

Oil-Free Bushings (Copper Alloy)

Thrust Type

Feature: Lubricant is blended into the flange so that one bushing can bear radial journal load and thrust load at the same time.

Oil-Free Bushings – Thrust Type

RoHS 10

MPGZ Standard

MPSZ Flathead Countersunk Screw Hole

MPKZ Low Head Screw Hole

Material: High Tensile Brass Alloy Solid Lubricant Embedded (Graphite)

Recommended Mating Shaft:
 d8: General Use (High-Load)
 e7: General Use (Light Load)
 f8: High Precision Use
 g6: High Precision Use (Intermittent Operation)

Part Number	Type	d _{e7}	L	D _{r6}	H	t	Housing Dia. (Recommended Dimensions)	
							Reference Dimension	Tolerance (H7)
6	MPGZ Standard	+0.032 +0.020	10 12	12	22	3	12	+0.018 0
8		+0.040 +0.025	10 12 15	14	25		14	+0.021 0
10		+0.050 +0.032	10 12 15 20 25	16	35		16	
12			10 12 15 20 25	18			18	
13			12 15 20 25	19			19	
15			12 15 20 25	21			21	
16			12 15 20 25 30	22			22	
18			14 20 25 30 35	24			24	
20			14 20 25 30 35 40	28			28	
25			+0.061 +0.040	14 20 25 30 35 40			33	
30	20 25 30 35 40		38	38				
35	20 25 30 35 40		44	44				
40	+0.075 +0.050	25 30 35 40 45 50	50	70	50	+0.025 0		
50	30 35 40 45 50 60	62	62	90	8	50	+0.030 0	

Part Number	Type	d _{F7}	L	D _{m6}	Mounting Hole				H	t	Accessories Hex Socket Low Head Cap Screw	Housing Dia. (Recommended Dimensions)			
					P.C.D	d1	d2	h				Reference Dimension	Tol. (H7)		
6	MPSZ Flathead Countersunk Screw Hole	+0.022 +0.010	10 12	10	+0.015 +0.006	25	15	8.5	3.5	2.5	M3	3	25	+0.015 0	
8		+0.028	12 15	12	+0.018	28	18						27	+0.018 0	
10		+0.013	12 15 20	14	+0.007	30	20						29	14	
12		12 15 20	18	40	28	36	26						36	18	
15		+0.034	12 15 20	21	50	39	29						39	21	
16		+0.016	12 15 20 25 30	22		+0.021	40						30	40	22
18		20 25 30	24	+0.008		42	32						42	24	
20		+0.041	20 25 30 35 40	28		13	49						38	49	28
25		+0.020	20 25 30 35 40	33			55						40	54	33
30		20 25 30 35 40	38	+0.025			60						45	63	38
35	20 25 30 35 40	44	+0.009	70			52	69	44						
40	+0.050	25 30 35 40 45	50	80			60	82	50						
50	+0.025	30 35 40 45	62	+0.030 +0.011			100	75	94	62					

Part Number Example

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

d-L	Available Types	d-L	Available Types	d-L	Available Types	d-L	Available Types	d-L	Available Types
6-10	MPGZ MPSZ MPKZ	12-25	MPGZ MPSZ MPKZ	16-30	MPGZ MPSZ MPKZ	25-20	MPGZ MPSZ MPKZ	35-35	MPGZ MPSZ MPKZ
6-12	MPGZ MPSZ MPKZ	13-12	MPGZ MPSZ MPKZ	18-14	MPGZ MPSZ MPKZ	25-25	MPGZ MPSZ MPKZ	35-40	MPGZ MPSZ MPKZ
8-10	MPGZ MPSZ MPKZ	13-15	MPGZ MPSZ MPKZ	18-20	MPGZ MPSZ MPKZ	25-30	MPGZ MPSZ MPKZ	40-25	MPGZ MPSZ MPKZ
8-12	MPGZ MPSZ MPKZ	13-20	MPGZ MPSZ MPKZ	18-25	MPGZ MPSZ MPKZ	25-35	MPGZ MPSZ MPKZ	40-30	MPGZ MPSZ MPKZ
8-15	MPGZ MPSZ MPKZ	13-25	MPGZ MPSZ MPKZ	18-30	MPGZ MPSZ MPKZ	25-40	MPGZ MPSZ MPKZ	40-35	MPGZ MPSZ MPKZ
10-10	MPGZ MPSZ MPKZ	15-12	MPGZ MPSZ MPKZ	18-35	MPGZ MPSZ MPKZ	30-20	MPGZ MPSZ MPKZ	40-40	MPGZ MPSZ MPKZ
10-12	MPGZ MPSZ MPKZ	15-15	MPGZ MPSZ MPKZ	20-14	MPGZ MPSZ MPKZ	30-25	MPGZ MPSZ MPKZ	40-45	MPGZ MPSZ MPKZ
10-15	MPGZ MPSZ MPKZ	15-20	MPGZ MPSZ MPKZ	20-20	MPGZ MPSZ MPKZ	30-30	MPGZ MPSZ MPKZ	40-50	MPGZ MPSZ MPKZ
10-20	MPGZ MPSZ MPKZ	15-25	MPGZ MPSZ MPKZ	20-25	MPGZ MPSZ MPKZ	30-35	MPGZ MPSZ MPKZ	50-30	MPGZ MPSZ MPKZ
12-10	MPGZ MPSZ MPKZ	16-12	MPGZ MPSZ MPKZ	20-30	MPGZ MPSZ MPKZ	30-40	MPGZ MPSZ MPKZ	50-35	MPGZ MPSZ MPKZ
12-12	MPGZ MPSZ MPKZ	16-15	MPGZ MPSZ MPKZ	20-35	MPGZ MPSZ MPKZ	35-20	MPGZ MPSZ MPKZ	50-40	MPGZ MPSZ MPKZ
12-15	MPGZ MPSZ MPKZ	16-20	MPGZ MPSZ MPKZ	20-40	MPGZ MPSZ MPKZ	35-25	MPGZ MPSZ MPKZ	50-45	MPGZ MPSZ MPKZ
12-20	MPGZ MPSZ MPKZ	16-25	MPGZ MPSZ MPKZ	25-14	MPGZ MPSZ MPKZ	35-30	MPGZ MPSZ MPKZ	50-50	MPGZ MPSZ MPKZ

Flange Integrated Oil-Free Bushings (Copper Alloy)

Standard Flanged I.D. F7 / G6 Type

Flange Integrated Oil-Free Bushings – Standard Flanged Inner Dia. F7

RoHS 10

Round Flange MPTZ I.D. F7

Square Flange MPTSZ I.D. F7

Compact MPTNZ I.D. F7

Recommended Mating Shaft for Inner Diameter F7 Type:
 d8: General Use (High-Load)
 e7: General Use (Light Load)
 f8: High Precision Use
 g6: High Precision Use (Intermittent Operation)

Material: High Tensile Brass Alloy Solid Lubricant Embedded (Graphite)
Accessories: Hex Socket Low Head Cap Screws 2-4 pcs.

Part Number	Type	d _{F7}	L	D _{h7}	H	T	t	d1	d2	P.C.D.	W	F	A	Accessories Hex Socket Low Head Cap Screw				
															6	I.D. F7 MPTZ MPTSZ MPTNZ	+0.022 +0.010	15 20
8	+0.028 +0.013	20 25	12	27	4	2.2	19	22	19									
10	20 25 30	14	29	21	23	21												
12	20 25 30	18	36	26	28	26												
13	20 25 30 35	19	37	27	29	27												
16	20 25 30 35 40	22	40	30	31	18	24	M4-12 x 4										
20	25 30 35 40 50	28	49	38	38	22	31	M5-16 x 4										
25	30 35 40 50 60	33	54	43	42	25	35											
30	35 40 50 60 70	38	63	50	50	30	40	M6-20 x 4										
35	50 60 70	44	69	56	54	36	43											
40	60 70 80	50	82	66	64	38	54	M8-25 x 4										
50	70 80 100	62	94	78	73	50	60											

*Values in () are number of screws included in MPTSZ.

Part Number	Type	d _{G6}	L	D _{h7}	H	T	t	d1	d2	P.C.D.	F	A	Accessories Hex Socket Low Head Cap Screw			
														6	I.D. G6 MPTP MPTNP	+0.012 +0.004
8	+0.014 +0.005	20	12	27	4	2.2	19	19								
10	25	14	29	21	21	21										
12	25 30	18	36	26	26	26										
13	25 30 35	19	37	27	27	27										
16	25 30 35 40	22	40	30	18	24	M4-12 x 4									
20	30 35 40	28	49	38	22	31	M5-16 x 4									
25	30 35 40	33	54	43	25	35										
30	35 40 50	38	63	50	30	40	M6-20 x 4									

Part Number Example

Part Number	-	L
MPTZ12	-	30
MPTNZ30	-	50