

MBID

ID HOLDING CLAMPS



MBID 02~06



MBID 08~16B



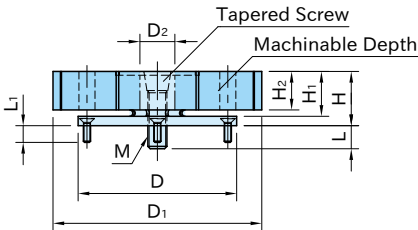
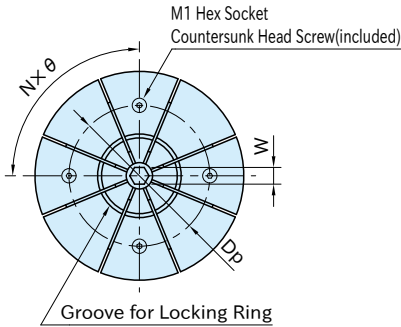
MBID 16C, 16D



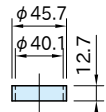
MBID 16E



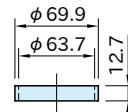
MBID 16F



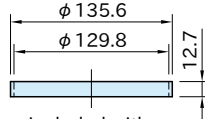
■ Locking Ring (2 sizes for MBID16E,F)



included with **MBID** 16C



included with **MBID** 16D~F



included with **MBID** 16E, 16F

Body	Tapered Screw
SUM24L steel	SCM440 steel
Black oxide finished	
MBID16F	Quenched & tempered
A7075-T6 aluminum	Fluoroplastic coated
Anodized	HRC39~45
Black	

Part Number	Adaptable Workpiece Dia. *)	D ₁	D ₂	H ₂	H ₁	D (_{-0.05})	H	M	L	W
MBID02	φ 4.1~φ 7.4	7.4	4.1	6.1	7.6	20	10.7	M 2×0.4	4.1	1.5
MBID04	φ 7.1~φ 12.4	12.4	7.1							
MBID06	φ 12.2~φ 14.2	14.2	12.2							
MBID08	φ 13.5~φ 20	20	13.5	15	19	31.5	24.9	M 6×1	11.2	5
MBID10	φ 18 ~φ 27	27	18							
MBID12	φ 23 ~φ 35.3	35.3	23	20.6	25.4	56	31.8	M12×1.75	20.3	10
MBID16A	φ 29.3~φ 42	42	27							
MBID16B	φ 29.3~φ 51.5	51.5		29.3	32.3	37.6	75.5	45.5	19.3	
MBID16C	φ 29.3~φ 77.7	77.7	107.5							132.9
MBID16D	φ 29.3~φ 103	103								
MBID16E	φ 29.3~φ 175	175								
MBID16F	φ 29.3~φ 250.2	250.2								

*) You need to machine the clamp to suit the diameter of your workpieces in consideration of the range of expansion.

Part Number	M ₁	L ₁	D _p	N	θ	Clamping Force (kN)	Allowable Screw Torque (N·m)	Recommended Expansion Range of Dia	Number of Groove (***)	Allowable Expansion of Dia.	Weight (g)		
MBID02	M2	4	13.7	3	120°	1.1	0.7	0.05	—	0.13	10		
MBID04			21			4.2	5	0.07			45		
MBID06	M3	6	23.1			8.4	17	0.08		—	0.23	60	
MBID08			29			11	34				0.3	95	
MBID10	M4	7	39.4			20	60	0.08		—	0.35	190	
MBID12			45.5			26	150					300	
MBID16A	M5	13	55.9			44	280	0.15~0.4 (**)		1	0.6	570	
MBID16B			63.9									750	
MBID16C	M6	14	92.6			4	90°	26		170	2	0.8	1800
MBID16D			118.1										2900
MBID16E			133.4	6500									
MBID16F				4800									

**) The recommended tightening torque to machine the jaws for custom fit is 20 N·m.

***) The groove for locking ring (width/depth 3.2mm) is only for **MBID16C~F**.

Furnished With

- 1 of hex nut
- **MBID16C, 16D**: 1 of locking ring
- **MBID16E, 16F**: 2 of locking rings (different sizes)
- **MBID02 - 16D**: 3 of hex socket countersunk head screws
- **MBID16E, 16F**: 4 of hex socket countersunk head screws

Feature

- Can hold workpieces on an inside diameter.
- Perfect for multiple-parts holding arrangement.
- Using hydraulic pull cylinders to clamp instead of using hex wrenches allows automation.
- Can be machined to suit your workpieces.
- The fluoroplastic coated of the tapered screw helps to prevent the fixation of parts.

Note

- Do not tighten the clamp screw without the workpiece set to prevent damage and deformation.
- The minimum radius of corners at the machined part should be 0.5mm for clamping small workpieces. To prevent stress concentration on these corners, make the radius as large as possible.
- If the radius will interfere with the bottom of the workpiece bore, we suggest a ring or rest-pads be fixed to the flange.
- If the application has minimal clamping surface (shallow bore) and the ring groove and the cutout interfere or come close to each other, we suggest machining the top of the clamp clean to remove the grooves, and then machine the clamp to suit your workpieces.
- For **MBID16C, 16D** insert the locking ring provided to the groove and tighten the tapered screw and then machine the clamp to the size. When the workpiece bore is smaller than the locking ring bore, machine the clamp without the locking ring, as stated in the Machining Instructions
- **MBID16E, 16F** have 2 locking rings, but only single ring is needed for machining the clamp. The bigger locking ring is recommended.

How To Use

〈Machining and Installation Instructions〉

1. Measure the diameter of the clamp without tapered screw.
2. Use the nut provided, on the back of the clamp, and tighten the tapered screw to expand the clamp to the recommended expansion of diameter. (For **MBID16C~F**, insert the locking ring provided and tighten the tapered screw.)
3. Machine a pocket in the fixture with the close tolerance "D" dimension and make tapped holes per "M 1" column. Make a tapped hole from the "M" column in the center of the pocket for the tapered screw.

