	118	内冷 Internal Coolant
ZH-D102-5D-C	10.2				
ZH-D103-5D-C	10.3				
ZH-D104-5D-C	10.4				
ZH-D105-5D-C	10.5				
ZH-D106-5D-C	10.6				
ZH-D107-5D-C	10.7				
ZH-D108-5D-C	10.8				
ZH-D109-5D-C	10.9				
ZH-D110-5D-C	11.0				
ZH-D111-5D-C	11.1				
ZH-D112-5D-C	11.2				
ZH-D113-5D-C	11.3				
ZH-D114-5D-C	11.4				
ZH-D115-5D-C	11.5				
ZH-D116-5D-C	11.6				
ZH-D117-5D-C	11.7				
ZH-D118-5D-C	11.8				
ZH-D119-5D-C	11.9				
ZH-D120-5D-C	12.0				
ZH-D121-5D-C	12.1	77	14	124	内冷 Internal Coolant
ZH-D122-5D-C	12.2				
ZH-D123-5D-C	12.3				
ZH-D124-5D-C	12.4				
ZH-D125-5D-C	12.5				
ZH-D126-5D-C	12.6				
ZH-D127-5D-C	12.7				
ZH-D128-5D-C	12.8				
ZH-D129-5D-C	12.9				
ZH-D130-5D-C	13.0				

型号 Designation	刃径 Flute diameter	刃长 Flute length	柄径 Shank dia	总长 Overall length	冷却 Coolant
	d	L1	D	L	
ZH-D131-5D-C	13.1	77	14	124	内冷 Internal Coolant
ZH-D132-5D-C	13.2				
ZH-D133-5D-C	13.3				
ZH-D134-5D-C	13.4				
ZH-D135-5D-C	13.5				
ZH-D136-5D-C	13.6				
ZH-D137-5D-C	13.7				
ZH-D138-5D-C	13.8				
ZH-D139-5D-C	13.9				
ZH-D140-5D-C	14.0				
ZH-D141-5D-C	14.1	83	16	133	内冷 Internal Coolant
ZH-D142-5D-C	14.2				
ZH-D143-5D-C	14.3				
ZH-D144-5D-C	14.4				
ZH-D145-5D-C	14.5				
ZH-D146-5D-C	14.6				
ZH-D147-5D-C	14.7				
ZH-D148-5D-C	14.8				
ZH-D149-5D-C	14.9				
ZH-D150-5D-C	15.0				
ZH-D151-5D-C	15.1				
ZH-D152-5D-C	15.2				
ZH-D153-5D-C	15.3				
ZH-D154-5D-C	15.4				
ZH-D155-5D-C	15.5				
ZH-D156-5D-C	15.6				
ZH-D157-5D-C	15.7				
ZH-D158-5D-C	15.8				
ZH-D159-5D-C	15.9				
ZH-D160-5D-C	16.0				

铣加工系列

硬质合金钻头切削参数(推荐)
Carbide drill cutting parameters (recommended)

直径mm Diameter mm	进给系列mm/r Feed series mm/r							
	A	B	C	D	E	F	G	H
3.00	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.15
4.00	0.04	0.05	0.06	0.08	0.10	0.12	0.15	0.18
5.00	0.05	0.06	0.07	0.09	0.10	0.12	0.16	0.18
6.00	0.05	0.07	0.08	0.10	0.12	0.15	0.18	0.20
8.00	0.06	0.08	0.10	0.12	0.15	0.18	0.20	0.25
10.00	0.08	0 10	0.12	0.15	0.18	0.20	0.25	0.30
12.00	0.10	0.12	0.15	0.18	0.20	0.25	0.30	0.35
16.00	0.12	0.15	0.18	0.20	0.25	0.30	0.35	0.40
20.00	0 15	0 18	0.20	0.25	0 30	0 35	0.40	0 50

- 硬质合金钻头应在高刚性大功率机床上使用
- 应保证主轴—刀柄—刀尖跳动误差在0.02范围内
- 使用内冷麻花钻头时，应保证内冷压力不小于:
  φ5时20kgf/cm', φ10时15kgf/cm',
  φ15时10kgf/cm',φ20 时7kgf/cm';
  内冷直槽钻由于排屑困难，内冷压力还应相应提高
- 本推荐参数需根据实际加工情况进行调整

加工材料组ISO Processed material group ISO	被加工材料 Material being processed	硬度 hardness		强度 Strength	材料举例 Examples of materials		3xD外冷		3xD内冷		5xD外冷		5xD内冷	
		HB	HRC	N/mm²	中国 China	国际 International	Vc	f	Vc	f	Vc	f	Vc	f
1.P钢	易切钢	<150		<700	Y12, Y15Pb	10S20, 11SMnPb36	130	E	150	E	117	E	135	E
		>150		>700	Y35, Y40Mn	35S520, 44SMn28	110	D	125	D	99	D	113	D
	碳素结构钢	<200		<700	Q235A, Q275	S235JR, S275J2G3	105	E	120	E	95	E	108	E
		<250		<850	35#, 45#	C35E4, C45E4	90	E	105	E	81	E	95	E
		<300	<31	<1000	55#, 65#	C55E4, C60E4,	80	E	90	E	72	E	81	E
	合金结构钢	<300	<31	<1000	20Cr, 20CrMo	20Cr4, 18CrMo4	85	E	100	E	77	E	90	E
		<350	<37	<1200	40Cr, 42CrMo	41Cr4, 42CrMo4	75	D	85	D	68	D	77	D
	模具钢	<300	<31	<1000	Cr12, Cr12MoV1	210Cr12, 160CrMoV12	85	D	100	D	77	D	90	D
		<350	<37	<1200	CrWMn, 3CrW8V	105WCr1, 30WCrV9	75	D	85	D	68	D	77	D
	工具钢	<300	<31	<1000	9SiCr, [r2	100Cr2,	60	D	70	D	54	D	63	D
	铁素体不锈钢	<200		<700	0Cr13Al, 1Cr17	X6CrA[13, X6Cr17-1	55	C	63	C	50	C	57	C
	马氏体不锈钢	<240		<820	2Cr13, 1Cr17Ni2	X20Cr13, X17CrNi16-2	55	C	63	C	50	C	57	C
2.M不锈钢	奥氏体不锈钢	<250		<850	0Cr19Ni9	X5CrNi18-10,	45	B	50	B			45	B
					0Cr17Ni17Mo2	X5CrNiCrM017-12-2								
	双相不锈钢	<250		<850	0Cr 26Ni5Mo2		45	B	50	B			45	B
3.K铸铁	灰铸铁	<240			HT250, HT350	250, 350	160	G	180	G	144	G	162	G
	球墨铸铁	<300			QT500, QT600	500-7, 600-3	120	F	135	F	108	F	122	F
	可锻铸铁	<300			KTH350-10,KTB400-05	B35-10, W40-05	90	F	105	F	81	F	95	F
4.N铝及铝合金	纯铝	<120		<400	1A50/L3	A199.5								
	变形铝合金≤0.5Si	<120		<400	LF5-1, LD30	AlMg5, AlMg1SiCu								
	铸造铝合金≤10Si	<160		<550	ZL101, ZL104	AlSi7Mg, AlSi9Cu3	160	G	180	G	144	G	162	G
	铸造铝合金> 10Si	<160		<550	ZL102, ZL109	AlSi12, AlSi12Cu	140	G	160	G	126	G	144	G
5.N铜及铜合金	紫铜, 低合金铜	<120		<400	Tu2, H96	Cu-0F, CuSn5								
	黄铜	<160		<550	HPb63, HPb59	CuZn35Pb1, CuZn39Pb3	160	G	180	G	144	G	162	G
	青铜	<160		<550	QSn8, BSn18-26	CuSn8, CuNi18Zn27	90	G	105	G	81	G	95	G
6.S难加工材料 优质耐热合金	纯钛, 钛合金			<400	TA2	Ti99.5								
	Alpha+beta钛合金			<1050	TC4, -	TiAl6V4, TiAl6Zr5								
	铁基耐热合金	<280		<950										
	镍铬、镍钼、镍钴合金、钴铬合金	<350		<1200		Hastelloy, Monel, Inconel								
7.H高硬材料	淬硬钢		<48											
			<62											
	冷硬铸铁		<55											

刀柄系列

刀柄系列
Toolholder Series



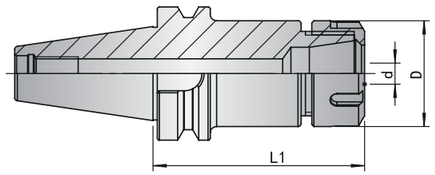
(MAS 403)

BT筒夹刀柄

BT collet holder

- 夹持部位回转精度≤0.003mm
- Rotational accuracy of the clamping part ≤0.003mm





型号 Designation	夹持范围d Clamping Range d	L1	D	重量 Kg Weight
BT30H060ER11	0.5-7	60	19	0.45
BT30H100ER11		100		0.50
BT30H070ER16	1-10	70	28	
BT30H100ER16		100		0.64
BT30H070ER20	2-13	70	34	0.55
BT30H100ER20		100		0.76
BT30H070ER25	2-16	70	42	0.64
BT30H100ER25		100		0.98
BT30H070ER32	3-20	70	50	0.70
BT30H100ER32		100		1.14
BT40H070ER11	0.5-7	70	19	1.00
BT40H100ER11		100		1.15
BT40H070ER16	1-10	70	28	1.08
BT40H100ER16		100		1.21
BT40H150ER16		150		1.44
BT40H070ER20	2-13	70	34	1.12
BT40H100ER20		100		1.33
BT40H150ER20		150		1.65
BT40H070ER25	2-16	70	42	1.22
BT40H100ER25		100		1.49
BT40H150ER25		150		1.97
BT40H070ER32	3-20	70	50	1.27
BT40H100ER32		100		1.70
BT40H150ER32		150		2.39
BT40H080ER40	3-26	80	63	1.62
BT40H100ER40		100		2.08
BT40H150ER40		150		2.55

BORING SYSTEM

(MAS 403)

BT筒夹刀柄

BT collet holder

- 夹持部位回转精度≤0.003mm
- Rotational accuracy of the clamping part ≤0.003mm

刀柄系列

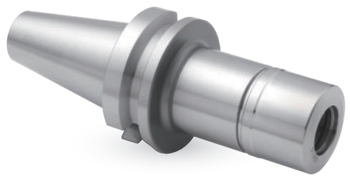
型号 Designation	夹持范围d Clamping Range d	L1	D	重量 Kg Weight
BT50H070ER16	1-10	70	28	3.67
BT50H100ER16		100		3.77
BT50H150ER16		150		4.00
BT50H070ER20	2-13	70	34	3.66
BT50H100ER20		100		3.75
BT50H150ER20		150		4.22
BT50H200ER20		200		4.66
BT50H070ER25	2-16	70	42	3.64
BT50H100ER25		100		4.02
BT50H150ER25		150		4.54
BT50H200ER25		200		5.01
BT50H070ER32	3-20	70	50	3.75
BT50H100ER32		100		4.07
BT50H150ER32		150		4.82
BT50H200ER32		200		5.32
BT50H250ER32		250		5.92
BT50H300ER32		350		6.60
BT50H080ER40	3-26	80	63	3.93
BT50H100ER40		100		4.38
BT50H150ER40		150		5.51
BT50H200ER40		200		6.30

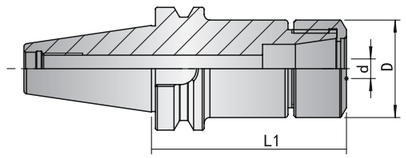
(MAS 403)

BT筒夹刀柄

BT collet holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm





型号 Designation	夹持范围d Clamping Range d	L1	D	重量 Kg Weight
BT30H060GSK06	1-6	60	19.5	0.45
BT30H090GSK06		90		0.50
BT30H060GSK10	1-10	60	27	
BT30H090GSK10		90		0.60
BT30H060GSK16	1-16	60	40	0.55
BT30H090GSK16		90		0.80
BT30H100GSK25	16-25.4	100	54	1.10
BT40H060GSK06	1-6	60	19.5	1.00
BT40H090GSK06		90		1.05
BT40H060GSK10	1-10	60	27	1.60
BT40H090GSK10		90		1.70
BT40H120GSK10		120		1.80
BT40H060GSK16	1-16	60	40	1.05
BT40H090GSK16		90		1.15
BT40H120GSK16		120		1.25
BT40H075GSK25	5-25	75	55	1.60
BT40H090GSK25		90		1.70
BT40H120GSK25		120		1.80
BT50H070GSK06	2-6	70	20	3.60
BT50H100GSK06		100		3.90
BT50H100GSK10	1-10		27	4.00
BT50H120GSK10		120		4.10
BT50H165GSK10		165		4.40
BT50H100GSK16	1-16	100	40	4.30
BT50H120GSK16		120		4.60
BT50H165GSK16		165		4.80
BT50H100GSK25	5-25	100	55	4.30
BT50H120GSK25		120		4.60
BT50H165GSK25		165		4.80

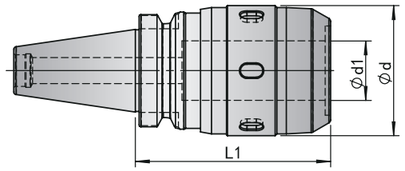
(MAS 403)

BT强力刀柄

BT Power milling chuck

- 夹持部位回转精度≤0.005mm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.005mm
- Tolerance of the shank diameter h6





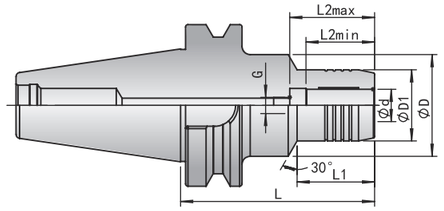
型号 Designation	L1	d1	d	重量 Kg Weight
BT30H090PAC20	90	53	20	1.50
BT40H090PAC25	90	53	25	1.80
BT40H135PAC25	130	62	25	2.60
BT40H110PAC32	110	68	32	2.30
BT50H100PAC25	100	62	58	2.20
BT50H165PAC25	165	62	25	2.80
BT50H110PAC32	110	68	32	1.90
BT50H165PAC32	165	68	32	3.10
BT50H110PAC42	110	92	42	5.50
BT50H165PAC42	165	92	42	7.60

(MAS 403)

BT液压刀柄
BT Hydraulic tool holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6





型号 Designation	d	D	D1	L	L1	L2max	L2min	重量kg Weight
BT40H065HDC10	10	45	32	65	23	42	32	1.36
BT40H090HDC10				90	44			1.42
BT40H140HDC10				140	92			1.61
BT40H065HDC12	12		34	65	23	47	37	1.39
BT40H090HDC12				90	44			1.48
BT40H140HDC12				140	92			1.64
BT40H065HDC14	14		36	65	23	47	37	1.44
BT40H090HDC14				90	44			1.53
BT40H140HDC14				140	92			1.68
BT40H065HDC16	16	48	38	65	23	52	42	1.48
BT40H090HDC16				90	48			1.54
BT40H140HDC16				140	94			1.72
BT40H075HDC18	18	50	41	75	30	52	42	1.55
BT40H090HDC18				90	48			1.61
BT40H140HDC18				140	96			1.76
BT40H075HDC20	20	52	43	75	30	52	42	1.59
BT40H090HDC20				90	42			1.65
BT40H140HDC20				140	92			1.8
BT40H100HDC25	25	58	54	100	48	61	51	1.75
BT40H135HDC25				135	108			1.82
BT40H105HDC32	32	62	58	105	56	65	55	2.18
BT40H135HDC32				135	108			1.86

BORING SYSTEM

(MAS 403)

BT液压刀柄
BT Hydraulic tool holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6

刀柄系列

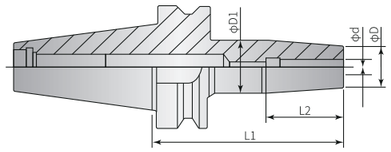
型号 Designation	d	D	D1	L	L1	L2max	L2min	重量kg Weight
BT50H090HDC10	10	45	32	90	32	42	32	4.06
BT50H120HDC10				120	44			4.12
BT50H140HDC10				140				4.2
BT50H090HDC12	12		34	90	32	47	37	4.16
BT50H120HDC12				120	44			4.22
BT50H140HDC12				140				4.54
BT50H090HDC14	14		36	90	32	47	37	4.4
BT50H120HDC14				120	44			4.5
BT50H140HDC14				140				4.6
BT50H090HDC16	16		38	90	34	52	42	4.4
BT50H120HDC16				120	48			4.5
BT50H140HDC16				140				4.7
BT50H090HDC18	18		41	90	32	52	42	4.45
BT50H120HDC18				120	48			4.55
BT50H140HDC18				140				4.6
BT50H090HDC20	20	52	43	90	34	52	42	4.18
BT50H120HDC20				120	48			4.61
BT50H140HDC20				140				4.69
BT50H105HDC25	25	57	-	105	67	61	51	4.72
BT50H150HDC25				150	112			4.83
BT50H115HDC32	32	63	-	115	77	65	55	4.84
BT50H150HDC32				150	112			4.95

(MAS 403)

BT热缩刀柄
BTHeat shrink shank

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6





型号 Designation	d	D	D1	L1	L2	质量 Kg Weight
BT40H090SD06	6	21	27	90	36	1.25
BT40H120SD06			30.2	120		1.1
BT40H160SD06			33.3	160		1.17
BT40H090SD08	8	21	27	90	36	1.21
BT40H120SD08			30.2	120		1.18
BT40H160SD08			33.3	160		1.25
BT40H090SD10	10	24	30	90	41	1.2
BT40H120SD10			35.2	120		1.21
BT40H160SD10			38.3	160		1.27
BT40H090SD12	12	24	30	90	47	1.21
BT40H120SD12			35.2	120		1.25
BT40H160SD12			38.3	160		1.32
BT40H090SD14	14	27	34	90	47	1.24
BT40H120SD14			37.2	120		1.28
BT40H160SD14			40.3	160		1.38
BT40H090SD16	16	27	34	90	50	1.21
BT40H120SD16			37.2	120		1.3
BT40H160SD16			40.3	160		1.42
BT40H090SD18	18	33	42	90	50	1.4
BT40H120SD18			-	120		1.19
BT40H160SD18			48.3	160		1.57
BT40H090SD20	20	33	42	90	52	1.37
BT40H120SD20			-	120		1.31
BT40H160SD20			48.3	160		1.52
BT40H090SD25	25	44	52	90	58	1.64
BT40H120SD25			-	120		1.41
BT40H160SD25			-	160		1.71
BT40H100SD32	32	44	-	100	58	1.64

(MAS 403)

BT热缩刀柄
BTHeat shrink shank

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6

型号 Designation	d	D	D1	L1	L2	质量 Kg Weight
BT50H100SD06	6	21	27	100	36	3.92
BT50H130SD06			30.2	130		3.55
BT50H160SD06			33.3	160		3.69
BT50H200SD06			37.5	200		3.89
BT50H100SD08	8	21	27	100	36	3.92
BT50H130SD08			30.2	130		3.69
BT50H160SD08			33.3	160		3.79
BT50H200SD08			37.5	200		4.02
BT50H100SD10	10	24	30	100	41	3.9
BT50H130SD10			35.2	130		3.59
BT50H160SD10			38.3	160		3.77
BT50H200SD10			40.5	200		4.02
BT50H100SD12	12	24	30	100	47	3.94
BT50H130SD12			35.2	130		3.73
BT50H160SD12			38.3	160		3.82
BT50H200SD12			40.5	200		4.07
BT50H100SD14	14	27	34	100	47	4.02
BT50H130SD14			37.2	130		3.78
BT50H160SD14			40.3	160		3.83
BT50H200SD14			43.5	200		4.16
BT50H100SD16	16	27	34	100	50	3.96
BT50H130SD16			37.2	130		3.74
BT50H160SD16			40.3	160		3.89
BT50H200SD16			43.5	200		4.19
BT50H100SD18	18	33	42	100	50	4.12
BT50H130SD18			-	130		3.79
BT50H160SD18			48.3	160		3.97
BT50H200SD18			51.1	200		4.3
BT50H100SD20	20	33	42	100	52	4.06
BT50H130SD20			-	130		3.78
BT50H160SD20			48.3	160		3.94
BT50H200SD20			51.1	200		4.22
BT50H100SD25	25	44	52	100	58	4.36
BT50H130SD25			-	130		3.89
BT50H160SD25			-	160		4.17
BT50H200SD25			60.5	200		4.67
BT50H100SD32	32	44	52	100	62	4.15
BT50H130SD32			-	130		3.99
BT50H160SD32			-	160		4.37
BT50H200SD32			60.5	200		5.01

(MAS 403)

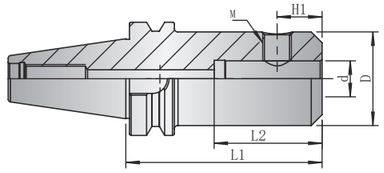
BT侧固式刀柄

BT side lock tool holder

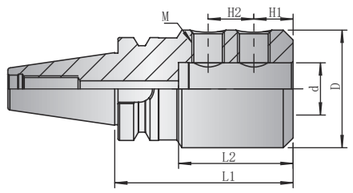
- 夹持部位回转精度≤0.005mm
- Rotational accuracy of the clamping part ≤0.005mm



图一



图二



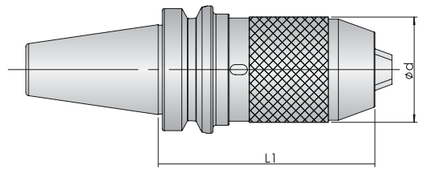
型号 Designation	图示 Icon	L1	L2	H1	H2	D	d	M	重量 Kg Weight
BT30H075SLN16	1	75	50	24	-	48	16	M14	1.05
BT30H075SLN20	1	75	60	25	-	52	20	M16	1.10
BT30H090SLN25	2	90	65	24	25	65	25	M18	1.70
BT40H100SLN20	1	100	60	25	-	52	20	M16	2.10
BT40H100SLN25	2	100	65	24	25	65	25	M18	2.32
BT40H100SLN32	2	100	70	24	28	72	32	M20	3.80
BT40H105SLN40	1	105	80	30	32	80	40	M20	4.10
BT50H100SLN20	2	100	60	25	-	52	20	M16	4.45
BT50H150SLN20	2	150	60	25	-	52	20	M16	5.30
BT50H100SLN25	2	100	65	24	25	65	25	M18	4.62
BT50H150SLN25	2	150	65	24	25	65	25	M18	5.92
BT50H105SLN32	2	105	70	24	28	72	32	M20	4.80
BT50H150SLN32	2	150	70	24	28	72	32	M20	6.60
BT50H115SLN40	2	115	80	30	32	80	40	M20	5.42
BT50H150SLN40	2	150	80	30	32	80	40	M20	6.78
BT50H120SLN42	2	120	85	30	32	82	42	M20	6.14
BT50H120SLN50	2	120	85	35	35	90	50	M24	6.30
BT50H150SLN50	2	150	85	35	35	90	50	M24	8.20

(MAS 403)

BT钻夹头刀柄

BT drill tool holder





型号 Designation	夹持范围 Clamping range	L1	d	重量 Kg Weight
BT40H085APU8	1-8	85	37	1.36
BT40H105APU13	1-13	105	49	1.8
BT40H120APU16	1-16	120	54	2.35
BT50H095APU8	1-8	95	37	4.45
BT50H120APU13	1-13	120	49	5.4
BT50H130APU16	1-16	130	54	5.24
BT50H165APU16	1-16	165		6.15
BT50H190APU16	1-16	190		6.66

(MAS 403)

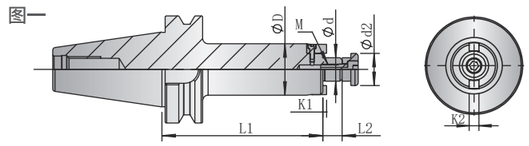
BT 面铣刀柄

BT face milling cutter handle

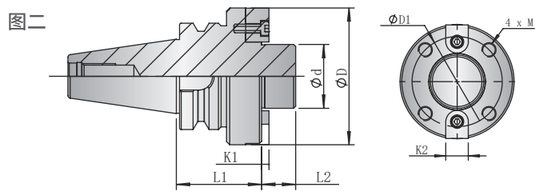
- 夹持部位回转精度≤0.01mm
- Rotational accuracy of the clamping part ≤0.01mm



图一



图二



型号 Designation	图示 Icon	d	d2	D	D1	L1	L2	K1	K2	M	重量 Kg Weight
BT30H060FMB22		22	-	45	-	60	18	4.8	10	M10x30	1.03
BT30H060FMB27		27	33	54	-	60	20	5.8	12	M12x35	1.30
BT30H060FMB32		32	41	58	-		22	6.8	14	M16x35	2.00
BT40H060FMB22		22	-	48	-	60	18	4.8	10	M10x30	1.51
BT40H100FMB22					-	100				M10x30	1.94
BT40H150FMB22					-	150				M10x30	2.70
BT40H200FMB22					-	200				M10x30	3.43
BT40H060FMB27	—	27	33	60	-	60	20	5.8	12	M12x35	1.86
BT40H100FMB27					-	100				M12x35	2.75
BT40H150FMB27					-	150				M12x35	3.02
BT40H060FMB32		32	41	62	-	60	22	6.8	14	M16x35	2.32
BT40H100FMB32					-	100				M16x35	3.25
BT40H150FMB32					-	150				M16x35	3.52
BT40H200FMB32					-	200				M16x35	4.03
BT40H060FMB40		40	48	80	-	60	25	8.3	16	M16x35	2.47
BT40H100FMB40					-	100				M16x35	3.15
BT40H150FMB40					-	150				M16x35	3.85
BT40H200FMB40					-	200				M16x35	4.56
BT40H060FMB40F	二	40	-	99	66.7	60	25	8.3	16	M12x35	2.8
BT40H100FMB40F						100				M12x35	3.6

(MAS 403)

BT 面铣刀柄

BT face milling cutter handle

- 夹持部位回转精度≤0.01mm
- Rotational accuracy of the clamping part ≤0.01mm

型号 Designation	图示 Icon	d	d2	D	D1	L1	L2	K1	K2	M	重量 Kg Weight
BT50H060FMB22	—	22	-	48	-	60	18	4.8	10	M10x30	4.41
BT50H100FMB22					-	100					4.57
BT50H150FMB22					-	150					5.27
BT50H200FMB22					-	200					5.97
BT50H250FMB22					-	250					6.72
BT50H300FMB22					-	300					7.37
BT50H060FMB27		27	33	60	-	60	20	5.8	12	M12x35	4.24
BT50H100FMB27					-	100					5.13
BT50H150FMB27					-	150					6.25
BT50H200FMB27					-	200					7.73
BT50H060FMB32		32	41	73	-	60	22	6.8	14	M16x35	5.38
BT50H100FMB32					-	100					5.98
BT50H150FMB32					-	150					7.1
BT50H200FMB32					-	200					7.95
BT50H060FMB40		40	48	80	-	60	25	8.3	16	M16x35	5.2
BT50H100FMB40					-	100					6.6
BT50H150FMB40					-	150					8.1
BT50H200FMB40					-	200					9.6
BT50H060FMB40F	二	40	-	99	66.7	60	25	8.3	16	M12x35	5.5
BT50H100FMB40F						100					6.7
BT50H150FMB40F						150					7.5
BT50H200FMB40F						200					10.75
BT50H075FMB60	二	40	-	128.5	101.6	75	25	12.5	25.4	M16x50	8.9
BT50H100FMB60						100					10
BT50H150FMB60						150					13.5
BT50H200FMB60						200					16
BT50H250FMB60						250					19
BT50H300FMB60						300					24
BT50H350FMB60						350					28

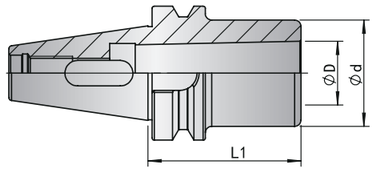
(MAS 403)

BT莫氏刀柄(扁尾型)

BT Morse taper shank (tang type)

- 夹持部位回转精度≤0.005 mm
- Rotational accuracy of the clamping part ≤0.005mm





型号 Designation	L1	D	d	重量 Kg Weight
BT40H045MTA1	45	12.065	25	1.05
BT40H120MTA1	120			1.28
BT40H060MTA2	60	17.780	32	1.10
BT40H120MTA2	120			1.41
BT40H075MTA3	75	23.825	40	1.20
BT40H135MTA3	135			1.75
BT40H095MTA4	95	31.267	48	1.35
BT40H165MTA4	165			2.30
BT50H045MTA1	45	12.065	25	3.59
BT50H120MTA1	120			3.88
BT50H060MTA2	60	17.780	32	3.64
BT50H135MTA2	135			4.17
BT50H180MTA2	180			5.00
BT50H075MTA3	75	23.825	40	3.90
BT50H150MTA3	150			4.40
BT50H180MTA3	180			5.50
BT50H075MTA4	75	31.267	48	3.80
BT50H150MTA4	150			5.00
BT50H180MTA4	180			5.00
BT50H105MTA5	105	44.399	63	3.80

BORING SYSTEM

(MAS 403)

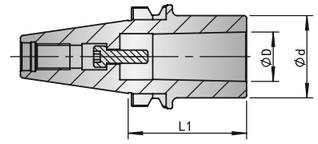
BT莫氏刀柄(无扁尾)

BT Morse taper shank (tangless type)

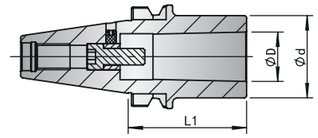
- 夹持部位回转精度≤0.005 mm
- Rotational accuracy of the clamping part ≤0.005mm



图一



图二



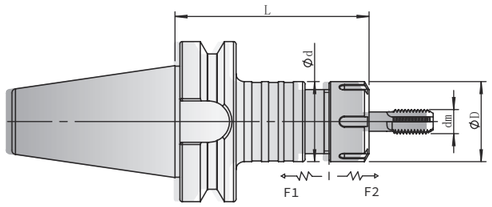
型号 Designation	图示 Icon	L1	D	d	重量 Kg Weight
BT40H045MTB1	一	45	12.065	25	1
BT40H050MTB2		50	17.78	32	1.02
BT40H075MTB3	二	75	23.825	40	1.19
BT40H090MTB4		90	31.267	48	1.33
BT50H045MTB1	一	45	12.065	25	3.3
BT50H060MTB2			17.78	32	3.5
BT50H060MTB3		60	23.825	40	3.61
BT50H075MTB4		75	31.267	48	3.92
BT50H120MTB5	二	120	44.399	63	4.1

刀柄系列

(MAS 403)

BT微补偿攻丝刀柄

BT Micro compensation tapping tool handle

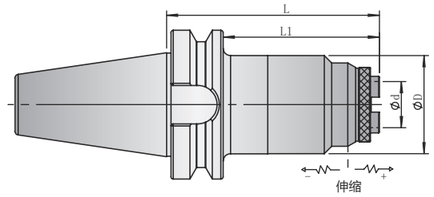


型号 Designation	攻牙范围 Tapping range	D	d	L	F1	F2	筒夹名称 Collet
BT40-TAP20V-106	M2-M16	34	47	106	1	1	20ER
BT40-TAP25V-108	M2-M22	42		108			25ER
BT40-TAP32V-110	M2-M30	50		110			32ER
BT50-TAP20V-112	M2-M30	34	47	112	1	1	20ER
BT50-TAP25V-113	M2-M22	42		113			25ER
BT50-TAP32V-115	M2-M30	50		115			32ER

(MAS 403)

BT柔性伸缩攻丝刀柄

BT flexible telescopic tapping tool handle



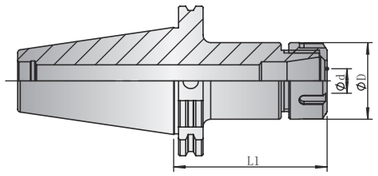
型号 Designation	攻牙范围 Tapping range		D	d	L	L1	筒夹名称 Collet
BT40-G3-90-D19	ISO	M2-M16	46	19	90	63	G3-D19
	JIS						
	DIN	M2-M12					
BT40-G3-180-D19	ISO	M2-M16	46	19	180	153	G3-D19
	JIS						
	DIN	M2-M12					
BT40-G12-145-D31	ISO	M6-M30	63	31	145	118	G12-D31
	JIS						
	DIN						
BT50-G3-100-D19	ISO	M2-M16	46	19	100	62	G3-D19
	JIS						
	DIN	M2-M12					
BT50-G3-200-D19	ISO	M2-M16	46	19	200	162	G3-D19
	JIS						
	DIN	M2-M12					
BT50-G12-140-D31	ISO	M6-M30	66	31	140	102	G12-D31
	JIS						
	DIN						
BT50-G12-210-D31	ISO	M6-M30	66	31	210	172	G12-D31
	JIS						
	DIN						
BT50-G24-175-D45	ISO	M24-M48	92	45	175	137	G24-D45
	JIS						

(DIN 69871)

SK筒夹刀柄

SK Collet holder

- 夹持部位回转精度≤0.003mm
- Rotational accuracy of the clamping part ≤0.003mm



型号 Designation	夹持范围 Clamping range	L1	d1	重量 Weight
SK40H080ER11	1-7	80	19	1.05
SK40H100ER11	1-7	100	19	1.10
SK40H100ER16	1-10	100	28	1.40
SK40H150ER16	1-10	150	28	1.65
SK40H070ER20	1-13	70	34	1.40
SK40H100ER20	1-13	100	34	1.50
SK40H150ER20	1-13	150	34	1.60
SK40H070ER25	1-16	70	42	1.60
SK40H100ER25	1-16	100	42	1.85
SK40H150ER25	1-16	150	42	2.25
SK40H070ER32	2-20	70	50	1.60
SK40H100ER32	2-20	100	50	2.0
SK40H150ER32	2-20	150	50	2.65
SK40H070ER40	2-26	70	63	1.50
SK40H100ER40	2-26	100	63	2.0
SK40H150ER40	2-26	150	63	3.80

(DIN 69871)

SK筒夹刀柄

SK Collet holder

- 夹持部位回转精度≤0.003mm
- Rotational accuracy of the clamping part ≤0.003mm

型号 Designation	夹持范围 Blade seat model	L1	d1	重量 Weight
SK50H100ER16	1-10	100	28	3.20
SK50H150ER16	1-10	150	28	4.0
SK50H200ER16	1-10	200	28	4.70
SK50H070ER20	1-13	70	34	3.20
SK50H100ER20	1-13	100	34	3.40
SK50H150ER20	1-13	150	34	4.10
SK50H200ER20	1-13	200	34	4.70
SK50H080ER25	1-16	80	42	3.70
SK50H100ER25	1-16	100	42	4.15
SK50H150ER25	1-16	150	42	4.50
SK50H200ER25	1-16	200	42	4.80
SK50H080ER32	2-20	80	50	3.60
SK50H100ER32	2-20	100	50	4.10
SK50H150ER32	2-20	150	50	4.60
SK50H200ER32	2-20	200	50	5.10
SK50H080ER40	2-26	80	63	3.50
SK50H100ER40	2-26	100	63	4.30
SK50H150ER40	2-26	150	63	4.80
SK50H200ER40	2-26	200	63	5.20

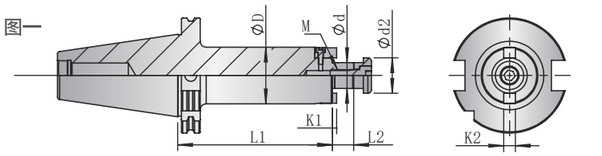
(DIN 69871)

SK面铣刀柄

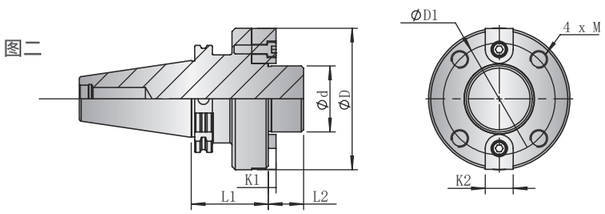
SK Face mill holder

- 夹持部位回转精度≤0.01mm
- Rotational accuracy of the clamping part ≤0.01mm

图一



图二



型号 Designation	图示 Picture	L1	L2	d	d2	D	D1	k1	k2	M	重量 Weight
SK40H060FMB22	—	60	18	22	-	48	-	4.8	10	M10x35	1.5
SK40H100FMB22	—	100	18	22	-	48	-	4.8	10	M10x35	1.9
SK40H150FMB22	—	150	18	22	-	48	-	4.8	10	M10x35	2.7
SK40H060FMB27	—	60	20	27	33	58	-	5.8	12	M12x35	1.9
SK40H100FMB27	—	100	20	27	33	58	-	5.8	12	M12x35	2.7
SK40H060FMB32	—	60	22	32	41	70	-	6.8	14	M16x35	2.3
SK40H100FMB32	—	100	22	32	41	70	-	6.8	14	M16x35	3.2
SK40H060FMB40	—	60	25	40	48	80	-	8.3	16	M16x35	2.5
SK40H100FMB40	—	100	25	40	48	80	-	8.3	16	M16x35	2.1

BORING SYSTEM

(DIN 69871)

SK面铣刀柄

SK Face mill holder

- 夹持部位回转精度≤0.01mm
- Rotational accuracy of the clamping part ≤0.01mm

型号 Designation	图示 Picture	L1	L2	d	d2	D	D1	k1	k2	M	重量 Weight
SK50H060FMB22	—	60	18	22	-	48	-	4.8	10	M10x35	4.35
SK50H100FMB22	—	100	18	22	-	48	-	4.8	10	M10x35	4.5
SK50H150FMB22	—	150	18	22	-	48	-	4.8	10	M10x35	5.2
SK50H200FMB22	—	200	18	22	-	48	-	4.8	10	M10x35	5.9
SK50H060FMB27	—	60	20	27	33	58	-	5.8	12	M12x35	4.1
SK50H100FMB27	—	100	20	27	33	58	-	5.8	12	M12x35	5.1
SK50H150FMB27	—	150	20	27	33	58	-	5.8	12	M12x35	6.2
SK50H200FMB27	—	200	20	27	33	58	-	5.8	12	M12x35	7.7
SK50H060FMB32	—	60	22	32	41	70	-	6.8	14	M16x35	5.3
SK50H100FMB32	—	100	22	32	41	70	-	6.8	14	M16x35	5.9
SK50H150FMB32	—	150	22	32	41	70	-	6.8	14	M16x35	7.1
SK50H200FMB32	—	200	22	32	41	70	-	6.8	14	M16x35	7.9
SK50H070FMB40	—	70	25	40	48	80	-	8.3	16	M16x35	5.5
SK50H100FMB40	—	100	25	40	48	80	-	8.3	16	M16x35	6.6
SK50H150FMB40	—	150	25	40	48	80	-	8.3	16	M16x35	8.1
SK50H200FMB40	—	200	25	40	48	80	-	8.3	16	M16x35	9.6
SK50H070FMB40F	二	70	25	40	-	99	66.7	8.3	16	M12x35	5.5
SK50H100FMB40F	二	100	25	40	-	99	66.7	8.3	16	M12x35	6.7
SK50H150FMB40F	二	150	25	40	-	99	66.7	8.3	16	M12x35	7.5
SK50H200FMB40F	二	200	25	40	-	99	66.7	8.3	16	M12x35	10.75
SK50H070FMB60	二	70	25	60	-	128.5	101.6	12.5	25.4	M16x35	7.2
SK50H100FMB60	二	100	25	60	-	128.5	101.6	12.5	25.4	M16x35	8
SK50H150FMB60	二	150	25	60	-	128.5	101.6	12.5	25.4	M16x35	10.6
SK50H200FMB60	二	200	25	60	-	128.5	101.6	12.5	25.4	M16x35	12.4
SK50H250FMB60	二	250	25	60	-	128.5	101.6	12.5	25.4	M16x35	14.2

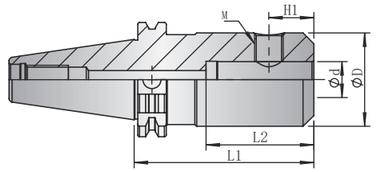
(DIN 69871)

SK侧固式刀柄

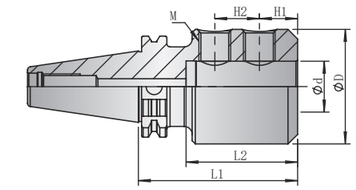
SK side lock tool holder

- 夹持部位回转精度≤0.005mm
- Rotational accuracy of the clamping part ≤0.005mm

图一



图二



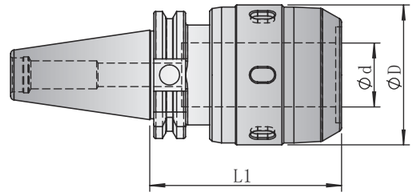
型号 Designation	图示 Picture	L1	L2	H1	H2	d	D	M	重量 Weight
SK40H100SLN16	—	100	50	24	-	16	48	M14	1.7
SK40H100SLN20	—	100	60	25	-	20	52	M16	2.0
SK40H100SLN25	二	100	65	24	25	25	65	M18	2.2
SK40H100SLN32	二	100	70	24	28	32	72	M20	2.7
SK50H100SLN16	—	100	50	24	-	16	48	M14	3.4
SK50H100SLN20	—	100	60	25	-	20	52	M16	3.7
SK50H100SLN25	二	100	65	24	25	25	65	M18	3.8
SK50H150SLN25	二	150	65	24	25	25	65	M18	5.2
SK50H100SLN32	二	100	70	24	28	32	72	M20	4.0
SK50H150SLN32	二	150	70	24	28	32	72	M20	5.8
SK50H115SLN40	二	115	80	30	32	40	80	M20	4.6
SK50H150SLN40	二	150	80	30	32	40	80	M20	6.0
SK50H120SLN42	二	120	85	30	32	42	82	M20	5.4
SK50H120SLN50	二	120	85	35	35	42	90	M24	5.5
SK50H150SLN50	二	150	85	35	35	50	90	M24	7.4

(DIN 69871)

SK强力刀柄

SK Power Chucks

- 夹持部位回转精度≤0.005mm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.005mm
- Tolerance of the shank diameter h6

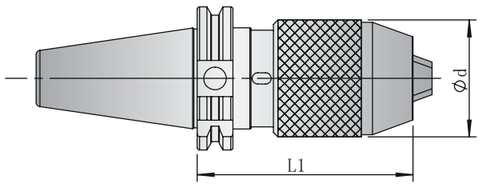


型号 Designation	L1	d1	d	重量 Weight
SK40H100PAC25	100	25	58	1.8
SK40H105PAC32	105	32	68	2.3
SK50H110PAC32	110	32	68	5.8
SK50H110PAC42	110	42	92	5.5

(DIN 69871)

SK钻夹头刀柄

SK Drill chuck holder



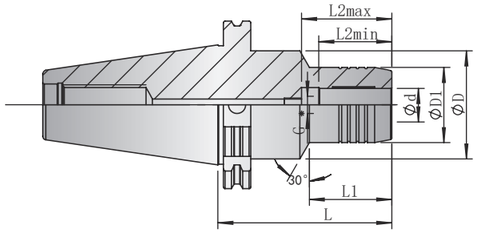
型号 Designation	夹持范围 Clamping range	L1	d	重量 Weight
SK40H085APU8	1-8	85	37	1.5
SK40H110APU13	1-13	110	50	2
SK40H110APU16	1-16	110	57	2.3
SK50H090APU8	1-8	90	37	4.2
SK50H105APU13	1-13	105	50	4.7
SK50H105APU16	1-16	105	57	5.1

(DIN 69871)

SK液压刀柄

SK Hydraulic Chuck

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6



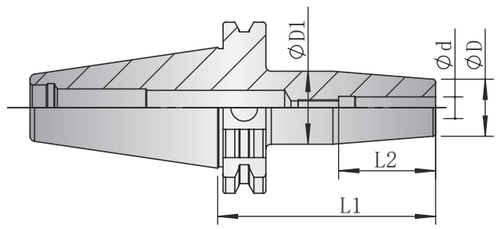
型号 Designation	d	D	D1	L	L1	L2max	L2min	重量 Weight
SK40H090HDC10	10	45	32	90	44	42	32	1.42
SK40H090HDC12	12	45	34	90	44	47	37	1.48
SK40H090HDC16	16	48	38	90	48	52	42	1.54
SK40H090HDC20	20	52	43	90	41	52	42	1.65
SK40H100HDC25	25	58	54	100	73	61	51	1.90
SK40H105HDC32	32	62	58	105	73	65	55	2.18
SK50H090HDC10	10	50	32	90	32	42	32	4.06
SK50H090HDC12	12	50	34	90	32	47	37	4.16
SK50H090HDC14	14	50	36	90	32	47	37	4.40
SK50H090HDC16	16	50	38	90	32	52	42	4.40
SK50H090HDC20	20	52	43	90	34	52	42	4.18
SK50H105HDC25	25	57	57	105	67	61	51	4.72
SK50H115HDC32	32	63	63	115	77	65	55	4.84

(DIN 69871)

SK热缩刀柄

SK Shrink fit holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6



型号 Designation	d	D	D1	L1	L2	重量 Weight
SK40H090SD06	6	21	27	90	36	1.25
SK40H120SD06			30.2	120		1.10
SK40H160SD06			33.3	160		1.17
SK40H090SD08	8	21	27	90	36	1.21
SK40H120SD08			30.2	120		1.18
SK40H160SD08			33.3	160		1.25
SK40H090SD10	10	24	30	90	41	1.20
SK40H120SD10			35.2	120		1.21
SK40H160SD10			38.3	160		1.27
SK40H090SD12	12	24	30	90	47	1.21
SK40H120SD12			35.2	120		1.25
SK40H160SD12			38.3	160		1.32
SK40H090SD16	16	27	34	90	50	1.21
SK40H120SD16			37.2	120		1.30
SK40H160SD16			40.3	160		1.42
SK40H090SD20	20	33	42	90	52	1.37
SK40H120SD20			-	120		1.31
SK40H160SD20			48.3	160		1.52
SK40H090SD25	25	44	52	90	58	1.64
SK40H120SD25			-	120		1.41
SK40H160SD25			-	160		1.71
SK40H100SD32	32	44	-	100	58	1.64

BORING SYSTEM

(DIN 69871)

SK热缩刀柄

SK Shrink fit holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6

刀柄系列

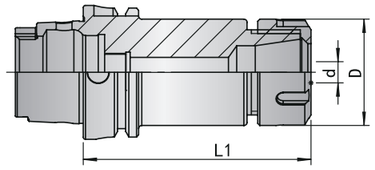
型号 Designation	d	D	D1	L1	L2	重量 Weight
SK50H100SD06	6	21	27	100	36	3.92
SK50H130SD06			30.2	130		3.55
SK50H160SD06			33.3	160		3.69
SK50H200SD06			37.5	200		3.89
SK50H100SD08	8	21	27	100	36	3.92
SK50H130SD08			30.2	130		3.69
SK50H160SD08			33.3	160		3.79
SK50H200SD08			37.5	200		4.02
SK50H100SD10	10	24	30	100	41	3.9
SK50H130SD10			35.2	130		3.59
SK50H160SD10			38.3	160		3.77
SK50H200SD10			40.5	200		4.02
SK50H100SD12	12	24	30	100	47	3.94
SK50H130SD12			35.2	130		3.73
SK50H160SD12			38.3	160		3.82
SK50H200SD12			40.5	200		4.07
SK50H100SD16	16	27	34	100	50	3.96
SK50H130SD16			37.2	130		3.74
SK50H160SD16			40.3	160		3.89
SK50H200SD16			43.5	200		4.19
SK50H100SD20	20	33	42	100	52	4.06
SK50H130SD20			-	130		3.78
SK50H160SD20			48.3	160		3.94
SK50H200SD20			51.1	200		4.22
SK50H100SD25	25	44	52	100	58	4.36
SK50H130SD25			-	130		3.89
SK50H160SD25			-	160		4.17
SK50H200SD25			60.5	200		4.67
SK50H100SD32	32	44	52	100	62	4.15
SK50H130SD32			-	130		3.99
SK50H160SD32			-	160		4.37
SK50H200SD32			60.5	200		5.01

(DIN 69893)

HSK筒夹刀柄
HSK collet holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm





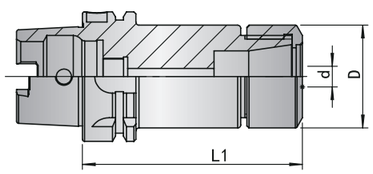
型号 Designation	夹持范围d Clamping Range d	L1	D	螺母 Nut	重量 Kg Weight
HSK63AH080ER16	0.5-10	80	28	ER16-A	1.5
HSK63AH100ER16		100			1.55
HSK63AH160ER16		160			1.85
HSK63AH080ER20	1.0-12	80	34	ER20-A	1.6
HSK63AH100ER20		100			1.75
HSK63AH160ER20		160			2.2
HSK63AH080ER25	1.0-16	80	42	ER25-UM	1.7
HSK63AH100ER25		100			1.9
HSK63AH160ER25		160			2.55
HSK63AH080ER32	2.0-20	80	50	ER32-UM	2.5
HSK63AH100ER32		100			2.8
HSK63AH160ER32		160			3.75
HSK63AH080ER40	3.0-26	80	63	ER40-UM	2.7
HSK63AH100ER40		100			3.2
HSK63AH160ER40		160			4.65
HSK100AH100ER16	0.5-10	100	28	ER16-A	2.95
HSK100AH160ER16		160			3.3
HSK100AH100ER20	1.0-12	100	34	ER20-A	3
HSK100AH160ER20		160			3.45
HSK100AH100ER25	1.0-16	100	42	ER25-UM	3.3
HSK100AH160ER25		160			3.95
HSK100AH100ER32	2.0-20	100	50	ER32-UM	3.4
HSK100AH160ER32		160			4.3
HSK100AH100ER40	3.0-26	100	63	ER40-UM	3.9
HSK100AH160ER40		160			5.3

(DIN 69893)

HSK筒夹刀柄
HSK collet holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm





型号 Designation	夹持范围d Clamping Range d	L1	D	重量 Kg Weight
HSK63AH070GSK06	1-6	70	19.5	0.75
HSK63AH070GSK10	1-10		27	0.80
HSK63AH100GSK10		100		0.90
HSK63AH075GSK16	1-16	75	40	0.95
HSK63AH100GSK16		100		1.20
HSK63AH090GSK25	5-25	90	55	1.35
HSK100AH100GSK06	1-6	100	19.5	1.20
HSK100AH100GSK10	1-10		27	2.60
HSK100AH100GSK16	1-16		40	2.80
HSK100AH130GSK20	3-20	130	48	3.50
HSK100AH100GSK25	5-25	100	55	3.50

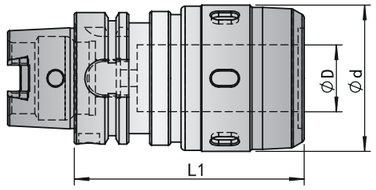
(DIN 69893)

HSK强力刀柄

HSK Power chuck

- 夹持部位回转精度≤0.005mm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.005mm
- Tolerance of the shank diameter h6





型号 Designation	L1	D	d	重量 Kg Weight
HSK63AH095PAC20	95	20	53	1.80
HSK63AH110PAC20	110	20	53	2.04
HSK63AH105PAC25	105	25	62	2.10
HSK63AH130PAC25	130	25	62	2.52
HSK63AH115PAC32	115	32	68	2.52
HSK63AH130PAC32	130	32	68	2.80
HSK100AH105PAC20	105	20	53	3.26
HSK100AH135PAC20	135	20	53	3.46
HSK100AH105PAC25	105	25	62	3.50
HSK100AH135PAC25	135	25	62	3.70
HSK100AH115PAC32	115	32	68	3.83
HSK100AH135PAC32	135	32	68	4.03
HSK100AH165PAC32	165	32	68	4.42
HSK100AH135PAC42	135	42	92	6.20

(DIN 69893)

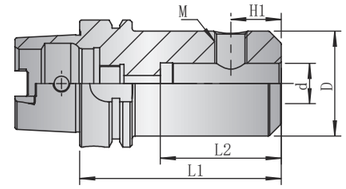
HSK侧固刀柄

HSK side lock tool holder

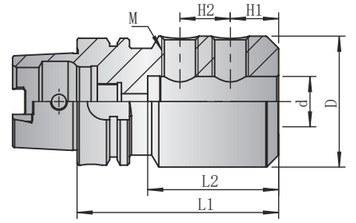
- 夹持部位回转精度≤0.005mm
- Rotational accuracy of the clamping part ≤0.005mm



图一



图二



型号 Designation	图示 Icon	L1	L2	H1	H2	D	d	M	重量 Kg Weight
HSK63AH100SLN16	一	100	50	24	-	48	16	M14	1.6
HSK63AH160SLN16	一	160	50	24	-	48	16	M14	2.4
HSK63AH100SLN20	一	100	60	25	-	52	20	M16	1.7
HSK63AH160SLN20	一	160	60	25	-	52	20	M16	2.7
HSK63AH110SLN25	二	110	65	24	25	65	25	M18	2.5
HSK63AH160SLN25	二	160	65	24	25	65	25	M18	3.7
HSK63AH110SLN32	二	110	70	24	28	72	32	M20	2.7
HSK63AH160SLN32	二	160	70	24	28	72	32	M20	4.1
HSK100AH100SLN16	一	100	50	24	-	48	16	M14	3.05
HSK100AH100SLN20	一	100	60	25	-	52	20	M16	3.2
HSK100AH160SLN20	一	160	60	25	-	52	20	M16	4.1
HSK100AH100SLN25	二	100	65	24	25	65	25	M18	3.7
HSK100AH160SLN25	二	160	65	24	25	65	25	M18	5.2
HSK100AH120SLN32	二	120	70	24	28	72	32	M20	4.9
HSK100AH160SLN32	二	160	70	24	28	72	32	M20	6.4
HSK100AH120SLN40	二	120	80	30	32	80	40	M20	4.8
HSK100AH160SLN40	二	160	80	30	32	80	40	M20	7.1

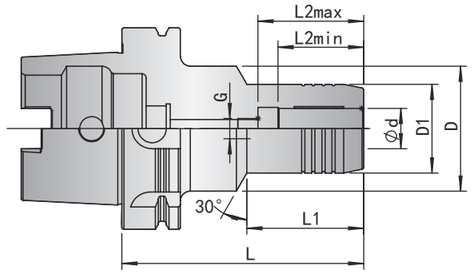
(DIN 69893)

HSK液压刀柄

HSK Hydraulic tool holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6





型号 Designation	d	D	D1	L	L1	L2max	L2min	重量kg Weight
HSK63AH080HDC10	10	50	32	80	35	42	32	1.1
HSK63AH120HDC10				120	75			1.3
HSK63AH150HDC10				150	105			1.6
HSK63AH085HDC12	12		34	85	40	47	37	1.1
HSK63AH120HDC12				120	75			1.4
HSK63AH150HDC12				150	105			1.6
HSK63AH085HDC14	14		36	85	40	47	37	1.2
HSK63AH120HDC14				120	75			1.4
HSK63AH150HDC14				150	105			1.7
HSK63AH090HDC16	16		38	90	46	50	40	1.3
HSK63AH120HDC16				120	75			1.5
HSK63AH150HDC16				150	100			1.9
HSK63AH090HDC18	18		41	90	46	52	42	1.3
HSK63AH120HDC18				120	75			1.6
HSK63AH150HDC18				150	105			2
HSK63AH090HDC20	20	52	43	90	46	52	42	1.34
HSK63AH120HDC20				120	75			1.7
HSK63AH150HDC20				150	106			2.1
HSK63AH120HDC25	25	63	57	120	56	61	51	2.3
HSK63AH125HDC32	32	75	64	125	59	65	55	2.72

BORING SYSTEM

(DIN 69893)

HSK液压刀柄

HSK Hydraulic tool holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6

刀柄系列

型号 Designation	d	D	D1	L	L1	L2max	L2min	重量kg Weight
HSK100AH090HDC10	10	50	32	90	42	42	32	2.58
HSK100AH120HDC10				120	66			2.96
HSK100AH150HDC10				150	95			3.48
HSK100AH090HDC12	12		34	90	47	47	37	2.68
HSK100AH120HDC12				120	67			3.06
HSK100AH150HDC12				150	98			3.58
HSK100AH090HDC14	14		36	90	47	47	37	2.68
HSK100AH120HDC14				120	67			3.16
HSK100AH150HDC14				150	100			3.68
HSK100AH100HDC16	16		38	100	53	52	42	2.76
HSK100AH120HDC16				120	73			3.26
HSK100AH150HDC16				150	100			3.78
HSK100AH100HDC18	18		41	90	53	52	42	2.76
HSK100AH120HDC18				120	73			3.36
HSK100AH150HDC18				150	100			3.98
HSK100AH105HDC20	20	52	43	90	58	52	42	2.92
HSK100AH120HDC20				120	73			3.46
HSK100AH150HDC20				150	100			4.1
HSK100AH110HDC25	25	75	64	110	62	65	55	3.54
HSK100AH110HDC32	32	75	64	110	98	65	55	3.84

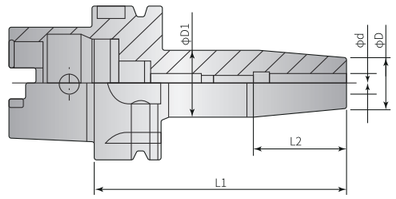
(DIN 69893)

HSK热缩刀柄

HSK Shrink fit holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- 夹持柄径公差h6
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm
- Tolerance of the shank diameter h6





型号 Designation	d	D	D1	L1	L2	重量kg Weight
HSK63AH080SD06	6	21	27	80	36	0.83
HSK63AH100SD06				100		0.85
HSK63AH120SD06			30.2	120		0.85
HSK63AH160SD06			33.3	160		0.88
HSK63AH080SD08	8	21	27	80	36	0.83
HSK63AH100SD08				100		0.85
HSK63AH120SD08			30.2	120		1.06
HSK63AH160SD08			33.3	160		1.16
HSK63AH090SD10	10	24	30	90	42	0.91
HSK63AH120SD10			35.2	120		1.18
HSK63AH160SD10			38.3	160		1.4
HSK63AH090SD12	12	24	30	90	47	0.92
HSK63AH120SD12			35.2	120		1.16
HSK63AH160SD12			38.3	160		1.5
HSK63AH090SD14	14	27	34	90	47	0.97
HSK63AH120SD14			37.2	120		1.2
HSK63AH160SD14			40.3	160		1.6
HSK63AH090SD16	16	27	34	90	50	1.03
HSK63AH120SD16			37.2	120		1.21
HSK63AH160SD16			40.3	160		1.7
HSK63AH090SD18	18	33	42	90	50	1.15
HSK63AH120SD18			-	120		1.23
HSK63AH160SD18			48.3	160		1.8
HSK63AH100SD20	20	33	-	100	52	1.27
HSK63AH120SD20				120		1.62
HSK63AH160SD20			48.3	160		1.9
HSK63AH115SD25	25	44	-	115	58	1.74
HSK63AH130SD25				130		1.85
HSK63AH160SD25				160		2.1
HSK63AH120SD32	32	44	-	120	58	1.67
HSK63AH160SD32				160		2.3

BORING SYSTEM

(DIN 69893)

HSK热缩刀柄

HSK Shrink fit holder

- 夹持部位回转精度≤0.003mm
- 动平衡G2.5/25000rpm
- Rotational accuracy of the clamping part ≤0.003mm
- Dynamic balance G2.5/25000rpm

刀柄系列

型号 Designation	d	D	D1	L1	L2	重量 Kg Weight
HSK100AH090SD06	6	21	27	90	36	2.25
HSK100AH130SD06			30.2	130		2.85
HSK100AH160SD06			33.3	160		3.4
HSK100AH090SD08	8	21	27	90	36	2.24
HSK100AH130SD08			30.2	130		2.85
HSK100AH160SD08			33.3	160		3.4
HSK100AH090SD10	10	24	30	90	41	2.28
HSK100AH130SD10			35.2	130		2.89
HSK100AH160SD10			38.3	160		3.5
HSK100AH090SD12	12	24	30	90	47	2.35
HSK100AH130SD12			35.2	130		2.94
HSK100AH160SD12			38.3	160		3.52
HSK100AH090SD14	14	27	34	90	47	2.35
HSK100AH130SD14			37.2	130		2.94
HSK100AH160SD14			38.3	160		3.52
HSK100AH100SD16	16	27	34	100	50	2.36
HSK100AH130SD16			37.2	130		2,97
HSK100AH160SD16			40.3	160		3.55
HSK100AH100SD18	18	33	42	100	50	2.37
HSK100AH130SD18			-	130		2.98
HSK100AH160SD18			48.3	160		3.56
HSK100AH105SD20	20	33	42	105	52	2.5
HSK100AH130SD20			-	130		3.02
HSK100AH160SD20			49.3	160		3.7
HSK100AH130SD25	25	44	-	130	58	3.1
HSK100AH160SD25				160		3.8
HSK100AH130SD32	32	44	-	130	62	3.06
HSK100AH160SD32				160		3.76

(DIN 69893)

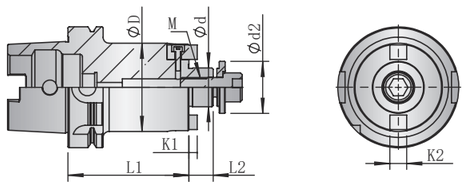
HSK面铣刀柄

HSK Face milling tool holder

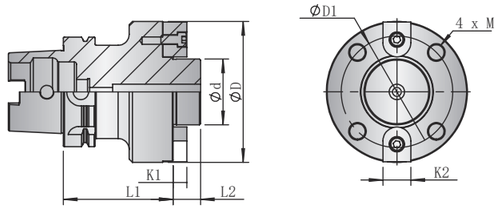
- 夹持部位回转精度≤0.01 mm
- Rotational accuracy of the clamping part ≤0.01mm



图一



图二

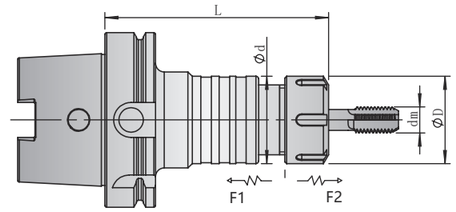


型号 Designation	图示 Icon	L1	L2	d	d2	D	D1	K1	K2	M	重量 Kg Weight
HSK63AH050FMB16	—	50	17	16	-	40	-	3.8	8	M8X25	1.2
HSK63AH050FMB22	—	50	18	22	-	48	-	4.8	10	M10X30	1.3
HSK63AH100FMB22	—	100									2
HSK63AH150FMB22	—	150									2.7
HSK63AH200FMB22	—	200									3.4
HSK63AH060FMB27	—	60	20	27	33	60	-	5.8	12	M12X30	1.6
HSK63AH100FMB27	—	100									2.5
HSK63AH150FMB27	—	150									3.6
HSK63AH060FMB32	—	60	22	32	41	63	-	6.8	14	M16X35	2
HSK63AH100FMB32	—	100									2.95
HSK63AH150FMB32	—	150									4.1
HSK63AH060FMB40	—	60	25	40	48	80	-	8.3	16	M16X35	2.35
HSK100AH050FMB22	—	50	18	22	26	48	-	4.8	10	M10X30	2.7
HSK100AH100FMB22	—	100									3.4
HSK100AH150FMB22	—	150									4.1
HSK100AH200FMB22	—	200									4.8
HSK100AH050FMB27	—	50	20	27	33	60	-	5.8	12	M12X30	2.9
HSK100AH100FMB27	—	100									4
HSK100AH150FMB27	—	150									5.1
HSK100AH050FMB32	—	50	22	32	41	80	-	6.8	14	M16X35	3
HSK100AH100FMB32	—	100									4.2
HSK100AH150FMB32	—	150									5.4
HSK100AH060FMB40	—	60	25	40	48	80	-	8	16	M16X35	4
HSK100AH100FMB40	—	100									5.6
HSK100AH150FMB40	—	150									7.55
HSK100AH060FMB40F	二	60	25	40	-	99	66.7	8.3	16	M12X35	5.2
HSK100AH100FMB40F	二	100									6.2
HSK100AH100FMB60	二	100	25	60	-	128.5	101.6	12.5	25.4	M16X50	7.9
HSK100AH150FMB60	二	150									10.1
HSK100AH200FMB60	二	200									12.2
HSK100AH150FMB60	二	250									14.4

(DIN 69893)

HSK微补偿攻丝刀柄

HSK Micro-compensation tapping tool holder

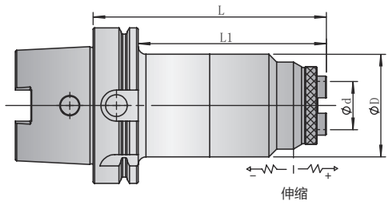


型号 Designation	攻牙范围 Tapping range	D	d	L	F1	F2	筒夹名称 Collet
HSK63A-TAP20V-117	M2-M16	34	47	117	1	1	20ER
HSK63A-TAP25V-118	M2-M22	42		118			25ER
HSK63A-TAP32V-119	M2-M30	50		119			32ER
HSK100A-TAP20V-135	M2-M16	34	47	135	1	1	20ER
HSK100A-TAP25V-145	M2-M22	42		145			25ER
HSK100A-TAP32V-155	M2-M30	50		155			32ER

(DIN 69893)

HSK柔性伸缩攻丝刀柄

HSK Flexible retractable tapping tool holder



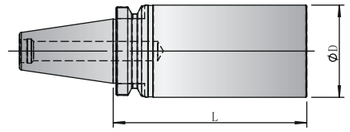
型号 Designation	攻牙范围 Tapping range		D	d	L	L1	筒夹名称 Collet
HSK63A-G3-90-D19	ISO	M2-M16	46	19	90	64	G3-D19
	JIS						
	DIN	M2-M12					
HSK63A-G12-125-D31	ISO	M6-M30	63	31	125	99	G12-D31
	JIS						
	DIN						
HSK100A-G3-125-D19	ISO	M2-M16	46	19	125	96	G3-D19
	JIS						
	DIN	M2-M12					
HSK100A-G12-150-D31	ISO	M6-M30	66	31	150	121	G12-D31
	JIS						
	DIN						
HSK100A-G24-167-D45	ISO	M24-M48	92	45	167	138	G24-D45
	JIS						
	DIN						

BORING SYSTEM

(MAS 403)

BT毛坯柄

BT Blank handle



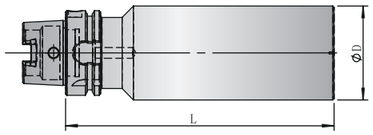
型号 Designation	D	L
BT40-D80-150	80.0	150
BT40-D80-200		200
BT40-D80-250		250
BT50-D100-150	100.0	150
BT50-D100-200		200
BT50-D100-250		250
BT50-D100-300		300

BT Blank handle

(DIN 69893)

HSK毛坯柄

HSK Blank handle

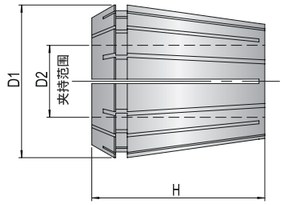


型号 Designation	D	L
HSK63A-D80-150	80.0	150
HSK63A-D80-200		200
HSK63A-D80-250		250
HSK63A-D80-300		300
HSK100A-D100-200	100.0	200

刀柄系列

ER筒夹
ER collet

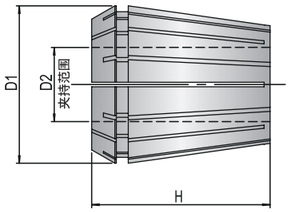




ER11		ER16		ER20		ER25		ER32		ER40	
型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2
ER11-1	1-0.5	ER16-1	1-0.5	ER20-1	1-0.5	ER25-1	1-0.5	ER32-1	1-0.5	ER40-3	3-2
ER11-2	2-1.5	ER16-2	2-1.5	ER20-2	2-1.5	ER25-2	2-1.5	ER32-2	2-1.5	ER40-4	4-3
ER11-3	3-2.5	ER16-3	3-2	ER20-3	3-2	ER25-3	3-2	ER32-3	3-2	ER40-5	5-4
ER11-4	4-3.5	ER16-4	4-3	ER20-4	4-3	ER25-4	4-3	ER32-4	4-3	ER40-6	6-5
ER11-5	5-4.5	ER16-5	5-4	ER20-5	5-4	ER25-5	5-4	ER32-5	5-4	ER40-7	7-6
ER11-6	6-5.5	ER16-6	6-5	ER20-6	6-5	ER25-6	6-5	ER32-6	6-5	ER40-8	8-7
ER11-7	7-6.5	ER16-7	7-6	ER20-7	7-6	ER25-7	7-6	ER32-7	7-6	ER40-9	9-8
		ER16-8	8-7	ER20-8	8-7	ER25-8	8-7	ER32-8	8-7	ER40-10	10-9
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				ER20-12	12-11	ER25-12	12-11	ER32-12	12-11	ER40-14	14-13
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								ER32-18	18-17	ER40-20	20-19
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								ER32-20	20-19	ER40-22	22-21
										ER40-23	23-22
										ER40-24	24-23
										ER40-25	25-24
										ER40-26	26-25

ER止水筒夹
ER sealed collet

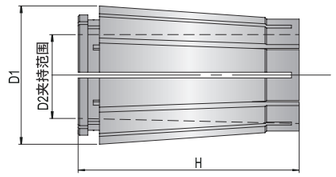




ER11C		ER16C		ER20C		ER25C		ER32C		ER40C	
型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2
ER11C-3	3-2.9	ER16C-3	3-2.9	ER20C-3	3-2.9	ER25C-3	3-2.9	ER32C-3	3-2.9	ER40C-4	4-3.9
ER11C-4	4-3.9	ER16C-4	4-3.9	ER20C-4	4-3.9	ER25C-4	4-3.9	ER32C-4	4-3.9	ER40C-5	5-4.9
ER11C-5	5-4.9	ER16C-5	5-4.9	ER20C-5	5-4.9	ER25C-5	5-4.9	ER32C-5	5-4.9	ER40C-6	6-5.9
ER11C-6	6-5.9	ER16C-6	6-5.5	ER20C-6	6-5.5	ER25C-6	6-5.5	ER32C-6	6-5.9	ER40C-7	7-6.9
ER11C-7	7-6.9	ER16C-7	7-6.5	ER20C-7	7-6.5	ER25C-7	7-6.5	ER32C-7	7-6.9	ER40C-8	8-7.9
		ER16C-8	8-7.5	ER20C-8	8-7.5	ER25C-8	8-7.5	ER32C-8	8-7.5	ER40C-9	9-8.9
		ER16C-9	9-8.5	ER20C-9	9-8.5	ER25C-9	9-8.5	ER32C-9	9-8.5	ER40C-10	10-9.5
		ER16C-10	10-9.5	ER20C-10	10-9.5	ER25C-10	10-9.5	ER32C-10	10-9.5	ER40C-11	11-10.5
				ER20C-11	11-10.5	ER25C-11	11-10.5	ER32C-11	11-10.5	ER40C-12	12-11.5
				ER20C-12	12-11.5	ER25C-12	12-11.5	ER32C-12	12-11.5	ER40C-13	13-12.5
				ER20C-13	13-12.5	ER25C-13	13-12.5	ER32C-13	13-12.5	ER40C-14	14-13.5
						ER25C-14	14-13.5	ER32C-14	14-13.5	ER40C-15	15-14.5
						ER25C-15	15-14.5	ER32C-15	15-14.5	ER40C-16	16-15.5
						ER25C-16	16-15.5	ER32C-16	16-15.5	ER40C-17	17-16.5
								ER32C-17	17-16.5	ER40C-18	18-17.5
								ER32C-18	18-17.5	ER40C-19	19-18.5
								ER32C-19	19-18.5	ER40C-20	20-19.5
								ER32C-20	20-19.5	ER40C-21	21-20.5
										ER40C-22	22-21.5
										ER40C-23	23-22.5
										ER40C-24	24-23.5
										ER40C-25	25-24.5
										ER40C-26	26-25.5

SK筒夹
SK collet

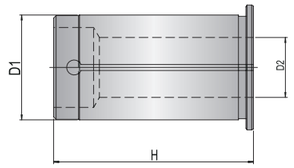




SK 06		SK10		SK16		SK25	
型号 Designation	D2	型号 Designation	D2	型号 Designation	D2	型号 Designation	D2
SK06-2	2-1.75	SK10-2	2-1.75	SK16-3	3-2.75	SK25-6	6-5.5
SK06-3	3-2.75	SK10-3	3-2.75	SK16-4	4-3.5	SK25-8	8-7.5
SK06-4	4-3.5	SK10-4	4-3.5	SK16-5	5-4.5	SK25-10	10-9.5
SK06-5	5-4.5	SK10-5	5-4.5	SK16-6	6-5.5	SK25-12	12-11.5
SK06-6	6-5.5	SK10-6	6-5.5	SK16-7	7-6.5	SK25-14	14-13.5
		SK10-7	7-6.5	SK16-8	8-7.5	SK25-16	16-15.5
		SK10-8	8-7.5	SK16-9	9-8.5	SK25-17	17-16.5
		SK10-9	9-8.5	SK16-10	10-9.5	SK25-18	18-17.5
		SK10-10	10-9.5	SK16-11	11-10.5	SK25-19	19-18.5
				SK16-12	12-11.5	SK25-20	20-19.5
				SK16-13	13-12.5	SK25-21	21-20.5
				SK16-14	14-13.5	SK25-22	22-21.5
				SK16-15	15-14.5	SK25-23	23-22.5
				SK16-16	16-15.5	SK25-24	24-23.5
						SK25-25	25-24.5

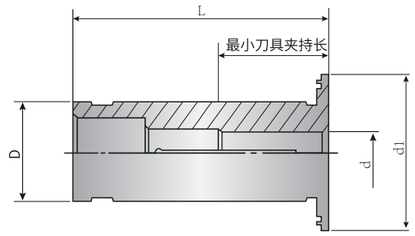
强力筒夹
power collet





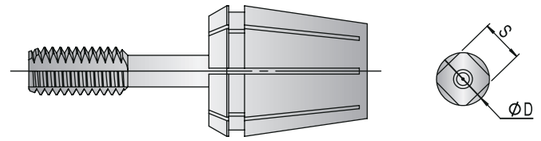
型号 Designation	D1	D2	H
C12	12	3,4,5,6,7,8,9,10	40
C16	16	4,5,6,7,8,9,10,11,12,13,14	
C20	20	6,8,10,12,14,16	64
C25	25	6,8,10,12,16,20	
C32	32	6,8,10,12,16,20,25	71
C42	42	6,8,10,12,16,20,25,32	

液压止水筒夹
Hydraulic sealed collet



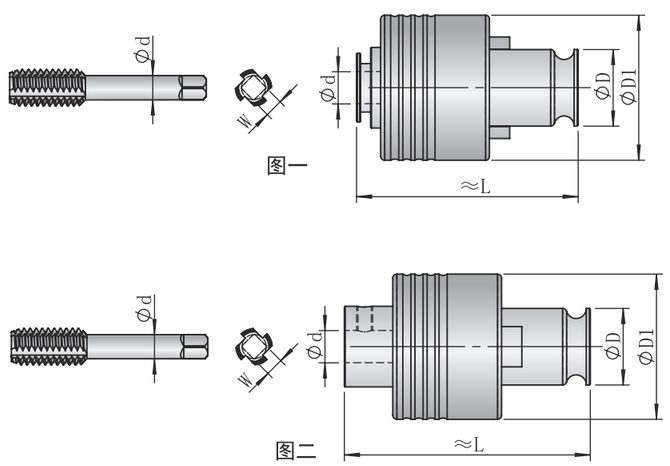
型号 Designation	D	d夹持范围 Clamping range	L	d1	最小刀具夹持长 Minimum clamping length
DC12	12	4, 5,6, 7, 8	45	19	18
DC20	20	4,6,8,10,12,14,16	52.5	29	
DC32	32	4,5,6,8,10,12,16,18,20,25	64.6	39	

ER攻丝筒夹
ER Tapping collet

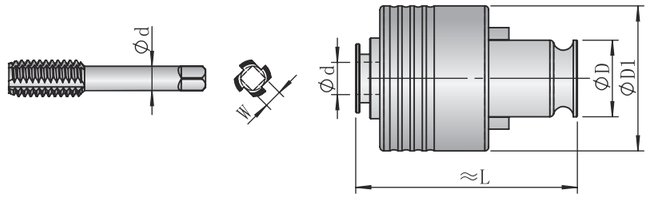


型号 Designation			φd 柄径 Shank diameter	S 扁方 Flat	JIS	DIN371	DIN376	IS0
20ER-4B3.2	25ER-4B3.2	32ER-4B3.2	4	3.2	M3			
20ER-4.5B3.4			4.5	3.4		M4	M6	
20ER-5B4.0	25ER-5B4.0	32ER-5B4.0	5	4	M4			M5
20ER-5.5B4.5		32ER-5.5B4.5	5.5	4.5	M5			
20ER-6B4.9		32ER-6B4.9	6	4.9	M6/W1/4"	M5/M6	M8	
20ER-6.3B5	25ER-6.3B5.0	32ER-6.3B5	6.3	5	M8			M6/M8
20ER-7B5.5		32ER-7B5.5	7	5.5	M10		M10	
20ER-8B6.3	25ER-8B6.3	32ER-8B6.3	8	6.3		M8		M8/M10
20ER-8.5B6.5		32ER-8.5B6.5	8.5	6.5	M12			
20ER-9B7.1	25ER-9B7.1	32ER-9B7.1	9	7.1			M12	M12
20ER-10B8		32ER-10B8	10	8		M10		M10
20ER-11.2B9	25ER-11.2B9	32ER-11.2B9	11.2	9				M14
		32ER-12B9.0	12	9	W5/8"		M16	
20ER-12.5B10	25ER-12.5B10	32ER-12.5B10	12.5	10	M16			M16
	25ER-14B11.2	32ER-14B11.2	14	11.2	M18 / W3/4"		M18	M18/M20
		32ER-15B12	15	12	M20			
	25ER-16B12.5	32ER-16B12.5	16	12.5			M20	M22

G3扭力保护攻丝夹头
G3 torque protection tapping Chuck

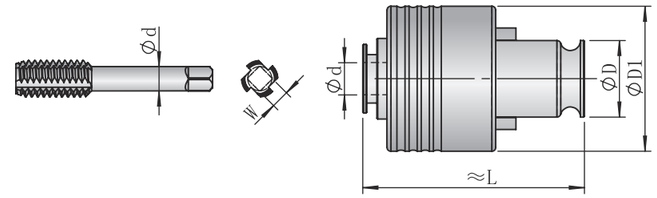

Φd
Φd
Φd

G12扭力保护攻丝夹头
G12 torque protection tapping Chuck



标准形式	型号 Designation	丝锥规格（公制） Tap Metric system	丝锥规格（英制） Tap SAE	D	D1	L	d	W
ISO	G12-M6-8-D31/ISO	M6-8	-	31	58	70	6.3	5.0
	G12-M10-D31/ISO	M10					8.0	6.3
	G12-M12-D31/ISO	M12					9.0	7.1
	G12-M14-D31/ISO	M14					11.2	9.0
	G12-M16-D31/ISO	M16					12.5	10.0
	G12-M18-20-D31/ISO	M18-20					14.0	11.2
	G12-M22-D31/ISO	M22					16.0	12.5
	G12-M24-D31/ISO	M24					18.0	14.0
	G12-M27-30-D31/ISO	M27-30					20.0	16.0
JIS	G12-M6-D31/JIS	M6	-	31	58	70	6.0	4.5
	G12-M8-D31/JIS	M8					6.2	5.0
	G12-M10-D31/JIS	M10					7.0	5.5
	G12-M12-D31/JIS	M12					8.5	6.5
	G12-M14-D31/JIS	M14					10.5	8.0
	G12-M16-D31/JIS	M16					12.5	10.0
	G12-M18-D31/JIS	M18					14.0	11.0
	G12-M20-D31/JIS	M20					15.0	12.0
	G12-M22-D31/JIS	M22					17.0	13.0
	G12-M24-D31/JIS	M24					19.0	15.0
	G12-M27-D31/JIS	M27					20.0	15.0
	G12-M30-D31/JIS	M30					23.0	17.0
DIN376	G12-M6-D31/DIN376	M6	-	31	58	70	4.5	3.4
	G12-M8-D31/DIN376	M8					6.0	4.9
	G12-M10-D31/DIN376	M10					7.0	5.5
	G12-M12-D31/DIN376	M12					9.0	7.0
	G12-M14-D31/DIN376	M14					11.0	9.0
	G12-M16-D31/DIN376	M16					12.0	9.0
	G12-M18-D31/DIN376	M18					14.0	11.0
	G12-M20-D31/DIN376	M20					16.0	12.0
	G12-M22-D31/DIN376	M22					18.0	14.5
	G12-M24-D31/DIN376	M24					18.0	14.5
	G12-M27-D31/DIN376	M27					20.0	16.0
	G12-M30-D31/DIN376	M30					22.0	18.0

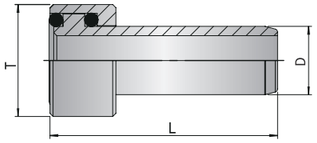
G24扭力保护攻丝夹头
G24 torque protection tapping Chuck

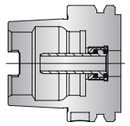


标准形式	型号 Designation	丝锥规格（公制） Tap Metric system	丝锥规格（英制） Tap SAE	D	D1	L	d	W
ISO	G24-M24-D45/ISO	M24	-	45	82	100	18.0	14.0
	G24-M27-30-D45/ISO	M27-30					20.0	16.0
	G24-M33-D45/ISO	M33					22.4	18.0
	G24-M36-D45/ISO	M36					25.0	20.0
	G24-M39-42-D45/ISO	M39-42					28.0	22.4
	G24-M45-48-D45/ISO	M45-48					31.5	25.0
JIS	G24-M24-D45/JIS	M24	-	45	82	100	19.0	15.0
	G24-M27-D45/JIS	M27					20.0	15.0
	G24-M30-D45/JIS	M30					23.0	17.0
	G24-M32-D45/JIS	M32					24.0	19.0
	G24-M33-D45/JIS	M33					25.0	19.0
	G24-M36-D45/JIS	M36					28.0	21.0
	G24-M39-40-D45/JIS	M39/M40					30.0	23.0
	G24-M42-D45/JIS	M42					32.0	26.0
	G24-M45-D45/JIS	M45					35.0	26.0
	G24-M48-D45/JIS	M48					38.0	29.0

HSK内冷管
HSK Internal coolant pipe



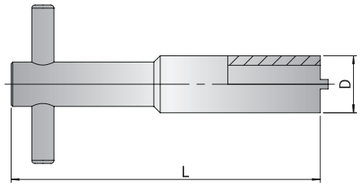




型号 Designation	L	l1	D	T	重量 Kg Weight
HSK63-CP	36.6	11.5	12	M18x1.0	0.02
HSK100-CP	44	15.5	16	M24x1.0	0.06

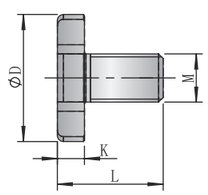
内冷管专用扳手
Special wrench for inner intend coolant

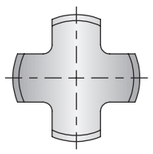




型号 Designation	L	D	重量 Kg Weight
HSK63-CPW	100	18	0.14
HSK100-CPW	125	24	0.32

十字花螺丝-用于面铣刀柄
Cruciform screw-for face milling tool shank

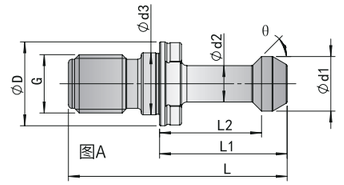


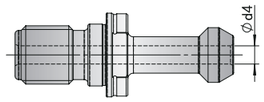


型号 Designation	FMB	M	D	K	L
FM16-M08S	16	M8	20	6	16
FM22-M10S	22	M10	28	7	18
FM27-M12S	27	M12	35	8	22
FM32-M16S	32	M16	42	9	26
FM40-M20S	40	M20	52	10	30

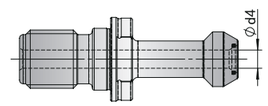
BT 日标拉钉
BT Japanese standard pull stud







图B

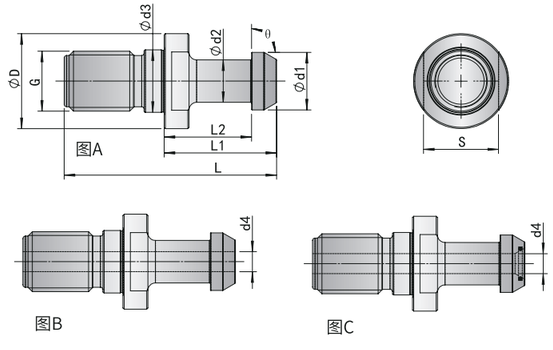


图C

型号 Designation	图示 Icon	d4	D	d1	d2	d3	L1	L2	L	θ	G	S	重量 Kg Weight	备注 remark
BT30-45°	A	-	16.5	11	7	12.5	23	18	43	45	M12	13	0.03	
BT30-45°/T	B	2.5											0.03	
BT30-60°	A	-								60			0.03	
BT30-60°/T	B	2.5											0.03	
BT40-45°	A	-	23	15	10	17	35	28	60	45	M16	19	0.08	
BT40-45°/T	B	4											0.07	
BT40-60°	A	-								60			0.08	
BT40-60°/T	B	4											0.07	
BT40-90°	A	-								90			0.08	
BT40-90°/T	B	4											0.07	
BT50-45°	A	-	38	23	17	25	45	35	85	45	M24	30	0.26	
BT50-45°/T	B	8.5											0.25	
BT50-45°/T6-O	C	6											0.25	大隈
BT50-60°	A	-								60			0.26	
BT50-60°/T	B	8.5											0.25	
BT50-60°/T6-O	C	6											0.25	大隈
BT50-90°	A	-								90			0.26	
BT50-90°/T	B	8.5											0.25	

DMG森精机专用拉钉
Special pull stud for DMG MORI

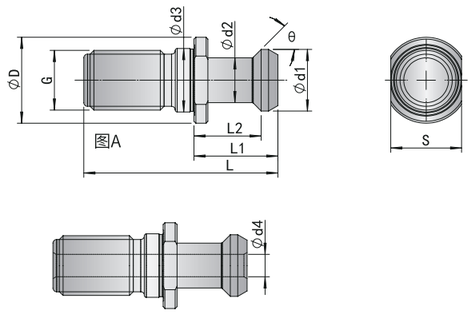




型号 Designation	图示 Icon	d4	D	d1	d2	d3	L1	L2	L	θ	G	S	重量 Kg Weight
POM40MG	A	-	23	15	10	17	35	28	60	90	M16	19	0.08
PMO40MG	C	7		19	14		29	23	54	75			0.07
POM50	A	-	38	23	17	25	45	35	85	90	M24	30	0.26
POM50H	B	8											0.25
POM50H1	C												0.25

MAZAK 拉钉
MAZAK pull stud





型号 Designation	图示 Icon	d4	D	d1	d2	d3	L1	L2	L	θ	G	S	重量 Kg Weight
MAZAK 40	A	-	22	18.8	12.45	17	19.1	14.02	44.1	45	M16	19	0.06
MAZAK 40/T	B	7											0.05
MAZAK 50	A	-	37	29	20.83	25	25.2	17.7	65.2		M24	30	0.22
MAZAK 50/T	B	10											0.18

检测棒
Check bar

- 用于机床精度的定期检测
- Used for periodic inspection of machine tool precision

检测时的跳动 Runout during detection		
主轴检测 Spindle detection	卧式加工中心 HMC	立式加工中心 VMC
检验棒底部 Bottom of check bar	0.007mm以内	0.01mm以内
检验棒头部(300mm) Head of check bar	0.015mm以内	0.02mm以内

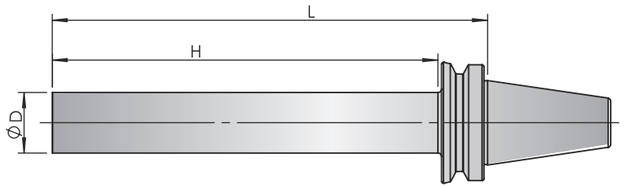
普通型
Standard

- 可当对刀仪的校正规使用
- The utility model can be used for calibrating the cutter instrument



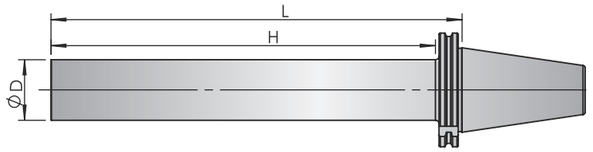
型号 Designation	L	H	ΦD
BT30-D32-L250	250	246	32
BT40-D40-L300	300	300	40
BT50-D40-L300	300	300	

BBT型



型号 Designation	L	H	ΦD
BBT30-D32-L250	250	225	32
BBT40-D40-L300	300	270	40
BBT50-D50-L350	350	309	50

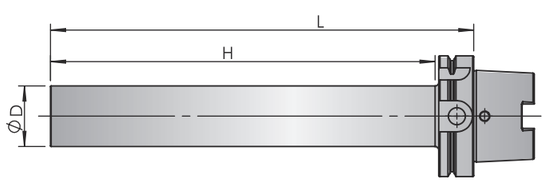
SK型



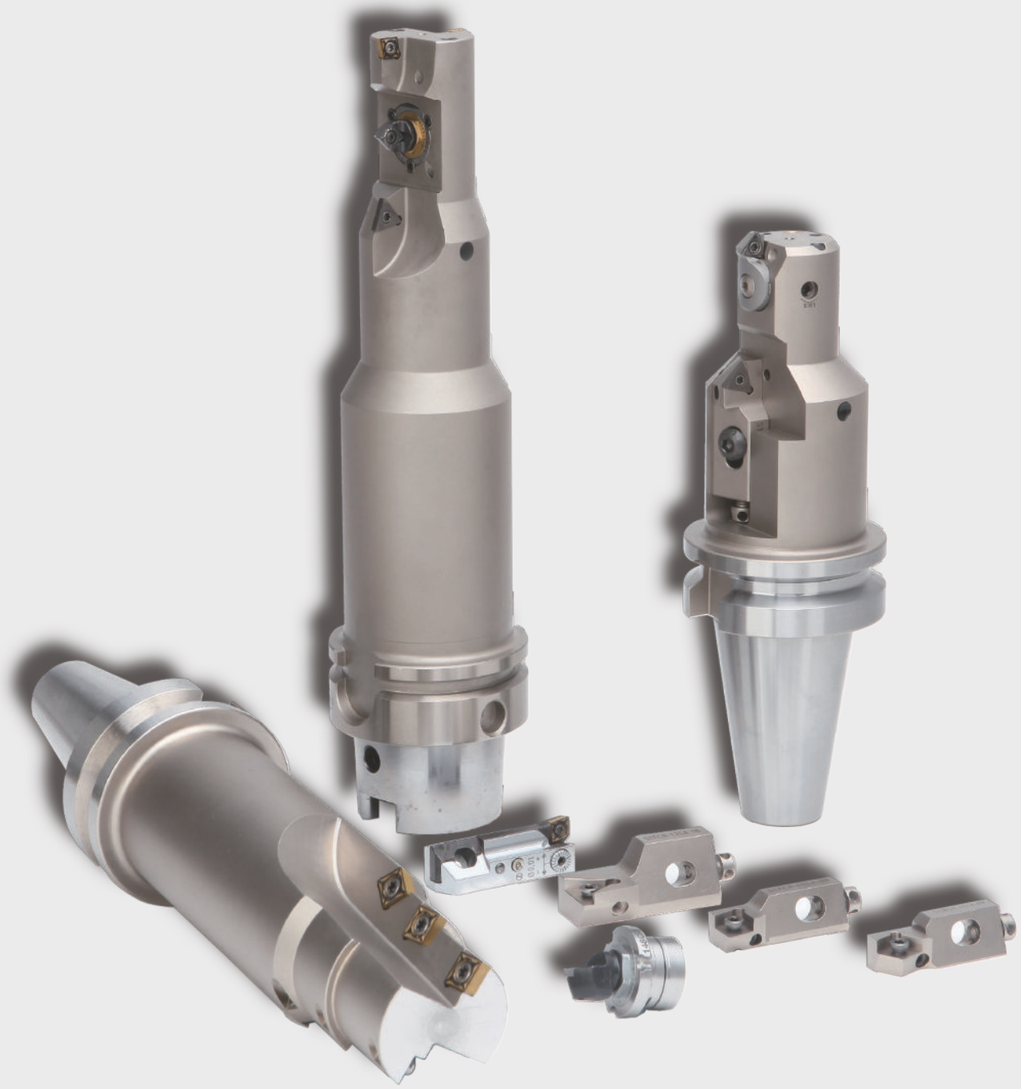
型号 Designation	L	H	ΦD
SK40-D40-L300	300	270	40
SK50-D40-L300	300	288	

HSK-A型

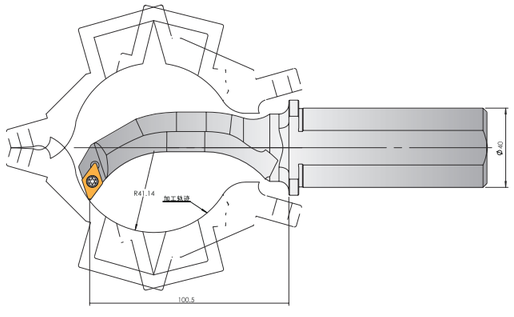




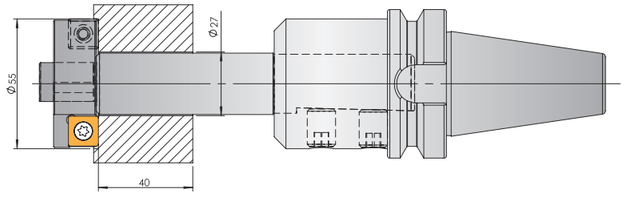
型号 Designation	L	H	ΦD
HSK40A-D32-L200	200	180	32
HSK50A-D32-L250	250	224	
HSK63A-D50-L300	300	274	40
HSK100A-D50-L300	300	271	



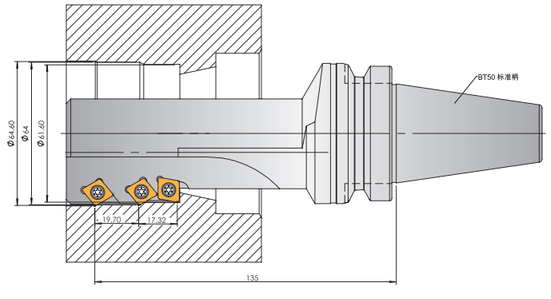
异形仿形车刀
Back-facing quick-change cutting head



快换式刀头反刮端面
Quick change type cutter head anti scraping end face

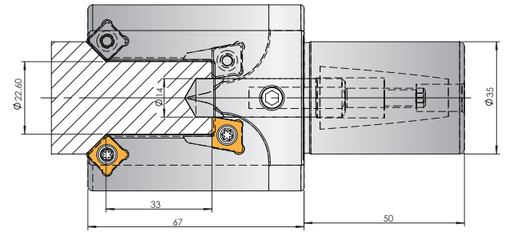


粗加工反镗台阶孔
Rough back boring for stepped counterbore holes

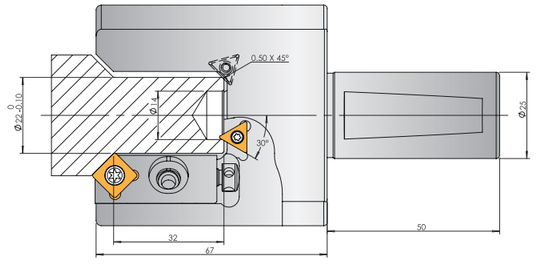


非标系列

压缩机缸体粗套外圆、平端面及定中心孔
Rough Machining Tool for Compressor Cylinder Sleeve Outer Diameter, End Face and Center Locating Hole



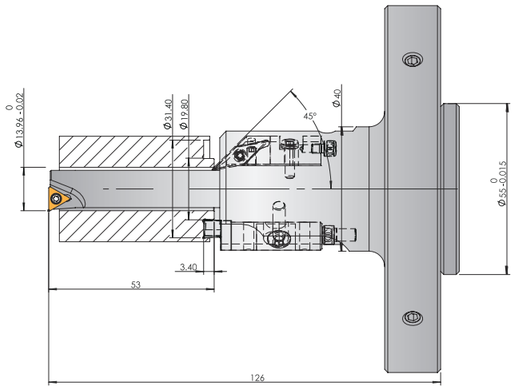
压缩机缸体精套外圆及内外倒角
Fine Tool for Compressor Cylinder Sleeve Outer Diamete, Internal and External Chamfering



非标系列

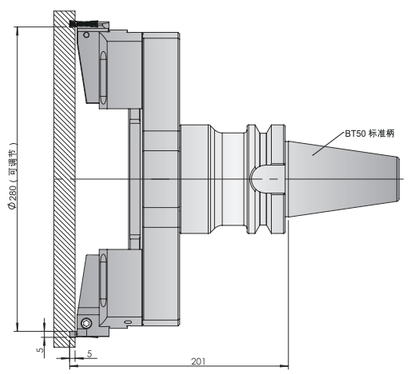
压缩机缸体曲轴孔精镗、倒角及凹槽端面精刮

Finish boring, chamfering and finish scraping of groove end faces for compressor cylinder crankshaft bores



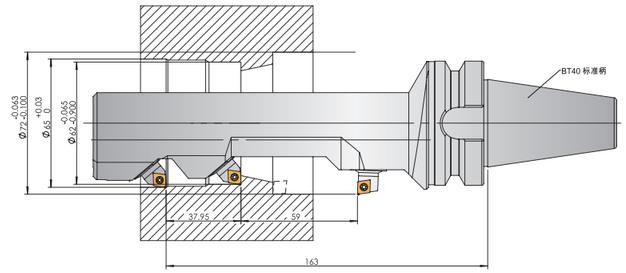
大直径端面槽加工

Machining of large diameter end face groove



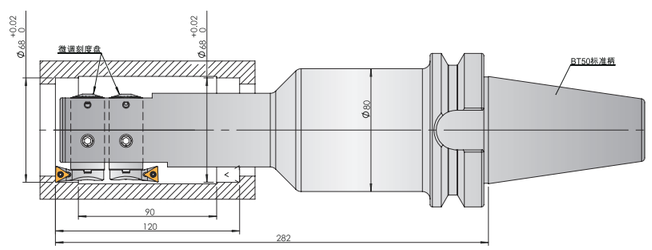
精加工同心度要求高的正反多段台阶孔

Finish machining of Front and Back Multi-Step Stepped Holes with High Concentricity Requirement

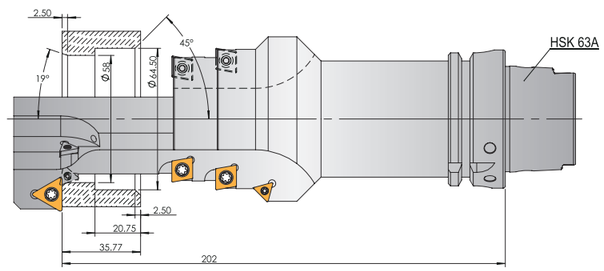


精加工同心度要求高的正反台阶孔

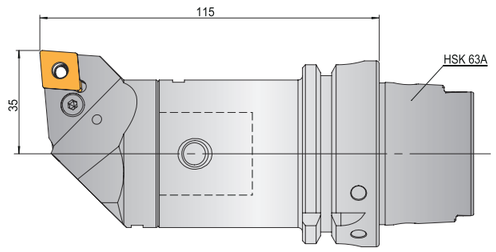
Finish boring front and back stepped holes with strict concentricity tolerance requirements



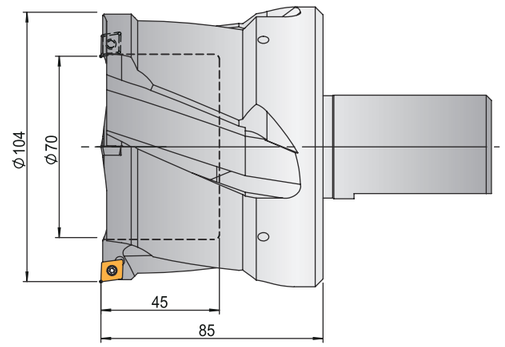
正反粗镗孔带锪面、倒角复合
Compound machining front and back rough boring, spot facing and chamfering



复合加工机用刀具
Tools for Compound Machining Centers

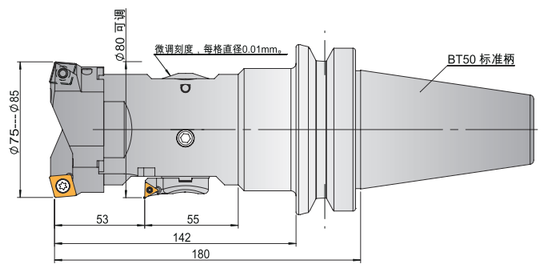


电梯行业用套槽刀
Special Slotting Tool for Elevator Industry



粗精镗一体式可调镗刀
Integrated Adjustable Rough and Fine Boring Head

Ajustable Boring Tool Integrated with Counter Bore



ER扳手
ER wrench



型号 Designation	螺帽外径 Out-Diameter of Nut
ER16-A	28
ER20-A	34
ER11-M	16
ER16-M	23
ER20-M	28
ER25-M	35
ER25-UM	42
ER32-UM	50
ER40-UM	63

GSK扳手
GSK wrench



型号 Designation	适用螺帽 Out-Diameter of Nut
GSK06	GSK6
GSK10	GSK10
GSK16	GSK16
GSK25	GSK25

强力刀柄专用扳手
Special wrench for strong handle



型号 Designation	适用刀柄 Out-Diameter of Nut
C20	C20
C32	C32
C42	C42

量表式Z轴设定器
Meter type Z axis setter



型号 Designation	形式 Style	高度 highly
EDS-50	量表式	50

- 将平行规置于标准面，转动百分表，使长针归零。
- 将平行规移开。
- 将Z轴设定器置于工件上，刀具接触操作面，慢速进刀到秒针指在“0”，则刀具与工件的距离是50mm。
- Place the parallel gauge on the standard surface and turn the dial indicator to make the long needle return to zero.
- Remove the parallel gauge.
- Place the z-axis setter on the workpiece, the tool contacts the operation surface, and the distance between the tool and the workpiece is 50 mm when the slow feeding speed reaches the second finger at "0".

机械式寻边器
Mechanical edge finder



型号 Designation
ME-1020
ME-420

- 10直柄安装在夹头上，以手指轻推测定子，使其偏心0.5mm以400-600/min的速度转动，使测定子于加工物端面想接触，点点的碰触移动，是测定子不在振动，宛如静止状态。
- 再以微动进给碰触，测定子就会朝一方向滑移，这个滑移起点是所需求的基准位置。
- 不适合在卧式计备上使用。
- 10. The straight handle is installed on the collet, and the stator is speculated by finger light, so that the eccentricity is 0.5mm and the speed is 400-600 / min, so as to measure the stator
- If you want to touch the end face of the workpiece, the touch movement of the dots is that the detector is not vibrating, just like the static state.
- Then touch with inching feed, the measuring stator will slide in one direction, and the sliding starting point is the required reference position.
- It is not suitable for horizontal meter.

主轴清洁棒
Spindle cleaning rod



型号 Designation	斜度 Slant angle
STC30	BT30
STC40	BT40
STC50	BT50

锁刀座
Locking tool seat



型号 Designation	型号 Designation
TL-BT30	TL-SK30
TL-BT40	TL-SK40
TL-BT50	TL-SK50

锁刀座
Locking tool seat



型号 Designation
TL-HSK50
TL-HSK63
TL-HSK100

刀具车
Tools trollay



型号 Designation	装刀数 Amount	说明 Explain
TTH-30	36	上面大板24支BT30，下面2组，每组6支BT30
TTH-40	36	上面大板24支BT40，下面2组，每组6支BT40
TTH-50	24	上面大板16支BT50，下面2组，每组4支BT50
TTH-63	24	上面大板16支HSK63，下面2组，每组4支HSK63
外尺寸	宽920*深475*高775mm	

刀具车(带柜)
Tools trollay(with cabinet)



型号 Designation	装刀数 Amount	说明 Explain
DTH-30	54	柜顶30支BT30，抽屉24支BT30
DTH-40	54	柜顶30支BT40，抽屉24支BT40
DTH-50	36	柜顶20支BT50，抽屉16支BT50
DTH-63	36	柜顶20支HSK63，抽屉16支HSK63
外尺寸	宽600*深600*高915mm	

粗镗头
Rough boring head

切削参数表
Cutting parameter tabie

- 本表是切削条件的选择基准。请根据机床、工件、铁屑的排出情况等作适当调整
- This table is a selection principle for cutting parameter, please varies to the terms of machine toois,workpieces,iron chips etc.

BT40

镗头型号 Designation	工件材质 Workpiece Material	有效加工深度 Effective Depth of Cutting	刀尖R Tip Corner	切削速度 Cutting Speed	切削量mm/Φ Depth of Cutting		进给量mm/r Feed	
					推荐值	MAX	推荐值	MAX
CMR20-26KD1	合金钢	80	0.4	110	1.2	2	0.15	0.25
	不锈钢			60	1.3	2	0.16	0.25
	铸铁			100	1.5	2.5	0.2	0.25
	铝合金			150	1.8	2.5	0.22	0.3
CMR25-33KD2	合金钢	93	0.4	110	1.8	3	0.15	0.3
	不锈钢			60	2	3	0.18	0.3
	铸铁			100	2.5	4	0.2	0.3
	铝合金			150	2.8	4	0.25	0.35
CMR32-42KD3	合金钢	108	0.8	150	3	4	0.2	0.35
	不锈钢			70	2.8	4	0.22	0.35
	铸铁			90	3.5	5	0.25	0.4
	铝合金			150	4	5	0.25	0.4
CMR41-54KD4	合金钢	105	0.8	150	3.8	5	0.25	0.4
	不锈钢			70	3.2	5	0.25	0.4
	铸铁			90	5	8	0.28	0.45
	铝合金			150	6	8	0.35	045
CMR53-70KD5	合金钢	105	0.8	160	5.5	7	0.3	0.45
	不锈钢			80	7.5	7	0.3	0.5
	铸铁			100	8.5	10	0.35	0.55
	铝合金			150	6.5	10	0.4	0.45
CMR68-110KD6	合金钢	109	0.8	160	6.5	10	0.3	0.45
CMR98-153KD6	不锈钢			80	6.5	9	0.3	0.45
	铸铁			100	9.5	12	0.35	0.5
CMR148203KD6	铝合金			150	10	12	0.4	0.55

BT50

镗头型号 Designation	工件材质 Workpiece Material	有效加工深度 Effective Depth of Cutting	刀尖R Tip Corner	切削速度 Cutting Speed	切削量mm/Φ Depth of Cutting		进给量mm/r Feed	
					推荐值	MAX	推荐值	MAX
CMR20-26KD1	合金钢	75	0.4	110	1.2	2	0.15	0.25
	不锈钢			60	1.3	2	0.16	0.25
	铸铁			100	1.5	2.5	0.2	0.25
	铝合金			150	1.8	2.5	0.22	0.3
CMR25-33KD2	合金钢	107.5	0.4	110	1.8	3	0.15	0.3
	不锈钢			60	2	3	0.18	0.3
	铸铁			100	2.5	4	0.2	0.3
	铝合金			150	2.8	4	0.25	0.35
CMR32-42KD3	合金钢	127	0.8	150	3	4	0.2	0.35
	不锈钢			70	2.8	4	0.22	0.35
	铸铁			90	3.5	5	0.25	0.4
	铝合金			150	4	5	0.25	0.4
CMR41-54KD4	合金钢	124	0.8	150	3.8	5	0.25	0.4
	不锈钢			70	3.2	5	0.25	0.4
	铸铁			90	5	8	0.28	0.45
	铝合金			150	6	8	0.35	0.45
CMR53-70KD5	合金钢	124	0.8	160	6	8	0.3	0.45
	不锈钢			80	5.5	7	0.3	0.5
	铸铁			100	8	12	0.35	0.55
	铝合金			150	8.5	12	0.4	0.45
CMR68-110KD6	合金钢	128	0.8	160	7.5	10	0.3	0.45
	不锈钢			80	6.5	9	0.3	0.45
	铸铁			100	9.5	14	0.35	0.5
	铝合金			150	10	12	0.4	0.55
CMR98-153KD6	合金钢	128	0.8	160	8.5	12	0.3	0.45
	不锈钢			80	6.5	9	0.3	0.45
CMR148203KD6	铸铁			100	9.5	14	0.35	0.5
	铝合金			150	10	12	0.4	0.55
大于370(CLR系列)	合金钢	152	0.8	160	8.5	12	0.3	0.45
	不锈钢			80	6.5	9	0.3	0.45
	铸铁			100	9.5	14	0.35	0.5
	铝合金			150	10	12	0.4	0.55
大于370(CLR系列)	合金钢	152	0.8	160	5.5	8	0.3	0.45
	不锈钢			80	4.5	6	0.3	0.45
	铸铁			100	7	10	0.35	0.5
	铝合金			150	7.5	8	0.4	0.55

精镗头
Fine boring head

切削参数表
Cutting parameter tabie

- 本表是切削条件的选择基准。请根据机床、工件等具体情况，进行适当调整
- 高压内冷加工可能会使用刀柄挠曲。公差要求很严格时，请降低冷却液的压强
- 作为钢件加工的磨损对策，建议用金属陶瓷涂层
- 使用CBN材质，建议用干式切削
- This chart is the principle for selecting cutting parameters. please adjust consider m achine,work pieceetc.
- High pressure inside coolant might cause holder bend. As tolerance is strict, reduce coolant pressure
- As a solution aimed at wear out of machining steel,we suggest adopt alloy ceram icinsert with coating
- Use CBN insert, recom mend dry cutting

BT40

镗头型号 Designation	工件材质 Workpiece Material	有效加工深度 Effective Depth of Cutting	刀尖R Tip Corner	切削速度 Cutting Speed	切削量mm/Φ Depth of Cutting		进给量mm/r Feed	
					推荐值	MAX	推荐值	MAX
CMP20-36KD1	合金钢	80	0.2	140	0.2	0.4	0.06	0.15
	不锈钢			80	0.2	0.4	0.06	0.15
	铸铁			90	0.25	0.5	0.06	0.15
	铝合金			180	0.25	0.5	0.06	0.15
CMP25-47KD2	合金钢	93	0.2	150	0.2	0.4	0.06	0.15
	不锈钢			90	0.2	0.4	0.06	0.15
	铸铁			100	0.25	0.5	0.06	0.15
	铝合金			180	0.25	0.5	0.06	0.15
CMP32-60KD3	合金钢	108	0.4	150	0.25	0.5	0.06	0.15
	不锈钢			120	0.25	0.5	0.06	0.15
	铸铁			110	0.3	0.6	0.06	0.15
	铝合金			250	0.3	0.6	0.08	0.15
CMP41-74KD4	合金钢	105	0.4	150	0.3	0.5	0.06	0.15
	不锈钢			120	0.3	0.5	0.06	0.15
	铸铁			110	0.35	0.6	0.06	0.15
	铝合金			250	0.35	0.6	0.08	0.15
CMP53-95KD5	合金钢	105	0.4	150	0.3	0.5	0.08	0.15
	不锈钢			120	0.3	0.5	0.08	0.15
	铸铁			110	0.35	0.6	0.08	0.15
	铝合金			250	0.35	0.6	0.10	0.2
CMP68-150KD6	合金钢	109	0.4	150	0.3	0.5	0.08	0.15
	不锈钢			120	0.3	0.5	0.08	0.15
CMP100-203KD6	铸铁			110	0.35	0.6	0.08	0.15
	铝合金			250	0.35	0.6	0.10	0.2

BT50

镗头型号 Designation	工件材质 Workpiece Material	有效加工深度 Effective Depth of Cutting	刀尖R Tip Corner	切削速度 Cutting Speed	切削量mm/Φ Depth of Cutting		进给量mm/r Feed	
					推荐值	MAX	推荐值	MAX
CMP20-36KD1	合金钢	75	0.2	140	0.2	0.4	0.06	0.15
	不锈钢			80	0.2	0.4	0.06	0.15
	铸铁			90	0.25	0.5	0.06	0.15
	铝合金			180	0.25	0.5	0.06	0.15
CMP25-47KD2	合金钢	107.5	0.2	150	0.2	0.4	0.06	0.15
	不锈钢			90	0.2	0.4	0.06	0.15
	铸铁			100	0.25	0.5	0.06	0.15
	铝合金			180	0.25	0.5	0.06	0.15
CMP32-60KD3	合金钢	127	0.4	150	0.25	0.5	0.06	0.15
	不锈钢			120	0.25	0.5	0.06	0.15
	铸铁			110	0.3	0.6	0.06	0.15
	铝合金			250	0.3	0.6	0.08	0.15
CMP41-74KD4	合金钢	124	0.4	150	0.3	0.5	0.06	0.15
	不锈钢			120	0.3	0.5	0.06	0.15
	铸铁			110	0.35	0.6	0.06	0.15
	铝合金			250	0.35	0.6	0.08	0.15
CMP53-95KD5	合金钢	124	0.4	150	0.3	0.5	0.08	0.15
	不锈钢			120	0.3	0.5	0.08	0.15
	铸铁			110	0.35	0.6	0.08	0.15
	铝合金			250	0.35	0.6	0.10	0.2
CMP68-150KD6	合金钢	128	0.4	150	0.3	0.5	0.08	0.15
	不锈钢			120	0.3	0.5	0.08	0.15
CMP100-203KD6	铸铁			110	0.35	0.6	0.08	0.15
	铝合金			250	0.35	0.6	0.10	0.2
CLP系列	合金钢	152	0.4	150	0.3	0.5	0.08	0.15
	不锈钢			120	0.3	0.5	0.08	0.15
	铸铁			110	0.35	0.6	0.08	0.15
	铝合金			250	0.35	0.6	0.10	0.2

硬质合金直柄刀柄
Solid carbide straight shank tool holder

切削参数表
Cutting parameter tabie

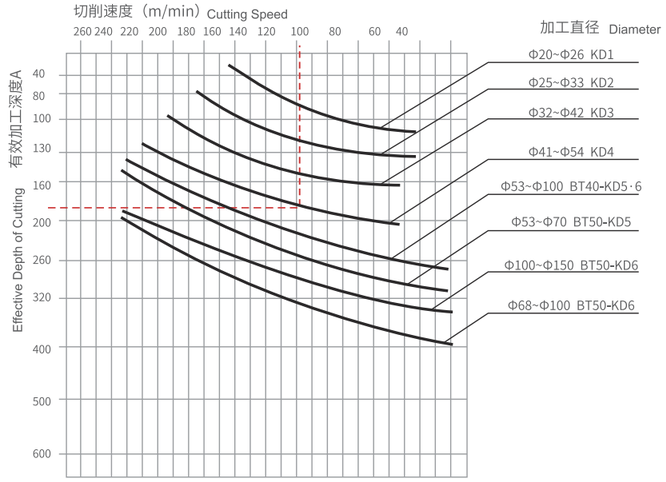
- 本表是切削条件的选择基准。请根据机床、工件等具体情况，进行适当调整
- 高压内冷加工可能会使用刀柄挠曲。公差要求很严格时，请降低冷却液的压强
- 作为钢件加工的磨损对策，建议用金属陶瓷涂层
- 以下推荐条件是在使用强力铣刀夹头时的值
- This chart is the principle for selecting cutting parameters. please adjust consider machine,workpiece etc.
- High pressure inside coolant might cause holder bend. As tolerance is strict, reduce coolant pressure.
- As a solution aimed at wear out of machining steel,we suggest adopt alloy ceramic insert with coating.
- Following date in thi chart is under terms of using power milling holder.

BT40

镗头型号 Designation	工件材质 Workpiece Material	有效加工深度 Effective Depth of Cutting	刀尖R Tip Corner	切削速度 Cutting Speed	切削量mm/Φ Depth of Cutting		进给量mm/r Feed	
					推荐值	MAX	推荐值	MAX
CMP20-36KD1	碳钢	90	0.4	150	0.25	0.3	0.07	0.15
		135	0.2	90	0.25	0.3	0.05	0.15
		160	0.2	45	0.2	0.3	0.05	0.1
		190	0.2	20	0.18	0.25	0.05	0.1
	铸铁	90	0.4	120	0.25	0.3	0.07	0.15
		135	0.2	90	0.25	0.3	0.05	0.12
		160	0.2	45	0.2	0.3	0.05	0.1
		190	0.2	20	0.18	0.25	0.05	0.08
	铝合金	100	0.4	150	0.3	0.4	0.07	0.15
		150	0.2	75	0.25	0.35	0.05	0.15
		190	0.2	30	0.2	0.3	0.05	0.1
		210	0.2	20	0.16	0.22	0.04	0.08
CMP25-47KD2	碳钢	120	0.4	150	0.25	0.3	0.07	0.15
		160	0.2	90	0.25	0.3	0.05	0.15
		190	0.2	45	0.2	0.3	0.05	0.1
		235	0.2	20	0.18	0.25	0.05	0.1
	铸铁	120	0.4	120	0.25	0.3	0.07	0.15
		160	0.2	90	0.25	0.3	0.05	0.12
		190	0.2	45	0.2	0.3	0.05	0.1
		235	0.2	20	0.18	0.25	0.05	0.08
	铝合金	125	0.4	150	0.25	0.3	0.07	0.15
		160	0.2	90	0.25	0.3	0.05	0.15
		190	0.2	45	0.2	0.3	0.05	0.1
		235	0.2	20	0.18	0.25	0.05	0.08
CMP32-60KD3	碳钢	120	0.4	120	0.25	0.3	0.07	0.15
		160	0.2	90	0.25	0.3	0.05	0.15
		190	0.2	45	0.2	0.3	0.05	0.1
		235	0.2	20	0.18	0.25	0.05	0.1
	铸铁	145	0.4	150	0.3	0.4	0.07	0.15
		190	0.2	75	0.25	0.35	0.07	0.12
		245	0.2	30	0.2	0.3	0.05	0.1
		300	0.2	20	0.16	0.22	0.04	0.08
	铝合金	140	0.4	150	0.3	0.4	0.07	0.15
		170	0.2	75	0.25	0.35	0.07	0.15
		220	0.2	30	0.2	0.3	0.05	0.1
		260	0.2	20	0.16	0.22	0.04	0.08

切削钢件时的切削速度选择图
Choice of cutting speed for cutting steel parts

- 镗孔加工时经常会发生振动(颤振)。从右图可以看出，镗杆加长切削速度(转速)就必须降低
- 请参考右图及前面的切削条件表，选择最合适的加工条件
- 铸铁加工时有效深度相对右图约可提高10%~20%左右
- It often happen to shake(vibrate) when boring.from this chart,boring bar length increase, accordingly cutting speed must decrease.
- Please refer to right chart and mentioned situation,select suitable manufacturing terms
- When manufacturing cast iron, effective depth can improve 10%--20% related to right chart



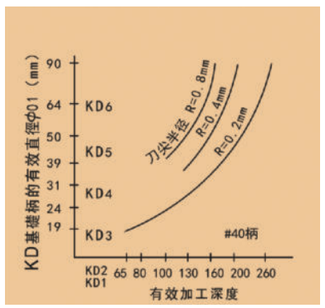
参考例 EXAMPLE

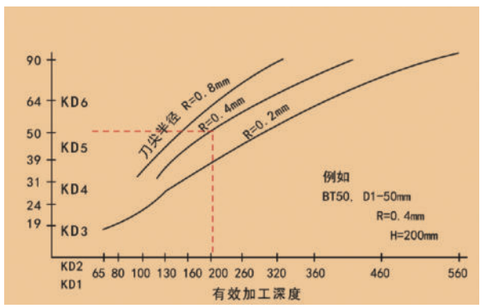
如果有效加工深度H=182，加工直径Φ45(Φ41~Φ54KD4)，图中与H=182红线的点118/即为合适的切削速度。请参考此例，选择合适的切削速度。

Take effective depth H=182 for example,diameter D45 (D41--D54 KD4), in chart, intersect point of red line H=182 and D45 is suitable cutting speed. please refer to this sample,select suitable cutting speed.

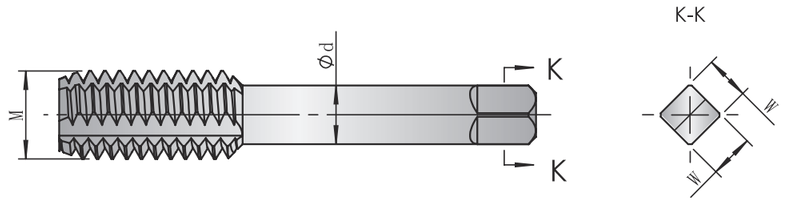
刀尖半径R和有效加工深度的关系
The relationship between R tip radius and the effective depth of processing

- 刀尖半径R与镗杆长度(加工深度的极限)之间也有很深的关系
- 参考下图选择合适的刀柄及刀片(刀尖半径)
- 铁加工时有效深度约可提高1.1-1.3倍
- There is a closely relation between insert tip R and depth of cut
- Select fitable holder and insert(tip corner) refer to following chart
- Manufacturing steel can improve effective depth 1.1-1.3 times





国际丝锥标准形式
International standard form of tap



公制 Metric system	美制 American system	英制 British system	JIS		ISO		DIN371		DIN376		英制工作
			直径	四角	直径	四角	直径	四角	直径	四角	直径d
			d	WXW	d	WXW	d	WXW	d	WXW	
M3		W1/8	4	3.2	3.15	2.5	3.5	2.7	2.2		3.18
M4/M4.5		W5/32	5	4	4	3.15	4.5	3.4	2.8	2.1	3.97
M5/M5.5		W3/16	5.5	4.5	5	4	6	4.9	3.5	2.7	4.76
M6	U1/4	W1/4	6	4.5	6.3	5	6	4.9	4.5	3.4	6.35
	U5/16	W5/16	6.1	5.5							7.94
M8/M7			6.2	5	6.3	5	8	6.2	6	4.9	
M10/M9	U3/8	W3/8	7	5.5	8	6.3	10	8		5.5	9.52
M11	U7/16	W7/16	8	6							11.11
M12			8.5	6.5	9	7.1	12	9	9	7	
	U1/2	W1/2	9	7							12.7
M14/M15	U9/16	W9/16	10.5	8	11.2	9			11	9	14.28
	U5/8	W5/8	12	9							15.88
M16			12.5	10	12.5	10			12	9	
M17			13	10							
M18	U3/4	W3/4	14	11	14	11.2			14	11	19.05
M20			15	12	14	11.2			16	12	
M22	U7/8	W7/8	17	13	16	12.5			18	14.5	22.22
M24/M25			19	15	18	14			18	14.5	
M25/M26	U1	W1	20	15							25.4
M27			20	15	20	16			20	16	
M28			21	17							
	U1 1/8	W1 1/8	22	17							28.58
M30			23	17	20	16			22	18	
M32	U1 1/4	W1 1/4	24	19							31.75
M33			25	19	22.4	18			25	20	
M34/M35	U1 3/8	W1 3/8	26	21							34.93
M36			28	21	25	20			28	22	
M39/M40	U1 ½	W1 ½	30	23					32	24	38.1
M42		W1 5/8	32	26	28	22.4			32	24	41.28
M45	U1 3/4	W1 3/4	35	26					36	29	44.45
M48		W1 7/8	38	29	31.5	25			36	29	47.63