

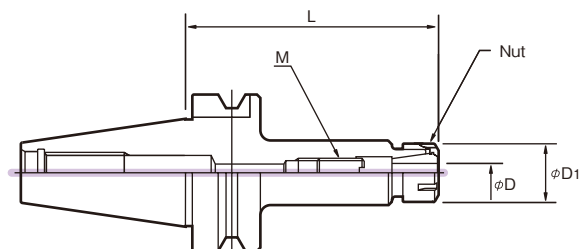


ER collet chuck

BT



- Min. 80% taper fit
- Maximum Taper to Taper T.I.R. 3μm
- Taper 30 DIN AD standard
- Taper 40 DIN AD/B standard
- Taper 30 & 40 dynamically balanced to G6.3 at 20,000rpm



P.65



P.32-34



P.35

Taper	Code No.	φD	φD1	L	M	Nut	Adjust Screw	Collet
BT30	BT30-ER11H-060	0.5~7.0	19	60	M8	ERN11H	ASC-ER11	ER11
	BT30-ER11H-100			100		ERN11M		
	BT30-ER11M-060		16	60				
	BT30-ER11M-100			100				
	BT30-ER16-060	0.5~10.0	32	60	7/16"-20	ERN16	ASC-ER16	ER16
	BT30-ER16-100			100		ERN16M		
	BT30-ER16M-070		22	70				
	BT30-ER16M-100			100				
	BT30-ER20-060	0.5~13.0	35	60	9/16"-18	ERN20	ASC-ER20	ER20
	BT30-ER20-100			100				
	BT30-ER25-060	0.5~16.0	42	60	11/16"-16	ERN25	ASC-ER25	ER25
	BT30-ER25-100			100				
BT30-ER32-060	1.0~20.0	50	60	15/16"-16	ERN32	ASC-ER32	ER32	
BT40	BT40-ER11H-060	0.5~7.0	19	60	M8	ERN11H	ASC-ER11	ER11
	BT40-ER11H-100			100				
	BT40-ER11H-150			150				
	BT40-ER16-060	0.5~10.0	32	60	7/16"-20	ERN16	ASC-ER16	ER16
	BT40-ER16-100			100				
	BT40-ER16-160			160				
	BT40-ER20-070	0.5~13.0	35	70	9/16"-18	ERN20	ASC-ER20	ER20
	BT40-ER20-100			100				
	BT40-ER20-160			160				
	BT40-ER25-060	0.5~16.0	42	60	11/16"-16	ERN25	ASC-ER25	ER25
	BT40-ER25-100			100				
	BT40-ER25-160			160				
	BT40-ER32-075	1.0~20.0	50	75	15/16"-16	ERN32	ASC-ER32	ER32
	BT40-ER32-100			100				
	BT40-ER32-160			160				
	BT40-ER40-080	2.0~30.0	63	80	1.1/8"-16	ERN40	ASC-ER40	ER40
	BT40-ER40-160			160				

◇ Please order Collet & Wrench separately.

◇ "H"= Hex nut.

◇ "M"= Mini nut.

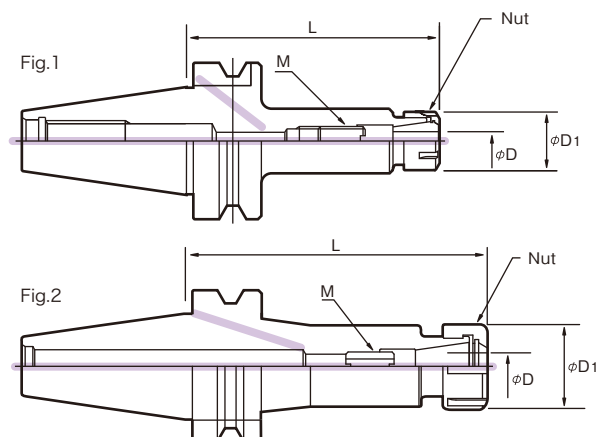


ER collet chuck

BT



- Min. 80% taper fit
- Maximum Taper to Taper T.I.R. 3μm
- DIN AD/B standard
- Taper 50 dynamically balanced to G6.3 at 15,000rpm



P.65



P.32-34



P.35

Taper	Code No.	φD	φD1	L	M	Nut	Adjust Screw	Collet	Fig.
BT50	BT50-ER16-063	0.5~10.0	32	63	7/16"-20	ERN16	ASC-ER16	ER16	1
	BT50-ER16-100			100					2
	BT50-ER16-160			160					
	BT50-ER20-070	0.5~13.0	35	70	9/16"-18	ERN20	ASC-ER20	ER20	1
	BT50-ER20-105			105					2
	BT50-ER20-150			150					
	BT50-ER20-200 *			200					
	BT50-ER20-250 *			250					
	BT50-ER20-300 *			300					
	BT50-ER20-350 *			350					
	BT50-ER25-070	0.5~16.0	42	70	11/16"-16	ERN25	ASC-ER25	ER25	1
	BT50-ER25-100			100					2
	BT50-ER25-150			150					
	BT50-ER25-200 *			200					
	BT50-ER25-250 *			250					
	BT50-ER25-300 *			300					
	BT50-ER25-350 *			350					
	BT50-ER32-070	1.0~20.0	50	70	15/16"-16	ERN32	ASC-ER32	ER32	1
	BT50-ER32-100			100					2
	BT50-ER32-150			150					
	BT50-ER32-200 *			200					
	BT50-ER32-250 *			250					
	BT50-ER32-300 *			300					
	BT50-ER32-350 *			350					
	BT50-ER40-080	2.0~30.0	63	80	1.1/8"-16	ERN40	ASC-ER40	ER40	1
	BT50-ER40-100			100					
	BT50-ER40-150			150					
	BT50-ER40-200 *			200					
	BT50-ER40-250 *			250					
	BT50-ER40-300 *			300					
	BT50-ER40-350 *			350					

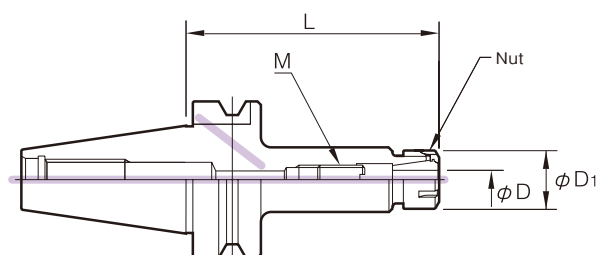
*Not regular stock items. Please ask for availability.

◇Please order Collet & Wrench separately.



ER collet chuck

SK



- Min. 80% taper fit
- Maximum Taper to Taper T.I.R 3μm
- Taper 40 dynamically balanced to G6.3 at 20,000rpm
- Taper 50 dynamically balanced to G6.3 at 15,000rpm



P.65



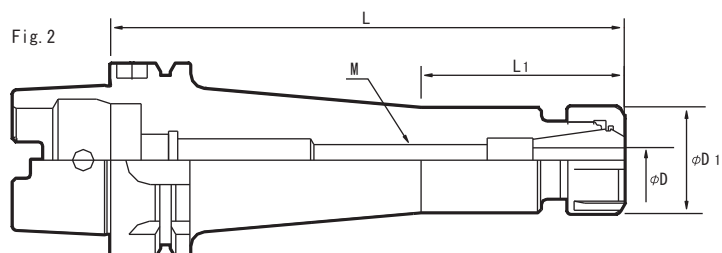
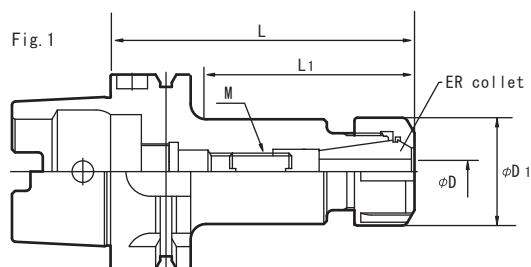
P.32~34



P.35

Taper	Code No.	φD	φD1	L	M	Nut	Adjust Screw	Collet
SK40	SK40-ER11H-060	0.5~7.0	19	60	M8	ERN11H	ASC-ER11	ER11
	SK40-ER11H-100			100				
	SK40-ER16-063	0.5~10.0	32	63	7/16"-20	ERN16	ASC-ER16	ER16
	SK40-ER16-100			100				
	SK40-ER16-160			160				
	SK40-ER25-060	0.5~16.0	42	60	11/16"-16	ERN25	ASC-ER25	ER25
	SK40-ER25-100			100				
	SK40-ER25-160			160				
	SK40-ER32-070	1.0~20.0	50	70	15/16"-16	ERN32	ASC-ER32	ER32
	SK40-ER32-100			100				
	SK40-ER32-160			160				
	SK40-ER40-080	2.0~30.0	63	80	1.1/8"-16	ERN40	ASC-ER40	ER40
	SK40-ER40-160			160				
SK50	SK50-ER16-063	0.5~10.0	32	63	7/16"-20	ERN16	ASC-ER16	ER16
	SK50-ER16-100			100				
	SK50-ER16-160			160				
	SK50-ER25-060	0.5~16.0	42	60	11/16"-16	ERN25	ASC-ER25	ER25
	SK50-ER25-100			100				
	SK50-ER25-160			160				
	SK50-ER32-070	1.0~20.0	50	70	15/16"-16	ERN32	ASC-ER32	ER32
	SK50-ER32-100			100				
	SK50-ER32-160			160				
	SK50-ER40-080	2.0~30.0	63	80	1.1/8"-16	ERN40	ASC-ER40	ER40
	SK50-ER40-100			100				
	SK50-ER40-160			160				

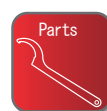
◇Please order Collet & Wrench separately.



- HSK63A dynamically balanced to G6.3 at 20,000rpm
- HSK100A dynamically balanced to G6.3 at 15,000rpm



P. 32—34



P. 35

Taper	Code No.	φD	φD1	L	L1	M	Nut	Adjust Screw	Collet	Fig.
HSK63A	HSK 63A-ER16-100	0.5~10.0	32	100	71	7/16"~20	ERN16	ASC-ER16	ER16	1
	HSK 63A-ER16-160			160	60					2
	HSK 63A-ER20-100	0.5~13.0	35	100	69	9/16"~18	ERN20	ASC-ER20	ER20	1
	HSK 63A-ER20-160			160	129					
	HSK 63A-ER25-100	0.5~16.0	42	100	69	11/16"~16	ERN25	ASC-ER25	ER25	1
	HSK 63A-ER25-160			160	129					
	HSK 63A-ER32-100	1.0~20.0	50	100	72	15/16"~16	ERN32	ASC-ER32	ER32	1
	HSK 63A-ER32-160			160	132					
	HSK 63A-ER40-120	2.0~30.0	63	120	94	1.1/8"~16	ERN40	ASC-ER40	ER40	1
	HSK 63A-ER40-160			160	134					
HSK100A	HSK 100A-ER16-100	0.5~10.0	32	100	56	7/16"~20	ERN16	ASC-ER16	ER16	1
	HSK 100A-ER16-160			160	70					2
	HSK 100A-ER25-100	0.5~16.0	42	100	56	11/16"~16	ERN25	ASC-ER25	ER25	1
	HSK 100A-ER25-160			160	85					2
	HSK 100A-ER32-100	1.0~20.0	50	100	56	15/16"~16	ERN32	ASC-ER32	ER32	1
	HSK 100A-ER32-160			160	86					2
	HSK 100A-ER40-120	2.0~30.0	63	120	86	1.1/8"~16	ERN40	ASC-ER40	ER40	1
	HSK 100A-ER40-160			160	88					2

◇Please order Collet & Wrench separately.

◇HSK Coolant tube: Please refer to "Accessories for ER collet chuck" on page 35.

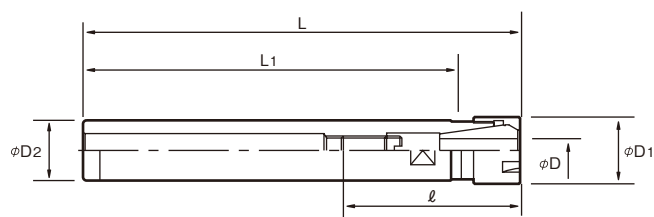


ER straight shank

Slim type ER Collet Chuck with straight shank



- For small dia. Drilling and End Milling.
- Can be used with MC Milling chuck



Code No.	φD(Range)	φD1	φD2	L	L1	l	Collet
S12-ER11M-140	0.5~7.0	16	12	166.5	140	56.6	ER11
S16-ER11H-140		19		174.5	140	56.6	
S16-ER11M-140		16		161	140	21.6	
S16-ER16-060	0.5~10.0	32	16	95.1	60	32.6	ER16
S20-ER16-050				85.1	50	32.6	
S20-ER16-100				135.1	100	32.6	
S20-ER16-140		22	20	175.1	140	32.6	
S20-ER16M-140				166	140	32.6	
S20-ER20-063	0.5~13.0	35	25	100	63	33.5	ER20
S25-ER20-140				180.5	140	38	
S25-ER25-050	0.5~16.0	42	25	101	50	46	ER25
S25-ER32-050	1.0~20.0	50		101.5	50	47	ER32
S25-ER40-050	2.0~30.0	63		125	50	65	ER40
S32-ER32-060	1.0~20.0	50	32	111.5	60	47	ER32
S32-ER32-140				191.5	140	47	

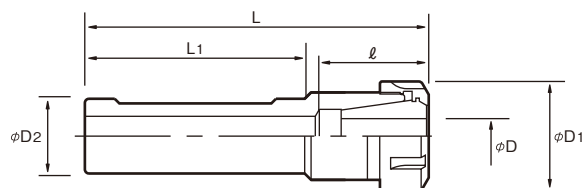
◇ Please order Collet & Wrench separately.

◇ "H"= Hex nut.

◇ "M"= Mini nut.

ER Collet Chuck for NC Lathe

- For drill, Center Drill, Boring Bar
- 10μm runout at 4×D from chuck nose



Code No.	φD(Range)	φD1	φD2	L	L1	l	Adjust Screw	Collet
SNL20-ER16	0.5~10.0	28	20	92	60	34.6	M8	ER16
SNL25-ER16	0.5~10.0	28	25	97	68.4	34.6	M8	ER16
SNL25-ER25	0.5~16.0	42	25	97	65	43	M12	ER25
SNL32-ER20	0.5~13.0	34	32	102	73.5	41.5	M10	ER20
SNL32-ER25	0.5~16.0	42	32	102	70	43	M12	ER25
SNL32-ER32	1.0~20.0	50	32	108	68	49	M16	ER32

◇ Please order Collet & Wrench separately.



ER collet

ER precision collet

● DIN6499 Form B.



Range(mm)	ER08	ER11
0.5~1.0	ER08-M010 *	ER11-M010
1.0~1.5	ER08-M015 *	ER11-M015
1.5~2.0	ER08-M020 *	ER11-M020
2.0~2.5	ER08-M025 *	ER11-M025
2.5~3.0	ER08-M030 *	ER11-M030
3.0~3.5	ER08-M035 *	ER11-M035
3.5~4.0	ER08-M040	ER11-M040
4.0~4.5	ER08-M045	ER11-M045
4.5~5.0	ER08-M050	ER11-M050
5.0~5.5		ER11-M055
5.5~6.0		ER11-M060
6.0~6.5		ER11-M065
6.5~7.0		ER11-M070

Accuracy:10 μ m at 4×D from nose.

Range(mm)	ER16	ER20	ER25	ER32	ER40
0.5~1.0	ER16-M010	ER20-M010 *	ER25-M010 *		
1.0~2.0	ER16-M020	ER20-M020	ER25-M020	ER32-M020 *	
2.0~3.0	ER16-M030	ER20-M030	ER25-M030	ER32-M030	ER40-M030
3.0~4.0	ER16-M040	ER20-M040	ER25-M040	ER32-M040	ER40-M040
4.0~5.0	ER16-M050	ER20-M050	ER25-M050	ER32-M050	ER40-M050
5.0~6.0	ER16-M060	ER20-M060	ER25-M060	ER32-M060	ER40-M060
6.0~7.0	ER16-M070	ER20-M070	ER25-M070	ER32-M070	ER40-M070
7.0~8.0	ER16-M080	ER20-M080	ER25-M080	ER32-M080	ER40-M080
8.0~9.0	ER16-M090	ER20-M090	ER25-M090	ER32-M090	ER40-M090
9.0~10.0	ER16-M100	ER20-M100	ER25-M100	ER32-M100	ER40-M100
10.0~11.0		ER20-M110	ER25-M110	ER32-M110	ER40-M110
11.0~12.0		ER20-M120	ER25-M120	ER32-M120	ER40-M120
12.0~13.0		ER20-M130	ER25-M130	ER32-M130	ER40-M130
13.0~14.0			ER25-M140	ER32-M140	ER40-M140
14.0~15.0			ER25-M150	ER32-M150	ER40-M150
15.0~16.0			ER25-M160	ER32-M160	ER40-M160
16.0~17.0				ER32-M170	ER40-M170
17.0~18.0				ER32-M180	ER40-M180
18.0~19.0				ER32-M190	ER40-M190
19.0~20.0				ER32-M200	ER40-M200
20.0~21.0					ER40-M210
21.0~22.0					ER40-M220
22.0~23.0					ER40-M230
23.0~24.0					ER40-M240
24.0~25.0					ER40-M250
25.0~26.0					ER40-M260
26.0~27.0					ER40-M270 *
27.0~28.0					ER40-M280 *
28.0~29.0					ER40-M290 *
29.0~30.0					ER40-M300 *

*Not regular stock items. Please ask for availability.



SSER Coolant collet



- High pressure coolant: 10.3MPa
- Accuracy: 10 μ m at 4xD from nose
- On size collets (will not collapse)
- Designed for h6 tool shanks

ID(mm)	SSER16	SSER20	SSER25	SSER32	SSER40
3.0	SSER16-M030	SSER20-M030	SSER25-M030	SSER32-M030	
4.0	SSER16-M040	SSER20-M040	SSER25-M040	SSER32-M040	
5.0	SSER16-M050	SSER20-M050	SSER25-M050	SSER32-M050	
6.0	SSER16-M060	SSER20-M060	SSER25-M060	SSER32-M060	SSER40-M060
7.0	SSER16-M070	SSER20-M070	SSER25-M070	SSER32-M070	SSER40-M070
8.0	SSER16-M080	SSER20-M080	SSER25-M080	SSER32-M080	SSER40-M080
9.0	SSER16-M090	SSER20-M090	SSER25-M090	SSER32-M090	SSER40-M090
10.0	SSER16-M100	SSER20-M100	SSER25-M100	SSER32-M100	SSER40-M100
11.0		SSER20-M110	SSER25-M110	SSER32-M110	SSER40-M110
12.0		SSER20-M120	SSER25-M120	SSER32-M120	SSER40-M120
13.0		SSER20-M130	SSER25-M130	SSER32-M130	SSER40-M130
14.0			SSER25-M140	SSER32-M140	SSER40-M140
15.0			SSER25-M150	SSER32-M150	SSER40-M150
16.0			SSER25-M160	SSER32-M160	SSER40-M160
17.0				SSER32-M170	SSER40-M170
18.0				SSER32-M180	SSER40-M180
19.0				SSER32-M190	SSER40-M190
20.0				SSER32-M200	SSER40-M200
21.0					SSER40-M210
22.0					SSER40-M220
23.0					SSER40-M230
24.0					SSER40-M240
25.0					SSER40-M250
26.0					SSER40-M260



TER rigid tapping collet



Tap (JIS Standard)

D			shk dia	□ dia	length	TER16	TER20	TER25	TER32	TER40
metric	unify	pipe	φd1	K	Ho					
M6	U1/4		6.0	4.5	7.0	TER16J-060	TER20J-060	TER25J-060	TER32J-060	TER40J-060
M7-M8			6.2	5.0	8.0	TER16J-062	TER20J-062	TER25J-062	TER32J-062	TER40J-062
M9-M10	U3/8		7.0	5.5	8.0	TER16J-070	TER20J-070	TER25J-070	TER32J-070	TER40J-070
M11	U7/16	P1/16-P1/8	8.0	6.0	9.0	TER16J-080	TER20J-080	TER25J-080	TER32J-080	TER40J-080
M12			8.5	6.5	9.0		TER20J-085	TER25J-085	TER32J-085	TER40J-085
M14-M15	U9/16		10.5	8.0	11.0		TER20J-105	TER25J-105	TER32J-105	TER40J-105
M16			12.5	10.0	13.0		TER20J-125	TER25J-125	TER32J-125	TER40J-125
M17			13.0	10.0	13.0			TER25J-130	TER32J-130	TER40J-130
M20			15.0	12.0	15.0			TER25J-150	TER32J-150	TER40J-150
M22	U7/8		17.0	13.0	16.0				TER32J-170	TER40J-170
M24-M25		P5/8	19.0	15.0	18.0				TER32J-190	TER40J-190
M26-M27	U1		20.0	15.0	18.0				TER32J-200	TER40J-200
M28			21.0	17.0	20.0					TER40J-210

Tap (DIN Standard)

D			shk dia	□ dia	length	TER16	TER20	TER25	TER32	TER40
metric	unify	pipe	φd1	K	Ho					
M1-M1.8(371)	U1/16(371)		2.5	2.1	5.0	TER16D-025	TER20D-025	TER25D-025		
M2-M2.5(371)-M4(376)			2.8	2.1	5.0	TER16D-028	TER20D-028	TER25D-028		
M3(371)-M4.5-M5(376)	U1/8(371)		3.5	2.7	6.0	TER16D-035	TER20D-035	TER25D-035	TER32D-035	TER40D-035
M3.5(371)			4.0	3.0	6.0	TER16D-040	TER20D-040	TER25D-040	TER32D-040	TER40D-040
M4(371)-M6(376)	U1/4(376)		4.5	3.4	6.0	TER16D-045	TER20D-045	TER25D-045	TER32D-045	TER40D-045
M7(376)			5.5	4.3	7.0	TER16D-055	TER20D-055	TER25D-055	TER32D-055	TER40D-055
M4.5-M6(371)-M8(376)	U5/16(376)		6.0	4.9	8.0	TER16D-060	TER20D-060	TER25D-060	TER32D-060	TER40D-060
M7(371)-M9-M10(376)	U1/4(371)-U3/8(376)	P1/8(374)	7.0	5.5	8.0	TER16D-070	TER20D-070	TER25D-070	TER32D-070	TER40D-070
M8(371)-M11(376)	U5/16(371)-U7/16(376)		8.0	6.2	9.0	TER16D-080	TER20D-080	TER25D-080	TER32D-080	TER40D-080
M9(371)-M12(376)	U3/8(371)-U1/2(376)		9.0	7.0	10.0	TER16D-090	TER20D-090	TER25D-090	TER32D-090	TER40D-090
M10(371)			10.0	8.0	11.0	TER16D-100	TER20D-100	TER25D-100	TER32D-100	TER40D-100
M14(376)	U9/16(376)	P1/4(374)	11.0	9.0	12.0		TER20D-110	TER25D-110	TER32D-110	TER40D-110
M16(376)	U5/8(376)	P3/8(374)	12.0	9.0	12.0		TER20D-120	TER25D-120	TER32D-120	TER40D-120
M18(376)	U3/4(376)		14.0	11.0	14.0			TER25D-140	TER32D-140	TER40D-140
M20(376)		P1/2(374)	16.0	12.0	15.0			TER25D-160	TER32D-160	TER40D-160
M22-M24(376)	U7/8(376)	P5/8(374)	18.0	14.5	17.0				TER32D-180	TER40D-180
M27(376)	U1(376)	P3/4(374)	20.0	16.0	19.0				TER32D-200	TER40D-200
M30(376)	U1.1/8-U1.1/4(376)	P7/8(374)	22.0	18.0	21.0					TER40D-220
M33(376)		P1"(374)	25.0	20.0	23.0					TER40D-250

Tap (ISO Standard)

D			shk dia	□ dia	length	TER16	TER20	TER25	TER32	TER40
metric	unify	pipe	φd1	K	Ho					
M3	No.4-No.5		3.15	2.50	5.00	TER16S-031	TER20S-031	TER25S-031	TER32S-031	TER40S-031
M4	No.12		4.00	3.15	6.00	TER16S-040	TER20S-040	TER25S-040	TER32S-040	TER40S-040
M4.5	No.8		4.50	3.55	6.00	TER16S-045	TER20S-045	TER25S-045	TER32S-045	TER40S-045
M6	U1/4		6.30	5.00	8.00	TER16S-063	TER20S-063	TER25S-063	TER32S-063	TER40S-063
M7	U3/8		7.10	5.60	8.00	TER16S-071	TER20S-071	TER25S-071	TER32S-071	TER40S-071
M8	U5/16	P1/8	8.00	6.30	9.00	TER16S-080	TER20S-080	TER25S-080	TER32S-080	TER40S-080
M12	U1/2		9.00	7.10	10.00	TER16S-090	TER20S-090	TER25S-090	TER32S-090	TER40S-090
M14	U9/16		11.20	9.00	12.00		TER20S-112	TER25S-112	TER32S-112	TER40S-112
M16	U5/8	P3/8	12.50	10.00	13.00			TER25S-125	TER32S-125	TER40S-125
M18-M20	U3/4		14.00	11.20	14.00			TER25S-140	TER32S-140	TER40S-140
M22	U7/8	P1/2	16.00	12.50	16.00			TER25S-160	TER32S-160	TER40S-160
M24	U1"	P 5/8	18.00	14.00	18.00					TER40S-180

*Special design locks tap flats into the collet slots preventing the tap from spinning inside the collet.

◇JIS,ISO & DIN standard available



ERN Coolant nut with SXC coolant cap

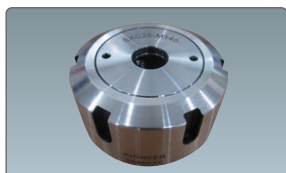
Front threaded seal for air, coolant or keeping chips & swarf from entering the front of the collet.

Features

- O-ring seal for pressure up to 10.3 MPa
- Prevent chips, dust & swarf from entering holders
- Jet Blast for non-coolant cutting tools available upon request



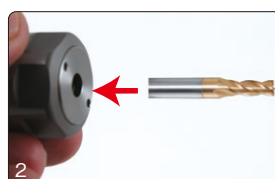
ERN Coolant nut



ERN Coolant nut with SXC Coolant cap

Code No.	description	SXC coolant cap to use
ERN11H-CC	ER11 Hex coolant nut	SXC06-ID size
ERN16-CC	ER16 Hex coolant nut	SXC10-ID size
ERN20-CC	ER20 Hex coolant nut	SXC16-ID size
ERN25-CC	ER25 E type coolant nut	SXC16-ID size
ERN32-CC	ER32 E type coolant nut	SXC25-ID size
ERN40-CC	ER40 E type coolant nut	SXC25-ID size

How to assemble



1. Thread coolant cap into ERN-CC nut, tighten with wrench after the collet has been assembled.
2. Insert a cutting tool. Shank of the cutting tool is engaged with O-ring.

SXC coolant cap

*Please refer to the chart for SXC coolant caps on page 26 when ordering.

Accessories for ER collet chuck

Parts



ER	Nut	Nut description	Adjust screw	Wrench	Wrench type
11	ERN11H	ER11 Hex nut	ASC-ER11	ERW-11 HEX	Hex type
	ERN11M	ER11 Mini nut		ERW-11 M	Mini E type
16	ERN16	ER16 nut E type	ASC-ER16	ERW-16 E	E type
	ERN16M	ER16 Mini nut		ERW-16 M	Mini E type
20	ERN20	ER20 nut E type	ASC-ER20	ERW-20 E	E type
25	ERN25	ER25 nut E type	ASC-ER25	ERW-25 E	E type
32	ERN32	ER32 nut E type	ASC-ER32	ERW-32 E	E type
40	ERN40	ER40 nut E type	ASC-ER40	ERW-40 E	E type

HSK Coolant tube

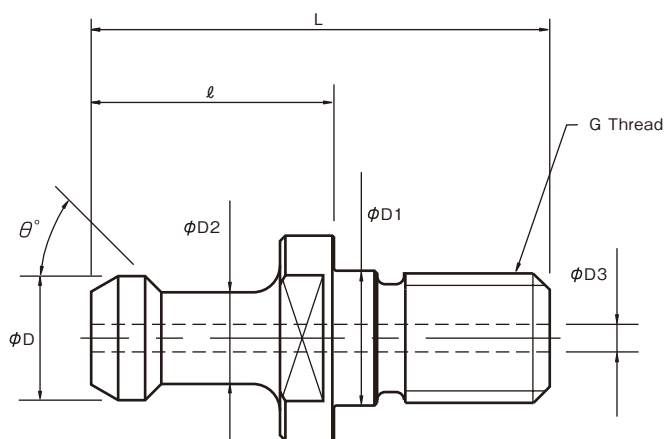
- For HSK A type
- Double seal design

Tube	Tube description	Wrench
TUBE-063A	HSK 63A Coolant Tube	WRENCH HSK 63A COOLANT TUBE
TEBE-100A	HSK100A Coolant Tube	WRENCH HSK100A COOLANT TUBE





Pull Stud



It is critical that the correct pull stud is used with each machining center. Please verify all dimensions prior to ordering. Machine specifications will be located in your machine manual.

Spindle	Code No.	ϕD	L	l	D2	D1	G	θ°	D3	Note
BT30	HPS-16	11	43	23	7	12.5	M12	45	-	MAS P30T-1
	HPS-16C	11	43	23	7	12.5	M12	45	2.5	HPS-16 Coolant
	HPS-17	11	43	23	7	12.5	M12	60	-	MAS P30T-2
	HPS-17C	11	43	23	7	12.5	M12	60	2.5	HPS-17 Coolant
BT40	HPS- 1	15	60	35	10	17	M16	45	-	MAS P40T-1
	HPS- 2	15	60	35	10	17	M16	60	-	MAS P40T-2
	HPS-806-1	19	54	29	14	17	M16	75	6	JIS B6339. Coolant
	HPS-G51	18.796	44.106	19.106	12.446	17	M16	45	7	Mazak type. Coolant
	HPS-O8	15	60	35	10	17	M16	90	-	90 degree angle type
	HPS-301	15	60	35	11	17	M16	60	-	
	HPS-302	19	54	26	14	17	M16	75	-	DIN69872.
	HPS-366E-1	19	54	29	14	17	M16	75	7	P-9, S 15 O-ring
	HPS-805	19	54	29	14	17	M16	75	-	JIS B6339-89
	HPS-813-1	19	54	29	14	17	M16	75	6	JIS B6339-89
BT50	HPS-B62-1	19	54	29	14	17	M16	75	4	S 15 O-ring
	HPS- 5	23	85	45	17	25	M24	45	-	MAS P50T-1
	HPS- 6	23	85	45	17	25	M24	60	-	MAS P50T-2
	HPS-G41	28.956	65.2	25.2	20.828	25	M24	45	10	
SK30	HPS-122	13	44	24	9	13	M12	75	-	DIN69872 SK30 FORM A
SK40	HPS-302	19	54	26	14	17	M16	75	-	DIN69872 SK40 FORM A
	HPS-309	19	54	26	14	17	M16	75	7	DIN69872 SK40 FORM A Coolant
	HPS-309C	19	54	26	14	17	M16	75	7	DIN69872 SK40 FORM B
	HPS-A1	19	54	26	14	17	M16	75	7	ISO-7388/2-1984-A
	HPS-A4	18.95	44.5	16.4	12.95	17	M16	45	7.35	ISO-7388/2-1984-B
SK50	HPS-581	28	74	34	21	25	M24	75	-	DIN69872 SK50 FORM A
	HPS-512	28	74	34	21	25	M24	75	11.5	DIN69872 SK50 FORM A Coolant
	HPS-512B	28	74	34	21	25	M24	75	11.5	DIN69872 SK50 FORM B
	HPS-A3	28	74	34	21	25	M24	75	11.5	ISO-7388/2-1984-A
	HPS-A6	29.1	65.5	25.55	19.6	25	M24	45	11.55	ISO-7388/2-1984-B

◇Other Pull Studs are available upon request.