



WORLDIA
沃尔德
证券代码: 688028

13-T13-WBV11



非标刀具刀柄及配件

**Holders and accessories
of Specialty Tools**

北京沃尔德金刚石工具股份有限公司

BEIJING WORLDIA DIAMOND TOOLS CO.,LTD.

嘉兴沃尔德金刚石工具有限公司

JIAXING WORLDIA DIAMOND TOOLS CO.,LTD.



WORLDIA 北京沃尔德金刚石工具股份有限公司(股票代码:688028),
2006年创立于中关村电子城科技园区,是一家主要从事超
硬刀具及超硬材料制品研发、生产和销售业务的高新技术企业。

主营产品:PCD/PCBN/CVDD切削刀具,整体硬质合金刀具,钻石刀轮及
其配套产品。沃尔德始终在超硬材料领域深耕细作,产品广泛应用于消费电子
、汽车制造、工程机械、航空航天、能源设备等行业。

Beijing Worldia Diamond Tools Co., Ltd was established in 2006. As a
national hi-tech enterprise, Worldia focuses upon R & D, production, sales
and service of high precision diamond cutting tools.

Our products include high-precision PCD/PCBN/CVDD cutting tools, solid
carbide cutting tools, diamond scribing wheels and related accesso-
ries. The cutting tools we provide have been widely applied in automotive,
electronic, new energy, and other industries.



WORLDIA

嘉兴沃尔德金刚石工具有限公司

JIAXING WORLDIA DIAMOND TOOLS CO.,LTD.





注意事项

感谢您订购并使用沃尔德产品

请您在使用本公司产品时注意以下事项：

安装刀具、脱卸刀具时的注意事项

- 1、请将刀柄牢固地固定在锁刀座或者紧固工具上，然后进行刀具的安装或脱卸操作。
- 2、在安装刀具时请勿直接用手接触刀刃。
- 3、紧固刀具时请使用本公司指定的专用紧固扳手。为了您的安全，请将扳手的卡口同刀柄完全密合接触并固定，然后慢慢旋紧
- 4、在安装到机床主轴上之前，请确认刀具的安装、紧固状态是否正常。

加工时的注意事项

- 1、安装刀柄到机床主轴或者ATC时，请小心操作，防止刀柄意外落下。
- 2、请勿接触旋转中的刀柄或刀具。
- 3、当使用高压冷却液进行加工时，请勿将手或者身体靠近刀尖。操作错误时，刀具可能会意外飞出。
- 4、请勿将刀柄等工具用做其他用途或者任意改造、分解。这不仅会导致精度下降，而且有可能因为误操作而导致重大事故

长期保管时的注意

- 1、长期保管刀具时，请将刀具从刀柄上取下，否则可能导致加持力下降。如果要将刀具安装在刀柄上进行长期保存，在使用前请旋松，然后重新紧固。
- 2、保存前请清除切屑碎片，并进行防锈处理。保管时注意不要划伤刀柄锥体部分。

WARNING



Thank you for purchasing Wordia brand tools.

Before using our tools, please take note of the following.

■ ***Safety Instructions for installing and removing cutting tools***

- Lock the tool holder in a tool presetter or locking fixture positively, for installing and removing the cutter.
- Do not touch cutting edges with a bare hand.
- Use spanners supplied by WORDIA specifically for the clamping chuck. Engage the spanner fully in a key slot of the nut and tighten by hand. Do not use a hammer or pipe to tighten more.
- Make sure that the cutter is correctly mounted in the holder before setting the tool in the machine.

■ ***Safety Instructions for using tool holders***

- Install the tool in the machine spindle or tool magazine carefully. Do not release the tool until it is properly clamped.
- Never touch a running tool holder or cutter.
- Always wear appropriate gloves, eye-protection and other protective equipment to avoid injury from hot flying chips.
- When high-pressure coolant is used, do not bring hands or body near the tool to avoid injury from an improperly mounted cutter forced out by the high-pressure.
- Do not use tool holders for any purposes other than their original purpose. Do not modify or disassemble.

■ ***Advices for storing tools***

- Remove the cutter from the chuck before storing for long period. Otherwise, clamping force may be reduced. If the chuck is stored for a long period with the cutter clamped in it, unclamp the cutter and reclamp it again before use.
- Clean chips and coolant from the tools, and apply rust preventative before storing them.

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HSK-A Shrink Fit Holder
HSK-A 热缩刀柄



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BT Shrink Fit Holder
BT 热缩刀柄



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SK Shrink Fit Holder
SK 热缩刀柄



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Shrink Fit Extender
热延长杆



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ER弹性筒夹刀柄 SPRING COLLET CHUCK

HSK-A Spring Collet Chuck
HSK-A 弹性筒夹刀柄



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BT Spring Collet Chuck
BT 弹性筒夹刀柄



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SK Spring Collet Chuck
SK 弹性筒夹刀柄



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Collet Extender
弹性筒夹延长杆



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WGS高速精密筒夹刀柄 HIGH PRECISION COLLET CHUCK

HSK-A High Precision Collet Chuck
HSK-A 高速精密筒夹刀柄



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BT High Precision Collet Chuck
BT 高速精密筒夹刀柄



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SK High Precision Collet Chuck
SK 高速精密筒夹刀柄



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WHPC高速强力刀柄 HIGH-SPEED POWER CHUCK

HSK-A High-Speed Power Chuck
HSK-A 高速强力刀柄



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BT High-Speed Power Chuck
BT 高速强力刀柄



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SK High-Speed Power Chuck
SK 高速强力刀柄



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WMC高精密重切刀柄 MICRON CHUCK

HSK-A Micron Chuck
HSK-A 高精密重切刀柄



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BT Micron Chuck
BT 高精密重切刀柄



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WHP液压刀柄 Hydraulic Chuck

HSK-A Hydraulic Chuck
HSK-A 液压刀柄



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BT Hydraulic Chuck
BT 液压刀柄



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SK Hydraulic Chuck
SK 液压刀柄



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WSL侧固刀柄 Side-lock Holder

HSK-A Side-lock Holder
HSK-A 侧固刀柄



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HSK-A Side-lock Holder(B型)
HSK-A 侧固刀柄 (B型)



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BT Side-lock Holder
BT 侧固刀柄



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SK Side-lock Holder
SK 侧固刀柄



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FMB平面铣刀柄 FMB Face Mill Holder

HSK-A Face Mill Holder
HSK-A 平面铣刀柄



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BT Face Mill Holder
BT 平面铣刀柄



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SK Face Mill Holder
SK 平面铣刀柄



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FMA平面铣刀柄 FMA Face Mill Holder

BT Face Mill Holder
BT 平面铣刀柄



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WFS法兰刀柄 Flange Shank

HSK-A Flange Shank
HSK-A 法兰刀柄



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BT Flange Shank
BT 法兰刀柄



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SK Flange Shank
SK 法兰刀柄



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WFL法兰刀柄 Flange Shank

WSF Shrink Fit Holder With Flange Module
WSF 法兰热缩刀柄

WHP Hydraulic Chuck With Flange Mouldle
WHP 法兰液压刀柄



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注：承接同类型BBT、CAT刀柄批量定制

NOTICE: The same type of BBT、CAT can be customized in batch.

周边附件 Accessories

ER Collet
ER 弹性筒夹



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ER-C Sealing Collet
ER-C 止水弹性筒夹



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ER-G 攻牙筒夹
ER-G Tapping Collet



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GS Precision Collet
GS 精密弹性筒夹



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GS-C Sealing Precision Collet
GS-C 止水精密弹性筒夹



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SC Power Collet
SC 强力筒夹



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Hydraulic Collet - Flange Cooling
D型端面出水液压筒夹



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Hydraulic Collet - Internal Cooling
OD 型中心出水液压筒夹



P62

Clamping Nut For ER Collet Chuck
ER 夹头螺帽



P63

HSK Coolant Pipe
HSK 冷却液套管



P63

Clamping Nuts For WGS Collet Chuck
WGS 高速刀柄专用螺帽



P63

Wrench For HSK Coolant Pipe
HSK 冷却液套管专用扳手



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Wrench For WGS Tool Holder
WGS 刀柄专用扳手



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Wrench For ER Tool Holder
ER刀柄专用扳手



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Wrench For Tool Holder WHPC
WHPC 高速强力刀柄专用扳手



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国际标准拉钉A型 ISO 7388/2-1984
International Standard Pull Stud
Type A ISO 7388/2-1984



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国际标准拉钉B型 ISO 7388/3-2013
International Standard Pull Stud
Type B ISO 7388/3-2013



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日本标准 MAS 403-1982
Japanese Standard Pull Stud MAS 403-1982



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日本标准 JIS B6339-1998
Japanese Standard Pull Stud JIS B6339-1998



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德国标准 DIN69872
German Standard Pull Stud DIN 69872



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美国标准 ASME B5.50-2015
American Standard Pull Stud
ASME B5.50-2015



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马扎克 MAZAK
Mazak Serial Pull Stud



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CAT-MAZAK
Upgraded Pull Stud CAT-MAZAK



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内六角螺钉
Locking Screw



P69

紧定螺钉
Locking Screw



P69

内六角螺钉
Locking Screw



P70

垫圈
Washer For Face Mill Arbor



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T形扳手
Wrench-T



P71

L形扳手
Allen Key



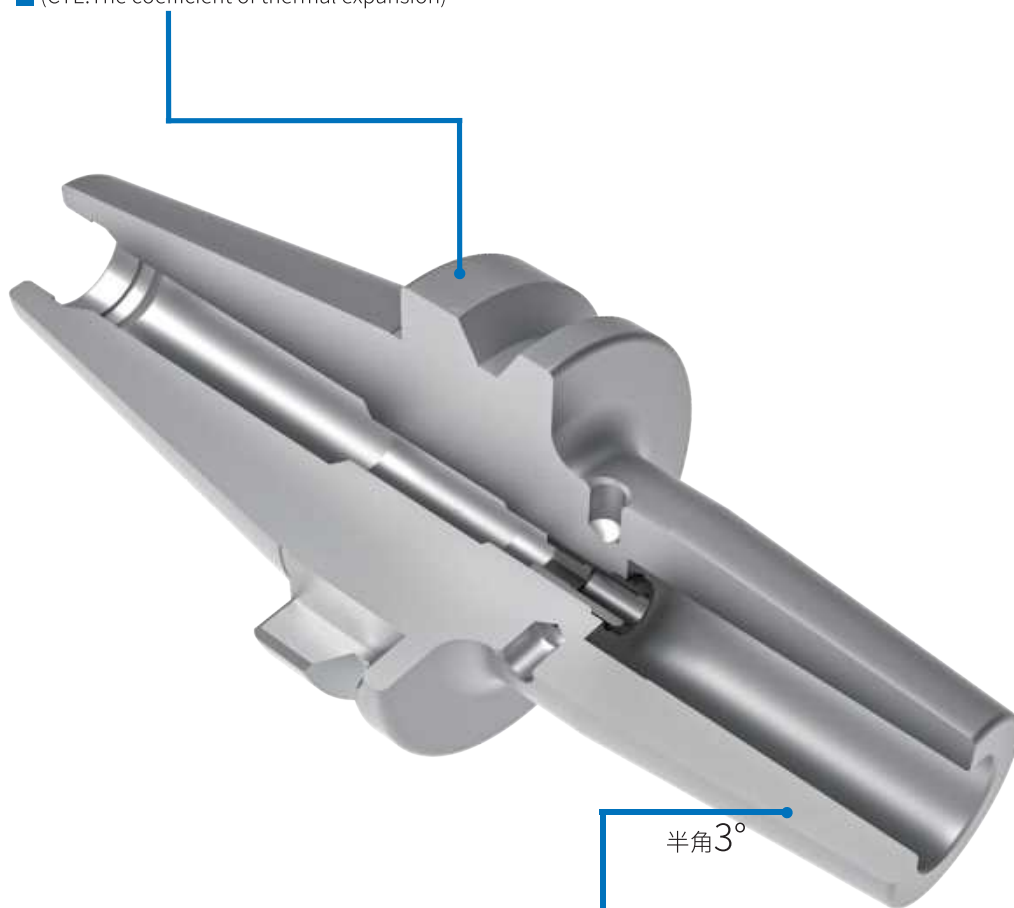
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WSF 热缩刀柄

WSF Shrink-Fit Holder

WSF 热缩刀柄

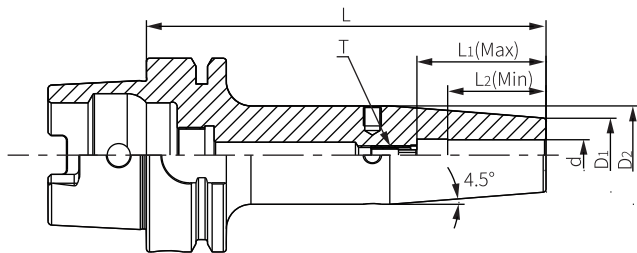
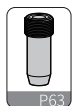
采用优质热缩特殊钢材热膨胀率大，夹持可靠。
With superior-quality steel with good CTE.
(CTE: The coefficient of thermal expansion)



3° 角设计，外形细长，
加工干涉小。
3° Taper-off design minimizes interference

WSF热缩刀柄

HSK-A Shrink Fit Holder
HSK-A 热缩刀柄



单位: mm

型号 Specification	d	D ₁	D ₂	L	L ₁ (Max)	L ₂ (Min)	T	重量(Kg) Weight(Kg)
HSK50A- WSF3-60	3	10	16	60	-	9	-	0.39
WSF4-60	4	10	16	60	-	12	-	0.39
WSF5-60	5	10	16	60	-	15	-	0.39
WSF6-80	6	21	27	80	36	26	Z05080015-C	0.41
WSF8-80	8	21	27	80	36	26	Z05080015-C	0.41
WSF10-85	10	24	32	85	42	32	Z06100015-C	0.42
WSF12-90	12	24	32	90	47	37	Z06100015-C	0.43
WSF14-90	14	27	34	90	47	37	Z06100015-C	0.43
WSF16-95	16	27	34	95	50	40	Z08100015-C	0.45
HSK63A- WSF3-80	3	10	16	80	-	9	-	0.50
WSF4-80	4	10	16	80	-	12	-	0.60
WSF5-80	5	10	16	80	-	15	-	0.70
WSF6-80	6	21	27	80	36	26	Z05080015-C	0.80
WSF6-130	6	21	27	130	36	26	Z05080015-C	1.00
WSF6-160	6	21	27	160	36	26	Z05080015-C	1.20
WSF6-200	6	21	27	200	36	26	Z05080015-C	1.40
WSF8-80	8	21	27	80	36	26	Z05080015-C	0.80
WSF8-130	8	21	27	130	36	26	Z05080015-C	1.02
WSF8-160	8	21	27	160	36	26	Z05080015-C	1.25
WSF8-200	8	21	27	200	36	26	Z05080015-C	1.43
WSF10-85	10	24	32	85	42	32	Z06100015-C	0.90
WSF10-130	10	24	32	130	42	32	Z06100015-C	1.17
WSF10-160	10	24	32	160	42	32	Z06100015-C	1.45
WSF10-200	10	24	32	200	42	30	Z06100015-C	1.75
WSF12-90	12	24	32	90	47	37	Z06100015-C	0.92
WSF12-130	12	24	32	130	47	37	Z06100015-C	1.15
WSF12-160	12	24	32	160	47	37	Z06100015-C	1.55
WSF12-200	12	24	32	200	47	37	Z06100015-C	1.92
WSF14-90	14	27	34	90	47	37	Z06100015-C	0.95
WSF14-130	14	27	34	130	47	37	Z06100015-C	1.18
WSF14-160	14	27	34	160	47	37	Z06100015-C	1.60
WSF14-200	14	27	34	200	47	37	Z06100015-C	1.98
WSF16-95	16	27	34	95	50	40	Z08100015-C	1.00
WSF16-130	16	27	34	130	50	40	Z08100015-C	1.21
WSF16-160	16	27	34	160	50	40	Z08100015-C	1.65
WSF16-200	16	27	34	200	50	40	Z08100015-C	2.05
WSF18-95	18	33	42	95	50	40	Z08100015-C	1.05
WSF18-130	18	33	42	130	50	40	Z08100015-C	1.25
WSF18-160	18	33	42	160	50	40	Z08100015-C	1.70
WSF18-200	18	33	42	200	50	40	Z08100015-C	2.10

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WSF热缩刀柄

HSK-A Shrink Fit Holder

HSK-A 热缩刀柄

型号 Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	重量(Kg) Weight(Kg)
HSK63A- WSF20-100	20	33	42	100	52	42	Z08100015-C	1.20
WSF20-130	20	33	42	130	52	42	Z08100015-C	1.49
WSF20-160	20	33	42	160	52	42	Z08100015-C	1.80
WSF20-200	20	33	42	200	52	42	Z08100015-C	2.20
WSF25-115	25	44	53	115	58	48	Z16100015-C	2.00
WSF25-130	25	44	53	130	58	48	Z16100015-C	2.20
WSF25-160	25	44	53	160	58	48	Z16100015-C	2.10
WSF25-200	25	44	53	200	58	48	Z16100015-C	2.25
WSF32-120	32	44	53	120	58	48	Z16100015-C	2.10
WSF32-160	32	44	53	160	58	48	Z16100015-C	2.60
WSF32-200	32	44	53	200	58	48	Z16100015-C	2.80
HSK100A- WSF6-85	6	21	27	85	36	26	Z05080015-C	2.00
WSF6-130	6	21	27	130	36	26	Z05080015-C	2.30
WSF6-160	6	21	27	160	36	26	Z05080015-C	2.62
WSF6-200	6	21	27	200	36	26	Z05080015-C	2.90
WSF8-85	8	21	27	85	36	26	Z05080015-C	2.00
WSF8-130	8	21	27	130	36	26	Z05080015-C	2.30
WSF8-160	8	21	27	160	36	26	Z05080015-C	2.65
WSF8-200	8	21	27	200	36	26	Z05080015-C	2.93
WSF10-90	10	24	32	90	42	32	Z06100015-C	2.20
WSF10-130	10	24	32	130	42	32	Z06100015-C	2.40
WSF10-160	10	24	32	160	42	32	Z06100015-C	2.70
WSF10-200	10	24	32	200	42	32	Z06100015-C	3.10
WSF12-95	12	24	32	95	47	37	Z06100015-C	2.30
WSF12-130	12	24	32	130	47	37	Z06100015-C	2.50
WSF12-160	12	24	32	160	47	37	Z06100015-C	2.75
WSF12-200	12	24	32	200	47	37	Z06100015-C	3.15
WSF14-95	14	27	34	95	47	37	Z06100015-C	2.35
WSF14-130	14	27	34	130	47	37	Z06100015-C	2.60
WSF14-160	14	27	34	160	47	37	Z06100015-C	2.85
WSF14-200	14	27	34	200	47	37	Z06100015-C	3.25
WSF16-100	16	27	34	100	50	40	Z08100015-C	2.50
WSF16-130	16	27	34	130	50	40	Z08100015-C	2.80
WSF16-160	16	27	34	160	50	40	Z08100015-C	3.13
WSF16-200	16	27	34	200	50	40	Z08100015-C	3.35
WSF18-100	18	33	42	100	50	40	Z08100015-C	2.55
WSF18-130	18	33	42	130	50	40	Z08100015-C	2.85
WSF18-160	18	33	42	160	50	40	Z08100015-C	3.21
WSF18-200	18	33	42	200	50	40	Z08100015-C	3.45
WSF20-105	20	33	42	105	52	42	Z08100015-C	2.60
WSF20-130	20	33	42	130	52	42	Z08100015-C	2.90
WSF20-160	20	33	42	160	52	42	Z08100015-C	3.25
WSF20-200	20	33	42	200	52	42	Z08100015-C	3.50
WSF25-115	25	44	53	115	58	48	Z16100015-C	2.80
WSF25-130	25	44	53	130	58	48	Z16100015-C	3.10
WSF25-160	25	44	53	160	58	48	Z16100015-C	3.40
WSF25-200	25	44	53	200	58	48	Z16100015-C	4.50
WSF32-120	32	44	53	120	58	48	Z16100015-C	3.20
WSF32-160	32	44	53	160	58	48	Z16100015-C	3.60
WSF32-200	32	44	53	200	58	48	Z16100015-C	4.70

特点 / Feature

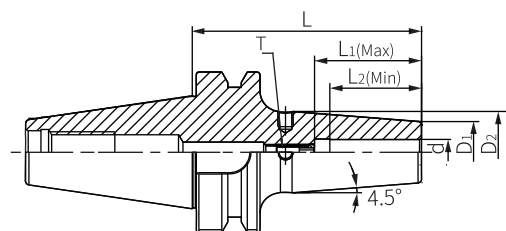
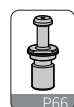
■动平衡设定: G2.5; 25,000 rpm
■3D处径向跳动≤0.003 mm

■Balanced: G2.5; 25,000 rpm
■Runout (X3D): ≤ 0.003 mm

WSF 热缩刀柄

BT Shrink Fit Holder

BT 热缩刀柄



单位: mm

型号 Specification	d	D ₁	D ₂	L	L ₁ (Max)	L ₂ (Min)	T	重量(Kg) Weight(Kg)
BT30- WSF3- 80	3	10	16	80	-	9	-	0.35
WSF4- 80	4	10	16	80	-	12	-	0.40
WSF5- 80	5	10	16	80	-	15	-	0.43
WSF6- 80	6	21	27	80	36	26	Z05080015-C	0.45
WSF8- 80	8	21	27	80	36	26	Z06100015-C	0.50
WSF10- 80	10	24	32	80	42	32	Z06100015-C	0.55
WSF12- 80	12	24	32	80	47	37	Z06100015-C	0.62
WSF14- 80	14	27	34	80	47	37	Z06100015-C	0.65
WSF16- 80	16	27	34	80	50	40	Z08100015-C	0.68
WSF18- 80	18	33	42	80	50	40	Z08100015-C	0.71
WSF20- 90	20	33	42	90	52	42	Z08100015-C	0.75
BT40- WSF3- 90	3	10	16	90	-	9	-	1.00
WSF4- 90	4	10	16	90	-	12	-	1.10
WSF5- 90	5	10	16	90	-	15	-	1.00
WSF6- 90	6	21	27	90	36	26	Z05080015-C	1.15
WSF6- 130	6	21	27	130	36	26	Z05080015-C	1.20
WSF6- 160	6	21	27	160	36	26	Z05080015-C	1.40
WSF6- 200	6	21	27	200	36	26	Z05080015-C	1.90
WSF8- 90	8	21	27	90	36	26	Z06100015-C	1.15
WSF8- 130	8	21	27	130	36	26	Z06100015-C	1.30
WSF8- 160	8	21	27	160	36	26	Z06100015-C	1.50
WSF8- 200	8	21	27	200	36	26	Z06100015-C	1.90
WSF10- 90	10	24	32	90	42	32	Z06100015-C	1.20
WSF10- 130	10	24	32	130	42	32	Z06100015-C	1.50
WSF10- 160	10	24	32	160	42	32	Z06100015-C	1.80
WSF10- 200	10	24	32	200	42	32	Z06100015-C	1.90
WSF12- 90	12	24	32	90	47	37	Z08100015-C	1.30
WSF12- 130	12	24	32	130	47	37	Z08100015-C	1.60
WSF12- 160	12	24	32	160	47	37	Z08100015-C	1.80
WSF12- 200	12	24	32	200	47	37	Z08100015-C	2.00
WSF14- 90	14	27	34	90	47	37	Z08100015-C	1.30
WSF14- 130	14	27	34	130	47	37	Z08100015-C	1.60
WSF14- 160	14	27	34	160	47	37	Z08100015-C	1.80
WSF14- 200	14	27	34	200	47	37	Z08100015-C	2.00
WSF16- 90	16	27	34	90	50	40	Z08100015-C	1.40
WSF16- 130	16	27	34	130	50	40	Z08100015-C	1.70
WSF16- 160	16	27	34	160	50	40	Z08100015-C	1.95
WSF16- 200	16	27	34	200	50	40	Z08100015-C	2.20
WSF18- 90	18	33	42	90	50	40	Z08100015-C	1.50
WSF18- 130	18	33	42	130	50	40	Z08100015-C	1.80
WSF18- 160	18	33	42	160	50	40	Z08100015-C	2.00
WSF18- 200	18	33	42	200	50	40	Z08100015-C	2.30
WSF20- 90	20	33	42	90	52	42	Z08100015-C	1.55

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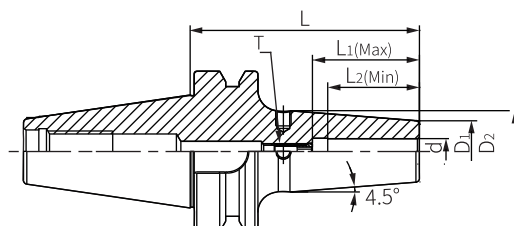
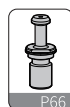
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WSF 热缩刀柄

BT Shrink Fit Holder

BT 热缩刀柄



单位: mm

型号 Specification	d	D ₁	D ₂	L	L ₁ (Max)	L ₂ (Min)	T	重量(Kg) Weight(Kg)
BT40- WSF20- 130	20	33	42	130	52	42	Z08100015-C	1.85
WSF20- 160	20	33	42	160	52	42	Z08100015-C	2.05
WSF20- 200	20	33	42	200	52	42	Z08100015-C	2.35
WSF25- 100	25	44	53	100	58	48	Z16100015-C	1.65
WSF25- 130	25	44	53	130	58	48	Z16100015-C	1.90
WSF25- 160	25	44	53	160	58	48	Z16100015-C	2.20
WSF25- 200	25	44	53	200	58	48	Z16100015-C	2.50
WSF32- 100	32	44	53	100	58	48	Z16100015-C	2.00
WSF32- 130	32	44	53	130	58	48	Z16100015-C	2.30
WSF32- 160	32	44	53	160	58	48	Z16100015-C	2.60
BT50- WSF6- 100	6	21	27	100	36	26	Z05080015-C	3.70
WSF6- 130	6	21	27	130	36	26	Z05080015-C	3.80
WSF6- 160	6	21	27	160	36	26	Z05080015-C	3.88
WSF6- 200	6	21	27	200	36	26	Z05080015-C	4.00
WSF8- 100	8	21	27	100	36	26	Z06100015-C	3.60
WSF8- 130	8	21	27	130	36	26	Z06100015-C	3.70
WSF8- 160	8	21	27	160	36	26	Z06100015-C	3.90
WSF8- 200	8	21	27	200	36	26	Z06100015-C	4.00
WSF10- 100	10	24	32	100	42	32	Z06100015-C	3.65
WSF10- 130	10	24	32	130	42	32	Z06100015-C	3.78
WSF10- 160	10	24	32	160	42	32	Z06100015-C	4.00
WSF10- 200	10	24	32	200	42	32	Z06100015-C	4.15
WSF12- 100	12	24	32	100	47	37	Z08100015-C	3.70
WSF12- 130	12	24	32	130	47	37	Z08100015-C	3.80
WSF12- 160	12	24	32	160	47	37	Z08100015-C	4.10
WSF12- 200	12	24	32	200	47	37	Z08100015-C	4.25
WSF14- 100	14	27	34	100	47	37	Z08100015-C	3.70
WSF14- 130	14	27	34	130	47	37	Z08100015-C	3.80
WSF14- 160	14	27	34	160	47	37	Z08100015-C	4.10
WSF14- 200	14	27	34	200	47	37	Z08100015-C	4.25
WSF16- 100	16	27	34	100	50	40	Z08100015-C	3.75
WSF16- 130	16	27	34	130	50	40	Z08100015-C	3.88
WSF16- 160	16	27	34	160	50	40	Z08100015-C	4.20
WSF16- 200	16	27	34	200	50	40	Z08100015-C	4.50
WSF18- 100	18	33	42	100	50	40	Z08100015-C	3.75
WSF18- 130	18	33	42	130	50	40	Z08100015-C	3.88
WSF18- 160	18	33	42	160	50	40	Z08100015-C	4.20
WSF18- 200	18	33	42	200	50	40	Z08100015-C	4.50
WSF20- 100	20	33	42	100	52	42	Z08100015-C	3.80
WSF20- 130	20	33	42	130	52	42	Z08100015-C	4.00
WSF20- 160	20	33	42	160	52	42	Z08100015-C	4.30
WSF20- 200	20	33	42	200	52	42	Z08100015-C	4.60

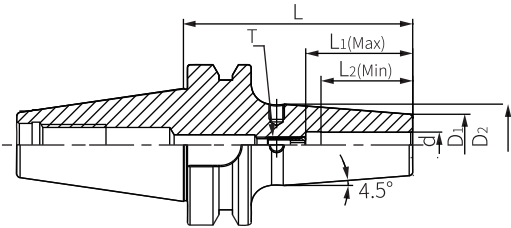
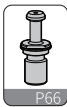
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WSF 热缩刀柄

BT Shrink Fit Holder
BT 热缩刀柄



单位: mm

型号 Specification	d	D ₁	D ₂	L	L ₁ (Max)	L ₂ (Min)	T	重量(Kg) Weight(Kg)
BT50- WSF25- 100	25	44	53	100	58	48	Z16100015-C	3.82
WSF25- 130	25	44	53	130	58	48	Z16100015-C	4.05
WSF25- 160	25	44	53	160	58	48	Z16100015-C	4.33
WSF25- 200	25	44	53	200	58	48	Z16100015-C	4.65
WSF32- 100	32	44	53	100	58	48	Z16100015-C	4.00
WSF32- 130	32	44	53	130	58	48	Z16100015-C	4.40
WSF32- 160	32	44	53	160	58	48	Z16100015-C	4.70
WSF32- 200	32	44	53	200	58	48	Z16100015-C	5.00

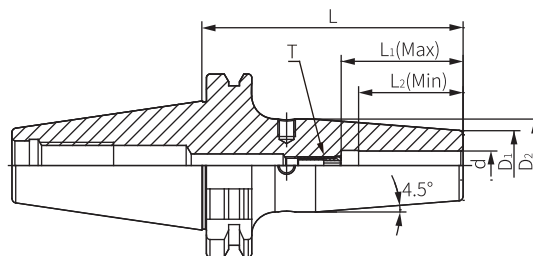
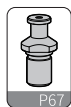
特点 / Feature

- 动平衡设定: G2.5; 25,000 rpm
- Balanced: G2.5; 25,000 rpm
- 3D处径向跳动≤0.003 mm
- Runout (X3D): ≤0.003 mm

WSF热缩刀柄

SK Shrink Fit Holder

SK 热缩刀柄



单位: mm

型号 Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	重量(Kg) Weight(Kg)
SK30-WSF3-80	3	16	16	80	-	9	-	0.35
WSF4-80	4	16	16	80	-	12	-	0.40
WSF5-80	5	16	16	80	-	15	-	0.43
WSF6-80	6	21	27	80	36	26	Z05080015-C	0.45
WSF8-80	8	21	27	80	36	26	Z06100015-C	0.50
WSF10-80	10	24	32	80	42	32	Z06100015-C	0.55
WSF12-80	12	24	32	80	47	37	Z06100015-C	0.62
WSF16-80	16	27	34	80	50	40	Z08100015-C	0.68
SK40-WSF3-90	3	10	16	90	-	9	-	1.00
WSF4-90	4	10	16	90	-	12	-	1.10
WSF5-90	5	10	16	90	-	15	-	1.00
WSF6-90	6	21	27	90	36	26	Z05080015-C	1.15
WSF6-130	6	21	27	130	36	26	Z05080015-C	1.20
WSF6-160	6	21	27	160	36	26	Z05080015-C	1.40
WSF6-200	6	21	27	200	36	26	Z05080015-C	1.90
WSF8-90	8	21	27	90	36	26	Z06100015-C	1.15
WSF8-130	8	21	27	130	36	26	Z06100015-C	1.30
WSF8-160	8	21	27	160	36	26	Z06100015-C	1.50
WSF8-200	8	21	27	200	36	26	Z06100015-C	1.90
WSF10-90	10	24	32	90	42	32	Z06100015-C	1.20
WSF10-130	10	24	32	130	42	32	Z06100015-C	1.50
WSF10-160	10	24	32	160	42	32	Z06100015-C	1.80
WSF10-200	10	24	32	200	42	32	Z06100015-C	1.90
WSF12-90	12	24	32	90	47	37	Z08100015-C	1.30
WSF12-130	12	24	32	130	47	37	Z08100015-C	1.60
WSF12-160	12	24	32	160	47	37	Z08100015-C	1.80
WSF12-200	12	24	32	200	47	37	Z08100015-C	2.00
WSF14-90	14	27	34	90	47	37	Z08100015-C	1.30
WSF14-130	14	27	34	130	47	37	Z08100015-C	1.60
WSF14-160	14	27	34	160	47	37	Z08100015-C	1.80
WSF14-200	14	27	34	200	47	37	Z08100015-C	2.00
WSF16-90	16	27	34	90	50	40	Z08100015-C	1.40
WSF16-130	16	27	34	130	50	40	Z08100015-C	1.70
WSF16-160	16	27	34	160	50	40	Z08100015-C	1.95
WSF16-200	16	27	34	200	50	40	Z08100015-C	2.20
WSF18-90	18	33	42	90	50	40	Z08100015-C	1.50
WSF18-130	18	33	42	130	50	40	Z08100015-C	1.80
WSF18-160	18	33	42	160	50	40	Z08100015-C	2.00
WSF18-200	18	33	42	200	50	40	Z08100015-C	2.30
WSF20-90	20	33	42	90	52	42	Z08100015-C	1.55
WSF20-130	20	33	42	130	52	42	Z08100015-C	1.85
WSF20-160	20	33	42	160	52	42	Z08100015-C	2.05
WSF20-200	20	33	42	200	52	42	Z08100015-C	2.35
WSF25-100	25	44	53	100	58	48	Z16100015-C	1.65
WSF25-130	25	44	53	130	58	48	Z16100015-C	1.90
WSF25-160	25	44	53	160	58	48	Z16100015-C	2.20
WSF25-200	25	44	53	200	58	48	Z16100015-C	2.50
WSF32-100	32	44	53	100	58	48	Z16100015-C	2.00
WSF32-130	32	44	53	130	58	48	Z16100015-C	2.30
WSF32-160	32	44	53	160	58	48	Z16100015-C	2.60

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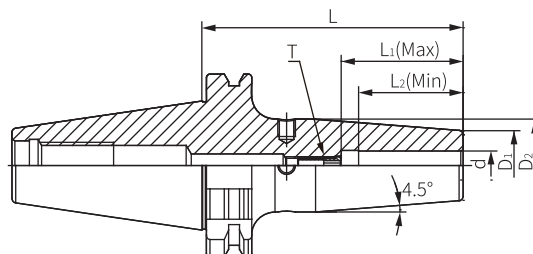
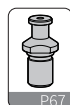
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WSF热缩刀柄

SK Shrink Fit Holder

SK 热缩刀柄



单位: mm

型号 Specification	d	D ₁	D ₂	L	L ₁ (Max)	L ₂ (Min)	T	重量(Kg) Weight(Kg)
SK50- WSF6-100	6	21	27	100	36	26	Z05080015-C	3.70
WSF6-130	6	21	27	130	36	26	Z05080015-C	3.80
WSF6-160	6	21	27	160	36	26	Z05080015-C	3.88
WSF6-200	6	21	27	200	36	26	Z05080015-C	4.00
WSF8-100	8	21	27	100	36	26	Z06100015-C	3.60
WSF8-130	8	21	27	130	36	26	Z06100015-C	3.70
WSF8-160	8	21	27	160	36	26	Z06100015-C	3.90
WSF8-200	8	21	27	200	36	26	Z06100015-C	4.00
WSF10-100	10	24	32	100	42	32	Z06100015-C	3.65
WSF10-130	10	24	32	130	42	32	Z06100015-C	3.78
WSF10-160	10	24	32	160	42	32	Z06100015-C	4.00
WSF10-200	10	24	32	200	42	32	Z06100015-C	4.15
WSF12-100	12	24	32	100	47	37	Z08100015-C	3.70
WSF12-130	12	24	32	130	47	37	Z08100015-C	3.80
WSF12-160	12	24	32	160	47	37	Z08100015-C	4.10
WSF12-200	12	24	32	200	47	37	Z08100015-C	4.25
WSF14-100	14	27	34	100	47	37	Z08100015-C	3.70
WSF14-130	14	27	34	130	47	37	Z08100015-C	3.80
WSF14-160	14	27	34	160	47	37	Z08100015-C	4.10
WSF14-200	14	27	34	200	47	37	Z08100015-C	4.25
WSF16-100	16	27	34	100	50	40	Z08100015-C	3.75
WSF16-130	16	27	34	130	50	40	Z08100015-C	3.88
WSF16-160	16	27	34	160	50	40	Z08100015-C	4.20
WSF16-200	16	27	34	200	50	40	Z08100015-C	4.50
WSF18-100	18	33	42	100	50	40	Z08100015-C	3.75
WSF18-130	18	33	42	130	50	40	Z08100015-C	3.88
WSF18-160	18	33	42	160	50	40	Z08100015-C	4.20
WSF18-200	18	33	42	200	50	40	Z08100015-C	4.50
WSF20-100	20	33	42	100	52	42	Z08100015-C	3.80
WSF20-130	20	33	42	130	52	42	Z08100015-C	4.00
WSF20-160	20	33	42	160	52	42	Z08100015-C	4.30
WSF20-200	20	33	42	200	52	42	Z08100015-C	4.60
WSF25-100	25	44	53	100	58	48	Z16100015-C	3.82
WSF25-130	25	44	53	130	58	48	Z16100015-C	4.05
WSF25-160	25	44	53	160	58	48	Z16100015-C	4.33
WSF25-200	25	44	53	200	58	48	Z16100015-C	4.65
WSF32-100	32	44	53	100	58	48	Z16100015-C	4.00
WSF32-130	32	44	53	130	58	48	Z16100015-C	4.40
WSF32-160	32	44	53	160	58	48	Z16100015-C	4.70
WSF32-200	32	44	53	200	58	48	Z16100015-C	5.00

特点 / Feature

■ 动平衡设定: G2.5; 25,000 rpm

■ 3D处径向跳动 ≤ 0.003 mm

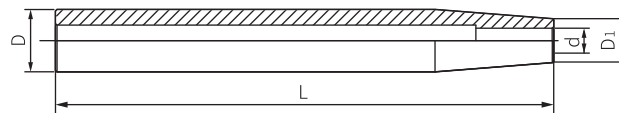
■ Balanced: G2.5; 25,000 rpm

■ Runout (X3D): ≤ 0.003 mm

WSF-EXTENDER

Shrink Fit Extender

热延长杆

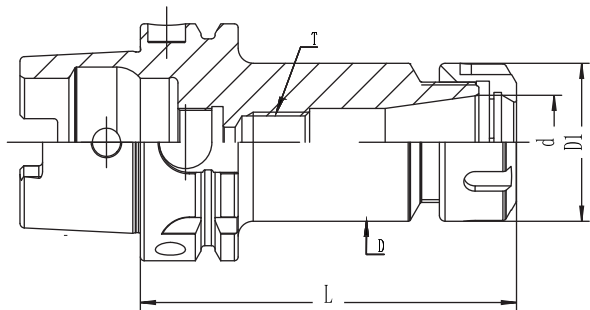
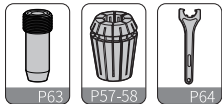


单位: mm

型号 Specification	D	D ₁	d	L	重量(Kg) Weight(Kg)
C12- SF3- 160	12	8	3	160	0. 20
SF4- 160	12	8	4	160	0. 21
C16- SF3- 160	16	10	3	160	0. 22
SF4- 160	16	10	4	160	0. 23
SF5- 160	16	10	5	160	0. 24
SF6- 160	16	10	6	160	0. 25
C20- SF5- 160	20	14	5	160	0. 40
SF6- 160	20	14	6	160	0. 42
SF8- 160	20	14	8	160	0. 44
C25- SF8- 160	25	20	8	160	0. 60
SF10- 160	25	20	10	160	0. 62
SF12- 160	25	20	12	160	0. 65
C32- SF10- 160	32	27	10	160	0. 78
SF12- 160	32	27	12	160	0. 81
SF16- 160	32	27	16	160	0. 83
SF20- 160	32	27	20	160	0. 85

ER 弹性筒夹刀柄

HSK-A Spring Collet Chuck
HSK-A 弹性筒夹刀柄



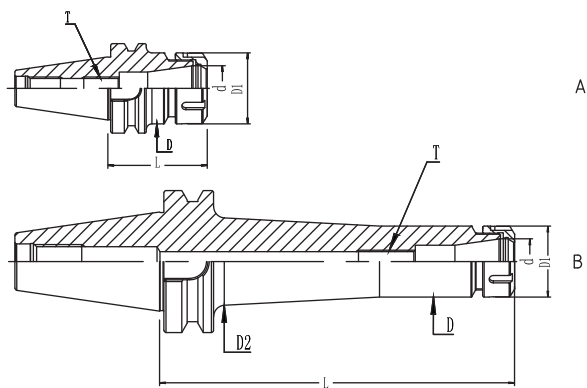
单位: mm

型号 Specification	D	D1	d	L	T	重量(Kg) Weight(Kg)
HSK50A- ER16-75	28	28	16	75	-	0.54
ER16-100	28	28	16	100	M10150020-C	0.65
ER20-75	34	34	20	75	-	0.61
ER20-100	34	34	20	100	M12175020-C	0.77
ER25-80	42	42	25	80	-	0.75
ER25-100	42	42	25	100	M16200020-C	0.94
ER25-135	42	42	25	135	M16200025-C	1.28
ER32-100	50	50	32	100	-	1.07
ER32-135	50	50	32	135	M16200020-C	1.57
ER32-160	50	50	32	160	M16200025-C	2.00
HSK63A- ER16-75	28	28	16	75	-	0.80
ER16-100	28	28	16	100	M10150020-C	0.91
ER16-120	28	28	16	120	M10150035-C	0.96
ER16-160	28	28	16	160	M10150035-C	1.17
ER20-80	34	34	20	80	-	0.90
ER20-100	34	34	20	100	M12175020-C	1.03
ER20-120	34	34	20	120	M12175020-C	1.15
ER20-160	34	34	20	160	M12175040-C	1.42
ER25-80	42	42	25	80	-	1.03
ER25-100	42	42	25	100	-	1.22
ER25-120	42	42	25	120	M16200020-C	1.42
ER25-150	42	42	25	150	M16200025-C	1.71
ER32-100	50	50	32	100	-	1.41
ER32-125	50	50	32	125	M16200025-C	1.76
ER32-160	50	50	32	160	M16200025-C	2.27
ER40-100	63	63	40	100	-	1.76
ER40-120	63	63	40	120	M20200020-C	2.20
ER40-160	63	63	40	160	M20200040-C	3.08
HSK100A- ER16-100	28	28	16	100	M10150020-C	2.25
ER16-160	28	28	16	160	M10150035-C	2.52
ER20-100	34	34	20	100	M12175020-C	2.37
ER20-160	34	34	20	160	M12175040-C	2.76
ER25-100	42	42	25	100	-	2.55
ER25-160	42	42	25	160	M16200025-C	3.13
ER25-200	42	42	25	200	M16200025-C	3.53
ER32-100	50	50	32	100	-	2.75
ER32-160	50	50	32	160	M16200025-C	3.59
ER32-200	50	50	32	200	M16200025-C	4.18
ER40-160	63	63	40	100	-	3.19
ER40-100	63	63	40	160	M20200040-C	4.51
ER40-200	63	63	40	200	M20200040-C	5.45

注: 筒夹与扳手需单独订购。
Notice: Collets and wrenchs shall be or dered separately.

ER 弹性筒夹刀柄

BT Spring Collet Chuck
BT 弹性筒夹刀柄



单位: mm

型号 Specification	图示 Figure	D	D1	D2	d	L	T	重量(Kg) Weight(Kg)
BT30-ER16-70	A	28	28	-	16	70	M10150020-C	0.52
ER16-100	A	28	28	-	16	100	M10150035-C	0.64
ER16-120	A	28	28	-	16	120	M10150035-C	0.73
ER20-70	A	34	34	-	20	70	M12175020-C	0.59
ER20-100	A	34	34	-	20	100	M12175040-C	0.78
ER20-135	A	34	34	-	20	135	M12175040-C	1.05
ER25-70	A	42	42	-	25	70	M16200020-C	0.67
ER25-100	A	42	42	-	25	100	M16200040-C	0.97
ER25-135	A	42	42	-	25	135	M16200040-C	1.30
ER32-70	A	50	50	-	32	70	M16200020-C	0.75
ER32-100	A	50	50	-	32	100	M16200040-C	1.18
ER40-80	A	63	63	-	40	80	M20200020-C	1.15
BT40-ER16-70	A	28	28	-	16	70	M10150035-C	1.10
ER16-100	A	28	28	-	16	100	M10150035-C	1.19
ER16-125	A	28	28	-	16	125	M10150035-C	1.30
ER16-150	A	28	28	-	16	150	M10150035-C	1.44
ER20-70	A	34	34	-	20	70	M12175020-C	1.22
ER20-100	A	34	34	-	20	100	M12175040-C	1.33
ER20-125	A	34	34	-	20	125	M12175040-C	1.50
ER20-150	A	34	34	-	20	150	M12175040-C	1.66
ER25-70	A	42	42	-	25	70	M16200020-C	1.22
ER25-100	A	42	42	-	25	100	M16200040-C	1.49
ER25-125	A	42	42	-	25	125	M16200040-C	1.71
ER25-150	A	42	42	-	25	150	M16200040-C	1.97
ER32-70	A	50	50	-	32	70	M16200020-C	1.27
ER32-100	A	50	50	-	32	100	M16200040-C	1.70
ER32-150	A	50	50	-	32	150	M16200040-C	2.39
ER32-200	A	50	50	-	32	200	M16200040-C	3.12
ER40-80	A	63	63	-	40	80	M20200020-C	1.66
ER40-100	A	63	63	-	40	100	M20200040-C	2.10
ER40-120	A	63	63	-	40	125	M20200040-C	2.60
ER40-150	A	63	63	-	40	150	M20200040-C	3.30

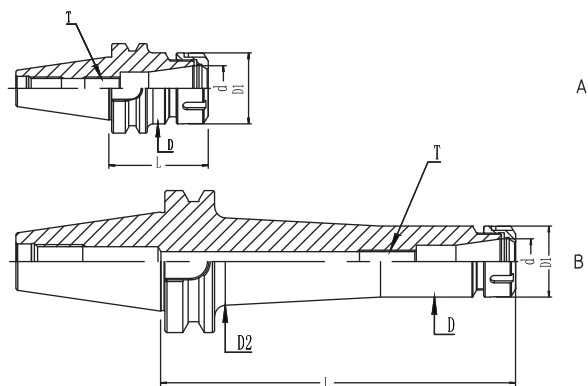
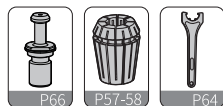
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ER 弹性筒夹刀柄

BT Spring Collet Chuck
BT 弹性筒夹刀柄



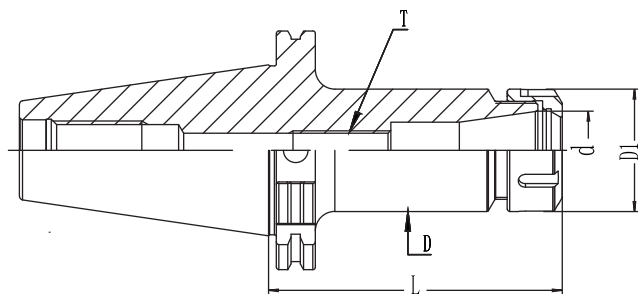
单位: mm

型号 Specification	图示 Figure	D	D1	D2	d	L	T	重量(Kg) Weight(Kg)
BT50- ER16-70	A	28	28	-	16	70	M10150035-C	3.72
ER16-100	A	28	28	-	16	100	M10150035-C	3.85
ER16-135	A	28	28	-	16	135	M10150035-C	3.95
ER16-165	A	28	28	-	16	165	M10150035-C	4.04
ER20-70	A	34	34	-	20	70	M12175040-C	3.73
ER20-100	A	34	34	-	20	100	M12175040-C	3.92
ER20-135	A	34	34	-	20	135	M12175040-C	4.15
ER20-150	A	34	34	-	20	150	M12175040-C	4.25
ER20-200	A	34	34	-	20	200	M12175040-C	4.66
ER20-250L	B	34	34	47	20	250	M12175040-C	5.26
ER25-70	A	42	42	-	25	70	M16200040-C	3.75
ER25-100	A	42	42	-	25	100	M16200040-C	4.02
ER25-125	A	42	42	-	25	125	M16200040-C	4.26
ER25-150	A	42	42	-	25	150	M16200040-C	4.54
ER25-200	A	42	42	-	25	200	M16200040-C	5.01
ER25-250L	B	42	42	54	25	250	M16200040-C	5.89
ER32-80	A	50	50	-	32	80	M16200040-C	3.91
ER32-100	A	50	50	-	32	100	M16200040-C	4.07
ER32-120	A	50	50	-	32	120	M16200040-C	4.35
ER32-150	A	50	50	-	32	150	M16200040-C	4.82
ER32-200	A	50	50	-	32	200	M16200040-C	5.32
ER32-250	A	50	50	-	32	250	M16200040-C	5.92
ER40-80	A	63	63	-	40	80	M20200040-C	4.04
ER40-100	A	63	63	-	40	100	M20200040-C	4.48
ER40-120	A	63	63	-	40	120	M20200040-C	4.96
ER40-150	A	63	63	-	40	150	M20200040-C	5.51

注：筒夹与扳手需单独订购。
Notice: Collets and wrenchs shall be or dered separately.

ER 弹性筒夹刀柄

SK Spring Collet Chuck
SK 弹性筒夹刀柄



单位: mm

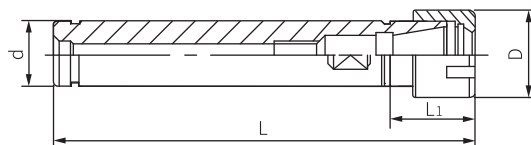
型号							重量(Kg)
Specification		D	D1	d	L	T	Weight(Kg)
SK30-	ER11-60	19	19	11	60	M06100020-C	0.45
	ER16-70	28	28	16	70	M10150020-C	0.67
	ER16-100	28	28	16	100	M10150035-C	0.80
	ER20-70	34	34	20	70	M12175020-C	0.79
	ER20-100	34	34	20	100	M12175040-C	0.99
	ER25-70	42	42	25	70	M16200020-C	0.68
	ER32-70	50	50	32	70	M16200020-C	0.72
SK40-	ER11-80	19	19	11	80	M06100020-C	0.93
	ER11-125	19	19	11	125	M06100020-C	1.02
	ER16-70	28	28	16	70	M10150035-C	0.96
	ER16-100	28	28	16	100	M10150035-C	1.11
	ER16-125	28	28	16	125	M10150035-C	1.22
	ER16-150	28	28	16	150	M10150035-C	1.33
	ER20-70	34	34	20	70	M12175020-C	1.03
	ER20-100	34	34	20	100	M12175040-C	1.24
	ER20-135	34	34	20	135	M12175040-C	1.46
	ER20-160	34	34	20	160	M12175040-C	1.56
	ER25-70	42	42	25	70	M16200020-C	1.13
	ER25-100	42	42	25	100	M16200040-C	1.41
	ER25-150	42	42	25	150	M16200040-C	1.90
	ER25-200	42	42	25	200	M16200040-C	2.38
	ER32-70	50	50	32	70	M16200020-C	1.21
	ER32-100	50	50	32	100	M16200040-C	1.64
	ER32-150	50	50	32	150	M16200040-C	2.34
	ER40-80	63	63	40	80	M20200020-C	1.53
	ER40-100	63	63	40	100	M20200040-C	1.95
	ER40-135	63	63	40	135	M20200040-C	2.75
SK50-	ER16-100	28	28	16	100	M10150035-C	2.93
	ER16-135	28	28	16	135	M10150035-C	3.08
	ER16-160	28	28	16	160	M10150035-C	3.20
	ER16-200	28	28	16	200	M10150035-C	3.37
	ER20-100	34	34	20	100	M12175040-C	3.07
	ER20-135	34	34	20	135	M12175040-C	3.28
	ER20-160	34	34	20	160	M12175040-C	3.44
	ER25-70	42	42	25	70	M16200040-C	2.96
	ER25-100	42	42	25	100	M16200040-C	3.24
	ER25-150	42	42	25	150	M16200040-C	3.72
	ER25-200	42	42	25	200	M16200040-C	4.20
	ER32-80	50	50	32	80	M16200040-C	3.10
	ER32-120	50	50	32	120	M16200040-C	3.75
	ER32-160	50	50	32	160	M16200040-C	4.32
	ER32-200	50	50	32	200	M16200040-C	4.89
	ER40-80	63	63	40	80	M20200040-C	3.45
	ER40-120	63	63	40	120	M20200040-C	4.38
	ER40-160	63	63	40	160	M20200040-C	5.27
	ER40-200	63	63	40	200	M20200040-C	6.17

注: 筒夹与扳手需单独订购。

Notice: Collets and wrenchs shall be or dered separately.

ER-M-EXTENDER

Collet Extender
弹性筒夹延长杆



单位: mm

		D	d	L ₁	L	
C12-	ER11M-100	16	12	25	125	0.12
	ER11M-150	16	12	25	175	0.14
C16-	ER11M-100	16	16	25	125	0.14
	ER11M-150	16	16	25	175	0.22
	ER16M-100	22	16	36	136	0.15
	ER16M-150	22	16	36	186	0.21
C20-	ER16M-100	22	20	36	136	0.24
	ER16M-150	22	20	36	186	0.33
	ER20M-100	28	20	42	142	0.23
	ER20M-150	28	20	42	192	0.32
	ER20M-200	28	20	42	242	0.53
C25-	ER20M-150	28	25	42	192	0.50

WGS 高速精密筒夹刀柄

WGS High Precision Collet Chuck

WGS 高速精密筒夹刀柄

7:24锥度，均达到AT3级标准。
Taper 7:24; AT3.

刀柄整体动平衡G2.5; 25,000 rpm
最高转速可达45,000 rpm
Balanced: G2.5; 25,000 rpm
Max: 45,000 rpm

超高速螺帽，光面无槽设计，使其零风阻，
高强度，高速运转下，静音可靠。

Notch-free design: Prevent vibration;
Reduce noise splattering coolant;
Assure increased strength of nut itself.

-195°C深冷处理，降低变形，保持精度，
提高产品稳定性。

Subzero treatment (-195 °C) to minimise the
deformation of tool holder, to reach high
accuracy and stability.

可选配止水精密筒夹，保障密封性，
使其获得最佳的出水效果。

Special sealing collet is provided to achieve
excellent cooling performance.

刀具偏摆 $3D \leq 0.005$ mm，减少刀具损耗，
降低刀具费用，大幅度提升表面粗糙度，
重复精度佳，节省校刀时间。

Runout(3D) ≤ 5 μ m; increase tool life;
reduce tool cost; Increase surface-finish
quality significantly; High repeat accuracy.

DSK精密弹性筒夹

DSK Precision Collet

8°

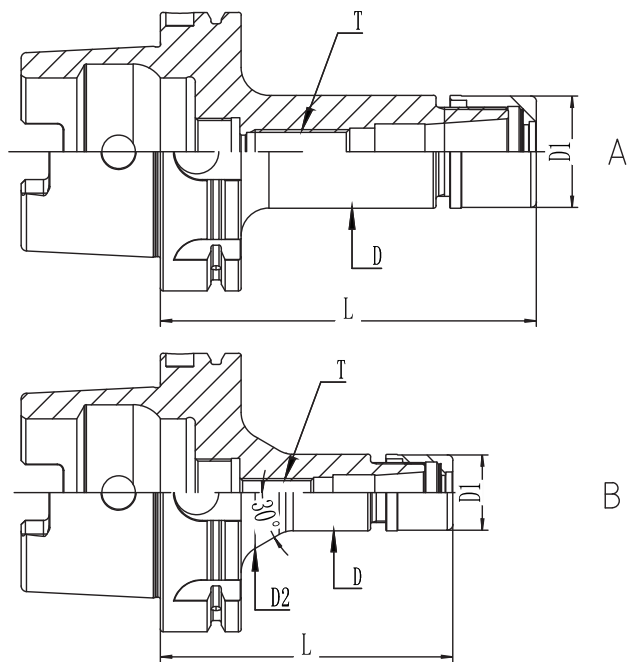
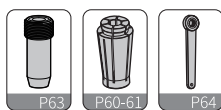


相比普通ER刀柄具有较小的锥角，较长的夹持部位，
更能提供超强的夹持力和定心性。

Compared with ER collet, DSK collet is with smaller taper angle, longer clamping
length, higher clamping strength and concentricity

WGS 高速精密筒夹刀柄

HSK-A High Precision Collet Chuck
HSK-A 高速精密筒夹刀柄



单位: mm

型号 Specification	图示 Figure	D	D1	D2	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
HSK50A- WGS6-60	A	20	19.5	-	60	-	GS6	0.43
WGS6-80P	A	20	19.5	-	80	M06100020-C	GS6	0.48
WGS10-75	A	27.5	27	-	75	-	GS6	0.53
WGS10-100P	A	27.5	27	-	100	M10150020-C	GS10	0.63
WGS16-80	A	40.5	40	-	80	-	GS16	0.72
WGS16-100	A	40.5	40	-	100	-	GS16	0.91
WGS20-100	A	48.5	48	-	100	-	GS20	1.10
HSK63A- WGS6-80P	A	20	19.5	-	80	M06100020-C	GS6	0.74
WGS6-100P	A	20	19.5	-	100	M06100020-C	GS6	0.79
WGS10-75	A	27.5	27	-	75	-	GS10	0.79
WGS10-100P	A	27.5	27	-	100	M10150020-C	GS10	0.90
WGS16-80	A	40.5	40	-	80	-	GS16	0.98
WGS16-100	A	40.5	40	-	100	-	GS16	1.17
WGS16-120P	A	40.5	40	-	120	M06100020-C	GS16	1.34
WGS20-100	A	48.5	48	-	100	-	GS20	1.42
WGS20-120P	A	48.5	48	-	120	M16200020-C	GS20	1.68
WGS25-100	A	55	55	-	100	-	GS25	1.46
WGS25-120P	A	55	55	-	120	M20200020-C	GS25	1.81
HSK100A- WGS10-105P	B	27.5	27	40.3	105	M10150020-C	GS10	2.32
WGS10-135P	B	27.5	27	40.3	135	M10150035-C	GS10	2.44
WGS16-105	A	40.5	40	-	105	-	GS16	2.54
WGS16-135P	A	40.5	40	-	135	M16200020-C	GS16	2.80
WGS20-120P	A	48.5	48	-	120	M16200020-C	GS20	3.00
WGS20-150P	A	48.5	48	-	150	M16200040-C	GS20	3.39
WGS25-120	A	55	55	-	120	-	GS25	3.20
WGS25-150P	A	55	55	-	150	M20200040-C	GS25	3.65

特点 / Feature

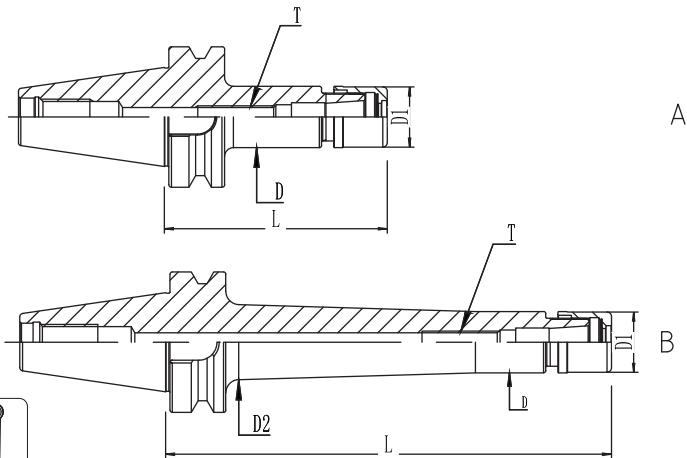
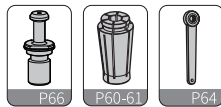
- 动平衡设定: G2.5; 25,000 rpm
- 3D处径向跳动≤0.005 mm

- Balanced: G2.5; 25,000 rpm
- Runout (X3D): ≤0.005 mm

WGS 高速精密筒夹刀柄

BT High Precision Collet Chuck

BT 高速精密筒夹刀柄

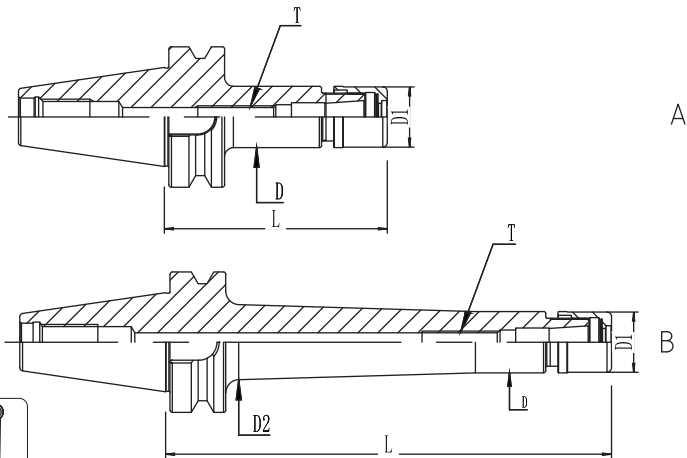
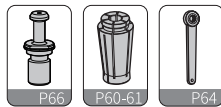


单位: mm

型号 Specification	图示 Figure	D	D1	D2	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
BT30- WGS6-70	A	20	19.5	-	70	M06100020-C	GS6	0.47
WGS6-100	A	20	19.5	-	100	M06100020-C	GS6	0.54
WGS10-70	A	27.5	27	-	70	M10150035-C	GS10	0.53
WGS10-100	A	27.5	27	-	100	M10150035-C	GS10	0.66
WGS16-70	A	40.5	40	-	70	M16200020-C	GS16	0.64
WGS16-100	A	40.5	40	-	100	M16200040-C	GS16	0.90
WGS16-120	A	40.5	40	-	120	M16200040-C	GS16	1.08
WGS16-150	A	40.5	40	-	150	M16200040-C	GS16	1.35
WGS20-70	A	48.5	48	-	70	M16200020-C	GS20	0.75
WGS20-100	A	48.5	48	-	100	M16200020-C	GS20	1.14
WGS25-100	A	55	55	-	100	M20200020-C	GS25	1.23
BT40- WGS6-70	A	20	19.5	-	70	M06100020-C	GS6	1.06
WGS6-100	A	20	19.5	-	100	M06100020-C	GS6	1.13
WGS6-120	A	20	19.5	-	120	M06100020-C	GS6	1.18
WGS6-150L	B	20	19.5	26.4	150	M06100020-C	GS6	1.31
WGS10-70	A	27.5	27	-	70	M10150020-C	GS10	1.10
WGS10-100	A	27.5	27	-	100	M10150035-C	GS10	1.23
WGS10-120	A	27.5	27	-	120	M10150035-C	GS10	1.32
WGS10-150	A	27.5	27	-	150	M10150035-C	GS10	1.44
WGS10-200L	B	27.5	27	33.7	200	M10150035-C	GS10	1.79
WGS16-70	A	40.5	40	-	70	M16200020-C	GS16	1.18
WGS16-100	A	40.5	40	-	100	M16200040-C	GS16	1.45
WGS16-120	A	40.5	40	-	120	M16200040-C	GS16	1.62
WGS16-150	A	40.5	40	-	150	M16200040-C	GS16	1.89
WGS16-200L	B	40.5	40	45.7	200	M16200040-C	GS16	2.49
WGS20-70	A	48.5	48	-	70	M16200020-C	GS20	1.28
WGS20-100	A	48.5	48	-	100	M16200040-C	GS20	1.68
WGS20-120	A	48.5	48	-	120	M16200040-C	GS20	1.94
WGS20-150	A	48.5	48	-	150	M16200040-C	GS20	2.34
WGS20-200L	B	48.5	48	55.7	200	M16200040-C	GS20	3.16
WGS25-100	A	55	55	-	100	M20200020-C	GS25	1.74
WGS25-120	A	55	55	-	120	M20200040-C	GS25	2.07
WGS25-150	A	55	55	-	150	M20200040-C	GS25	2.57
WGS25-200L	B	55	55	59.9	200	M20200040-C	GS25	3.49

WGS 高速精密筒夹刀柄

BT High Precision Collet Chuck
BT 高速精密筒夹刀柄



单位: mm

型号 Specification	图示 Figure	D	D1	D2	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
BT50-WGS10-105	A	27.5	27	-	105	M10150035-C	GS10	3.79
WGS10-135	A	27.5	27	-	135	M10150035-C	GS10	3.92
WGS10-165	A	27.5	27	-	165	M10150035-C	GS10	4.05
WGS10-200L	B	27.5	27	35.2	200	M10150035-C	GS10	4.32
WGS16-100	A	40.5	40	-	100	M16200040-C	GS16	3.97
WGS16-125	A	40.5	40	-	125	M16200040-C	GS16	4.19
WGS16-150	A	40.5	40	-	150	M16200040-C	GS16	4.41
WGS16-200L	B	40.5	40	48.4	200	M16200040-C	GS16	5.05
WGS16-250L	B	40.5	40	48.4	250	M16200040-C	GS16	5.62
WGS20-100	A	48.5	48	-	100	M16200040-C	GS20	4.13
WGS20-125	A	48.5	48	-	125	M16200040-C	GS20	4.46
WGS20-150	A	48.5	48	-	150	M16200040-C	GS20	4.78
WGS20-200	A	48.5	48	-	200	M16200040-C	GS20	5.45
WGS20-250L	B	48.5	48	55.4	250	M16200040-C	GS20	5.63
WGS20-300L	B	48.5	48	55.4	300	M16200040-C	GS20	6.41
WGS25-100	A	55	55	-	100	M20200040-C	GS25	4.19
WGS25-125	A	55	55	-	125	M20200040-C	GS25	4.59
WGS25-150	A	55	55	-	150	M20200040-C	GS25	5.00
WGS25-200	A	55	55	-	200	M20200040-C	GS25	5.83
WGS25-250L	B	55	55	61.4	250	M20200040-C	GS25	6.00
WGS25-300L	B	55	55	61.4	300	M20200040-C	GS25	6.97

注: “T” 轴向限位螺钉、筒夹与扳手需单独订购。
Notice: “T” Axial fixscrew、collets and wrenchs shall be or dered separately.

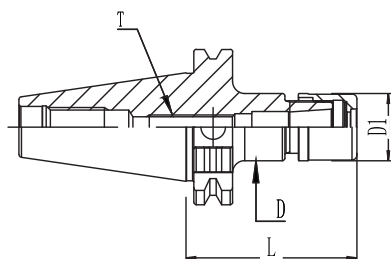
特点 / Feature

- 动平衡设定: G2.5; 25,000 rpm
- 3D处径向跳动≤0.005 mm
- Balanced: G2.5; 25,000 rpm
- Runout (X3D): ≤0.005 mm

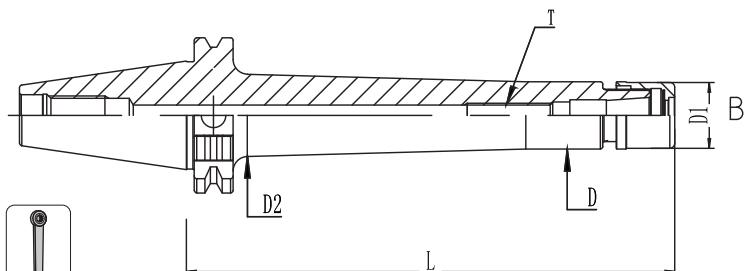
WGS 高速精密筒夹刀柄

SK High Precision Collet Chuck

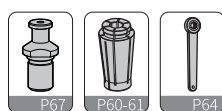
SK 高速精密筒夹刀柄



A



B



单位: mm

型号 Specification	图示 Figure	D	D1	D2	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
SK30- WGS6-70	A	20	19.5	-	70	M06100020-C	GS6	0.45
WGS6-100	A	20	19.5	-	100	M06100020-C	GS6	0.55
WGS10-70	A	27.5	27	-	70	M10150035-C	GS10	0.51
WGS10-100	A	27.5	27	-	100	M10150035-C	GS10	0.64
WGS16-100	A	40.5	40	-	100	M16200040-C	GS16	0.90
WGS16-120	A	40.5	40	-	120	M16200040-C	GS16	1.07
WGS16-150	A	40.5	40	-	150	M16200040-C	GS16	1.34
WGS20-100	A	48.5	48	-	100	M16200020-C	GS20	1.15
WGS25-105	A	55	55	-	105	M20200020-C	GS25	1.20
SK40- WGS6-70	A	20	19.5	-	70	M06100020-C	GS6	0.91
WGS6-100	A	20	19.5	-	100	M06100020-C	GS6	0.98
WGS6-120	A	20	19.5	-	120	M06100020-C	GS6	1.02
WGS6-150L	B	20	19.5	26.4	150	M06100020-C	GS6	1.16
WGS10-70	A	27.5	27	-	70	M10150035-C	GS10	0.96
WGS10-100	A	27.5	27	-	100	M10150035-C	GS10	1.09
WGS10-120	A	27.5	27	-	120	M10150035-C	GS10	1.17
WGS10-150	A	27.5	27	-	150	M10150035-C	GS10	1.30
WGS10-200L	B	27.5	27	33.7	200	M10150035-C	GS10	1.65
WGS16-70	A	40.5	40	-	70	M16200020-C	GS16	1.08
WGS16-100	A	40.5	40	-	100	M16200040-C	GS16	1.34
WGS16-120	A	40.5	40	-	120	M16200040-C	GS16	1.52
WGS16-150	A	40.5	40	-	150	M16200040-C	GS16	1.79
WGS16-200L	B	40.5	40	45.7	200	M16200040-C	GS16	2.38
WGS20-70	A	48.5	48	-	70	M16200020-C	GS20	1.23
WGS20-100	A	48.5	48	-	100	M16200040-C	GS20	1.68
WGS20-120	A	48.5	48	-	120	M16200040-C	GS20	1.90
WGS20-150	A	48.5	48	-	150	M16200040-C	GS20	2.30
WGS20-200L	B	48.5	48	55.7	200	M16200040-C	GS20	3.00
WGS25-100	A	55	55	-	100	M20200040-C	GS25	1.63
WGS25-120	A	55	55	-	120	M20200040-C	GS25	1.96
WGS25-150	A	55	55	-	150	M20200040-C	GS25	2.46
WGS25-200L	B	55	55	59.9	200	M20200040-C	GS25	2.65

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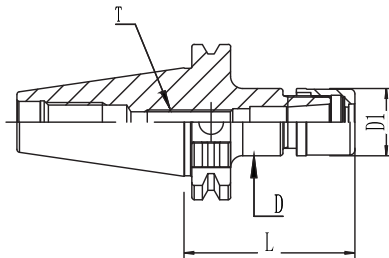
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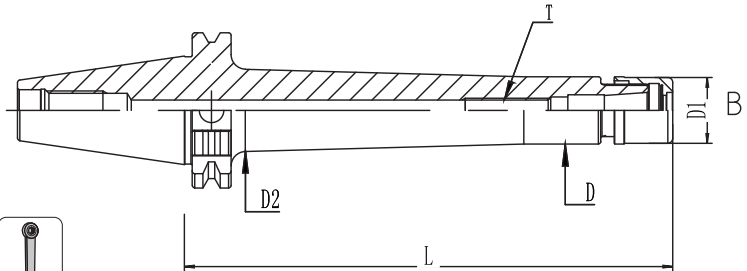
WGS 高速精密筒夹刀柄

SK High Precision Collet Chuck

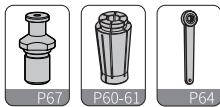
SK 高速精密筒夹刀柄



A



B



单位: mm

型号 Specification	图示 Figure	D	D1	D2	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
SK50-WGS10-105	A	27.5	27	-	105	M10150035-C	GS10	2.94
WGS10-135	A	27.5	27	-	135	M10150035-C	GS10	3.06
WGS10-165	A	27.5	27	-	165	M10150035-C	GS10	3.19
WGS10-200L	B	27.5	27	35.2	200	M10150035-C	GS10	3.49
WGS16-100	A	40.5	40	-	100	M16200040-C	GS16	3.17
WGS16-125	A	40.5	40	-	125	M16200040-C	GS16	3.39
WGS16-150	A	40.5	40	-	150	M16200040-C	GS16	3.61
WGS16-200L	B	40.5	40	48.4	200	M16200040-C	GS16	4.27
WGS16-250L	B	40.5	40	48.4	250	M16200040-C	GS16	4.82
WGS20-100	A	48.5	48	-	100	M16200040-C	GS20	3.44
WGS20-125	A	48.5	48	-	125	M16200040-C	GS20	3.77
WGS20-150	A	48.5	48	-	150	M16200040-C	GS20	4.10
WGS20-200	A	48.5	48	-	200	M16200040-C	GS20	5.20
WGS20-250L	B	48.5	48	55.4	250	M16200040-C	GS20	5.74
WGS20-300L	B	48.5	48	55.4	300	M16200040-C	GS20	6.50
WGS25-100	A	55	55	-	100	M20200040-C	GS20	3.52
WGS25-125	A	55	55	-	125	M20200040-C	GS20	3.87
WGS25-150	A	55	55	-	150	M20200040-C	GS25	4.22
WGS25-200	A	55	55	-	200	M20200040-C	GS25	4.95
WGS25-250L	B	55	55	61.4	250	M20200040-C	GS25	6.33
WGS25-300L	B	55	55	61.4	300	M20200040-C	GS25	7.27

注: “T” 轴向限位螺钉、筒夹与扳手需单独订购。

Notice: “T” Axial fixscrew、collets and wrenchs shall be or dered separately.

特点 / Feature

- 动平衡设定: G2.5; 25,000 rpm
- 3D处径向跳动≤0.005 mm

- Balanced: G2.5; 25,000 rpm
- Runout (X3D): ≤0.005 mm

WHPC 高速强力刀柄

WHPC High-Speed Power Chuck

WHPC 高速强力刀柄

-195°C深冷处理，降低变形，保持精度，提高产品稳定性。

Subzero treatment (-195 °C) to minimise the deformation of tool holder, to reach high accuracy and stability.

高强度螺帽
有效防止振刀，适合重力切削
High strength nuts ;
Reduce the shaking of cutting tool ;
Excellent for heavy duty.

超硬滚针每一根都是经过精密测量挑选，使同一刀柄内的百余根滚针直径一致，超高的硬度传递锁紧力更均匀、可靠。

Same diameter hardened roller needles are strictly selected and arranged for strong & stable clamping possible.

前后双重防护罩，防止液体，灰尘，切屑进入本体，与转螺帽形成的间隙间损坏表面及滚针。
Dust-proof ring and cover, Prevent the body from liquid and dust.

内腔的防滑槽设计，使装刀过程中的油污、异物可挤入槽内，使夹持面贴合更紧密，有效防止刀具滑落，同时可释放夹持过程中产生的内应力。

Special design of cavity & groove make the clamping firm, keep internal structure clean, and reduce the internal stress significantly.

使用者注意事项

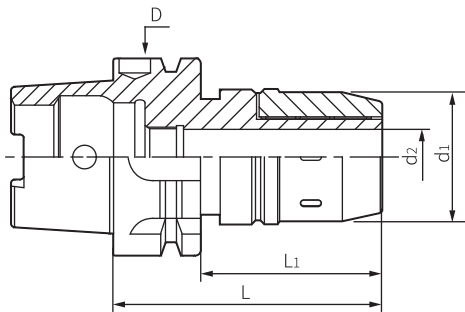
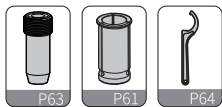
Notices Of The User

- 请选用直径公差等级高于h7级的刀具，
- 当选用柄部直径偏小的刀具时会导致夹不紧而产生溜刀现象。
- 禁止无刀状态下进行空夹。
- Assemble right diameter tool tolerance: > h7;
- Suitable shank diameter is required;
- Clamping without tools is forbidden.



WHPC 高速强力刀柄

HSK-WHPC High-Speed Power Chuck
HSK-WHPC 高速强力刀柄



单位: mm

型号 Specification	夹持范围 Clamping Range	D	d ₁	d ₂	L ₁	L	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
HSK63A- WHPC16- 80	6-16	63	50	16	54	80	SC16	1.28
WHPC16- 110	6-16	63	50	16	84	110	SC16	1.64
WHPC20- 110	6-20	63	51.5	20	84	110	SC20	1.70
WHPC25- 110	6-25	63	61	25	84	110	SC25	1.99
WHPC25- 145	6-25	63	61	25	119	145	SC25	2.76
WHPC32- 110	6-32	63	70.5	32	84	110	SC32	2.20
HSK100A- WHPC16- 85	6-16	100	50	16	56	85	SC16	2.66
WHPC16- 115	6-16	100	50	16	86	115	SC16	3.05
WHPC20- 105	6-20	100	51.5	20	76	105	SC20	4.10
WHPC25- 95	6-25	100	61	25	66	95	SC25	3.11
WHPC25- 115	6-25	100	61	25	86	115	SC25	3.45
WHPC25- 125	6-25	100	61	25	96	125	SC25	3.68
WHPC25- 150	6-25	100	61	25	121	150	SC32	4.23
WHPC32- 105	6-32	100	70.5	32	76	105	SC32	4.90
WHPC32- 135	6-32	100	70.5	32	106	135	SC32	5.80
WHPC32- 165	6-32	100	70.5	32	136	165	SC32	6.70
WHPC42- 115	6-42	100	86	42	86	115	SC42	5.50

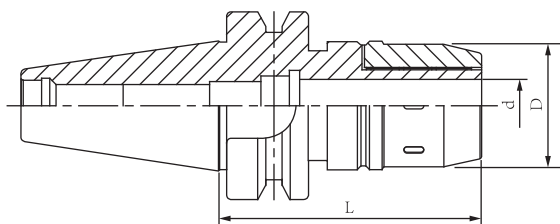
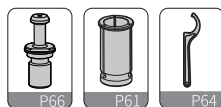
注：筒夹和扳手需单独订购
Notice: Collet and wrench shall be ordered separately.

特点 / Feature

- 动平衡设定: G6.3; 15000rpm
- Balanced: G2.5; 25000rpm
- 3D处径向跳动≤0.01mm
- Runout (X3D) ≤0.01mm

WHPC 高速强力刀柄

BT High-Speed Power Chuck
BT 高速强力刀柄



单位: mm

型号 Specification	夹持范围 Clamping Range	D	d	L	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
BT30-WHPC16-75	3-16	50	16	70	SC16	1.40
WHPC20-75	6-20	51.5	20	75	SC20	1.80
BT40-WHPC16-75	3-16	50	16	70	SC16	1.60
WHPC16-105	3-16	50	16	105	SC16	1.80
WHPC16-135	3-16	50	16	135	SC16	2.30
WHPC20-80	6-20	51.5	20	80	SC20	2.40
WHPC20-105	6-20	51.5	20	105	SC20	2.50
WHPC20-135	6-20	51.5	20	135	SC20	2.80
WHPC32-105	6-32	70.5	32	105	SC32	2.80
WHPC32-135	6-32	70.5	32	135	SC32	3.00
BT50-WHPC16-90	3-16	50	16	90	SC16	3.90
WHPC16-110	3-16	50	16	110	SC16	4.10
WHPC16-135	3-16	50	16	135	SC16	4.30
WHPC16-150	3-16	50	16	150	SC16	4.50
WHPC20-105	6-20	51.5	20	105	SC20	4.50
WHPC20-135	6-20	51.5	20	135	SC20	4.70
WHPC20-150	6-20	51.5	20	150	SC20	4.90
WHPC32-110	6-32	70.5	32	110	SC32	5.20
WHPC32-135	6-32	70.5	32	135	SC32	5.90
WHPC32-165	6-32	70.5	32	165	SC32	6.60

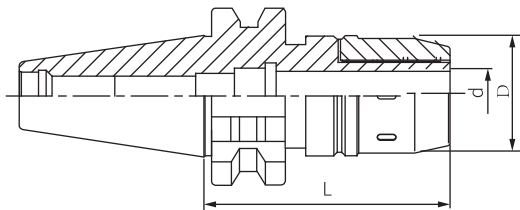
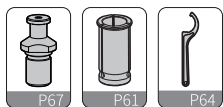
注: 筒夹和扳手需单独订购
Notice: Collet and wrench shall be ordered separately.

特点 / Feature

- 动平衡设定: G6.3; 15000rpm
- Balanced: G2.5; 25000rpm
- 3D处径向跳动 $\leq 0.01\text{mm}$
- Runout (X3D) $\leq 0.01\text{mm}$

WHPC 高速强力刀柄

SK High-Speed Power Chuck
SK 高速强力刀柄



单位: mm

型号 Specification	夹持范围 Clamping Range	D	d	L	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
SK30-WHPC16-70	3-16	46	16	70	SC16	1.40
WHPC20-75	6-20	51.5	20	75	SC20	1.80
SK40-WHPC16-70	3-16	50	16	70	SC16	1.60
WHPC16-105	3-16	50	16	105	SC16	1.80
WHPC16-135	3-16	50	16	135	SC16	2.30
WHPC20-80	6-20	51.5	20	80	SC20	2.40
WHPC20-105	6-20	51.5	20	105	SC20	2.50
WHPC20-135	6-20	51.5	20	135	SC20	2.80
WHPC32-105	6-32	70.5	32	105	SC32	2.80
WHPC32-135	6-32	70.5	32	135	SC32	3.00
SK50-WHPC16-90	3-16	50	16	90	SC16	3.90
WHPC16-110	3-16	50	16	110	SC16	4.10
WHPC16-135	3-16	50	16	135	SC16	4.30
WHPC16-150	3-16	50	16	150	SC16	4.50
WHPC20-105	6-20	51.5	20	105	SC20	4.50
WHPC20-135	6-20	51.5	20	135	SC20	4.70
WHPC20-150	6-20	51.5	20	150	SC20	4.90
WHPC32-110	6-32	70.5	32	110	SC32	5.20
WHPC32-135	6-32	70.5	32	135	SC32	5.90
WHPC32-165	6-32	70.5	32	165	SC32	6.60

注: 筒夹和扳手需单独订购
Notice: Collet and wrench shall be ordered separately.

特点 / Feature

- 动平衡设定: G6.3; 15000rpm
- Balanced: G2.5; 25000rpm
- 3D处径向跳动≤0.01mm
- Runout (X3D) ≤0.01mm

WMC 高精密重切刀柄

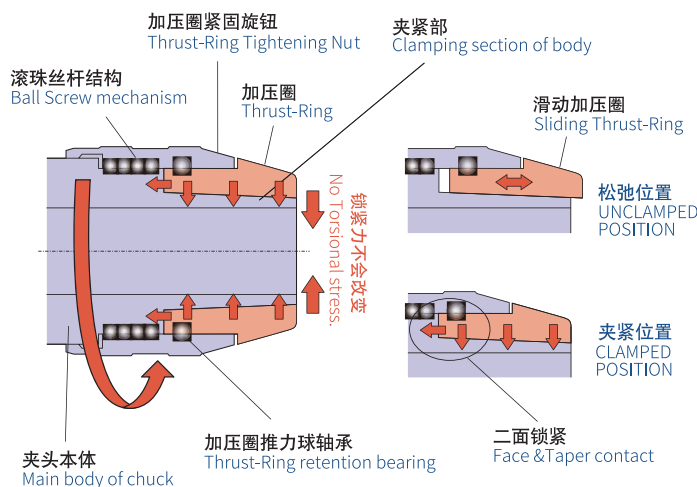
WMC Micron Chuck

WMC 高精密重切刀柄



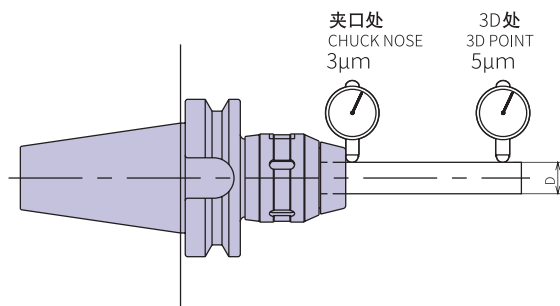
● 构造图

Structure



● 跳动测量图

How to measure runout



等级 GRAD E	夹口处 N OSE	3D处 3D POINT
A	3	5

■ 机械力夹头

沃尔德的精密夹头不仅保证机械力夹头的高刚性和高夹持力，同时还实现了与油压夹头相等或者更高的精度。可以延长工具使用寿命，提高加工精度和加工表面的光滑度，进一步提高生产效率。

■ WORDIA MICRON CHUCK

The best mechanical milling chuck.

This world-class mechanical chuck has a higher level of accuracy than available hydraulically operated chucks, coupled with the inherent rigidity and great clamping power of a mechanical chuck!

All of which will help to improve Tool-Life, Surface-Finish, Dimensional Accuracy and Productivity of your Machines!

■ 从中到大直径

系列化 (Ø16mm~ Ø42mm)

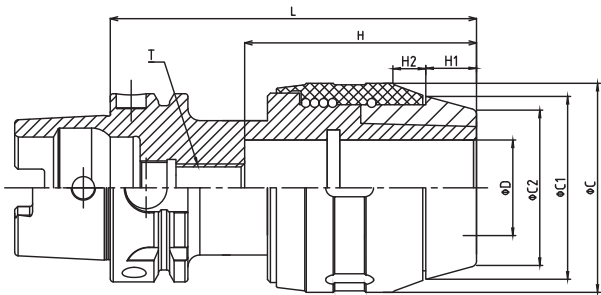
适用于高精度加工，不推荐使用变径套，直接夹持刀具。

Complete range of chucks are available from Ø16mm to Ø42mm capacity for use in precision milling applications...

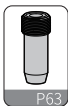
Without use of a collet!

WMC 高精密重切刀柄

HSK-A Micron Chuck
HSK-A 高精密重切刀柄



请使用直径公差h7以内的刀具
Cutter shank diameter should be h7 or better.
(UNIT:μm)



等级 GRADE	夹口处 NOSE	3D处 3D POINT
A	3	5

此刀柄不推荐使用变径套如有需要请咨询。
It is not recommend to use reducing sleeve for this handle.Please consult if necessary.

单位：mm

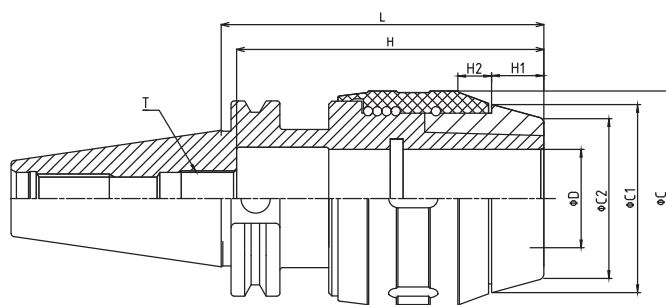
型号 Specification	D	L	H	C	C ₁	C ₂	H ₁	H ₂	T	重量(Kg) Weight(Kg)
HSK63A- WMC16-110A	16	110	75	56	45.9	34	16	10	M08125020-C	1.9
WMC20-110A	20	110	80	56	45.9	38	16	10	M08125020-C	1.8
WMC25-115A	25	115	85	62	53.3	44	17	10.5	M08125025-C	2.0
WMC32-120A	32	120	85	70	61.3	52	17	10.5	M08125025-C	2.1
WMC32-160A	32	160	117	70	61.3	52	17	10.5	M08125025-C	2.9
HSK100A- WMC16-110A	16	110	70	56	45.9	34	16	10	M12175020-C	3.0
WMC20-110A	20	110	70	56	45.9	38	16	10	M12175020-C	2.9
WMC25-115A	25	115	80	62	53.3	44	17	10.5	M12175020-C	3.2
WMC25-135A	25	135	80	62	53.3	44	17	10.5	M12175020-C	3.3
WMC32-120A	32	120	80	70	61.3	52	17	10.5	M12175040-C	3.4
WMC32-165A	32	165	117	70	61.3	52	17	10.5	M12175040-C	4.6
WMC42-135A	42	135	95	82	73.1	62	20	10.5	M12175040-C	3.8
WMC42-165A	42	165	122	82	73.5	62	20	10.5	M12175040-C	4.8

特点 / Feature

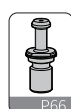
■转速 HSK63A:MAX.10000rpm HSK100A:MAX.8000rpm ■Speed HSK63A:MAX.10000rpm HSK100A:MAX.8000rpm

WMC 高精密重切刀柄

BT Micron Chuck
BT 高精密重切刀柄



请使用直径公差h7以内的刀具
Cutter shank diameter should be h7 or better.
(UNIT:μm)



等级 GRADE	夹口处 NOSE	3D处 3D POINT
A	3	5

此刀柄不推荐使用变径套如有需要请咨询。

It is not recommend to use reducing sleeve for this handle. Please consult if necessary.

单位: mm

型号 Specification	D	L	H	C	C ₁	C ₂	H ₁	H ₂	T	重量(Kg) Weight(Kg)
BT30- WMC16-100A	16	100	85	56	45.9	34	16	10	M10100035-C	1.4
WMC20-100A	20	100	85	56	45.9	38	16	10	M10100035-C	1.3
WMC25-100A	25	100	80	62	53.3	44	17	10.5	M16100025-C	1.6
WMC32-105A	32	105	80	70	61.3	52	17	10.5	M16100025-C	1.9
BT40- WMC16-090A	16	90	85	56	45.9	34	16	10	M10100035-C	1.8
WMC16-120A	16	120	85	56	45.9	34	16	10	M10100035-C	2.2
WMC20-090A	20	90	85	56	45.9	38	16	10	M10100035-C	1.7
WMC20-120A	20	120	85	56	45.9	38	16	10	M10100035-C	2.1
WMC25-105A	25	105	100	62	53.3	44	17	10.5	M18100030-C	2.0
WMC25-135A	25	135	100	62	53.3	44	17	10.5	M18100030-C	2.5
WMC32-105A	32	105	100	70	61.3	52	17	10.5	M18100030-C	2.2
WMC32-135A	32	135	100	70	61.3	52	17	10.5	M18100030-C	2.5
BT50- WMC16-105A	16	105	85	56	45.9	34	16	10	M10100035-C	4.4
WMC16-150A	16	150	85	56	45.9	34	16	10	M10100035-C	5.1
WMC20-105A	20	105	85	56	45.9	38	16	10	M10100035-C	4.3
WMC20-135A	20	135	85	56	45.9	38	16	10	M10100035-C	4.7
WMC20-165A	20	165	85	56	53.3	38	16	10	M10100035-C	5.5
WMC25-105A	25	105	100	62	53.3	44	17	10.5	M18100030-C	4.4
WMC25-135A	25	135	100	62	53.3	44	17	10.5	M18100030-C	4.8
WMC25-165A	25	165	100	62	53.3	44	17	10.5	M18100030-C	5.7
WMC25-200A	25	200	100	62	53.3	44	17	10.5	M18100030-C	6.6
WMC25-250A	25	250	100	62	53.3	44	17	10.5	M18100030-C	7.8
WMC32-105A	32	105	117	70	61.3	52	17	10.5	M18100030-C	4.4
WMC32-135A	32	135	117	70	61.3	52	17	10.5	M18100030-C	5.0
WMC32-165A	32	165	117	70	61.3	52	17	10.5	M18100030-C	5.6
WMC42-110A	42	110	122	82	73.1	62	20	10.5	M18100030-C	4.6
WMC42-135A	42	135	122	82	73.1	62	20	10.5	M18100030-C	5.3
WMC42-165A	42	165	122	82	73.1	62	20	10.5	M18100030-C	6.2

特点 / Feature

■转速 BT30、BT40: MAX.10000rpm BT50: MAX.8000rpm ■Speed BT30、BT40: MAX.10000rpm BT50: MAX.8000rpm

WHP 液压刀柄

WHP Hydraulic Chuck

WHP 液压刀柄

7:24锥度，均达到AT3级标准。
Taper 7:24; $\leq$ AT3.

-195°C深冷处理，降低变形，保持精度，提高产品稳定性。
Subzero treatment (-195 °C) to minimise the deformation of tool holder, to reach high accuracy and stability.

厚实的刀体能起到更好的减震功能，提升表面粗糙度。
Hydraulic system absorbs shaking of tool; Increase surface-finish quality significantly.

刀具偏摆 $3D \leq 0.003\text{mm}$ ，减少刀具损耗，降低刀具费用,大幅度提升表面粗糙度，重复精度佳，节省校刀时间。
Runout $\leq 3\mu\text{m}$; increase tool life; reduce tool cost; Increase surface-finish quality significantly; High accuracy without adjustment.

夹持操作简易，约10秒内完成，夹刀可达到0.003mm径向精度，仅需一只T型扳手即可完成装刀，不需要昂贵复杂的周边设备。
User-friendly - get the accuracy of $3\mu\text{m}$ within 10sec; Assemble tool with one allen key only; Easy assembly: only one allen key required.

360°且两点夹持，夹持稳定可靠。
360° & 2 positions clamping; high rigidity.

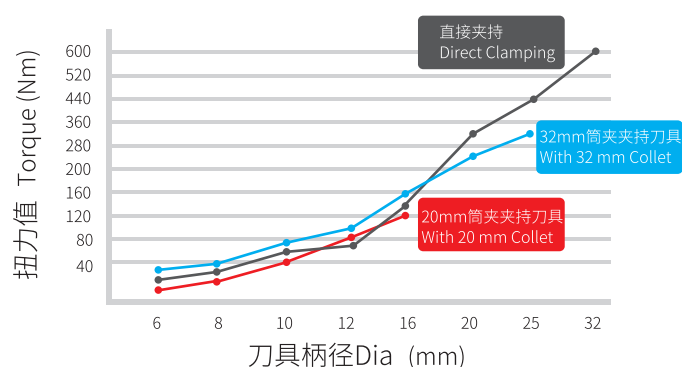
使用者注意事项

Notices Of The User

- 夹持柄径：被夹持刀具柄径公差不得低于h6级，若低于此标准可能导致夹紧无力而掉刀。
- 夹持深度：被夹持的刀具插入夹持孔深度，必须大于安全深度“H”。
- 清洁：液压刀柄使用前需将刀柄内腔表面清洗干净，不得有残余的防锈油或其他杂质附着于内孔表面。
- Assembled bar size tolerance: $\geq$ h6 ;
- Clamp depth: $>$ H;
- Clean the chuck before and after use.

液压刀柄夹持扭力测验

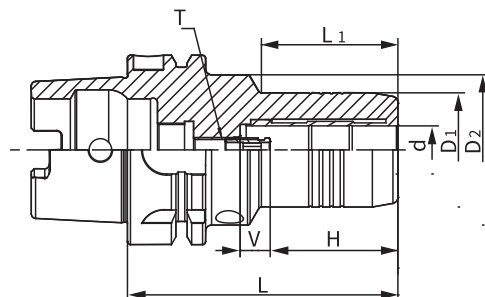
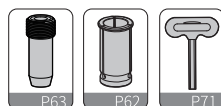
Clamping Torque Test



WHP 液压刀柄

HSK-A Hydraulic Chuck

HSK-A 液压刀柄



单位: mm

型号 Specification	d	D1	D2	H	V	L1	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
HSK50A-WHP6-70	6	28	40	27.5	10	28	70	Z05080015-C	-	0.60
WHP8-70	8	30	40	27.5	10	28	70	Z06100015-C	-	0.65
WHP10-80	10	32	40	32.5	10	34	80	Z06100015-C	-	0.75
WHP12-85	12	34	40	37.5	10	44	85	Z06100015-C	D12/OD12	0.75
WHP14-85	14	36	40	37.5	10	44	85	Z06100015-C	-	0.75
WHP16-90	16	38	60	42.5	10	30	90	Z06100015-C	-	1.05
WHP18-90	18	41	-	42.5	10	-	90	Z06100015-C	-	0.90
WHP20-90	20	42	-	42.5	10	-	90	Z06100015-C	D20/OD20	0.85
HSK63A-WHP6-70	6	28	50	27.5	10	24	70	Z05080015-C	-	1.00
WHP8-70	8	30	50	27.5	10	24	70	Z06100015-C	-	1.00
WHP10-80	10	32	50	32.5	10	35	80	Z06100015-C	-	1.05
WHP12-85	12	34	50	37.5	10	40	85	Z06100015-C	D12/OD12	1.10
WHP14-85	14	36	50	37.5	10	40	85	Z06100015-C	-	1.15
WHP16-90	16	38	50	42.5	10	46	90	Z08100015-C	-	1.00
WHP18-90	18	41	50	42.5	10	47	90	Z08100015-C	-	1.25
WHP20-90	20	43	50	42.5	10	48	90	Z08100015-C	D20/OD20	1.25
WHP25-120	25	57	63	51	10	59	120	Z16100015-C	-	2.20
WHP32-125	32	63	75	55	10	63	125	Z16100015-C	D32/OD32	2.60
HSK100A-WHP6-75	6	28	54	27.5	10	26	75	Z05080015-C	-	2.40
WHP8-75	8	30	54	27.5	10	26	75	Z06100015-C	-	2.40
WHP10-90	10	32	50	32.5	10	42	90	Z06100015-C	-	2.45
WHP12-95	12	34	50	37.5	10	47	95	Z06100015-C	D12/OD12	2.55
WHP14-95	14	36	50	37.5	10	47	95	Z06100015-C	-	2.55
WHP16-100	16	38	50	42.5	10	53	100	Z08100015-C	-	2.60
WHP18-100	18	41	50	42.5	10	53	100	Z08100015-C	-	2.65
WHP20-105	20	43	50	42.5	10	59	105	Z08100015-C	D20/OD20	2.75
WHP25-110	25	57	63	51	10	62	110	Z08100015-C	-	3.40
WHP32-110	32	63	75	55	10	62	110	Z08100015-C	D32/OD32	3.60

注: 筒夹和扳手需单独订购

Notice: Collet and wrench shall be ordered separately.

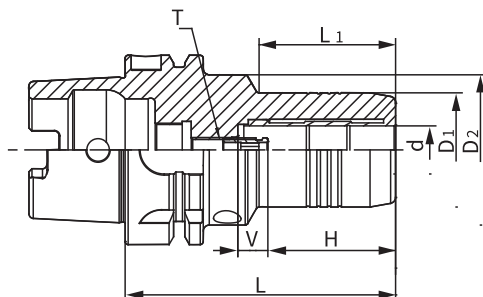
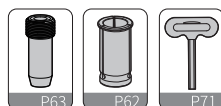
特点 / Feature

■ WHP刀具系列用途高速、高精密切削加工, 切削效果佳
■ 动平衡设定: G2.5; 20,000 rpm

■ For high-speed and high Precision Cutting
■ Balanced: G2.5; 20,000 rpm

WHP 液压刀柄

HSK-A Hydraulic Chuck
HSK-A 液压刀柄(加长款)



单位: mm

型号 Specification	d	D1	D2	H	V	L1	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
HSK63A-WHP6-150	6	28	50	27.5	10	103	150	Z05080015-C	-	1.40
WHP6-200	6	28	50	27.5	10	103	200	Z05080015-C	-	1.60
WHP8-150	8	30	50	27.5	10	104	150	Z06100015-C	-	1.40
WHP8-200	8	30	50	27.5	10	104	200	Z06100015-C	-	1.60
WHP10-150	10	32	50	32.5	10	104	150	Z06100015-C	-	1.60
WHP10-200	10	32	50	32.5	10	104	200	Z06100015-C	-	2.20
WHP12-150	12	34	50	37.5	10	105	150	Z06100015-C	D12/OD12	1.55
WHP12-200	12	34	50	37.5	10	105	200	Z06100015-C	D12/OD12	2.25
WHP14-150	14	36	50	37.5	10	105	150	Z06100015-C	-	1.65
WHP14-200	14	36	50	37.5	10	105	200	Z06100015-C	-	2.35
WHP16-150	16	38	50	42.5	10	106	150	Z08100015-C	-	1.70
WHP16-200	16	38	50	42.5	10	106	200	Z08100015-C	-	2.40
WHP18-150	18	41	50	42.5	10	107	150	Z08100015-C	-	1.80
WHP18-200	18	41	50	42.5	10	107	200	Z08100015-C	-	2.60
DH20-150	20	43	50	42.5	10	108	150	Z08100015-C	D20/OD20	1.90
WHP20-200	20	43	50	42.5	10	108	200	Z08100015-C	D20/OD20	2.15

注: 筒夹和扳手需单独订购

Notice: Collet and wrench shall be ordered separately.

特点 / Feature

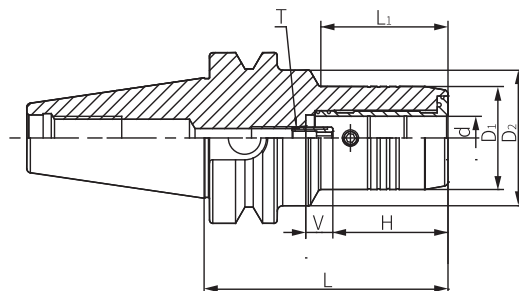
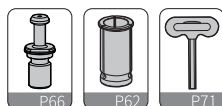
- WHP刀具系列用途高转速、高精密切削加工, 切削效果佳
- 动平衡设定: G2.5; 25,000 rpm
- 3D处径向跳动 ≤ 0.003 mm
- 外观细长设计, 加工不易干涉

- For high-speed and high Precision Cutting
- Balanced: G2.5; 25,000 rpm
- Runout (X3D): ≤ 0.003 mm
- No interference due to sim design

WHP 液压刀柄

BT Hydraulic Chuck

BT 液压刀柄



单位: mm

型号 Specification	d	D1	D2	H	V	L1	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
BT30- WHP6-70	6	28	45	70	27.5	10	28	Z05080015-C	-	0.70
WHP8-70	8	30	45	70	27.5	10	28	Z06100015-C	-	0.70
WHP10-75	10	32	45	75	32.5	10	38	Z06100015-C	-	0.75
WHP12-75	12	34	45	75	37.5	10	36	Z06100015-C	D12/OD12	0.75
WHP14-85	14	36	45	85	37.5	10	44	Z06100015-C	-	0.80
WHP16-90	16	38	45	90	42.5	10	48	Z08100015-C	-	0.90
WHP18-90	18	41	45	90	42.5	10	48	Z08100015-C	-	0.95
WHP20-90	20	43	-	90	42.5	10	-	Z08100015-C	D20/OD20	0.95
BT40- WHP6-65	6	28	50	65	27.5	10	23	Z05080015-C	-	1.25
WHP6-90	6	28	50	90	27.5	10	44	Z05080015-C	-	1.40
WHP6-140	6	28	50	140	27.5	10	44	Z05080015-C	-	2.15
WHP8-65	8	30	50	65	27.5	10	23	Z06100015-C	-	1.25
WHP8-90	8	30	50	90	27.5	10	39	Z06100015-C	-	1.50
WHP8-140	8	30	50	140	27.5	10	44	Z06100015-C	-	2.20
WHP10-65	10	32	50	65	32.5	10	23	Z06100015-C	-	1.25
WHP10-90	10	32	50	90	32.5	10	44	Z06100015-C	-	1.45
WHP10-140	10	32	50	140	32.5	10	44	Z06100015-C	-	2.20
WHP12-65	12	34	50	65	37.5	10	23	Z06100015-C	D12/OD12	1.25
WHP12-90	12	34	50	90	37.5	10	44	Z06100015-C	D12/OD12	1.45
WHP12-140	12	34	50	140	37.5	10	44	Z06100015-C	D12/OD12	2.20
WHP14-65	14	36	50	65	37.5	10	23	Z06100015-C	-	1.25
WHP14-90	14	36	50	90	37.5	10	44	Z06100015-C	-	1.50
WHP14-140	14	36	50	140	37.5	10	44	Z06100015-C	-	2.25
WHP16-65	16	38	50	65	42.5	10	23	Z08100015-C	-	1.25
WHP16-90	16	38	50	90	42.5	10	48	Z08100015-C	-	1.50
WHP16-140	16	38	50	140	42.5	10	48	Z08100015-C	-	2.25
WHP18-75	18	41	50	75	42.5	10	30	Z08100015-C	-	1.40
WHP18-90	18	41	50	90	42.5	10	48	Z08100015-C	-	1.55
WHP18-140	18	41	50	140	42.5	10	48	Z08100015-C	-	2.30
WHP20-75	20	43	50	75	42.5	10	30	Z08100015-C	D20/OD20	1.40
WHP20-90	20	43	50	90	42.5	10	48	Z08100015-C	D20/OD20	1.55
WHP20-140	20	43	50	140	42.5	10	48	Z08100015-C	D20/OD20	2.30
WHP25-100	25	57	50	100	51	10	73	Z16100015-C	-	2.10
WHP25-135	25	57	50	135	51	10	108	Z16100015-C	-	2.80
WHP32-105	32	57	61	105	55	10	45	Z16100015-C	D32/OD32	2.05
WHP32-135	32	57	61	135	55	10	78	Z16100015-C	D32/OD32	2.60

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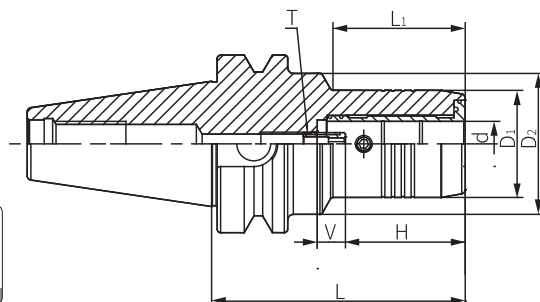
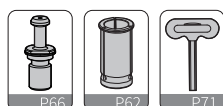
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WHP 液压刀柄

BT Hydraulic Chuck

BT 液压刀柄



单位: mm

型号 Specification	d	D1	D2	H	V	L1	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
BT50- WHP6-90	6	28	50	90	27.5	10	32	Z05080015-C	-	3.95
WHP6-120	6	28	50	120	27.5	10	44	Z05080015-C	-	4.20
WHP6-140	6	28	50	140	27.5	10	44	Z05080015-C	-	4.55
WHP8-90	8	30	50	90	27.5	10	32	Z06100015-C	-	3.95
WHP8-120	8	30	50	120	27.5	10	40	Z06100015-C	-	4.20
WHP8-140	8	30	50	140	27.5	10	44	Z06100015-C	-	4.55
WHP10-90	10	32	50	90	32.5	10	32	Z06100015-C	-	3.95
WHP10-120	10	32	50	120	32.5	10	44	Z06100015-C	-	4.30
WHP10-140	10	32	50	140	32.5	10	44	Z06100015-C	-	4.55
WHP12-90	12	34	50	90	37.5	10	32	Z06100015-C	D12/OD12	4.05
WHP12-120	12	34	50	120	37.5	10	44	Z06100015-C	D12/OD12	4.35
WHP12-140	12	34	50	140	37.5	10	44	Z06100015-C	D12/OD12	4.65
WHP14-90	14	36	50	90	37.5	10	32	Z06100015-C	-	4.00
WHP14-120	14	36	50	120	37.5	10	44	Z06100015-C	-	4.35
WHP14-140	14	36	50	140	37.5	10	44	Z06100015-C	-	4.60
WHP16-90	16	38	50	90	42.5	10	32	Z08100015-C	-	4.00
WHP16-120	16	38	50	120	42.5	10	48	Z08100015-C	-	4.30
WHP16-140	16	38	50	140	42.5	10	48	Z08100015-C	-	4.65
WHP18-90	18	41	50	90	42.5	10	32	Z08100015-C	-	4.10
WHP18-120	18	41	50	120	42.5	10	48	Z08100015-C	-	4.30
WHP18-140	18	41	50	140	42.5	10	48	Z08100015-C	-	4.65
WHP20-90	20	43	50	90	42.5	10	32	Z08100015-C	D20/OD20	4.05
WHP20-120	20	43	50	120	42.5	10	48	Z08100015-C	D20/OD20	4.40
WHP20-140	20	43	50	140	42.5	10	48	Z08100015-C	D20/OD20	4.65
WHP25-105	25	57	-	105	51	10	67	Z16100015-C	-	4.55
WHP25-150	25	57	-	150	51	10	112	Z16100015-C	-	5.35
WHP32-115	32	63	-	115	55	10	77	Z16100015-C	D32/OD32	4.85
WHP32-150	32	63	-	150	55	10	112	Z16100015-C	D32/OD32	5.60

注: 筒夹和扳手需单独订购

Notice: Collet and wrench shall be ordered separately.

特点 / Feature

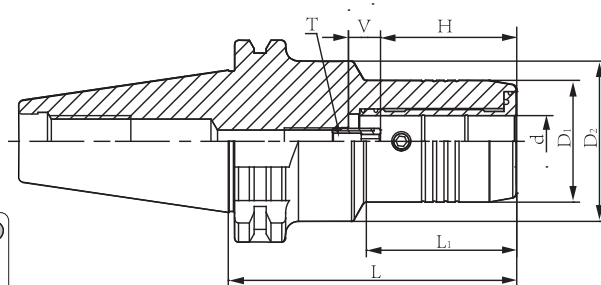
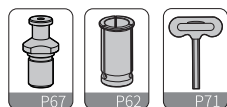
- WHP刀具系列用途高转速、高精密切削加工, 切削效果佳
- 动平衡设定: G2.5; 20,000 rpm
- 3D处径向跳动 ≤ 0.003 mm

- For high-speed and high Precision Cutting
- Balanced: G2.5; 20,000 rpm
- Runout (X3D): ≤ 0.003 mm

WHP 液压刀柄

SK Hydraulic Chuck

SK 液压刀柄



单位: mm

型号 Specification	d	D1	D2	H	V	L1	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
SK40- WHP6-65	6	28	50	23	65	27.5	10	Z05080015-C	-	1.20
WHP6-80.5	6	28	50	44	80.5	27.5	10	Z05080015-C	-	1.20
WHP6-110	6	28	50	44	110	27.5	10	Z05080015-C	-	1.65
WHP8-65	8	30	50	23	65	27.5	10	Z06100015-C	-	1.20
WHP8-80.5	8	30	50	44	80.5	27.5	10	Z06100015-C	-	1.25
WHP8-110	8	30	50	44	110	27.5	10	Z06100015-C	-	1.65
WHP10-65	10	32	50	23	65	32.5	10	Z06100015-C	-	1.20
WHP10-80.5	10	32	50	44	80.5	32.5	10	Z06100015-C	-	1.25
WHP10-110	10	32	50	44	110	32.5	10	Z06100015-C	-	1.65
WHP12-65	12	34	50	23	65	37.5	10	Z06100015-C	D12/OD12	1.20
WHP12-80.5	12	34	50	44	80.5	37.5	10	Z06100015-C	D12/OD12	1.30
WHP12-110	12	34	50	44	110	37.5	10	Z06100015-C	D12/OD12	1.70
WHP14-75	14	36	50	30	75	37.5	10	Z06100015-C	-	1.30
WHP14-80.5	14	36	50	44	80.5	37.5	10	Z06100015-C	-	1.30
WHP14-110	14	36	50	44	110	37.5	10	Z06100015-C	-	1.70
WHP16-75	16	38	50	30	75	42.5	10	Z08100015-C	-	1.30
WHP16-80.5	16	38	50	48	80.5	42.5	10	Z08100015-C	-	1.40
WHP16-110	16	38	50	48	110	42.5	10	Z08100015-C	-	1.70
WHP18-75	18	41	50	30	75	42.5	10	Z08100015-C	-	1.30
WHP18-80.5	18	41	50	48	80.5	42.5	10	Z08100015-C	-	1.40
WHP18-135	18	41	50	48	135	42.5	10	Z08100015-C	-	2.05
WHP20-75	20	43	50	30	75	42.5	10	Z08100015-C	D20/OD20	1.30
WHP20-80.5	20	43	50	48	80.5	42.5	10	Z08100015-C	D20/OD20	1.35
WHP20-110	20	43	50	48	110	42.5	10	Z08100015-C	D20/OD20	1.85
WHP25-80.5	25	57	66	26	80.5	51	10	Z16100015-C	-	1.75
WHP32-80.5	32	63	80	26	80.5	55	10	Z16100015-C	D32/OD32	1.80

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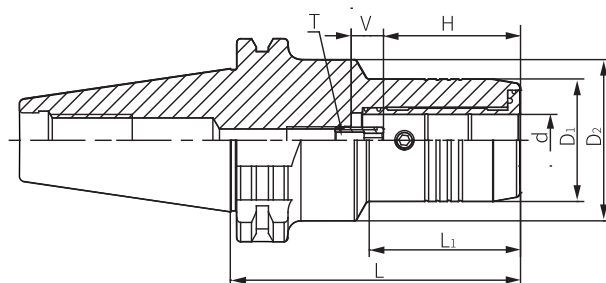
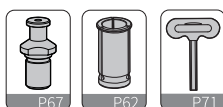
See next page



WHP 液压刀柄

SK Hydraulic Chuck

SK 液压刀柄



单位: mm

型号 Specification	d	D1	D2	H	V	L1	L	T	适用筒夹 Suitcollet	重量(Kg) Weight(Kg)
SK50- WHP6-90	6	28	50	44	90	27.5	10	Z05080015-C	-	3.15
WHP6-140	6	28	50	44	140	27.5	10	Z05080015-C	-	3.95
WHP8-90	8	30	50	44	90	27.5	10	Z06100015-C	-	3.15
WHP8-140	8	30	50	44	140	27.5	10	Z06100015-C	-	3.95
WHP10-90	10	32	50	44	90	32.5	10	Z06100015-C	-	3.15
WHP10-140	10	32	50	44	140	32.5	10	Z06100015-C	-	3.95
WHP12-90	12	34	50	44	90	37.5	10	Z06100015-C	D12/OD12	3.15
WHP12-140	12	34	50	44	140	37.5	10	Z06100015-C	D12/OD12	3.95
WHP14-90	14	36	50	47	90	37.5	10	Z06100015-C	-	3.20
WHP14-140	14	36	50	47	140	37.5	10	Z06100015-C	-	3.90
WHP16-90	16	38	50	48	90	42.5	10	Z08100015-C	-	3.30
WHP16-140	16	38	50	48	140	42.5	10	Z08100015-C	-	3.90
WHP18-90	18	41	50	48	90	42.5	10	Z08100015-C	-	3.20
WHP18-140	18	41	50	48	140	42.5	10	Z08100015-C	-	3.90
WHP20-80.5	20	43	50	44	80.5	42.5	10	Z08100015-C	D20/OD20	3.10
WHP20-90	20	43	50	48	90	42.5	10	Z08100015-C	D20/OD20	3.30
WHP20-110	20	43	50	48	110	42.5	10	Z08100015-C	D20/OD20	3.60
WHP20-140	20	43	50	48	140	42.5	10	Z08100015-C	D20/OD20	4.00
WHP25-105	25	57	-	85.9	105	51	10	Z16100015-C	-	3.90
WHP25-140	25	57	-	120.9	140	51	10	Z16100015-C	-	4.55
WHP32-115	32	63	-	95.9	115	55	10	Z16100015-C	D32/OD32	4.35
WHP32-140	32	63	-	120.9	140	55	10	Z16100015-C	D32/OD32	5.40

注: 筒夹和扳手需单独订购

Notice: Collet and wrench shall be ordered separately.

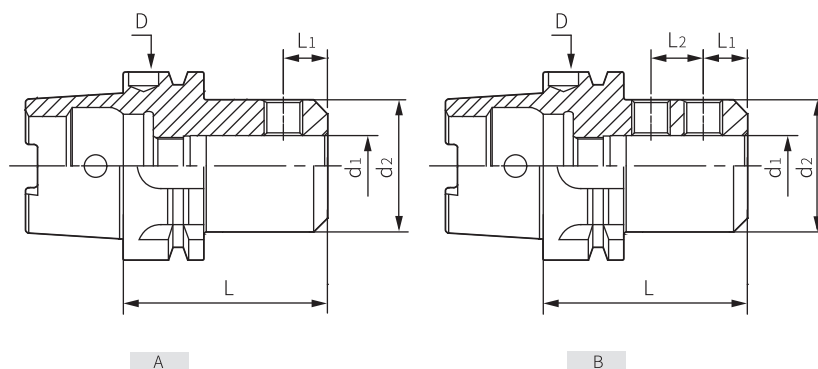
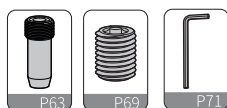
特点 / Feature

- WHP刀具系列用途高转速、高精密切削加工, 切削效果佳
- 动平衡设定: G2.5; 20,000 rpm
- 3D处径向跳动 ≤ 0.003 mm

- For high-speed and high Precision Cutting
- Balanced: G2.5; 20,000 rpm
- Runout (X3D): ≤ 0.003 mm

WSL 侧固刀柄

HSK-A Side-lock Holder
HSK-A 侧固刀柄



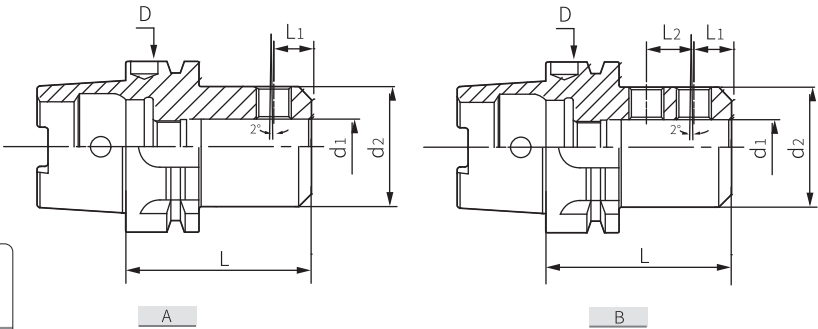
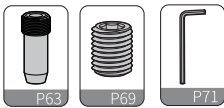
单位: mm

型号		图示							侧面压紧螺钉	重量(Kg)
Specification		Fogure	D	d1	d2	L	L1	L2	Side-lock screw	Weight(Kg)
HSK50A-	WSL6-65	A	50	6	25	65	18	-	M06100010	0.70
	WSL8-65	A	50	8	28	65	18	-	M08125010	0.80
	WSL10-65	A	50	10	35	65	20	-	M10150012	0.80
	WSL12-80	A	50	12	41.5	80	22.5	-	M12175016	1.20
	WSL16-80	A	50	16	48	80	24	-	M14200016	1.30
	WSL20-80	A	50	20	52	80	25	-	M16200016	1.50
HSK63A-	WSL6-65	A	63	6	25	65	18	-	M06100010	0.90
	WSL6-100	A	63	6	25	100	18	-	M06100010	1.30
	WSL8-65	A	63	8	28	65	18	-	M08125010	1.00
	WSL8-100	A	63	8	28	100	18	-	M08125010	1.40
	WSL10-65	A	63	10	35	65	20	-	M10150012	1.00
	WSL10-100	A	63	10	35	100	20	-	M10150012	1.50
	WSL12-80	A	63	12	42	80	22.5	-	M12175016	1.70
	WSL12-120	A	63	12	42	120	22.5	-	M12175016	2.00
	WSL16-80	A	63	16	48	80	24	-	M14200016	1.70
	WSL16-120	A	63	16	48	120	24	-	M14200016	2.10
	WSL20-80	A	63	20	52	80	25	-	M16200016	1.80
	WSL20-120	A	63	20	52	120	25	-	M16200016	2.40
	WSL25-110	B	63	25	65	110	24	25	M18250020	2.50
	WSL25-160	B	63	25	65	160	24	25	M18250020	2.65
WSL32-110	B	63	32	72	110	24	28	M20250020	2.70	
HSK100A-	WSL32-160	B	63	32	72	160	24	28	M20250020	3.00
	WSL6-80	A	100	6	25	80	18	-	M06100010	3.00
	WSL6-130	A	100	6	25	130	18	-	M06100010	3.20
	WSL8-80	A	100	8	28	80	18	-	M08125010	3.20
	WSL8-130	A	100	8	28	130	18	-	M08125010	3.40
	WSL10-80	A	100	10	35	80	20	-	M10150012	3.40
	WSL10-130	A	100	10	35	130	20	-	M10150012	3.70
	WSL12-80	A	100	12	42	80	22.5	-	M12175016	3.40
	WSL12-130	A	100	12	42	130	22.5	-	M12175016	3.70
	WSL16-100	A	100	16	48	100	24	-	M14200016	3.80
	WSL16-160	A	100	16	48	160	24	-	M14200016	4.10
	WSL20-100	A	100	20	52	100	25	-	M16200016	3.90
	WSL20-160	A	100	20	52	160	25	-	M16200016	3.80
	WSL25-100	B	100	25	65	100	24	25	M18250020	4.00
WSL25-160	B	100	25	65	160	24	25	M18250020	4.40	
WSL32-100	B	100	32	72	100	24	28	M20250020	4.10	
WSL32-160	B	100	32	72	160	24	28	M20250020	4.50	

注: 扳手需单独订购。
Notice: Wrenches shall be ordered separately.

WSL 侧固刀柄

HSK-A Side-lock Holder (B型)
HSK-A 侧固式刀柄 (B型)



单位: mm

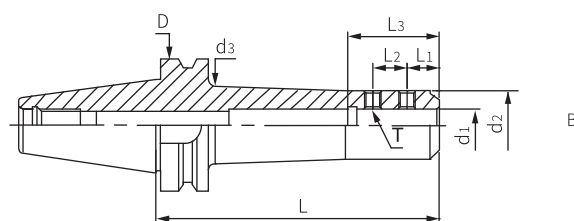
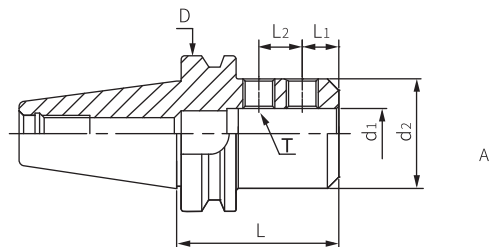
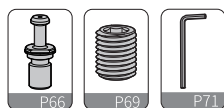
型号 Specification	图示 Figure	D	d ₁	d ₂	L	L ₁	L ₂	侧面压紧螺钉 Side-lock screw	重量(Kg) Weight(Kg)
HSK63A- WSLB6-80	A	63	6	25	80	18	-	M06100010	0.90
WSLB8-80	A	63	8	28	80	18	-	M08125010	1.00
WSLB10-80	A	63	10	35	80	20	-	M10150012	1.00
WSLB12-90	A	63	12	42	90	22.5	-	M12175014	1.70
WSLB16-100	A	63	16	48	100	24	-	M14200016	1.70
WSLB20-100	A	63	20	52	100	25	-	M16200016	1.80
WSLB25-110	B	63	25	65	110	24	22	M18250020	2.50
WSLB32-110	B	63	32	72	110	24	24	M20250020	2.70
HSK100A- WSLB6-90	A	100	6	25	90	18	-	M06100008	3.00
WSLB8-90	A	100	8	28	90	18	-	M08125008	3.20
WSLB10-90	A	100	10	35	90	20	-	M10150012	3.40
WSLB12-100	A	100	12	42	100	22.5	-	M12175014	3.40
WSLB16-100	A	100	16	48	100	24	-	M14200016	3.80
WSLB20-110	A	100	20	52	110	25	-	M16200016	3.90
WSLB25-120	B	100	25	65	120	24	22	M18250020	4.00
WSLB32-120	B	100	32	72	120	24	24	M20250020	4.10

注: 扳手需单独订购
Notice: wrenchs shall be ordered separately.

WSL 侧固刀柄

BT Side-lock Holder

BT 侧固刀柄



单位: mm

型号 Specification	图示 Figure	D	d ₁	d ₂	d ₃	L	L ₁	L ₂	L ₃	侧面压紧螺钉 Side-lock screw	重量(Kg) Weight(Kg)
BT30- WSL6-60	A	46	6	25	-	60	18	-	40	M06100010	0.52
WSL8-60	A	46	8	28	-	60	18	-	40	M08125010	0.55
WSL10-60	A	46	10	35	-	60	20	-	44	M10150012	0.63
WSL12-60	A	46	12	42	-	60	22.5	-	49	M12175016	0.72
WSL16-75	A	46	16	48	-	75	24	-	52	M14200016	1.00
WSL20-75	A	46	20	52	-	75	25	-	54	M16200016	1.04
WSL25-90	A	46	25	65	-	90	24	25	60	M18250020	1.76
BT40- WSL6-50	A	63	6	25	-	50	18	-	40	M06100008	1.06
WSL6-100	A	63	6	25	-	100	18	-	40	M06100010	1.23
WSL8-50	A	63	8	28	-	50	18	-	40	M08125010	1.07
WSL8-100	A	63	8	28	-	100	18	-	40	M08125010	1.30
WSL10-63	A	63	10	35	-	63	20	-	44	M10150012	1.21
WSL10-100	A	63	10	35	-	100	20	-	44	M10150012	1.50
WSL12-63	A	63	12	42	-	63	22.5	-	49	M12175016	1.30
WSL12-100	A	63	12	42	-	100	22.5	-	49	M12175016	1.68
WSL16-63	A	63	16	48	-	63	24	-	52	M14200016	1.35
WSL16-100	A	63	16	48	-	100	24	-	52	M14200016	1.81
WSL20-63	A	63	20	52	-	63	25	-	54	M16200016	1.43
WSL20-100	A	63	20	52	-	100	25	-	54	M16200016	1.86
WSL25-100	A	63	25	65	-	100	24	25	60	M18250020	2.02
WSL32-100	A	63	32	72	-	100	24	28	64	M20250020	2.50

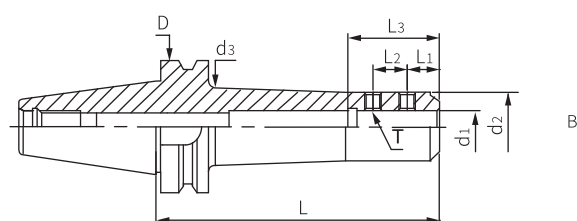
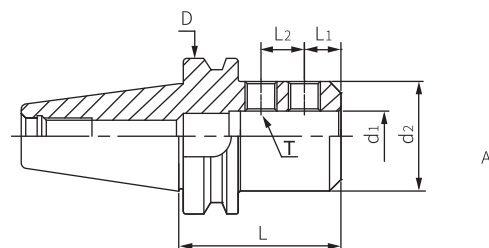
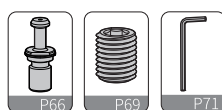
注: 扳手需单独订购

Notice: wrenchs shall be ordered separately.

WSL 侧固刀柄

BT Side-lock Holder

BT 侧固刀柄



单位: mm

型号 Specification	图示 Figure	D	d ₁	d ₂	d ₃	L	L ₁	L ₂	L ₃	侧面压紧螺钉 Side-lock screw	重量(Kg) Weight(Kg)
BT50- WSL6-63	A	100	6	25	-	63	18	-	40	M06100010	3.75
WSL6-100	A	100	6	25	-	100	18	-	40	M06100010	4.06
WSL8-63	A	100	8	28	-	63	18	-	40	M08125010	3.75
WSL8-100	A	100	8	35	-	100	18	-	40	M08125010	4.13
WSL10-65	A	100	10	35	-	65	20	-	44	M10150012	3.81
WSL10-100	A	100	10	35	-	100	20	-	44	M10150012	4.06
WSL12-80	A	100	12	42	-	80	22.5	-	49	M12175016	4.03
WSL12-125	A	100	12	42	-	125	22.5	-	49	M12175016	4.5
WSL16-80	A	100	16	48	-	80	24	-	52	M14200016	4.08
WSL16-125	A	100	16	48	-	125	24	-	52	M14200016	4.66
WSL16-165L	B	100	16	48	53	165	24	-	52	M14200016	5.29
WSL20-80	A	100	20	52	-	80	25	-	54	M16200016	4.08
WSL20-125	A	100	20	52	-	125	25	-	54	M16200016	4.81
WSL20-165L	B	100	20	52	57	165	25	-	54	M16200016	5.48
WSL20-210L	B	100	20	52	59	210	25	-	54	M16200016	6.24
WSL25-100	A	100	25	65	-	100	24	25	60	M18250020	4.82
WSL25-165L	B	100	25	65	70	165	24	25	60	M18250020	6.77
WSL25-210L	B	100	25	65	70	210	24	25	60	M18250020	7.93
WSL32-105	A	100	32	72	-	105	24	28	60	M20250020	5.14
WSL32-165L	B	100	32	72	77	165	24	28	67	M20250020	7.09
WSL32-210L	B	100	32	72	77	210	24	28	67	M20250020	8.45
WSL40-115	A	100	40	90	-	115	30	32	74	M20250025	6.17
WSL42-120	A	100	42	90	-	120	30	32	73	M20250025	6.32
WSL42-210L	B	100	42	90	95	210	30	32	81	M20250025	11.09
WSL50-120	A	100	50	99	-	120	35	35	86	M24300025	6.81
WSL50.8-120	A	100	50.8	98	-	120	33	34.54	90	M20250025	5.76

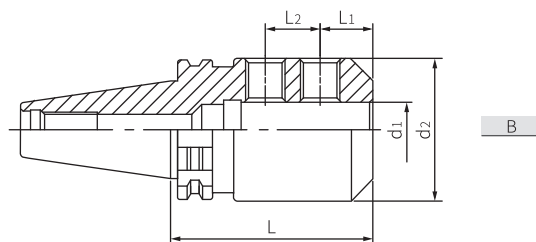
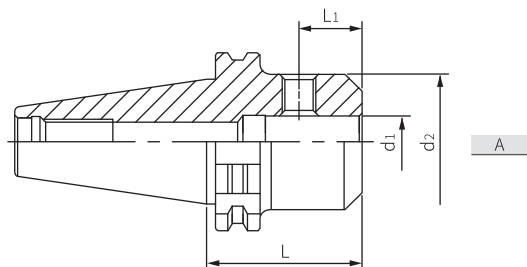
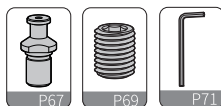
注: 扳手需单独订购

Notice: wrenchs shall be ordered separately.

WSL 侧固刀柄

SK Side-lock Holder

SK 侧固刀柄



单位: mm

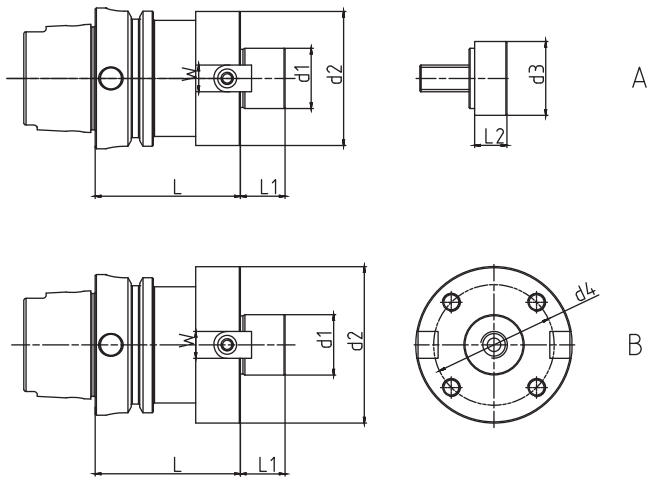
型号 Specification	图示 Figure	d ₁	d ₂	L	L ₁	L ₂	侧面压紧螺钉 Side-lock screw	重量(Kg) Weight(Kg)
SK30- WSL6-50	A	6	25	50	18	-	M06100010	0.41
WSL8-50	A	8	28	50	18	-	M08125010	0.46
WSL10-50	A	10	35	50	20	-	M10150012	0.54
WSL12-50	A	12	42	50	22.5	-	M12175014	0.61
WSL16-63	A	16	48	63	24	-	M14200016	0.85
SK40- WSL6-50	A	6	25	50	18	-	M06100008	1.00
WSL8-50	A	8	28	50	18	-	M08125010	1.01
WSL10-50	A	10	35	50	20	-	M10150012	1.15
WSL12-50	A	12	42	50	22.5	-	M12175014	1.26
WSL16-63	A	16	48	63	24	-	M14200016	1.31
WSL20-63	A	20	52	63	25	-	M16200016	1.33
WSL25-100	B	25	65	100	24	25	M18250020	2.32
WSL32-105	B	32	72	105	24	28	M20250020	2.37
SK50- WSL6-63	A	6	25	63	18	-	M06100010	3.12
WSL8-63	A	8	28	63	18	-	M08125010	3.15
WSL10-63	A	10	35	63	20	-	M10150012	3.63
WSL12-63	A	12	42	63	22.5	-	M12175014	3.86
WSL16-63	A	16	48	63	24	-	M14200016	3.90
WSL20-63	A	20	52	63	25	-	M16200016	3.93
WSL25-80	B	25	65	80	24	25	M18250020	4.62
WSL32-100	B	32	72	100	24	25	M20250020	4.80
WSL40-110	B	40	90	110	30	32	M20250025	5.21
WSL42-110	B	42	90	110	30	32	M20250025	6.00

注: 扳手需单独订购

Notice: wrenchs shall be ordered separately.

FMB 平面铣刀柄

HSK-A Face Mill Holder
HSK-A 平面铣刀柄



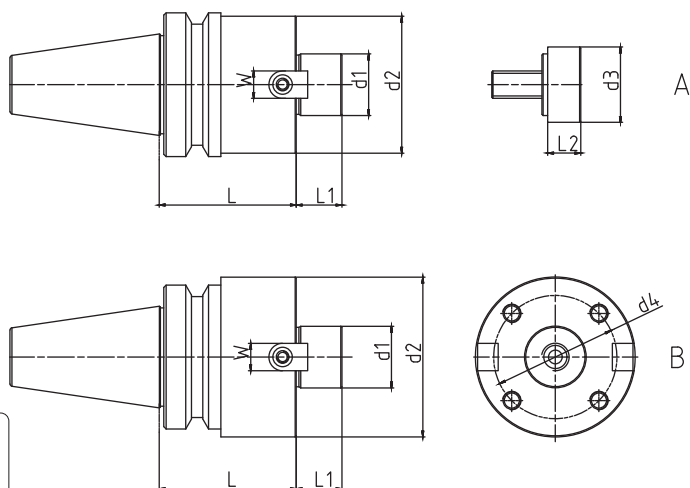
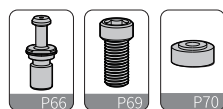
单位: mm

型号 Specification	图示 Figure	d1	d2	d3	d4	L	L1	L2	W	中心锁紧螺钉 Center screw	法兰锁紧螺钉 Flange screw	垫圈 Washer	重量 (Kg) Weight (Kg)
HSK50A-FMB22C-60	A	22	48	16	--	60	18	10	10	E10150030	--	--	0.90
FMB27C-60	A	27	60	33	--	60	20	14.5	12	E12175030	--	FM-1	1.20
HSK63A-FMB16C-100	A	16	35	13	--	100	16	8	8	E08125030	--	--	1.80
FMB22C-50	A	22	48	16	--	50	18	10	10	E10150030	--	--	1.00
FMB22C-100	A	22	48	16	--	100	18	10	10	E10150030	--	--	1.70
FMB27C-60	A	27	60	33	--	60	20	14.5	12	E12175030	--	FM-1	1.50
FMB27FC-60*	B	27	70	--	54	60	20	--	12	--	E08125030	--	1.60
FMB27C-100	A	27	60	33	--	100	20	14.5	12	E12175030	--	FM-1	2.30
FMB32C-60	A	32	78	40	--	60	22	18.5	14	E16200035	--	FM-2	1.90
FMB32C-100*	A	32	78	40	--	100	22	18.5	14	E16200035	--	FM-2	2.80
FMB40C-60	A	40	85	50	--	60	25	18.5	16	E200Z350-50	--	--	2.40
FMB40FC-60*	B	40	89	--	66.7	60	25	--	16	--	E12175045	--	2.50
HSK100A-FMB22C-50	A	22	48	16	--	50	18	10	10	E10150030	--	--	2.30
FMB22C-100	A	22	48	16	--	100	18	10	10	E10150030	--	--	3.00
FMB27C-50	A	27	60	33	--	50	20	14.5	12	E12175030	--	FM-1	2.70
FMB27C-100	A	27	60	33	--	100	20	14.5	12	E12175030	--	FM-1	3.60
FMB32C-50	A	32	78	40	--	50	22	18.5	14	E16200035	--	FM-2	3.00
FMB32C-100	A	32	78	40	--	100	22	18.5	14	E16200035	--	FM-2	4.90
FMB40C-60	A	40	85	50	--	60	25	18.5	16	E200Z350-50	--	--	3.80
FMB40FC-75*	B	40	89	--	66.7	75	25	--	16	--	E12175045	--	4.60
FMB60FC-70*	B	60	129	--	102	70	32	--	25.4	--	E16200050	--	6.30

注：* 产品为订制品 “C” 表示中心出水
Notice: Products marked with * are customized products.

FMB 平面铣刀柄

BT Face Mill Holder



单位: mm

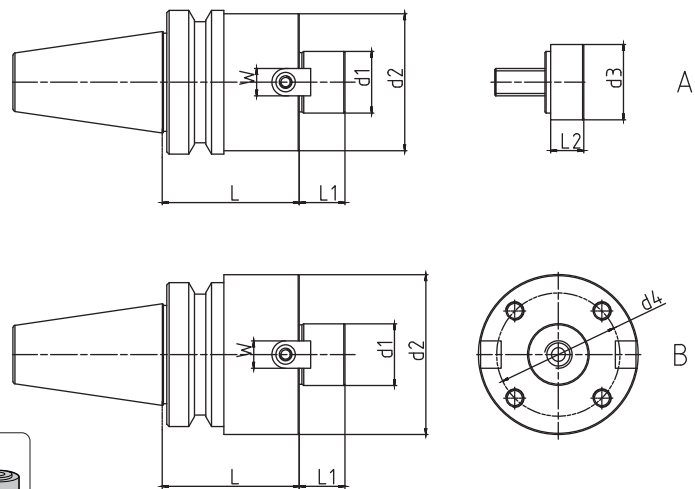
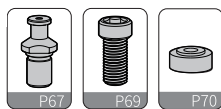
型号 Specification	图示 Figure	d1	d2	d3	d4	L	L1	L2	W	中心锁紧螺钉 Center screw	法兰锁紧螺钉 Flange screw	垫圈 Washer	重量 (Kg) Weight (Kg)
BT30-FMB16C-45*	A	16	34	13	--	45	18	8	8	E08125030	--	--	0.70
FMB22C-45	A	22	48	16	--	45	18	10	10	E10150030	--	--	0.74
FMB27C-45	A	27	60	33	--	45	20	14.5	12	E12175030	--	FM-1	1.60
FMB27FC-45*	B	27	70	--	54	45	20	--	12	--	E08125030	--	1.20
FMB32C-50	A	32	78	40	--	50	22	18.5	14	E16200035	--	FM-2	1.60
BT40-FMB22C-45	A	22	48	16	--	45	18	10	10	E10150030	--	--	1.31
FMB22C-100	A	22	48	16	--	100	18	10	10	E10150030	--	--	2.05
FMB22-150	A	22	48	16	--	150	18	10	10	E10150030	--	--	2.70
FMB22-200	A	22	48	16	--	200	18	10	10	E10150030	--	--	3.43
FMB27C-45	A	27	60	33	--	45	20	14.5	12	E12175030	--	FM-1	1.50
FMB27FC-60*	B	27	70	--	54	60	20	--	12	--	E08125030	--	2.51
FMB27C-100	A	27	60	33	--	100	20	14.5	12	E12175030	--	FM-1	2.70
FMB32C-50	A	32	78	40	--	50	22	18.5	14	E16200035	--	FM-2	2.00
FMB32C-100	A	32	78	40	--	100	22	18.5	14	E16200035	--	FM-2	3.80
FMB40C-60	A	40	85	50	--	60	25	18.5	16	E200Z350-50	--	--	2.5
FMB40FC-60*	B	40	89	--	66.7	60	25	--	16	--	E12175045	--	2.80
BT50-FMB22C-45	A	22	48	16	--	45	18	10	10	E10150030	--	--	3.80
FMB22C-100	A	22	48	16	--	100	18	10	10	E10150030	--	--	4.60
FMB22-150	A	22	48	16	--	150	18	10	10	E10150030	--	--	5.27
FMB22-200	A	22	48	16	--	200	18	10	10	E10150030	--	--	5.97
FMB27C-50	A	27	60	33	--	50	20	14.5	12	E12175030	--	FM-1	4.10
FMB27C-100	A	27	60	33	--	100	20	14.5	12	E12175030	--	FM-1	5.10
FMB27-150	A	27	60	33	--	150	20	14.5	12	E12175030	--	FM-1	6.25
FMB27-200	A	27	60	33	--	200	20	14.5	12	E12175030	--	FM-1	7.37
FMB27-250	A	27	60	33	--	250	20	14.5	12	E12175030	--	FM-1	8.51
FMB32C-50	A	32	78	40	--	50	22	18.5	14	E16200035	--	FM-2	4.4
FMB32C-100	A	32	78	40	--	100	22	18.5	14	E16200035	--	FM-2	5.79
FMB32-150	A	32	78	40	--	150	22	18.5	14	E160Z350-40	--	--	7.10
FMB40C-50	A	40	85	50	--	50	25	18.5	16	E200Z350-50	--	--	4.57
FMB40FC-75*	B	40	89	--	66.7	75	25	--	16	--	E12175045	--	5.80
FMB40C-100	A	40	85	50	--	100	25	18.5	16	E200Z350-50	--	--	6.45
FMB60FC-75*	B	60	129	--	101.6	75	32	--	25.4	--	E16200050	--	8.30

注: * 产品为订制品 “C” 表示中心出水

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FMB 平面铣刀柄

SK Face Mill Holder
SK 平面铣刀柄



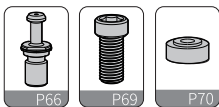
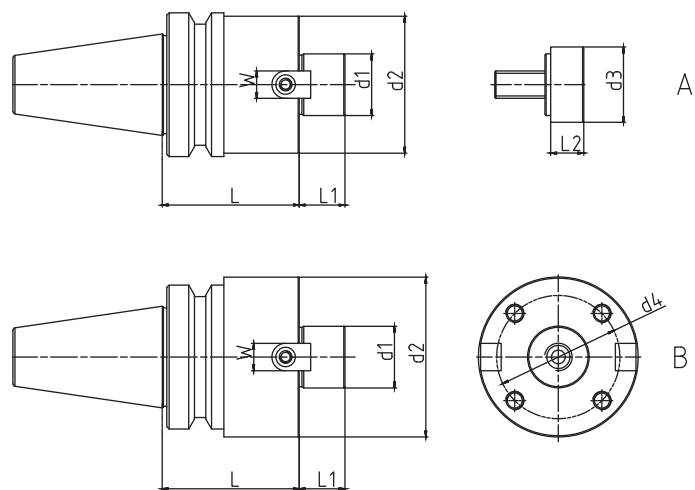
单位: mm

型号 Specification	图示 Figure	d1	d2	d3	d4	L	L1	L2	W	中心锁紧螺钉 Center screw	法兰锁紧螺钉 Flange screw	垫圈 Washer	重量 (Kg) Weight (Kg)
SK30-FMB22C-45	A	22	48	16	--	45	18	10	10	E10150030	--	--	0.70
FMB27C-50	A	27	60	33	--	50	20	14.5	12	E12175030	--	FM-1	1.00
SK40-FMB22C-40	A	22	48	16	--	40	18	10	10	E10150030	--	--	1.20
FMB22C-100	A	22	48	16	--	100	18	10	10	E10150030	--	--	2.00
FMB27C-60	A	27	60	33	--	60	20	14.5	12	E12175030	--	FM-1	1.70
FMB27C-100	A	27	60	33	--	100	20	14.5	12	E12175030	--	FM-1	2.60
FMB32C-60	A	32	78	40	--	60	22	18.5	14	E16200035	--	FM-2	2.30
FMB32C-100	A	32	78	40	--	100	22	18.5	14	E16200035	--	FM-2	3.70
FMB40C-60	A	40	85	50	--	60	25	18.5	16	E200Z350-50	--	--	2.5
SK50-FMB22C-35	A	22	48	16	--	35	18	10	10	E10150030	--	--	2.90
FMB22C-100	A	22	48	16	--	100	18	10	10	E10150030	--	--	3.80
FMB27C-35	A	27	60	33	--	35	20	14.5	12	E12175030	--	FM-1	3.20
FMB27C-100	A	27	60	33	--	100	20	14.5	12	E12175030	--	FM-1	4.50
FMB32C-40	A	32	78	40	--	40	22	18.5	14	E16200035	--	FM-2	3.60
FMB32C-100	A	32	78	40	--	100	22	18.5	14	E16200035	--	FM-2	5.80
FMB40C-50	A	40	85	50	--	50	25	18.5	16	E200Z350-50	--	--	4.20
FMB40FC-75*	B	40	89	--	66.7	75	25	--	16	--	E12175045	--	4.60
FMB60FC-70*	B	60	129	--	101.6	70	32	--	25.4	--	E16200050	--	7.90

注：* 产品为订制品 “C” 表示中心出水
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FMA 平面铣刀柄

BT Face Mill Holder
BT 平面铣刀柄



单位: mm

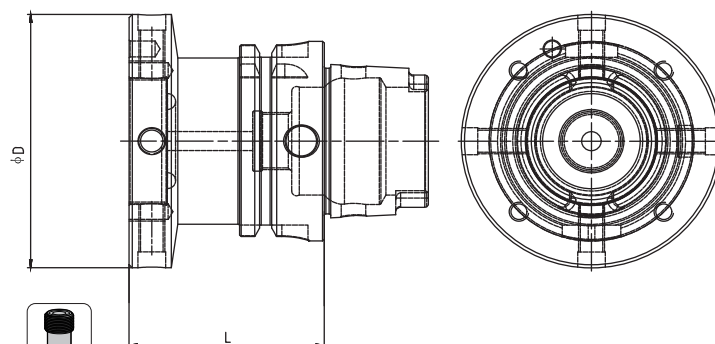
型号 Specification	图示 Figure	d1	d2	d3	d4	L	L1	L2	W	中心锁紧螺钉 Center screw	法兰锁紧螺钉 Flange screw	垫圈 Washer	重量 (Kg) Weight (Kg)
BT30-FMA25.4-45	A	25.4	50	18	--	45	20	12	9.5	E12175030	--	--	0.80
FMA25.4-60	A	25.4	50	18	--	60	20	12	9.5	E12175030	--	--	1.04
FMA31.75-45	A	31.75	60	40	--	45	22	18.5	12.7	E16200035	--	FM-2	1.00
BT40-FMA25.4-45	A	25.4	50	18	--	45	20	12	9.5	E12175030	--	--	1.36
FMA25.4-60	A	25.4	50	18	--	60	20	12	9.5	E12175030	--	--	1.59
FMA25.4-90	A	25.4	50	18	--	90	20	12	9.5	E12175030	--	--	2.05
FMA25.4-105	A	25.4	50	18	--	105	20	12	9.5	E12175030	--	--	2.28
FMA31.75-45	A	31.75	60	40	--	45	22	18.5	12.7	E16200035	--	FM-2	1.65
FMA31.75-75	A	31.75	60	40	--	75	22	18.5	12.7	E16200035	--	FM-2	2.33
FMA31.75-90	A	31.75	60	40	--	90	22	18.5	12.7	E16200035	--	FM-2	2.66
FMA38.1-60	A	38.1	75	50	--	60	25	18.5	15.87	E16200035	--	FM-3	2.49
BT50-FMA25.4-45	A	25.4	50	18	--	45	20	12	9.5	E12175030	--	--	3.85
FMA25.4-90	A	25.4	50	18	--	90	20	12	9.5	E12175030	--	--	4.56
FMA25.4-150	A	25.4	50	18	--	150	20	12	9.5	E12175030	--	--	5.48
FMA31.75-45	A	31.75	60	40	--	45	22	18.5	12.7	E160Z350-40	--	--	4.07
FMA31.75-75	A	31.75	60	40	--	75	22	18.5	12.7	E160Z350-40	--	--	4.72
FMA31.75-105	A	31.75	60	40	--	105	22	18.5	12.7	E160Z350-40	--	--	5.34
FMA38.1-45	A	38.1	80	50	--	45	25	18.5	15.87	E200Z350-50	--	--	4.35
FMA38.1-75	A	38.1	80	50	--	75	25	18.5	15.87	E200Z350-50	--	--	5.29
FMA50.8-45	A	50.8	95	65	--	45	27.5	18.5	19.05	E240Z350-65	--	--	4.80
FMA50.8-75	A	50.8	95	65	--	75	27.5	18.5	19.05	E240Z350-65	--	--	6.46

注: * 产品为订制品 “C” 表示中心出水
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WFS 法兰刀柄

HSK-A Flange Shank

HSK-A 法兰刀柄



单位: mm

型号 (Specification)	D	L	端面锁紧螺钉 End face locking screw	径向调节顶丝 Radial adjustment top wire	重量 (Weight) (Kg)
HSK50A- WFS60-60	60	60	E05080015	M08100012	0.9
WFS70-60	70	60	E06100015	M08100012	1.0
WFS80-60	80	60	E06100020	M08100012	1.1
HSK63A- WFS60- 60	60	60	E05080015	M08100012	1.3
WFS70- 60	70	60	E06100015	M08100012	1.4
WFS80- 60	80	60	E06100020	M08100012	1.5
WFS100- 65	100	65	E08125025	M10100020	2.1
HSK100A- WFS60- 55	60	55	E05080015	M08100012	2.8
WFS70- 55	70	55	E06100015	M08100012	2.9
WFS80- 55	80	55	E06100020	M08100012	3.0
WFS100- 65	100	65	E08125025	M10100020	3.7

特点 / Feature

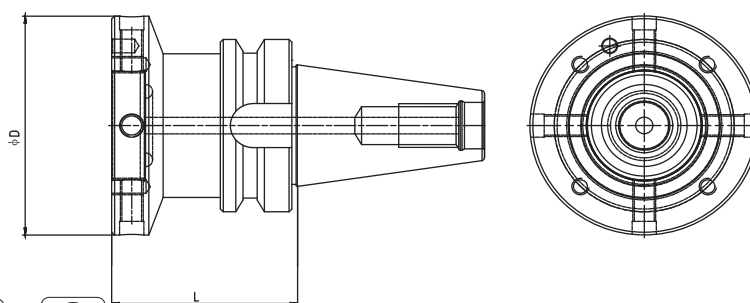
■动平衡设定: G2.5; 25,000 rpm

■Balanced: G2.5; 25,000 rpm

WFS 法兰刀柄

BT Flange Shank

BT 法兰刀柄



单位: mm

型号 (Specification)	D	L	端面锁紧螺钉 End face locking screw	径向调节顶丝 Radial adjustment top wire	重量 (Weight)(Kg)
BT30- WFS60-40	60	40	E05080015	M08100012	0.7
WFS70-40	70	40	E06100015	M08100012	0.8
BT40- WFS60- 55	60	55	E05080015	M08100012	1.5
WFS70- 55	70	55	E06100015	M08100012	1.6
WFS80- 65	80	65	E06100020	M08100012	2.1
WFS100- 70	100	70	E08125025	M10100020	2.7
BT50- WFS60- 70	60	70	E05080015	M08100012	4.9
WFS70- 70	70	70	E06100015	M08100012	5.0
WFS80- 70	80	70	E06100020	M08100012	5.1
WFS100- 70	100	70	E08125025	M10100020	5.3

特点 / Feature

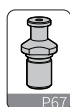
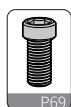
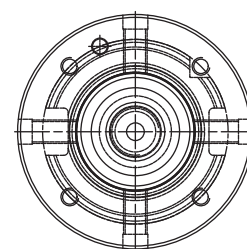
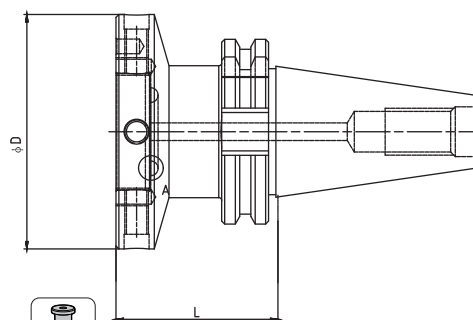
■动平衡设定: G2.5; 15,000 rpm

■Balanced: G2.5; 15,000 rpm

WFS 法兰刀柄

SK Flange Shank

SK 法兰刀柄



单位: mm

型号 (Specification)	D	L	端面锁紧螺钉 End face locking screw	径向调节顶丝 Radial adjustment top wire	重量 (Weight)(Kg)
SK30- WFS60-50	60	50	E05080015	M08100012	0.8
WFS70-50	70	50	E06100015	M08100012	0.9
SK40- WFS60- 50	60	50	E05080015	M08100012	1.3
WFS70- 50	70	50	E06100015	M08100012	1.4
WFS80- 55	80	55	E06100020	M08100012	1.7
WFS100- 60	100	60	E08125025	M10100020	2.2
SK50- WFS60- 50	60	50	E05080015	M08100012	3.4
WFS70- 50	70	50	E06100015	M08100012	3.5
WFS80- 50	80	50	E06100020	M08100012	3.7
WFS100- 60	100	60	E08125025	M10100020	4.5

特点 / Feature

■动平衡设定: G2.5; 15,000 rpm

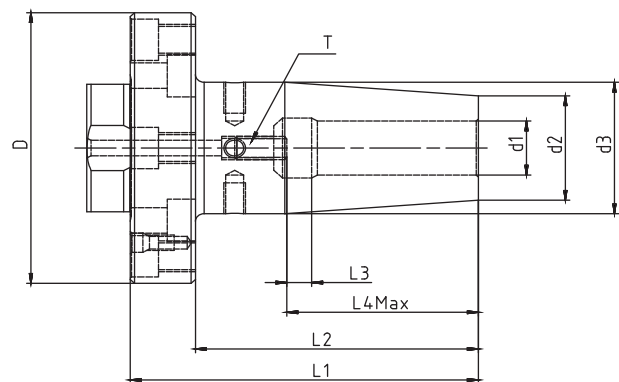
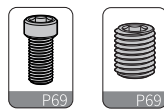
■Balanced: G2.5; 15,000 rpm

应用:应用于机床主轴中,用于装夹非标法兰刀具,热缩刀柄,液压刀柄,

通过调节螺钉可对安装好的刀柄或刀具径向跳动进行调节。

WFL 法兰刀柄

WSF Shrink Fit Holder With Flange Module
WSF 法兰热缩刀柄



单位: mm

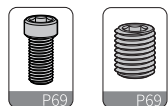
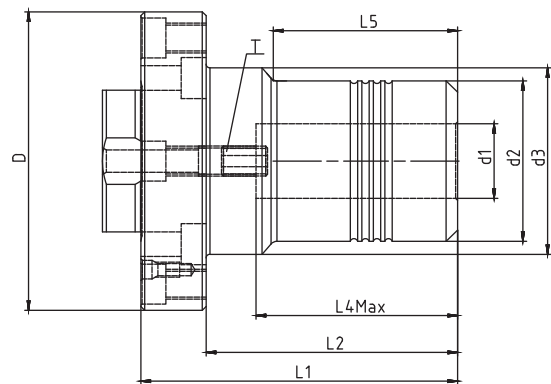
型号 Specification	D	d ₁	d ₂	d ₃	L ₁	L ₂	L ₃	L _{4Max}	T	重量(Kg) Weight(Kg)
WFL60- WSF6-70	60	6	21	27	70	57	10	36	Z05080015-C	0.7
WSF8-70	60	8	21	27	70	57	10	36	Z05080015-C	0.7
WSF10-75	60	10	24	32	75	62	10	42	Z06100015-C	0.7
WSF12-80	60	12	24	32	80	67	10	47	Z06100015-C	0.7
WFL70- WSF14-80	70	14	27	34	80	65	10	47	Z05080015-C	1.0
WSF16-85	70	16	27	34	85	70	10	50	Z08100015-C	1.0
WFL80- WSF18-90	80	18	33	42	90	73	10	50	Z08100015-C	1.4
WSF20-90	80	20	33	42	90	73	10	52	Z08100015-C	1.3
WFL100- WSF25-100	100	25	44	53	100	79	10	58	Z16100015-C	2.3
WSF32-100	100	32	44	53	100	79	10	58	Z16100015-C	2.2

特点 / Feature

- ◆ WFL-WSF刀柄系列用于高精密切削加工，切削效果极佳
- ◆ 跳动可调节至小于1um
- ◆ For high precision cutting
- ◆ The runout can be adjusted to less than 1um

WFL 法兰刀柄

WHP Hydraulic Chuck With Flange Mouldle
WHP 法兰液压刀柄



单位：mm

型号 Specification	D	d ₁	d ₂	d ₃	L ₁	L ₂	L ₃	L _{4Max}	L ₅	T	重量(Kg) Weight(Kg)
WFL60- WHP6-65	80	6	28	50	65	48	10	37.5	24	Z05080015-C	0.6
WHP8-65	80	8	30	50	65	48	10	37.5	24	Z06100015-C	0.6
WHP10-70	80	10	32	50	70	53	10	42.5	35	Z06100015-C	0.7
WHP12-75	80	12	34	50	75	58	10	47.5	40	Z06100015-C	0.7
WFL80- WHP16-82.5	80	16	38	50	82.5	65.5	10	52.5	46	Z08100015-C	1.2
WHP20-82.5	80	20	43	50	82.5	65.5	10	52.5	48	Z08100015-C	1.3
WFL100- WHP25-100	100	25	57	63	100	79	10	61	59	Z16100015-C	2.8
WHP32-103	100	32	63	70	103	82	10	65	63	Z16100015-C	3.0

特点 / Feature

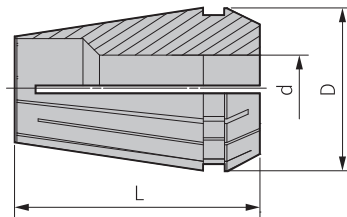
- ◆ WFL-WHP刀柄系列用于高精密切削加工，切削效果极佳
- ◆ 跳动可调节至小于1um
- ◆ For high precision cutting
- ◆ The runout can be adjusted to less than 1um

周边附件

Accessories

弹性筒夹

ER Collet
ER 弹性筒夹



型号 Specification											
ER11-13PCS			ER16-10PCS			ER20-12PCS			ER25-15PCS		
SET NO.	RANGE mm		SET NO.	RANGE mm		SET NO.	RANGE mm		SET NO.	RANGE mm	
ER11- 1	1.0-0.5		ER16- 1	1.0-0.5		ER20- 2	2.0-1.0		ER25- 2	2.0-1.0	
1.5	1.5-1.0		2	2.0-1.0		3	3.0-2.0		3	3.0-2.0	
2	2.0-1.5		3	3.0-2.0		4	4.0-3.0		4	4.0-3.0	
2.5	2.5-2.0		4	4.0-3.0		5	5.0-4.0		5	5.0-4.0	
3	3.0-2.5		5	5.0-4.0		6	6.0-5.0		6	6.0-5.0	
3.5	3.5-3.0		6	6.0-5.0		7	7.0-6.0		7	7.0-6.0	
4	4.0-3.5		7	7.0-6.0		8	8.0-7.0		8	8.0-7.0	
4.5	4.5-4.0		8	8.0-7.0		9	9.0-8.0		9	9.0-8.0	
5	5.0-4.5		9	9.0-8.0		10	10-9.0		10	10-9.0	
5.5	5.5-5.0		10	10-9.0		11	11-10		11	11-10	
6	6.0-5.5					12	12-11		12	12-11	
6.5	6.5-6.0					13	13-12		13	13-12	
7	7.0-6.5								14	14-13	
									15	15-14	
									16	16-15	
									17	17-16	
									18	18-17	
									19	19-18	
									20	20-19	
									21	21-20	
									22	22-21	
									23	23-22	
									24	24-23	
									25	25-24	
									26	26-25	

型号	Specification	
	D	L
ER 11	11.5	18
16	17	27.5
20	21	31.5
25	26	34
32	33	40
40	41	46

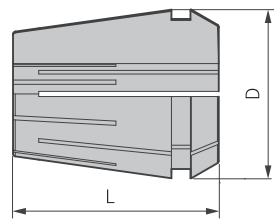
例：ER11-13PCS 为套装型号。
Note:ER11-13PCS is a set.

弹性筒夹等级说明/Spring Collet Precision
■A级：小于等于0.01mm ■UP级：小于等于0.005mm
■A: ≤0.01mm ■ ≤0.005mm

备注：ER筒夹常规备库为A级。
Remark:ER collets in stock with A grade.

弹性筒夹

ER-C Sealing Collet
ER-C 止水弹性筒夹

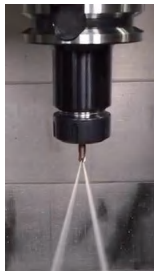


型号 Specification																
ER16-8PCS-C			ER20-11PCS-C			ER25-14PCS-C			ER32-18PCS-C			ER40-21PCS-C				
SET NO.	RANGE mm		SET NO.	RANGE mm		SET NO.	RANGE mm		SET NO.	RANGE mm		SET NO.	RANGE mm			
ER16-	3-C	3.0	ER20-	3-C	3.0	ER25-	3-C	3.0	ER32-	3-C	3.0	ER40-	6-C	6.0		
	4-C	4.0		4-C	4.0		4-C	4.0		4-C	4.0		7-C	7.0		
	5-C	5.0		5-C	5.0		5-C	5.0		5-C	5.0		8-C	8.0		
	6-C	6.0		6-C	6.0		6-C	6.0		6-C	6.0		9-C	9.0		
	7-C	7.0		7-C	7.0		7-C	7.0		7-C	7.0		10-C	10.0		
	8-C	8.0		8-C	8.0		8-C	8.0		8-C	8.0		11-C	11.0		
	9-C	9.0		9-C	9.0		9-C	9.0		9-C	9.0		12-C	12.0		
	10-C	10.0		10-C	10.0		10-C	10.0		10-C	10.0		13-C	13.0		
				11-C	11.0		11-C	11.0		11-C	11.0		11-C	11.0	14-C	14.0
				12-C	12.0		12-C	12.0		12-C	12.0		12-C	12.0	15-C	15.0
		13-C	13.0	13-C	13.0	13-C	13.0	13-C	13.0	16-C	16.0					
				14-C	14.0	14-C	14.0	14-C	14.0	14-C	14.0	17-C	17.0			
				15-C	15.0	15-C	15.0	15-C	15.0	15-C	15.0	18-C	18.0			
				16-C	16.0	16-C	16.0	15	16.0	19-C	19.0	19-C	19.0			
								17-C	17.0	17-C	17.0	20-C	20.0			
								18-C	18.0	18-C	18.0	21-C	21.0			
								19-C	19.0	19-C	19.0	22-C	22.0			
								20-C	20.0	20-C	20.0	23-C	23.0			
												24-C	24.0			
												25-C	25.0			
												26-C	26.0			



型号

型号	Specification		D	L
ER	16-C	17.0	27.5	
	20-C	21.0	31.5	
	25-C	26.0	34	
	32-C	33.0	40	
	40-C	41.0	46	

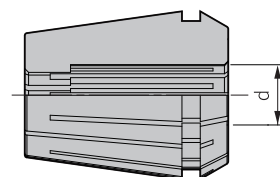
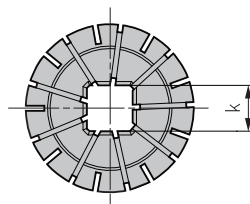


例：ER16-8PCS 为套装型号。
Note:ER16-8PCS is a set.

- 精度：≤0.008mm
- Accuracy：≤0.008mm

攻牙筒夹

ER-G Tapping Collet
ER-G 攻牙筒夹



型号 Specification					d	k	ISO529(1)	ISO529(2)	备注通用Taps JIS DIN371 DIN376			
ER16-					0224018G	2. 24	1. 8	-	M3	-	--	-
ER16-					028021G	2. 8	2. 1	-	-	-	-	M4
ER16-					0315025G	3. 15	2. 5	M3	M4	-	-	-
ER16-					035027G	3. 5	2. 7	-	-	-	M3	M4. 5、M5
ER16-	ER20-				040032G	4	3. 2	M4	M5	M3、W1/ 8	-	-
ER16-	ER20-	ER25-			045034G	4. 5	3. 4	-	-	-	M4	M6
ER16-	ER20-	ER25-			0450355G	4. 5	3. 55	-	M6	-	-	-
ER16-	ER20-	ER25-			050040G	5	4	M5	-	M4	-	-
ER16-	ER20-	ER25-			055045G	5. 5	4. 5	-	-	M5、W3/ 16	-	-
ER16-	ER20-	ER25-			060045G	6	4. 5	-	-	M6、W1/4	-	-
ER16-	ER20-	ER25-			060049G	6	4. 9	-	-	-	M4. 5、M5、M6	M8
ER16-	ER20-	ER25-			061050G	6. 1	5	-	-	W5/16	-	-
ER16-	ER20-	ER25-			062050G	6. 2	5	-	-	M8	-	-
ER16-	ER20-	ER25-			063050G	6. 3	5	M6	M8	-	-	-
ER16-	ER20-	ER25-	ER32-		070055G	7	5. 5	-	-	M10、W3/8	M7	M9、M10
ER16-	ER20-	ER25-	ER32-		080060G	8	6	-	-	W7/ 16、PT1/8	-	-
ER16-	ER20-	ER25-	ER32-		080062G	8	6. 2	-	-	-	M8	M11
ER16-	ER20-	ER25-	ER32-		080063G	8	6. 3	M8	M10	-	-	-
ER16-	ER20-	ER25-	ER32-		085065G	8. 5	6. 5	-	-	M 12	-	-
ER16-	ER20-	ER25-	ER32-		090070G	9	7	-	-	W1/2	M9	M12
ER16-	ER20-	ER25-	ER32-		090071G	9	7. 1	-	M12	-	-	-
ER16-	ER20-	ER25-	ER32-	ER40-	100080G	10	8	M10	-	-	M10	-
	ER20-	ER25-	ER32-	ER40-	105080G	10. 5	8	-	-	M 14	-	-
	ER20-	ER25-	ER32-	ER40-	110090G	11	9	-	-	PT1/4	-	M14
	ER20-	ER25-	ER32-	ER40-	112090G	11. 2	9	-	M14	-	-	-
	ER20-	ER25-	ER32-	ER40-	120090G	12	9	-	-	W5/8	-	M16
	ER20-	ER25-	ER32-	ER40-	125100G	12. 5	10	-	M16	M 16	-	-
		ER25-	ER32-	ER40-	140110G	14	11	-	-	M18、W3/4、PT3/8	-	M18
		ER25-	ER32-	ER40-	140112G	14	11. 2	-	M18、M20	M 18	-	-
		ER25-	ER32-	ER40-	150120G	15	12	-	-	M 20	-	-
			ER32-	ER40-	160120G	16	12	-	-	-	-	M20
			ER32-	ER40-	160125G	16	12. 5	-	M22	-	-	-
			ER32-	ER40-	170130G	17	13	-	-	M22、W7/8	-	-
			ER32-	ER40-	180140G	18	14	-	M24	P T1/2	-	-
			ER32-	ER40-	180145G	18	14. 5	-	-	-	-	M22、M24
			ER32-	ER40-	190150G	19	15	-	-	M24	-	-
				ER40-	200150G	20	15	-	-	M27、W1、PT5/8	-	-
				ER40-	200160G	20	16	-	M27、M30	-	-	M27
				ER40-	220180G	22	18	-	-	-	-	M30
				ER40-	220190G	22	19	-	-	M32、M33	-	-
				ER40-	224180G	22. 4	18	-	M33	-	-	-
				ER40-	230170G	23	17	-	-	M30、PT3/4	-	-
				ER40-	250190G	25	19	-	-	M33	-	-

注：选型前需确认丝锥柄径与四方尺寸。

Note: The size of the shank must be suitable with the collet.

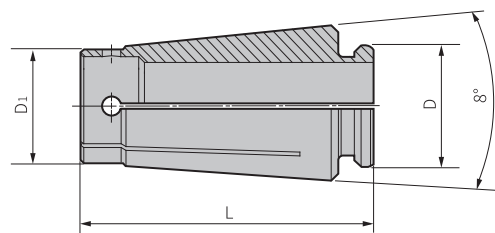
■ 常规备库精度 ≤ 0.015mm

■ In stock with accuracy ≤ 0.015mm

弹性筒夹

GS Precision Collet

GS 精密弹性筒夹



GS6		GS10		GS16		GS20		GS25	
SET NO.	9PCS RANGE mm	SET NO.	16PCS RANGE mm	SET NO.	27PCS RANGE mm	SET NO.	33PCS RANGE mm	SET NO.	40PCS RANGE mm
GS6-2	1.8-2.0	GS10-2	1.75-2.0	GS16-3	2.75-3.0	GS20-4	3.5-4.0	GS25-6	5.5-6.0
2.5	2.3-2.5	3	2.75-3.0	3.5	3.0-3.5	4.5	4.0-4.5	6.5	6.0-6.5
3	2.8-3.0	3.5	3.0-3.5	4	3.5-4.0	5	4.5-5.0	7	6.5-7.0
3.5	3.0-3.5	4	3.5-4.0	4.5	4.0-4.5	5.5	5.0-5.5	7.5	7.0-7.5
4	3.5-4.0	4.5	4.0-4.5	5	4.5-5.0	6	5.5-6.0	8	7.5-8.0
4.5	4.0-4.5	5	4.5-5.0	5.5	5.0-5.5	6.5	6.0-6.5	8.5	8.0-8.5
5	4.5-5.0	5.5	5.0-5.5	6	5.5-6.0	7	6.5-7.0	9	8.5-9.0
5.5	5.0-5.5	6	5.5-6.0	6.5	6.0-6.5	7.5	7.0-7.5	9.5	9.0-9.5
6	5.5-6.0	6.5	6.0-6.5	7	6.5-7.0	8	7.5-8.0	10	9.5-10.0
		7	6.5-7.0	7.5	7.0-7.5	8.5	8.0-8.5	10.5	10.0-10.5
		7.5	7.0-7.5	8	7.5-8.0	9	8.5-9.0	11	10.5-11.0
		8	7.5-8.0	8.5	8.0-8.5	9.5	9.0-9.5	11.5	11.0-11.5
		8.5	8.0-8.5	9	8.5-9.0	10	9.5-10.0	12	11.5-12.0
		9	8.5-9.0	9.5	9.0-9.5	10.5	10.0-10.5	12.5	12.0-12.5
		9.5	9.0-9.5	10	9.5-10.0	11	10.5-11.0	13	12.5-13.0
		10	9.5-10.0	10.5	10.0-10.5	11.5	11.0-11.5	13.5	13.0-13.5
				11	10.5-11.0	12	11.5-12.0	14	13.5-14.0
				11.5	11.0-11.5	12.5	12.0-12.5	14.5	14.0-14.5
				12	11.5-12.0	13	12.5-13.0	15	14.5-15.0
				12.5	12.0-12.5	13.5	13.0-13.5	15.5	15.0-15.5
				13	12.5-13.0	14	13.5-14.0	16	15.5-16.0
				13.5	13.0-13.5	14.5	14.0-14.5	16.5	16.0-16.5
				14	13.5-14.0	15	14.5-15.0	17	16.5-17.0
				14.5	14.0-14.5	15.5	15.0-15.5	17.5	17.0-17.5
				15	14.5-15.0	16	15.5-16.0	18	17.5-18.0
				15.5	15.0-15.5	16.5	16.0-16.5	18.5	18.0-18.5
				16	15.5-16.0	17	16.5-17.0	19	18.5-19.0
						17.5	17.0-17.5	19.5	19.0-19.5
						18	17.5-18.0	20	19.5-20.0
						18.5	18.0-18.5	20.5	20.0-20.5
						19	18.5-19.0	21	20.5-21.0
						19.5	19.0-19.5	21.5	21.0-21.5
						20	19.5-20.0	22	21.5-22.0
								22.5	22.0-22.5
								23	22.5-23.0
								23.5	23.0-23.5
								24	23.5-24.0
								24.5	24.0-24.5
								25	24.5-25.0
								25.4	25.0-25.4

弹性筒夹等级说明/Spring Collet Precision

■A级: 小于等于0.01mm ■UP级: 小于等于0.005mm

■A: ≤0.01mm ■ ≤0.005mm

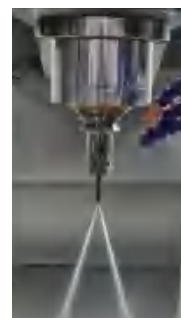
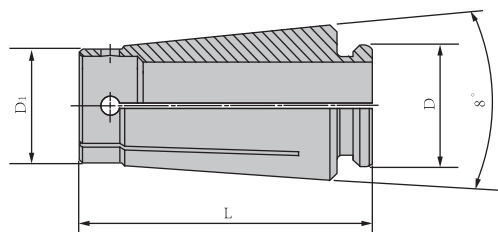
备注: GS筒夹常规备库为A级。

Remark:GS collets in stock with A grade.

弹性筒夹

GS-C Sealing Precision Collet

GS-C 止水精密弹性筒夹



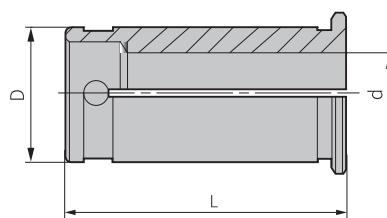
GS10		GS16	
SET NO.	4PCS RANGE mm	SET NO.	7PCS RANGE mm
GS10-4-C	4.0	GS16- 4-C	4.0
6-C	6.0	6-C	6.0
8-C	8.0	8-C	8.0
10-C	10.0	10-C	10.0
		12-C	12.0
		14-C	14.0
		16-C	16.0

■精度: $\leq 0.005\text{mm}$
■Accuracy: $\leq 0.005\text{mm}$

强力筒夹

SC Power Collet

SC 强力筒夹



单位: mm

型号	Specification	D	d	L
SC16-	4	16	4	45
	6	16	6	45
	8	16	8	45
	10	16	10	45
	12	16	12	45

单位: mm

型号	Specification	D	d	L
SC20-	4	20	4	52
	6	20	6	52
	8	20	8	52
	10	20	10	52
	12	20	12	52
	15	20	15	52
	16	20	16	52

单位: mm

型号	Specification	D	d	L
SC25-	6	25	6	60
	8	25	8	60
	10	25	10	60
	12	25	12	60
	16	25	16	60
	20	25	20	60

单位: mm

型号	Specification	D	d	L
SC32-	3	32	3	66
	4	32	4	66
	5	32	5	66
	6	32	6	66
	7	32	7	66
	8	32	8	66
	9	32	9	66
	10	32	10	66
	11	32	11	66
	12	32	12	66
	13	32	13	66
	14	32	14	66

单位: mm

型号	Specification	D	d	L
SC32-	15	32	15	66
	15.6	32	15.6	66
	16	32	16	66
	17	32	17	66
	18	32	18	66
	19	32	19	66
	20	32	20	66
	21	32	21	66
	22	32	22	66
	23	32	23	66
	24	32	24	66
	25	32	25	66

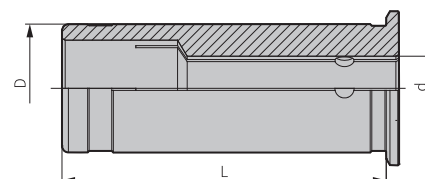
单位: mm

型号	Specification	D	d	L
SC42-	6	42	6	80
	8	42	8	80
	10	42	10	80
	12	42	12	80
	16	42	16	80
	18	42	18	80
	20	42	20	80
	24	42	24	80
	25	42	25	80
	32	42	32	80

■精度: $\leq 0.01\text{mm}$
■Accuracy: $\leq 0.01\text{mm}$

液压筒夹

Hydraulic Collet-Flange Cooling
D型端面出水液压筒夹



单位: mm

型号 Specification	d	D	L
DHC12- 3	3	12	45
4	4	12	45
5	5	12	45
6	6	12	45
8	8	12	45

■精度: $\leq 0.005\text{mm}$

■Runint(3D): $\leq 0.005\text{mm}$

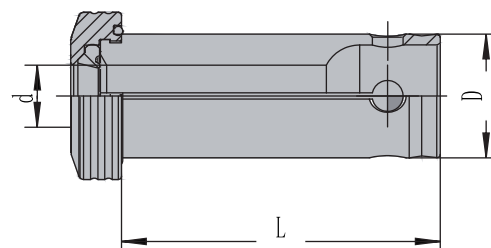
单位: mm

型号 Specification	d	D	L
DHC20- 3	3	20	50.5
4	4	20	50.5
5	5	20	50.5
6	6	20	50.5
8	8	20	50.5
10	10	20	50.5
12	12	20	50.5
14	14	20	50.5
16	16	20	50.5

单位: mm

型号 Specification	d	D	L
DHC32- 6	6	32	60.5
8	8	32	60.5
10	10	32	60.5
12	12	32	60.5
14	14	32	60.5
16	16	32	60.5
18	18	32	60.5
20	20	32	60.5
25	25	32	60.5

Hydraulic Collet-Internal Cooling
OD型中心出水液压筒夹



单位: mm

型号 Specification	d	D	L
ODHC12- 3	3	12	45
4	4	12	45
5	5	12	45
6	6	12	45
8	8	12	45

■精度: $\leq 0.003\text{mm}$

■Accuracy: $\leq 0.003\text{mm}$

适用于WHP及WHPC刀柄

单位: mm

型号 Specification	d	D ₁	L
ODHC20- 3	3	20	51
4	4	20	51
5	5	20	51
6	6	20	51
8	8	20	51
10	10	20	51
12	12	20	51
14	14	20	51
15	15	20	51
16	16	20	51

单位: mm

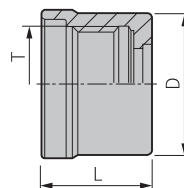
型号 Specification	d	D	L
ODHC32- 6	6	32	64
8	8	32	64
10	10	32	64
12	12	32	64
14	14	32	64
15	15	32	64
16	16	32	64
18	18	32	64
19	19	32	64
20	20	32	64
24	24	32	64
25	25	32	64

螺帽/冷却液套管

Clamping Nuts For WGS Collet Chuck
WGS高速刀柄专用螺帽



A



A

单位: mm

型号 Specification	图示 Figure	D	H	L	T
WGS 6	A	19.5	-	21	M15.5x1.0P
10	A	27	-	24	M21.5x1.0P
16	A	40	-	31	M32x1.5P
20	A	48.5	-	33	M40x1.0P
25	A	55	-	37	M45x1.5P

Clamping Nuts For ER Collet Chuck
ER夹头螺帽



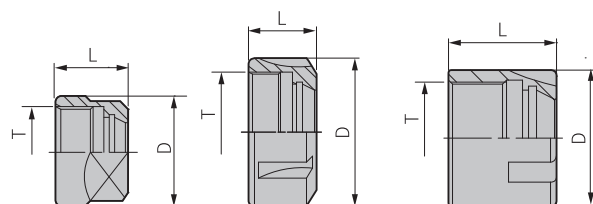
A



B



C



A

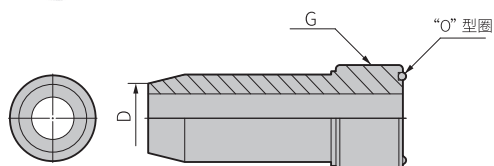
B

C

单位: mm

型号 Specification	图示 Figure	D	L	T
CNA- ER16	A	28	17.5	M22XP1.5
ER20	A	34	19	M25XP1.5
CNU- ER25	B	42	20	M32XP1.5
ER32	B	50	22.5	M40XP1.5
ER40	B	63	25.5	M50XP1.5
CNM- ER11	C	16	12	M13 XP0.75
ER16	C	23	18	M19XP1.0
ER20	C	28	19	M24XP1.0
ER25	C	35	20	M30XP1.0

HSK-CPA Coolant Pipe
HSK 冷却液套管



型号 Specification	D	G	扳手 Wrench
HSK 40-CPA	8	M12X1.0P	WCPA40
50-CPA	10	M16X1.0P	WCPA50
63-CPA	12	M18X1.0P	WCPA63
100-CPA	16	M24X1.5P	WCPA100

专用扳手

Wrench For HSK Coolant Pipe
HSK 冷却液套管扳手



型号 Specification	适用本体 Tool Holder	重量 (Kg) Weihgt (Kg)
WCPA 40	HSK40	0.40
50	HSK50	0.50
63	HSK63	0.60
100	HSK100	0.60

Wrench For WGS Tool Holder
WGS 刀柄专用扳手



型号 Specification	适用螺帽 Clampingnut	重量 (Kg) Weihgt (Kg)
WGSK 6	WGS6	0.30
10	WGS10	0.35
16	WGS16	0.40
20	WGS20	0.50
25	WGS25	0.55

Wrench For ER Tool Holder
ER 刀柄专用扳手



型号 Specification	适用螺帽 Clampingnut	重量 (Kg) Weihgt (Kg)
ER 16-A	CNA-ER16	0.10
20-A	CNA-ER20	0.10
11-M	CNM-ER11	0.20
16-M	CNM-ER16	0.20
20-M	CNM-ER20	0.20
25-M	CNM-ER25	0.20
25-U	CNU-ER25	0.20
32-U	CNU-ER32	0.20
40-U	CNU-ER40	0.30

Wrench For WHPC Tool Holder
WHPC 高速强力刀柄专用扳手

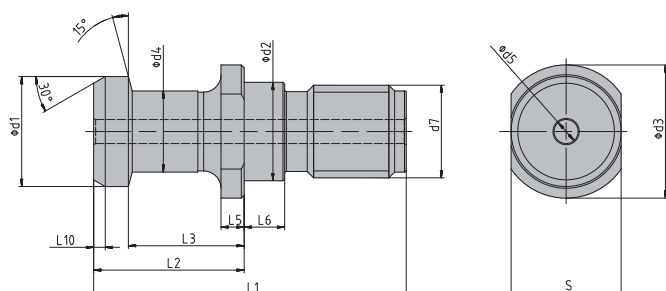


型号 Specification	适用螺帽 Clampingnut	重量 (Kg) Weihgt (Kg)
SP-HPC 16	HPC16	0.16
20	HPC20	0.20
25	HPC25	0.25
32	HPC32	0.30
42	HPC42	0.45

国际标准拉钉A型 ISO 7388/2-1984

(推荐JT型刀柄)

International Standard Pull Stus Type A ISO 7388/2-1984



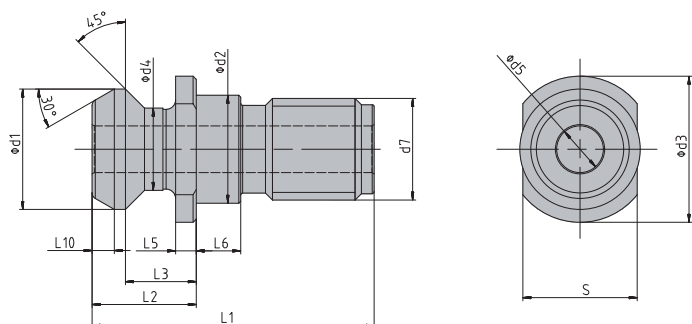
单位: mm

型号 Specification	d1	d2	d3	d4	d5	d7	L1	L2	L3	L5	L6	L10	S	重量 (Kg) Weihgt (Kg)
ISO LDA30	12	13	16	8	--	M12	44	24	19	4	6	2	14	0.056
LDA30/T	12	13	16	8	4.15	M12	44	24	19	4	6	2	14	0.036
LDA40	19	17	23	14	--	M16	54	26	20	4	7	2	19	0.084
LDA40/T	19	17	23	14	7	M16	54	26	20	4	7	2	19	0.065
LDA50	28	25	36	21	--	M24	74	34	25	5	10	2	30	0.261
LDA50/T	28	25	36	21	11.5	M24	74	34	25	5	10	2	30	0.199

国际标准拉钉B型 ISO 7388/3-2013

(推荐JT型刀柄)

International Standard Pull Stus Type A ISO 7388/3-2013



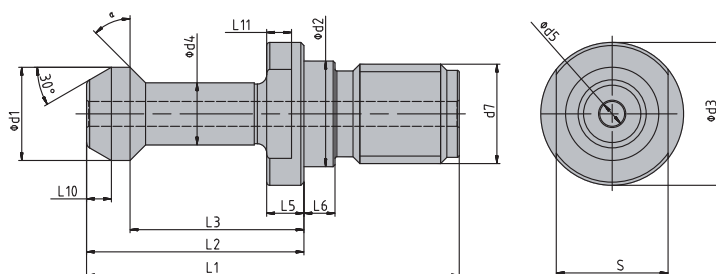
单位: mm

型号 Specification	d1	d2	d3	d4	d5	d7	L1	L2	L3	L5	L6	L10	S	重量 (Kg) Weihgt (Kg)
ISO LDB30	13.35	13	16.5	9.3	--	M12	31.8	11.8	8.15	2.75	5	2.4	13	0.037
LDB30/T	13.35	13	16.5	9.3	4.15	M12	31.8	11.8	8.15	2.75	5	2.4	13	0.035
LDB40	18.95	17	22.5	12.95	--	M16	44.4	16.4	11.15	3.25	7	3.5	18	0.069
LDB40/T	18.95	17	22.5	12.95	7.35	M16	44.4	16.4	11.15	3.25	7	3.5	18	0.053
LDB50	29.1	25	37	19.6	--	M24	65.55	25.55	17.95	5.25	10	4.85	30	0.234
LDB50/T	29.1	25	37	19.6	11.55	M24	65.55	25.55	17.95	5.25	10	4.85	30	0.210

日本标准 MAS 403-1982

(推荐BT、BBT型刀柄)

Japanese Standard Pull Stud MAS 403-1982

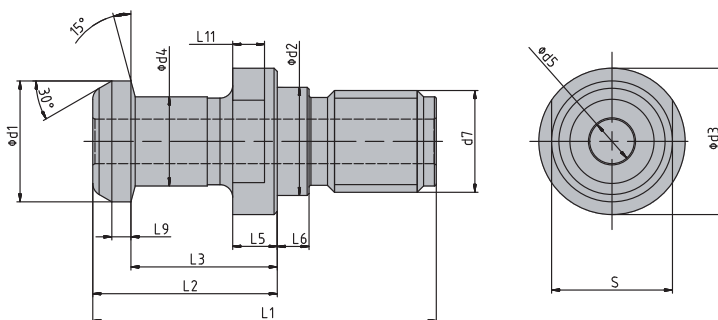


单位: mm

型号 Specification	d1	d2	d3	d4	d5	d7	L1	L2	L3	L5	L6	L10	L11	S	α	重量 (Kg) Weihgt (Kg)
MAS BT30-45°	11	12.5	16.5	7	--	M12	43	23	18	5	4	2.5	3.5	13	45°	0.031
BT30-45°/T	11	12.5	16.5	7	2.5	M12	43	23	18	5	4	2.5	3.5	13	45°	0.030
BT30-60°	11	12.5	16.5	7	--	M12	43	23	18	5	4	2.5	3.5	13	60°	0.031
BT30-60°/T	11	12.5	16.5	7	2.5	M12	43	23	18	5	4	2.5	3.5	13	60°	0.029
BT30-90°	11	12.5	16.5	7	--	M12	43	23	18	5	4	2.5	3.5	13	90°	0.031
BT30-90°/T	11	12.5	16.5	7	2.5	M12	43	23	18	5	4	2.5	3.5	13	90°	0.029
BT40-45°	15	17	23	10	--	M16	60	35	28	6	5	4	4	19	45°	0.075
BT40-45°/T	15	17	23	10	4	M16	60	35	28	6	5	4	4	19	45°	0.069
BT40-60°	15	17	23	10	--	M16	60	35	28	6	5	4	4	19	60°	0.075
BT40-60°/T	15	17	23	10	4	M16	60	35	28	6	5	4	4	19	60°	0.069
BT40-90°	15	17	23	10	--	M16	60	35	28	6	5	4	4	19	90°	0.074
BT40-90°/T	15	17	23	10	4	M16	60	35	28	6	5	4	4	19	90°	0.068
BT50-45°	23	25	38	17	--	M24	85	45	35	10	8	5	8	30	45°	0.279
BT50-45°/T	23	25	38	17	8.5	M24	85	45	35	10	8	5	8	30	45°	0.241
BT50-60°	23	25	38	17	--	M24	85	45	35	10	8	5	8	30	60°	0.279
BT50-60°/T	23	25	38	17	8.5	M24	85	45	35	10	8	5	8	30	60°	0.239
BT50-90°	23	25	38	17	--	M24	85	45	35	10	8	5	8	30	90°	0.277
BT50-90°/T	23	25	38	17	8.5	M24	85	45	35	10	8	5	8	30	90°	0.239

日本标准 JIS B6339-1998

Japanese Standard Pull Stud JIS B6339-1998



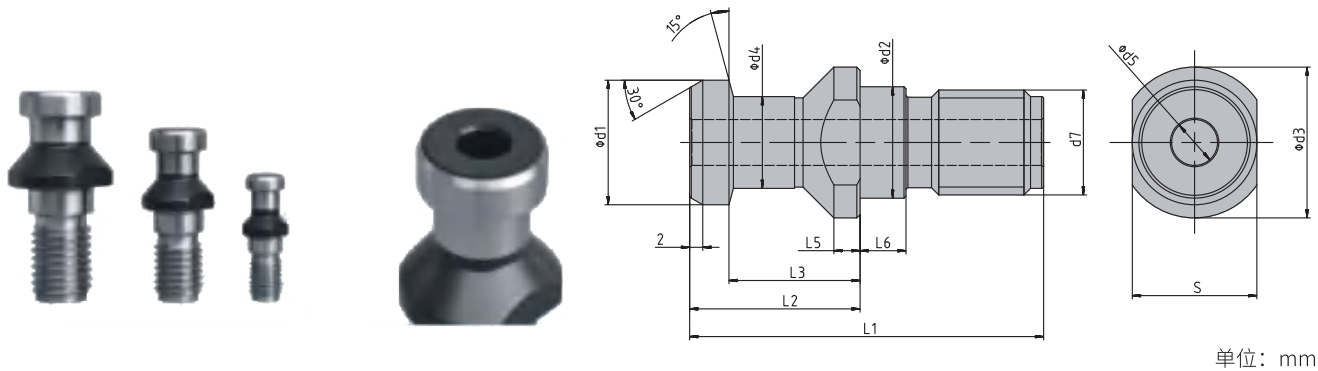
单位: mm

型号 Specification	d1	d2	d3	d4	d5	d7	L1	L2	L3	L5	L6	L9	L11	S	重量 (Kg) Weihgt (Kg)
JIS 30P	12	12.5	16.5	8	--	M12	43	23.4	18.4	5	4	3	3.5	13	0.031
30P/T	12	12.5	16.5	8	4	M12	43	23.4	18.4	5	4	3	3.5	13	0.029
40P	19	17	23	14	--	M16	54	29	23	7	5	3	5	19	0.087
40P/T	19	17	23	14	7	M16	54	29	23	7	5	3	5	19	0.071
50P	28	25	38	21	--	M24	74	34	25	7	8	5	5	30	0.226
50P/T	28	25	38	21	10	M24	74	34	25	7	8	5	5	30	0.224

德国标准 DIN69872

(推荐JT/SK型刀柄)

German Standard Pull Stud DIN 69872

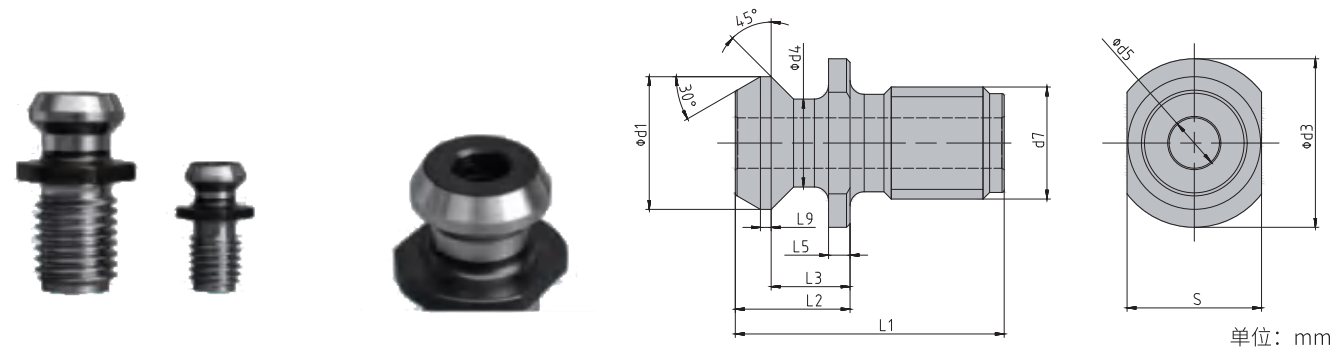


型号 Specification		d1	d2	d3	d4	d5	d7	L1	L2	L3	L5	L6	S	重量 (Kg) Weihgt (Kg)
DIN	30D	13	13	17	9	--	M12	44	24	19	4	5	14	0.037
	40D	19	17	23	14	--	M16	54	26	20	4	7	19	0.087
	40D/T	19	17	23	14	7	M16	54	26	20	4	7	19	0.070
	50D	28	25	36	21	--	M24	74	34	25	5	10	30	0.273
	50D/T	28	25	36	21	--	M24	74	34	25	5	10	30	0.273

美国标准 ASME B5.50-2015

(推荐CAT型刀柄)

American Standard Pull Stud ASME B5.50-2015

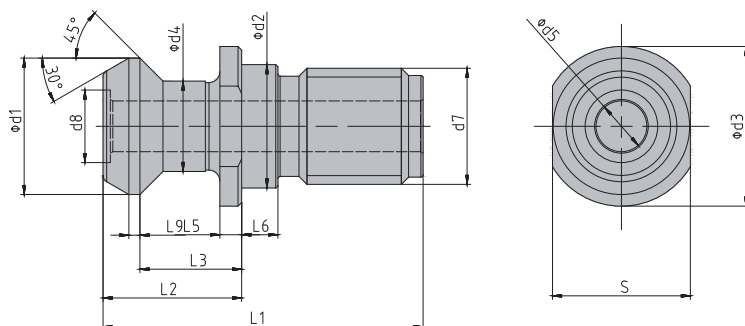


型号 Specification		d1	d3	d4	d5	d7	L1	L2	L3	L5	L9	S	重量 (Kg) Weihgt (Kg)
WAS	CAT30-45°U	13.21	16.51	9.78	--	0.5"-13UNC	27.94	11.68	8.13	2.54	1.02	13.46	0.041
	CAT30-45° U/T	13.21	16.51	9.78	4.75	0.5"-13UNC	27.94	11.68	8.13	2.54	1.02	13.46	0.031
	对应英制尺寸inch	0.520	0.65	0.385	0.187		1.10	0.460	0.320	0.10	0.04	0.53	
	CAT40-45°U	18.80	23.88	12.45	--	0.625"-11UNC	38.10	16.26	11.18	3.05	1.52	19.05	0.055
	CAT40-45° U/T	18.80	23.88	12.45	7.14	0.625"-11UNC	38.10	16.26	11.18	3.05	1.52	19.05	0.043
	对应英制尺寸inch	0.740	0.94	0.490	0.281		1.50	0.640	0.440	0.12	0.06	0.75	
	CAT50-45°U	28.96	36.58	20.83	--	1"-8UNC	58.42	25.40	17.78	5.08	2.54	31.75	0.220
	CAT50-45° U/T	28.96	36.58	20.83	11.89	1"-8UNC	58.42	25.40	17.78	5.08	2.54	31.75	0.170
	对应英制尺寸inch	1.140	1.44	0.820	0.468		2.30	1.000	0.700	0.20	0.10	1.25	

MAZAK机床专用拉钉

WMZ-MAZAK-BT

Upgraded Pull Stud WMZ-MAZAK-BT

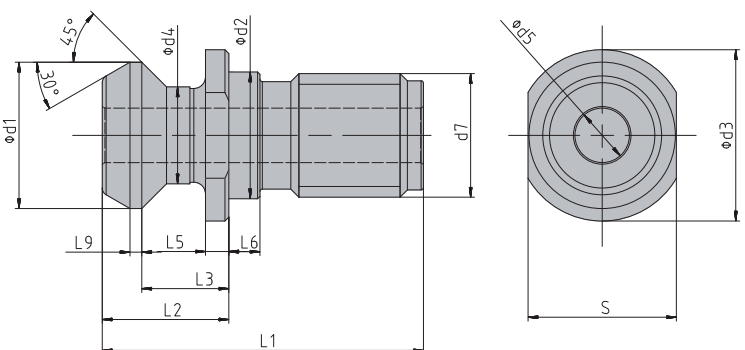


单位: mm

型号 Specification	d1	d2	d3	d4	d5	d7	d8	L1	L2	L3	L5	L6	L9	S	重量 (Kg) Weihgt (Kg)
WMZ BT40	18.8	17	22	12.45	--	M16	--	44.1	19.1	14.02	3	5	1.52	19	0.059
BT40/T	18.8	17	22	12.45	7	M16	--	44.1	19.1	14.02	3	5	1.52	19	0.051
BT50	28.96	25	37	20.83	--	M24	16	65.2	25.2	17.58	5	8	2.54	30	0.195
BT50/T	28.96	25	37	20.83	10	M24	16	65.2	25.2	17.58	5	8	2.54	30	0.191

WCM-MAZAK-CAT

Upgraded Pull Stud WCM-MAZAK-CAT

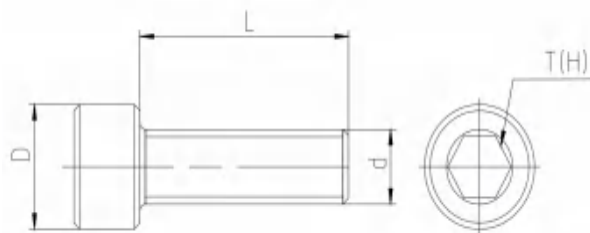


单位: mm

型号 Specification	d1	d2	d3	d4	d5	d7	L1	L2	L3	L5	L6	L9	S	重量 (Kg) Weihgt (Kg)
WCM CAT40-45°UG	18.80	16.28	22	12.45	--	0.625"-11UNC	41.26	16.26	11.18	3	4	1.52	19.05	0.040
CAT40-45°UG/T	18.80	16.28	22	12.45	7	0.625"-11UNC	41.26	16.26	11.18	3	4	1.52	19.05	0.039
对应英制尺寸inch	0.740	0.641	0.866	0.490	0.276	--	1.624	0.640	0.440	0.118	0.157	0.06	0.75	
CAT50-45°UG	28.96	26.18	35.56	20.83	--	1"-8UNC	58.5	25.4	17.78	5	5.5	2.54	30.15	0.195
CAT50-45°UG/T	28.96	26.18	35.56	20.83	10	1"-8UNC	58.5	25.4	17.78	5	5.5	2.54	30.15	0.185
对应英制尺寸inch	1.140	1.031	1.40	0.820	0.394	--	2.303	1.000	0.700	0.197	0.217	0.10	1.187	

内六角螺钉

Locking Screw



单位: mm

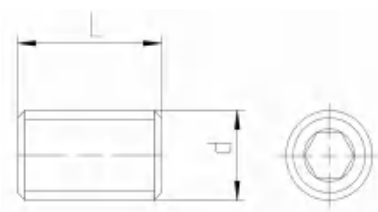
型号 Specification	D	d	L	扳手 Wrench
E05080012	8.5	5	12	L04
E05080015	8.5	5	15	L04
E05080016	8.5	5	16	L04
E05080020	8.5	5	20	L04
E05080025	8.5	5	25	L04
E05080035	8.5	5	35	L04
E05080040	8.5	5	40	L04
E05080045	8.5	5	45	L04
E05080050	8.5	5	50	L04
E05080065	8.5	5	65	L04
E05080080	8.5	5	80	L04
E05080095	8.5	5	95	L04
E06100015	8.5	5	15	L04
E06100016	10	6	16	L05
E06100020	10	6	20	L05
E06100025	10	6	25	L05

单位: mm

型号 Specification	D	d	L	扳手 Wrench
E06100040	10	6	40	L05
E06100060	10	6	60	L05
E06100080	10	6	80	L05
E06100090	10	6	90	L05
E08125020	13	8	20	L06
E08125025	13	8	25	L06
E08125030	13	8	30	L06
E08125080	13	8	80	L06
E08125085	13	8	85	L06
E10150030	16	10	30	L08
E10150035	16	10	35	L08
E12175030	18	12	30	L10
E12175040	18	12	40	L10
E12175045	18	12	45	L10
E16200035	24	16	35	L14
E16200050	24	16	50	L14

紧定螺钉

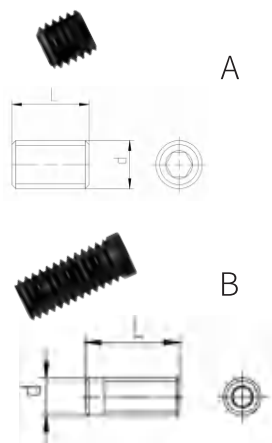
Locking Screw



型号 Specification	d	L	扳手 Wrench
M05080005	5	5	L025
M06100005	6	5	L03
M06100006	6	6	L03
M06100008	6	8	L03
M06100010	6	10	L03
M08100006	8	6	L04
M08100008	8	8	L04
M08100012	8	12	L04
M08125006	8	6	L04
M08125008	8	8	L04
M08125010	8	10	L04
M10100012	10	12	L05
M10100020	10	20	L05
M10150007	10	7	L05
M10150012	10	12	L05
M10150014	10	14	L05
M12175014	12	14	L06
M12175016	12	16	L06
M12175020	12	20	L06
M14200016	14	16	L06
M16200016	16	16	L08
M18250020	18	20	L10
M20250020	20	20	L10
M20250025	20	25	L10
M24300025	24	25	L12

中心出水螺钉

Central cooling screw

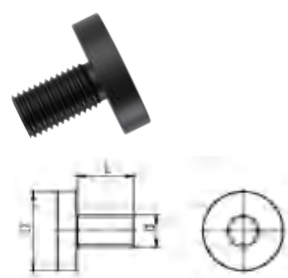


单位: mm

型号 Specification	对应刀具 For	图示 Figure	d	L	D	扳手 Wrench
M06100020-C	WGS/ER	A	6	20	—	L03
M08125020-C	WGS/ER	A	8	20	—	L04
M08125025-C	WGS/ER	A	8	25	—	L04
M10150020-C	WGS/ER	A	10	20	—	L05
M10150035-C	WGS/ER	A	10	35	—	L06
M10100035-C	WGS/ER	A	10	35	—	L06
M12175020-C	WGS/ER	A	12	20	—	L06
M12175040-C	WGS/ER	A	12	40	—	L08
M16200020-C	WGS/ER	A	16	20	—	L08
M16200025-C	WGS/ER	A	16	25	—	L08
M16100025-C	WGS/ER	A	16	25	—	L08
M16200040-C	WGS/ER	A	16	40	—	L08
M18100030-C	WGS/ER	A	16	30	—	L08
M20200020-C	WGS/ER	A	20	20	—	L10
M20200040-C	WGS/ER	A	20	40	—	L10
Z05080015-C	WHP/WSF	B	5	15	—	L025
Z06100015-C	WHP/WSF	B	6	15	—	L03
Z08100015-C	WHP/WSF	B	8	15	—	L04
Z16100015-C	WHP/WSF	B	16	15	—	L05

刀盘锁紧螺钉

Locking screw for cutter

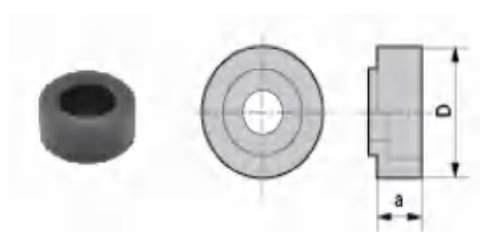


单位: mm

型号 Specification	对应刀具 For	d	L	D	扳手 Wrench
E160Z350-40	FMA/B	16	35	40	L17
E200Z350-50	FMA/B	20	35	50	L17
E240Z350-65	FMA/B	24	35	65	L17

垫圈

Washer For Face Mill Arbor

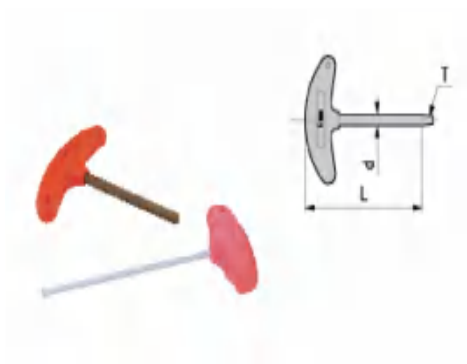


单位: mm

型号 Specification	对应刀具 For	a	D
FM-1	FMB	14.5	33
FM-2	FMA/FMB	18.5	40
FM-3	FMA/FMB	18.5	50

T形扳手

Wrench-T



单位: mm

型号 Specification	d	L	T
T02	2	58	2
T025	2.5	66	2.5
T03	3	72	3
T04	4	76	4
T05	5	92	5
T06	6	102	6
T03-L	3	110	3
T04-L	4	120	4
T05-L	5	150	5
T06-L	6	170	6
T08-L	8	190	8
T30M	6	120	30

L形扳手

Allen Key



单位: mm

型号 Specification	d	L	h
T015	1.5	46	14
T02	5	52	12
T025	2.5	60	15
T03	3	65	20
T04	4	70	25
T05	5	78	28
T06	6	85	32
T08	8	97	30
T10	10	118	35
T10T	10	118	30

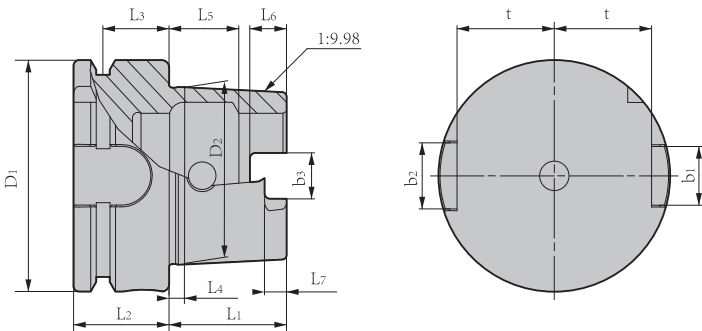
技术资料

Data

HSK BT 刀柄尺寸规格表	P73	HSK BT SHANK DIMENSIONS
SK CAT刀柄尺寸规格表	P74	SK CAT SHANK DIMENSIONS
HSK各种型号的 shape 和特征	P75	VARIOUS FORMS OF HSK SHANKS AVAILABLE
硬度换算表	P76	APPROXIMATE CONVERSION TO ROCKWELL C HARDNESS
螺纹底孔尺寸表	P77	DRILL DIAMETERS FOR TAPPING
对六角孔铰孔·螺栓孔尺寸表	P77	DIMENSIONS OF COUNTERBORING FOR HEXAGON SOCKET HEAD CAP SCREW AND BOLT HOLE
常用公差配合表	P78	TABLE OF COMMON TOLERANCE FIT

HSK Tool Holder Specification - DIN69893

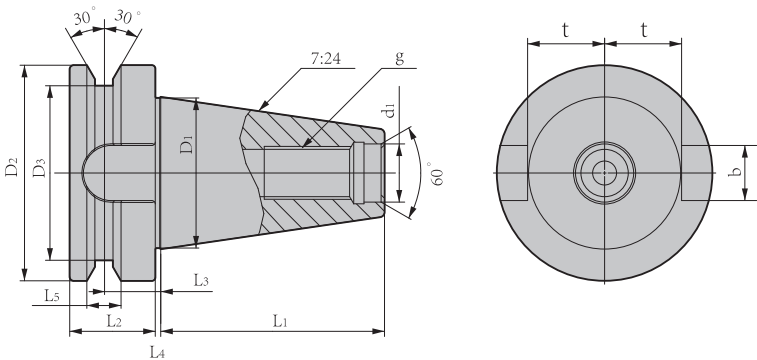
HSK 柄详细图



型号 Specification	D1	D2	L1	L2	L3	L4	L5	L6	L7	b1	b2	b3	t
HSK40A	40	30.007	20	20	16	4	11.42	6	3.5	11	9	8.05	17
HSK50A	50	38.009	25	26	18	5	14.13	7.5	4.5	14	12	10.54	21
HSK63A	63	48.010	32	26	18	6.3	18.13	10	6	18	16	12.5	26.5
HSK100A	100	75.013	50	29	20	10	28.56	15	10	22	20	20	44

BT Tool Holder Specification - JIS MAS403

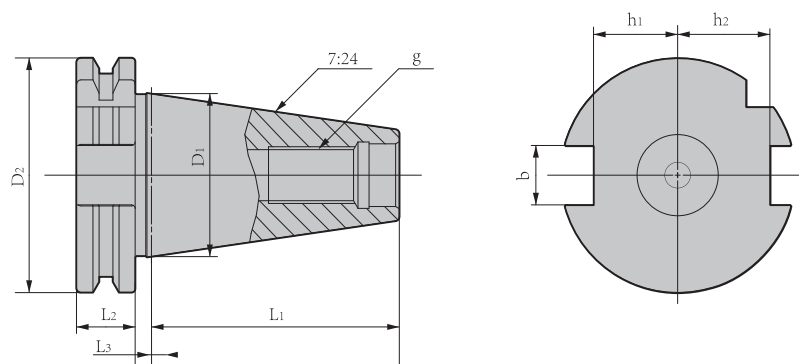
BT 柄详细图



型号 Specification	D1	D2	D3	d1	L1	L2	L3	L4	L5	b	t	g
BT30	31.75	46	38	12.5	48.4	20	13.6	2	8	16.1	16.3	M12
BT40	44.45	63	53	17	65.4	25	16.6	2	10	16.1	22.6	M16
BT50	69.85	100	85	25	101.8	35	23.2	3	15	25.7	35.4	M24

SK Tool Holder Specification - DIN69871

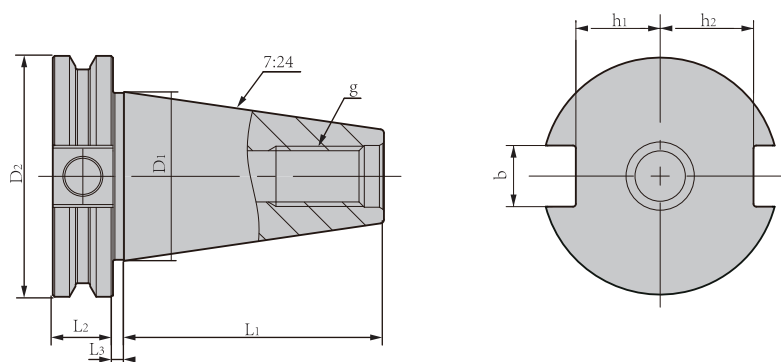
SK 柄详细图



型号 Specification	D1	D2	L1	L2	L3	b	h1	h2	g
SK30	31.75	50	47.8	15.9	3.2	16.1	16.4	19	M12
SK40	44.45	63.55	68.4	15.9	3.2	16.1	22.8	25	M16
SK50	69.85	97.50	101.75	15.9	3.2	25.7	35.5	37.7	M24

CAT Tool Holder Specification - ANSI/AMSE B5.50

CAT 柄详细图

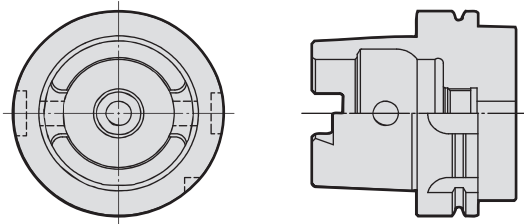


型号 Specification	D1	D2	L1	L2	L3	b	h1	h2	g
CAT30	31.75	46.02	47.63	15.88	3.18	16.38	16.26	18.67	1/2-13UNC
CAT40	44.45	63.5	68.25	15.88	3.18	16.38	22.61	25.02	5/8-11UNC
CAT50	69.85	98.42	101.6	15.88	3.18	25.91	35.31	37.72	1-8UNC

HSK 各种型号的形状和特征

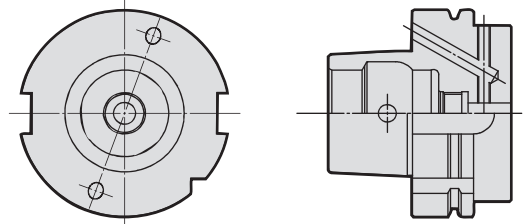
VARIOUS FORMS OF HSK SHANKS AVAILABLE

A型 A type



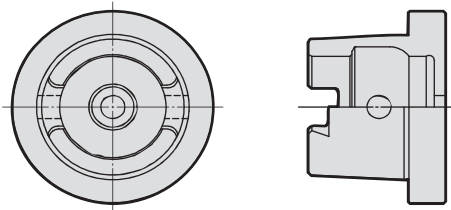
- 用途：加工中心
For machining centers.
- 通过切削液管可以向轴心供切削液
Through-the-tool coolant from coolant tube acceptable.
- 依靠锥体上端的驱动槽来传递扭矩
With drive slots at the top of taper portion.
- ATC 用U槽
With "U" slot for ATC.
- 手动紧固用孔
With pin holes for manual clamping.
- 加槽切口
With a German notch.
- ID 芯片孔(选购)
With a hole for ID chip.(Option)

B型 B type



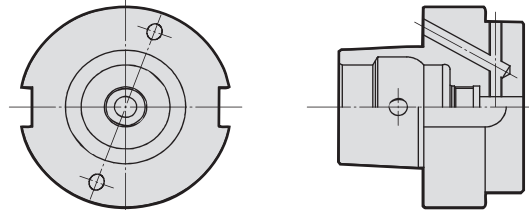
- 用途：加工中心、通用铣床、车床
For machining centers,milling machines and lathes.
- 通过法兰头或切削液管、可以向轴心供给切削液
Through-the-tool coolant from flange or from coolant tube acceptable.
- 依靠法兰头部的凹槽来传递扭矩
With "U" drive slots at the flange.
- 手动紧固用孔
With pin holes for manual clamping.
- 加槽切口
With a German notch.
- ID 芯片孔(选购)
With a hole for ID chip.(Option)
- 和公称刀柄比、锥体部小一个规格
With one rank smaller taper size.

C型 C type



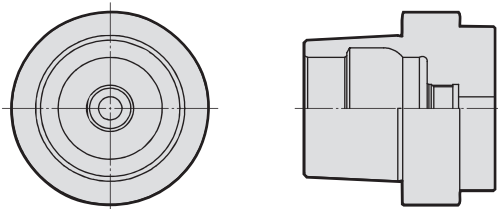
- 用途：如组合机床等无ATC 功能机器专用
For non-ATC machines,such as transfer machines.
- 可以实现轴心供给切削液
Through-the-tool coolant acceptable.
- 依靠锥体上端的驱动槽来传递扭矩
With drive slots at the top of taper portion.

D型 D type



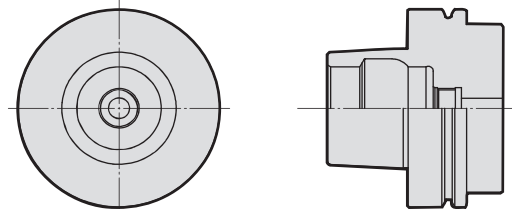
- 用途：如组合机床等无ATC 功能机器专用
For non-ATC machines,such as transfer machines.
- 使用法兰头或冷却液管实现向轴心供切削液
Through-the-tool coolant from flange or from coolant tube acceptable.
- 依靠法兰头部的凹槽来传递扭矩
With "U" drive slots at the flange.
- 和公称刀柄比、锥体部小一个规格
With one rank smaller taper size.

E型 E type



- 用途：高转速加工中心，木工机器
For high speed machining centers and wood milling machines.
- 对称型，无驱动槽
With symmetrical shank without drive key slot.
- 依靠摩擦来传递扭矩
Friction transmission.
- 使用切削液管、可以给轴心供切削液
Through-the-tool coolant from coolant tube acceptable.

F型 F type



- 使用切削液管、可以给轴心供切削液
Through-the-tool coolant from coolant tube
- 和公称刀柄比、锥体部小一个规格
With one rank smaller taper size.

硬度换算表

APPROXIMATE CONVERSION TO ROCKWELL C HARDNESS

洛氏硬度 (C级) Rockwell hardness Cscale	维氏硬度 Vickers hardness	布氏硬度 10mm球负载29.4KN Brinell hardness 10mm ball load 29.4KN	洛氏硬度 Rockwell hardness		肖氏硬度 Shore hardness	拉伸硬度 (近似值) Tension load (Approximate value)
			A 级 Ascale	B 级 B scale		
HRC	HV	HB	HRA	HRB	HS	MPa
68	940	—	85.6	—	97	—
67	900	—	85.0	—	95	—
66	865	—	84.5	—	92	—
65	832	—	83.9	—	91	—
64	800	—	83.4	—	88	—
63	772	—	82.8	—	87	—
62	746	—	82.3	—	85	—
61	720	—	81.8	—	83	—
60	697	—	81.2	—	81	—
59	674	—	80.7	—	80	—
58	653	[615]	80.1	—	78	—
57	633	[595]	79.6	—	76	—
56	613	[577]	79.0	—	75	—
55	595	[560]	78.5	—	74	2075
54	577	[543]	78.0	—	72	2015
53	560	[525]	77.4	—	71	1950
52	544	[512]	76.8	—	69	1880
51	528	[496]	76.3	—	68	1820
50	513	[481]	75.9	—	67	1760
49	498	[469]	75.2	—	66	1695
48	484	451	74.7	—	64	1635
47	471	442	74.1	—	63	1580
46	458	432	73.6	—	62	1530
45	446	421	73.1	—	60	1480
44	434	409	72.5	—	58	1435
43	423	400	72.0	—	57	1385
42	412	390	71.5	—	56	1340
41	402	381	70.9	—	55	1295
40	392	371	70.4	—	54	1250
39	382	362	69.9	—	52	1215
38	372	353	69.4	—	51	1180
37	363	344	68.9	—	50	1160
36	354	336	68.4	(109.0)	49	1115
35	345	327	67.9	(108.5)	48	1080
34	336	319	67.4	(108.0)	47	1055
33	327	311	66.8	(107.5)	46	1025
32	318	301	66.3	(107.0)	44	1000
31	310	294	65.8	(106.0)	43	980
30	302	286	65.3	(105.5)	42	950
29	294	279	64.7	(104.5)	41	930
28	286	271	64.3	(104.0)	41	910
27	279	264	63.8	(103.0)	40	880
26	272	258	63.3	(102.5)	38	860
25	266	253	62.8	(101.5)	38	840
24	260	247	62.4	(101.0)	37	825
23	254	243	62.0	100.0	36	805
22	248	237	61.5	99.0	35	785
21	243	231	61.0	98.5	35	770
20	238	226	60.5	97.8	34	760
(18)	230	219	—	96.7	33	730
(16)	222	212	—	95.5	32	705
(14)	213	203	—	93.9	31	675
(12)	204	194	—	92.3	29	650
(10)	196	187	—	90.7	28	620
(8)	188	179	—	89.5	27	600
(6)	180	171	—	87.1	26	580
(4)	173	165	—	85.5	25	550
(2)	166	158	—	83.5	24	530
(0)	160	152	—	81.7	24	515

注：表中() 内的数据为非常用范围的数据，仅作参考。

布氏硬度[] 内的数据为钨质球测得的数据，其他为标准球测得的数据。

NOTE: Figures shown in () are uncommon and only for reference.

Figures shown in [] in Brinell hardness category are based on tungsten carbide balls, and others are based on standard type balls.

螺纹底孔尺寸表

DRILL DIAMETERS FOR TAPPING

公制粗牙螺丝 Metric coarse screw thread

螺丝尺寸 Nominal	钻直径 Drill diameter	螺丝尺寸 Nominal	钻直径 Drill diameter	螺丝尺寸 Nominal	钻直径 Drill diameter	螺丝尺寸 Nominal	钻直径 Drill diameter
M 1 × 0.25	0.75	M2.5 × 0.45	2.10	M 9 × 1.25	7.80	M27 × 3	24.0
M1.1 × 0.25	0.85	M2.6 × 0.45	2.20	M10 × 1.5	8.50	M30 × 3.5	26.5
M1.2 × 0.25	0.95	M 3 × 0.5	2.50	M11 × 1.5	9.50	M33 × 3.5	29.5
M1.4 × 0.3	1.10	M3.5 × 0.6	2.90	M12 × 1.75	10.3	M36 × 4	32.0
M1.6 × 0.35	1.25	M 4 × 0.7	3.30	M14 × 2	12.0	M39 × 4	35.0
M1.7 × 0.35	1.35	M4.5 × 0.75	3.80	M16 × 2	14.0	M42 × 4.5	37.5
M1.8 × 0.35	1.45	M5 × 0.8	4.20	M18 × 2.5	15.5	M45 × 4.5	40.5
M 2 × 0.4	1.60	M6 × 1.0	5.00	M20 × 2.5	17.5	M48 × 5	43.0
M2.2 × 0.45	1.75	M7 × 1.0	6.00	M22 × 2.5	19.5		
M2.3 × 0.4	1.90	M8 × 1.25	6.80	M24 × 3	21.0		

公制细牙螺丝 Metric fine screw thread

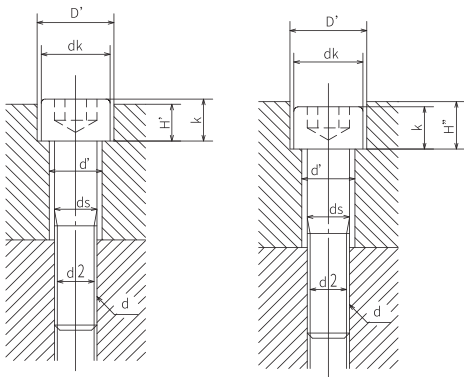
螺丝尺寸 Nominal	钻直径 Drill diameter	螺丝尺寸 Nominal	钻直径 Drill diameter	螺丝尺寸 Nominal	钻直径 Drill diameter	螺丝尺寸 Nominal	钻直径 Drill diameter
M 1 × 0.2	0.80	M11 × 0.75	10.3	M25 × 1.5	23.5	M39 × 1.5	37.5
M1.1 × 0.2	0.90	M12 × 1.5	10.5	M25 × 1.0	24.0	M40 × 3.0	37.0
M1.2 × 0.2	1.00	M12 × 1.25	10.8	M26 × 1.5	24.5	M40 × 2.0	38.0
M1.4 × 0.2	1.20	M12 × 1.0	11.0	M27 × 2.0	25.0	M40 × 1.5	38.5
M1.6 × 0.2	1.40	M14 × 1.5	12.5	M27 × 1.5	25.5	M42 × 4.0	38.0
M1.8 × 0.2	1.60	M14 × 1.0	13.0	M27 × 1.0	26.0	M42 × 3.0	39.0
M 2 × 0.25	1.75	M15 × 1.5	13.5	M28 × 2.0	26.0	M42 × 2.0	40.0
M2.2 × 0.25	1.95	M15 × 1.0	14.0	M28 × 1.5	26.5	M42 × 1.5	40.5
M2.5 × 0.35	2.20	M16 × 1.5	14.5	M28 × 1.0	27.0	M45 × 4.0	41.0
M 3 × 0.35	2.70	M16 × 1.0	15.0	M30 × 3.0	27.0	M45 × 3.0	42.0
M3.5 × 0.35	3.20	M17 × 1.5	15.5	M30 × 2.0	28.0	M45 × 2.0	43.0
M 4 × 0.5	3.50	M17 × 1.0	16.0	M30 × 1.5	28.5	M45 × 1.5	43.5
M4.5 × 0.5	4.00	M18 × 2.0	16.0	M30 × 1.0	29.0	M48 × 4.0	44.0
M 5 × 0.5	4.50	M18 × 1.5	16.5	M32 × 2.0	30.0	M48 × 3.0	45.0
M5.5 × 0.5	5.00	M18 × 1.0	17.0	M32 × 1.5	30.5	M48 × 2.0	46.0
M 6 × 0.75	5.30	M20 × 2.0	18.0	M33 × 3.0	30.0	M48 × 1.5	46.5
M 7 × 0.75	6.30	M20 × 1.5	18.5	M33 × 2.0	31.0	M50 × 3.0	47.0
M 8 × 1.0	7.00	M20 × 1.0	19.0	M33 × 1.5	31.5	M50 × 2.0	48.0
M 8 × 0.75	7.30	M22 × 2.0	20.0	M35 × 1.5	33.5	M50 × 1.5	48.5
M 9 × 1.0	8.00	M22 × 1.5	20.5	M36 × 3.0	33.0		
M 9 × 0.75	8.30	M22 × 1.0	21.0	M36 × 2.0	34.0		
M 10 × 1.25	8.80	M24 × 2.0	22.0	M36 × 1.5	34.5		
M 10 × 1.0	9.00	M24 × 1.5	22.5	M38 × 1.5	36.5		
M 10 × 0.75	9.30	M24 × 1.0	23.0	M39 × 3.0	36.0		
M 11 × 1.0	10.00	M25 × 2.0	23.0	M39 × 2.0	37.0		

※ 由于加工条件不同，钻孔的尺寸精度也要变化，根据此表的钻直径进行加工时需要先测定加工孔，发现不合适时需要变更钻孔。

※ We remind you upon using the drill diameters shown in this table, that the processed hole should be measured since the size accuracy of a drill hole may change due to the milling condition, and that if found to be inappropriate for tapping, the drill diameter must be corrected accordingly.

对六角孔铰孔·螺栓孔尺寸表

DIMENSIONS OF COUNTERBORING FOR HEXAGON SOCKET HEAD CAP SCREW AND BOLT HOLE



螺丝尺寸 (d) Nominal dimensions of thread	ds	d'	dk	D'	k	H'	H''	d2
M3	3	3.4	5.5	6.5	3	2.7	3.3	2.6
M4	4	4.5	7	8	4	3.6	4.4	3.4
M5	5	5.5	8.5	9.5	5	4.6	5.4	4.3
M6	6	6.6	10	11	6	5.5	6.5	5.1
M8	8	9	13	14	8	7.4	8.6	6.9
M10	10	11	16	17.5	10	9.2	10.8	8.6
M12	12	14	18	20	12	11	13	10.4
M14	14	16	21	23	14	12.8	15.2	12.2
M16	16	18	24	26	16	14.5	17.5	14.2
M18	18	20	27	29	18	16.5	19.5	15.7
M20	20	22	30	32	20	18.5	21.5	17.7
M22	22	24	33	35	22	20.5	23.5	19.7
M24	24	26	36	39	24	22.5	25.5	21.2
M27	27	30	40	43	27	25	29	24.2
M30	30	33	45	48	30	28	32	26.7

常用公差配合表

Table of common tolerance fit

单位: mm

配合性质 Mating Propertie		基孔基轴制公差 Tolerance of base hole or shaft system								间隙配合 Clearance fit					
基本尺寸 Basic dimensions	国标 GB	H5 — h5	H6 — h6	H7 — h7	H8 — h8	H9 — h9	H10 — h10	H11 — h11	H12 — h12	f7	f8	f9	g5	g6	g7
0	3	.004	.006	.010	.014	.025	.040	.060	.100	-.006 -.016	-.006 -.020	-.006 -.031	-.002 -.006	-.002 -.008	-.002 -.012
3	6	.005	.008	.012	.018	.030	.048	.075	.120	-.010 -.022	-.010 -.028	-.010 -.040	-.004 -.009	-.004 -.012	-.004 -.016
6	10	.006	.009	.015	.022	.036	.058	.090	.150	-.013 -.028	-.013 -.035	-.013 -.049	-.005 -.011	-.005 -.014	-.005 -.020
10	18	.008	.011	.018	.027	.043	.070	.110	.180	-.016 -.034	-.016 -.043	.016 -.059	-.006 -.014	-.006 -.017	-.006 -.024
18	30	.009	.013	.021	.033	.052	.084	.130	.210	-.020 -.041	-.020 -.053	-.020 -.072	-.007 -.016	-.007 -.020	-.007 -.028
30	50	.011	.016	.025	.039	.062	.100	.160	.250	-.025 -.050	-.025 -.064	-.025 -.087	-.009 -.020	.009 -.025	-.009 -.034
50	80	.013	.019	.030	.046	.074	.120	.190	.300	-.030 -.060	-.030 -.076	-.030 -.104	-.010 -.023	-.010 -.029	-.010 -.040
80	120	.015	.022	.035	.054	.087	.140	.220	.350	-.036 -.071	-.036 -.090	-.036 -.123	-.012 -.027	-.012 -.034	-.012 -.047
120	180	.018	.025	.040	.063	.100	.160	.250	.400	-.045 -.083	-.043 -.106	-.043 -.143	-.014 -.032	-.014 -.039	-.014 -.054
180	250	.020	.029	.046	.072	.115	.185	.290	.460	-.050 -.096	-.050 -.122	-.050 -.165	-.015 -.035	-.015 -.044	-.015 -.061
250	315	.023	.032	.052	.081	.130	.210	.320	.520	-.056 -.108	-.056 -.137	-.056 -.186	-.017 -.040	-.017 -.049	-.017 -.069
315	400	.025	.036	.057	.089	.140	.230	.360	.570	-.062 -.119	-.062 -.151	-.062 -.202	-.018 -.042	-.018 -.054	-.018 -.070
400	500	.027	.040	.063	.097	.155	.250	.400	.630	-.068 -.131	-.068 -.165	-.068 -.223	-.020 -.047	-.020 -.060	-.020 -.083

常用公差配合表

Table of common tolerance fit

单位: mm

配合性质 Mating Propertie		过渡配合 Transition fits											过盈配合 Interference fit		
基本尺寸 Basic dimensions	国标 GB	+n5 +n5	+m5 +m5	+k5 +k5	±js5	+n6 +n6	+m6 +m6	+k6 +k6	±js6	+n7 +n7	+m7 +m7	+k7 +k7	±js7	+r5 +r5	+r6 +r6
0	3	.008	.006	.006	.0020	.010	.008	.006	.0030	.014	.012	.010	.0050	.014	.016
		.004	.002	.002		.004	.002	.000		.004	.002	.000		.010	.010
3	6	.013	.009	.009	.0025	.016	.012	.009	.0040	.020	.016	.013	.0060	.020	.023
		.018	.004	.004		.008	.004	.001		.008	.004	.001		.015	.015
6	10	.016	.012	.012	.0030	.019	.015	.010	.0045	.025	.021	.016	.0070	.025	.028
		.010	.006	.006		.010	.006	.001		.010	.006	.001		.019	.019
10	18	.020	.015	.015	.0040	.023	.018	.012	.0055	.030	.025	.019	.0090	.031	.034
		.012	.007	.007		.012	.007	.001		.012	.007	.001		.023	.023
18	30	.024	.017	.017	.0045	.028	.021	.015	.0065	.036	.029	.023	.0100	.037	.041
		.015	.008	.008		.015	.008	.002		.015	.008	.002		.028	.028
30	50	.028	.020	.020	.0055	.033	.025	.018	.0080	.042	.034	.027	.0120	.045	.050
		.017	.009	.009		.017	.009	.002		.017	.009	.002		.034	.034
50	65	.033	.024	.024	.0065	.039	.030	.021	.0095	.050	.041	.032	.0150	.054	.060
		.020	.011	.011		.020	.011	.002		.020	.011	.002		.041	.041
65	80	.033	.024	.024	.0065	.039	.030	.021	.0095	.050	.041	.032	.0150	.056	.062
		.020	.011	.011		.020	.011	.002		.020	.011	.002		.043	.043
80	100	.038	.028	.028	.0075	.045	.035	.025	.0110	.058	.048	.038	.0170	.066	.073
		.023	.013	.013		.023	.013	.003		.023	.013	.003		.051	.051
100	120	.038	.028	.028	.0075	.045	.035	.025	.0110	.058	.048	.038	.0170	.069	.076
		.023	.013	.013		.023	.013	.003		.023	.013	.003		.054	.054
120	140	.045	.033	.033	.0090	.052	.040	.028	.0125	.067	.055	.043	.0020	.082	.082
		.027	.015	.015		.027	.015	.003		.027	.015	.003		.063	.063



沃尔德®非标刀具业务范围： Worldia® Specialty Tools Business Scope

- 1、根据客户图纸要求设计生产PCD/PCBN铰刀、铣刀及非标刀具产品；
- 2、根据客户要求，承接整套用刀方案的设计、生产及技术服务；
- 3、替换原有刀具产品，帮助客户优化现有刀具方案以达到提高寿命降低成本的需求；
- 4、承接PCD/PCBN非标刀具产品修磨换片等业务；
- 5、接受刀柄及周边配件的订制。

1. Design and produce PCD/PCBN reamer, milling cutter and specialty tools products according to customer drawings;
2. According to customer requirements, undertake the design, production and technical service of the entire set of tools programs;
3. Replace the original cutters to help customers optimize the existing cutter program to meet the needs of improving life and reducing costs;
4. Regrinding and retipping for PCD/PCBN specialty tools
5. Providing customized service including holders and related accessories.

沃尔德®售后服务及客户服务 Worldia® After-sales Service and Customer Service

售前服务

Pre-sale service

提供非标刀具售前服务，对客户现场的工件材料，工装夹具，生产节拍，机床参数等加工工况进行技术调研，为原有产品的优化升级提供可行性方案；

Provide pre-sale services including conduct technical investigations on the customer's processing conditions like workpiece materials, tooling fixtures, production cycle, machine tool parameters, and provide feasibility solutions for the optimization and upgrade of the original products;

售后服务

After-sales service

提供非标刀具售后技术服务，对客户使用产品的情况进行技术跟踪服务，以更高的尺寸精度，更优的加工效果，更长的使用寿命，更快的生产节拍满足客户的加工要求。

Provide after-sale technical services and technical following-up for product performance, meet customer processing requirements with higher dimensional accuracy, better processing performance, longer service life, and faster production cycle.



WORLDIA

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