



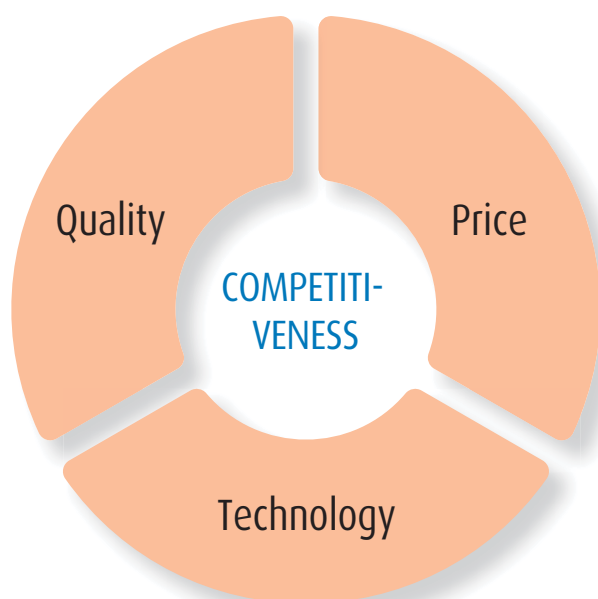
Tooling System

BRISLOY VISION

THE WORLD LEADER IN THE
TOOL HOLDER INDUSTRY



BRISLOY 3P SPRIT
is the basis for realization of its
vision and customer satisfaction.



BRISLOY COMPETITIVENESS
assures impeccable products,
unparalleled quality and highest
price performance ratio.

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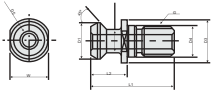
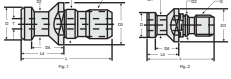
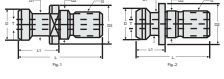
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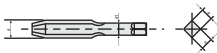
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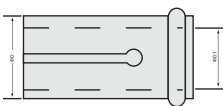
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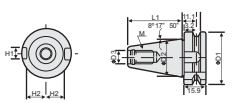
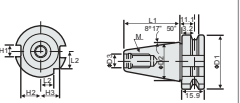
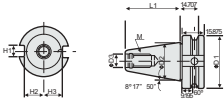
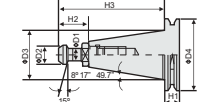
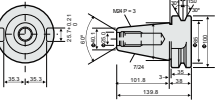
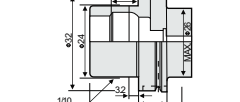
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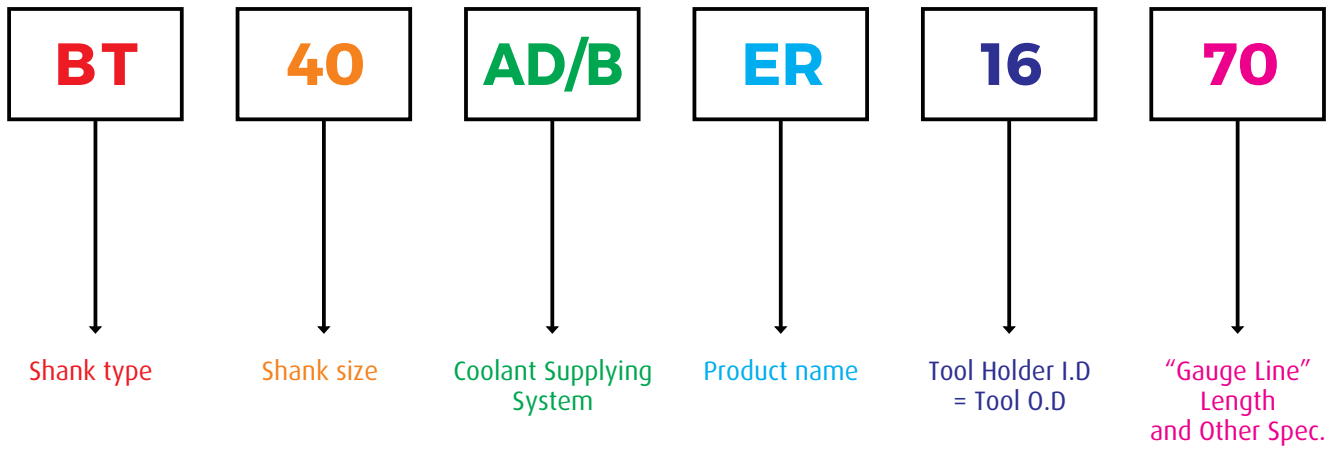
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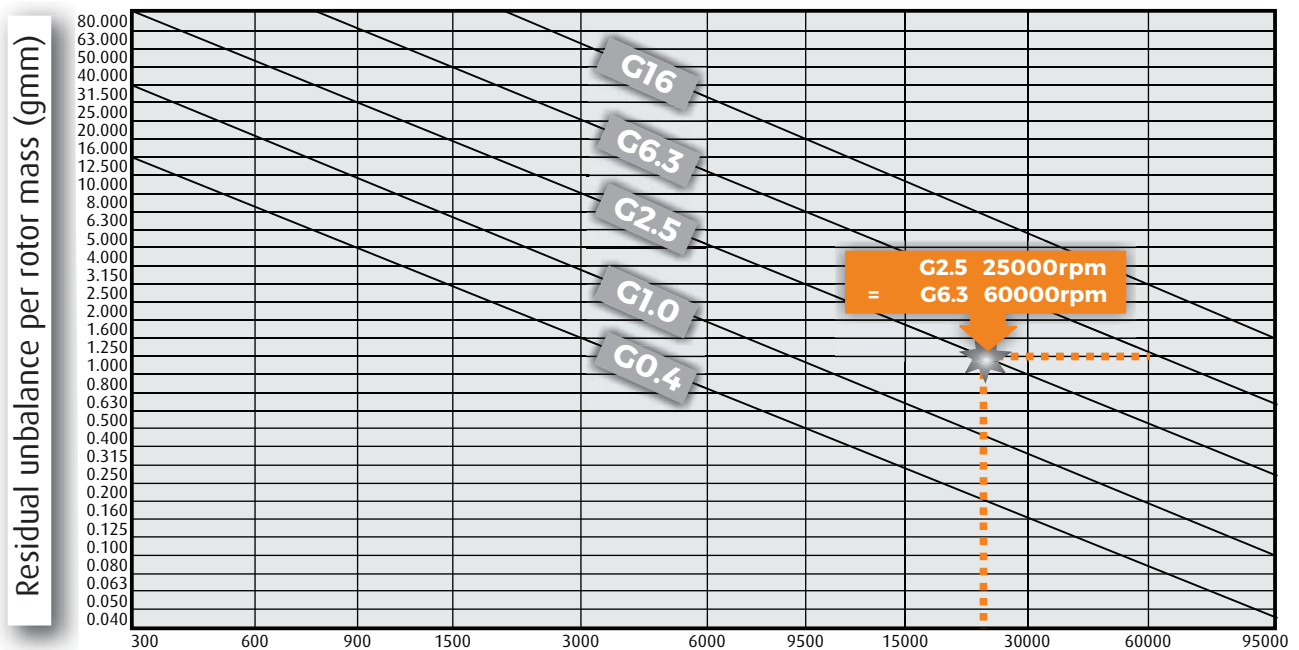
Product Design and Technical Data in the Contents are Subject to Change for Improving Quality or Performance of Products without Prior Notice.



1 Definition of Balancing and Unbalancing

If the rotor (tool holder) is rotated around the axis, centrifugal forces generate in all parts. If these centrifugal forces are distributed symmetrically against the rotation axis, the centrifugal forces generating in the opposite direction are offset by one another, resulting in no forces to the rotation axis eventually. Therefore bearings are not vibrated. In this case tool holder is in the balanced state. On the contrary, if centrifugal forces are distributed asymmetrically against the rotation axis, or if the force of one part is greater than that of the opposite part, the forces equivalent to differences are added to the rotation axis, causing the rotor (tool holder) to vibrate. The imbalance of distribution of rotor mass is called "Unbalance". In other words, "Unbalance" is mass existing unevenly in the rotor (tool holder).

2 Balancing Grade Quality According to ISO 1940 (DIN ISO 1940)



Calculation of G $\frac{G \times m}{\text{rpm}} \times 9549 = U$

G : Balancing grade or circumference speed

m : Rotor (Holder) weight <--Unit : kg

9549 : Conversion constant

U : Degree of unbalance (Permissible unbalance) <--Unit : g.mm

rpm : Revolutions Per Minute

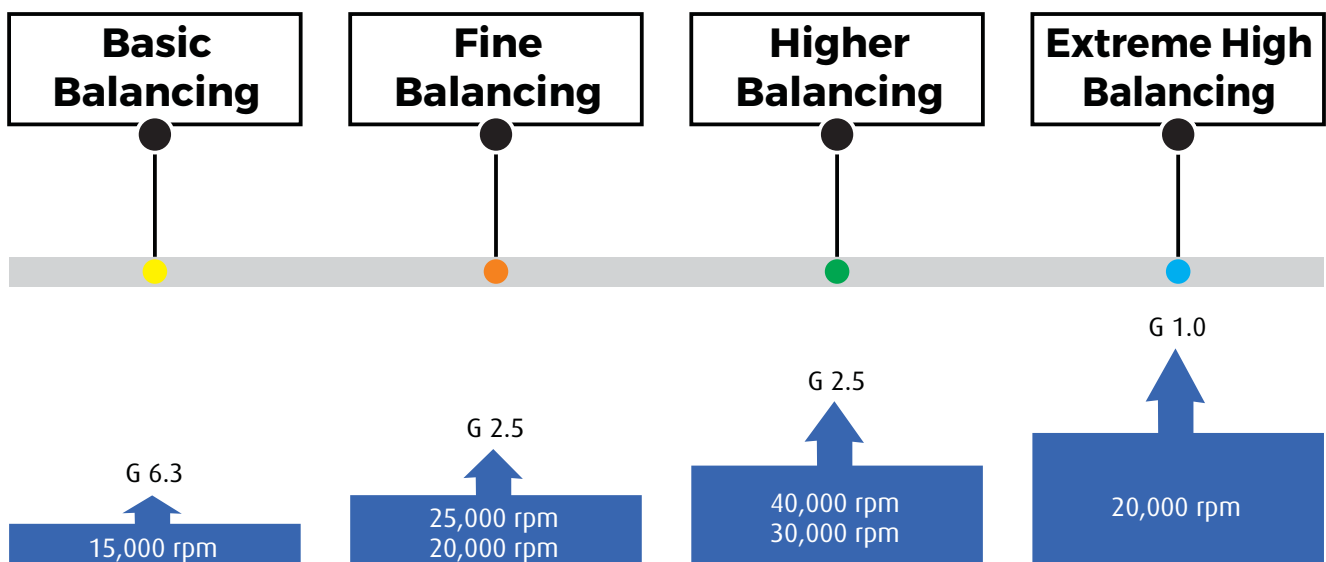


3 Merits of Balanced Machining

Recently, rotating machines are more sophisticated and operated at high speed with the technical advance. Also, they require more efficiency and more stable functions which are stricter conditions than ever before. In high speed machining, one of the largest factors which degrade performance of machines is chattering. It causes workers to suffer displeasure, noise, and fatigue which are main problems affecting productivity. Balancing of the rotor (tool holder) is the essential and effective actor in order to prevent vibration of the machine. It is widely recognized as the indispensable process in manufacturing rotation machinery.

Brisloy tool holders with various balancing grades meeting the needs of users.

4 Brisloy Balancing Grade Standard



5 Brisloy Balancing Specification (for Balancing Design Products)

Product	Shank	Grade	RPM	Conversion to G6.3
HYDRAULIC CHUCK	BT/CBT 30/40/50 SK 30/40/50 HSK 32/40/50/63/80/100	G 2.5	25,000	G 6.3/63,000 rpm
SHRINK FIT HOLDER	BT/CBT 30/40/50 SK 30/40/50 HSK 25/32/40/50/63/80/100 ISO 25	G 2.5	25,000	G6.3/63,000 rpm
OTHER CHUCKS & TOOL HOLDERS	BT/CBT 30/40/50 SK 30/40/50 HSK 25/32/40/50/63/80/100 ISO 20/25	G 6.3 G 2.5	15,000 25,000	

- Higher Balancing Grade Product Could Be supplied Upon Customer's Request.

Hydraulic Chuck



DIN 69871 - SK

- Radial tool length pre-setting type / standard type

DIN 69893 / ISO 12664 - 1 - HSK

- Radial tool length pre - setting type / standard type

CBT (BT Dual Contact)

- Radial tool length pre-setting type / standard type

JIS B6339 / MAS 403 - BT

- Radial tool length pre - setting type / standard type

Hydraulic Chuck (for mould and grinder)

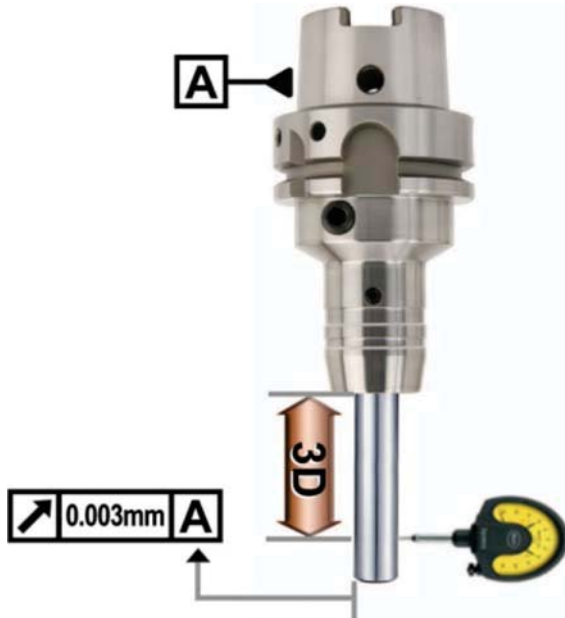
- JIS B6339 (MAS 403) - BT, DIN 69871 - SK, DIN 69893/ISO 12164 - 1 - HSK,
DIN 228 - MTB

Accessory

- Hydraulic chuck collet (HK, HS, HF, HR)

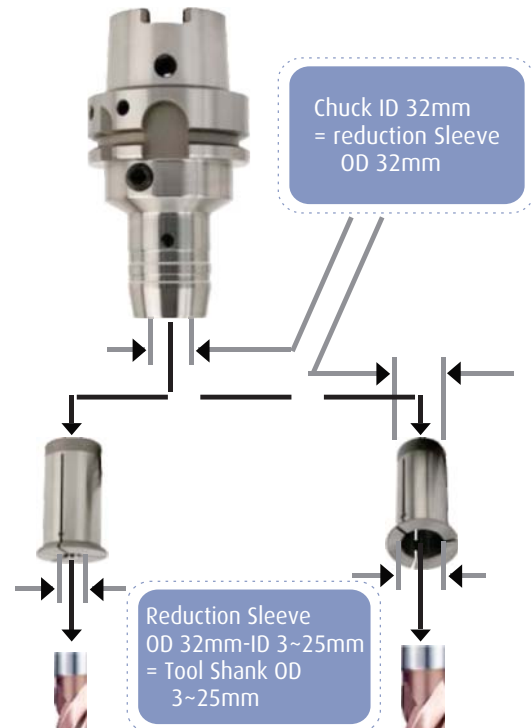


High precision T.I.R: ≤ 0.003mm (without Reduction Sleeve)

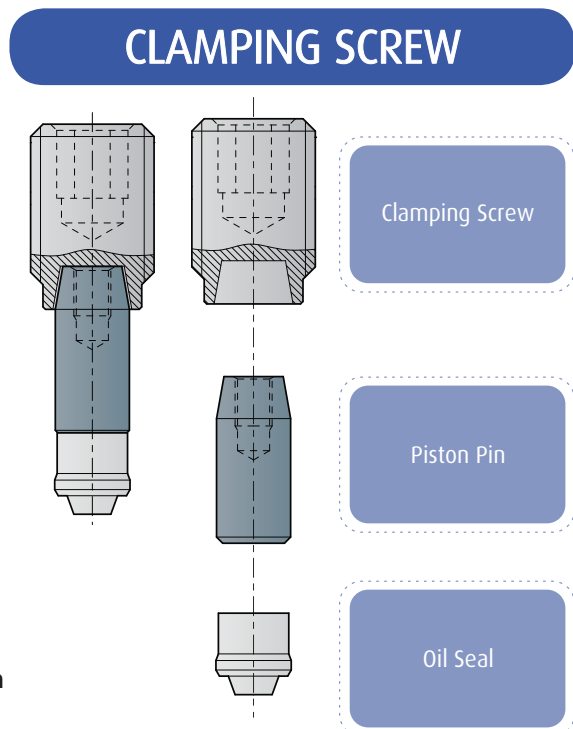
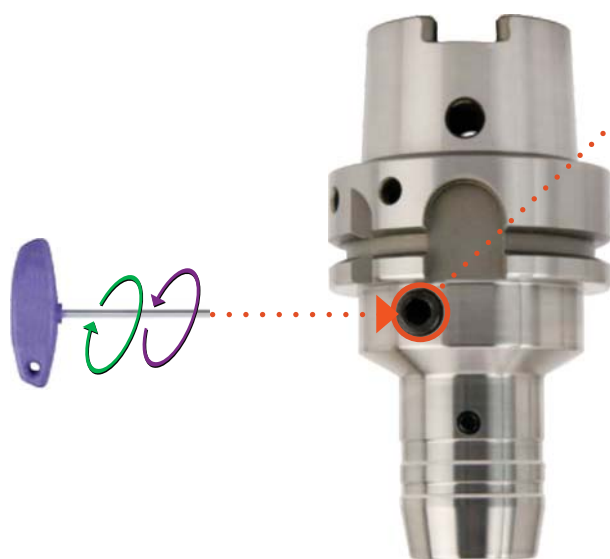


- Less than 0.003mm T. I. R
- => Suitable for high-speed precision machining

Flexible use of cutting tools by using of reduction sleeves



Easy Tool Change



- Easy clamping and unclamping by use of T wrench
- => Reducing tool change time

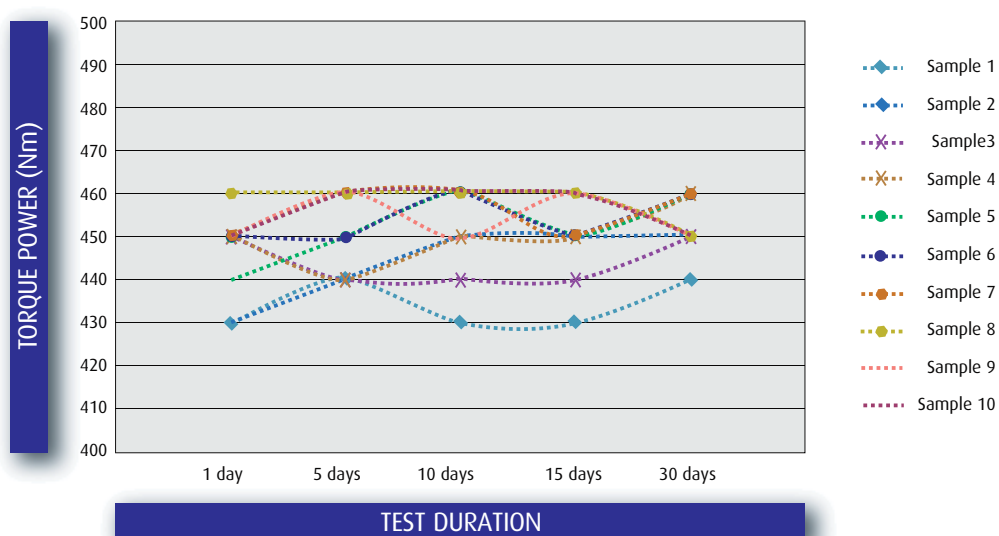
Strong Torque Power

Hydraulic Chuck ID (mm)	Tool Shank OD (mm)	Applicable RPM	Minimum clamping depth (mm)	Min. Torque Power (Nm)
SPF510206	6	56	3.5	2.7
SPF510246	7	63	4.5	3.4
SPF510286	8	70	6	4.9
SPF510316	10	80	6	4.9
SPF510366	13	90	8	6.2
SPF510426		1	16	8
SPF51		125		
		140		

- Tool holder ID Tolerance : H6
- Operating Temperature : 20~25 °C
- Maximum oil pressure of coolant oil



Test of Torque Power and Hydraulic Oil Leakage

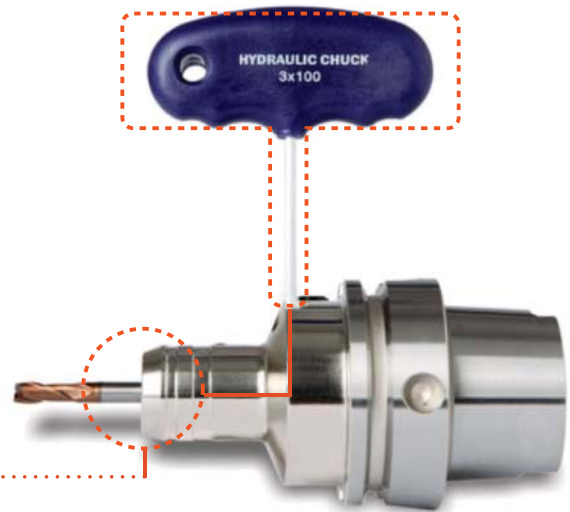


- TEST Model: BT40AD/B-HC20S-72.5
- No oil leakage for long period => Maintaining stable torque power



Radial Tool Length Pre-Setting Type

- Easy to adjust pre - setting length of cutting tool
(Saving time to pre-set cutting tool to one fifth compared with conventional Hydraulic Chuck)
- Precise adjustment of cutting tool length
- Designed to separate tool length adjustment screw from clamping screw.



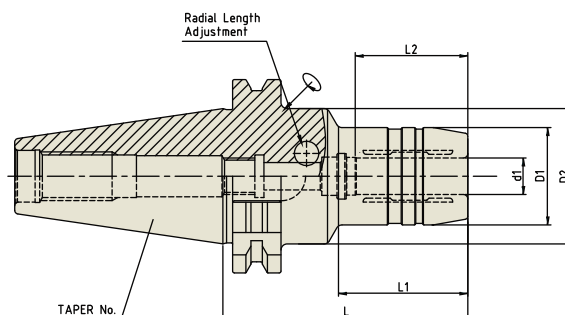
Adjustable range of cutting tool length : 0~10mm

APPLICATION		
Milling	High Speed Cutting	Fine Drilling
Reaming	Tapping & Thread Milling	Chamfering

■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	Weight (kg)	Stock
30	SK30AD/B-HCR12-85	12	32	44.5	85	40	37	0.90	●
	SK30AD/B-HCR20-85	20	44.5	-	85	-	42	1.00	
40	SK40AD/B-HCR12-80.5	12	32	49.5	80.5	31.5	37	1.50	●
	SK40AD/B-HCR20-80.5	20	42	49.5	80.5	34	42	1.60	●
	SK40AD/B-HCR32-110	32	63	80	110	50	55	2.20	
50	SK50AD/B-HCR12-80.5	12	32	49.5	80.5	31.5	37	3.90	
	SK50AD/B-HCR20-80.5	20	42	49.5	80.5	34	42	4.00	
	SK50AD/B-HCR32-100	32	60	-	100	-	55	4.70	●

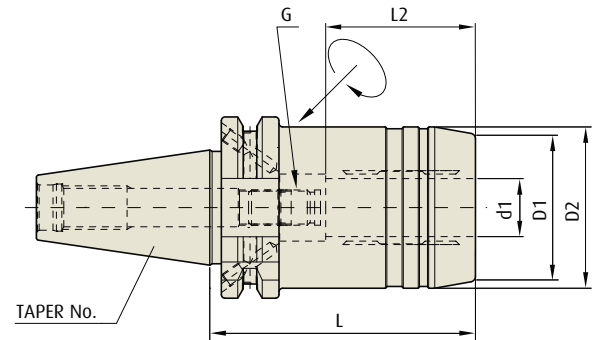
- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xuper



Unit:mm

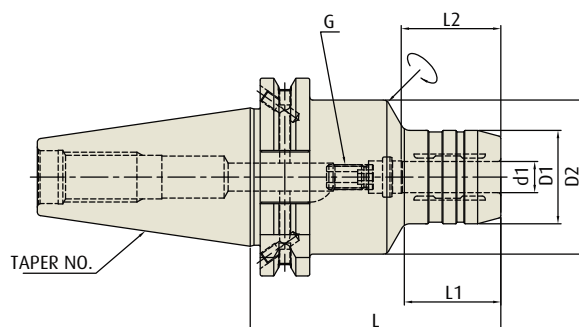
Taper No.	Part No.	d1	D1	D2	L	L2	G	Weight (kg)	Stock
30	SK30AD/B-HC20S-85	20	41	44	85	42	M10x1.0	0.53	●
40	SK40AD/B-HC12S-50	12	32	42	50	37	M8x1.0	1.1	●
	SK40AD/B-HC20S-64.5	20	38	49.25	64.5	42	M16x1.0	1.26	●
50	SK50AD/B-HC12S-50	12	32	42	50	37	M8x1.0	2.8	
	SK50AD/B-HC20S-64.5	20	38	49.5	64.5	42	M16x1.0	3.1	
	SK50AD/B-HC32S-81	32	55	72	81	55	M16x1.0	4.1	●

- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
30	SK30AD/B-HC6-70	6	26	45	70	20	27	M5x0.8	0.65	●
	SK30AD/B-HC8-70	8	28	45	70	20	27	M6x1.0	0.65	
	SK30AD/B-HC10-75	10	30	45	75	21	32	M8x1.0	0.73	●
	SK30AD/B-HC12-85	12	32	45	85	22	37	M10x1.0	0.80	
	SK30AD/B-HC14-85	14	34	45	85	22	37	M10x1.0	0.80	
	SK30AD/B-HC16-90	16	38	45	90	50	42	M6x1.0	0.90	
	SK30AD/B-HC18-90	18	40	45	90	50	42	M6x1.0	0.90	
40	SK40AD/B-HC6-80.5	6	26	49.5	80.5	29.5	27	M5x0.8	1.31	●
	SK40AD/B-HC6-110	6	26	49.5	110	29.5	27	M5x0.8	1.76	
	SK40AD/B-HC8-80.5	8	28	49.5	80.5	30	27	M12x1.0	1.34	●
	SK40AD/B-HC8-110	8	28	49.5	110	30	27	M6x1.0	1.76	
	SK40AD/B-HC10-80.5	10	30	49.5	80.5	31	32	M8x1.0	1.34	●
	SK40AD/B-HC10-110	10	30	49.5	110	31	32	M8x1.0	1.76	
	SK40AD/B-HC12-80.5	12	32	49.5	80.5	31.5	37	M10x1.0	1.34	●
	SK40AD/B-HC12-110	12	32	49.5	110	31.5	37	M10x1.0	1.76	
	SK40AD/B-HC16-80.5	16	38	49.5	80.5	33	42	M12x1.0	1.34	●
	SK40AD/B-HC16-110	16	38	49.5	110	33	42	M12x1.0	1.76	
	SK40AD/B-HC20-80.5	20	42	49.5	80.5	34	42	M16x1.0	1.35	●
	SK40AD/B-HC20-110	20	42	49.5	110	34	42	M16x1.0	1.78	
50	SK50AD/B-HC6-80.5	6	26	49.5	80.5	30	27	M5x0.8	3.00	
	SK50AD/B-HC8-80.5	8	28	49.5	80.5	30	27	M6x1.0	3.00	
	SK50AD/B-HC10-80.5	10	30	49.5	80.5	32	32	M8x1.0	3.00	
	SK50AD/B-HC12-80.5	12	32	49.5	80.5	35	37	M10x1.0	3.05	
	SK50AD/B-HC16-80.5	16	38	49.5	80.5	40	42	M12x1.0	3.10	
	SK50AD/B-HC20-80.5	20	42	49.5	80.5	40	42	M16x1.0	3.15	

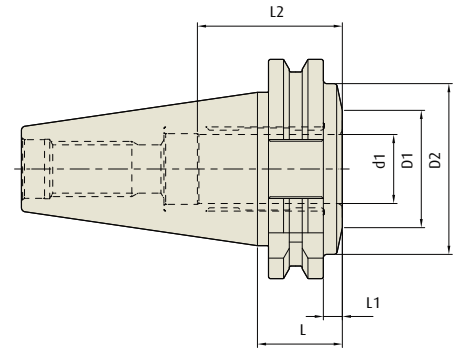
- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3Um	AD

Xtreme



Unit:mm

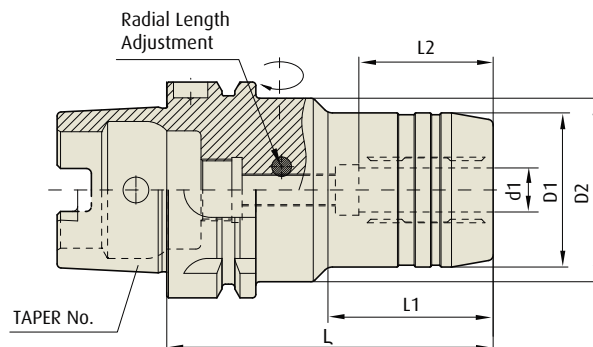
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
40	SK40-HC20-24.6	20	34	49.5	24.6	5.5	42	-		
50	SK50-HC32-30.9	32	44.5	70.5	30.9	11.85	55	-		

- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ DIN 69893/ISO 12164-1-HSK FORM A

DIN 69893-HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
-	-	2.5	25,000	≤ 3μm	AD

Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	Weight (kg)	Stock
40A	HSK40A-HCR6-80	6	26	34	80	36	27	0.55	
	HSK40A-HCR8-80	8	28	34	80	36	27	0.55	
	HSK40A-HCR10-85	10	30	34	85	43	32	0.65	
	HSK40A-HCR12-90	12	32	34	90	48	37	0.70	
50A	HSK50A-HCR6-80	6	26	50	80	35	27	0.70	
	HSK50A-HCR8-80	8	28	50	80	35	27	0.70	
	HSK50A-HCR10-85	10	30	50	85	38	32	0.73	
	HSK50A-HCR12-90	12	32	50	90	40	37	0.80	
	HSK50A-HCR14-90	14	34	50	90	40	37	0.80	
	HSK50A-HCR16-95	16	38	53	95	34	42	1.00	
	HSK50A-HCR18-95	18	40	57	95	34	42	1.00	
	HSK50A-HCR20-100	20	42	60	100	34	42	1.10	
63A	HSK63A-HCR6-80	6	26	50	80	33	27	0.96	
	HSK63A-HCR8-80	8	28	50	80	33	27	0.98	
	HSK63A-HCR10-85	10	30	50	85	38	32	1.04	
	HSK63A-HCR12-90	12	32	50	90	40	37	1.06	
	HSK63A-HCR14-90	14	34	50	90	46	37	1.08	
	HSK63A-HCR16-95	16	38	50	95	51	42	1.18	
	HSK63A-HCR18-95	18	40	50	95	52	42	1.20	
	HSK63A-HCR20-100	20	42	50	100	51	42	1.22	●
	HSK63A-HCR25-120	25	57	63	120	54.5	48	2.20	
	HSK63A-HCR32-125	32	64	75	125	57.5	55	2.60	●
100A	HSK100A-HCR6-85	6	26	63	85	33	27	3.60	
	HSK100A-HCR8-85	8	28	63	85	33	27	3.60	
	HSK100A-HCR10-90	10	30	63	90	36	32	3.80	
	HSK100A-HCR12-95	12	32	63	95	40	37	3.80	
	HSK100A-HCR14-95	14	34	63	95	41	37	3.80	
	HSK100A-HCR16-100	16	38	63	100	46	42	3.90	
	HSK100A-HCR18-100	18	40	63	100	46	42	3.90	
	HSK100A-HCR20-105	20	42	75	105	51	42	4.20	
	HSK100A-HCR25-115	25	57	75	115	55.5	48	4.40	
	HSK100A-HCR32-120	32	64	75	120	63.5	55	4.60	

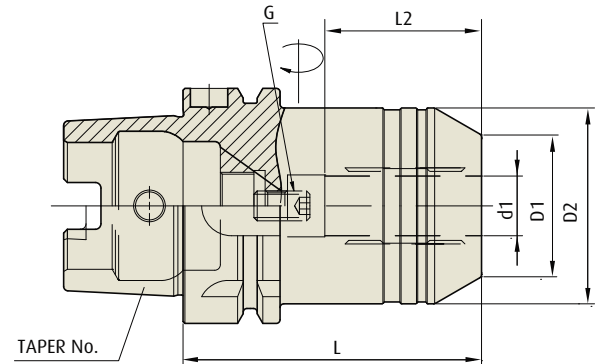
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ DIN 69893/ISO 12164-1-HSK FORM A

DIN 69871 -HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 30μm	AD

Xuper



Unit:mm

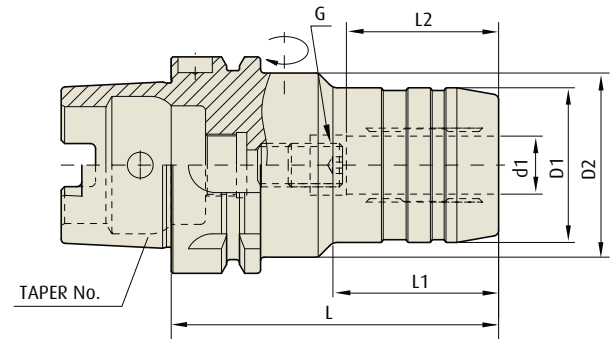
Taper No.	Part No.	d1	D1	D2	L	L2	G	Weight (kg)	Stock
63A	HSK63A-HC12S-80	12	32	42	80	37	M8X1.0	-	●
63A	HSK63A-HC20S-80	20	38	52.5	80	42	M8X1.0	-	●

- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ DIN 69893/ISO 12164-1-HSK FORM A

DIN 69893-HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	-	2.5	25,000	≤ 3µm	AD

Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
32A	HSK32A-HC6-80	6	26	40	80	29	27	M5X0.8	0.30	
	HSK32A-HC8-80	8	28	40	80	29	27	M6X1.0	0.30	
	HSK32A-HC10-85	10	30	40	85	35	32	M6X1.0	0.30	
	HSK32A-HC12-90	12	32	40	90	40	37	M6X1.0	0.30	
40A	HSK40A-HC6-70	6	26	34	70	36	27	M5X0.8	0.50	●
	HSK40A-HC8-70	8	28	34	70	36	27	M6X1.0	0.50	●
	HSK40A-HC10-75	10	30	34	75	42	32	M6X1.0	0.60	●
	HSK40A-HC12-80	12	32	34	80	48	37	M6X1.0	0.65	
50A	HSK50A-HC6-70	6	26	40	70	28	27	M5X0.8	0.65	●
	HSK50A-HC8-70	8	28	40	70	28	27	M6X1.0	0.65	●
	HSK50A-HC10-75	10	30	40	75	34	32	M8X1.0	0.70	●
	HSK50A-HC12-85	12	32	40	85	44	37	M10X1.0	0.75	●
	HSK50A-HC14-85	14	34	40	85	44	37	M10X1.0	0.75	●
	HSK50A-HC16-90	16	38	53	90	30	42	M12X1.0	0.90	●
	HSK50A-HC18-90	18	40	57	90	30	42	M12X1.0	0.90	
	HSK50A-HC20-90	20	42	60	90	29	42	M16X1.0	1.00	
63A	HSK63A-HC6-70	6	26	50	70	24	27	M5X0.8	0.53	●
	HSK63A-HC8-70	8	28	50	70	25	27	M6X1.0	0.55	●
	HSK63A-HC10-80	10	30	50	80	35	32	M8X1.0	1.00	●
	HSK63A-HC12-85	12	32	50	85	40	37	M10X1.0	1.03	●
	HSK63A-HC14-85	14	34	50	85	40	37	M10X1.0	1.05	
	HSK63A-HC16-90	16	38	50	90	46	42	M12X1.0	1.15	●
	HSK63A-HC18-90	18	40	50	90	47	42	M12X1.0	1.15	
	HSK63A-HC20-90	20	42	50	90	48	42	M16X1.0	1.20	●
	HSK63A-HC25-120	25	57	63	120	59	48	M16X1.0	2.20	●
80A	HSK80A-HC12-85	12	32	50	85	40	37	M10X1.0		
	HSK80A-HC20-95	20	42	50	95	52	42	M16X1.0		
	HSK80A-HC32-125	32	64	75	125	63	55	M16X1.0		
100A	HSK100A-HC6-75	6	26	50	75	26	27	M5X0.8	3.20	
	HSK100A-HC8-75	8	28	50	75	26	27	M6X1.0	3.20	
	HSK100A-HC10-90	10	30	50	90	42	32	M8X1.0	3.40	
	HSK100A-HC12-95	12	32	50	95	47	37	M10X1.0	3.40	
	HSK100A-HC14-95	14	34	50	95	47	37	M10X1.0	3.40	
	HSK100A-HC16-100	16	38	50	100	53	42	M12X1.0	3.50	
	HSK100A-HC18-100	18	40	50	100	53	42	M12X1.0	3.60	
	HSK100A-HC20-105	20	42	50	105	59	42	M16X1.0	4.00	
	HSK100A-HC25-110	25	57	63	110	62	48	M16X1.0	4.20	
	HSK100A-HC32-110	32	64	75	110	62	55	M16X1.0	4.30	

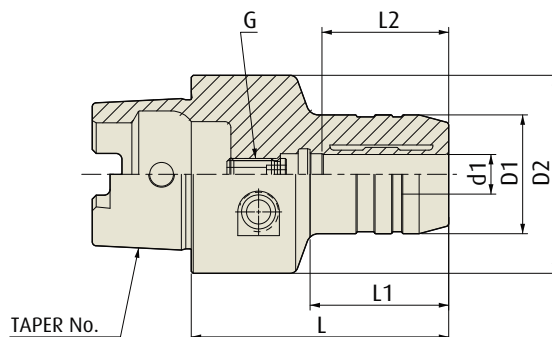
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ DIN 69893/ISO 12164-1-HSK FORM C

DIN 69893 -HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	-	2.5	25,000	≤ 3µm	AD

Xtreme



Unit:mm

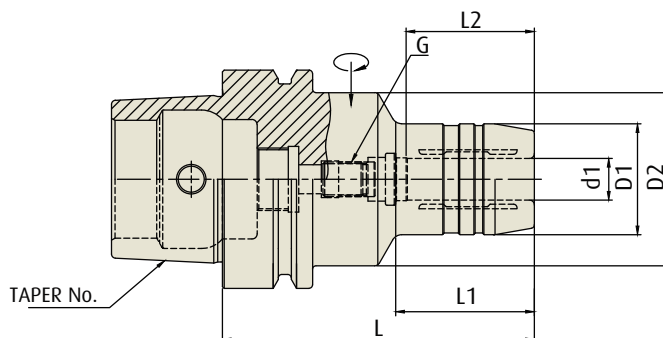
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
32C	HSK32C-HC6-65	6	26	32	65	33	27	M5X0.8		
	HSK32C-HC8-70	8	28	32	70	34	27	M6X1.0		
	HSK32C-HC10-75	10	30	32	75	39	32	M6X1.0		
	HSK32C-HC12-80	12	32	32	80	45	37	M6X1.0		
40C	HSK40C-HC6-60	6	26	40	60	35	27	M5X0.8		
	HSK40C-HC8-60	8	28	40	60	36	27	M6X1.0		
	HSK40C-HC10-65	10	30	40	65	41	32	M6X1.0		
	HSK40C-HC12-70	12	32	40	70	47	37	M6X1.0		
50C	HSK50C-HC6-60	6	26	50	60	30	27	M5X0.8		
	HSK50C-HC8-60	8	28	50	60	30	27	M6X1.0		
	HSK50C-HC10-65	10	30	50	65	35	32	M8X1.0		
	HSK50C-HC12-75	12	32	50	75	44	37	M10X1.0		
	HSK50C-HC14-75	14	34	50	75	46	37	M10X1.0		
	HSK50C-HC16-80	16	38	50	80	51	42	M12X1.0		
	HSK50C-HC18-80	18	40	50	80	51	42	M12X1.0		
	HSK50C-HC20-80	20	42	50	80	52	42	M16X1.0		
63C	HSK63C-HC6-60	6	26	63	60	25	27	M5X0.8		
	HSK63C-HC8-60	8	28	63	60	25	27	M6X1.0		
	HSK63C-HC10-65	10	30	63	65	31	32	M8X1.0		
	HSK63C-HC12-75	12	32	63	75	41	37	M10X1.0		
	HSK63C-HC14-75	14	34	63	75	42	37	M10X1.0		
	HSK63C-HC16-80	16	38	63	80	48	42	M12X1.0		
	HSK63C-HC18-80	18	40	63	80	48	42	M12X1.0		
	HSK63C-HC20-80	20	42	63	80	49	42	M16X1.0		
	HSK63C-HC25-95	25	57	63	95	63	48	M16X1.0		
	HSK63C-HC32-100	32	63	63	100	-	55	M16X1.0		

- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ DIN 69893/ISO 12164-1-HSK FORM E & F

DIN 69893-HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
-	-	2.5	25,000	≤ 3Um	AD

Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
40E	HSK40E-HC6-70	6	26	33.5	70	36	27	M5X0.8		
	HSK40E-HC8-70	8	28	33.5	70	36	27	M6X1.0		
	HSK40E-HC10-75	10	30	33.5	75	42	32	M6X1.0		
	HSK40E-HC12-80	12	32	33.5	80	48	37	M6X1.0		
50E	HSK50E-HC6-70	6	26	40	70	28	27	M5X1.0		
	HSK50E-HC8-70	8	28	40	70	28	27	M6X1.0		
	HSK50E-HC10-75	10	30	40	75	34	32	M8X1.0		
	HSK50E-HC12-85	12	32	40	85	44	37	M10X1.0		
	HSK50E-HC16-90	16	38	53	90	30	42	M12X1.0		
	HSK50E-HC20-90	20	42	60	90	29	42	M16X1.0		
63F	HSK63F-HC20-85	20	42	50	85	46	42	M12X1.0		

- For applicable Hydraulic Chuck collet, please refer to page 29~32.

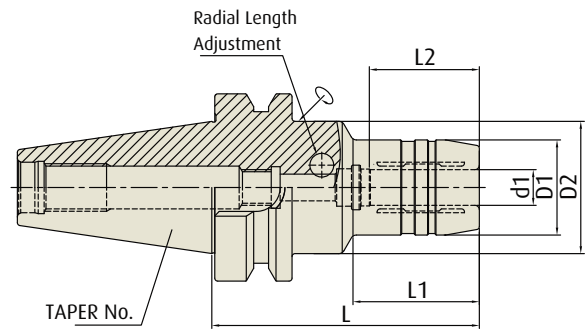


Hydraulic Chuck (Radial Tool Length Pre-Setting Type)

■ CBT (BT Dual Contact)

CBT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3μm	AD

Xtreme



Unit:mm

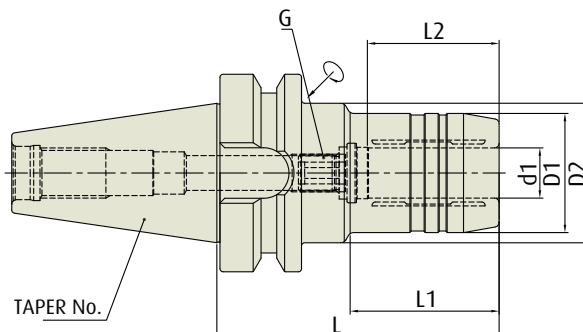
Taper No.	Part No.	d1	D1	D2	L	L1	L2	Weight (kg)	Stock
30	CBT30-HCR12-85	12	32	44.5	85	40	37	0.90	
30	CBT30-HCR20-85	20	44	44	85	-	42	1.00	●
40	CBT40-HCR12-90	12	32	44.5	90	44.5	37	1.50	
40	CBT40-HCR20-90	20	42	49.5	90	47.5	42	1.60	●
40	CBT40-HCR32-105	32	60	60	105	-	55	2.20	
50	CBT50-HCR12-95	12	32	44.5	95	34	37	3.90	
50	CBT50-HCR20-100	20	42	44.5	100	44	42	4.00	
50	CBT50-HCR32-115	32	60	60	115	-	55	4.10	●

- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ CBT (BT Dual Contact)

CBT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3Um	AD

Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
30	CBT30-HC6-70	6	26	44.5	70	29.5	27	M5X0.8	0.65	
	CBT30-HC8-70	8	28	44.5	70	30	27	M6X1.0	0.65	
	CBT30-HC10-75	10	30	44.5	75	31	32	M8X1.0	0.73	
	CBT30-HC12-85	12	32	45	85	45	37	M10X1.0	0.80	●
	CBT30-HC14-85	14	34	45	85	45	37	M10X1.0	0.80	
	CBT30-HC16-90	16	38	45	90	50	42	M10X1.0	0.90	
	CBT30-HC18-90	18	40	45	90	50	42	M10X1.0	0.90	
	CBT30-HC20-90	20	42	45	90	50	42	M6X1.0	0.90	●
40	CBT40-HC6-90	6	26	44.5	90	43	27	M5X0.8	1.30	
	CBT40-HC8-90	8	28	44.5	90	44.5	27	M6X1.0	1.30	
	CBT40-HC10-90	10	30	44.5	90	44.5	32	M8X1.0	1.35	
	CBT40-HC12-90	12	32	44.5	90	44.5	37	M10X1.0	1.35	●
	CBT40-HC14-90	14	34	44.5	90	44.5	37	M10X1.0	1.35	
	CBT40-HC16-90	16	38	44.5	90	47.5	42	M12X1.0	1.40	
	CBT40-HC18-90	18	40	44.5	90	47.5	42	M12X1.0	1.45	
	CBT40-HC20-90	20	42	44.5	90	47.5	42	M16X1.0	1.50	●
	CBT40-HC25-100	25	50	60	100	47.5	48	M16X1.0	1.70	
	CBT40-HC32-105	32	60	60	105	-	55	M16X1.0	2.10	●

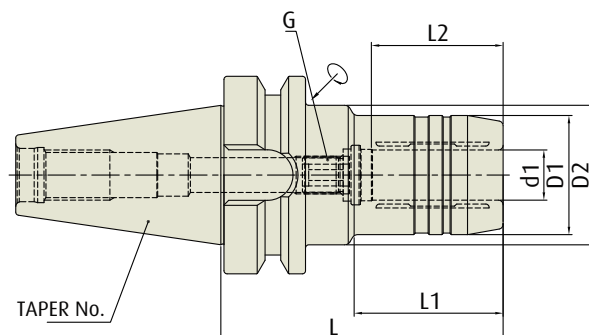
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ CBT (BT Dual Contact)

CBT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3μm	AD

Xtreme



Unit:mm

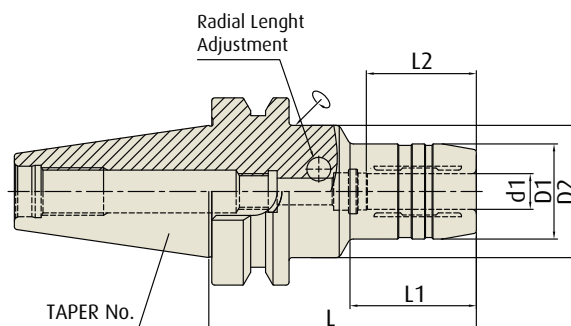
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
50	CBT50-HC6-90	6	26	44.5	90	34	27	M5X0.8	3.75	
	CBT50-HC6-120	6	26	44.5	120	34	27	M5X0.8	4.10	
	CBT50-HC6-150	6	26	44.5	150	34	27	M5X0.8	4.70	
	CBT50-HC8-90	8	28	44.5	90	34	27	M6X1.0	3.75	
	CBT50-HC8-120	8	28	44.5	120	34	27	M6X1.0	4.10	
	CBT50-HC8-150	8	28	44.5	150	34	27	M6X1.0	4.10	
	CBT50-HC10-90	10	30	44.5	90	34	32	M8X1.0	3.90	
	CBT50-HC10-120	10	30	44.5	120	34	32	M8X1.0	4.30	
	CBT50-HC10-150	10	30	44.5	150	34	32	M8X1.0	4.90	
	CBT50-HC12-90	12	32	44.5	90	34	37	M10X1.0	3.90	●
	CBT50-HC12-120	12	32	44.5	120	34	37	M10X1.0	4.30	
	CBT50-HC12-150	12	32	44.5	150	34	37	M10X1.0	4.90	
	CBT50-HC14-90	14	34	44.5	90	34	37	M10X1.0	3.90	
	CBT50-HC14-120	14	34	44.5	120	34	37	M10X1.0	4.30	
	CBT50-HC14-150	14	34	44.5	150	34	37	M10X1.0	4.90	
	CBT50-HC16-90	16	38	44.5	90	34	42	M12X1.0	4.00	
	CBT50-HC16-120	16	38	44.5	120	34	42	M12X1.0	4.40	
	CBT50-HC16-150	16	38	44.5	150	34	42	M12X1.0	5.00	
	CBT50-HC18-90	18	40	44.5	90	34	42	M12X1.0	4.00	
	CBT50-HC18-120	18	40	44.5	120	34	42	M12X1.0	4.40	
	CBT50-HC18-150	18	40	44.5	150	34	42	M12X1.0	5.00	
	CBT50-HC20-90	20	42	44.5	90	34	42	M16X1.0	4.00	●
	CBT50-HC20-120	20	42	44.5	120	34	42	M16X1.0	4.40	
	CBT50-HC20-150	20	42	44.5	150	34	42	M16X1.0	5.00	
	CBT50-HC25-105	25	57	63	105	52	48	M16X1.0	4.40	
	CBT50-HC25-150	25	57	63	150	97	48	M16X1.0	5.60	
	CBT50-HC32-115	32	64	75	115	62	55	M16X1.0	4.70	●
	CBT50-HC32-150	32	64	75	150	97	55	M16X1.0	6.00	

- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	Weight (kg)	Stock
30	BT30AD/B-HCR12-85	12	32	44.5	85	40	37	0.90	●
30	BT30AD/B-HCR20-85	20	44	44	85	-	42	1.00	●
40	BT40AD/B-HCR12-90	12	32	44.5	90	44.5	37	1.50	●
	BT40AD/B-HCR20-90	20	42	49.5	90	47.5	42	1.60	●
	BT40AD/B-HCR32-105	32	60	60	105	-	55	2.20	●
50	BT50AD/B-HCR12-95	12	32	44.5	95	34	37	3.90	●
	BT50AD/B-HCR20-100	20	42	44.5	100	44	42	4.00	●
	BT50AD/B-HCR32-115	32	60	60	115	-	55	4.10	●

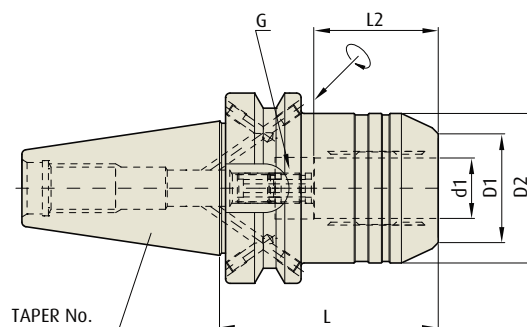
- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3Um	AD/B

Xuper



Unit:mm

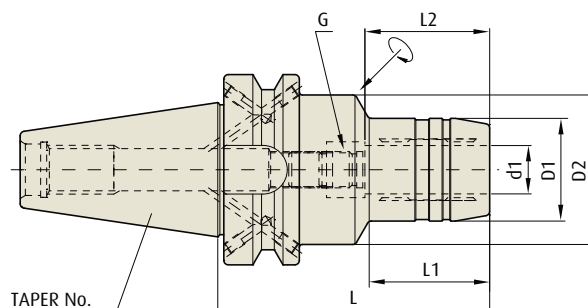
Taper No.	Part No.	d1	D1	D2	L	L2	G	Weight (kg)	Stock
30	BT30AD/B-HC20S-85	20	41	44	85	42	M6X1.0	0.93	●
40	BT40AD/B-HC12S-58	12	32	42	58	37	M8X1.0		●
40	BT40AD/B-HC20S-72.5	20	38	49.25	72.5	42	M8X1.0	1.40	●
50	BT50AD/B-HC12S-69	12	32	42	69	37	M8X1.0		●
50	BT50AD/B-HC20S-90	20	37	49.25	90	42	M8X1.0	3.85	●
50	BT50AD/B-HC32S-90	32	55	72	90	55	M8X1.0	4.53	●

- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3μm	AD/B

Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
30	BT30AD/B-HC6-70	6	26	44.5	70	29.5	27	M5X0.8	0.65	●
	BT30AD/B-HC8-70	8	28	44.5	70	30	27	M6X1.0	0.65	●
	BT30AD/B-HC10-75	10	30	44.5	75	31	32	M8X1.0	0.73	●
	BT30AD/B-HC12-85	12	32	45	85	45	37	M10X1.0	0.80	●
	BT30AD/B-HC14-85	14	34	45	85	45	37	M10X1.0	0.80	●
	BT30AD/B-HC16-90	16	38	45	90	50	42	M10X1.0	0.90	●
	BT30AD/B-HC18-90	18	40	45	90	50	42	M10X1.0	0.90	●
	BT30AD/B-HC20-90	20	42	45	90	50	42	M6X1.0	0.90	●
40	BT40AD/B-HC6-90	6	26	44.5	90	43	27	M5X0.8	1.30	●
	BT40AD/B-HC8-90	8	28	44.5	90	44.5	27	M6X1.0	1.30	●
	BT40AD/B-HC10-90	10	30	44.5	90	44.5	32	M8X1.0	1.35	●
	BT40AD/B-HC12-90	12	32	44.5	90	44.5	37	M10X1.0	1.35	●
	BT40AD/B-HC14-90	14	34	44.5	90	44.5	37	M10X1.0	1.35	●
	BT40AD/B-HC16-90	16	38	44.5	90	47.5	42	M12X1.0	1.40	●
	BT40AD/B-HC18-90	18	40	44.5	90	47.5	42	M12X1.0	1.45	●
	BT40AD/B-HC20-90	20	42	44.5	90	47.5	42	M16X1.0	1.50	●
	BT40AD/B-HC25-100	25	50	60	100	47.5	48	M16X1.0	1.70	●
	BT40AD/B-HC32-105	32	60	-	105	-	55	M16X1.0	2.10	●

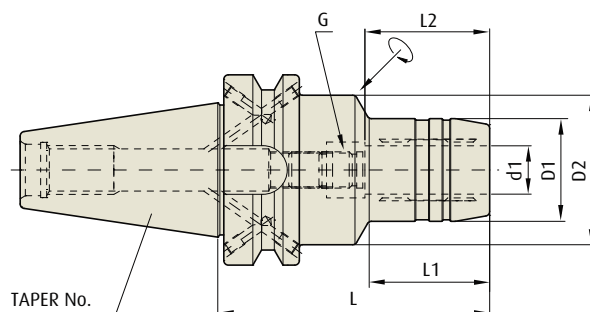
- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3Um	AD/B

Xtreme



Unit:mm

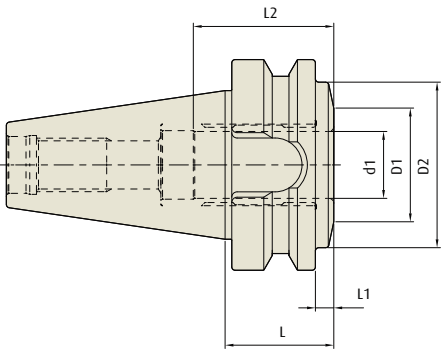
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
50	BT50AD/B-HC6-90	6	26	44.5	90	34	27	M5X0.8	3.75	●
	BT50AD/B-HC6-120	6	26	44.5	120	34	27	M5X0.8	4.10	
	BT50AD/B-HC6-150	6	26	44.5	150	34	27	M5X0.8	4.70	
	BT50AD/B-HC8-90	8	28	44.5	90	34	27	M6X1.0	3.75	●
	BT50AD/B-HC8-120	8	28	44.5	120	34	27	M6X1.0	4.10	
	BT50AD/B-HC8-150	8	28	44.5	150	34	27	M6X1.0	4.10	
	BT50AD/B-HC10-90	10	30	44.5	90	34	32	M8X1.0	3.90	●
	BT50AD/B-HC10-120	10	30	44.5	120	34	32	M8X1.0	4.30	
	BT50AD/B-HC10-150	10	30	44.5	150	34	32	M8X1.0	4.90	
	BT50AD/B-HC12-90	12	32	44.5	90	34	37	M10X1.0	3.90	●
	BT50AD/B-HC12-120	12	32	44.5	120	34	37	M10X1.0	4.30	
	BT50AD/B-HC12-150	12	32	44.5	150	34	37	M10X1.0	4.90	
	BT50AD/B-HC14-90	14	34	44.5	90	34	37	M10X1.0	3.90	
	BT50AD/B-HC14-120	14	34	44.5	120	34	37	M10X1.0	4.30	
	BT50AD/B-HC14-150	14	34	44.5	150	34	37	M10X1.0	4.90	
	BT50AD/B-HC16-90	16	38	44.5	90	34	42	M12X1.0	4.00	●
	BT50AD/B-HC16-120	16	38	44.5	120	34	42	M12X1.0	4.40	
	BT50AD/B-HC16-150	16	38	44.5	150	34	42	M12X1.0	5.00	
	BT50AD/B-HC18-90	18	40	44.5	90	34	42	M12X1.0	4.00	
	BT50AD/B-HC18-120	18	40	44.5	120	34	42	M12X1.0	4.40	
	BT50AD/B-HC18-150	18	40	44.5	150	34	42	M12X1.0	5.00	
	BT50AD/B-HC20-90	20	42	44.5	90	34	42	M16X1.0	4.00	●
	BT50AD/B-HC20-120	20	42	44.5	120	34	42	M16X1.0	4.40	
	BT50AD/B-HC20-150	20	42	44.5	150	34	42	M16X1.0	5.00	
	BT50AD/B-HC25-105	25	57	63	105	52	48	M16X1.0	4.40	●
	BT50AD/B-HC25-150	25	57	63	150	97	48	M16X1.0	5.60	
	BT50AD/B-HC32-115	32	64	75	115	62	55	M16X1.0	4.70	●
	BT50AD/B-HC32-150	32	64	75	150	97	55	M16X1.0	6.00	

- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD
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Xtreme



Unit:mm										
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
40	BT40-HC20-24.6	20	34	49.5	32.5	5.5	42	-		

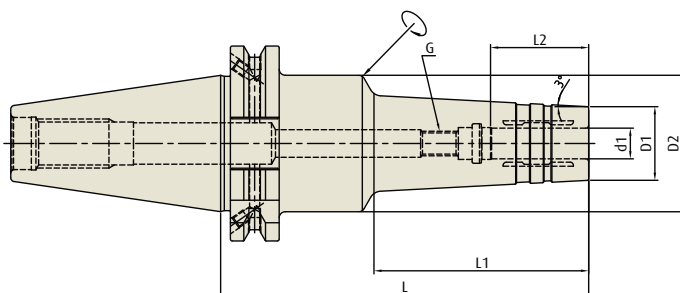
- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

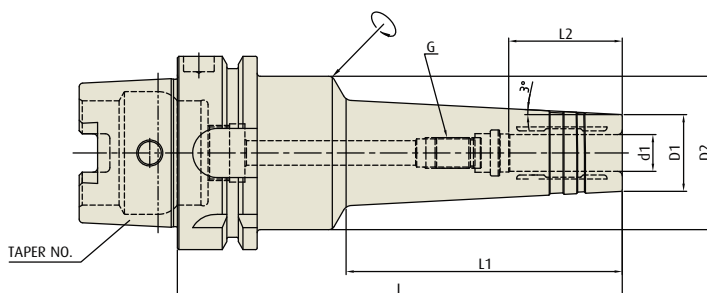
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
40	SK40AD/B-HMC6-120	6	20	49.5	120	70	27	M5X0.8	1.40	
	SK40AD/B-HMC6-150	6	20	49.5	150	100	27	M5X0.8	1.65	●
	SK40AD/B-HMC8-120	8	22	49.5	120	70	27	M6X1.0	1.40	
	SK40AD/B-HMC8-150	8	22	49.5	150	100	27	M6X1.0	1.65	●
	SK40AD/B-HMC10-120	10	24	49.5	120	70	32	M8X1.0	1.40	
	SK40AD/B-HMC10-150	10	24	49.5	150	100	32	M8X1.0	1.65	●
	SK40AD/B-HMC12-120	12	25	49.5	120	70	37	M10X1.0	1.40	
	SK40AD/B-HMC12-150	12	25	49.5	150	100	37	M10X1.0	1.65	
	SK40AD/B-HMC16-120	16	32	49.5	120	70	42	M12X1.0	1.45	
	SK40AD/B-HMC16-150	16	32	49.5	150	100	42	M12X1.0	1.70	●
	SK40AD/B-HMC20-120	20	34	49.5	120	70	42	M16X1.0	1.50	
	SK40AD/B-HMC20-150	20	34	49.5	150	100	42	M16X1.0	1.70	
50	SK50AD/B-HMC6-150	6	20	44.5	150	100	27	M5X0.8	4.50	
	SK50AD/B-HMC8-150	8	22	44.5	150	100	27	M6X1.0	4.50	
	SK50AD/B-HMC10-150	10	24	44.5	150	100	32	M8X1.0	4.50	
	SK50AD/B-HMC12-150	12	25	44.5	150	100	37	M10X1.0	4.50	
	SK50AD/B-HMC16-150	16	32	44.5	150	100	42	M12X1.0	4.70	
	SK50AD/B-HMC20-150	20	34	44.5	150	100	42	M16X1.0	5.00	

- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
63A	HSK63A-HMC6-145	6	20	50	145	90	27	M5X0.8	1.40	●
	HSK63A-HMC8-145	8	122	50	145	90	27	M6X1.0	1.40	●
	HSK63A-HMC10-145	10	24	50	145	90	32	M8X1.0	1.40	●
	HSK63A-HMC12-145	12	25	50	145	90	37	M10X1.0	1.40	●
	HSK63A-HMC16-145	16	32	50	145	90	42	M12X1.0	1.45	●
	HSK63A-HMC20-145	20	34	50	145	90	42	M16X1.0	1.50	●
100A	HSK100A-HMC6-150	6	20	50	150	90	27	M5X0.8	4.50	
	HSK100A-HMC8-150	8	22	50	150	90	27	M6X1.0	4.50	
	HSK100A-HMC10-150	10	24	50	150	90	32	M8X1.0	4.50	
	HSK100A-HMC12-150	12	25	50	150	90	37	M10X1.0	4.50	●
	HSK100A-HMC16-150	16	32	50	150	90	42	M12X1.0	4.70	
	HSK100A-HMC20-150	20	34	50	150	90	42	M16X1.0	5.00	●

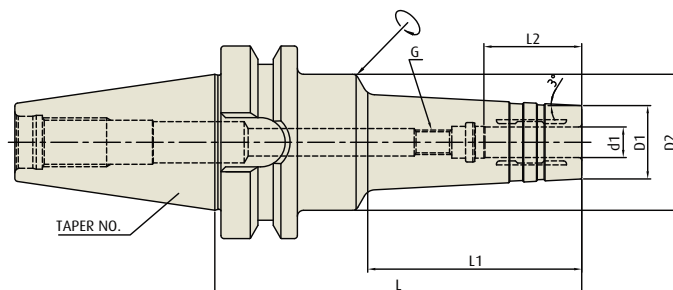
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



■ CBT (BT Dual Contact)

CBT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3Um	AD

Xtreme



Unit:mm

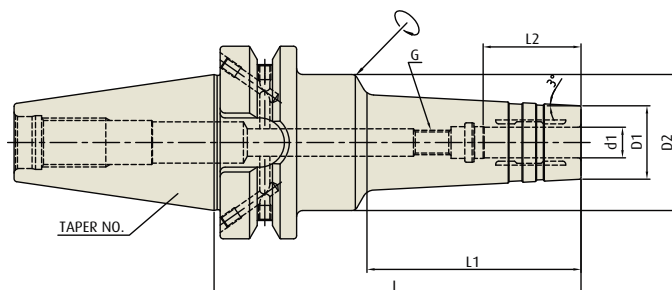
Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
40	CBT40-HMC6-120	6	20	44.5	120	70	27	M5X0.8	1.40	
	CBT40-HMC6-150	6	20	44.5	150	100	27	M5X0.8	1.65	
	CBT40-HMC8-120	8	22	44.5	120	70	27	M6X1.0	1.40	
	CBT40-HMC8-150	8	22	44.5	150	100	27	M6X1.0	1.65	
	CBT40-HMC10-120	10	24	44.5	120	70	32	M8X1.0	1.40	
	CBT40-HMC10-150	10	24	44.5	150	100	32	M8X1.0	1.65	
	CBT40-HMC12-120	12	25	44.5	120	70	37	M10X1.0	1.40	
	CBT40-HMC12-150	12	25	44.5	150	100	37	M10X1.0	1.65	
	CBT40-HMC16-120	16	32	44.5	120	70	42	M12X1.0	1.45	
	CBT40-HMC16-150	16	32	44.5	150	100	42	M12X1.0	1.70	
	CBT40-HMC20-120	20	34	43.8	120	93	42	M16X1.0	1.50	
	CBT40-HMC20-150	20	34	46.9	150	123	42	M16X1.0	1.70	
50	CBT50-HMC6-150	6	20	50	150	90	27	M5X0.8	4.50	
	CBT50-HMC8-150	8	22	50	150	90	27	M6X1.0	4.50	
	CBT50-HMC10-150	10	24	50	150	90	32	M8X1.0	4.50	
	CBT50-HMC12-150	12	25	50	150	90	37	M10X1.0	4.50	
	CBT50-HMC16-150	16	32	50	150	90	42	M12X1.0	4.70	
	CBT50-HMC20-150	20	34	50	150	90	42	M16X1.0	5.00	

- For applicable Hydraulic Chuck collet, please refer to page 29~32.

■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



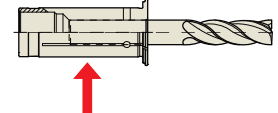
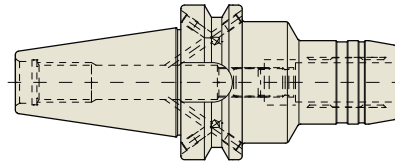
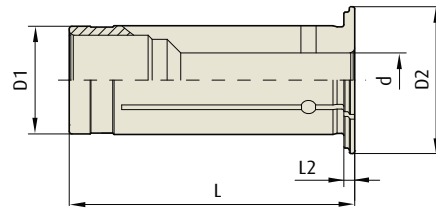
Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L1	L2	G	Weight (kg)	Stock
40	BT40AD/B-HMC6-120	6	20	44.5	120	70	27	M5X0.8	1.40	
	BT40AD/B-HMC6-150	6	20	44.5	150	100	27	M5X0.8	1.65	
	BT40AD/B-HMC8-120	8	22	44.5	120	70	27	M6X1.0	1.40	
	BT40AD/B-HMC8-150	8	22	44.5	150	100	27	M6X1.0	1.65	
	BT40AD/B-HMC10-120	10	24	44.5	120	70	32	M8X1.0	1.40	
	BT40AD/B-HMC10-150	10	24	44.5	150	100	32	M8X1.0	1.65	
	BT40AD/B-HMC12-120	12	25	44.5	120	70	37	M10X1.0	1.40	●
	BT40AD/B-HMC12-150	12	25	44.5	150	100	37	M10X1.0	1.65	
	BT40AD/B-HMC16-120	16	32	44.5	120	70	42	M12X1.0	1.45	
	BT40AD/B-HMC16-150	16	32	44.5	150	100	42	M12X1.0	1.70	
	BT40AD/B-HMC20-120	20	34	43.8	120	93	42	M16X1.0	1.50	●
	BT40AD/B-HMC20-150	20	34	46.9	150	123	42	M16X1.0	1.70	
50	BT50AD/B-HMC6-150	6	20	50	150	90	27	M5X0.8	4.50	
	BT50AD/B-HMC8-150	8	22	50	150	90	27	M6X1.0	4.50	
	BT50AD/B-HMC10-150	10	24	50	150	90	32	M8X1.0	4.50	
	BT50AD/B-HMC12-150	12	25	50	150	90	37	M10X1.0	4.50	●
	BT50AD/B-HMC16-150	16	32	50	150	90	42	M12X1.0	4.70	
	BT50AD/B-HMC20-150	20	34	50	150	90	42	M16X1.0	5.00	●

- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable Hydraulic Chuck collet, please refer to page 29~32.



Hydraulic Chuck Collet (Reduction Sleeve : Closed Type)

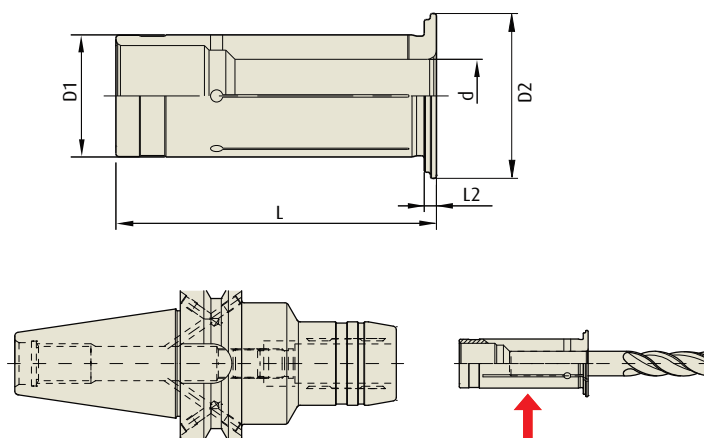


Hydraulic Chuck collet

Unit:mm

Part No.	d1	D1	D2	L	L1
HK12	3	12	19	47	2
	4	12	19	47	2
	5	12	19	47	2
	6	12	19	47	2
	7	12	19	47	2
	8	12	19	47	2
HK20	3	20	27	52.5	2
	4	20	27	52.5	2
	5	20	27	52.5	2
	6	20	27	52.5	2
	7	20	27	52.5	2
	8	20	27	52.5	2
	9	20	27	52.5	2
	10	20	27	52.5	2
	11	20	27	52.5	2
	12	20	27	52.5	2
	13	20	27	52.5	2
	14	20	27	52.5	2
	15	20	27	52.5	2
	16	20	27	52.5	2
HK32	6	32	39	63.5	3
	8	32	39	63.5	3
	10	32	39	63.5	3
	12	32	39	63.5	3
	14	32	39	63.5	3
	16	32	39	63.5	3
	18	32	39	63.5	3
	20	32	39	63.5	3
	25	32	39	63.5	3

- Stock Control Item.
- Inch type products are available.
- Other special sizes of Hydraulic Chuck collets could be produced and supplied.
- Feature: HK Hydraulic Chuck collet (reduction sleeve) is cut into trisection by high precision cutting to guarantee precise I.D. and strong clamping power.
- Chucking Method: Please assemble cutting tool with collet firstly, and then insert collet into Hydraulic Chuck.



Hydraulic Chuck collet

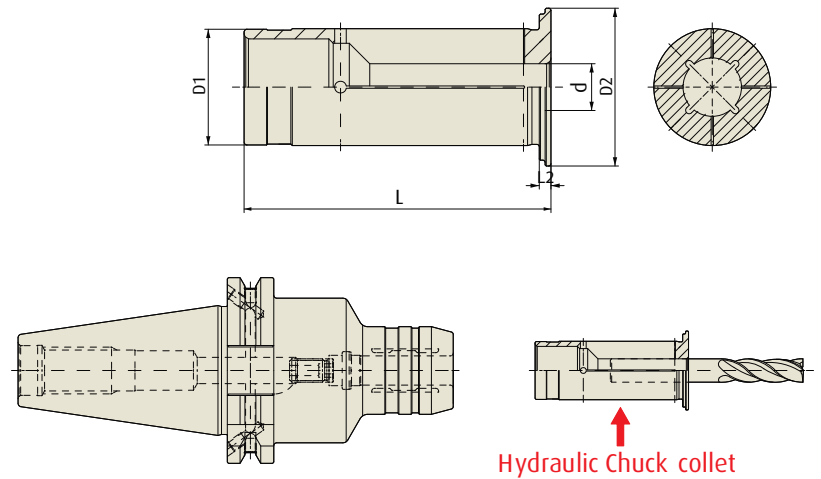
Unit:mm

Part No.	d1	D1	D2	L	L1
HS12	3	12	19	47	2
	4	12	19	47	2
	5	12	19	47	2
	6	12	19	47	2
	7	12	19	47	2
	8	12	19	47	2
HS20	3	20	27	52.5	2
	4	20	27	52.5	2
	5	20	27	52.5	2
	6	20	27	52.5	2
	7	20	27	52.5	2
	8	20	27	52.5	2
	9	20	27	52.5	2
	10	20	27	52.5	2
	11	20	27	52.5	2
	12	20	27	52.5	2
	13	20	27	52.5	2
	14	20	27	52.5	2
	15	20	27	52.5	2
	16	20	27	52.5	2
HS32	6	32	39	63.5	3
	8	32	39	63.5	3
	10	32	39	63.5	3
	12	32	39	63.5	3
	14	32	39	63.5	3
	16	32	39	63.5	3
	18	32	39	63.5	3
	20	32	39	63.5	3
	25	32	39	63.5	3

- Stock Control Item.
- Inch type products are available.
- Other special sizes of Hydraulic Chuck collets could be produced and supplied.
- Feature: HS Hydraulic Chuck collet (reduction sleeve) is cut into trisection by high precision cutting to guarantee precise I.D. and strong clamping power.
- Chucking Method: Please assemble cutting tool with collet firstly, and then insert collet into Hydraulic Chuck.



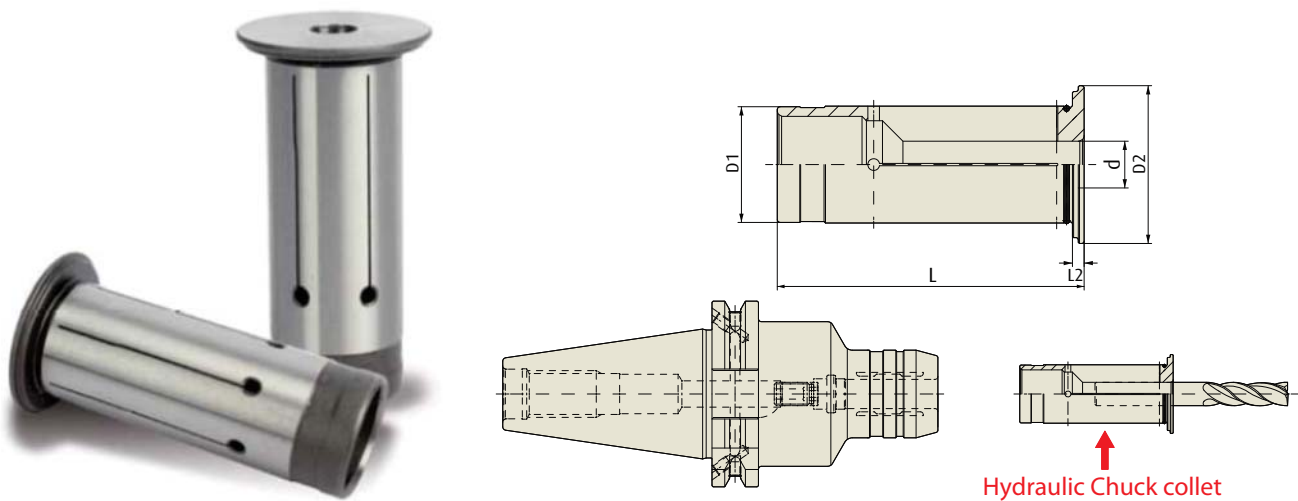
Hydraulic Chuck Collet (Reduction Sleeve : Closed Type)



Unit:mm

Part No.	d1	D1	D2	L	L1
HF12	3	12	19	47	2
	4	12	19	47	2
	5	12	19	47	2
	6	12	19	47	2
	7	12	19	47	2
	8	12	19	47	2
HF20	3	20	27	52.5	2
	4	20	27	52.5	2
	5	20	27	52.5	2
	6	20	27	52.5	2
	7	20	27	52.5	2
	8	20	27	52.5	2
	9	20	27	52.5	2
	10	20	27	52.5	2
	11	20	27	52.5	2
	12	20	27	52.5	2
	13	20	27	52.5	2
	14	20	27	52.5	2
	15	20	27	52.5	2
	16	20	27	52.5	2
HF32	6	32	39	63.5	3
	8	32	39	63.5	3
	10	32	39	63.5	3
	12	32	39	63.5	3
	14	32	39	63.5	3
	16	32	39	63.5	3
	18	32	39	63.5	3
	20	32	39	63.5	3
	25	32	39	63.5	3

- Stock Control Item.
- Inch type products are available.
- Other special sizes of Hydraulic Chuck collets could be produced and supplied.
- Feature: HF Hydraulic Chuck collet (reduction sleeve) is for internal coolant flush.
- Chucking Method: Please assemble cutting tool with collet firstly, and then insert collet into Hydraulic Chuck.



Unit:mm

Part No.		d1	D1	D2	L	L1
HR12	3	3	12	19	47	2
	4	4	12	19	47	2
	5	5	12	19	47	2
	6	6	12	19	47	2
	7	7	12	19	47	2
	8	8	12	19	47	2
HR20	3	3	20	27	52.5	2
	4	4	20	27	52.5	2
	5	5	20	27	52.5	2
	6	6	20	27	52.5	2
	7	7	20	27	52.5	2
	8	8	20	27	52.5	2
	9	9	20	27	52.5	2
	10	10	20	27	52.5	2
	11	11	20	27	52.5	2
	12	12	20	27	52.5	2
	13	13	20	27	52.5	2
	14	14	20	27	52.5	2
	15	15	20	27	52.5	2
	16	16	20	27	52.5	2
HR32	6	6	32	39	63.5	3
	8	8	32	39	63.5	3
	10	10	32	39	63.5	3
	12	12	32	39	63.5	3
	14	14	32	39	63.5	3
	16	16	32	39	63.5	3
	18	18	32	39	63.5	3
	20	20	32	39	63.5	3
	25	25	32	39	63.5	3

- Stock Control Item.
- Inch type products are available.
- Other special sizes of Hydraulic Chuck collets could be produced and supplied.
- Feature: HR Hydraulic Chuck collet (reduction sleeve) is for high pressure coolant supply.
- Chucking Method: Please assemble cutting tool with collet firstly, and then insert collet into Hydraulic Chuck.

Shrink Fit Holder



DIN 69871 - SK

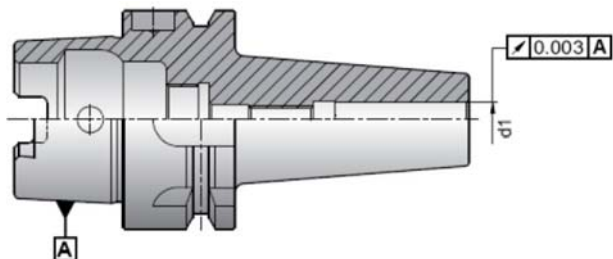
DIN 69893 / ISO 12164 - 1 - HSK

CBT (BT DUAL CONTACT)

JIS B6339 / MAS 403 - BT

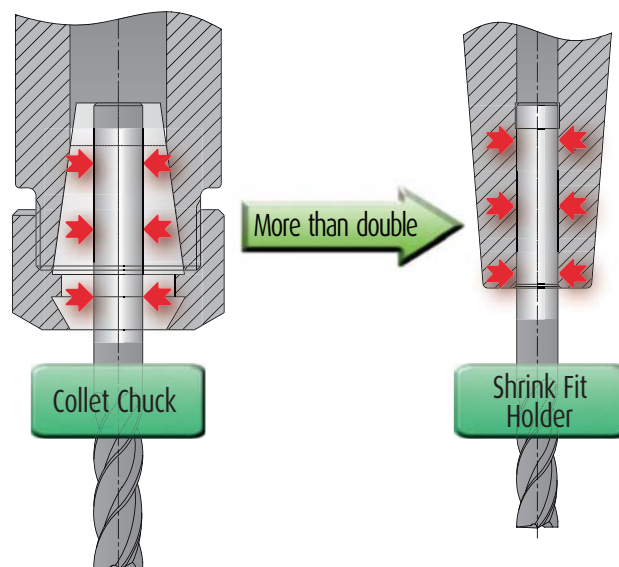
ISO 25

■ **High Precision ID**
Run-out : $\leq 0.003\text{mm}$



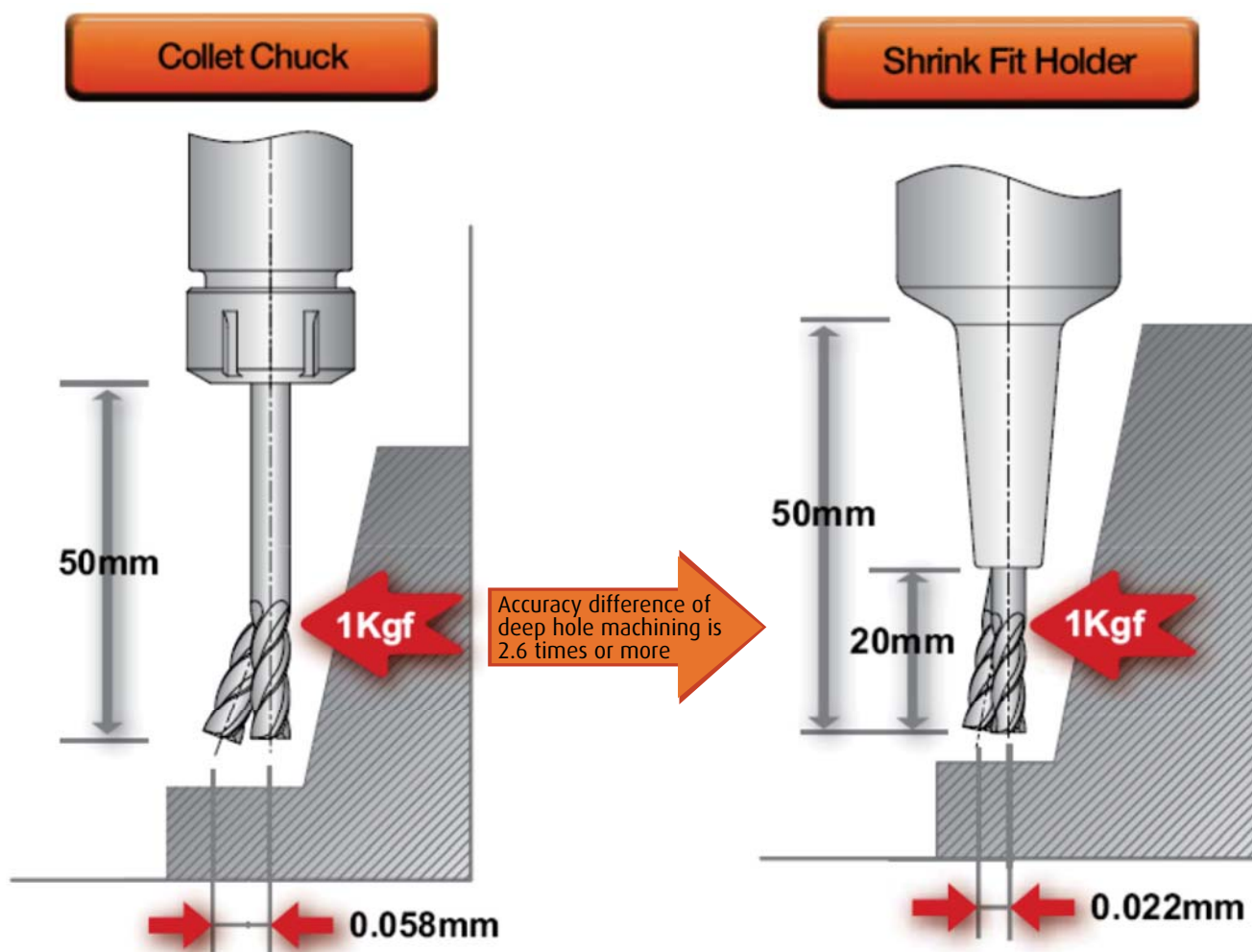
- Less than 0.003mm of Tool Holder accuracy at I.D.

■ **Strong and Consistent Torque Power**



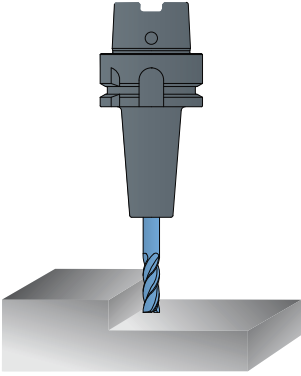
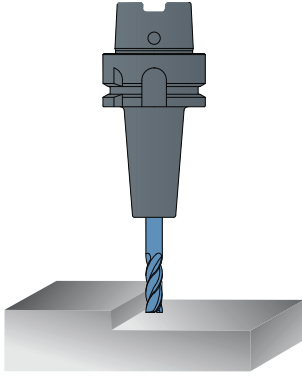
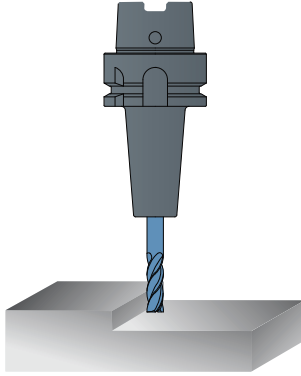
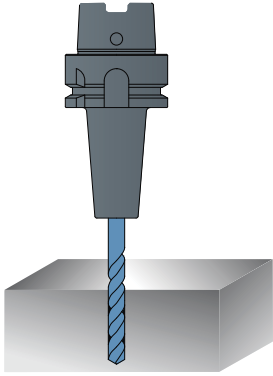
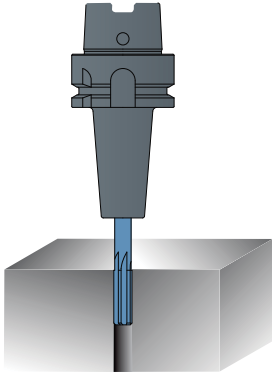
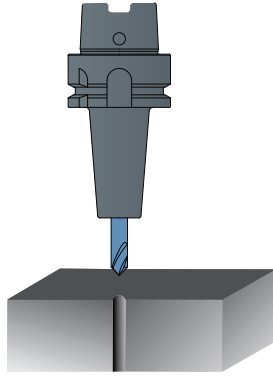
- Achieving strong torque power by integration of chuck and tool.

■ **Deep hole Machining**



- Suitable for high-speed precision deep hole machining.



APPLICATION		
Rough Milling	Finish Milling	High Speed Cutting
		
Drilling	Reaming	Countersinking
		

■ Shank Type of Cutting tool

■ Material of Cutting Tool

Straight Shank



One Weldon Flat Shaft Type



CARBIDE
TOOL

HSS TOOL

OK

NO

- One Weldon flat shaft type tool is usable, but there is a possibility that the I.D. of shrink fit holder may be deformed.

■ Shrink Fit Heating Machine

Feature :

- Electromagnetic induction heating system
- Automatic voltage adjustment : AC 100V~240V
- Small size and light weight
- Easy to operate

Specification :

Heating	Induction
Power	100V~220V AC, 50/60Hz
Dimension	380 x 350 x 720mm
Weight	22Kg
Holder Support	SK, HSK, BT





■ DIN 69871-SK

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



FIG.1

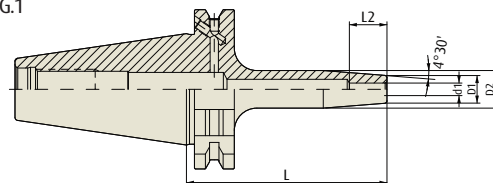
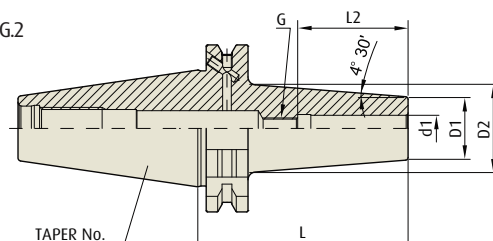


FIG.2



Unit:mm

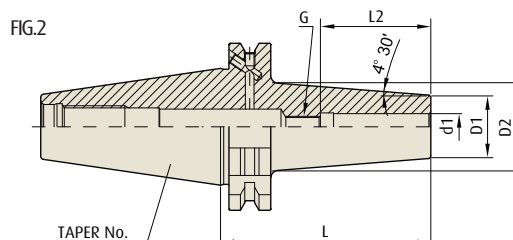
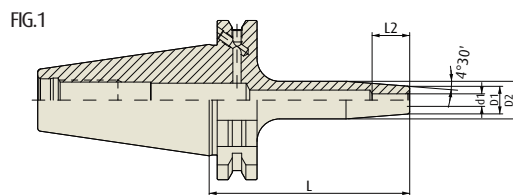
Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
30	SK30AD/B-SFH3-60	3	11	15	60	10	-	1	0.40	
	SK30AD/B-SFH4-60	4	11	15	60	12	-	1	0.40	
	SK30AD/B-SFH5-60	5	11	15	60	15	-	1	0.40	
	SK30AD/B-SFH6-60	6	21	27	60	36	M5X0.8	2	0.40	
	SK30AD/B-SFH8-60	8	21	27	60	36	M6X1.0	2	0.40	
	SK30AD/B-SFH10-80	10	24	32	80	42	M8X1.0	2	0.40	
	SK30AD/B-SFH12-80	12	24	32	80	47	M10X1.0	2	0.42	
	SK30AD/B-SFH14-80	14	27	34	80	47	M10X1.0	2		
	SK30AD/B-SFH16-80	16	27	34	80	50	M12X1.0	2	0.42	
	SK30AD/B-SFH18-80	18	33	42	80	50	M12X1.0	2		
	SK30AD/B-SFH20-90	20	33	42	90	52	M16X1.0	2	0.44	
40	SK40AD/B-SFH3-80	3	11	15	80	10	-	1	1.00	
	SK40AD/B-SFH4-80	4	11	15	80	12	-	1	1.00	
	SK40AD/B-SFH5-80	5	11	15	80	15	-	1	1.00	
	SK40AD/B-SFH6-80	6	21	27	80	36	M5X0.8	2	1.10	
	SK40AD/B-SFH6-160	6	21	27	160	36	M5X0.8	2	1.15	●
	SK40AD/B-SFH8-80	8	21	27	80	36	M6X1.0	2	1.11	●
	SK40AD/B-SFH8-160	8	21	27	160	36	M6X1.0	2	1.15	
	SK40AD/B-SFH10-80	10	24	32	80	42	M8X1.0	2	1.10	●
	SK40AD/B-SFH10-160	10	24	32	160	42	M8X1.0	2	1.15	●
	SK40AD/B-SFH12-80	12	24	32	80	47	M10X1.0	2	1.10	
	SK40AD/B-SFH12-160	12	24	32	160	47	M10X1.0	2	1.15	
	SK40AD/B-SFH14-80	14	27	34	80	47	M10X1.0	2	1.20	
	SK40AD/B-SFH14-160	14	27	34	160	47	M10X1.0	2	1.50	
	SK40AD/B-SFH16-80	16	27	34	80	50	M12X1.0	2	1.20	●
	SK40AD/B-SFH16-160	16	27	34	160	50	M12X1.0	2	1.50	●
	SK40AD/B-SFH18-80	18	33	42	80	50	M12X1.0	2	1.30	
	SK40AD/B-SFH18-160	18	33	42	160	50	M12X1.0	2	1.60	
	SK40AD/B-SFH20-80	20	33	42	80	52	M16X1.0	2	1.40	
	SK40AD/B-SFH20-160	20	33	42	160	52	M16X1.0	2	1.70	●
	SK40AD/B-SFH25-90	25	44	53	90	58	M16X1.0	2	1.70	
	SK40AD/B-SFH25-160	25	44	53	160	58	M16X1.0	2	2.00	

- CAT (ANSI B5.50) taper and inch type products are available.
- Without balancing screw.

■ **DIN 69871-SK**

DIN 69871 -SK	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
50	SK50AD/B-SFH3-80	3	11	15	100	10	-	1	1.50	
	SK50AD/B-SFH4-80	4	11	15	100	12	-	1	1.50	
	SK50AD/B-SFH5-80	5	11	15	100	15	-	1	1.50	
	SK50AD/B-SFH6-80	6	21	27	80	36	M5X0.8	2	1.50	
	SK50AD/B-SFH6-160	6	21	27	160	36	M5X0.8	2	2.00	
	SK50AD/B-SFH8-80	8	21	27	80	36	M6X1.0	2	1.50	
	SK50AD/B-SFH8-160	8	21	27	160	36	M6X1.0	2	2.00	
	SK50AD/B-SFH10-80	10	24	32	80	42	M8X1.0	2	1.50	
	SK50AD/B-SFH10-160	10	24	32	160	42	M8X1.0	2	2.00	
	SK50AD/B-SFH12-80	12	24	32	80	47	M10X1.0	2	1.50	
	SK50AD/B-SFH12-160	12	24	32	160	47	M10X1.0	2	2.00	
	SK50AD/B-SFH14-80	14	27	34	80	47	M10X1.0	2	1.60	
	SK50AD/B-SFH14-160	14	27	34	160	47	M10X1.0	2	2.10	
	SK50AD/B-SFH16-80	16	27	34	80	50	M12X1.0	2	1.60	
	SK50AD/B-SFH16-160	16	27	34	160	50	M12X1.0	2	2.10	
	SK50AD/B-SFH18-80	18	33	42	80	50	M12X1.0	2	1.60	
	SK50AD/B-SFH18-160	18	33	42	160	50	M12X1.0	2	2.00	
	SK50AD/B-SFH20-80	20	33	42	80	52	M16X1.0	2	1.80	
	SK50AD/B-SFH20-160	20	33	42	160	52	M16X1.0	2	2.20	
	SK50AD/B-SFH25-90	25	44	53	90	58	M16X1.0	2	2.00	
	SK50AD/B-SFH25-160	25	44	53	160	58	M16X1.0	2	2.40	

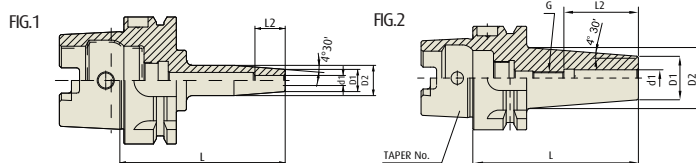
- CAT (ANSI B5.50) taper and inch type products are available.
- Without balancing screw.



■ DIN 69893/ISO 12164-1-HSK FORM A

DIN 69893-HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	-	2.5	25,000	≤ 3Um	AD

Xtreme

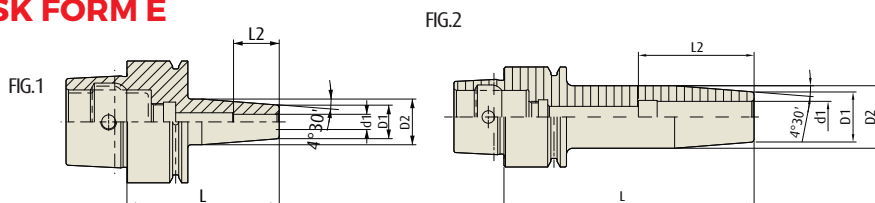


Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
40A	HSK40A-SFH3-60	3	11	15	60	10	-	1	0.30	●
	HSK40A-SFH3-80	3	11	15	80	10	-	1	0.40	
	HSK40A-SFH4-60	4	11	15	60	12	-	1	0.30	●
	HSK40A-SFH4-80	4	11	15	80	12	-	1	0.40	
	HSK40A-SFH5-60	5	11	15	60	15	-	1	0.30	
	HSK40A-SFH5-80	5	11	15	80	15	-	1	0.40	
	HSK40A-SFH6-60	6	21	27	60	36	M5X0.8	2	0.40	
	HSK40A-SFH6-80	6	21	27	80	36	M5X0.8	2	0.50	●
	HSK40A-SFH8-70	8	21	27	70	36	M6X1.0	2	0.40	
	HSK40A-SFH8-90	8	21	27	90	36	M6X1.0	2	0.50	
	HSK40A-SFH10-70	10	24	32	70	42	M8X1.0	2	0.50	●
	HSK40A-SFH10-90	10	24	32	90	42	M8X1.0	2	0.60	

- Without balancing screw.

■ DIN 69893/ISO 12164-1-HSK FORM E



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
40A	HSK25E-SFH3-45	3	11	15	45	10	-	1		
	HSK25E-SFH4-45	4	11	15	45	12	-	1		
	HSK25E-SFH5-45	5	11	15	45	15	-	1		
	HSK25E-SFH6-45	6	12	17	45	18	-	2		
	HSK25E-SFH8-45	8	14	18	45	30	-	2		
	HSK25E-SFH10-50	10	16	20	50	37	-	2		
	HSK32E-SFH3-60	3	11	15	60	10	-	1		
	HSK32E-SFH4-60	4	11	15	60	12	-	1		
	HSK32E-SFH5-60	5	11	15	60	15	-	1		
	HSK32E-SFH6-70	6	12	17	70	18	-	2		
	HSK32E-SFH8-70	8	14	18	70	30	-	2		●
	HSK32E-SFH10-80	10	16	20	10	37	-	2		
	HSK40E-SFH3-60	3	11	15	60	10	-	1	0.30	●
	HSK40E-SFH3-80	3	11	15	80	10	-	1	0.40	
	HSK40E-SFH4-60	4	11	15	60	12	-	1	0.30	●
	HSK40E-SFH4-80	4	11	15	80	12	-	1	0.40	
	HSK40E-SFH5-60	5	11	15	60	15	-	1	0.30	
	HSK40E-SFH5-80	5	11	15	80	15	-	1	0.40	
	HSK40E-SFH6-60	6	21	27	60	36	M5X0.8	2	0.40	
	HSK40E-SFH6-80	6	21	27	80	36	M5X0.8	2	0.50	●
	HSK40E-SFH8-70	8	21	27	70	36	M6X1.0	2	0.40	
	HSK40E-SFH8-90	8	21	27	90	36	M6X1.0	2	0.50	
	HSK40E-SFH10-70	10	24	32	70	42	M8X1.0	2	0.50	●
	HSK40E-SFH10-90	10	24	32	90	42	M8X1.0	2	0.60	

- Without balancing screw.

■ DIN 69893/ISO 12164-1-HSK FORM A

DIN 69893 -HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	-	2.5	25,000	≤ 3Um	AD

Xtreme



FIG.1

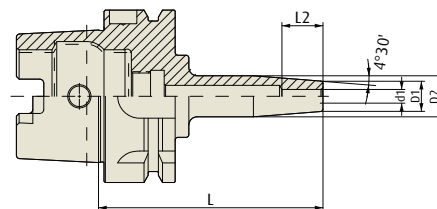
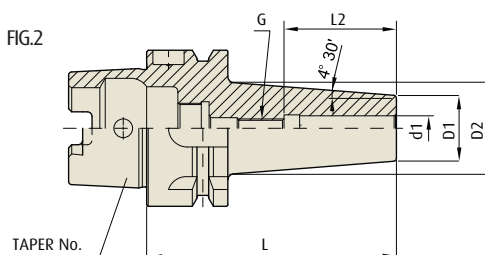


FIG.2



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
50A	HSK50A-SFH3-80	3	11	15	80	10	-	1	0.54	
	HSK50A-SFH4-80	4	11	15	80	12	-	1	0.55	
	HSK50A-SFH5-80	5	11	15	80	15	-	1	0.56	
	HSK50A-SFH6-80	6	21	27	80	36	M5X0.8	2	0.57	
	HSK50A-SFH8-80	8	21	27	80	36	M6X1.0	2	0.58	
	HSK50A-SFH10-85	10	24	32	85	42	M8X1.0	2	0.65	
	HSK50A-SFH12-90	12	24	32	90	47	M10X1.0	2	0.67	
	HSK50A-SFH14-90	14	27	34	90	47	M10X1.0	2	0.72	
	HSK50A-SFH16-95	16	27	34	95	50	M12X1.0	2	0.73	
	HSK50A-SFH18-95	18	33	42	95	50	M12X1.0	2	0.90	
	HSK50A-SFH20-100	20	33	42	100	52	M16X1.0	2	0.92	
63A	HSK63A-SFH3-80	3	11	15	80	10	-	1	0.70	●
	HSK63A-SFH4-80	4	11	15	80	12	-	1	0.70	●
	HSK63A-SFH5-80	5	11	15	80	15	-	1	0.70	●
	HSK63A-SFH6-80	6	21	27	80	36	M5X0.8	2	0.83	●
	HSK63A-SFH6-160	6	21	27	160	36	M5X0.8	2	1.00	
	HSK63A-SFH8-80	8	21	27	80	36	M6X1.0	2	0.83	●
	HSK63A-SFH8-160	8	21	27	160	36	M6X1.0	2	1.00	
	HSK63A-SFH10-85	10	24	32	85	42	M8X1.0	2	0.83	●
	HSK63A-SFH10-160	10	24	32	160	42	M8X1.0	2	1.00	
	HSK63A-SFH12-90	12	24	32	90	47	M10X1.0	2	0.83	
	HSK63A-SFH12-160	12	24	32	160	47	M10X1.0	2	1.00	
	HSK63A-SFH14-90	14	27	34	90	47	M10X1.0	2	0.91	
	HSK63A-SFH14-160	14	27	34	160	47	M10X1.0	2	1.30	
	HSK63A-SFH16-95	16	27	34	95	50	M12X1.0	2	0.98	●
	HSK63A-SFH16-160	16	27	34	160	50	M12X1.0	2	1.40	
	HSK63A-SFH18-95	18	33	42	95	50	M12X1.0	2	0.98	
	HSK63A-SFH18-160	18	33	42	160	50	M12X1.0	2	1.40	
	HSK63A-SFH20-100	20	33	42	100	52	M16X1.0	2	1.00	
	HSK63A-SFH20-160	20	33	42	160	52	M16X1.0	2	1.40	
	HSK63A-SFH25-115	25	44	53	115	58	M16X1.0	2	1.40	
	HSK63A-SFH25-160	25	44	53	160	58	M16X1.0	2	1.80	

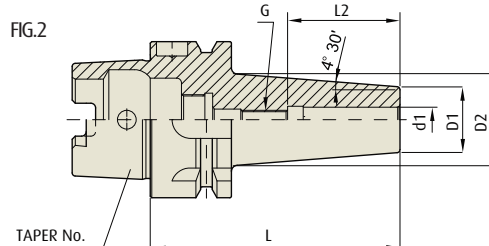
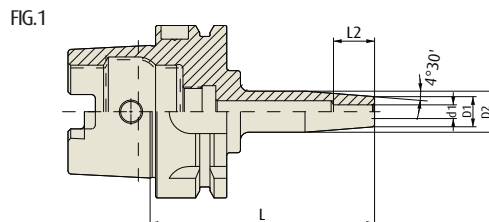
- Without balancing screw.



■ DIN 69893/ISO 12164-1-HSK FORM A

DIN 69893-HSK	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	-	2.5	25,000	≤ 3Um	AD

Xtreme



Unit:mm

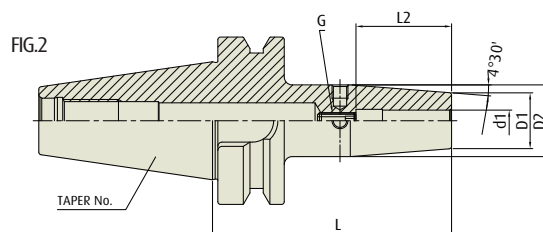
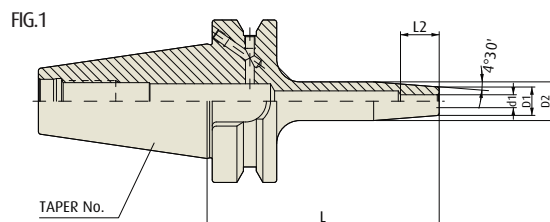
Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
80A	HSK80A-SFH6-85	6	21	27	85	36	M5X0.8	2		
	HSK80A-SFH8-85	8	21	27	85	36	M6X1.0	2		
	HSK80A-SFH10-90	10	24	32	90	41	M8X1.0	2		
	HSK80A-SFH12-95	12	24	32	95	46	M10X1.0	2		
	HSK80A-SFH14-95	14	27	34	95	46	M10X1.0	2		
	HSK80A-SFH16-100	16	27	34	100	49	M12X1.0	2		
	HSK80A-SFH18-100	18	33	42	100	49	M12X1.0	2		
	HSK80A-SFH20-105	20	33	42	105	51	M16X1.0	2		
	HSK80A-SFH25-115	25	44	53	115	57	M16X1.0	2		
100A	HSK100A-SFH3-85	3	11	15	85	10	-	1	1.30	
	HSK100A-SFH4-85	4	11	15	85	12	-	1	1.30	
	HSK100A-SFH5-85	5	11	15	85	15	-	1	1.30	
	HSK100A-SFH6-85	6	21	27	85	36	M5X0.8	2	1.30	●
	HSK100A-SFH6-160	6	21	27	160	36	M5X0.8	2	1.80	
	HSK100A-SFH8-85	8	21	27	85	36	M6X1.0	2	1.30	●
	HSK100A-SFH8-160	8	21	27	160	36	M6X1.0	2	1.80	
	HSK100A-SFH10-90	10	24	32	90	42	M8X1.0	2	1.30	●
	HSK100A-SFH10-160	10	24	32	160	42	M8X1.0	2	1.80	
	HSK100A-SFH12-95	12	24	32	95	47	M10X1.0	2	1.30	
	HSK100A-SFH12-160	12	24	32	160	47	M10X1.0	2	1.80	
	HSK100A-SFH14-95	14	27	34	95	47	M10X1.0	2	1.40	
	HSK100A-SFH14-160	14	27	34	160	47	M10X1.0	2	1.90	
	HSK100A-SFH16-100	16	27	34	100	50	M12X1.0	2	1.40	●
	HSK100A-SFH16-160	16	27	34	160	50	M12X1.0	2	1.90	●
	HSK100A-SFH18-100	18	33	42	100	50	M12X1.0	2	1.50	
	HSK100A-SFH18-160	18	33	42	160	50	M12X1.0	2	2.00	
	HSK100A-SFH20-100	20	33	42	100	52	M16X1.0	2	1.50	●
	HSK100A-SFH20-160	20	33	42	160	52	M16X1.0	2	2.00	●
	HSK100A-SFH25-115	25	44	53	115	58	M16X1.0	2	1.80	
	HSK100A-SFH25-160	25	44	53	160	58	M16X1.0	2	2.30	

- Without balancing screw.

■ CBT (BT Dual Contact)

CBT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3μm	AD

Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
30	CBT30-SFH3-60	3	11	15	60	14	-	1	0.40	
	CBT30-SFH4-60	4	11	15	60	17	-	1	0.40	
	CBT30-SFH5-60	5	11	15	60	23	-	1	0.40	
	CBT30-SFH6-60	6	21	27	60	36	M5X0.8	2	0.40	
	CBT30-SFH8-60	8	21	27	60	36	M6X1.0	2	0.40	
	CBT30-SFH10-80	10	24	32	80	42	M8X1.0	2	0.40	
	CBT30-SFH12-80	12	24	32	80	47	M10X1.0	2	0.42	
	CBT30-SFH14-80	14	27	34	80	47	M10X1.0	2		
40	CBT30-SFH16-80	16	27	34	80	50	M12X1.0	2	0.42	
	CBT30-SFH18-80	18	33	42	80	50	M12X1.0	2		●
	CBT30-SFH20-90	20	33	42	90	52	M16X1.0	2	0.44	●
	CBT40-SFH3-90	3	11	15	90	14	-	1	1.00	●
	CBT40-SFH4-90	4	11	15	90	17	-	1	1.00	●
	CBT40-SFH5-90	5	11	15	90	23	-	1	1.00	
	CBT40-SFH6-90	6	21	27	90	36	M5X0.8	2	1.10	●
	CBT40-SFH6-160	6	21	27	160	36	M5X0.8	2	1.15	
	CBT40-SFH8-90	8	21	27	90	36	M6X1.0	2	1.11	●
	CBT40-SFH8-160	8	21	27	160	36	M6X1.0	2	1.15	
	CBT40-SFH10-90	10	24	32	90	42	M8X1.0	2	1.10	●
	CBT40-SFH10-160	10	24	32	160	42	M8X1.0	2	1.15	
	CBT40-SFH12-90	12	24	32	90	47	M10X1.0	2	1.10	
	CBT40-SFH12-160	12	24	32	160	47	M10X1.0	2	1.15	
	CBT40-SFH14-90	14	27	34	90	47	M10X1.0	2	1.20	
	CBT40-SFH14-160	14	27	34	160	47	M10X1.0	2	1.50	
	CBT40-SFH16-90	16	27	34	90	50	M12X1.0	2	1.20	
	CBT40-SFH16-160	16	27	34	160	50	M12X1.0	2	1.50	
	CBT40-SFH18-90	18	33	42	90	50	M12X1.0	2	1.30	
	CBT40-SFH18-160	18	33	42	160	50	M12X1.0	2	1.60	
	CBT40-SFH20-90	20	33	42	90	52	M16X1.0	2	1.40	●
	CBT40-SFH20-160	20	33	42	160	52	M16X1.0	2	1.70	
	CBT40-SFH25-100	25	44	53	100	58	M16X1.0	2	1.70	●
	CBT40-SFH25-160	25	44	53	160	58	M16X1.0	2	2.00	

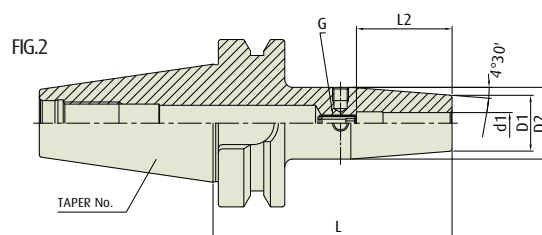
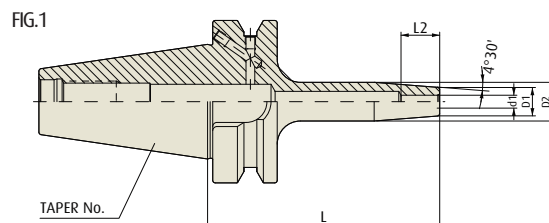
- Without balancing screw.



■ CBT (BT Dual Contact)

CBT	Taper Accuracy	G Value	RPM	Run-Out (at 3D)	Coolant System
	AT 3	2.5	25,000	≤ 3Um	AD

Xtreme



Unit:mm

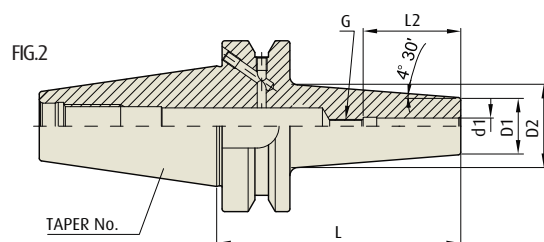
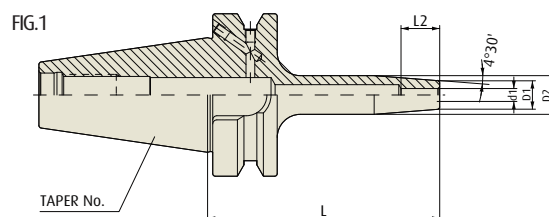
Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
50	CBT50-SFH3-100	3	11	15	100	10	-	1	1.50	
	CBT50-SFH4-100	4	11	15	100	12	-	1	1.50	
	CBT50-SFH5-100	5	11	15	100	15	-	1	1.50	
	CBT50-SFH6-100	6	21	27	100	36	M5X0.8	2	1.50	
	CBT50-SFH6-160	6	21	27	160	36	M5X0.8	2	2.00	
	CBT50-SFH8-100	8	21	27	100	36	M6X1.0	2	1.50	
	CBT50-SFH8-160	8	21	27	160	36	M6X1.0	2	2.00	
	CBT50-SFH10-100	10	24	32	100	42	M8X1.0	2	1.50	
	CBT50-SFH10-160	10	24	32	160	42	M8X1.0	2	2.00	
	CBT50-SFH12-100	12	24	32	100	47	M10X1.0	2	1.50	
	CBT50-SFH12-160	12	24	32	160	47	M10X1.0	2	2.00	
	CBT50-SFH14-100	14	27	34	100	47	M10X1.0	2	1.60	
	CBT50-SFH14-160	14	27	34	160	47	M10X1.0	2	2.10	
	CBT50-SFH16-100	16	27	34	100	50	M12X1.0	2	1.60	
	CBT50-SFH16-160	16	27	34	160	50	M12X1.0	2	2.10	
	CBT50-SFH18-100	18	33	42	100	50	M12X1.0	2	1.60	
	CBT50-SFH18-160	18	33	42	160	50	M12X1.0	2	2.00	
	CBT50-SFH20-100	20	33	42	100	52	M16X1.0	2	1.80	
	CBT50-SFH20-160	20	33	42	160	52	M16X1.0	2	2.20	
	CBT50-SFH25-100	25	44	53	100	58	M16X1.0	2	2.00	
	CBT50-SFH25-160	25	44	53	160	58	M16X1.0	2	2.40	

- Without balancing screw.

■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
30	BT30AD/B-SFH3-60	3	11	15	60	10	-	1	0.40	
	BT30AD/B-SFH4-60	4	11	15	60	12	-	1	0.40	
	BT30AD/B-SFH5-60	5	11	15	60	15	-	1	0.40	
	BT30AD/B-SFH6-60	6	21	27	60	36	M5X0.8	2	0.40	
	BT30AD/B-SFH8-60	8	21	27	60	36	M6X1.0	2	0.40	
	BT30AD/B-SFH10-80	10	24	32	80	42	M8X1.0	2	0.40	
	BT30AD/B-SFH12-80	12	24	32	80	47	M10X1.0	2	0.42	
	BT30AD/B-SFH14-80	14	27	34	80	47	M10X1.0	2		
	BT30AD/B-SFH16-80	16	27	34	80	50	M12X1.0	2	0.42	
	BT30AD/B-SFH18-80	18	33	42	80	50	M12X1.0	2		
	BT30AD/B-SFH20-90	20	33	42	90	52	M16X1.0	2	0.44	
40	BT40AD/B-SFH3-90	3	11	15	90	10	-	1	1.00	●
	BT40AD/B-SFH4-90	4	11	15	90	12	-	1	1.00	●
	BT40AD/B-SFH5-90	5	11	15	90	15	-	1	1.00	●
	BT40AD/B-SFH6-90	6	21	27	90	36	M5X0.8	2	1.10	●
	BT40AD/B-SFH6-160	6	21	27	160	36	M5X0.8	2	0.15	
	BT40AD/B-SFH8-90	8	21	27	90	36	M6X1.0	2	1.11	●
	BT40AD/B-SFH8-160	8	21	27	160	36	M6X1.0	2	1.15	
	BT40AD/B-SFH10-90	10	24	32	90	42	M8X1.0	2	1.10	●
	BT40AD/B-SFH10-160	10	24	32	160	42	M8X1.0	2	1.15	
	BT40AD/B-SFH12-90	12	24	32	90	47	M10X1.0	2	1.10	
	BT40AD/B-SFH12-160	12	24	32	160	47	M10X1.0	2	1.15	
	BT40AD/B-SFH14-90	14	27	34	90	47	M10X1.0	2	1.20	
	BT40AD/B-SFH14-160	14	27	34	160	47	M10X1.0	2	1.50	
	BT40AD/B-SFH16-90	16	27	34	90	50	M12X1.0	2	1.20	●
	BT40AD/B-SFH16-160	16	27	34	160	50	M12X1.0	2	1.50	
	BT40AD/B-SFH18-90	18	33	42	90	50	M12X1.0	2	1.30	
	BT40AD/B-SFH18-160	18	33	42	160	50	M12X1.0	2	1.60	
	BT40AD/B-SFH20-90	20	33	42	90	52	M16X1.0	2	1.40	●
	BT40AD/B-SFH20-160	20	33	42	160	52	M16X1.0	2	1.70	
	BT40AD/B-SFH25-100	25	44	53	100	58	M16X1.0	2	1.70	●
	BT40AD/B-SFH25-160	25	44	53	160	58	M16X1.0	2	2.00	

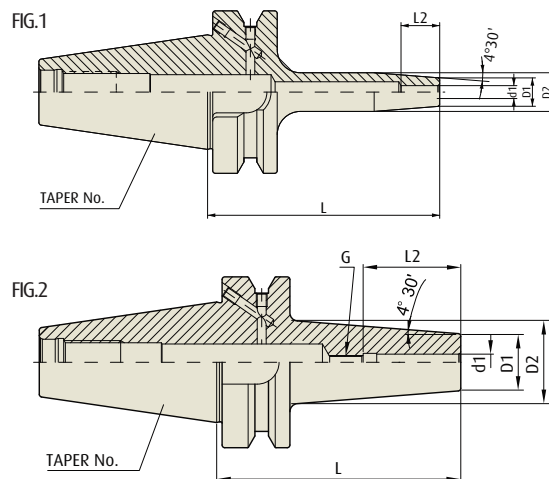
- CAT (ANSI B5.50) taper and inch type products are available.
- Without balancing screw.



■ JIS B6339/MAS 403-BT

JIS B6339 -BT	Taper Accuracy AT 3	G Value 2.5	RPM 25,000	Run-Out (at 3D) ≤ 3Um	Coolant System AD/B
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Xtreme



Unit:mm

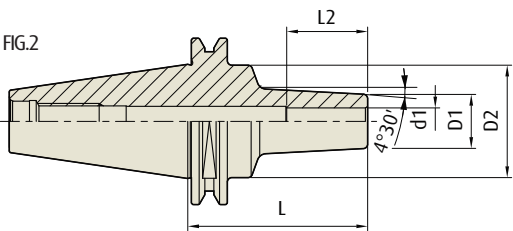
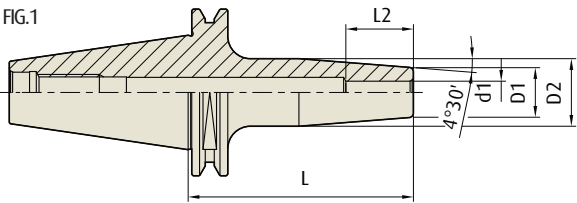
Taper No.	Part No.	d1	D1	D2	L	L2	G	Fig.	Weight (kg)	Stock
50	BT50AD/B-SFH3-100	3	11	15	100	10	-	1	1.50	
	BT50AD/B-SFH4-100	4	11	15	100	12	-	1	1.50	
	BT50AD/B-SFH5-100	5	11	15	100	15	-	1	1.50	
	BT50AD/B-SFH6-100	6	21	27	100	36	M5X0.8	2	1.50	
	BT50AD/B-SFH6-160	6	21	27	160	36	M5X0.8	2	2.00	
	BT50AD/B-SFH8-100	8	21	27	100	36	M6X1.0	2	1.50	
	BT50AD/B-SFH8-160	8	21	27	160	36	M6X1.0	2	2.00	
	BT50AD/B-SFH10-100	10	24	32	100	42	M8X1.0	2	1.50	
	BT50AD/B-SFH10-160	10	24	32	160	42	M8X1.0	2	2.00	
	BT50AD/B-SFH12-100	12	24	32	100	47	M10X1.0	2	1.50	
	BT50AD/B-SFH12-160	12	24	32	160	47	M10X1.0	2	2.00	
	BT50AD/B-SFH14-100	14	27	34	100	47	M10X1.0	2	1.60	
	BT50AD/B-SFH14-160	14	27	34	160	47	M10X1.0	2	2.10	
	BT50AD/B-SFH16-100	16	27	34	100	50	M12X1.0	2	1.60	
	BT50AD/B-SFH16-160	16	27	34	160	50	M12X1.0	2	2.10	
	BT50AD/B-SFH18-100	18	33	42	100	50	M12X1.0	2	1.60	
	BT50AD/B-SFH18-160	18	33	42	160	50	M12X1.0	2	2.00	
	BT50AD/B-SFH20-100	20	33	42	100	52	M16X1.0	2	1.80	
	BT50AD/B-SFH20-160	20	33	42	160	52	M16X1.0	2	2.20	
	BT50AD/B-SFH25-100	25	44	53	100	58	M16X1.0	2	2.00	
	BT50AD/B-SFH25-160	25	44	53	160	58	M16X1.0	2	2.40	

- CAT (ANSI B5.50) taper and inch type products are available.
- Without balancing screw.

■ ISO 25

ISO 25	Taper Accuracy AT 3	G Value 2.5	RPM 30,000	Run-Out (at 3D) ≤ 3µm	Coolant System AD
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Xtreme



Unit:mm

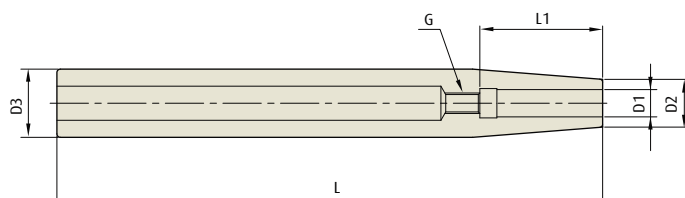
Taper No.	Part No.	d1	D1	D2	L	L2	Fig.	Weight (kg)	Stock
25	ISO25-SFH3-50	3	11	15	50	10	1		
	ISO25-SFH4-50	4	11	15	50	12	1		
	ISO25-SFH5-50	5	11	15	50	15	1		
	ISO25-SFH6-40	6	12	17	40	18	2		
	ISO25-SFH8-50	8	14	18	50	30	2		
	ISO25-SFH10-50	10	16	20	50	37	2		

- Higher balancing grade is available upon request.
- To be supplied with assembling of pull stud bolt.
- Without balancing screw.



■ Standard

Xtreme



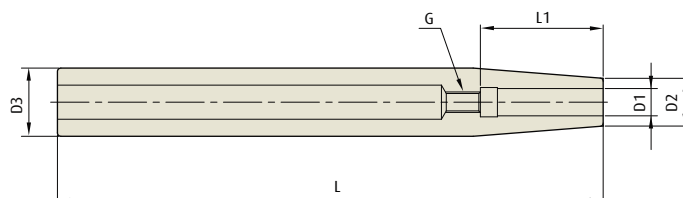
Unit:mm

Taper No.	Part No.	d1	D2	D3	L	L2	G	Weight (kg)	Stock
12	ST12-SFH3-120	3	8	12	19	120	-		●
	ST12-SFH4-120	4	8	12	22	120	-		●
	ST12-SFH5-120	5	10	12	28	120	-		●
	ST12-SFH6-120	6	10	12	36	120	M5X0.8		●
16	ST16-SFH3-120	3	10	16	19	120	-		●
	ST16-SFH4-120	4	10	16	22	120	-		●
	ST16-SFH5-120	5	10	16	28	120	-		●
	ST16-SFH6-120	6	10	16	36	120	M5X0.8		●
	ST16-SFH8-120	8	12	16	36	120	M6X1.0		●
20	ST20-SFH3-120	3	10	20	19	120	-		●
	ST20-SFH4-120	4	10	20	22	120	-		●
	ST20-SFH5-120	5	10	20	28	120	-		●
	ST20-SFH6-120	6	10	20	36	120	M5X0.8		●
	ST20-SFH8-120	8	12	20	36	120	M6X1.0		●
	ST20-SFH10-120	10	14	20	42	120	M8X1.0		●
	ST20-SFH12-120	12	16	20	47	120	M10X1.0		●

- Inch type products are available.

Standard

Xtreme



Unit:mm

Taper No.	Part No.	D1	D2	D3	L	L2	G	Weight (kg)	Stock
12	ST12-SFH3-160	3	8	12	19	160	-		●
	ST12-SFH4-160	4	8	12	22	160	-		●
	ST12-SFH5-160	5	10	12	28	160	-		●
	ST12-SFH6-160	6	10	12	36	160	M5X0.8		●
	ST16-SFH3-160	3	10	16	19	160	-		●
16	ST16-SFH4-160	4	10	16	22	160	-		●
	ST16-SFH5-160	5	10	16	28	160	-		●
	ST16-SFH6-160	6	10	16	36	160	M5X0.8		●
	ST16-SFH8-160	8	12	16	36	160	M6X1.0		●
	ST20-SFH3-160	3	10	20	19	160	-		●
20	ST20-SFH4-160	4	10	20	22	160	-		●
	ST20-SFH5-160	5	10	20	28	160	-		●
	ST20-SFH6-160	6	10	20	36	160	M5X0.8		●
	ST20-SFH8-160	8	12	20	36	160	M6X1.0		●
	ST20-SFH10-160	10	14	20	42	160	M8X1.0		●
	ST20-SFH12-160	12	16	20	47	160	M10X1.0		●
	ST25-SFH3-160	3	10	25	19	160	-		●
25	ST25-SFH4-160	4	10	25	22	160	-		●
	ST25-SFH5-160	5	15	25	28	160	-		●
	ST25-SFH6-160	6	20	25	36	160	M5X0.8		●
	ST25-SFH8-160	8	20	25	36	160	M6X1.0		●
	ST25-SFH10-160	10	20	25	42	160	M8X1.0		●
	ST25-SFH12-160	12	20	25	47	160	M10X1.0		●
	ST25-SFH14-160	14	20	25	47	160	M10X1.0		●
	ST25-SFH16-160	16	22	25	50	160	M12X1.0		●
	ST32-SFH6-160	6	20	32	36	160	M5X0.8		●
32	ST32-SFH8-160	8	20	32	36	160	M6X1.0		●
	ST32-SFH10-160	10	24	32	42	160	M8X1.0		●
	ST32-SFH12-160	12	24	32	47	160	M10X1.0		●
	ST32-SFH14-160	14	27	32	47	160	M10X1.0		●
	ST32-SFH16-160	16	27	32	50	160	M12X1.0		●
	ST32-SFH18-160	18	27	32	50	160	M12X1.0		●
	ST32-SFH20-160	20	27	32	52	160	M16X1.0		●

- Inch type products are available.

Synchro Tapping Chuck



SYNCHRO TAPPING CHUCK (ER TYPE)

DIN 69871 - SK

DIN 69893 / ISO 12164 - 1 - HSK

STRAIGHT - K

SYNCHRO TAPPING CHUCK (QUICK CHANGE TYPE)

DIN 69871 - SK

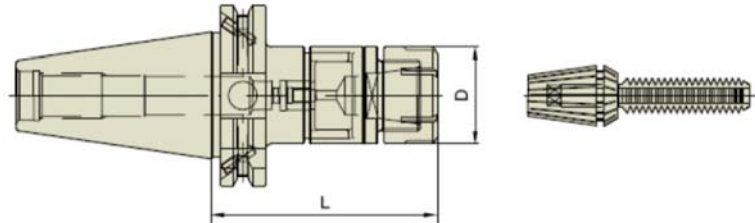
DIN 69893 / ISO 12164 - 1 - HSK

STRAIGHT - K

■ DIN 69871 - SK

DIN 69871 - SK	Taper Accuracy	G Value	RPM	Coolant System
	AT 3	-	-	AD/B

Xuper



Unit : mm

Taper No.	Part No.	Tap Size	Clamping Range	Nut	D	L	Weight (Kg.)	Stock
40	SK40AD/B-SYTER12-79	M2~M8	3.0~6.2	ER16	28	79		●
	SK40AD/B-SYTER16-85	M3~M10	4.0~7.0	ER20	34	85		●
	SK40AD/B-SYTER20-90	M3~M14	4.0~10.5	ER25	42	90		●
	SK40AD/B-SYTER27-100	M4~M18	5.0~14.0	ER32	50	100		●
	SK40AD/B-SYTER33-120	M8~M24	6.2~19.0	ER40	63	120		●
50	SK50AD/B-SYTER12-79	M2~M8	3.0~6.2	ER16	28	79		
	SK50AD/B-SYTER16-85	M3~M10	4.0~7.0	ER20	34	85		
	SK50AD/B-SYTER20-90	M3~M14	4.0~10.5	ER25	42	90		
	SK50AD/B-SYTER27-100	M4~M18	5.0~14.0	ER32	50	100		
	SK50AD/B-SYTER33-105	M8~M24	6.2~19.0	ER40	63	105		

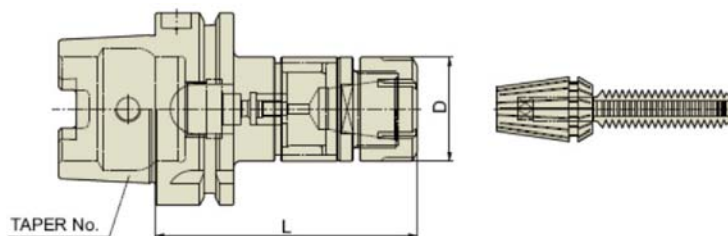
- Feature :
 - To compensate for synchronization errors to extend tap life and to improve thread quality.
 - To compensate for pitch tolerances of taps.
 - For machine with synchronized spindle.
- CAT (ANSI B5.50) taper and inch type products are available.
- ER collet of page 84~86, and Tap ER collet of page 87 are applicable.



■ DIN 69893 / ISO 12164 - 1 - HSK Form A

DIN 69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
	-	-	-	AD

Xuper



Unit : mm

Taper No.	Part No.	Tap Size	Clamping Range	Nut	D	L	Weight (Kg.)	Stock
63A	HSK63A-SYTER16-90	M3~M10	4.0~7.0	ER20	34	90		
	HSK63A-SYTER20-94	M3~M14	4.0~10.5	ER25	42	94		
	HSK63A-SYTER27-105	M4~M18	5.0~14.0	ER32	50	105		

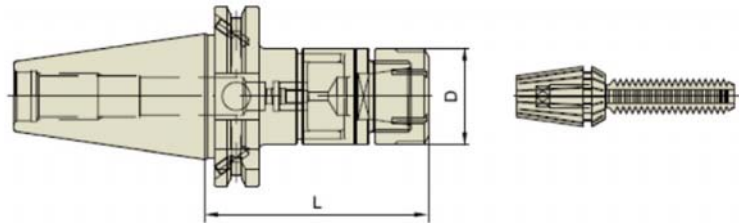
- Feature :

- To compensate for synchronization errors to extend tap life and to improve thread quality.
 - To compensate for pitch tolerances of taps.
 - For machine with synchronized spindle.
- ER collet of page 84~86, and Tap ER collet of page 87 are applicable.

■ JIS B6339 / MAS 403 - BT

JIS B6339 - BT	Taper Accuracy AT 3	G Value -	RPM -	Coolant System AD/B
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Xuper

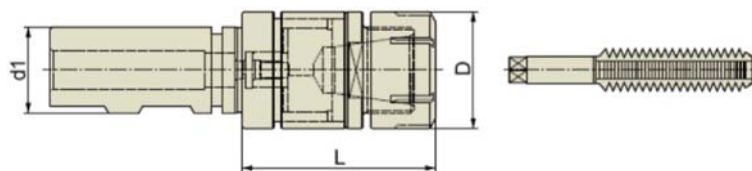


Unit : mm

Taper No.	Part No.	Tap Size	Clamping Range	Nut	D	L	Weight (Kg.)	Stock
40	BT40AD/B-SYTER12-79	M2~M8	3.0~6.2	ER16	28	79		●
	BT40AD/B-SYTER16-85	M3~M10	4.0~7.0	ER20	34	85		●
	BT40AD/B-SYTER20-90	M3~M14	4.0~10.5	ER25	42	90		●
	BT40AD/B-SYTER27-100	M4~M18	5.0~14.0	ER32	50	100		●
	BT40AD/B-SYTER33-125	M8~M24	6.2~19.0	ER40	63	125		●
50	BT50AD/B-SYTER12-100	M2~M8	3.0~6.2	ER16	28	100		
	BT50AD/B-SYTER16-100	M3~M10	4.0~7.0	ER20	34	100		
	BT50AD/B-SYTER20-100	M3~M14	4.0~10.5	ER25	42	100		
	BT50AD/B-SYTER27-110	M4~M18	5.0~14.0	ER32	50	110		
	BT50AD/B-SYTER33-125	M8~M24	6.2~19.0	ER40	63	125		

- Feature :
 - To compensate for synchronization errors to extend tap life and to improve thread quality.
 - To compensate for pitch tolerances of taps.
 - For machine with synchronized spindle.
- ER collet of page 84~86, and Tap ER collet of page 87 are applicable.

■ STRAIGHT - K



Unit : mm

Part No.	Tap Size	Clamping Range	Nut/Collet	D	L	d1	Weight (Kg.)
K20-SYTER16	M3~M10	4.0~7.0	ER20	34	58	ø20	
K25-SYTER16	M3~M10	4.0~7.0	ER20	34	61	ø25	
K25-SYTER27	M4~M18	5.0~14.0	ER32	50	69	ø25	

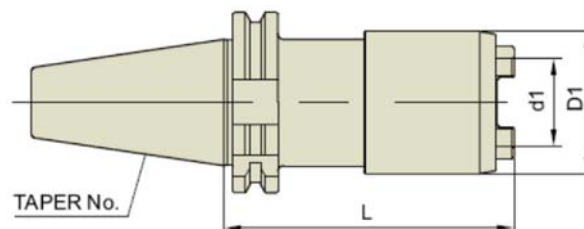


Synchro Tapping Chuck (Quick Change Type)

■ DIN 69871 - SK

DIN 69871 - SK	Taper Accuracy AT 3	G Value -	RPM -	Coolant System -
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Xuper



Unit : mm

Taper No.	Part No.	Tap Size	Matching Insert	d1	D1	L	Weight (Kg.)	Stock
30	SK30-SYTC12-65	M3~M12	1	19	36	65	0.5	
	SK30-SYTC20-89	M6~M24	2	31	50	89	1	
40	SK40-SYTC12-65	M3~M12	1	19	36	65	1.1	●
	SK40-SYTC20-79	M6~M24	2	31	50	79	1.5	●
	SK40-SYTC33-115	M18~M38	3	48	74	115	3.3	●
50	SK50-SYTC12-65	M3~M12	1	19	36	65	3	
	SK50-SYTC20-79	M6~M24	2	31	50	79	3.3	
	SK50-SYTC33-115	M18~M38	3	48	74	115	5.2	

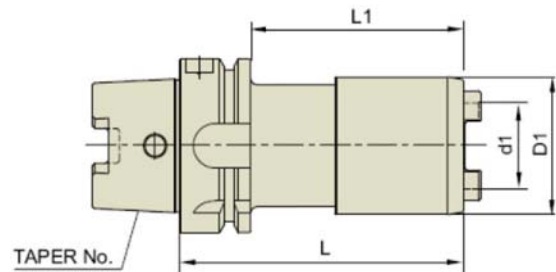
- Feature :

- To compensate for synchronization errors to extend tap life and to improve thread quality.
- To compensate for pitch tolerances of taps.
- For machine with synchronized spindle.
- CAT (ANSI B5.50) taper and inch type products are available.
- For applicable tap Adaptor, please refer to page 175~176.

■ DIN 69893 / ISO 12164-1-HSK Form A

DIN 69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
-	-	-	-	-

Xuper



Unit : mm

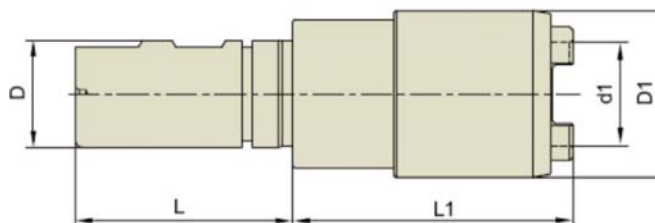
Taper No.	Part No.	Tap Size	Matching Inserts	d1	D1	L	L1	Stock
32A	HSK32A-SYTC12-75	M3~M12	1	19	36	75	55	
50A	HSK50A-SYTC12-72	M3~M12	1	19	36	72	46	
	HSK50A-SYTC20-91	M6~M24	2	31	50	91	65	
63A	HSK63A-SYTC12-75	M3~M12	1	19	36	75	49	●
	HSK63A-SYTC12-80	M3~M12	1	19	36	80	54	●
	HSK63A-SYTC12-120	M3~M12	1	19	36	120	94	●
	HSK63A-SYTC12-152	M3~M12	1	19	36	152	126	●
	HSK63A-SYTC12-180	M3~M12	1	19	36	180	154	●
	HSK63A-SYTC20-89	M6~M24	2	31	50	89	63	●
	HSK63A-SYTC33-121	M18~M38	3	48	74	121	95	●
100A	HSK100A-SYTC12-75	M3~M12	1	19	36	75	43	
	HSK100A-SYTC12-160	M3~M12	1	19	36	160	131	
	HSK100A-SYTC20-94	M6~M24	2	31	50	94	65	
	HSK100A-SYTC20-160	M6~M24	2	31	50	160	131	
	HSK100A-SYTC33-127	M18~M38	3	48	74	127	98	
	HSK100A-SYTC33-160	M18~M38	3	48	74	160	131	

- Feature :
 - To compensate for synchronization errors to extend tap life and to improve thread quality.
 - To compensate for pitch tolerances of taps.
 - For machine with synchronized spindle.
- For applicable Tap Adaptor, please refer to page 175~176.



■ STRAIGHT - K

Xuper



Unit : mm

Taper No.	Part No.	Tap Size	Matching Inserts	d1	D1	L	L1	Stock
20	K20-SYTC12-46	M3~M12	1	19	36	50	46	
	K20-SYTC12-107.5	M3~M12	1	19	36	50	107.5	
25	K25-SYTC12-46	M3~M12	1	19	36	56	46	
	K25-SYTC20-74	M6~M24	2	31	50	56	74	
	K25-SYTC33-107.5	M18~M38	3	48	74	56	107.5	
32	K32-SYTC12-74	M3~M12	1	31	50	60	74	

- Feature :

- To compensate for synchronization errors to extend tap life and to improve thread quality.
- To compensate for pitch tolerances of taps.
- For machine with synchronized spindle.
- For applicable Tap Adaptor, please refer to page 175~176.

Boring System



FINE BORING BAR

**BORING BAR SET, BASIC HOLDER, EXTENSION BAR,
FINE BORING HEAD**

TWIN EDGE BORING BAR : JIS B6339/MAS 403-BT, DIN 69871 - SK

**BORING BAR SET, STRAIGHT TWIN EDGE BORING BAR, BASIC HOLDER
TWIN BORE HEAD, INSERT HOLDER, REDUCTION/EXTENSION BAR**

MICRO BORING BAR : JIS B6339/MAS 403 - BT

BT / ST (BCA), MICRO UNIT PARTS

SQUARE BORING BAR : JIS B6339 / MAS 403 - BT

BT (BSA), ST (BSB), SQUARE BITE (BAS, BSB)

BIG MICRO CUT BORING BAR : JIS B6339/MAS 403 - BT

BT (BRA), (RING ADAPTER, RING HEAD)



Boring Range 20mm~153mm

Modular System

Basic Holder



Boring Head



Extension Bar



Boring Head

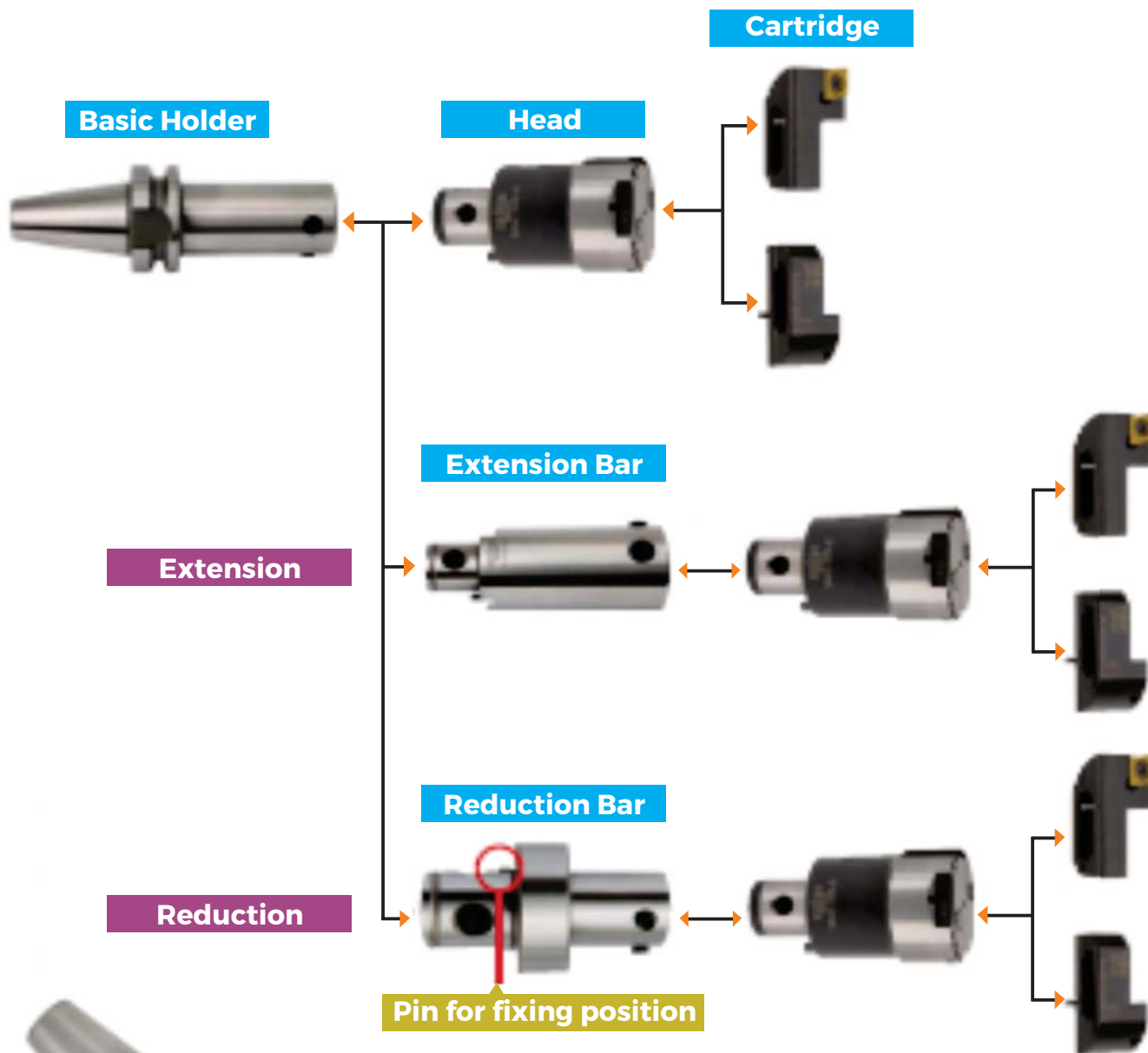


Feature

- Excellent roughness of boring surface by precise boring.
- Precise boring range adjustment by adjustment Dial with 1/100mm unit.
- Ease to adjust length by employing modular system to use extension bar with various size.
- Double rigid fixing of extension bar with
 - Side locking
 - Fixing pin inside
- Design to use insert conforming to ISO standard.

Boring Range 25mm~156mm

Modular System

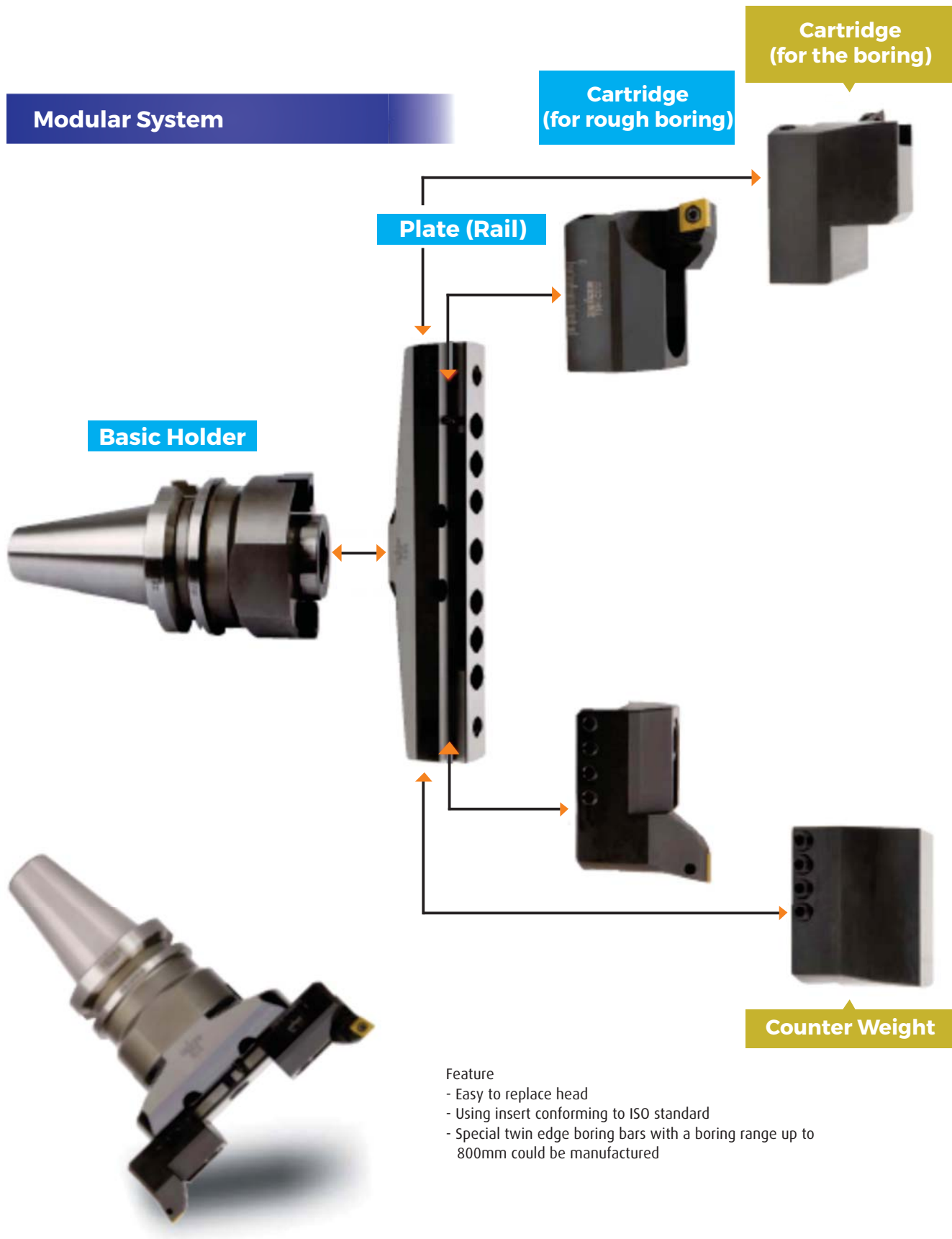


Feature

- Easy to replace head
- Extension Bar : Adjusting length according to machining conditions
- Reduction Bar : Adjusting boring range according to machining conditions.
- Precision of extension, reduction, reduction, and repeatedly attaching and detaching Head : $\leq 0.002\text{mm}$
- Using insert conforming to ISO standard



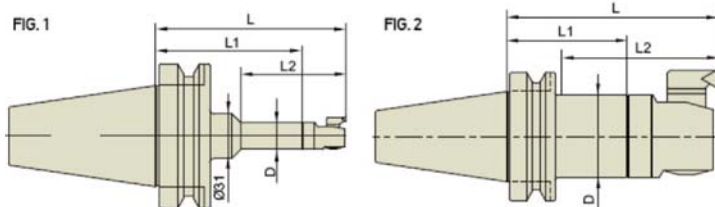
Boring Range : 153~576mm (Fine Boring Bar)
156mm~576mm (Twin Edge Boring Bar)



■ JIS B6339 / MAS 403 - BT

JIS B6339 - BT	Taper Accuracy AT 3	G Value -	RPM -	Coolant System AD
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Xtreme



Unit:mm

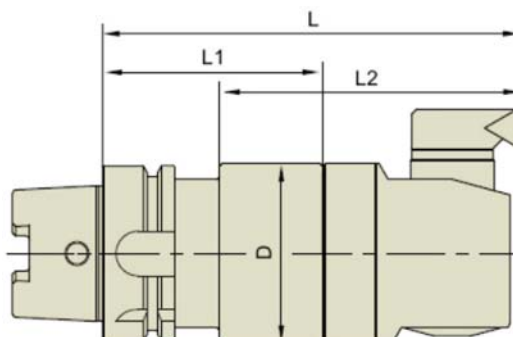
Taper No.	Part No.	Bore Range (Front)	D	L	L1	L2	Fig.	Weight (kg.)	Stock
30	BT30-BAH1-105	20~26	19	104.5	72	73	1		
	BT30-BAH2-75	25~33	24	73	37.5	48	2		
	BT30-BAH2-120	25~33	24	118	82.5	93	2		
	BT30-BAH3-80	32~42	31	79	39	53	2		
	BT30-BAH3-120	32~42	31	119	79	93	2		
	BT30-BAH4-85	41~54	39	85	38	58	2		
	BT30-BAH4-120	41~54	39	120	73	93	2		
40	BT30-BAH5-120	53~70	50	120	63	93	2		
	BT40-BAH1-105	20~26	19	104.5	72	73	2		●
	BT40-BAH2-80	25~33	24	78	42.5	48	2		●
	BT40-BAH2-120	25~33	24	118	82.5	88	2		●
	BT40-BAH3-85	32~42	31	84	44	53	2		●
	BT40-BAH3-135	32~42	31	134	94	103	2		●
	BT40-BAH4-90	41~54	39	90	43	58	2		●
	BT40-BAH4-135	41~54	39	135	88	103	2		●
	BT40-BAH5-105	53~70	50	105	48	73	2		●
	BT40-BAH5-135	53~70	50	135	79	103	2		●
50	BT40-BAH6-135	68~100	64	135	64	103	2		●
	BT50-BAH1-135	20~26	19	134.5	102	73	1		
	BT50-BAH2-90	25~33	24	88	52.5	47	2		
	BT50-BAH2-150	25~33	24	148	112.5	107	2		
	BT50-BAH3-95	32~42	31	94	54	52	2		
	BT50-BAH3-165	32~42	31	165	124	122	2		
	BT50-BAH4-105	41~54	39	105	58	62	2		
	BT50-BAH4-165	41~54	39	165	118	122	2		
	BT50-BAH4-225	41~54	39	225	178	182	2		
	BT50-BAH5-120	53~70	50	120	63	77	2		
	BT50-BAH5-165	53~70	50	165	108	122	2		
	BT50-BAH5-240	53~70	50	240	183	197	2		
	BT50-BAH5-285	53~70	50	285	228	242	2		
	BT50-BAH6-165	68~100	64	165	94	122	2		
	BT50-BAH6-240	68~100	64	240	169	197	2		
	BT50-BAH6-300	68~100	64	300	229	257	2		
	BT50-BAH7-180	100~153	90	180	93	142	2		
	BT50-BAH7-330	100~153	90	330	243	292	2		



■ DIN 69893 / ISO 12164-1-HSK Form A

DIN 69893 - HSK	Taper Accuracy	G Value	RPM	Coolant System
-	-	-	-	AD

Xtreme



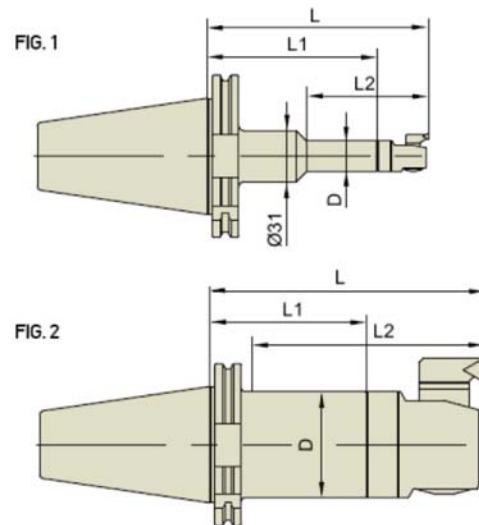
Unit:mm

Taper No.	Part No.	Bore Range (Front)	D	L	L1	L2	Weight (kg.)	Stock
40A	HSK40A-BAH1-72.5	20~26	19	105	72.5	73		
	HSK40A-BAH2-39.5	25~33	24	75	39.5	44		
	HSK40A-BAH2-84.5	25~33	24	120	84.5	89		
	HSK40A-BAH3-45	32~42	31	85	45	57		
	HSK40A-BAH3-80	32~42	31	120	80	92		
	HSK40A-BAH4-53	41~54	39	100	53			
	HSK40A-BAH4-73	41~54	39	120	73			
50A	HSK50A-BAH1-72.5	20~26	19	105	72.5	65		
	HSK50A-BAH2-84.5	25~33	24	117	84.5	80		●
	HSK50A-BAH3-80	32~42	31	120	80	82		●
	HSK50A-BAH4-73	41~54	39	120	73	76		●
	HSK50A-BAH5-83	53~70	50	140	83			●
63A	HSK63A-BAH1-77.5	20~26	19	110	77.5	73		●
	HSK63A-BAH2-89.5	25~33	24	125	89.5	88		●
	HSK63A-BAH3-100	32~42	31	140	100	103		●
	HSK63A-BAH4-93	41~54	39	140	93	103		●
	HSK63A-BAH5-83	53~70	50	140	83	105		●
	HSK63A-BAH6-79	68~100	64	150	79			●
100A	HSK100A-BAH1-102.5	20~26	19	135	102.5	73		
	HSK100A-BAH2-114.5	25~33	24	150	114.5	107		
	HSK100A-BAH3-125	32~42	31	165	125	122		
	HSK100A-BAH4-118	41~54	39	165	118	122		
	HSK100A-BAH4-178	41~54	39	225	178	182		
	HSK100A-BAH5-108	53~70	50	165	108	122		
	HSK100A-BAH5-183	53~70	50	240	183	197		
	HSK100A-BAH5-228	53~70	50	285	228	242		
	HSK100A-BAH6-94	68~100	64	165	94	122		
	HSK100A-BAH6-169	68~100	64	240	169	197		
	HSK100A-BAH6-229	68~100	64	300	229	257		
	HSK100A-BAH7-123	100~153	90	210	123	181		
	HSK100A-BAH7-273	100~153	90	360	273	331		

■ **DIN 69871 - SK**

DIN	Taper	G Value	RPM	Coolant
69871 - SK	Accuracy AT 3	-	-	System AD

Xtreme



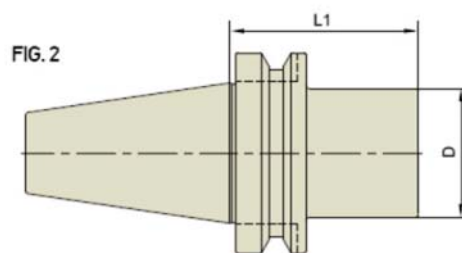
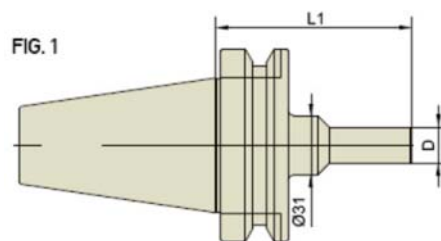
Unit:mm

Taper No.	Part No.	Bore Range (Front)	D	L	L1	L2	Fig.	Weight (kg.)	Stock
40	SK40-BAH1-105	20~26	19	104.5	72	73	2		
	SK40-BAH2-80	25~33	24	78	42.5	48	2		
	SK40-BAH2-120	25~33	24	118	82.5	88	2		
	SK40-BAH3-85	32~42	31	84	44	53	2		
	SK40-BAH3-135	32~42	31	134	94	103	2		
	SK40-BAH4-90	41~54	39	90	43	58	2		
	SK40-BAH4-135	41~54	39	135	88	103	2		
	SK40-BAH5-105	53~70	50	105	48	73	2		
50	SK40-BAH5-135	53~70	50	135	79	103	2		
	SK40-BAH6-135	68~100	64	135	64	103	2		
	SK50-BAH1-135	20~26	19	134.5	102	73	1		
	SK50-BAH2-90	25~33	24	88	52.5	66	2		
	SK50-BAH2-150	25~33	24	148	112.5	126	2		
	SK50-BAH3-95	32~42	31	94	54	71	2		
	SK50-BAH3-165	32~42	31	164	124	141	2		
	SK50-BAH4-105	41~54	39	105	58	81	2		
	SK50-BAH4-165	41~54	39	165	118	141	2		
	SK50-BAH4-225	41~54	39	225	178	201	2		
	SK50-BAH5-120	53~70	50	120	63	96	2		
	SK50-BAH5-165	53~70	50	165	105	141	2		
	SK50-BAH5-240	53~70	50	240	183	216	2		
	SK50-BAH5-285	53~70	50	285	228	261	2		
	SK50-BAH6-165	68~100	64	165	94	141	2		
	SK50-BAH6-240	68~100	64	240	169	216	2		
	SK50-BAH6-300	68~100	64	300	229	276	2		
	SK50-BAH7-210	100~153	90	210	93	191	2		
	SK50-BAH7-360	100~153	90	360	243	341	2		



■ JIS B6339 / MAS 403 - BT

JIS B6339 - BT	Taper Accuracy AT 3	G Value -	RPM -	Coolant System AD
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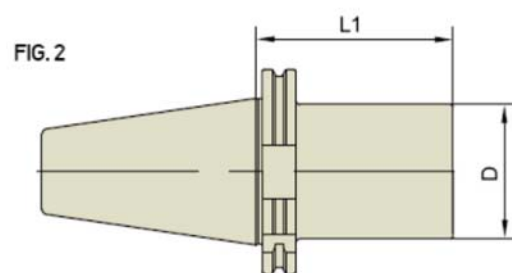
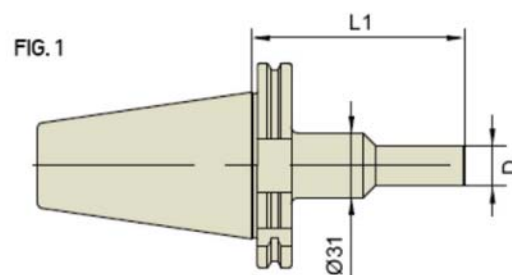


Unit:mm

Taper No.	Part No.	D	L1	Fig.	Weight (kg.)
30	BT30-SAS19-72	19	72	1	
	BT30-SAS24-37.5	24	37.5	2	
	BT30-SAS24-82.5	24	82.5	2	
	BT30-SAS31-39	31	39	2	
	BT30-SAS31-79	31	79	2	
	BT30-SAS39-38	39	38	2	
	BT30-SAS39-73	39	73	2	
	BT30-SAS50-63	50	63	2	
40	BT40-SAS19-72	19	72	2	
	BT40-SAS24-42.5	24	42.5	2	
	BT40-SAS24-82.5	24	82.5	2	
	BT40-SAS31-44	31	44	2	
	BT40-SAS31-94	31	94	2	
	BT40-SAS39-43	39	43	2	
	BT40-SAS39-88	39	88	2	
	BT40-SAS50-48	50	48	2	
	BT40-SAS50-79	50	79	2	
	BT40-SAS64-64	64	64	2	
50	BT50-SAS19-102	19	102	1	
	BT50-SAS24-52.5	24	52.5	2	
	BT50-SAS24-112.5	24	112.5	2	
	BT50-SAS31-54	31	54	2	
	BT50-SAS31-124	31	124	2	
	BT50-SAS39-58	39	58	2	
	BT50-SAS39-118	39	118	2	
	BT50-SAS39-178	39	178	2	
	BT50-SAS50-63	50	63	2	
	BT50-SAS50-108	50	108	2	
	BT50-SAS50-183	50	183	2	
	BT50-SAS50-228	50	228	2	
	BT50-SAS64-94	64	94	2	
	BT50-SAS64-169	64	169	2	
	BT50-SAS64-229	64	229	2	
	BT50-SAS90-93	90	93	2	
	BT50-SAS90-243	90	243	2	

■ **DIN 69871 - SK**

DIN 69871 - SK	Taper Accuracy AT 3	G Value -	RPM -	Coolant System AD
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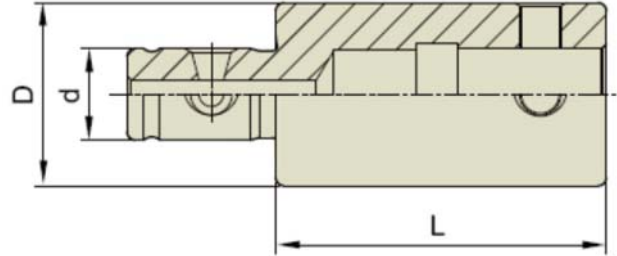


Unit:mm

Taper No.	Part No.	D	L1	Fig.	Weight (kg.)
40	SK40-SAS19-72	19	72	2	
	SK40-SAS24-42.5	24	42.5	2	
	SK40-SAS24-82.5	24	82.5	2	
	SK40-SAS31-44	31	44	2	
	SK40-SAS31-94	31	94	2	
	SK40-SAS39-43	39	43	2	
	SK40-SAS39-88	39	88	2	
	SK40-SAS50-48	50	48	2	
	SK40-SAS50-79	50	79	2	
	SK40-SAS64-64	64	64	2	
50	SK50-SAS19-102	19	102	1	
	SK50-SAS24-52.5	24	52.5	2	
	SK50-SAS24-112.5	24	112.5	2	
	SK50-SAS31-54	31	54	2	
	SK50-SAS31-124	31	124	2	
	SK50-SAS39-58	39	58	2	
	SK50-SAS39-118	39	118	2	
	SK50-SAS39-178	39	178	2	
	SK50-SAS50-63	50	63	2	
	SK50-SAS50-105	50	105	2	
	SK50-SAS50-183	50	183	2	
	SK50-SAS50-228	50	228	2	
	SK50-SAS64-94	64	94	2	
	SK50-SAS64-169	64	169	2	
	SK50-SAS64-229	64	229	2	
	SK50-SAS90-93	90	93	2	
	SK50-SAS90-243	90	243	2	



■ Extension Bar



Unit:mm

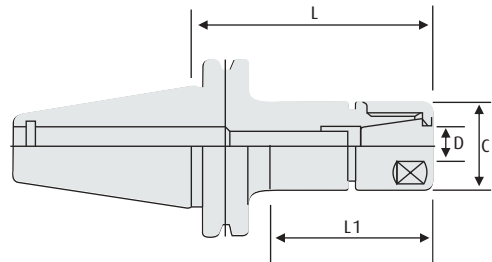
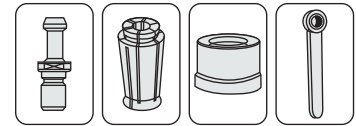
Part No.	d	D	L	Weight (kg.)
E-BAH1-20	11	19	20	
E-BAH1-30	11	19	30	
E-BAH2-30	14	24	30	
E-BAH2-45	14	24	45	
E-BAH3-30	18	31	30	
E-BAH3-45	18	31	45	
E-BAH4-45	22	39	45	
E-BAH4-60	22	39	60	
E-BAH5-60	28	50	60	
E-BAH5-90	28	50	90	
E-BAH6-60	36	64	60	
E-BAH6-100	36	64	100	
E-BAH7-105	46	90	105	

Milling Holder Series





BT - SK High Speed Tool Holder



Part No.	Clamping Range	L	L1	C	G No.	Max. Min-1	Collet
BT30-SK6-60	2~6.0	60	33	19.5	SK6	40,000	SK6
BT30-SK6-90	2~6.0	90	63	19.5	SK6	40,000	SK6
BT30-SK10-60	2~10.0	100	33	27	SK10	40,000	SK10
BT30-SK10-90	2~10.0	60	63	27	SK10	40,000	SK10
BT30-SK16-60	3~16.0	90	73	40	SK16	30,000	SK16
BT30-SK16-90	3~16.0	60	38	40	SK16	30,000	SK16
BT30-SK20-60	3~20.0	90	68	48	SK20	30,000	SK20
BT30-SK20-90	3~20.0	60	38	48	SK20	30,000	SK20
BT40-SK6-60	2~6.0	90	68	19.5	SK6	30,000	SK6
BT40-SK6-90	2~6.0	90	33	19.5	SK6	30,000	SK6
BT40-SK6-120	2~6.0	60	63	19.5	SK6	30,000	SK6
BT40-SK10-60	2~10.0	150	68	27	SK10	30,000	SK10
BT40-SK10-90	2~10.0	60	38	27	SK10	30,000	SK10
BT40-SK10-120	2~10.0	90	123	27	SK10	30,000	SK10
BT40-SK16-60	3~16.0	90	63	40	SK16	25,000	SK16
BT40-SK16-90	3~16.0	120	93	40	SK16	25,000	SK16
BT40-SK16-120	3~16.0	120	93	40	SK16	25,000	SK16
BT40-SK20-90	3~20	120	93	48	SK20	20,000	SK20
BT50-SK10-100	2~10.0	200	173	27	SK10	20,000	SK10
BT50-SK10-150	2~10.0	250	223	27	SK10	20,000	SK10
BT50-SK10-200	2~10.0	100	73	27	SK10	20,000	SK10
BT50-SK10-250	2~10.0	150	123	27	SK10	20,000	SK10
BT50-SK16-100	3~16.0	200	173	40	SK16	20,000	SK16
BT50-SK16-150	3~16.0	250	223	40	SK16	20,000	SK16
BT50-SK16-200	3~16.0	90	68	40	SK16	20,000	SK16
BT50-SK16-250	3~16.0	60	38	40	SK16	20,000	SK16

Spanner



Pattern	Part No.	D	Weight (Kg.)
Standard	SK6-SP	19.5	0.2
Standard	SK10-SP	27	0.27
Standard	SK16-SP	40	0.39
Standard	SK20-SP	48	0.45

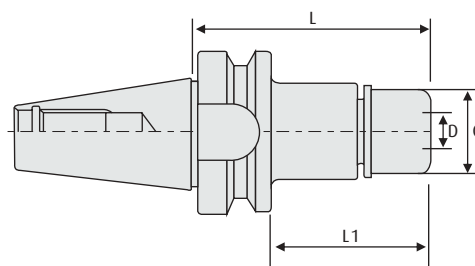
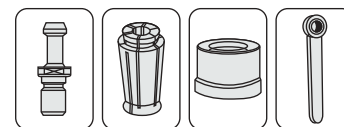
High Speed Nut



Pattern	Part No.	D
Standard	SK6-CN	19.5
Standard	SK10-CN	27
Standard	SK16-CN	40
Standard	SK20-CN	48

- Pre-balanced, high precision run-out 0.003mm, suitable for high rotation, maximum G2.5 40000 rpm.
- Surface hardness up to HV 220 by rotating, no damage and noise.
- Covering interface with precision vibration and high metal removal, increased tool life.
- High concentricity, stable run-out accuracy to enhance fine machining surface roughness.

BT - GER High Speed ER Collet Chuck



G2.5
30,000 RPM

Part No.	Clamping Range	L	L1	C	M	Min-1	Collet	Nut
BT30-GER25-70	3.0~10.0	70	48	27	M22X1.0	30000	ER16	GER16
BT30-GER25-100	3.0~10.0	100	78	27	M22X1.0	30000	ER16	GER16
BT30-GER32-100	3.0~12.0	70	48	30	M25X1.0	30000	ER20	GER20
BT30-GER16-70	3.0~12.0	100	78	30	M25X1.0	30000	ER20	GER20
BT30-GER16-100	3.0~16.0	70	48	35	M30X1.0	30000	ER25	GER25
BT30-GER20-70	3.0~16.0	100	78	35	M30X1.0	30000	ER25	GER25
BT30-GER20-100	3.0~20.0	100	78	50	M45X1.0	25000	ER32	GER32
BT40-GER25-70	3.0~10.0	70	43	27	M22X1.0	25000	ER16	GER16
BT40-GER25-100	3.0~10.0	100	73	27	M22X1.0	25000	ER16	GER16
BT40-GER25-150	3.0~12.0	70	43	30	M25X1.0	25000	ER20	GER20
BT40-GER32-70	3.0~12.0	100	73	30	M25X1.0	25000	ER20	GER20
BT40-GER32-100	3.0~16.0	70	43	35	M30X1.0	25000	ER25	GER25
BT40-GER32-150	3.0~16.0	100	73	35	M30X1.0	25000	ER25	GER25
BT40-GER16-70	3.0~16.0	150	123	35	M30X1.0	25000	ER25	GER25
BT40-GER16-100	3.0~20.0	70	43	50	M45X1.0	20000	ER32	GER32
BT40-GER20-70	3.0~20.0	100	73	50	M45X1.0	20000	ER32	GER32
BT40-GER20-100	3.0~20.0	150	123	50	M45X1.0	20000	ER32	GER32

- Pre-balanced, high precision run-out 0.003mm, applied for high speed engraving & milling and drilling machining center, maximum G2.5 30000 rpm.
- Low noise and small wind resistance.
- Adaptive positioning from both front and back and high precision repetition.



End milling



Finishing



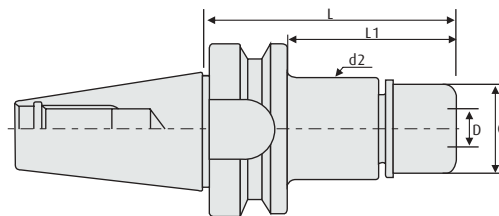
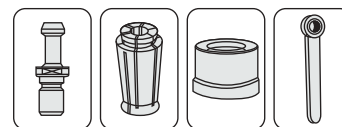
Taper tolerance



Surface hardness



BT - HGER High Speed ER Collet Chuck



G2.5
30,000 RPM

Part No.	Clamping Range	L	L1	C	Min-1	Collet	Nut
BT30-HGER25-70	3.0~10.0	70	48	30	30000	ER16	HGER16
BT30-HGER25-100	3.0~10.0	100	78	30	30000	ER16	HGER16
BT30-HGER32-70	3.0~12.0	70	48	35	30000	ER20	HGER20
BT30-HGER32-100	3.0~12.0	100	78	35	30000	ER20	HGER20
BT30-HGER16-70	3.0~16.0	70	48	40	30000	ER25	HGER25
BT30-HGER16-100	3.0~16.0	100	78	40	30000	ER25	HGER25
BT30-HGER20-70	3.0~20.0	70	48	50	25000	ER32	HGER32
BT30-HGER20-100	3.0~20.0	100	78	50	25000	ER32	HGER32
BT40-HGER16-70	3.0~10.0	70	43	30	25000	ER16	HGER16
BT40-HGER16-100	3.0~10.0	100	73	30	25000	ER16	HGER16
BT40-HGER20-70	3.0~12.0	70	43	35	25000	ER20	HGER20
BT40-HGER20-100	3.0~12.0	100	73	35	25000	ER20	HGER20
BT40-HGER25-70	3.0~16.0	70	43	40	25000	ER25	HGER25
BT40-HGER25-100	3.0~16.0	100	73	40	25000	ER25	HGER25
BT40-HGER25-150	3.0~16.0	150	123	40	25000	ER25	HGER25
BT40-HGER32-70	3.0~20.0	70	43	50	20000	ER32	HGER32
BT40-HGER32-100	3.0~20.0	100	73	50	20000	ER32	HGER32
BT40-HGER32-150	3.0~20.0	150	123	50	20000	ER32	HGER32

- Pre-balanced, high precision run-out 0.003mm, applied for high speed engraving & milling and drilling machining center, maximum G2.5 30000 rpm.
- T type screw design enhances 50% of the torque value to avoid drop of the tool.
- Non-decenter balanced round nut.
- Adaptive positioning from both front and back and high precision repetition.
- Low noise and small wind resistance.



End milling



Finishing



Taper tolerance

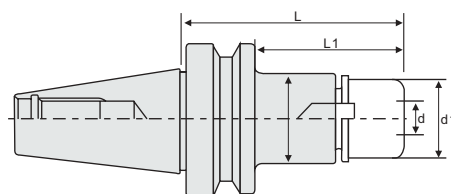


Surface hardness

NBT - GER High Speed ER Chuck System



G2.5
30,000 RPM



Part No.	Clamping Range	d1	d2	L	L1	M	Nut	Collet	Spanner	Clamp
NBT30-GER16-70	3.0~10.0	27	27.5	70	48	M22X1.0	GER16MINI	ER16	25	NBT30
NBT30-GER20-70	3.0~13.0	30	30.5	70	48	M25X1.0	GER20MINI	ER20	30	NBT30
NBT30-GER25-70	3.0~16.0	35	35.5	70	48	M30X1.0	GER25MINI	ER25	35	NBT30

- Pre-balanced, high precision run-out 0.003mm, applied for highspeed engraving & milling and drilling machining center , maximum G2.5 30000 rpm.
- Low noise and small wind resistance.
- Adaptive positioning from both front and back and high precision repetition.



End milling



Finishing



Taper tolerance

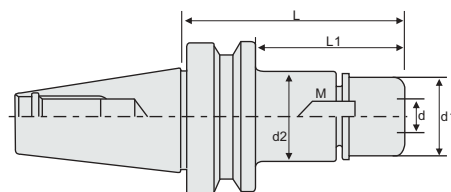
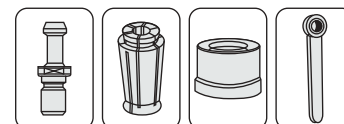


Surface hardness

NBT - SK High Speed Tool Holder



G2.5
30,000 RPM



Part No.	Clamping Range	d1	d2	L	L1	M	Nut	Collet	Spanner	Clamp
NBT30-GSK10-60	3.0~10.0	27	27.5	60	38	M21.5X1.0	GSK10	SK10	HGC27	NBT30
NBT30-GSK16-60	3.0~16.0	40	40.5	60	38	M32X1.0	GSK16	SK16	HGC40	NBT30

- Pre-balanced, high precision run-out 0.003mm, suitable for high rotating, maximum G2.5 40000 rpm.
- Surface hardness up to HV 220 by rotating, no damage and noise.
- Covering interface with precision vibration and high metal removal, increased tool life.
- High concentricity, stable run-out accuracy to enhance fine machining surface roughness.



End milling



Finishing



Taper tolerance



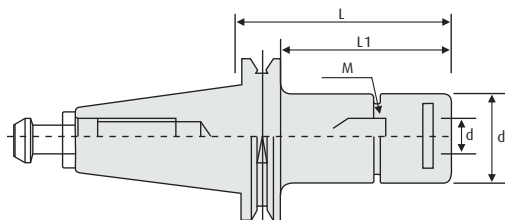
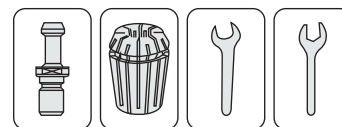
Surface hardness



Bore Hole



ISO High Speed Tool Holder



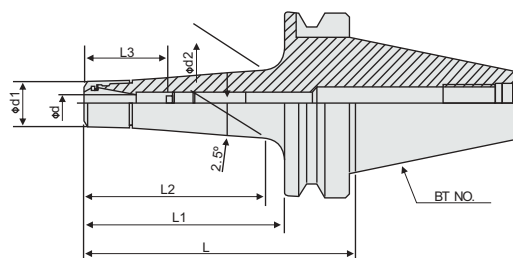
G2.5
30,000 RPM

Part No.	Clamping Range	d1	L	L1	M	Nut	Collet	Spanner 1	Spanner 2
ISO20-ER16-35	3.0~10.0	22	35	27	M19x1.0	ER16MS	ER16	ISO 20	ER16MS
ISO20-ER20-35	3.0~13.0	28	35	27	M24x1.0	ER20MS	ER20	ISO 20	ER20MS
ISO25-ER16-35	3.0~10.0	22	35	27	M19x1.0	ER16MS	ER16	ISO 25	ER16MS
ISO25-ER20-35	3.0~13.0	28	35	27	M24x1.0	ER20MS	ER20	ISO 25	ER20MS
ISO25-ER25-35	3.0~16.0	35	35	27	M30x1.0	ER25MS	ER25	ISO 25	ER25MS
ISO30-ER16-60	3.0~10.0	22	60	44.1	M19x1.0	ER16MS	ER16	ISO 30	ER16MS
ISO30-ER20-60	3.0~13.0	28	60	44.1	M24x1.0	ER20MS	ER20	ISO 30	ER20MS
ISO30-ER25-60	3.0~16.0	35	60	44.1	M30x1.0	ER25MS	ER25	ISO 30	ER25MS

- High precision run-out 0.003mm, maximum G2.5 30000 rpm.
- Suitable for high speed engraving & milling and drilling application with super finish surface.
- Stable run-out accuracy to enhance fine machining surface roughness.

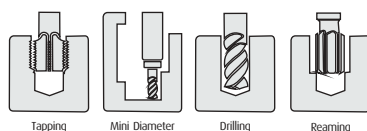


BT - HER Slim Collet Chuck



Part No.	Clamping Range	d1	d2	L	L1	L2	Tool Clamping	Nut	Collet	Suitable Spanner
BT30-THER11-100M	1.0~7.0	16	20.9	100	78	73.2	19~48	HER11M	ER11	HER11
BT30-THER16-100M	1.0~10.0	22	26.5	100	78	73.2	29~58	HER16M	ER16	HER16
BT40-THER11-100M	1.0~7.0	16	20.2	100	73	65.3	19~48	HER11M	ER11	HER11
BT40-THER11-160M	1.0~7.0	16	25.5	160	133	125.3	19~48	HER11M	ER11	HER11
BT40-THER16-100M	1.0~10.0	22	26.1	100	73	68.2	29~58	CHER16M	ER16	HER16
BT40-THER16-160M	1.0~10.0	22	31.3	160	133	128.2	29~58	HER16M	ER16	HER16
BT50-THER11-100M	1.0~7.0	16	20	100	54.3	62	19~48	HER11M	ER11	HER11
BT50-THER11-160M	1.0~7.0	16	26.2	160	122	114.9	19~48	HER11M	ER11	HER11
BT50-THER16-100M	1.0~10.0	22	27.5	100	62	54.9	29~58	HER16M	ER16	HER16
BT50-THER16-160M	1.0~10.0	22	33.8	160	122	100	29~58	HER16M	ER16	HER16

- Taper design to reduce the processing shock, suitable for deep cavity machining in mold.
- T-type screw ensures powerful clamping strength, high precision repetition.
- Tough material for round clamping nuts to reduce wind resistance.
- Deep Cryogenic treatment below -190°C , stable run-out accuracy to enhance fine machining surface roughness.

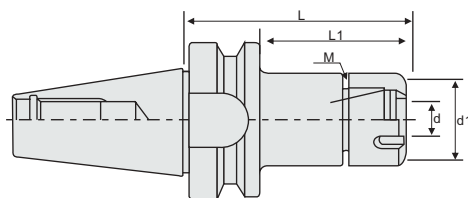
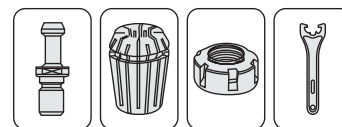


5 μm *

G6.3 25,000RPM BT30/RT40	G2.5 25,000RPM BT30/RT40	G6.3 25,000RPM BT50	G2.5 25,000RPM BT50
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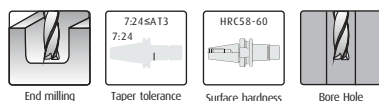
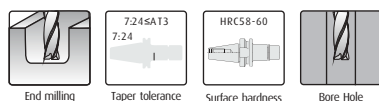
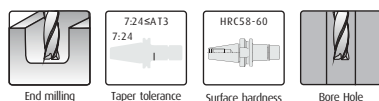
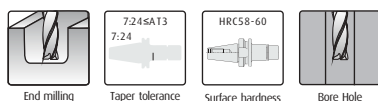


ISO High Speed Tool Holder

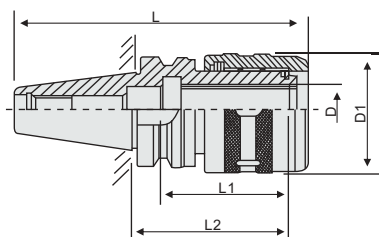
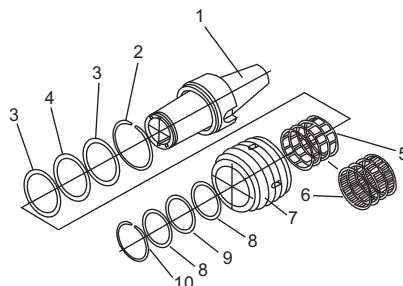
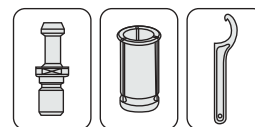


Part No.	Clamping Range	d1	L	L1	M	Nut	Collet	Spanner	Weight (Kg.)
BT30-ER16-70	3-10	28	70	48	M22×1.5	ER16A	ER16	ER16A	0.55
BT30-ER16-100	3-10	28	100	78	M22×1.5	ER16A	ER16	ER16A	0.80
BT30-ER20-70	3-13	34	70	48	M25×1.5	ER20A	ER20	ER20A	0.75
BT30-ER20-100	3-13	34	100	78	M25×1.5	ER20A	ER20	ER20A	0.85
BT30-ER25-70	3-16	42	70	48	M32×1.5	ER25UM	ER25	ER25UM	0.70
BT30-ER25-100	3-16	42	100	78	M32×1.5	ER25UM	ER25	ER25UM	1.45
BT30-ER32-70	3-20	50	70	43	M22×1.5	ER16A	ER16	ER16A	1.20
BT30-ER32-100	3-20	50	100	73	M22×1.5	ER16A	ER16	ER16A	1.30
BT40-ER16-100	3-10	28	150	123	M25×1.5	ER20A	ER20	ER20A	1.35
BT40-ER16-150	3-10	28	70	43	M25×1.5	ER20A	ER20	ER20A	1.40
BT40-ER20-70	3-10	28	100	73	M25×1.5	ER20A	ER20	ER20A	1.50
BT40-ER20-100	3-13	34	150	123	M32×1.5	ER25UM	ER25	ER25UM	1.70
BT40-ER20-150	3-13	34	70	43	M32×1.5	ER25UM	ER25	ER25UM	1.30
BT40-ER25-70	3-13	34	100	73	M32×1.5	ER25UM	ER25	ER25UM	1.65
BT40-ER25-100	3-16	42	150	123	M40×1.5	ER32UM	ER32	ER32UM	2.25
BT40-ER25-150	3-16	42	80	43	M40×1.5	ER32UM	ER32	ER32UM	1.30
BT40-ER32-70	3-16	42	100	73	M40×1.5	ER32UM	ER32	ER32UM	1.70
BT40-ER32-100	3-20	50	150	123	M50×1.5	ER40UM	ER40	ER40UM	2.50
BT40-ER32-150	3-20	50	100	73	M50×1.5	ER40UM	ER40	ER40UM	2.05
BT40-ER40-100	3-20	50	150	123	M50×1.5	ER40UM	ER40	ER40UM	3.10
BT40-ER40-150	6-26	63	100	62	M25×1.5	ER20A	ER20	ER20A	4.30
BT40-ER16-70	6-26	63	150	112	M25×1.5	ER20A	ER20	ER20A	4.70
BT50-ER20-100	3-10	28	100	62	M40×1.5	ER32UM	ER32	ER32UM	4.80
BT50-ER20-150	3-10	28	150	112	M40×1.5	ER32UM	ER32	ER32UM	5.30
BT50-ER32-100	3-13	34	70	48	M40×1.5	ER32UM	ER32	ER32UM	0.95
BT50-ER32-150	3-13	34	100	78	M40×1.5	ER32UM	ER32	ER32UM	1.05
BT50-ER16-100	3-16	42	100	62	M22×1.5	ER16A	ER16	ER16A	4.30
BT50-ER16-150	3-16	42	150	112	M22×1.5	ER16A	ER16	ER16A	4.50
BT50-ER40-100	3-20	50	100	62	M50×1.5	ER40UM	ER40	ER40UM	4.40
BT50-ER40-150	3-20	50	150	112	M50×1.5	ER40UM	ER40	ER40UM	5.50
BT50-ER25-100	6-26	63	100	62	M32×1.5	ER25UM	ER25	ER25UM	4.40
BT50-ER25-150	6-26	63	150	112	M32×1.5	ER25UM	ER25	ER25UM	5.50

- Pre-balanced, high precision run-out 0.003mm, G2.5 30000 rpm.
- High concentricity, stable run-out accuracy for most wide application.



BT - C Power Chuck Tool Holder



Part No.	D	L2	L1	L	D1	Suitable Spanner	Collet	Weight (Kg.)
BT30-C20-80	20	80	70	128.4	53	C20-BS	C20	1.80
BT30-C25-80	25	80	73	128.4	60	C25-BS	C25	1.95
BT40-C20-105	20	105	70	170.4	53	C20-BS	C20	2.60
BT40-C25-105	25	105	73	170.4	60	C25-BS	C25	2.65
BT40-C32-105	32	105	76	170.4	70	C32-BS	C32	2.80
BT40-C32-135	32	135	76	200.4	70	C32-BS	C32	3.00
BT40-C32-165	32	165	76	230.4	70	C32-BS	C32	3.50
BT50-C20-105	20	105	70	206.8	53	C20-BS	C20	4.50
BT50-C25-105	25	105	73	206.8	60	C25-BS	C25	4.60
BT50-C32-105	32	105	95	206.8	70	C32-BS	C32	5.15
BT50-C32-135	32	135	95	236.8	70	C32-BS	C32	5.90
BT50-C32-165	32	165	95	266.8	70	C32-BS	C32	6.60
BT50-C42-115	42	115	98	216.8	92	C42-BS	C42	6.10
BT50-C42-135	42	135	98	236.8	92	C42-BS	C42	6.60
BT50-C42-165	42	165	98	266.8	92	C42-BS	C42	7.40

- 6 slots design inside the holder to avoid slipping, unhanding clamping force.
- Frictional gripping force increased by the clamping design, when the cutting tools slip to the cone face.
- Reinforced thickness of the chuck holder improve the rigidity and anti-vibrations.
- High clamping force and run-out accuracy.



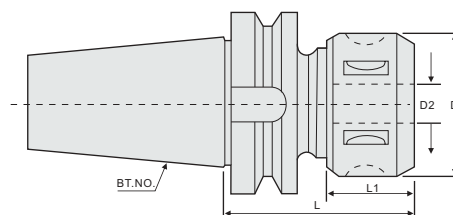
BT - C Power Chuck Tool Holder



Part No.	Collet	Spanner
BT30-C20-80-7PCS	C20	3,4,6,8,10,12,16
BT30-C20-105-7PCS	C20	3,4,6,8,10,12,16
BT40-C32-105-7PCS	C32	6,8,10,12,16,20,25, 1/4,5/16,3/8,1/2,3/4,5/8,1"
BT40-C32-105-7PCS	C32	6,8,10,12,16,20,25, 1/4,5/16,3/8,1/2,3/4,5/8,1"
BT50-C20-105-7PCS	C20	3,4,6,8,10,12,16
BT50-C32-105-7PCS	C32	6,8,10,12,16,20,25, 3/4,3/8,5/8,5/16,1/4,1/2,1"
BT50-C32-105-7PCS	C32	6,8,10,12,16,20,25, 3/4,3/8,5/8,5/16,1/4,1/2,1"
BT50-C42-115-8PCS	C42	6,8,10,12,16,20,25,32, 1/4,5/16,3/8,1/2,3/4,5/8,1",1-1/4
BT50-C42-115-8PCS	C42	6,8,10,12,16,20,25,32, 1/4,5/16,3/8,1/2,3/4,5/8,1",1-1/4

- 6 slots design inside the holder to avoid slipping, enhancing clamping force.
- Frictional gripping force increased cutting tools slip to the cone face.
- Reinforced thickness of the chuck holder improve the rigidity and anti-vibrations.
- High clamping force and run-out accuracy.

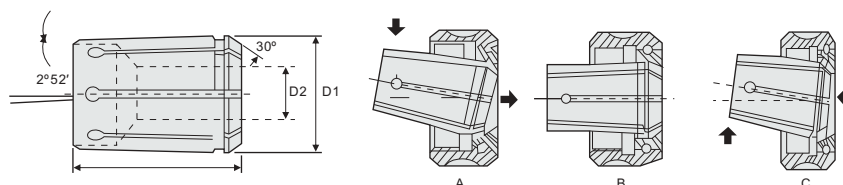
BT - OZ Heavy Duty Tool Holder



Part No.	D2	L	D	L1	Collet Type
BT40-OZ25-80	3-25	80	60	30	OZ25
BT40-OZ25-120	3-25	120	60	30	OZ25
BT40-OZ32-80	6-32	80	72	33	OZ32
BT40-OZ32-150	6-32	150	72	33	OZ32
BT50-OZ25-90	3-25	90	60	30	OZ25
BT50-OZ25-130	3-25	130	60	30	OZ25
BT50-OZ32-105	6-32	105	72	33	OZ32
BT50-OZ32-150	6-32	150	72	33	OZ32

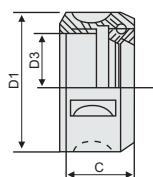
- Special clamping structure supports strong clamping force for heavy duty processing.
- Reinforced thickness of the chuck to improve the rigidity and low tendency towards vibrations.
- Suitable for drilling, milling and tapping tools.

OZ



Part No.	D1	L	D2
OZ25	35.5	52	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25
OZ32	44	60	6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32
OZ25	35.5	52	1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8,11/16,3/4,13/16,7/8,15/16,1"
OZ32	44	60	1/4,5/16,3/8,7/16,1/2,9/16,5/8,11/16,3/4,13/16,7/8,15/16,1",11/8",11/4"

OZ

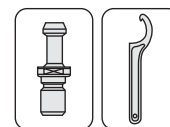


Part No.	C	D1	D3	Collet Type
BN25	30	60	M48×2	OZ25
BN32	33	72	M60×2.5	OZ32

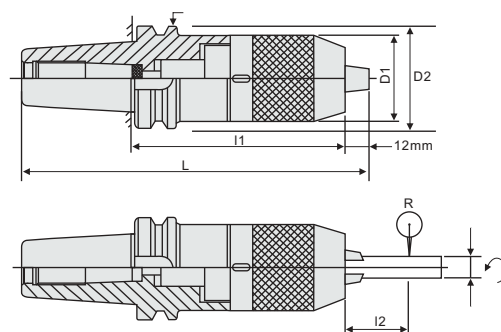
OZ



Part No.	D1	Collet Type
WOZ25	60	OZ25
WOZ32	80	OZ32



BT - APU Drill Chuck Holder



Part No.	D1	D2	L1	L	Clamping Range	Weight (Kg.)
BT30-APU8-80	36.5	46	80	137.4	0.5~8	0.80
BT30-APU13-110	48	46	110	158.4	1~13	1.85
BT30-APU16-110	55.5	46	110	158.4	3~16	2.18
BT40-APU8-85	36.5	0.63	85	150.4	0.5~8	1.46
BT40-APU13-105	48	0.63	105	170.4	1~13	2.00
BT40-APU13-130	48	0.63	130	195.4	1~13	2.33
BT40-APU16-105	55.5	0.63	105	170.4	3~16	2.33
BT40-APU16-130	55.5	0.63	90	191.8	3~16	4.20
BT50-APU8-90	36.5	100	130	195.4	0.5~8	2.60
BT50-APU13-110	48	100	110	211.8	1~13	4.70
BT50-APU13-180	48	100	180	281.8	1~13	5.80
BT50-APU16-115	55.5	100	115	216.8	3~16	5.10
BT50-APU16-130	55.5	100	130	236.8	3~16	4.80
BT50-APU16-190	55.5	100	190	296.8	3~16	6.10

- Integrated design of holder and chuck prevents separation of the tool components, ensure reliable and stable machining.
- Self tightening, gripping force is enhanced when the drilling torque increase, which can avoid slipping of the drills.
- Super drill chuck with high precision and durability.
- Wide application in drilling machine, milling machines and lathe.

C - APU Straight Shank Drill Chuck



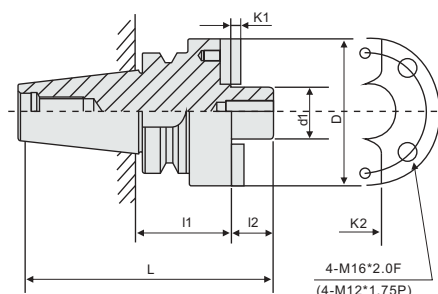
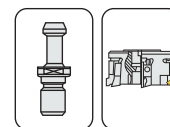
Part No.	L
C20-APU8	120
C20-APU13	140
C20-APU16	150
C25-APU13	161
C25-APU16	165
C32-APU13	165
C32-APU16	165

MT - APU Morse Taper Drill Chuck



Part No.	L
MT2-APU8	164
MT3-APU13	179
MT3-APU13	184
MT4-APU16	202
MT4-APU16	207

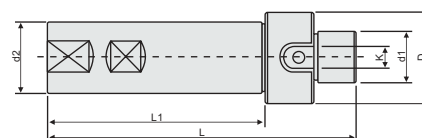
BT - FMA Face Milling Arbor



Part No.	d1	D	L1	L2	L	K1	K2	Weight (Kg.)
BT30-FMA25.4-45	25.4	50	45	20	113.4	4.52	9.52	1.00
BT30-FMA25.4-60	25.4	50	60	20	128.4	4.52	9.52	1.30
BT30-FMA31.75-45	31.75	60	45	22	115.4	6.7	12.7	1.35
BT40-FMA25.4-45	25.4	50	45	20	130.4	4.52	9.52	1.80
BT40-FMA25.4-90	25.4	50	90	20	175.4	4.52	9.52	2.60
BT40-FMA31.75-45	31.75	60	45	22	132.4	6.7	12.7	2.00
BT40-FMA31.75-90	31.75	60	90	22	177.4	6.7	12.7	2.90
BT40-FMA38.1-60	38.1	75	60	25	150.4	8.87	15.87	2.80
BT40-FMA50.8-90	50.8	98	90	26	181.4	9.75	19.05	4.60
BT50-FMA25.4-45	25.4	50	45	20	166.8	4.52	9.52	4.40
BT50-FMA25.4-90	25.4	50	90	20	211.8	4.52	9.52	5.10
BT50-FMA25.4-150	25.4	50	150	20	271.8	4.52	9.52	6.10
BT50-FMA31.75-45	31.75	80	45	22	168.8	6.7	12.7	4.50
BT50-FMA31.75-90	31.75	80	90	22	213.8	6.7	12.7	5.70
BT50-FMA31.75-150	31.75	80	150	22	273.8	6.7	12.7	6.00
BT50-FMA38.1-60	38.1	60	60	25	186.8	8.87	15.87	4.90
BT50-FMA38.1-150	38.1	98	150	25	276.8	8.87	15.87	5.70
BT50-FMA50.8-90	50.8	95	90	26	217.8	9.75	19.05	6.95
BT50-FMA50.8-150	50.8	95	150	26	277.8	9.75	19.05	7.90
BT50-FMA47.62-75	47.62	128.75	75	32	208.8	12.5	25.4	7.90

- Hollow design to increase water outlet and low tendency towards vibrations.
- Clamping nuts included.
- Separated order for clamping nuts is needed, if using internal coolant system.

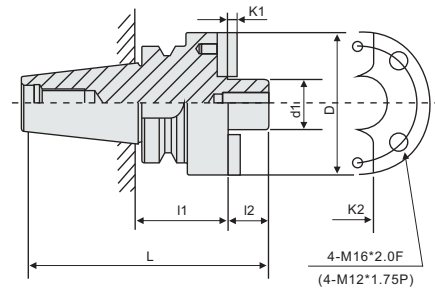
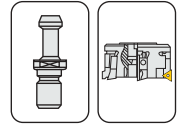
Straight Face Mill Arbor Extension Holder



Part No.	d1	d2	D	L1	L
C20-FMB22-60	22	20	47	60	98
C32-FMB22-60	22	32	47	60	98
C32-FMB22-100	22	32	47	100	138
C32-FMB22-150	22	32	47	150	138



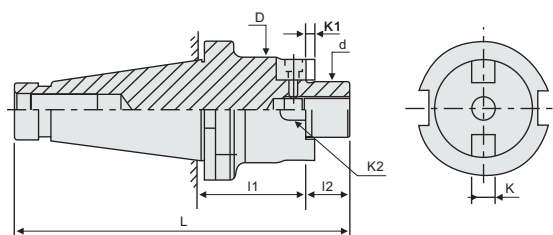
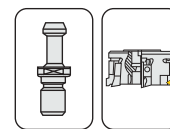
BT - FMB Face Milling Arbor



Part No.	d1	D	L1	L2	L	K1	K2	Weight (Kg.)
BT30-FMB22-45	22	48	45	18	111.4	4.8	10	0.85
BT30-FMB27-45	27	60	45	20	113.4	5.8	12	1.20
BT30-FMB22-45	32	78	45	22	128.4	6.8	14	1.45
BT40-FMB22-60	22	48	60	18	143.4	4.8	10	1.70
BT40-FMB27-100	22	48	100	18	201.8	4.8	10	6.50
BT40-FMB27-150	22	48	150	18	269.8	4.8	10	7.50
BT40-FMB32-45	22	48	45	18	115.4	4.8	10	1.35
BT40-FMB22-100	22	48	100	18	183.4	4.8	10	2.10
BT40-FMB22-120	22	48	120	18	205.4	4.8	10	2.30
BT40-FMB22-150	22	48	150	18	233.4	4.8	10	3.10
BT40-FMB22-200	22	48	200	18	283.4	4.8	10	3.80
BT40-FMB22-250	27	68	250	20	283.4	5.8	12	4.50
BT40-FMB22-300	32	78	300	22	333.4	6.8	14	5.10
BT40-FMB27-60	40	80	45	25	128.4	8.3	16	1.60
BT50-FMB32-60	22	48/58	45	18	128.4	4.8	10	1.70
BT50-FMB40-60L	22	48/58	45	18	128.4	4.8	10	2.10
BT50-FMB22-100	22	48/58	100	18	201.8	4.8	10	5.20
BT50-FMB22-150	22	48/58	150	18	269.8	4.8	10	6.80
BT50-FMB22-200	22	48/58	200	18	319.8	4.8	10	7.00
BT50-FMB22-250	22	48/58	250	18	369.8	4.8	10	8.00
BT50-FMB32-100	22	48/58	300	18	419.8	4.8	10	9.00
BT50-FMB32-150	22	48/58	350	18	469.8	4.8	10	10.00
BT50-FMB40-60	22	48/58	400	18	519.8	4.8	10	12.00
BT50-FMB40-100	27	60	450	20	569.8	5.8	12	12.00
BT50-FMB40-150	27	60	500	20	619.8	5.8	12	13.00
BT50-FMB27-200	27	60	100	20	201.8	5.8	12	6.20
BT50-FMB60-60	32	78	150	22	269.8	6.8	14	7.00
BT50-FMB22-300	32	78	60	22	176.8	6.8	14	5.20
BT50-FMB22-350	40	89	100	25	201.8	8.3	16	7.20
BT50-FMB22-400	40	89	150	25	269.8	8.3	16	7.80
BT50-FMB22-450	40	89	200	25	319.8	8.3	16	9.50
BT50-FMB22-500	60	140	60	26	161.8	12.5	25.4	8.50

- Hollow design to increase water outlet and low tendency towards vibrations.
- Clamping nuts included.
- Separated order for clamping nuts is needed, if using internal coolant system.

NT - FMB Face Milling Arbor

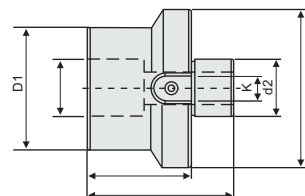
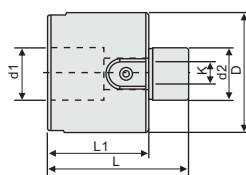


Part No.	d	L	L1	L2	K	Draw Bolt Inch	Draw Bolt Metric
NT40-FMB22-30	22	131.4	30	18	10	5/8"-1UNC	M16×2.0
NT40-FMB27-30	32	135.4	30	20	12	1"-8UNC	M24×3.0
NT40-FMB40-50	40	138.4	45	22	14	5/8"-1UNC	M16×2.0
NT40-FMB32-45	22	164.8	50	25	16	5/8"-1UNC	M16×2.0
NT50-FMB22-35	40	216.8	35	18	10	5/8"-1UNC	M16×2.0
NT50-FMB40-35	27	166.8	35	25	16	1"-8UNC	M24×3.0
NT50-FMB27-35	32	168.8	35	20	12	1"-8UNC	M24×3.0
NT50-FMB32-35	27	133.4	35	22	14	1"-8UNC	M24×3.0
NT50-FMB60-65	60	216.8	65	25	25.4	1"-8UNC	M24×3.0

- Hollow design to increase water outlet and low tendency towards vibrations.
- Clamping nuts included.
- Separated order for clamping nuts is needed, if using internal coolant system.



FMB Face Mill Chuck



Part No.	d2	D1	D	L1	L	KG.
FMB22	22	22	47	40	60	0.5
FMB22	22	22	58	50	70	0.6



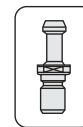
Part No.	d2	d1	D1	D2	L1	L	KG.
FMB27	27	22	47	58	40	60	0.64



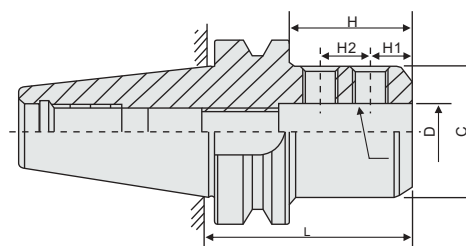
Part No.	d2	d1	D1	D2	L1	L	KG.
FMB32	32	22	47	58	48	70	0.8



Part No.	d2	D1	D	L1	L	KG.
FMA25.4	25.4	22	47	40	60	0.52



BT - SLA Weldon Tool Holder

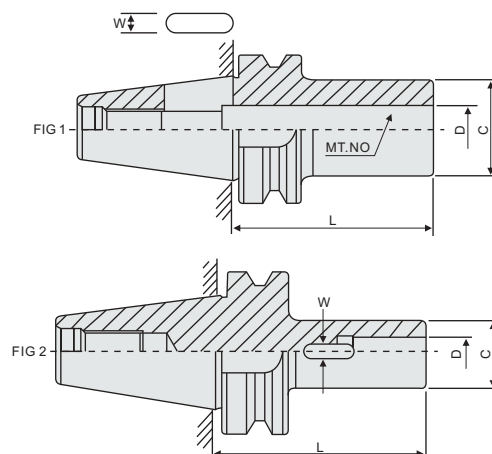
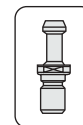


Part No.	D	L	C	H(mm)	H(max)	H1	H2	M	Weight (Kg.)
BT30-SLA6-60	6	60	25	20	35	18		M6	0.55
BT30-SLA8-60	8	60	28	20	35	18		M8	0.6
BT30-SLA10-60	10	60	35	35	50	14	13	M10	0.7
BT30-SLA12-60	12	60	40	35	50	14	13	M10	0.75
BT30-SLA16-90	16	90	40	55	70	25	20	M10	1.05
BT30-SLA20-90	20	90	50	55	70	25	20	M12	1.1
BT30-SLA25-90	25	90	50	55	70	25	20	M12	1.7
BT30-SLA32-105	32	105	60	65	80	25	25	M16	1.85
BT40-SLA6-75	6	75	25	20	35	18		M6	1.2
BT40-SLA8-75	8	75	28	20	35	18		M8	1.25
BT40-SLA10-75	10	75	35	35	50	14	13	M10	1.3
BT40-SLA12-75	12	75	40	35	50	14	13	M10	1.35
BT40-SLA16-90	16	90	40	55	70	25	20	M10	1.6
BT40-SLA20-90	20	90	50	55	70	25	20	M12	1.65
BT40-SLA25-90	25	90	50	55	70	25	20	M12	2.5
BT40-SLA32-105	32	105	60	65	80	25	25	M16	2.8
BT40-SLA40-105	40	105	70	65	80	25	25	M20	2.95
BT40-SLA42-105	42	105	70	65	80	25	25	M20	3.15
BT50-SLA6-105	6	105	25	20	35			M6	3.9
BT50-SLA8-105	8	105	28	20	35			M8	3.9
BT50-SLA10-105	10	105	35	35	50	13	13	M10	4.0
BT50-SLA12-105	12	105	40	35	50	13	13	M10	4.0
BT50-SLA16-105	16	105	40	55	70	20	20	M10	4.5
BT50-SLA20-105	20	105	50	55	70	20	20	M12	4.7
BT50-SLA20-150	20	150	50	55	70	20	20	M12	5.5
BT50-SLA20-200	20	200	50	55	70	20	20	M12	6.0
BT50-SLA25-105	25	105	50	55	70	20	20	M12	5.2
BT50-SLA25-150	25	150	50	55	70	20	20	M12	6.0
BT50-SLA25-200	25	200	50	55	70	20	20	M12	7.5
BT50-SLA32-105	32	105	60	65	80	25	25	M16	6.0
BT50-SLA32-150	32	150	60	65	80	25	25	M16	6.5
BT50-SLA32-200	32	200	60	65	80	25	25	M16	7.3
BT50-SLA40-105	40	105	70	65	80	25	25	M20	6.6
BT50-SLA42-150	42	105	70	65	80	25	25	M20	7.2
BT50-SLA42-200	42	150	70	65	80	25	25	M20	7.8
BT50-SLA42-250	42	250	70	65	80	25	25	M20	7.8
BT50-SLA50.8-120	51	120	90	65	80	35	35	M20	7.4

- The slot face should be adjusted equally to the side screw and be tightly locked.
- The pattern of the holder is different, so confirm the position of the side screw before choosing the chuck type.



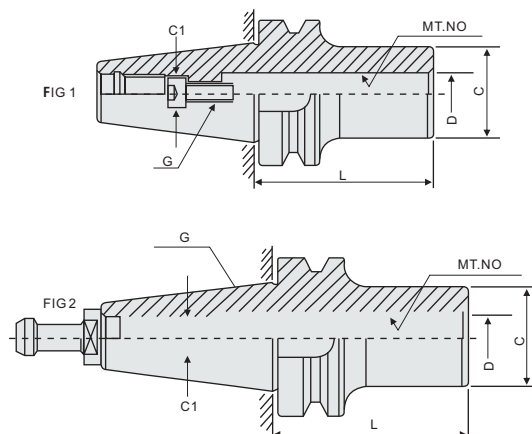
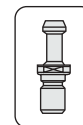
BT - MTA Morse Taper Drill Chuck



Part No.	Type	D	L	C	W	Weight (Kg.)
BT30-MTA1-45	1	12.065	45	20	5.6	0.55
BT30-MTA2-45	1	17.780	45	30	6.6	0.6
BT30-MTA3-45	1	23.825	45	40	8.4	0.7
BT40-MTA1-45	1	12.065	45	25	5.6	1.05
BT40-MTA1-120	2	12.065	120	25	5.6	1.4
BT40-MTA2-45	1	17.780	45	32	6.6	1.1
BT40-MTA2-120	2	17.780	120	32	6.6	1.85
BT40-MTA3-75	1	23.825	75	40	8.4	1.25
BT40-MTA3-135	2	23.825	135	40	8.4	1.9
BT40-MTA4-90	1	31.065	90	50	12.4	1.45
BT40-MTA4-165	2	31.065	165	50	12.4	2.5
BT50-MTA1-45	1	12.065	45	25	5.6	3.8
BT50-MTA1-120	2	12.065	120	25	5.6	4.3
BT50-MTA2-180	2	12.065	180	25	5.6	5.0
BT50-MTA3-70	1	17.780	45	25	6.6	4.0
BT50-MTA3-150	2	17.780	135	25	6.6	4.7
BT50-MTA3-180	2	17.780	180	25	6.6	5.0
BT50-MTA4-90	1	23.835	75	40	8.4	3.8
BT50-MTA4-180	2	23.835	150	40	8.4	5.0
BT50-MTA5-105	1	23.835	180	40	8.4	5.5
BT50-MTA1-180	2	31.267	90	50	12.4	4.5
BT50-MTA2-45	1	31.267	180	50	12.4	5.5
BT50-MTA2-135	2	44.399	105	-	-	4.3

- Pre-balanced, high precision.
- Tool body finish machined for stable run-out accuracy.

BT - MTB Morse Taper Tool Holder



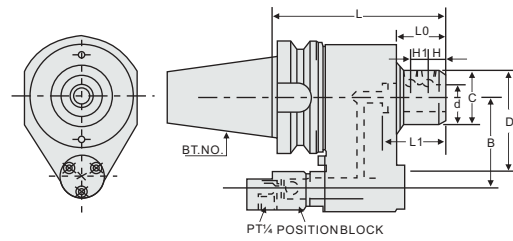
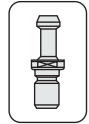
Part No.	Manner	D	L	C	C1	G	Weight (Kg.)
BT30-MTB1-45	1	12.065	45	25	10	M6×1	0.55
BT30-MTB2-45	1	12.065	45	32	10	M10×1	0.55
BT40-MTB2-45	1	17.780	45	25	10	M6×1	1.05
BT40-MTB1-45	1	23.825	45	32	13.5	M10×1.5	1.85
BT40-MTB3-75	1	31.267	75	42	18	M12×1.75	1.3
BT40-MTB4-90	2	12.065	90	50	20.5	M16×2	1.4
BT50-MTB1-45	1	12.065	45	25	10	M6×1	3.8
BT50-MTB2-45	1	17.780	45	32	16	M10×1.5	3.9
BT50-MTB4-75	1	31.267	75	50	20.5	M16×2	4.2
BT50-MTB3-60	1	23.825	60	42	18	M12×1.75	4.0
BT50-MTB5-120	2	44.399	120	70	22.5	M20×2	4.3

- Pre-balanced, high precision.
- Tool body finish machined for stable run-out accuracy.

Part No.	Supporting Shank	G
BT30-45°-MTB2	BT30-MTB2	M10×1.5
BT40-45°-MTB2	BT40-MTB2	M10×1.5
BT40-45°-MTB3	BT40-MTB3	M12×1.75
BT40-45°-MTB4	BT40-MTB4	M16×2
BT50-45°-MTB2	BT50-MTB2	M10×1.5
BT50-45°-MTB3	BT50-MTB3	M12×1.75
BT50-45°-MTB4	BT50-MTB4	M16×2



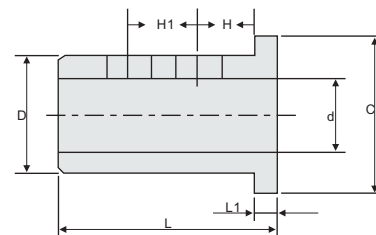
BT - SLO Oil-Feed Tool Holder



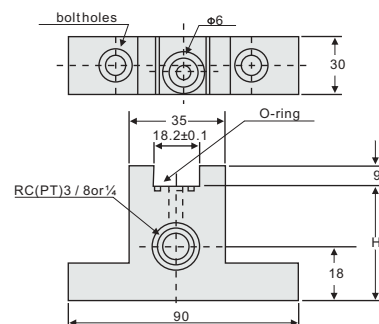
Part No.	d	L	B	C	D	L0	L1	H	H1
BT40-SLO32-150	32	150	60/65	52	90	50	60	15	15
BT40-SLO40-150	40	150	60/65	70	90	50	70	19	18
BT50-SLO40-160	32	160	80/82	54	100	50	60	15	15
BT50-SLO32-160	40	160	80/82	64	100	50	70	19	18

- Tool body finish machined for stable run-out accuracy.

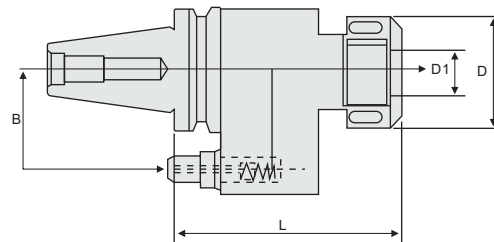
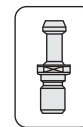
Oil-Feed Tool Holder



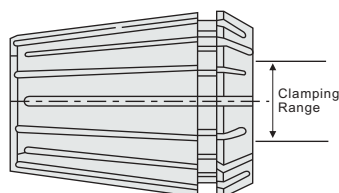
Part No.	L	L1	H	H1	d	D	C
C32-16	65	10	15	15	16	32	53
C32-20	65	10	15	15	20	32	53
C32-16	65	10	15	15	25	32	53
C40-25	75	10	19	18	16	40	63
C40-20	75	10	19	18	20	40	63
C40-25	75	10	19	18	25	40	63
C40-32	75	10	19	18	32	40	63



ERO Oil-Feed Tool Holder



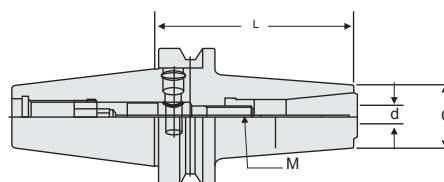
Part No.	D1	D	L	Center Dia B
BT40-ERO32-145	ERO32- $\Phi 6$ - $\Phi 20$	50	145	60/65
BT40-ERO40-150	ERO40- $\Phi 6$ - $\Phi 25$	63	150	60/65
BT50-ERO40-160	ERO40- $\Phi 6$ - $\Phi 25$	50	155	80/82
BT50-ERO32-160	ERO32- $\Phi 6$ - $\Phi 20$	63	160	80/82



Part No.	Clamping Range	Part No.	Clamping Range	Part No.	Clamping Range
ER32-4C	4.0-3.0	ER40-4C	4.0-3.0	ER40-21C	21.0-20.0
ER32-5C	5.0-4.0	ER40-5C	5.0-4.0	ER40-22C	22.0-21.0
ER32-6C	6.0-5.0	ER40-6C	6.0-5.0	ER40-23C	23.0-22.0
ER32-7C	7.0-6.0	ER40-7C	7.0-6.0	ER40-24C	24.0-23.0
ER32-8C	8.0-7.0	ER40-8C	8.0-7.0	ER40-25C	25.0-24.0
ER32-9C	9.0-8.0	ER40-9C	9.0-8.0	ER40-26C	26.0-25.0
ER32-10C	10.0-9.0	ER40-10C	10.0-9.0		
ER32-11C	11.0-10.0	ER40-11C	11.0-10.0		
ER32-12C	12.0-11.0	ER40-12C	12.0-11.0		
ER32-13C	13.0-12.0	ER40-13C	13.0-12.0		
ER32-14C	14.0-13.0	ER40-14C	14.0-13.0		
ER32-15C	15.0-14.0	ER40-15C	15.0-14.0		
ER32-16C	16.0-15.0	ER40-16C	16.0-15.0		
ER32-17C	17.0-16.0	ER40-17C	17.0-16.0		
ER32-18C	18.0-17.0	ER40-18C	18.0-17.0		
ER32-19C	19.0-18.0	ER40-19C	19.0-18.0		
ER32-20C	20.0-19.0	ER40-20C	20.0-19.0		



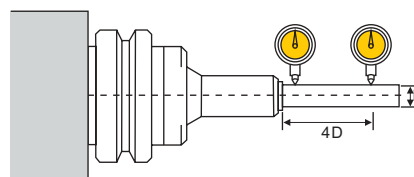
SDC High Precision Tool Holder



Part No.	D	L	C
BT30-SDC6-60	3.0-6.0	60	14.5
BT30-SDC6-90	3.0-6.0	90	14.5
BT30-SDC8-60	3.0-10.0	60	22
BT30-SDC8-90	3.0-10.0	90	22
BT30-SDC12-60	3.0-12.0	60	34
BT30-SDC12-90	3.0-12.0	90	34
BT40-SDC6-100	3.0-6.0	100	14.5
BT40-SDC6-150	3.0-6.0	150	14.5
BT40-SDC6-200	3.0-6.0	200	14.5
BT40-SDC6-250	3.0-6.0	250	14.5
BT40-SDC8-100	3.0-10.0	100	22
BT40-SDC8-150	3.0-10.0	150	22
BT40-SDC8-200	3.0-10.0	200	22
BT40-SDC8-250	3.0-10.0	250	22
BT40-SDC12-100	3.0-12.0	100	34
BT40-SDC12-150	3.0-12.0	150	34
BT40-SDC12-200	3.0-12.0	200	34
BT50-SDC6-100	3.0-6.0	100	14.5
BT50-SDC6-150	3.0-6.0	150	14.5
BT50-SDC6-200	3.0-6.0	200	14.5
BT50-SDC6-250	3.0-6.0	250	14.5
BT50-SDC6-300	3.0-6.0	300	14.5
BT50-SDC8-100	3.0-10.0	100	22
BT50-SDC8-150	3.0-10.0	150	22
BT50-SDC8-200	3.0-10.0	200	22
BT50-SDC8-250	3.0-10.0	250	22
BT50-SDC8-300	3.0-10.0	300	22
BT50-SDC12-100	3.0-12.0	100	34
BT50-SDC12-150	3.0-12.0	150	34
BT50-SDC12-200	3.0-12.0	200	34
BT50-SDC12-250	3.0-12.0	250	34
BT50-SDC12-300	3.0-12.0	300	34

- Pre-balanced, high precision run-out 0.003mm, maximum G2.5 30000 rpm, suitable for high precision machining.
- Without clamping nut, less processing interference.
- Back locking collet design ensures high clamping force and precision repetition.
- Assembling and disassembling process is simple and easy by hexagonal wrench.

SDC Collet

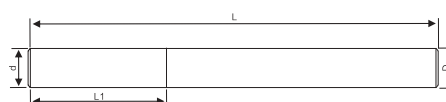


Part No.	Standard	Precision
SDC6-3	0.005	0.003
SDC6-4	0.005	0.003
SDC6-5	0.005	0.003
SDC6-6	0.005	0.003

Part No.	Standard	Precision
SDC8-3	0.005	0.003
SDC8-4	0.005	0.003
SDC8-5	0.005	0.003
SDC8-6	0.005	0.003
SDC8-8	0.005	0.003
SDC8-10	0.005	0.003

Part No.	Standard	Precision
SDC12-3	0.005	0.003
SDC12-4	0.005	0.003
SDC12-5	0.005	0.003
SDC12-6	0.005	0.003
SDC12-8	0.005	0.003
SDC12-10	0.005	0.003
SDC12-12	0.005	0.003

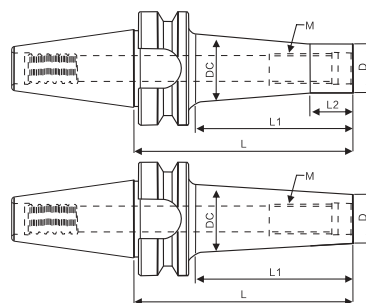
SDC Extension Holder



Part No.	d	D	L	L1	Angle
ST12-SDC6-120L	14.5	12	120	45	
ST12-SDC6-150L	14.5	12	150	45	
ST16-SDC6-130L	14.5	16	130	30	3°
ST16-SDC6-150L	14.5	16	150	30	3°
ST16-SDC6-200L	14.5	16	200	35	3°
ST16-SDC6-250L	14.5	16	250	35	3°
ST20-SDC6-150L	14.5	20	150	30	3°
ST20-SDC6-200L	14.5	20	200	35	3°
ST20-SDC6-250L	14.5	20	250	35	3°
ST20-SDC8-150L	22	20	150	45	
ST20-SDC8-200L	22	20	200	45	
ST20-SDC8-250L	22	20	250	45	



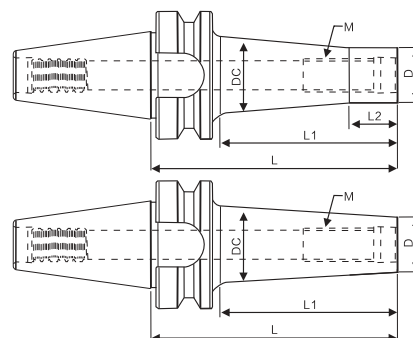
Indexable Screw Type Modular cutter



Part No.	M	D	DC	L	L2	L1
BT30-M6-50L	6	12	17	50	-	30
BT30-M6-100L	6	12	17	100	-	80
BT30-M8-45L	8	15	17	45	-	25
BT30-M8-50L	8	15	17	50	-	30
BT30-M8-100L	8	15	17	100	-	80
BT30-M10-45L	10	19	21	45	-	25
BT30-M10-50L	10	19	21	50	-	30
BT30-M10-100L	10	19	21	100	-	80
BT30-M12-60L	12	24	25	60	-	40
BT30-M12-100L	12	24	26	100	-	80
BT30-M16-45L	16	30	33	45	-	30
BT30-M16-60L	16	30	33	60	-	40
BT30-M16-100L	16	30	32	100	-	80
BT40-M8-70L	8	15	17	70	-	45
BT40-M8-100L	8	15	17	100	-	75
BT40-M8-150L	8	15	22	150	50	125
BT40-M8-200L	8	15	22	200	70	175
BT40-M10-70L	10	19	20	70	-	45
BT40-M10-100L	10	19	25	100	-	75
BT40-M10-150L	10	19	25	150	-	125
BT40-M10-200L	10	19	31	200	70	175
BT40-M12-70L	12	24	26	70	-	45
BT40-M12-100L	12	24	32	100	-	75
BT40-M12-150L	12	24	37	150	50	125
BT40-M12-200L	12	24	68	200	-	175
BT40-M16-70L	16	30	32	70	-	45
BT40-M16-100L	16	30	36	100	30	75
BT40-M16-150L	16	30	41	150	-	125
BT40-M16-200L	16	30	46	200	70	175

- Modular type screw cutter connected with tool holder, countersink surface.
- Direct connection without collet, repetition tolerance is reduced.
- Equal cutting force promise the improved insert life and less processing chatter marks.
- Changeable screw cutter bar, precision repetition, suitable for rough and finish machining.
- Various insert type can be applied for the screw cutter, different combinations with the tool holder are available.
- Part of tools can be replaced easily, more economical.

Indexable Screw Type Modular cutter

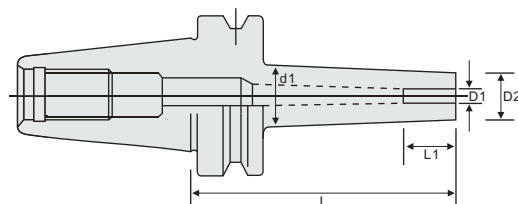


Part No.	M	D	DC	L	L2	L1
BT50-M8-130L	8	16	30	130	-	95
BT50-M8-200L	8	16	32	200	-	165
BT50-M8-250L	8	16	37	250	-	215
BT50-M8-300L	8	16	37	300	-	265
BT50-M10-130L	10	20	30	130	-	95
BT50-M10-200L	10	20	37	200	-	165
BT50-M10-250L	10	20	37	250	-	215
BT50-M10-300L	10	20	37	300	85	265
BT50-M12-130L	12	24	33	120	-	95
BT50-M12-200L	12	24	40	200	-	165
BT50-M12-250L	12	24	50	250	-	215
BT50-M12-300L	12	24	50	300	105	265
BT50-M16-130L	16	29	40	135	-	95
BT50-M16-200L	16	29	50	200	65	165
BT50-M16-250L	16	29	55	250	85	215
BT50-M16-300L	16	29	55	300	105	265

- Modular type screw cutter connected with tool holder, countersink surface.
 - Direct connection without collet, repetition tolerance is reduced.
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 - Various insert type can be applied for the screw cutter, different combinations with the tool holder are available.
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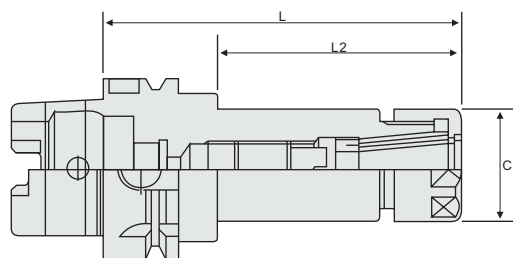


BT - SR Shrink Fit Chuck



Part No.	d1	D1	D2	L1	L	Weight (Kg.)
BT30-SR3-80	14.8	3	9	10	80	0.90
BT30-SR4-80	15.8	4	10	10	80	0.90
BT30-SR5-80	16.8	5	11	10	80	0.90
BT30-SR6-80	17.8	6	12	10	80	0.90
BT30-SR8-80, 120	19.8	8	14	10	80, 120	0.90,1.00
BT30-SR10-80, 120	21.8	10	16	26	80, 120	0.90,1.00
BT30-SR12-80, 120	23.8	12	18	32	80, 120	1.10,1.35
BT30-SR14-80, 120	25.8	14	20	38	80, 120	1.30,1.50
BT30-SR16-90, 120	27.8	16	22	38	90, 120	1.80,1.95
BT30-SR18-90, 120	29.8	18	24	40	90, 120	2.0,2.2
BT30-SR20-90, 120	31.8	20	26	42	90, 120	2.20,2.30
BT40-SR3-90,	17	3	9	10	90	1.00
BT40-SR4-90,	18	4	10	10	90	1.00
BT40-SR5-90,	19	5	11	10	90	1.10
BT40-SR6-90, 120	20	6	12	10	90, 120	1.00,1.10
BT40-SR8-90, 120	22	8	14	10	90, 120	1.00,1.10
BT40-SR10-90, 120	24	10	16	26	90, 120	1.10,1.10
BT40-SR12-90, 120	26	12	18	32	90, 120	1.10,1.10
BT40-SR14-90, 120	28	14	20	38	90, 120	1.20,1.20
BT40-SR16-90, 120	30	16	22	38	90, 120	1.20,1.30
BT40-SR18-95, 120	32	18	24	40	90, 120	1.40,1.60
BT40-SR20-95, 120	34	20	26	42	95, 120	2.00,2.20
BT40-SR25-100, 120	39	25	31	50	100, 120	2.50,3.00
BT50-SR3-90	19	5	11	10	90	3.50
BT50-SR4-90	20	6	12	10	90	3.50,3.60
BT50-SR5-90	22	8	14	10	90	3.50,3.60
BT50-SR6-90, 120	30	16	22	38	90, 120	4.15,4.40
BT50-SR8-90, 120	32	18	24	40	90, 120	4.80,5.10
BT50-SR10-90, 120	17	3	9	10	90, 120	3.40
BT50-SR12-90, 120	18	4	10	10	90, 120	3.40
BT50-SR14-90, 120	24	10	16	26	90, 120	3.80,4.0
BT50-SR16-90, 120	26	12	18	32	90, 120	3.95,4.05
BT50-SR18-95, 120	28	14	20	38	90, 120	4.10,4.30
BT50-SR20-95, 120	34	20	26	42	95, 120	5.00,5.30
BT50-SR25-100, 120	39	25	31	50	100, 120	5.50,6.10

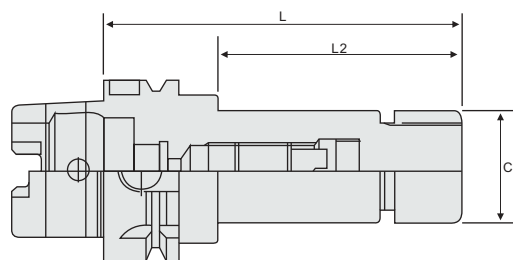
HSK - ER Tool Holder



Part No.	Clamping Range	C	L	L2	Suitable Collet	Weight (Kg.)
HSK63A-ER20-95	1.0~13.0	34	95	69	ER20	1.0
HSK63A-ER25-105	1.0~16.0	42	105	79	ER25	1.2
HSK63A-ER32-110	1.0~20.0	50	110	84	ER32	1.4

- High precision.
- Stable run-out accuracy to enhance fine machining surface roughness.

HSK - ER Tool Holder

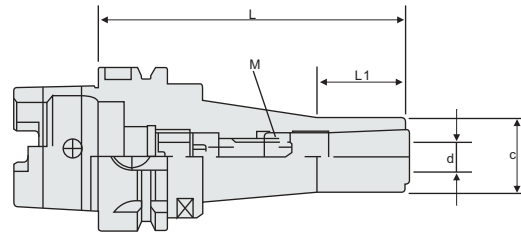


Part No.	Clamping Range	C	L	L2	Suitable Collet	Max.min-1
HSK40E-SK10-60/75	1.75~10.0	27.5	60/75	25/40	SK10	40,000
HSK40E-SK16-80	2.75~16.0	40.0	80	45	SK16	30,000
HSK63A-SK10-105/150	1.75~10.0	27.5	105/150	63/108	SK10	30,000
HSK63A-SK16-120/150	2.75~16.0	40.0	120/150	78/108	SK16	25,000

- Pre-balanced for high precision.
- Stable run-out accuracy to enhance fine machining surface roughness.

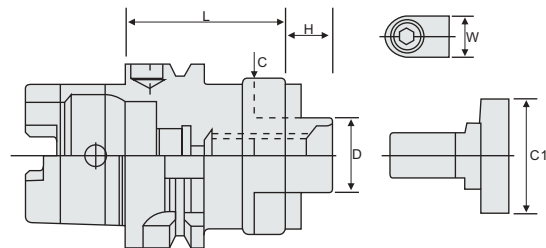


HSK Mill chuck



Part No.	D	L	C	L1	M	Weight (Kg.)
HSK63A-SDC8-100	3.0-10.0	100	22	36	M8	1.4
HSK63A-SDC12-100	3.0-12.0	100	30	35	M10	1.4
HSK100A-SDC8-115	3.0-10.0	115	22	36	M8	2.5
HSK100A-SDC12-110	30.-12.0	110	22	35	M10	2.8

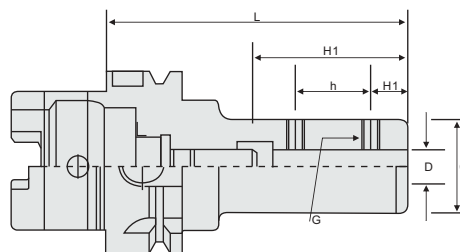
HSK - FMB Face Milling Arbor



Part No.	D	L	H	C	C1	W	Drive Key	Lock bolt
HSK50A-FMB27-55	27	55	20	60	33	9.5	FW5	FM12
HSK63A-FMB22-60	22	60	18	45	-	-	-	-
HSK63A-FMB27-65	27	65	20	60	33	9.5	FW5	FM12
HSK63A-FMB32-75	32	75	22	85	40	12.7	FW13	FM16
HSK100A-FMB22-60	22	60	18	45	-	-	-	-
HSK100A-FMB27-65	27	65	20	60	33	9.5	FW5	FM12
HSK100A-FMB32-75	32	75	22	85	40	12.7	FW13	FM16
HSK100A-FMB40-75	40	75	34	80	50	15.9	FW19	FM20
HSK100A-FMB60-75	60	75	36	100	65	19	FW24	FM24

- High precision.
- Stable run-out accuracy to enhance fine machining surface roughness.

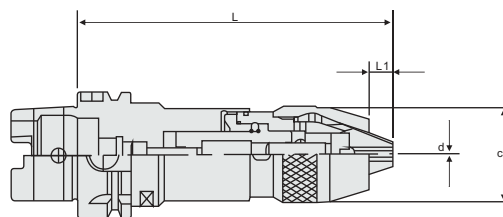
HSK - SLA Weldon Tool Holder



Part No.	D	L	C	h	H	H1	G
HSK63A-SLA6-80	6	80	25	-	18	25	M6
HSK63A-SLA8-80	8	80	28	-	18	30	M8
HSK63A-SLA12-80	10	80	35	-	20	42	M10
HSK63A-SLA10-80	12	80	42	-	22.5	46	M12
HSK63A-SLA16-80	16	80	48	-	24	52	M14
HSK63A-SLA20-80	20	80	52	-	25	52	M16
HSK63A-SLA25-115	25	115	65	25	24	70	M18
HSK63A-SLA32-120	32	120	72	28	24	75	M20

- High precision.
- Stable run-out accuracy to enhance fine machining surface roughness.

HSK - APU Drill Chuck Holder

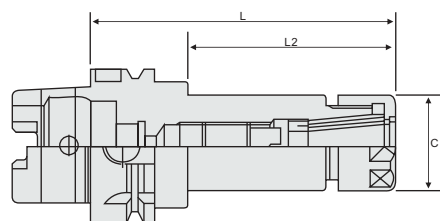


Part No.	D	L min	L max	Clamping Range
HSK40A-APU6-114	36.5	114	121	0.3~8
HSK50A-APU8-118	36.5	118	125	0.3~8
HSK50A-APU13-135	48	135	147	1.0~13
HSK63A-APU8-118	36.5	120	127	0.3~8
HSK63A-APU13-135	48	135	147	1.0~13
HSK100A-APU8-130	36.5	130	137	0.3~8
HSK100A-APU13-145	48	145	157	1.0~13

- High precision.
- Stable run-out accuracy to enhance fine machining surface roughness.

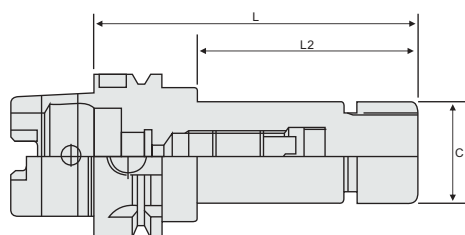
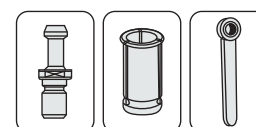


HSK(A) - C Mill Chuck



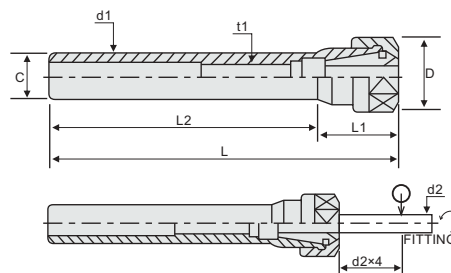
Part No.	D1	C	L1	L	Collet
HSK40A-C25-110	25	60	85	55	C25
HSK50A-C20-110	20	53	66.5	60	C20
HSK50A-C20-110	20	53	66.5	59	C20
HSK63A-C25-110	25	74	74.5	44	C25
HSK63A-C20-110	20	53	66.5	49	C20
HSK63A-C32-130	32	74	90	64	C32
HSK63A-C32-105	32	74	90	64	C32
HSK100A-C32-130	32	74	70	44	C32
HSK100A-C20-110	20	53	75	49	C20
HSK100A-C25-110	25	60	85	59	C25

HSK(A) - C Mill Chuck



Part No.	Clamping Range	D	d	d	L1	L	Collet
HSK50A-GC32-115	6-32	63	32	32	89	80	C32
HSK63A-GC16-80	3-16	50	16	16	54	80	C16
HSK63A-GC16-80	3-16	63	16	16	54	115	C16
HSK63A-GC16-100	3-16	63	16	16	74	100	C16
HSK63A-GC20-85	4-20	63	20	20	59	85	C20
HSK63A-GC16-115	3-16	100	16	16	86	115	C16
HSK63A-GC20-115	4-20	100	20	20	86	115	C20
HSK63A-GC32-115	6-32	100	32	32	86	115	C32

ER Extension Holder

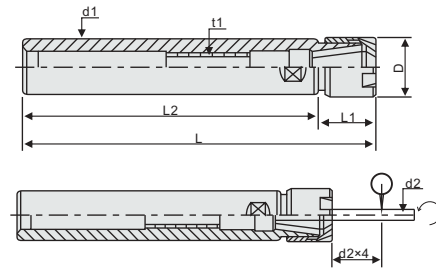


Part No.	Clamping Range	D	C	L1	L	Nut	Collet	Spanner
-ER11-50	2.0~7	19	12	24.0	50	ER11A	ER11	0.55
-ER11-100	2.0~7	19	12	24.0	100	ER11A	ER11	0.55
-ER11-50	2.0~7	19	16	16.6	50	ER11A	ER11	0.55
-ER11-100	2.0~7	19	16	16.6	100	ER11A	ER11	0.55
-ER11-150	2.0~7	19	16	16.6	150	ER11A	ER11	0.55
-ER16-100	3.0~10	28	16	35.0	100	ER16A	ER16	1.85
-ER16-150	3.0~10	28	16	35.0	150	ER16A	ER16	1.85
-ER16-200	3.0~10	28	16	35.0	200	ER16A	ER16	1.85
-ER20-100	3.0~13	34	16	40.0	100	ER20A	ER20	1.2
-ER20-150	3.0~13	34	16	40.0	150	ER20A	ER20	1.2
-ER11-100	2.0~7	19	20	16.6	100	ER11A	ER11	1.6
-ER11-150	2.0~7	19	20	16.6	150	ER11A	ER11	1.6
-ER11-200	2.0~7	19	20	16.6	200	ER11A	ER11	1.6
-ER16-100	3.0~10	28	20	35.0	150	ER16A	ER16	1.65
-ER16-150	3.0~10	28	20	35.0	200	ER16A	ER16	1.65
-ER16-200	3.0~10	28	20	40.0	150	ER16A	ER16	1.65
-ER20-100	3.0~13	34	20	40.0	200	ER20A	ER20	3.15
-ER20-150	3.0~13	34	20	40.0	150	ER20A	ER20	3.15
-ER20-200	3.0~13	34	20	47.0	100	ER20A	ER20	3.15
-ER25-150	3.0~16	42	20	35.0	100	ER25UM	ER25	3.9
-ER25-100	3.0~16	42	20	47.0	100	ER25UM	ER25	3.9
-ER16-100	3.0~10	28	25	35.0	150	ER16A	ER16	3.9
-ER16-150	3.0~10	28	25	35.0	200	ER16A	ER16	3.9
-ER16-200	3.0~10	28	25	40.0	150	ER16A	ER16	3.9
-ER20-100	3.0~13	34	25	40.0	200	ER20A	ER20	1.65
-ER20-150	3.0~13	34	25	40.0	100	ER20A	ER20	1.65
-ER20-200	3.0~13	34	25	47.0	150	ER20A	ER20	1.65
-ER25-100	3.0~16	42	25	47.0	200	ER25UM	ER25	3.15
-ER25-150	3.0~16	42	25	47.0	100	ER25UM	ER25	3.15
-ER25-200	3.0~16	42	25	40.0	150	ER25UM	ER25	3.15
-ER32-100	3.0~20	50	25	50.0	200	ER32UM	ER32	1.65
-ER32-150	3.0~20	50	25	50.0	150	ER32UM	ER32	1.65
-ER32-200	3.0~20	50	25	40.0	200	ER32UM	ER32	1.65
-ER20-150	3.0~13	34	32	40.0	100	ER20A	ER20	3.15
-ER20-200	3.0~13	34	32	50.0	200	ER20A	ER20	3.15
-ER25-200	3.0~16	42	32	47.0	150	ER25UM	ER25	4.0
-ER25-150	3.0~16	42	32	47.0	150	ER25UM	ER25	4.0
-ER32-150	3.0~20	50	32	50.0	200	ER32UM	ER32	2.95
-ER32-200	3.0~20	50	32	50.0	100	ER32UM	ER32	2.95

- Tool body is high precision.
- High concentricity, stable run-out accuracy to enhance fine machining surface roughness.
- Finish surface with long durability.

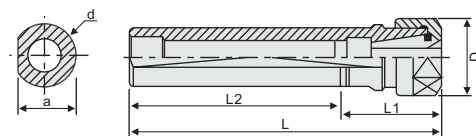


ER Extension Holder



Part No.	L	L2	L1	D	d1	Clamping Range
C10-ER8-100M	115.5	100	15.5	12	10	0.5~5.0
C10-ER8-150M	165.5	150	15.5	12	10	0.5~5.0
C12-ER11-100M	124	100	24	16	12	1.0~7.0
C12-ER11-150	174	150	24	16	12	1.0~7.0
C16-ER16-100M	135	100	35	22	16	1.0~10.0
C16-ER16-150M	185	150	35	22	16	1.0~10.0
C16-ER16-200M	235	200	35	22	16	1.0~10.0
C20-ER16-100M	135	100	35	22	20	1.0~10.0
C20-ER16-150M	185	150	35	22	20	1.0~10.0
C20-ER16-200M	235	200	35	22	20	1.0~10.0
C20-ER20-100M	140	100	40	28	20	1.0~13.0
C20-ER20-150M	190	150	40	28	20	1.0~13.0
C20-ER25-150UM	240	200	40	28	20	1.0~13.0
C25-ER25-100UM	145	100	45	42	25	2.0~16.0
C25-ER25-150UM	295	150	45	42	25	2.0~16.0
C32-ER32-100UM	145	100	45	42	32	2.0~16.0
C32-ER32-150UM	195	150	45	42	32	2.0~16.0
C32-ER32-200UM	150	100	50	50	32	3.0~20.0
C32-ER20-200M	200	150	50	50	32	3.0~20.0
C32-ER25-100UM	250	200	50	50	32	3.0~20.0

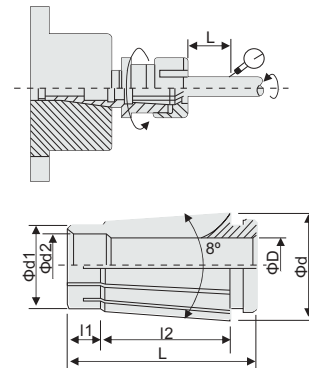
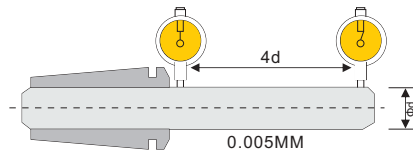
ER Extension Holder



Part No.	L	L2	L1	a	D	d
B-ER16-70A/100A	100/130	70/130	30	19	28	20
B-ER20-70A/100A	100/130	70/130	30	19	34	20
B-ER11-70A/100A	100/130	70/130	30	24	34	25
B-ER16-70M/100M	100/130	70/130	30	19	19	20
B-ER20-70M/100M	100/130	70/130	30	29	19	20
B-ER20-70M/100M	100/130	70/130	30	19	22	25
B-ER20-70A/100A	100/130	70/130	30	19	28	25
B-ER11-70A/100A	100/130	70/130	30	24	28	20

- Tool body is high precision.
- High concentricity, stable run-out accuracy to enhance fine machining surface roughness.
- Finish surface with long durability.

SK High Economical Collet



Part No.	Clamping Range
SK6-0.8	0.75~0.8
SK6-1	0.9~1.0
SK6-1.25	1.15~1.25
SK6-1.5	1.3~1.5
SK6-1.75	1.55~1.75
SK6-2	1.8~2.0
SK6-2.25	2.05~2.25
SK6-2.5	2.3~2.5
SK6-2.75	2.55~2.75
SK6-3	2.8~3.0
SK6-3.5	3.0~3.5
SK6-4	3.5~4.0
SK6-4.5	4.0~4.5
SK6-5	4.5~5.0
SK6-5.5	5.0~5.5
SK6-6	5.5~6.0
SK10-2	1.75~2.0
SK10-2.25	2.0~2.25
SK10-2.5	2.25~2.5
SK10-2.75	2.5~2.75
SK10-3	2.75~3.0
SK10-3.5	3.0~3.5
SK10-4	3.5~4.0
SK10-4.5	4.0~4.5
SK10-5	4.5~5.0
SK10-5.5	5.0~5.5
SK10-6	5.5~6.0
SK10-6.5	6.0~6.5
SK10-7	6.5~7.0
SK10-7.5	7.0~7.5
SK10-8	7.5~8.0
SK10-8.5	8.0~8.5
SK10-9	8.5~9.0
SK10-9.5	9.0~9.5
SK10-10	9.5~10.0

Part No.	Clamping Range
SK16-3	2.75~3.0
SK16-3.5	3.0~3.5
SK16-4	3.5~4.0
SK16-4.5	4.0~4.5
SK16-5	4.5~5.0
SK16-5.5	5.0~5.5
SK16-6	5.5~6.0
SK16-6.5	6.0~6.5
SK16-7	6.5~7.0
SK16-7.5	7.0~7.5
SK16-8	7.5~8.0
SK16-8.5	8.0~8.5
SK16-9	8.5~9.0
SK16-9.5	9.0~9.5
SK16-10	9.5~10.0
SK16-10.5	10.0~10.5
SK16-11	10.5~11.0
SK16-11.5	11.0~11.5
SK16-12	11.5~12.0
SK16-12.5	12.0~12.5
SK16-13	12.5~13.0
SK16-13.5	13.0~13.5
SK16-14	13.5~14.0
SK16-14.5	14.0~14.5
SK16-15	14.5~15.0
SK16-15.5	15.0~15.5
SK16-16	15.5~16.0

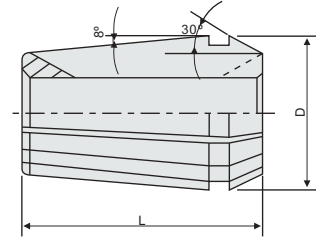
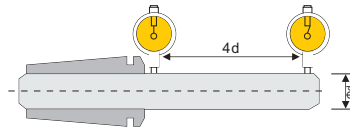
Part No.	Clamping Range
SK20-3	2.5~3.0
SK20-4	3.5~4.0
SK20-5	4.5~5.0
SK20-6	5.5~6.0
SK20-7	6.5~7.0
SK20-8	7.5~8.0
SK20-9	8.5~9.0
SK20-10	9.5~10.0
SK20-11	10.5~11.0
SK20-12	11.5~12.0
SK20-13	12.5~13.0
SK20-14	13.5~14.0
SK20-15	14.5~15.0
SK20-16	15.5~16.0
SK20-18	17.5~18.0
SK20-19	18.5~19.0
SK20-20	19.5~20.0

Part No.	d	d1	L	L1	L2
SK6	10.4	7.5	25	3.8	17.4
SK10	15.5	12	30.5	5.0	21.3
SK16	24.6	18.8	45	8.0	32
SK20	29	22.5	54	8.0	46

- High precision with powerful clamping force.
- Stable run-out accuracy to enhance fine machining surface roughness.
- Finish surface with long durability.



ER High Economical Collet



Part No.	D	L	Range
ER8	8.5	13.5	0.5
ER11	11.5	18	0.5
ER16	17	27.5	1.0
ER20	21	31.5	1.0
ER25	26	34	1.0
ER32	33	40	1.0
ER40	41	46	1.0

Part No.	Clamping Range
ER8-0.5	0.5
ER8-1.0	0.5~1.0
ER8-1.5	1.0~1.5
ER8-2.0	1.5~2.0
ER8-2.5	2.0~2.5
ER8-3.0	2.5~3.0
ER8-3.5	3.0~3.5
ER8-4.0	3.5~4.0
ER8-4.5	4.0~4.5
ER8-5.0	4.5~5.0

Part No.	Clamping Range
ER11-1.0	0.5~1.0
ER11-2.0	1.0~2.0
ER11-3.0	2.0~3.0
ER11-4.0	3.0~4.0
ER11-5.0	4.0~5.0
ER11-6.0	5.0~6.0
ER11-7.0	6.0~7.0

Part No.	Clamping Range
ER16-1.0	0.5~1.0
ER16-2.0	1.0~2.0
ER16-3.0	2.0~3.0
ER16-4.0	3.0~4.0
ER16-5.0	4.0~5.0
ER16-6.0	5.0~6.0
ER16-7.0	6.0~7.0
ER16-8.0	7.0~8.0
ER16-9.0	8.0~9.0
ER16-10.0	9.0~10.0

Part No.	Clamping Range
ER20-1.0	0.5~1.0
ER20-2.0	1.0~2.0
ER20-3.0	2.0~3.0
ER20-4.0	3.0~4.0
ER20-5.0	4.0~5.0
ER20-6.0	5.0~6.0
ER20-7.0	6.0~7.0
ER20-8.0	7.0~8.0
ER20-9.0	8.0~9.0
ER20-10.0	9.0~10.0
ER20-11.0	10.0~11.0
ER20-12.0	11.0~12.0
ER20-13.0	12.0~13.0

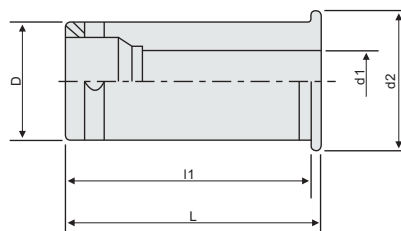
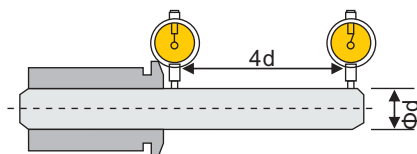
Part No.	Clamping Range
ER25-2.0	1.0~2.0
ER25-3.0	2.0~3.0
ER25-4.0	3.0~4.0
ER25-5.0	4.0~5.0
ER25-6.0	5.0~6.0
ER25-7.0	6.0~7.0
ER25-8.0	7.0~8.0
ER25-9.0	8.0~9.0
ER25-10.0	9.0~10.0
ER25-11.0	10.0~11.0
ER25-12.0	11.0~12.0
ER25-13.0	12.0~13.0
ER25-14.0	13.0~14.0
ER25-15.0	14.0~15.0
ER25-16.0	15.0~16.0

Part No.	Clamping Range
ER32-2.0	1.0~2.0
ER32-3.0	2.0~3.0
ER32-4.0	3.0~4.0
ER32-5.0	4.0~5.0
ER32-6.0	5.0~6.0
ER32-7.0	6.0~7.0
ER32-8.0	7.0~8.0
ER32-9.0	8.0~9.0
ER32-10.0	9.0~10.0
ER32-11.0	10.0~11.0
ER32-12.0	11.0~12.0
ER32-13.0	12.0~13.0
ER32-14.0	13.0~14.0
ER32-15.0	14.0~15.0
ER32-16.0	15.0~16.0
ER32-17.0	16.0~17.0
ER32-18.0	17.0~18.0
ER32-19.0	18.0~19.0
ER32-20.0	19.0~20.0

Part No.	Clamping Range
ER40-2	1.0~2.0
ER40-3	2.0~3.0
ER40-4	3.0~4.0
ER40-5	4.0~5.0
ER40-6	5.0~6.0
ER40-7	6.0~7.0
ER40-8	7.0~8.0
ER40-9	8.0~9.0
ER40-10	9.0~10.0
ER40-11	10.0~11.0
ER40-12	11.0~12.0
ER40-13	12.0~13.0
ER40-14	13.0~14.0
ER40-15	14.0~15.0
ER40-16	15.0~16.0
ER40-17	16.0~17.0
ER40-18	17.0~18.0
ER40-19	18.0~19.0
ER40-20	19.0~20.0
ER40-21	20.0~21.0
ER40-22	21.0~22.0
ER40-23	22.0~23.0
ER40-24	23.0~24.0
ER40-25	24.0~25.0
ER40-26	25.0~26.0

- High precision with powerful clamping force.
- Stable run-out accuracy to enhance fine machining surface roughness.
- Finish surface with long durability.

C Power Chuck Collet



Part No.	D	d2	L	L1
C20-3, 4, 5, 6, 8, 10, 12, 16	20	25	52.5	49
C25-6, 8, 10, 12.5, 16, 20	25	30	59	56
C32-6, 8, 10, 12, 16, 20, 25, 15, 19, 24	32	37.5	65	67.4
C32-1/4, 5/16, 3/8, 1/2, 3/4, 5/8, 1"	32	37.5	65	67.4
C42-6, 8, 10, 12, 16, 20, 25, 32, 15, 19, 24	42	47	80	76
C42-1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1"	42	47	80	76

- High precision with powerful clamping force.
- Stable run-out accuracy to enhance fine machining surface roughness.
- Finish surface with long durability.

High Precision Clamping Nut

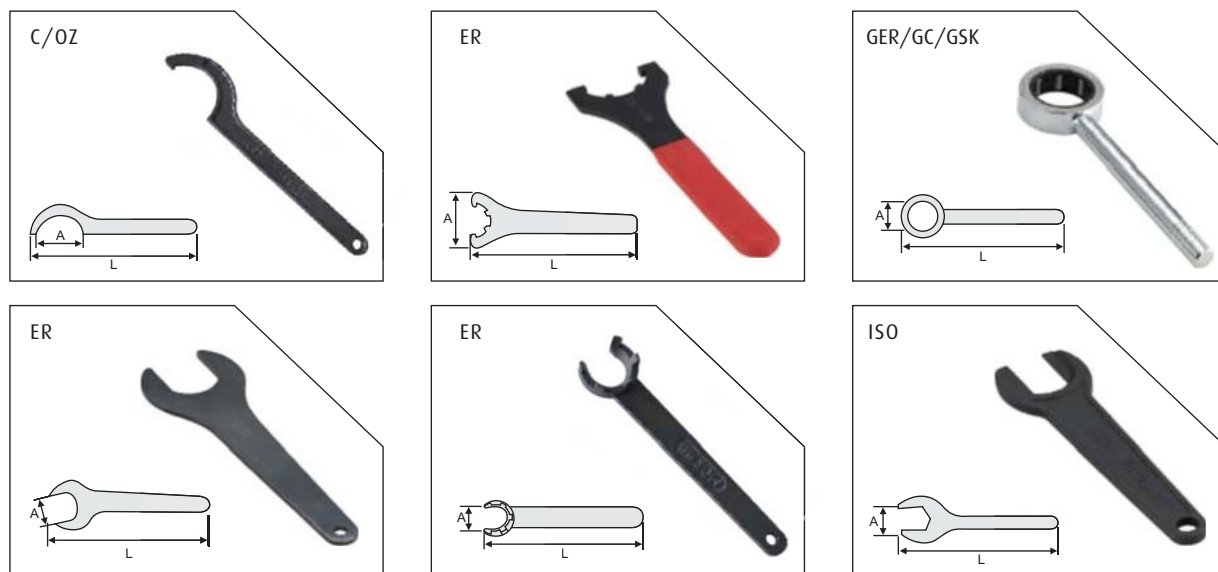


Part No.	D	L	M	Wrench
ER11A	19	11.5	M14X0.75	ER11A
ER16A	28	17	M22X1.5	ER16A
ER20A	34	19.0	M25X1.5	ER20A
ER8M	12	10.8	M11X0.75	ER8M
ER11M	16	12.0	M13X0.75	ER11M
HER16M	22	18	M19X1.0	ER16M
ER20M	28	19.0	M24X1.0	ER20M
ER25M	35	20.0	M30X1.0	ER25M
HER25UM	42	20.0	M32X1.5	ER25UM
HER32UM	50	23	M40X1.5	ER32UM
ER40UM	63	26	M50X1.5	ER40UM
GER16	30	24.7	TM22X1.5	GER16
GER20	35	25.5	TM26X1.5	GER20
GER25	40	25.9	TM32X1.5	GER25
GER32	48	26.6	TM40X1.5	GER32
GER11 MINI	16	11.3	M14X0.75	GER11 MINI
GER16 MINI	22	20.5	M19X1.0	GER16 MINI
GER20 MINI	30	21.8	M24X1.0	GER20 MINI
GER25 MINI	35	23.0	M30X1.0	GER25 MINI
ER11MS	16	11.3	M13X0.75	ER11MS
ER16MS	22	17	M19X1.0	ER16MS
ER20MS	28	19	M24X1.0	ER20MS
ER25MS	35	23	M30X1.0	ER25MS

- Thermal treatment process improve the clamping precision and stability.
- Finish surface with long durability.
- Pre-balanced is G2.5 25000rpm for enhanced run-out accuracy.



Fitting

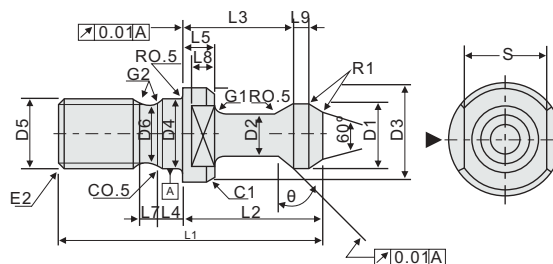


Spanner

Part No.	A	L	Weight (Kg.)
C20	50-55	245	0.17
C25	56-61	270	0.2
C32	68-73	290	0.3
C42	88-96	340	0.42
OZ25	55-60	250	0.24
ER11A	17.2	120	0.10
ER16A	25.2	140	0.15
ER20A	30.3	160	0.19
ER8M	12	75	0.05
ER11M	16	95	0.04
ER16M	22	117	0.06
ER20M	28	129	0.07
ER25M	35	142	0.09
ER25UM	42	210	0.15
ER32UM	50	250	0.28
ER40UM	64	290	0.42
GER16,GER16 MINI	30,27	150	0.24
GER20,GER20 MINI	35,30	160	0.30
GER25,GER25 MINI	40,35	180	0.35
GER32	48	180	0.70
GSK6	19.5	110	0.11
GSK10	27	150	0.29
GSK16	40	170	0.39
GSK20	48	210	0.38
ISO20	18.2	175	0.11
ISO25	27	175	0.12
ISO30	40	220	0.15

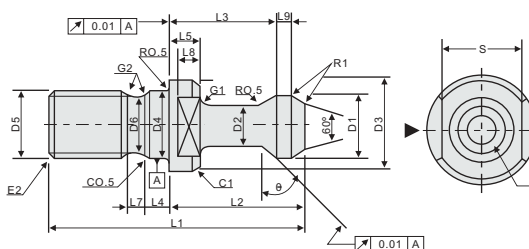
- Thermal treatment process improve the clamping precision and stability.
- Finish surface with long durability.

BT Pull Stud



Part No.	L1	D4	D5	D6	E2	G2	L4	L7	D3	G1	L5	S	D1	D2	L2	L3	L9	Dia
BT30-30	43	12.5	M12	9.5	1.75	1	4	3	16.5	2	10	13	11	7	35	18	2.5	30
BT30-45	43	12.5	M12	13	2	1	5	3	23	2	5	19	15	10	45	28	2.5	60
BT30-60	43	12.5	M12	20	3	1.5	8	3	38	2	5	30	23	17	23	18	2.5	90
BT30-90	43	12.5	M12	9.5	1.75	1	4	3	16.5	2	5	13	11	7	23	18	2.5	45
BT40-30	60	17	M16	9.5	1.75	1	4	4	16.5	3	5	13	11	7	23	18	3	30
BT40-45	60	17	M16	9.5	1.75	1	4	4	16.5	3	6	13	11	7	23	28	3	60
BT40-60	60	17	M16	13	2	1	5	4	23	3	6	19	15	10	35	28	3	90
BT40-90	60	17	M16	13	2	1	5	4	23	3	6	19	15	10	35	28	3	45
BT50-30	85	25	M24	13	2	1	5	5	23	5	6	19	15	10	35	35	5	30
BT50-45	85	25	M24	20	3	1.5	8	5	38	5	10	30	23	17	45	35	5	60
BT50-60	85	25	M24	20	3	1.5	8	5	38	5	10	30	23	17	45	35	5	90
BT50-90	71	25	M24	20	3	1.5	8	5	36	5	10	30	24	18	31	35	5	45
BT50-90L	85	25	M24	20	3	1.5	8	5	38	5	10	30	23	17	45	35	5	90

BT Pull Stud with Coolant Hole

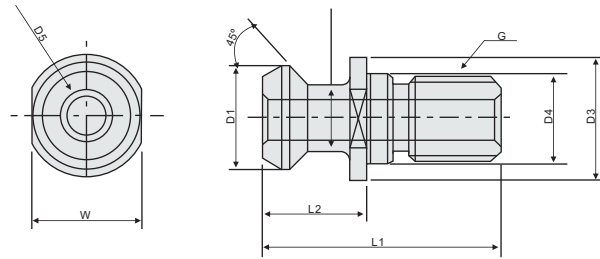


Part No. Coolant	L1	D4	D5	D6	E2	G2	L4	L7	D3	G1	L5	S	D1	D2	L2	L3	L9	Dia
BT30-30	43	12.5	M12	9.5	1.75	1	4	3	16.5	2	10	13	11	7	35	18	2.5	30
BT30-45	43	12.5	M12	13	2	1	5	3	23	2	5	19	15	10	45	28	2.5	60
BT30-60	43	12.5	M12	20	3	1.5	8	3	38	2	5	30	23	17	23	18	2.5	90
BT30-90	43	12.5	M12	9.5	1.75	1	4	3	16.5	2	5	13	11	7	23	18	2.5	45
BT40-30	60	17	M16	9.5	1.75	1	4	4	16.5	3	5	13	11	7	23	18	3	30
BT40-45	60	17	M16	9.5	1.75	1	4	4	16.5	3	6	13	11	7	23	28	3	60
BT40-60	60	17	M16	13	2	1	5	4	23	3	6	19	15	10	35	28	3	90
BT40-90	60	17	M16	13	2	1	5	4	23	3	6	19	15	10	35	28	3	45
BT50-30	85	25	M24	13	2	1	5	5	23	5	6	19	15	10	35	35	5	30
BT50-45	85	25	M24	20	3	1.5	8	5	38	5	10	30	23	17	45	35	5	60
BT50-60	85	25	M24	20	3	1.5	8	5	38	5	10	30	23	17	45	35	5	90
BT50-90	71	25	M24	20	3	1.5	8	5	36	5	10	30	24	18	31	35	5	45
BT50-90L	85	25	M24	20	3	1.5	8	5	38	5	10	30	23	17	45	35	5	90

- Thermal treatment process improve the clamping precision and stability.
- Finish surface with long durability.

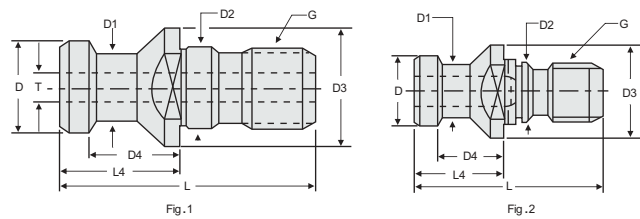


BT40, BT50 Mazak Pull Stud



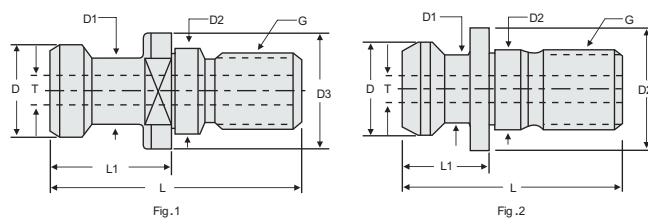
Part No.	L1	L2	D1	D2	D3	D4	D5	W	G
BT40-MAZAK	44.1	19.1	18.8	12.45	22	17	7	19	M16
BT50-MAZAK	65.2	25.2	29	20.83	36	25	10	30	M24

DIN69872A/B Pull Stud



Part No.	Fig.	L	L4	D	D1	D2	D3	D4	T
DIN69872A-P16D	A	54	26	19	14	17	23	20	7.5
DIN69872A-P24D	A	74	34	28	21	25	36	25	11.5
DIN69872B-P16D	B	57	26	19	14	17	23	20	-
DIN69872B-P16D	B	74	34	28	21	25	36	25	-

DIN69872A/B Pull Stud



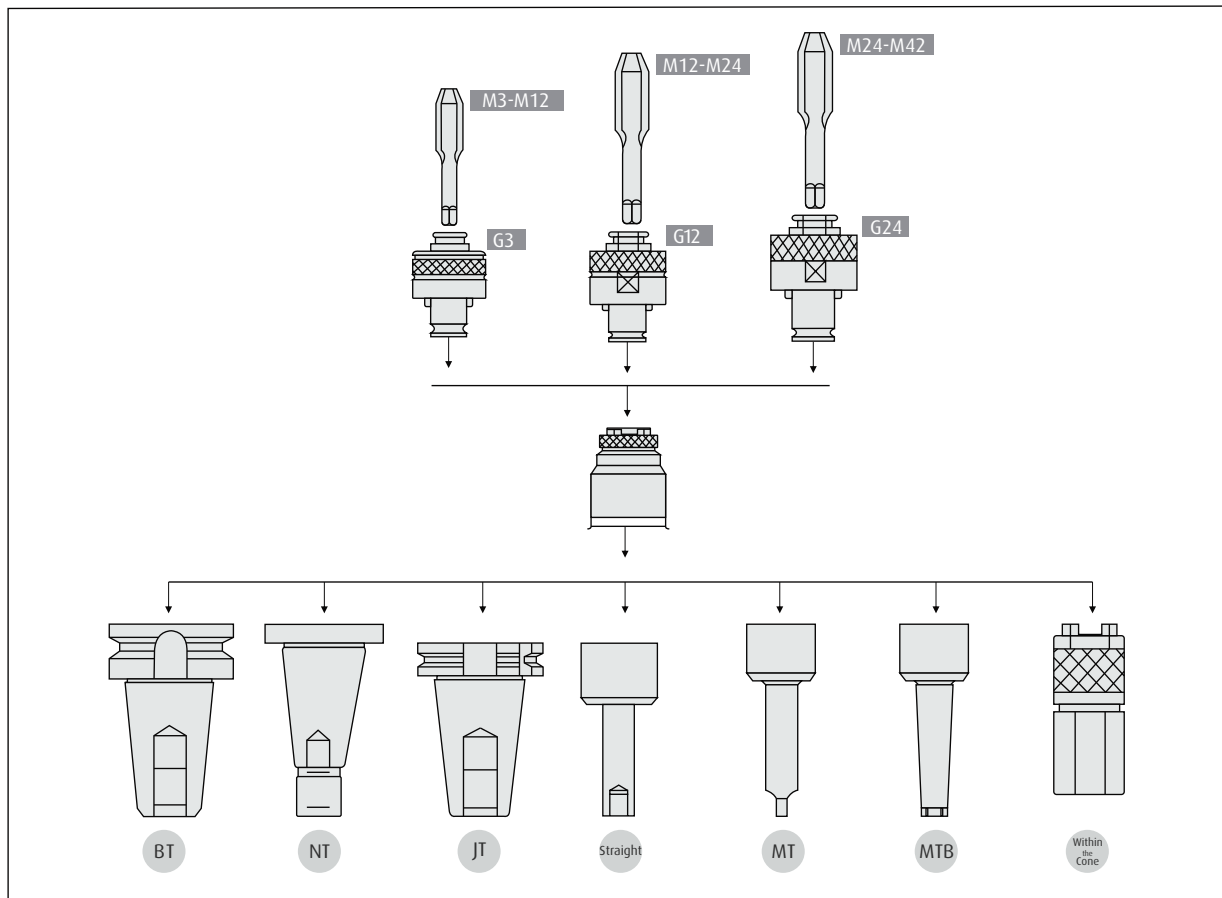
Part No.	Fig.	L	D	D1	D2	D3	T	G
ISO7388/2A-P16D	A	54	19	14	17	23	7.5	M16
ISO7388/2A-P24D	A	74	28	21	25	36	11.5	M24
ISO7388/2B-P16D	B	44.5	18.9	12.9	17	22.5	7.5	M16
ISO7388/2B-P16D	B	65.5	29.1	19.6	25	36	11.5	M24

Tapping Tool Holder series





Tapping Tool Holder



Tapping Tool Holder

1 TENSION AND COMPRESSION TAPER HOLDER

Tension and compression function can prove screw and tap tooth space moving sleekly and synchronously with machine. It should be used in the scope of designed tension and compression,

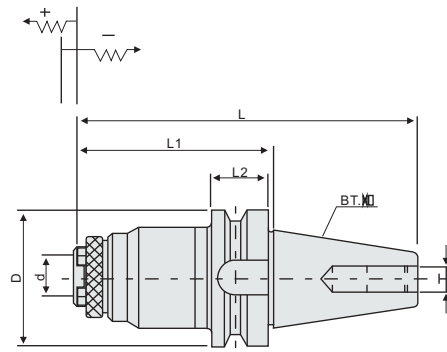
- Over tension:
The black mark can be seen at this time. Please speed up the working speed of axis.
- Over Compression:
Reduced the moving speed of axis.
- In case of small hole in tapping model, torque protection function makes taps idling.
Don't adjust the torque instead of large one.
- When blind hole tapping Z axis programmed with slant depth and under the gyroscopic force and tough the bottom part, in case of reduce programmed Z axis data instruction.
- When Z system tapping chuck in use, in other case of orifice touched, please stop the Z pint, tapping chuck run up with Z axis in the state of elongation.
- In case of artificial damage or after warranty period, the cost for evaluating and remanding should be charged.

Common Straight Slot

Part No.	N.m	N.m	N.m	N.m	KW	N.m	N.m	N.m
M5	2.26	3.39	4.52	4.78	0.247	2.28	2.26	4.52
M6	3.39	4.78	5.65	11.3	0.373	4.52	3.39	6.78
M8	4.52	9.04	8.48	17	0.373	6.78	5.65	11.3
M10	11.3	22.6	20.3	28.3	0.56	14.7	12.4	24.9
M12	11.3	22.6	20.3	33.9	0.746	22.6	20.3	33.9
M14	22.6	67.8	56.5	90.4	0.93	39.5	39.5	73.4
M16	28.3	67.8	72.5	123	0.56	51	51	73.4
M20	56.5	113	113	170	1.3	73.4	73.4	107



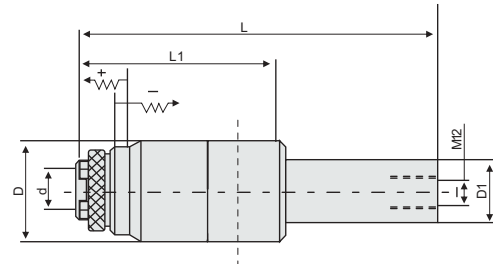
BT Tension and Compression Tapping Holder



Part No.	Tapping Range	D	d	L	L1	L2	T	Collet
BT30-G0312	M3-M12	46	19	141	87.6	20	M12	G3
BT40-G0312	M3-M12	63	19	143	92.6	25	M16	G3
BT40-G1224	M12-M24	63	30	200	134.6	25	M16	G12
BT50-G0312	M3-M12	100	19	199	97.2	35	M24	G3
BT50-G1224	M12-M24	100	30	246	142.2	35	M24	G12
BT50-G2442	M24-M42	100	45	276	174.2	35	M24	G24

- Over load protection to avoid breakage of taps.
- Floating chuck with tension and compression function, tools can be changed quickly.
- Suitable for CNC machine center, drilling machine, lathes.
- Tapping range: M3-M42.

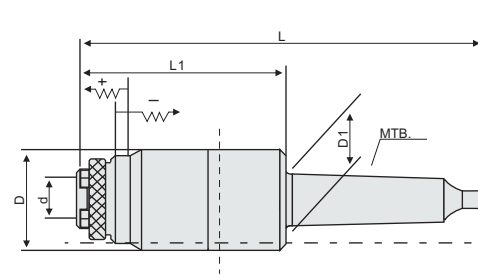
Tension and Compression Tapping Holder with Straight Shank



Part No.	Tapping Range	D	d	L	L1	D1	Collet
C20-50-G312	M3-M12	46	19	149	89	20	G3
C20-100-G312	M3-M12	46	19	189	89	20	G3
C25-50-G312	M3-M12	46	19	149	89	25	G3
C25-100-G312	M3-M12	46	19	189	89	25	G3
C32-100-G1224	M12-M24	66	30	220	120	25	G12
C32-100-G1224	M12-M24	66	30	220	120	32	G12

- Over load protection to avoid breakage of taps.
- Floating chuck with tension and compression function, tools can be changed quickly.
- Suitable for CNC machine center, drilling machine, lathes.
- Tapping range: M3-M42.

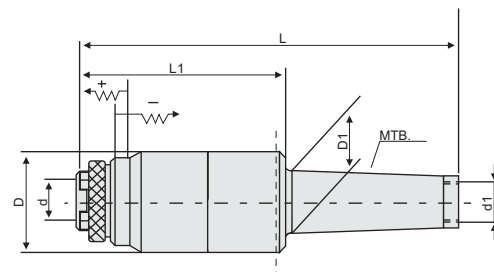
MTA Morse Floating Tapping Holder



Part No.	Tapping Range	D	d	d1	D1	L	L1	Collet
MTA3-G0312	M3-M12	46	19	M12	23.825	176	89	G3
MTA3-G1224	M12-M24	66	30	M12	23.825	206	120	G12
MTA4-G0312	M3-M12	46	19	M16	31.267	199	89	G3
MTA4-G1224	M12-M24	66	30	M16	31.267	229	120	G12

- Over load protection to avoid breakage of taps.
- Floating chuck with tension and compression function, tools can be changed quickly.
- Suitable for drilling machine, lathes, milling machines.
- Tapping range: M3-M42.

MTB Morse Tapping Holder

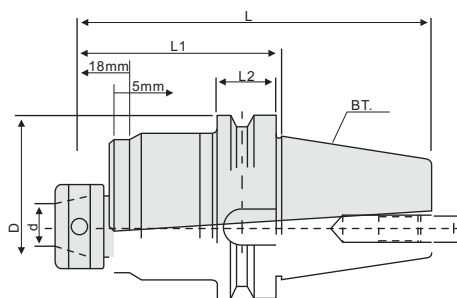


Part No.	Tapping Range	D	d	d1	D1	L	L1	Collet
MTB3-G0312	M3-M12	46	19	M12	23.825	176	89	G3
MTB3-G1224	M12-M24	66	30	M12	23.825	206	120	G12
MTB4-G0312	M3-M12	46	19	M16	31.267	199	89	G3
MTB4-G1224	M12-M24	66	30	M16	31.267	229	120	G12

- Over load protection to avoid breakage of taps.
- Floating chuck with tension and compression function, tools can be changed quickly.
- Suitable for drilling machine, lathes, milling machines.
- Tapping range: M3-M42.

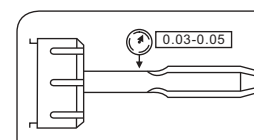


BT Rigid Tapping Tool Holder

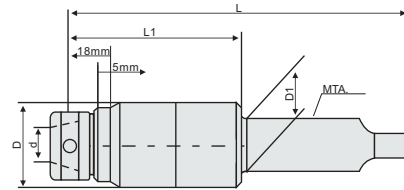


Part No.	Tapping Range	D	L	L1	L2	T	Collet
BT30-TER16	M2-M12	46	149	100.6	20	M12	ER16
BT30-TER20	M2-M16	46	151	102.6	20	M12	ER20
BT30-TER25	M2-M22	46	153	104.6	20	M12	ER25
BT30-TER32	M2-M30	46	156	107.6	20	M12	ER32
BT40-TER16	M2-M12	63	161	95.6	25	M16	ER16
BT40-TER20	M2-M16	63	163	97.6	25	M16	ER20
BT40-TER25	M2-M22	63	165	99.6	25	M16	ER25
BT40-TER32	M2-M30	63	168	102.6	25	M16	ER32
BT50-TER16	M2-M12	100	207	105.2	35	M24	ER16
BT50-TER20	M2-M16	100	209	107.2	35	M24	ER20
BT50-TER25	M2-M22	100	211	109.2	35	M24	ER25
BT50-TER32	M2-M30	100	214	112.2	35	M24	ER32

- The rigidity design ensures precision synchronization between spindle rotation and cutting feed.
- ER collet can be used for gripping drill bits, reaming cutters and milling cutters.
- Do not lock the clamping nut too tight in order to avoid damage.

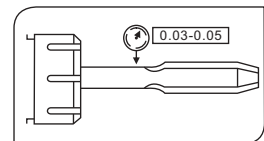


MTA Morse Rigid Tapping Tool Holder

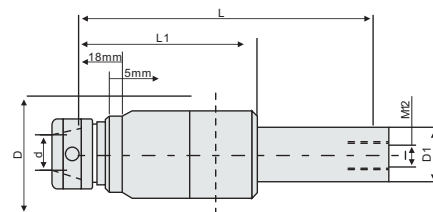


Part No.	Tapping Range	D	L	L1	D1	Collet
MTA2-TER16	M2-M12	46	177	97	17.78	ER16
MTA2-TER20	M2-M16	50	198	99	23.825	ER20
MTA2-TER25	M2-M22	46	181	101	17.78	ER25
MTA3-TER16	M2-M12	50	196	97	23.825	ER16
MTA3-TER20	M2-M16	50	198	99	23.825	ER20
MTA3-TER25	M2-M22	50	200	101	23.825	ER25
MTA3-TER32	M2-M30	50	203	104	23.825	ER32
MTA4-TER16	M2-M12	66	221	97	31.267	ER16
MTA4-TER20	M2-M16	66	223	99	31.267	ER20
MTA4-TER25	M2-M20	66	225	101	31.267	ER25
MTA4-TER32	M2-M30	66	228	104	31.267	ER32
MTA5-TER32	M2-M30	66	260	104	44.339	ER32

- The rigidity design ensures precision synchronization between spindle rotation and cutting feed.
- ER collet can be used for gripping drill bits, reaming cutters and milling cutters.
- Do not lock the clamping nut too tight in order to avoid damage.

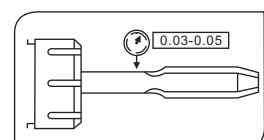


MTB Morse Rigid Tapping Tool Holder



Part No.	Tapping Range	D	d1	D1	L	L1	Collet
MTB3-TER16	M2-M12	46	M12	23.825	176	89	ER16
MTB3-TER20	M2-M24	46	M12	23.825	206	120	ER20
MTB3-TER25	M2-M22	46	M12	23.825	176	89	ER25
MTB3-TER32	M2-M30	46	M12	23.825	206	120	ER32
MTB4-TER16	M2-M12	46	M16	31.267	199	89	ER16
MTB4-TER20	M2-M24	46	M16	31.267	229	120	ER20
MTB4-TER25	M2-M22	46	M16	31.267	199	89	ER25
MTB4-TER32	M2-M30	46	M16	31.267	229	120	ER32

- The rigidity design ensures precision synchronization between spindle rotation and cutting feed.
- ER collet can be used for gripping drill bits, reaming cutters and milling cutters.
- Do not lock the clamping nut too tight in order to avoid damage.

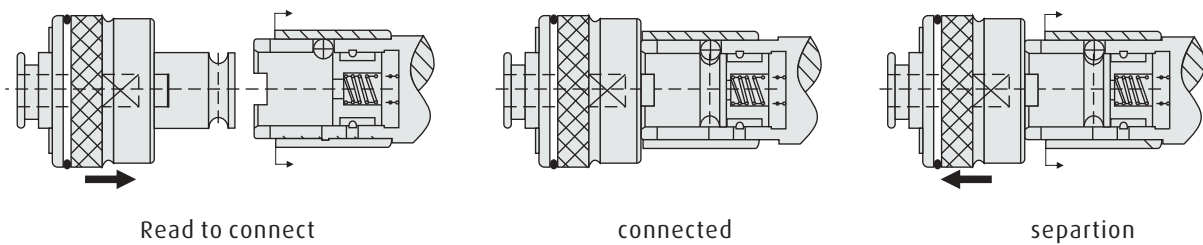




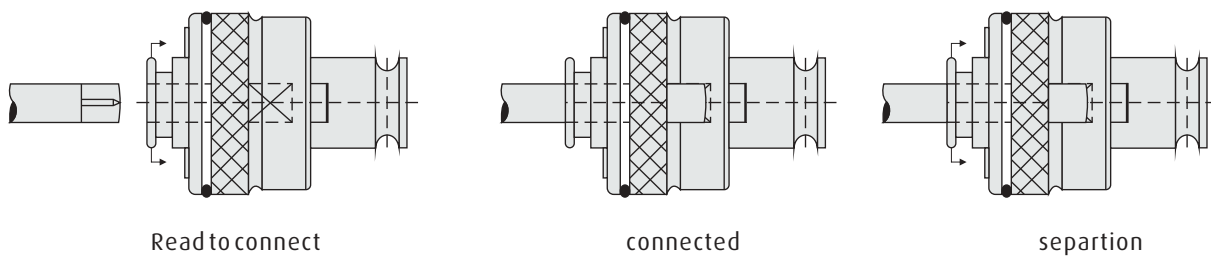
G Fitting



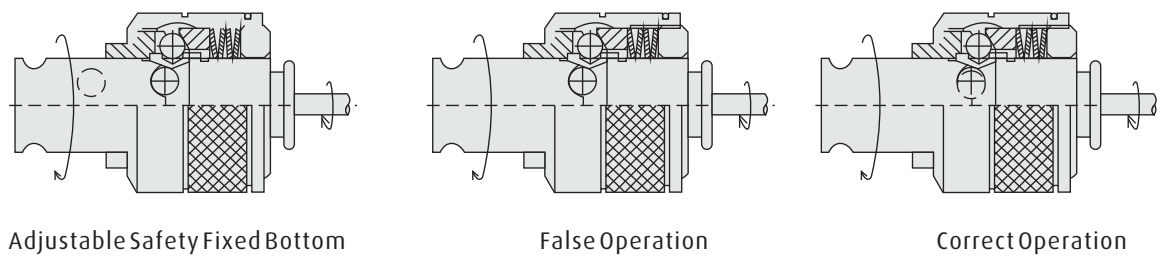
Quick Change Protect Tap Collet G System

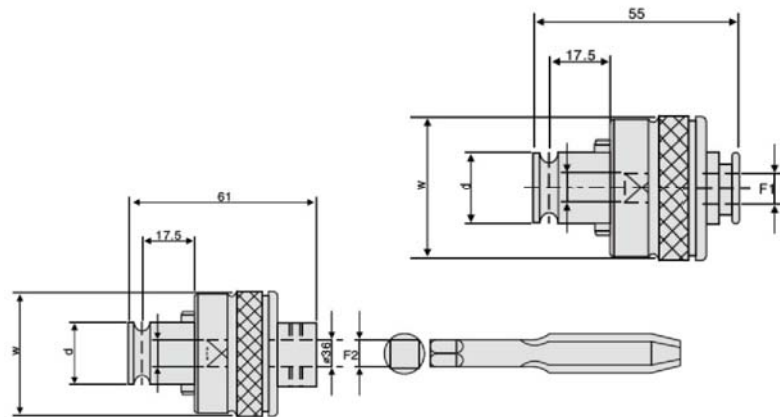


Screw Tap and Collet Connecting



Safety Fixed Botto Adjusting





Part No.	Part No.	d +0.08	w +0.08	D	Photo
G3	M3	3.15	2.5	19	F1
G3	M4	4	3.15	19	F1
G3	M5	5	4	19	F1
G3	M6-8	6.3	5	19	F1
G3	M10	8	6.3	19	F1
G3	M12	9	7.1	19	F1
G3	M14	11.2	9	19	F2
G3	M16	12.5	10	19	F2

Technical drawing of a 1/2 inch hex key. The drawing shows the hexagonal head and the shaft. Key dimensions are labeled: 55 (total length), 17.5 (head length), 19.05 (head width across flats), 12.7 (shaft diameter), and 19.05 (shaft length). The shaft is labeled with a diameter of 1/2 inch.

Part No.	Part No.	Part No.	d +0.08	w +0.05
G3	M3	1/8	4	3.2
G3	M4	5/32	5	4
G3	M5	3/16	5.5	4.5
G3	M6	1/4	6	4.5
G3	M8	5/16	6.1	5
G3	M10	3/8	7	5.5
G3	-	7/16	8	6
G3	M12	-	8.5	6.5
G3	-	1/16	9	7

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DT24/DT33



Part No.	Tapper Holder	Collet	Tap Sleeve
DT24MTA-10PCDS/SET	DT24-MT2 Holder	M4,M5,M6,M8,M10,M12,M14,M16,M18,M20,M22,M24	T24-M1
DT24MTA-10PCDS/SET	DT24-MT2 Holder	W3/16,W1/4,W5/16,W3/8,W7/16,W1/2,W5/8,W3/4,W7/8,W1"	T24-M2
DT24MTA-10PCDS/SET	DT24-MT2 Holder	PT1/8,PT1/4,PT3/8,PT1/2	T24-M3
DT24MTA-10PCDS/SET	DT24-MT2 Holder		
DT33MTA-10PCDS/SET	DT33-MT3 Holder	M8,M10,M12,M14,M16,M18,M20,M22,M24,M27,M30,M33,M36	T33-M1
DT33MTA-10PCDS/SET	DT33-MT4 Holder	W3/16,W1/4,W5/16,W3/8,W7/16,W1/2,W5/8,W3/4,W7/8,W1"	T33-M2
DT33MTA-10PCDS/SET	DT33-MT5 Holder	PT1/8,PT1/4,PT3/8,PT1/2	T33-M3
DT33MTA-10PCDS/SET			T33-M4

Standard

Part No.	Standard
DT24MTA-10PCDS/SET DT33MTA-10PCDS/SET	DT24MTA Holder, JTA6+1/2, DT24-M4, M6, M8, M10, M12, M16, DT24-MT1, DT24-MT2 DT33MTA Holder, JTA6+1/2, DT33-M8, M10, M12, M16, M20, M24, DT33-MT2, DT33-MT3

D52



Part No.	Collet	Tap Sleeve
DT52-MTA5 Holder	M20,M22,M24,M27,M30,M33,M36,M39,M42,M45,M48,M52	DT52-MT2
DT52-MTA5 Holder	W7/8,W1",W1-1/8,W1-1/4,W1-3/8,W1-1/2,W1-1/5,W1-3/4,W1-7/8,W2"	DT52-MT3
DT52-MTA5 Holder		DT52-MT4
DT52-MTA5 Holder		DT52-MT5

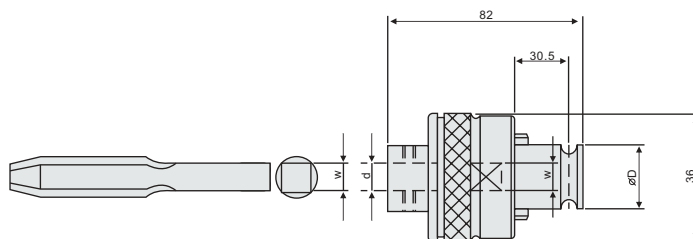
JIS	Dia (d)
DT52 M20	15 12
DT52 M22 W7/8	17 13
DT52 M24 M25	19 15
DT52 M27 W1 PT5/8	20 15
DT52 M30 PT3/4	23 17
DT52 M32 W1-14 PT7/8	24 19
DT52 M33	25 19
DT52 M34 M35 W1-3/8 PT1	26 21
DT52 M36 PT1-1/8	28 21
DT52 M39 M40 W1-1/2	30 23
DT52 M42 W1-5/8	32 26
DT52 M45 M46 W1-3/4 PT1-3/8	35 26
DT52 M48 W1-7/8 PT1-1/2	38 29
DT52 M50 W2	40 32
DT52 M52	42 32
Dt52 W1-1/8	22 17

ISO	Dia (d)
DT52 M20	14 11.2
DT52 M22	16 12.5
DT52 M24	18 14
DT52 M27 M30	20 16
DT52 M33	22.4 18
DT52 M36	25 20
DT52 M39 M42	28 22.4
DT52 M45 M48	31.5 25
DT52 M52	35.5 28

ISO	Dia (d)
DT52 M20	16 12
DT52 M22 M24 W1"	18 14.5
DT52 M27	20 16
DT52 M30	22 18
DT52 M33	25 20
DT52 M36	28 22
DT52 M39 M42	32 24
DT52 M45 M48	26 29
Dt52 M52	40 32

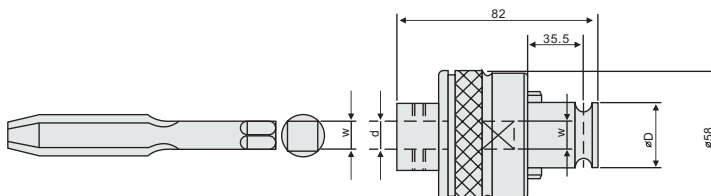


G12 Tapping Collet



Part No.	Part No.	d +0.10	w +0.15	D
G3	M6-8	6.3	5	30
G3	M10	8	6.3	30
G3	M12	9	7.1	30
G3	M14	11.2	9	30
G3	M16	12.5	10	30
G3	M18-20	14	11.2	30
G3	M22	16	12.5	30
G3	M24	18	14	30

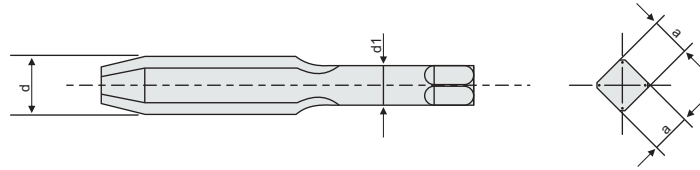
G12 Tapping Collet



Part No.	Part No.	d +0.10	w +0.15	D
G3	M6	6	4.5	31
G3	M8	6.1	5	31
G3	M10	7	5.5	31
G3	M12	8.5	6.5	31
G3	M14	10.5	8	31
G3	M16	12	9	31
G3	M18	14	11	31
G3	M20	15	12	31
G3	M22	17	13	31

- Overload protection with high precision and sensitivity, which can promise increased tool life.
- Sensitive response to torque change and adjustable according to different work piece material.
- Suitable for various tapping tools and machines.

Specification

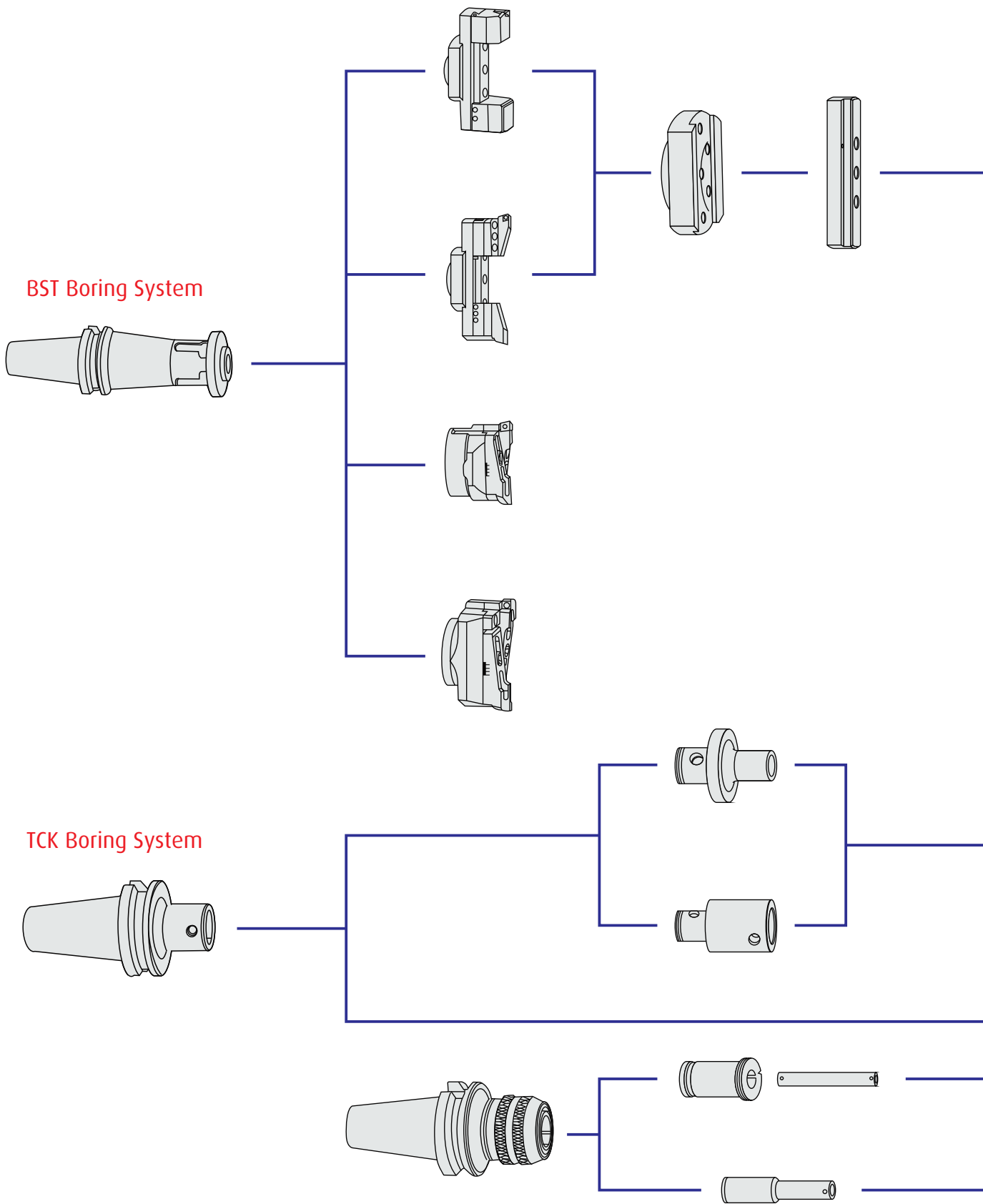


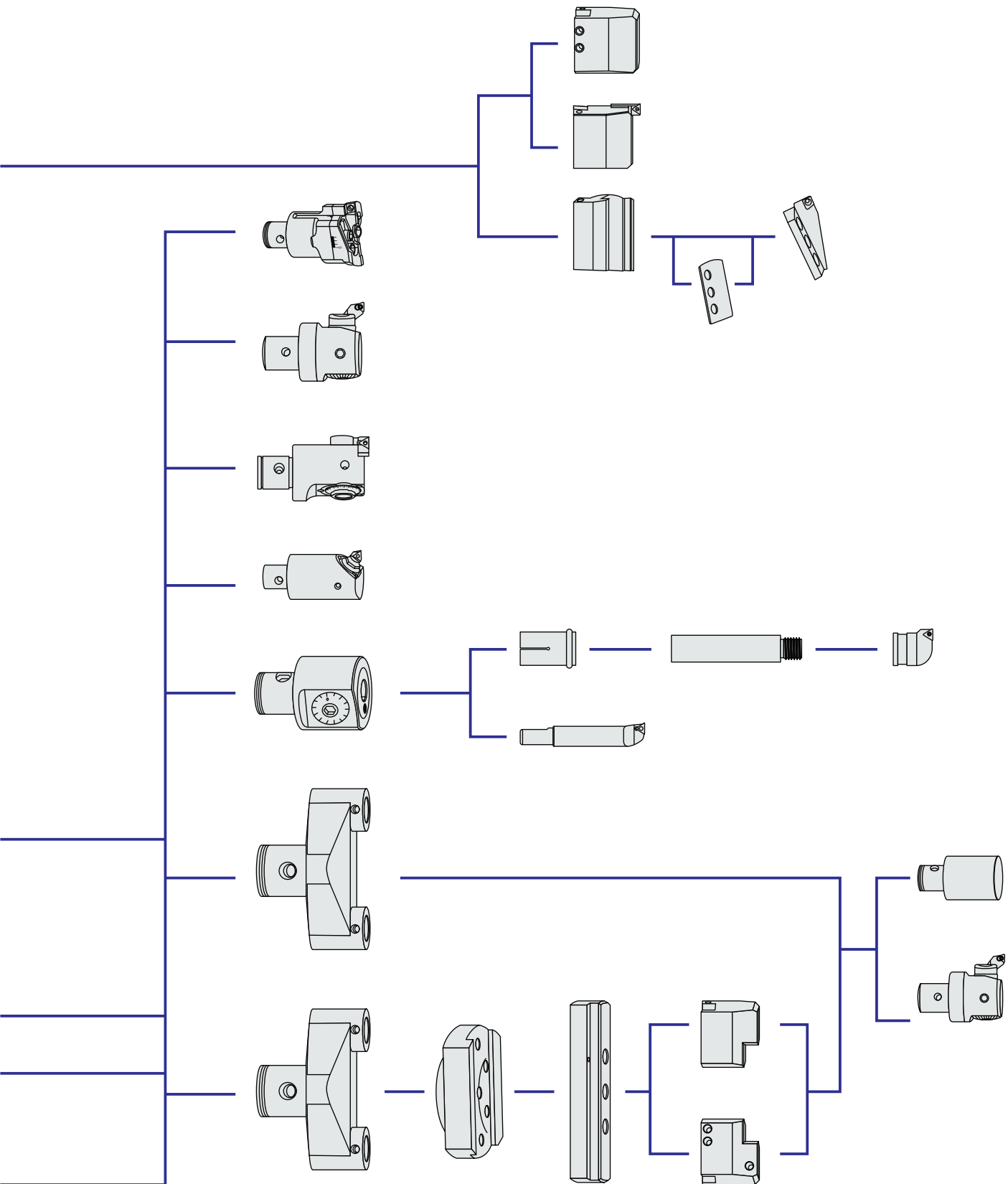
d	d1	a*a	d1	a*a	d	d1	a*a
M3	3.15	2.5	4	3.2	W1/8	4	3.2
M4	4	3.15	5	4	W5/32	5	4
M5	5	4	5.5	4.5	W3/16	5.5	4.5
M6	6.3	5	6	4.5	W4/4	6	4.5
M8	6.3	5	6.2	5	W5/16	6.1	5
M10	8	6.3	7	5.5	W3/8	7	5.5
M12	9	7.1	8.5	6.5	W7/16	8	6
M14	11.2	9	10.5	8	W1/2	9	7
M16	12.5	10	12	9	W9/16	10.5	8
M18	14	11.2	14	11	W5/8	12	9
M20	14	11.2	15	12	W3/4	14	11
M22	16	12.5	17	13	W7/8	17	13
M24	18	14	19	15	W1	20	15
M27	20	16	20	15	W11/8	22	17
M30	20	16	23	17	W11/4	24	19
M33	22.4	18	25	19	W13/8	26	21
M36	25	20	28	21	W11/2	30	23
M39	28	22.4	30	23	W15/8	32	26
M42	28	22.4	32	26	W13/4	35	26
M45	31.5	25	35	26	W17/8	38	29
M48	31.5	25	-	-	-	-	-
M52	35.5	28	-	-	-	-	-
M56	35.5	28	-	-	-	-	-
M60	40	32.5	-	-	-	-	-
M64	40	32.5	-	-	-	-	-
M68	45	35.5	-	-	-	-	-
M70	45	35.5	-	-	-	-	-
M72	45	35.5	-	-	-	-	-
M76	50	40	-	-	-	-	-
M80	50	40	-	-	-	-	-
M90	50	40	-	-	-	-	-
M95	56	45	-	-	-	-	-
M100	56	45	-	-	-	-	-



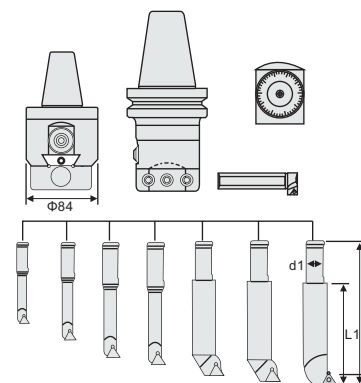
BORING TOOL Series







NBH2084 Micro Boring Tool System



Part No.	Boring Range	Turning Precision	Stroke	Weight (Kg.)
NBH2084	Ø8~Ø280	Ø0.01mm	28.0mm	3.0

Part No.	Boring Range	d1	L1	L	Applicable Insert	Clamp Screw	Spanner	Weight (Kg.)
SBJ-2008-32	8~11	20	32	80	TBGT0601..L	M2.0 X 5	T6	0.095
SBJ-2010-40	10~13	20	40	87	TBGT0601..L	M2.0 X 5	T6	0.095
SBJ-2012-53	12~17	20	53	98	TPGH0902..L	M2.5 X 6	T8	0.12
SBJ-2016-68	16~21	20	68	110	TPGH0902..L	M2.5 X 6	T8	0.16
SBJ-2020-83	20~130	20	83	123	TPGH1103..L	M3.0 X 7	T8	0.22
SBJ-2025-96	25~135	20	96	137	TPGH1103..L	M3.0 X 7	T8	0.34
SBJ-2030-115	30~140	20	115	152	TPGH1103..L	M3.0 X 7	T8	0.54
SBJ-2020-L	120~280	20	4+BT11	100	TPGH1103..L	M3.0 X 7	T8	0.23

- Precision adjustable boring head with boring range 8-280mm, 0.01mm for each changing dimension.
- 8 piece boring bar for free selection of different boring range.
- Stable boring.

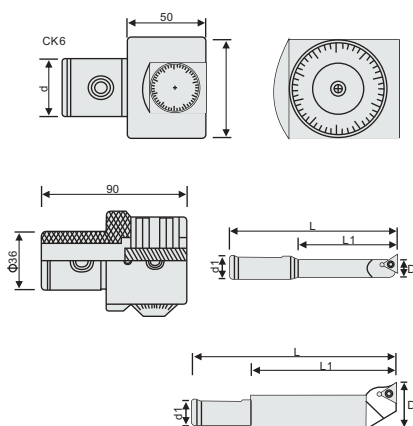
NBH2084



Part No.	Boring Range	Spindle Model	Head Spec	Boring Bar	Weight (Kg.)
BT40-NBH2084-8P	08~280	BT40-NBH-50	NBH2084	SBJ-20..	9.5
BT50-NBH2084-8P	08~280	BT50-NBH-55	NBH2084	SBJ-20..	12.0
NT40-NBH2084-8P	08~280	NT40-NBH-50	NBH2084	SBJ-20..	9.3
NT50-NBH2084-8P	08~280	NT50-NBH-55	NBH2084	SBJ-20..	10.8
SK40-NBH2084-8P	08~280	SK40-NBH-50	NBH2084	SBJ-20..	9.5
SK50-NBH2084-8P	08~280	SK50-NBH-55	NBH2084	SBJ-20..	12.0
R8-NBH2084-8P	08~280	R8-NBH-50	NBH2084	SBJ-20..	10.0



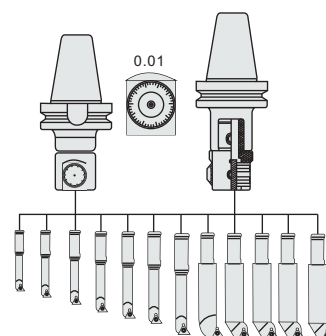
NBJ16 Micro Boring Tool System



Part No.	Boring Range	Turning Precision	Stroke	Weight (Kg.)
SBJ16	Ø6~Ø51	Ø0.01mm	6.0mm	1.2

Part No.	Boring Range	d1	L1	L	Applicable Insert	Clamp Screw	Spanner	Weight (Kg.)
SBJ-1606-24*	6~9	16	24	73	WBGTO601..L	M2.0X4	T6	0.014
SBJ-1608-32	8~11	16	32	80	TBGT0601..L	M2.0X5	T6	0.077
SBJ-1610-40	10~13	16	40	87	TPGH0601..L	M2.0X5	T6	0.082
SBJ-1612-53	12~15	16	53	98	TPGH0902..L	M2.5X6	T8	0.095
SBJ-1614-60*	14~17	16	60	103	TPGH0902..L	M2.5X6	T8	0.101
SBJ-1616-68	16~21	16	68	110	TPGH0902..L	M2.5X6	T8	0.143
SBJ-1620-83	20~26	16	83	125	TPGH1103..L	M3.0X7	T8	0.203
SBJ-1625-90	25~31	16	90	128	TPGH1103..L	M3.0X7	T8	0.275
SBJ-1630-90	30~36	16	90	128	TPGH1103..L	M3.0X7	T8	0.275
SBJ-1635-90*	35~41	16	90	128	TPGH1103..L	M3.0X7	T8	0.280
SBJ-1640-90	40~46	16	90	128	TPGH1103..L	M3.0X7	T8	0.280
SBJ-1645-90*	45~51	16	90	128	TPGH1103..L	M3.0X7	T8	0.211

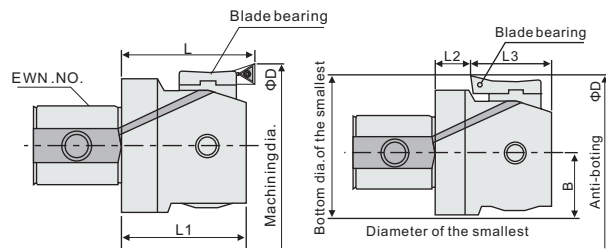
NBJ16 Micro Boring Tool System



Part No.	Boring Range	Spindle Handle Model	Head No.	Bar Keep Out	Weight (Kg.)
BT40-NBJ16-12P	6~51	BT40-CK6-55	NBJ16	SBJ-16..	9.1
BT50-NBJ16-12P	6~51	BT50-CK6-65	NBJ16	SBJ-16..	11.7
NT40-NBJ16-12P	6~51	NT40-CK6-55	NBJ16	SBJ-16..	8.5
NT50-NBJ16-12P	6~51	NT50-CK6-65	NBJ16	SBJ-16..	10.3
SK40-NBJ16-12P	6~51	SK40-CK6-55	NBJ16	SBJ-16..	8.9
SK50-NBJ16-12P	6~51	SK50-CK6-65	NBJ16	SBJ-16..	10.5

- Precision adjustable boring head with boring range 6-51mm, 0.01mm for each changing dimension.
- 8 piece boring bar for free selection of different boring range.
- Stable boring.

EWN Micro Boring Head



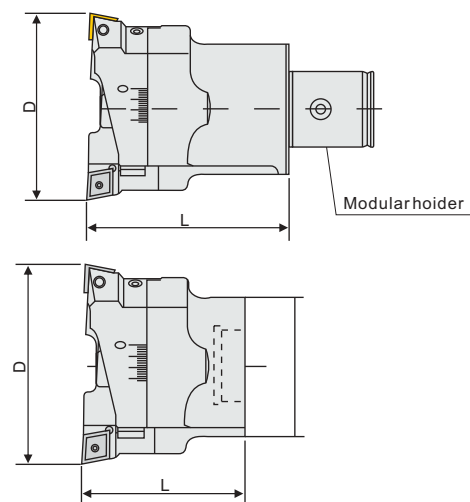
Part No.	L1	L	Range	B	L2	L3	Range	Modular Holder	Blade Bearing	Insert	Screw	Wrench	Weight
CK-EWN20-36	29.5	32.5	20-26	10	10.5	19	-	CK1 LBK1	ENH1-1	TPGH 080202	M2.2	T8	0.07
CK-EWN20-36	29.5	32.5	25-31	10	10.5	19	-		ENH1-2			T8	0.07
CK-EWN20-36	29.5	32.5	30-36	10	10.5	19	30-36		ENH1-3			T8	0.07
CK-EWN25-47	32.5	35.5	25-33	12.5	11.5	21	-	CK2 LBK2	ENH2-1	TPGH 080202	M2.2	T8	0.12
CK-EWN25-47	32.5	35.5	32-40	12.5	11.5	21	36-40		ENH2-2			T8	0.12
CK-EWN25-47	32.5	35.5	39-47	12.5	11.5	21	39-47		ENH2-3			T8	0.12
CK-EWN32-60	35	40	32-42	16	10	25	-	CK3 LBK3	ENH3-1	TPGH 080202	M2.2	T8	0.21
CK-EWN32-60	35	40	41-51	16	10	25	46-51		ENH3-2			T8	0.21
CK-EWN32-60	35	40	50-60	16	10	25	50-60		ENH3-3			T8	0.21
CK-EWN41-74	43	47	41-54	20	14	29	-	CK4 LBK4	ENH4-1	TCMT 110204	M2.5 M3	T8	0.40
CK-EWN41-74	43	47	50-63	20	14	29	53-63		ENH4-2			T8	0.40
CK-EWN41-74	43	47	63-74	20	14	29	61-74		ENH4-3			T8	0.40
CK-EWN53-95	53	57	53-70	25.5	19	34	53-70	CK5 LBK5	ENH5-1	TCMT 110204	M2.5 M3	T8	1.10
CK-EWN53-95	53	57	65-82	25.5	19	34	65-82		ENH5-2			T8	1.10
CK-EWN53-95	53	57	78-95	25.5	19	34	78-95		ENH5-3			T8	1.10
CK-EWN68-150	67.2	71	68-100	32.5	22	45.2	80-100	CK6 LBK6	ENH6-1	TCMT 110204	M2.5 M3	T8	1.47
CK-EWN68-150	67.2	71	94-126	32.5	22	45.2	94-126		ENH6-2			T8	1.47
CK-EWN68-150	67.2	71	118-150	32.5	22	45.2	118-150		ENH6-3			T8	1.47
CK-EWN100-203	67.2	71	100-153	45.5	22	45.2	112-153	CK6 LBK6	ENH6-1	TCMT 110204	M2.5 M3	T8	2.46
CK-EWN100-203	67.2	71	126-179	45.5	22	45.2	126-179		ENH6-2			T8	2.46
CK-EWN100-203	67.2	71	150-203	45.5	22	45.5	150-203		ENH6-3			T8	2.46

Part No.	Drawing	Boring Head	Specification	Drawing	Boring Head	Specification	Drawing	Boring Head
EWN1-1		SCK1- EWN20-36	4-1		SCK4- EWN41-74	4-1		SCK4- EWN41-74
EWN1-2			4-2			4-2		
EWN1-3			4-3			4-3		
EWN2-1		SCK2- EWN25-47	5-1		SCK5- EWN53-95	5-1		SCK5- EWN53-95
EWN2-2			5-2			5-2		
EWN2-3			5-3			5-3		
EWN3-1		SCK3-EWN32 -60	6-1		SCK6-EWN68-150 SCK6- EWN100-203	6-1		SCK6-EWN68-150 SCK6- EWN100-203
EWN3-2			6-2			6-2		
EWN3-3			6-3			6-3		

- Precision adjustable boring head with boring range 8-280mm, 0.01mm for each dial dimension.
- Internal cooling direct for boring insert, with increased tool life.
- Dynamic balance ensures precision and stable boring.



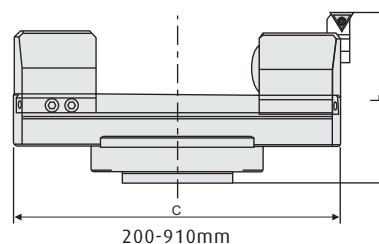
RBH Adjustable Rough Boring Head



Part No.	Figure	C	L	Boring Range	Modular Holder	Insert	Screw	Wrench	Weight
LBK-RBH19	A	19	40	19-25	LBK1	CCMT0602	M2.5	T8	0.10
LBK-RBH25	A	24	45	25-33	LBK2	CCMT0602	M2.5	T8	0.15
LBK-RBH32	A	31	55	32-42	LBK3	CCMT0602	M2.5	T8	0.30
LBK-RBH40	A	39	65	40-55	LBK4	CCMT09T3	M4	T15	0.50
LBK-RBH52	A	50	75	52-70	LBK5	CCMT09T3	M4	T15	1.00
LBK-RBH68	A	64	85	68-92	LBK6	CCMT1204	M5	T20	2.00
LBK-RBH90	A	64	100	90-122	LBK6	CCMT1204	M5	T20	2.90
BST-RBH120	B	95	95	120-164	BST	CCMT1204	M5	T20	3.80
BST-RBH160	B	95	95	160-204	BST	CCMT1204	M5	T20	4.80

- Adjustable rough boring head with boring range 19-204mm.
- Simple modular structure, high boring rigidity for universal boring process.

CBH Modular Boring Cutter



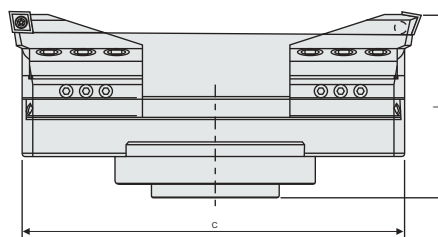
Part No.	C	L	Boring Range	Modular Holder	Insert	Screw	Wrench	Weight
BST-CBH200310	180	130	200-310	BST	TPGH090204 TCMT110204	M2.5	T8	9.7
BST-CBH300410	280	130	300-410	BST				11.7
BST-CBH400510	380	130	400-510	BST				13.7
BST-CBH500610	480	130	500-610	BST				15.7
BST-CBH600710	580	130	600-710	BST				17.7
BST-CBH700810	680	130	700-810	BST				19.7
BST-CBH800910	780	130	800-910	BST				21.7

Part No.	Module	Insert	Weight
BT50-BST Series	Module holder		
BST-FI200	Flange		2.7
DST200 DST300 DST400 DST500 DST600 DST700 DST800	Extension Slide		3.4 5.4 7.4 9.4 11.4 13.4 15.4
BDN300	Balance Weight		1.6
CB200	Finsert Head		1.6

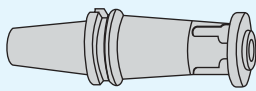
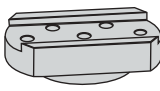
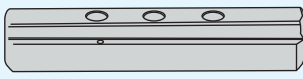
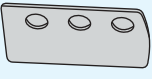
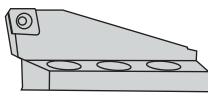
- TPGH080202/M2.2/T7, TPGH090204/M2.5/T8, TCMT110204/M2.5/T8, TPGH110304M/3/T15.



RBH Modular Boring Cutter

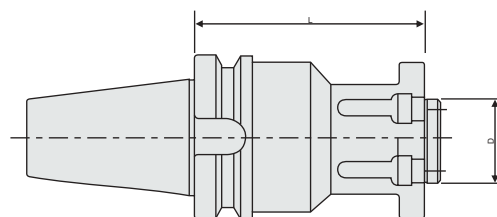


Part No.	C	L	Boring Range	Modular Holder	Insert	Screw	Wrench	Weight
BST-RBH200310	180	130	200-310	BST	DB200-C12 DB200-T16 DB200-T22 DB200-S12	M5	T20	9.7
BST-RBH300410	280	130	300-410	BST				11.7
BST-RBH400510	380	130	400-510	BST				13.7
BST-RBH500610	480	130	500-610	BST				15.7
BST-RBH600710	580	130	600-710	BST				17.7
BST-RBH700810	680	130	700-810	BST				19.7
BST-RBH800910	780	130	800-910	BST				21.7

Part No.	Module	Insert	Weight
BT50-BST Series	Module holder		
BST-BR200	Flange		2.7
RST200 RST300 RST400 RST500 RST600 RST700 RST800	Extension Slide		3.4 5.4 7.4 9.4 11.4 13.4 15.4
RS200	Clamp Base		0.98
RS201	Height Setting Shim		0.05
RB200-C12 RB200-T16 RB200-T22 RB200-S12	Insert Setting and applicable insert		0.68

- TPGH080202/M2.2/T7, TPGH090204/M2.5/T8, TCMT110204/M2.5/T8, TPGH110304M/3/T15.

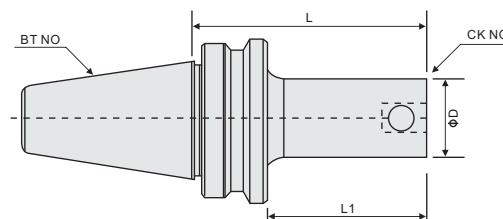
BST Boring Head



Part No.	D	L	Weight
BT40-BST-70	50	70	3.2
BT40-BST-100	50	100	4.0
BT50-BST-100	50	100	5.10
BT50-BST-150	50	150	6.8
BT50-BST-200	50	200	9.6
BT50-BST-250	50	250	11.5
BT50-BST-300	50	300	14.4
BT50-BST-350	50	350	16.8
BT50-BST-400	50	400	19.3

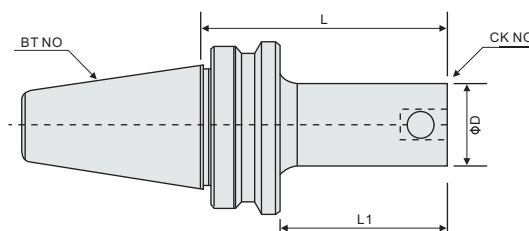


BT Modular Boring Cutter



Part No.	Interface Type	L	L1	D	Clamp Screw	Fig.	Weight
BT30-CK1-70	CK1	70	45	19	CKM1	1	0.47
BT30-CK2-80	CK2	80	55	24	CKM2	1	0.48
BT30-CK3-80	CK3	80	55	31	CKM3	1	0.48
BT30-CK4-60	CK4	60	36	39	CKM4	1	0.56
BT30-CK5-60	CK5	60	38	49	CKM5	1	0.67
BT40-CK1-75	CK1	75	45	19	CKM1	1	1.06
BT40-CK1-115	CK1	115	85	19	CKM1	1	1.09
BT40-CK2-85	CK2	85	55	24	CKM2	1	1.07
BT40-CK2-120	CK2	120	90	24	CKM2	1	1.15
BT40-CK3-95	CK3	95	65	31	CKM3	1	1.24
BT40-CK3-145	CK3	145	115	31	CKM3	1	1.41
BT40-CK4-85	CK4	85	50	39	CKM4	1	1.15
BT40-CK4-135	CK4	135	105	39	CKM4	1	2.03
BT40-CK5-105	CK5	105	75	49	CKM5	1	1.78
BT40-CK5-165	CK5	165	135	49	CKM5	1	3.30
BT40-CK6-65	CK6	65	35	62	CKM6	1	1.37
BT40-CK6-115	CK6	115	85	62	CKM6	1	2.16
BT40-CK6-165	CK6	165	135	62	CKM6	1	2.91
BT40-CK7-90	CK7	90	63	83	CKM7	1	2.66
BT50-CK1-115	CK1	115	40	19	CKM1	1	3.76
BT50-CK1-145	CK1	145	70	19	CKM1	1	3.88
BT50-CK2-110	CK2	110	80	24	CKM2	1	3.81
BT50-CK2-140	CK2	140	110	24	CKM2	1	4.05
BT50-CK3-135	CK3	135	90	31	CKM3	1	3.86
BT50-CK3-175	CK3	175	130	31	CKM3	1	4.14
BT50-CK4-125	CK4	125	85	39	CKM4	1	4.05
BT50-CK4-185	CK4	185	145	39	CKM4	1	4.57
BT50-CK5-140	CK5	140	100	49	CKM5	1	4.16
BT50-CK5-210	CK5	210	170	49	CKM5	1	5.60
BT50-CK6-95	CK6	95	55	62	CKM6	1	4.45
BT50-CK6-170	CK6	150	110	62	CKM6	1	5.69
BT50-CK6-230	CK6	230	190	62	CKM6	1	6.11
BT50-CK7-105	CK7	105	65	83	CKM7	1	5.34
BT50-CK7-185	CK7	185	145	83	CKM7	1	8.89
BT50-CK7-250	CK7	250	210	83	CKM7	1	10.25

BST Boring Head

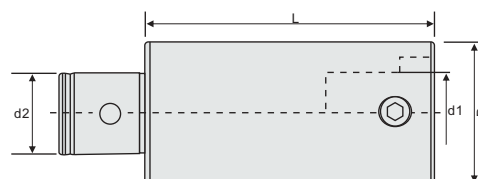


Part No.	Interface Type	L	L1	D	Fig.	Weight
BT30-LBK1-70	LBK	70	40	19	1	0.6
BT30-LBK2-80	LBK	80	50	24	1	0.8
BT30-LBK3-80	LBK	80	50	31	1	1.0
BT30-LBK4-70	LBK	70	40	39	1	1.3
BT30-LBK5-60	LBK	60	30	50	1	1.8
BT30-LBK6-60	LBK	60	30	64	1	3.0
BT40-LBK1-75	LBK	75	40	19	1	1.1
BT40-LBK1-105	LBK	105	70	19	1	1.3
BT40-LBK2-85	LBK	85	50	24	1	1.3
BT40-LBK2-115	LBK	115	80	24	1	1.6
BT40-LBK3-95	LBK	95	60	31	1	1.5
BT40-LBK3-125	LBK	125	90	31	1	1.8
BT40-LBK3-155	LBK	155	120	39	1	2.0
BT40-LBK4-85	LBK	85	50	39	1	1.8
BT40-LBK4-130	LBK	130	65	49	1	2.4
BT40-LBK4-175	LBK	175	140	49	1	2.7
BT40-LBK5-75	LBK	75	40	62	1	2.3
BT40-LBK5-125	LBK	125	90	62	1	3.3
BT40-LBK5-175	LBK	175	140	62	1	4.0
BT40-LBK6-65	LBK	65	30	83	1	3.3
BT40-LBK6-115	LBK	115	90	19	1	4.7
BT40-LBK6-165	LBK	165	130	19	1	5.9
BT50-LBK1-115	LBK	115	65	24	1	4.2
BT50-LBK1-145	LBK	145	95	24	1	5.6
BT50-LBK2-110	LBK	110	70	31	1	6.8
BT50-LBK2-140	LBK	140	90	31	1	5.5
BT50-LBK3-125	LBK	125	95	39	1	6.9
BT50-LBK3-155	LBK	155	105	39	1	8.1
BT50-LBK4-115	LBK	115	65	49	1	4.1
BT50-LBK4-145	LBK	145	95	49	1	4.2
BT50-LBK4-175	LBK	175	125	62	1	4.1
BT50-LBK4-205	LBK	205	155	62	1	4.2
BT50-LBK5-105	LBK	105	55	62	1	4.4
BT50-LBK5-180	LBK	180	130	83	1	4.5
BT50-LBK5-240	LBK	140	90	83	1	4.8
BT50-LBK6-95	LBK	95	45	83	1	4.9
BT50-LBK6-170	LBK	170	145	83	1	5.3
BT50-LBK6-230	LBK	230	210	83	1	5.4
BT50-LBK6-290	LBK	290	145	83	1	5.5
BT50-LBK6-350	LBK	350	210	83	1	6.5

- Tool body is finish machined for stable run-out accuracy.
- Covering interface between tool holder and boring head, precision vibration enhances machining surface roughness.

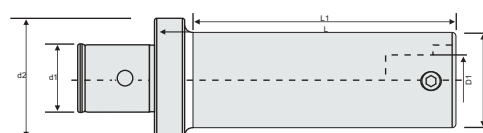


CK Modular Boring Cutter



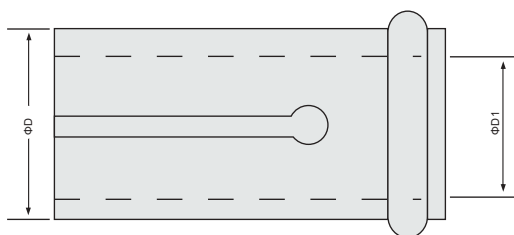
Part No.	D	d1	d2	L	Weight
CK1-1-30	19	11	11	30	0.07
CK2-2-30	24	14	14	30	0.1
CK3-3-30	31	18	18	30	0.15
CK4-4-45	39	22	22	45	0.4
CK4-4-60	39	22	22	60	0.4
CK5-5-60	49	28	28	60	0.8
CK5-5-90	49	28	28	90	1.1
CK6-6-60	62	36	36	60	1.4
CK6-6-100	62	36	36	100	1.8
CK7-7-100	83	42	42	100	3.1

CK Reducing Extended Tool Holder



Part No.	D1	D2	d1	d2	L1	L	Weight
CK2-1-36	11	19	14	-	30	36	0.1
CK3-2-37	14	24	18	31	25	37	0.15
CK4-3-50	18	31	22	39	37	50	0.35
CK5-4-67	22	39	28	49	50	67	0.7
CK6-4-51	22	39	36	62	35	51	0.85
CK6-4-101	22	39	36	62	85	101	1.3
CK6-5-41	28	50	36	62	25	41	0.85
CK6-5-91	28	50	36	62	75	91	1.45

Simple Type Boring



Part No.	D2 (mm)	D1 (mm)	Applicable Carbide Tool Holder
NBJ16-160548	16	5	ST05
NBJ16-160648	16	6	ST06
NBJ16-160848	16	8	ST08

Part No.	D2 (mm)	D1 (mm)	Applicable Carbide Tool Holder
NBH2084-200547	20	5	ST05
NBH2084-200647	20	6	ST06
NBH2084-200847	20	8	ST08



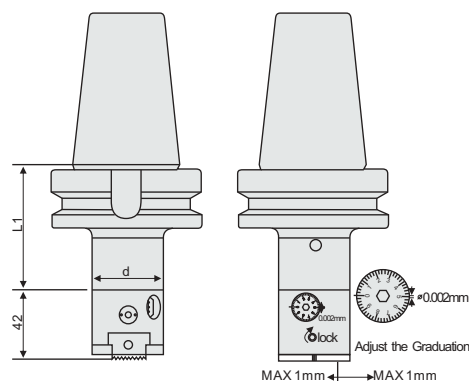
Part No.	L	D	M	Applicable Carbide Tool Holder	Applicable Bushing
ST08-W5-100L	100	08	M5	BE09A, BE10.5A	NBJ16-160848.NBH2084-200847
ST010-W6-140L	140	10	M6	BE12A	C2010. C1610
ST012-W6-156L	156	12	M6	BE14A.BE16A	C2012. C1612
ST016-W10-186L	186	16	M10	BE16A BE18A BE20A BE22A BE24A BE26A BE28A BE28A BE30A	C2016

Part No.	D	D	Applicable Bushing
C0590-WB0608-8D	90	5	NBJ16-160548 NBH0284-200547
C0698-TB7510-8D	98	6	NBJ16-160648 NBH2084-200647
C08115-TB0912-8D	115	8	NBJ16-160848 NBH2084-200847

Figure	Part No.	d	H	L	M	Insert	Clamp Screw	Wrench
	ST08-BE09A	9	7	18	M5	TB**06**	M2.0X5XD2.85	T6
	ST010-BE10.5A	10.5	7	18	M5	TB**06**	M2.0X5XD2.85	T6
	ST012-BE12A	12	8	23	M6	TP**08**	M2.2X5XD3.0	T7
	ST016-BE14A	14	10	23	M6	TP**08**	M2.2X5XD3.0	T7
	ST016-BE16A	16	10	23	M6	TP**08**	M2.2X5XD3.0	T7
	ST016-BE18A	18	14	27	M10	TP**08**	M2.2X5XD3.0	T7
	ST016-BE20A	20	14	27	M10	TP**09**	M2.5X6XD3.5	T8
	ST016-BE22A	22	14	27	M10	TP**09**	M2.5X6XD3.5	T8
	ST016-BE24A	24	14	27	M10	TP**09**	M2.5X6XD3.5	T8
	ST016-BE26A	26	14	27	M10	TP**09**	M2.5X6XD3.5	T8
	ST016-BE28A	28	14	27	M10	TP**09**	M2.5X6XD3.5	T8
	ST016-BE30A	30	14	27	M10	TP**09**	M2.5X6XD3.5	T8

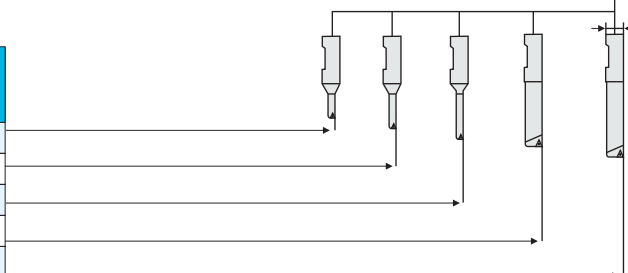


DCK2-FBH25P Modular Boring Cutter

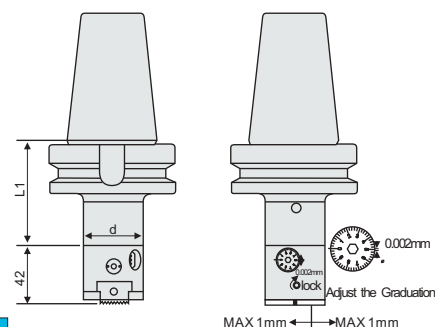


Part No.	L1	Boring Range	Modular Holder	Weight
BT30-DCK2-FBH25P	80	2-6	BT30-DCK2-80	0.70
BT40-DCK2-FBH25P	75	2-6	BT40-DCK2-75	1.30

Cutting Bar	Boring Range	DM	Weight
TA0602-10	2-3.2	10	0.01
TA0603-16	3-4.2	16	0.01
TA0604-22	4-5.2	22	0.02
TA0605-28	5-6.2	28	0.02
TA0606-32	6-7.2	32	0.02

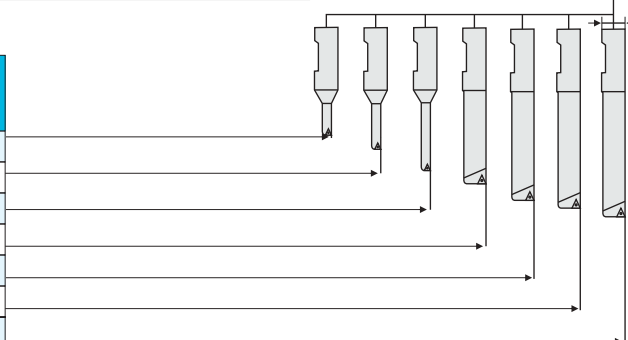


DCK3-FBH32P

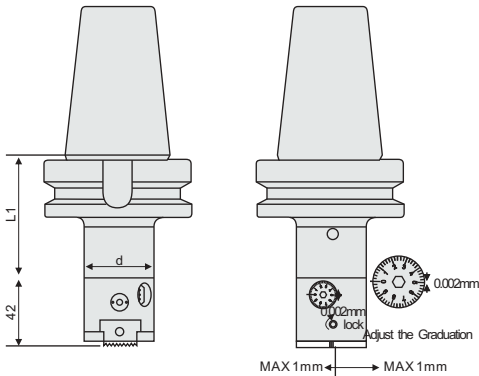


Part No.	L1	Boring Range	Modular Holder	Weight
BT30-DCK3-FBH32P	80	2-8	BT30-DCK3-80	1.02
BT40-DCK3-FBH32P	80	2-8	BT40-DCK3-80	1.61

Cutting Bar	Boring Range	DM	Weight
TA0802-10	2-3.2	10	0.03
TA0803-16	3-4.2	16	0.03
TA0804-22	4-5.2	22	0.03
TA0805-28	5-6.2	28	0.04
TA0806-32	6-7.2	32	0.04
TA0807-36	7-8.2	36	0.04
TA0808-42	8-9.2	42	0.05

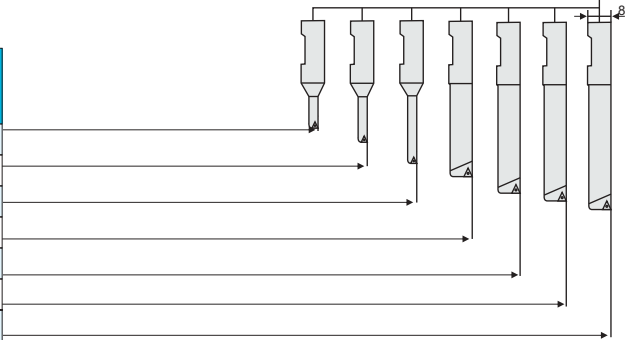


DCK4-FBH40P Modular Boring Cutter



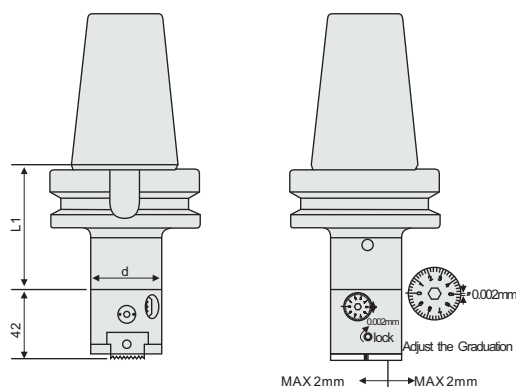
Part No.	L1	Boring Range	Modular Holder	Weight
BT30-DCK4-FBH40P	70	2-8	BT30-DCK4-70	1.21
BT40-DCK4-FBH40P	70	2-8	BT40-DCK4-70	1.61

Cutting Bar	Boring Range	DM	Weight
CA0802-09	2-3.2	9	0.03
CA0803-16	3-4.2	16	0.03
CA0804-22	4-5.2	22	0.03
CA0805-27	5-6.2	27	0.04
CA0806-32	6-7.2	32	0.04
CA0807-37	7-8.2	37	0.04
CA0808-42	8-9.2	42	0.05



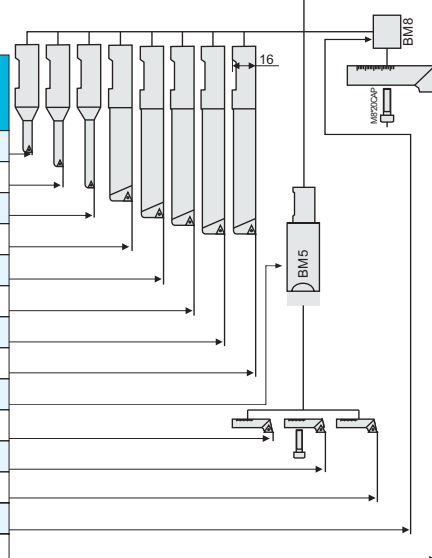


DCK5-FBH50P Modular Boring Cutter

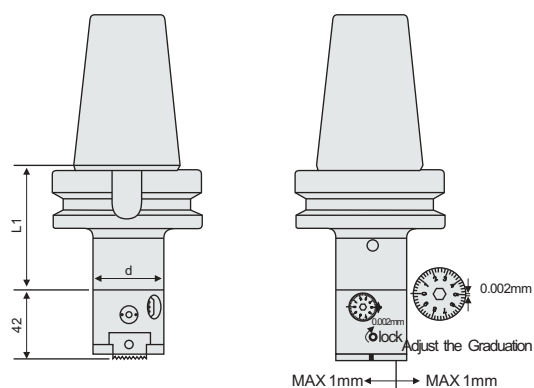


Part No.	L1	Boring Range	Modular Holder	Weight
BT30-DCK5-FBH50P	70	6-90	BT30-DCK5-70	8.2
BT40-DCK5-FBH50P	80	6-90	BT40-DCK5-80	10.8
BT50-DCK5-FBH50P	90	6-90	BT40-DCK5-90	11.3

Cutting Bar	Boring Range	L	Insert	Screw	Wrench	Weight
BR1606-21	6-9	21	WBGH0601..L	M2	T6	0.04
BR1608-28	8-11	28	TBGT0601..L	M2	T6	0.04
BR1610-35	10-13	35	TBGT0601..L	M2	T6	0.05
BR1612-42	12-15	42	TPGH0902..L	M2.5	T8	0.06
BR1614-50	14-17	50	TPGH0902..L	M2.5	T8	0.07
BR1616-60	16-20	60	TPGH0902..L	M2.5	T8	0.09
BR1620-65	20-24	65	TPGH1103..L	M3	T8	0.11
BR1624-68	24-28	68	TPGH1103..L	M3	T8	0.12
BM5	-	-	-	AHL0512	L4	0.25
MLTP2938	29-38	+10	TPGH0902..L	M2.5	T8	0.01
MLTP3652	36-52	+12	TPGH0902..L	M2.5	T8	0.02
MLTP4468	44-68	+12	TPGH0902..L	M2.5	T8	0.03
BM8	-	-	+MLTP5790	AHL0820	L6	0.03
MLTP5790	57-90	+20	TPGH1103..L	M3	T10	0.10

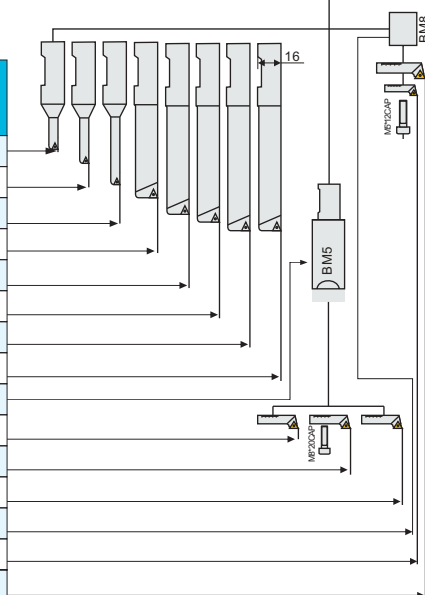


DCK6-FBH63P Modular Boring Cutter



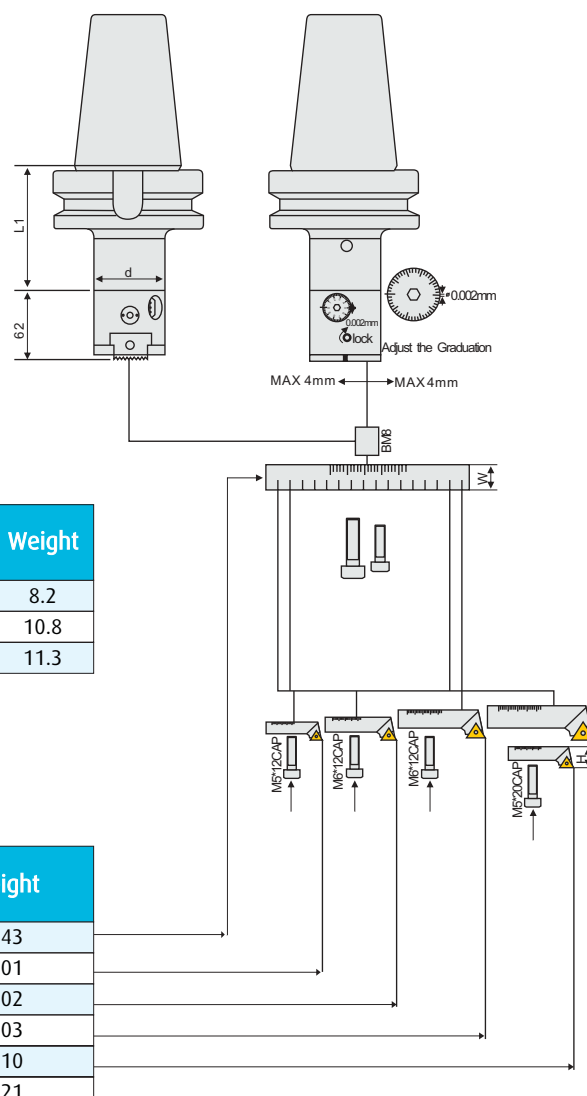
Part No.	L1	Boring Range	Modular Holder	Weight
BT30-DCK6-FBH63P	55	6-150	BT40-DCK6-55	8.2
BT40-DCK6-FBH63P	85	6-150	BT50-DCK6-85	10.8
BT50-DCK6-FBH63P	155	6-150	BT50-DCK6-155	11.3

Cutting Bar	Boring Range	L	Insert	Screw	Wrench	Weight
BR1606	6-9	21	WBGT	M2	T6	0.04
BR1608	8-11	28	TBGT	M2	T6	0.04
BR1610	10-13	35	TBGT	M2	T6	0.05
BR1612	12-15	42	TPGH	M2.5	T8	0.06
BR1614	14-17	50	TPGH	M2.5	T8	0.07
BR1616	16-20	60	TPGH	M2.5	T8	0.09
BR1620	20-24	65	TPGH	M3	T8	0.11
BR1624	24-28	68	TPGH	M3	T8	0.12
BM5	-	-	-	AHL0512	T4	0.25
S RTP2938	29-38	+10	TPGH	M2.5	T8	0.01
S RTP3652	36-52	+12	TPGH	M2.5	T8	0.02
S RTP4468	44-68	+12	TPGH	M2.5	T8	0.03
BM8	-	-	+MLTP	AHL0820	T6	0.03
S RTP70110	70-110	+20	TPGH	M3	T10	0.10
S RTP110150	110-150	+20	TPGH	M3	T10	0.21





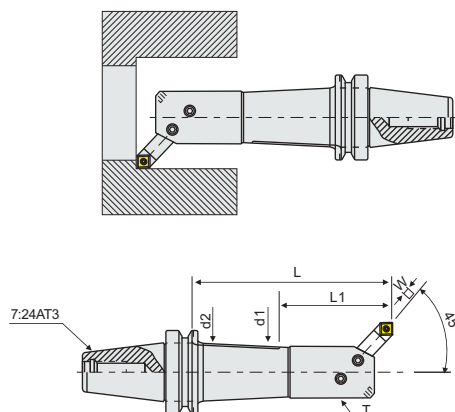
DCK6-FBH63P Very Fine Hole System



Part No.	L1	Boring Range	Modular Holder	Weight
BT30-DCK6-FBH63P	55	6-150	BT40-DCK6-55	8.2
BT40-DCK6-FBH63P	85	6-150	BT50-DCK6-85	10.8
BT50-DCK6-FBH63P	155	6-150	BT50-DCK6-155	11.3

Part No.	Boring Range	H	Weight
PS140-20	+BM8	20	0.43
MLTP2938	150-200	10	0.01
MLTP3652	160-210	12	0.02
MLTP4468	170-220	12	0.03
MLTP70110	140-240	19	0.10
MLTP110150	180-280	19	0.21

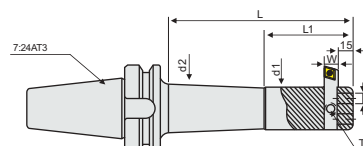
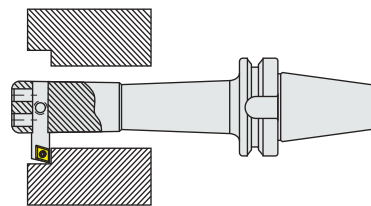
BSA45° Roughing Boring Bar



Part No.	d1	d2	L1	L	Boring Range	W	Screw	Weight
BT40-BSA25-120	20	22	35	90	25-38	8	SM6	1.3
BT40-BSA30-150	24	26	40	120	30-42	8	SM6	1.5
BT40-BSA38-165	30	33	50	135	38-52	10	SM8	1.8
BT40-BSA42-165	34	37	50	135	42-56	10	SM8	2.1
BT40-BSA50-165	40	44	65	135	50-65	13	SM8	2.4
BT40-BSA63-180	50	56	80	150	62-90	16	SM10	2.5
BT40-BSA72-180	60	-	95	150	72-110	19	SM10	4.0
BT40-BSA90-180	75	-	-	150	90-125	19	SM10	5.3
BT50-BSA25-135	20	22	35	92	25-38	8	SM6	4.3
BT50-BSA30-165	24	26	40	122	30-42	8	SM6	4.5
BT50-BSA38-180	30	33	50	137	38-52	10	SM8	4.9
BT50-BSA42-210	34	37	60	168	42-56	10	SM8	5.1
BT50-BSA50-180	40	44	65	137	50-65	13	SM10	5.5
BT50-BSA50-240	40	44	65	197	50-65	13	SM10	5.8
BT50-BSA62-195	50	56	80	152	62-90	16	SM10	6.3
BT50-BSA62-270	50	56	80	227	62-90	16	SM10	7.7
BT50-BSA72-195	60	66	95	152	72-110	19	SM10	7.1
BT50-BSA72-285	60	66	95	242	72-110	19	SM10	9.4
BT50-BSA90-210	75	80	110	267	90-125	19	SM12	9.5
BT50-BSA90-300	75	80	110	257	90-125	19	SM12	12.6
BT50-BSA105-195	90	-	-	152	105-160	25	SM12	11.0
BT50-BSA105-285	90	94	130	242	105-160	25	SM12	15.3

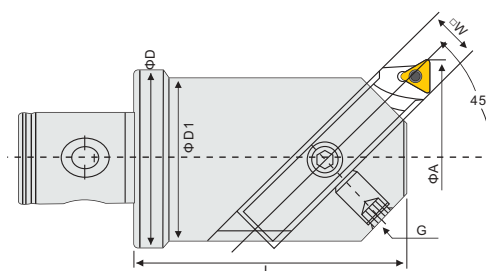


BSB90° Roughing Boring Bar



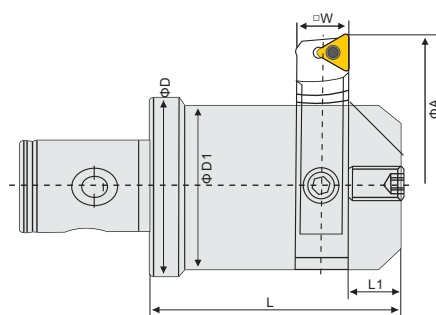
Part No.	d1	d2	L1	L	Boring Range	W	Screw	Weight
BT40-BSB25-120	20	22	35	90	25-52	8	SM6	1.3
BT40-BSB38-150	30	33	55	120	38-70	10	SM8	1.8
BT40-BSB50-165	40	44	70	135	50-90	13	SM10	2.6
BT40-BSB62-180	50	56	80	150	62-115	16	SM10	3.7
BT40-BSB90-180	75	-	-	150	90-150	19	SM12	6.0
BT50-BSB25-135	20	22	35	92	25-52	8	SM6	4.5
BT50-BSB38-180	30	33	55	137	38-70	10	SM8	5.1
BT50-BSB50-180	40	44	70	137	50-90	13	SM10	5.7
BT50-BSB50-240	40	44	70	197	50-90	13	SM10	6.0
BT50-BSB62-195	50	56	80	152	62-115	16	SM10	6.7
BT50-BSB62-270	50	56	80	227	62-115	16	SM10	8.1
BT50-BSB72-195	60	66	95	152	72-135	19	SM12	7.6
BT50-BSB72-285	60	66	95	242	72-135	19	SM12	9.9
BT50-BSB90-210	75	80	115	167	90-150	19	SM12	10.0
BT50-BSB90-300	75	80	115	257	90-150	19	SM12	13.1
BT50-BSB105-195	90	90	-	152	105-190	25	SM12	11.7
BT50-BSB105-285	90	94	135	242	105-190	25	SM12	16.0

BSA45° Modular Boring Cutter



Part No.	Dia A min	Dia A max	D	D1	L	E	W	G
BSA30-CK2	30	42	24	24	40	1.6	8	M6X1.00P
BSA38-CK3	38	52	31	60	60	2.6	10	M8X1.25P
BSA50-CK4	50	65	42	40	70	3	13	M10X1.50P
BSA62-CK5	92	90	55	50	85	2	16	M12X1.75P
BSA72-CK6	72	110	63	60	98	2.4	19	M12X1.75P

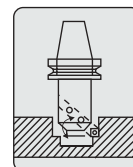
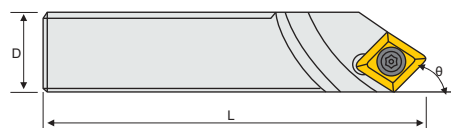
BSB90° Modular Boring Cutter



Part No.	Dia A min	Dia A max	D	D1	L	E	W	G
BSB25-CK2	26	52	24	20	45	10	8	M6X1.00P
BSB38-CK3	38	70	31	30	55	10	10	M8X1.25P
BSB50-CK4	50	90	42	40	60	10	13	M10X1.50P
BSB62-CK5	62	115	55	50	70	12	16	M12X1.75P
BSB72-CK6	72	135	63	60	85	12	19	M12X1.75P

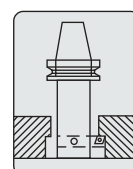
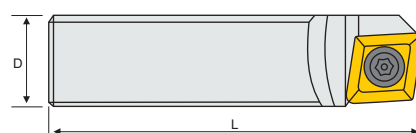


CBS Modular Boring Cutter



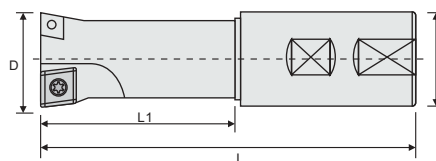
Part No.	D	L	Angle	Insert	Clamp Screw	Wrench
CBS-408	8	50	45°	CCMT0602	M2.5-6.0-3.5-60	T9
CBS-410	10	60	45°	CCMT09T3	M4-10-5.7-60	T15
CBS-413	13	70	45°	CCMT09T3	M4-10-5.7-60	T15
CBS-416	16	100	45°	CCMT0602	M4-10-5.7-60	T15
CBS-419	19	150	45°	CCMT09T3	M4-10-5.7-60	T15
CBS-425	25	150	45°	CCMT09T3	M4-10-5.7-60	T15
CBS-908	8	50	90°	CCMT0602	M2.5-6.0-3.5-60	T9
CBS-910	10	60	90°	CCMT0602	M4-10-5.6-60	T15
CBS-913	13	70	90°	CCMT09T3	M4-10-5.6-60	T15
CBS-916	16	100	90°	CCMT09T3	M4-10-5.6-60	T15
CBS-919	19	150	90°	CCMT0602	M4-10-5.6-60	T15
CBS-925	25	150	90°	CCMT09T3	M4-10-5.6-60	T15

BSB Modular Boring Cutter



Part No.	D	L	Angle	Insert	Clamp Screw	Wrench
CBS908L	8	50	90°	CCMT0602	M2.5-6.0-3.5-60	T9
CBS910L	10	60	90°	CCMT0602	M2.5-6.0-3.5-60	T9
CBS913L	13	70	90°	CCMT09T3	M4-10-5.7-60	T15
CBS916L	16	100	90°	CCMT0602	M4-10-5.6-60	T15
CBS919L	19	150	90°	CCMT09T3	M4-10-5.6-60	T15

Fixed Coarse Arbor

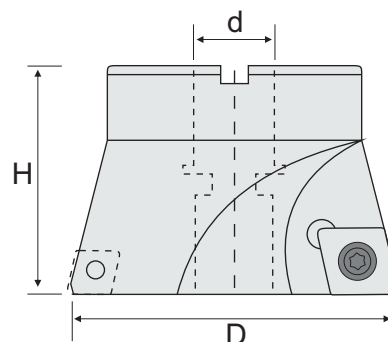


Part No.	No. of Flutes	D	d	L	L1
SB11.7-12-120	1	11.7	16	120	30
SB12.7-13-120	1	12.7	16	120	30
SB13.7-14-120	1	13.7	16	120	30
SB14.7-15-120	1	14.7	16	130	30
SB15.7-16-135	2	15.7	16	135	70
SB16.7-17-135	2	16.7	16	135	70
SB17.7-18-135	2	17.7	16	135	70
SB18.7-19-160	2	18.7	16	160	90
SB19.7-20-160	2	19.7	20	160	90
SB21.7-22-160	2	20.7	20	160	90
SB23.7-24-180	2	23.7	20	180	100
SB24.7-25-190	2	24.7	25	190	110
SB25.7-26-200	2	25.7	25	200	120
SB26.7-27-200	2	26.7	25	200	120
SB27.7-28-200	2	27.7	25	200	120
SB29.7-30-210	2	29.7	25	210	130
SB31.7-32-210	2	31.7	25	210	130
SB34.7-35-250	2	34.7	32	250	150
SB36.7-37-250	2	36.7	32	250	150
SB39.7-40-270	2	39.7	32	270	170
SB41.7-42-250	2	41.7	32	250	150
SB44.7-45-310	2	44.7	32	310	210
SB46.7-47-260	2	46.7	32	260	160
SB49.7-50-260	2	49.7	42	260	160
SB49.7-50-310	2	49.7	42	310	210
SB51.7-52-260	2	51.7	42	260	160
SB54.7-55-330	2	54.7	42	330	230
SB59.7-60-260	2	59.7	42	260	160
SB59.7-60-350	2	59.7	42	350	250

Part No.	Insert	Clamp Screw	Wrench
SB12-SB20	CCMT060204	M2.5X6	T8
SB22-SB60	CCMT09T308	M4X10	T15



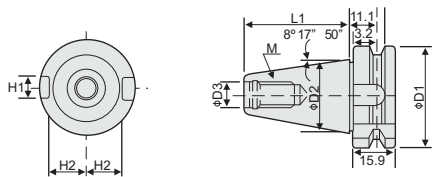
Modular Boring Head



Part No.	No. of Flutes	D	d	L1
GC44.7-45-22	2	44.7	22	50
GC49.7-50-22	2	49.7	22	50
GC54.7-55-22	2	54.7	22	50
GC59.7-60-22	2	59.7	22	50
GC61.7-62-22	2	61.7	22	50
GC61.7-62-25.4	2	61.7	25.4	50
GC64.7-65-25.4	2	64.7	25.4	50
GC69.7-70-25.4	2	69.7	25.4	50
GC71.7-72-25.4	2	71.7	25.4	50
GC74.7-75-25.4	2	74.7	25.4	50
GC79.7-80-25.4	2	79.7	25.4	50
GC84.7-85-25.4	2	84.7	25.4	50
GC89.7-90-31.75	2	89.7	31.75	50
GC94.7-95-31.75	2	94.7	31.75	50
GC99.7-100-31.75	2	99.7	31.75	50

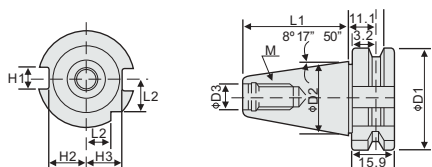
Part No.	Insert	Clamp Screw	Wrench
GC45~100	CCMT09T308	M4X10	T15

BT Specifications



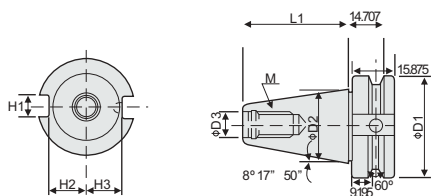
Part No.	D1	D2	D3	L1	L2	L3	L4	L5	H1	H2	M
BT30	46	31.75	12.5	48.4	20	2	13.6	8	16.1	16.3	M12
BT40	63	44.45	17	65.4	25	2	16.6	10	16.1	22.6	M16
BT50	100	69.85	25	101.8	35	3	23.2	15	25.7	35.4	M24

SK Specifications



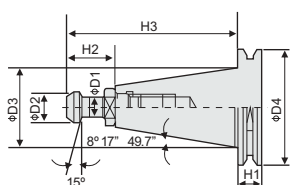
Part No.	D1	D2	D3	L1	L2	H1	H2	H3	M
SK40	63.55	44.45	17	68.4	18.5	16.1	22.8	25	M16
SK50	97.5	69.85	25	101.75	30	25.7	35.5	37.7	M24

CAT Specifications



Part No.	D1	D2	D3	L1	H1	H2	H3	M
CAT40	63.5	44.45	16.28	68.28	16.28	22.6	25.02	5/8"11UNC
CAT50	98.43	69.85	26.38	101.6	305.31	35.31	37.72	1"-8UNC

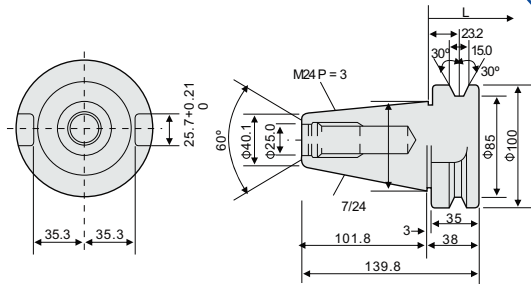
CAT Specifications



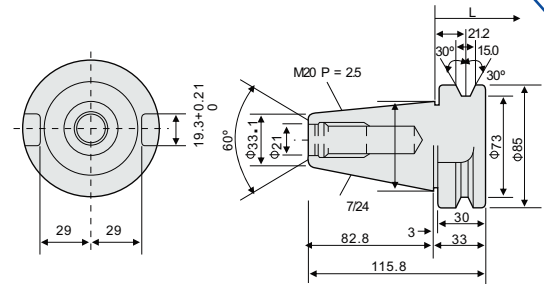
Part No.	D1	D2	D3	D4	H1	H2	H3
ISO20	6	9	22.225	33	8	12	45.3
ISO25	7	10	25.4	37	8	16	55.7
ISO30	9	13	31.75	50	15.9	24	71.8



BT50

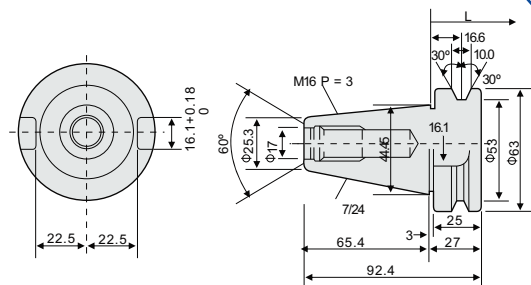


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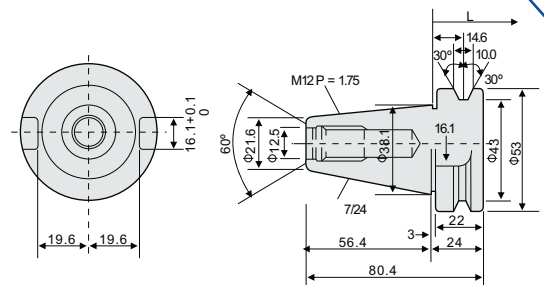


NC Specification

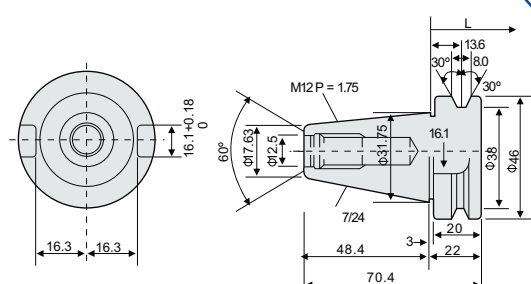
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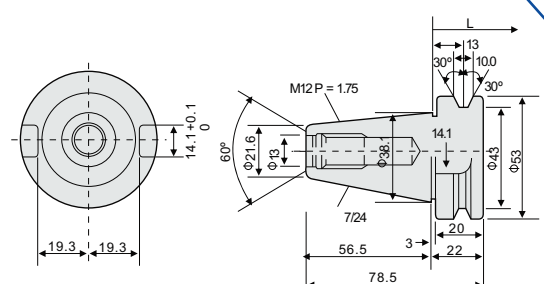
MAS BT



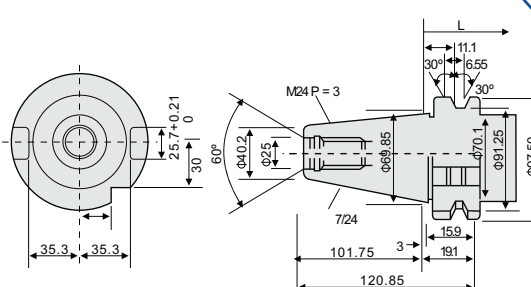
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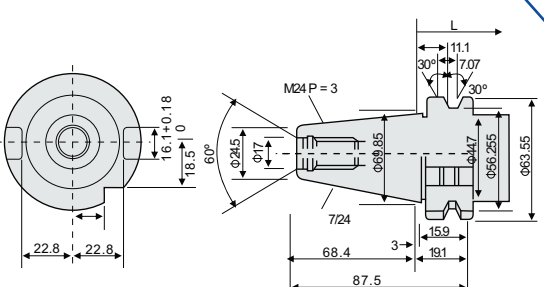
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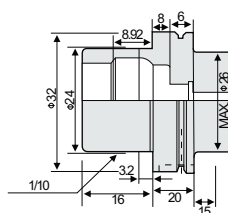
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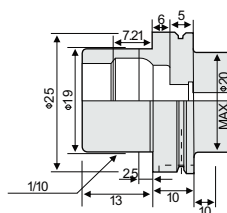
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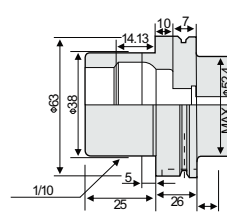
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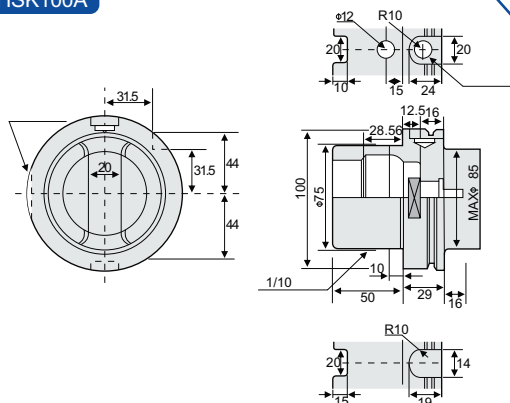
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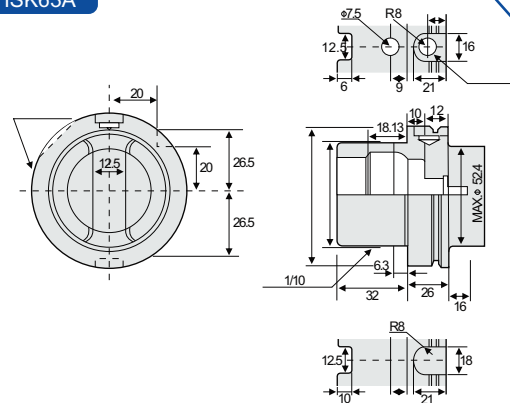
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HSK Specification

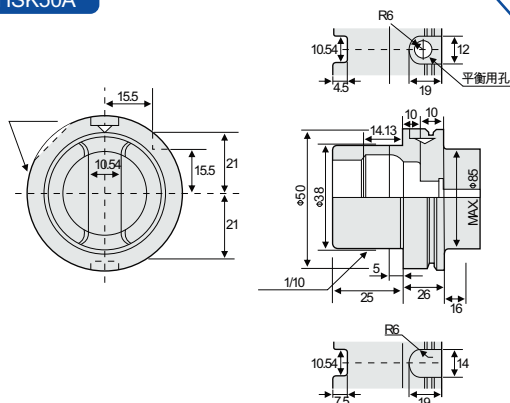
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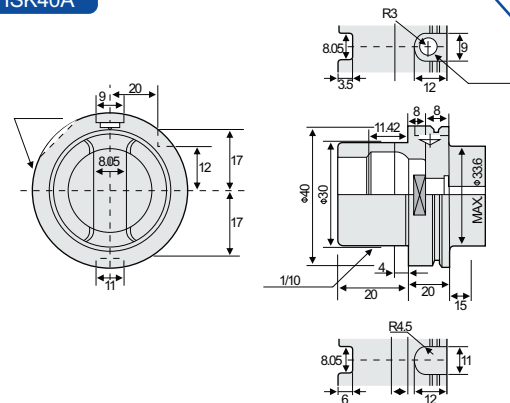
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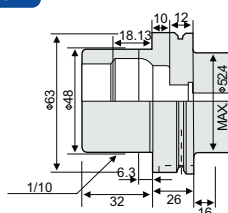
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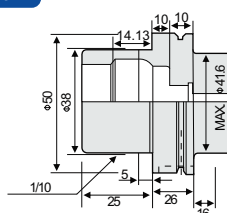
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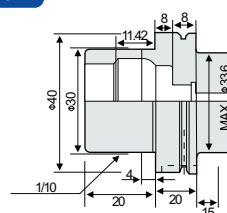
HSK63E



HSK50E



HSK40E





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