

Oil Free Bushings

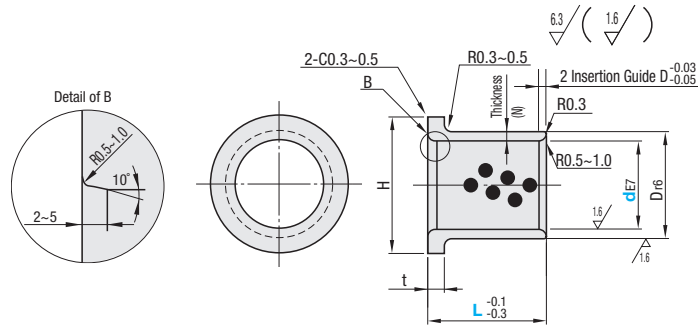
Copper Alloy, Flanged, Thin Wall

■ **Features:** Flanged, less likely to pull-out.

■ Thin Wall



MPFZU (Thin Wall)



Recommended Mating Shaft d8: General Use (High-Load), f8: High Precision Use
e7: General Use (Light Load), g6: High Precision Use (Intermittent Operation) Material: High Tensile Brass Alloy
 Press fitting is recommended to affix bushings. Solid Lubricant Embedded

Part Number			L							Dm6	Thickness (N)	H	0 t-0.1	Housing Dia. (Recommended Dimension)						
Type	df7													Ref. Dim.	Tolerance (H7)					
MPFZU	5	+0.032 +0.020	10	12						7	+0.028 +0.019	1	11	2	7	+0.015 0				
	6		10	12	15								8		12		8			
	8	+0.040 +0.025	10	12	15	20							10		14		10			
	10		10	12	15	20						12	+0.034 +0.023	1.5	16	3	12	+0.018 0		
	12	+0.050 +0.032	10	12	15	20	25	30							15		21		15	
	13			12	15	20						16			22		16			
	15			10	12	15	20	25						18	24	18				
	16		12	15	20	25	30						20	+0.041 +0.028	2	26	4	20	+0.021 0	
	20		15	20	25	30	40						24			32		24		
	25	+0.061 +0.040	30					40	50							29		37		29
	30		30					40	50						34	+0.050 +0.034	42	34	+0.025	



Ordering Example	Part Number	-	L
	MPFZU12	-	15

Part Number		Unit Price							
Type	d	L10	L12	L15	L20	L25	L30	L40	L50
MPFZU	5			-	-	-	-	-	-
	6				-	-	-	-	-
	8					-	-	-	-
	10					-	-	-	-
	12							-	-
	13	-				-	-	-	-
	15						-	-	-
	16	-						-	-
	20	-	-						-
	25	-	-	-	-	-			
30	-	-	-	-	-				

■ O.D. Dimension Comparison Table

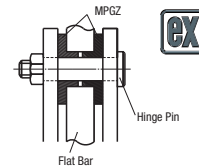
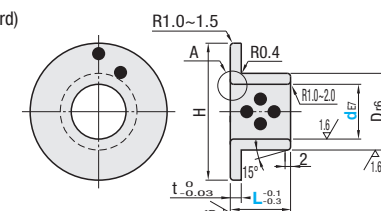
d	Dimension Variation			Thin Wall MPFZU		Standard Type MPFZ			
	O.D. Dr6	Thickness (N)	H	O.D. Dr6	Thickness (N)	H	O.D. Dr6	Thickness (N)	H
5	-2	-1	-3	7	1	11	9	2	14
6	-2	-1	-4	8		12	10		16
8	-2	-1	-6	10		14	12		20
10	-2	-1	-6	12		16	14		22
12	-3	-1.5	-4	15		21	18		25
13	-3	-1.5	-4	16	1.5	22	19	3	26
15	-3	-1.5	-4	18		24	21		28
16	-2	-1.5	-3	20		26	22		29
20	-6	-3	-8	24		32	30		40
25	-6	-3	-8	29		37	35		45
30	-6	-3	-8	34	2	42	40	5	50

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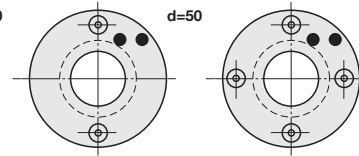
Copper Alloy, Thrust

■ **Features:** Lubricant is embedded in the flange so that one bushing can bear radial load and thrust load at the same time.

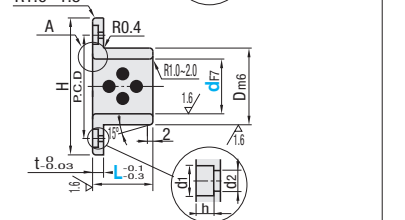
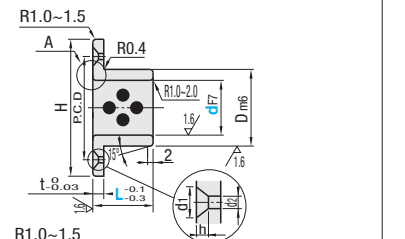
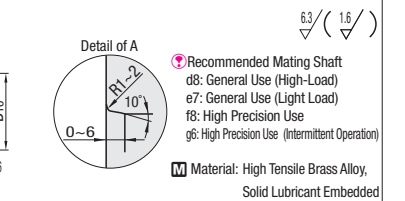
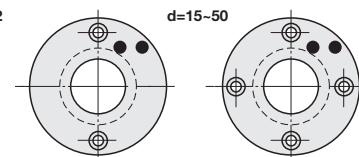
Thrust Type

**MPGZ** (Standard)

MPSZ (Countersunk Hole)



MPKZ (Low Head Screw Hole)



Part Number			L										Dr6		H	t	Housing Dia. (Recommended Dimension)		
Type	dE7	Ref. Dim.															Tolerance (H7)		
MPGZ (Standard)	6	+0.030	10	12								12	+0.034 +0.023	22	3	12	+0.018 0		
	8	+0.040	10	12	15							14							
	10	+0.025	10	12	15	20						16							
	12		10	12	15	20	25					18							
	13		12	15	20	25						19							
	15	+0.050	12	15	20	25						21	+0.041 +0.028	30	5	21	+0.021 0		
	16	+0.032	12	15	20	25						22							
	18		14	20	25	30	35					24							
	20		14	20	25	30	35	40				28							
	25	+0.061	14	20	25	30	35	40				33							
	30	+0.040		20	25	30	35	40				38	+0.050 +0.034	44	5	38	+0.025 0		
	35			20	25	30	35	40				44							
	40	+0.075		25	30	35	40		45	50		50							
	50	+0.050		30	35	40	45	50	60			62							
														+0.030 +0.018		90		8	62

[illegible]

d-L	Unit Price		
	MPGZ	MPSZ	MPKZ
6-10			
6-12			
8-10		-	-
8-12			
8-15			
10-10		-	-
10-12			
10-15			
10-20			
12-10		-	-
12-12			
12-15			
12-20			

d-L	Unit Price		
	MPGZ	MPSZ	MPKZ
12-25		-	-
13-12		-	-
13-15		-	-
13-20		-	-
13-25		-	-
15-12			
15-15			
15-20			
15-25		-	-
16-12			
16-15			
16-20			
16-25			

d-L	Unit Price		
	MPGZ	MPSZ	MPKZ
16-30			
18-14		-	-
18-20			
18-25			
18-30			
18-35		-	-
20-14		-	-
20-20			
20-25			
20-30			
20-35			
20-40			
25-14		-	-

d-L	Unit Price		
	MPGZ	MPSZ	MPKZ
25-20			
25-25			
25-30			
25-35			
25-40			
30-20			
30-25			
30-30			
30-35			
30-40			
35-20			
35-25			
35-30			

d-L	Unit Price		
	MPGZ	MPSZ	MPKZ
35-35			
35-40			
40-25			
40-30			
40-35			
40-40			
40-45			
40-50			
50-30		-	-
50-35			
50-40			
50-45			
50-50		-	-



Ordering Example	Part Number	-	L
	MPGZ10	-	15
	MPSZ12	-	15
	MPKZ16	-	20