

Flange Integrated Oil Free Bushings / Oil Free Copper Alloy Washers

Copper Alloy, Pilot Flanged / Center Flanged

Flat Head Screw / Low Head Cap Screw

Features: Flange Integrated Oil Free Bushings can reduce the time of assembling. Pilot Flanged: Oil Free Bushings do not project from bushing mounting position. Saves space on the opposite side. Center Flanged: Workpiece located near the center of the bushing provides balanced load and clearance on both sides of the flange.

Pilot Flanged / Center Flanged

RoHS 10

Pilot Flanged

Center Flanged

Round Flange
MPIZ (Pilot Flanged)
MP CZ (Center Flanged)

Compact Flange
MPITZ (Pilot Flanged)
MPCTZ (Center Flanged)

d=8-13 2-Mounting Hole
d=16-50 4-Mounting Hole

Detail of A

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

M Material: High Tensile Brass Alloy
Solid Lubricant Embedded

A Accessory: Hex Socket Low Head Cap Screw
2 - 4 pcs.

Part Number		L		Dh7	Da	L1	H	T	t	d1	d2	P.C.D.	F	A	Accessory: Hex Socket Low Head Cap Screw	
Type	df7															
Pilot Flanged MPIZ MPITZ	8	+0.028	20 (25)	12	0	11.5	5	27	2.2	3.5	6	19		19	M3-10x2	
	10	+0.013	25 30	14	-0.018	13.5		29	4	2.2	3.5	21		21		
	12		25 30	18		17.5	6	36				26		26		
Center Flanged MP CZ MPCTZ	13	+0.034	(25) (30) 35	19		18.5		37	5	3	4.5	27		27	M4-12x2	
	16	+0.016	25 30 35 40	22	0	21.5		40				30	18	24		M4-12x4
	20		30 35 40 50	28	-0.021	27.5	8	49	6	3.7	5.5	9	38	22	31	
	25	+0.041	(30) (35) (40) (50) 60	33	0	32.5		54				43	25	35	M6-20x4	
	30	+0.020	(35) (40) (50) (60) 70	38	-0.025	37.5	10	63	8	4.2	6.6	11	50	30		40

d-L	Unit Price				d-L	Unit Price				d-L	Unit Price			
	MPIZ	MPITZ	MP CZ	MPCTZ		MPIZ	MPITZ	MP CZ	MPCTZ		MPIZ	MPITZ	MP CZ	MPCTZ
8-20					16-40					30-50				
25					20-30					60				
10-25					35					70				
30					40									
12-25					50									
30					25-30									
13-25					35									
30					40									
35					50									
16-25					60									
30					30-35									
35					40									

Features: Supports a thrust load.

Flat Head Screw

MPWZ (Flat Head Screw)

Low Head Cap Screw

MPWTZ (Low Head Cap Screw)

RoHS 10

M Material: High Tensile Brass Alloy, Solid Lubricant Embedded

Part Number	Type	No.	T	Tolerance	D	D1	P.C.D.	Mounting Hole			Chamfer		Unit Price	
								Quantity	MPWZ	MPWTZ	a	b	MPWZ	MPWTZ
6	MPWZ MPWTZ	6	3(4)	0	6.2	25	15	M3	3.5	6	2.4	1.5	0.3	
8		8.2			18									
10		10.2			20									
12		12.2			28									
13		13.2			40									
15		15.2			50									
16		16.2			50									
18		18.2			50									
20		20.2			55									
25		25.2			60									
30	30.2	60												
35	35.2	70												
40	40.2	80												
50	50.3	100												

* For MPWTZ, T dimensions of No.6 - 18 are values in (.). * For Hex Socket Low Head Cap Screws, refer to P.2-194.
* Indicated dimensions of Flat Head Screws are recommended dimensions.

Part Number
MPWZ18
MPWTZ15