



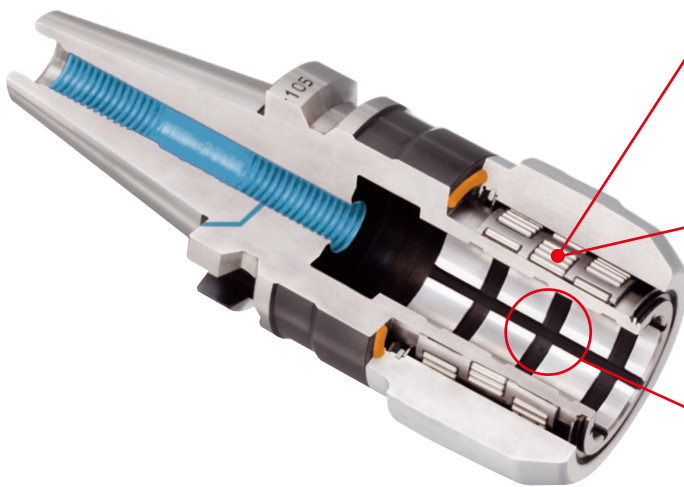
MC Milling Chuck

Roughing and Finishing Milling & Drilling



POWERFUL & RIGID, UNBEATABLE CUTTING FORCE, FINE RUN-OUT ACCURACY!

Features



Roller Bearing System

Retainer sleeve system filled with symmetrically placed needle roller bearings provide smooth operation. 4 needle roller bearings per cell provide maximum contact area and heavy duty gripping capability.

Powerful Gripping Torque

4-row retainer sleeve is used for the 50 taper models (except for SK50-MC32-085). This system allows the MC to achieve 5,000 N/m clamping torque in MC42 milling chuck.

X-GROOVE system (PAT)

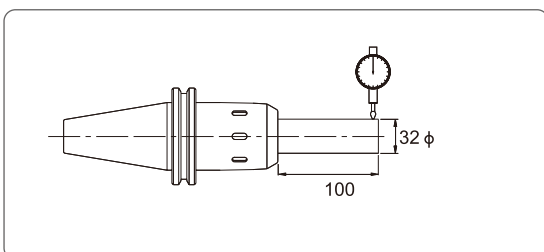
Combination of the Radical and Axial grooves

Ultra-low temperature treatment



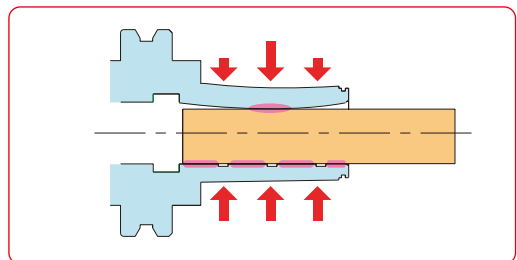
Sub-zero temperature treatment at -100°C to remove the residual austenite from the holder and provides long lasting performance.

Fine accuracy



5 μm at 100mm away from nose

Radical Grooves



The radical grooves provide more uniform collapse capability and allows the chuck to collapse evenly all the way to the nose. It provides reliable gripping and run-out capability, and also minimizes cutter vibration and chatter.

Axial Grooves



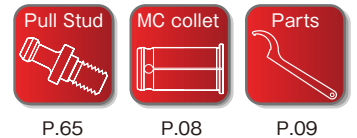
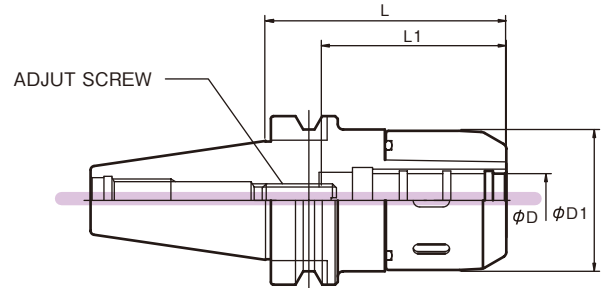
The axial grooves provide more even collapse capability. It distributes gripping power more evenly all the way around the shank or collet and as a result provides better concentricity.



MC Milling Chuck

BT

- Min. 80% taper fit
- 5290Nm gripping power with BT50-MC42-105
- 5 μ m runout capability at 100mm from nose
- Special alloy steel case-hardened and treated at -100°C to remove residual austenite and ensure stable molecule structure.
- Taper 30 & 40 dynamically balanced body to G6.3 at 20,000rpm.
- Taper 50 dynamically balanced body to G6.3 at 15,000rpm.



Taper	Code No.	φD	L	φD1	L1	Collet
BT30	BT30-MC20-080	20	80	53	70	MC20
BT40	BT40-MC20-075	20	75	53	70	MC20
	BT40-MC20-105		105			
	BT40-MC20-120		120			
	BT40-MC25-085	25	85	62	74	MC25
	BT40-MC25-105		105			
	BT40-MC32-085	32	85	70	78	MC32
	BT40-MC32-105		105			
BT40-MC32-120	120					
BT50	BT50-MC20-105	20	105	53	70	MC20
	BT50-MC20-135		135			
	BT50-MC20-165		165			
	BT50-MC25-105	25	105	62	74	MC25
	BT50-MC25-135		135			
	BT50-MC25-165		165			
	BT50-MC32-105	32	105	74	95	MC32
	BT50-MC32-135		135			
	BT50-MC32-165		165			
	BT50-MC42-105*	42	105	92	98	MC42
BT50-MC42-135*	135					

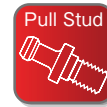
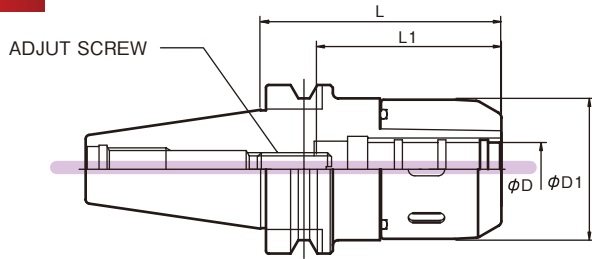
*Not regular stock items. Please check for availability.

◇See P08 for how-to-use instruction.

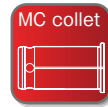


MC Milling Chuck

SK/HSK



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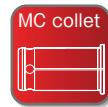
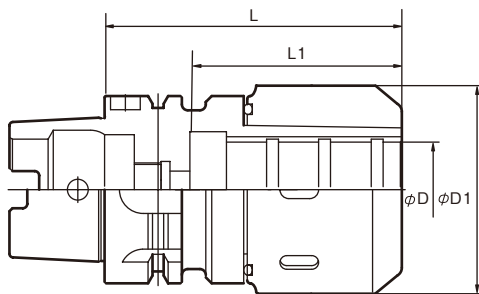


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Taper	Code No.	φD	L	φD1	L1	Collet
SK40	SK40-MC20-085	20	85	53	70	MC20
	SK40-MC20-105		105			
	SK40-MC20-120		120			
	SK40-MC25-085	25	85	62	74	MC25
	SK40-MC25-120		120			
	SK40	SK40-MC32-105	32	105	70	78
SK40-MC32-120		120				
SK50	SK50-MC20-080	20	80	53	70	MC20
	SK50-MC20-105		105			
	SK50-MC20-135		135			
	SK50-MC20-165		165			
	SK50-MC25-105	25	105	62	74	MC25
	SK50-MC25-135		135			
	SK50-MC25-165		165			
	SK50-MC32-085	32	85	74	95	MC32
	SK50-MC32-105		105			
	SK50-MC32-135		135			
	SK50-MC32-165		165			
	SK50-MC42-105*	42	105	92	98	MC42
	SK50-MC42-135*		135			

*Not regular stock items. Please check for availability.

◇See P08 for how-to-use instruction.



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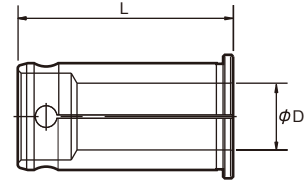
Taper	Code No.	φD	L	φD1	L1	Collet	
HSK63A	HSK 63A-MC20-095	20	95	53	70	MC20	
	HSK 63A-MC20-110		110		66		
	HSK 63A-MC25-100	25	100	62	73	MC25	
	HSK 63A-MC25-120		120		76		
	HSK63A	HSK 63A-MC32-100	32	100	70	74	MC32
		HSK 63A-MC32-120		120		76	
HSK100A	HSK 100A-MC20-095	20	95	53	64	MC20	
	HSK 100A-MC20-115		115				
	HSK 100A-MC32-110	32	110	70	78	MC32	
	HSK 100A-MC32-135		135				
	HSK 100A-MC42-140*	42	140	92	98	MC42	
HSK 100A-MC42-160*	160						

◇Please order coolant tube (Page 35) for HSK separately.



Straight collet for Milling Chuck

MC straight collet



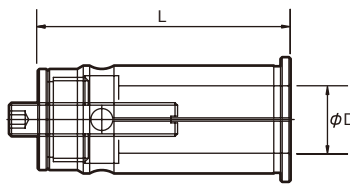
standard φD ◆	MC20	MC25	MC32	MC42
6.0	MC20-M060	MC25-M060	MC32-M060	
8.0	MC20-M080	MC25-M080	MC32-M080	
10.0	MC20-M100	MC25-M100	MC32-M100	
12.0	MC20-M120	MC25-M120	MC32-M120	
16.0	MC20-M160	MC25-M160	MC32-M160	MC42-M160 *
20.0		MC25-M200	MC32-M200	MC42-M200 *
25.0			MC32-M250	MC42-M250 *
32.0				MC42-M320 *

STYLE	L
MC20	53
MC25	61.5
MC32	64.5
MC42	78

*Not regular stock items. Please check for availability.

◆Collets in odd size 1mm ID increment available from stock, or subject to delivery confirmation.

NC height adjustable straight collet



standard φD ◆	NC20	NC32
6.0	NC20-M060	NC32-M060
8.0	NC20-M080	NC32-M080
10.0	NC20-M100	NC32-M100
12.0	NC20-M120	NC32-M120
16.0	NC20-M160	NC32-M160
20.0		NC32-M200
25.0		NC32-M250

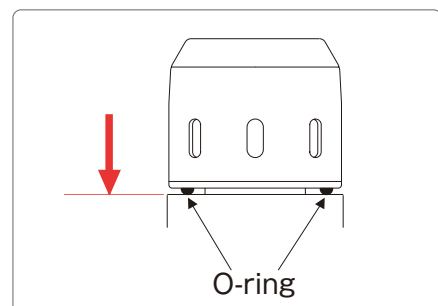
STYLE	L
NC20	60
NC32	72

◆Collets in odd size 1mm ID increment available from stock, or subject to delivery confirmation.

How to use

How to use MC

1. Clean up the I.D. of the MC, I.D. and O.D. of the collet and the cutter shank.
2. Insert the collet or the cutter shank in the I.D. of the MC.
3. Tighten the nut using MCW wrench. Tighten the nut all the way down until the O-ring located at the bottom of the nut kisses the flange of the body.
4. Do not tighten the nut after O-ring kisses the flange.





Accessories for Milling Chuck

Coolant thru adjust screw



Code No.	Chuck size	Length	Wrench
ASC-16-40	MC20, 25, 32	40mm	2.5mm x 5.0mm Hex
ASC-12-30	BT30-MC20	30mm	
ASC-16-18	HSK-MC20,25,32	18mm	

Wrench



MC	Code No.
MC20	MCW20
MC25	MCW25
MC32	MCW32
MC42	MCW42

Coolant caps

MC Coolant Caps allow you to seal MC collets for thru tool coolant applications by sealing coolant from slots of MC collet.

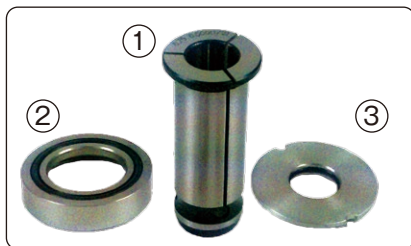
- Works with all MC standard Collets.
- Requires MCN Nut & MCC Cap to fit the cutting tool.
- Order Cap to match Collet ID Size
Example: MCC20-M100 for MC20-M100

Code No. (Nut)	Collet
MCN20	MC20
MCN25	MC25
MCN32	MC32

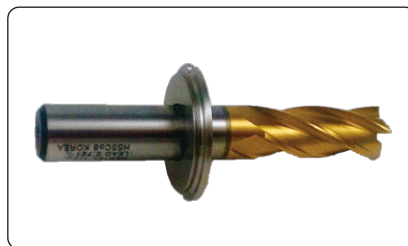
Code No. (Cap)	Available Sizes
MCC20-	6, 8, 10, 12, 16
MCC25-	6, 8, 10, 12, 16, 20
MCC32-	6, 8, 10, 12, 16, 20, 25



Coolant caps - How to assemble



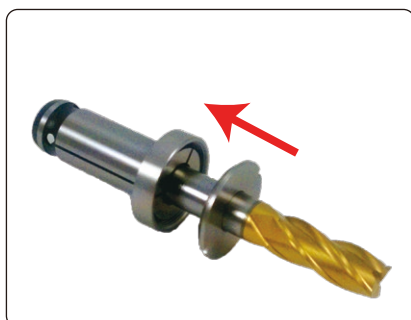
1. Prepare ①MC collet, ②MNC nut & ③MCC cap.



2. Insert a cutting tool into MCC cap.



3. Assemble MC collet into MNC nut.



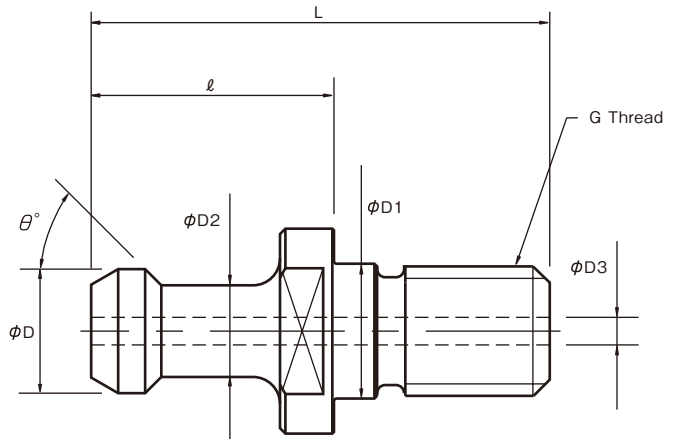
4. Thread MCC cap ass'y built in 2. into MCN nut ass'y built in 3, and get MC collet ass'y with MNC nut & MCC cap with a cutting tool.



5. Set the ass'y built in 4. into MC milling chuck.



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
HPS-B62-1	19	54	29	14	17	M16	75	4	S 15 O-ring	
BT50	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.