MNB

BUSHES SELF LUBRICATING

THE INSTALLATION OF THE SLIDING BUSHING AND THE HOUSING

The Installation of SF Bush

SF bushes should be cleaned in kerosene or diesel oil first, immersed in engine oil and then dried up. When the bush is installed into housing, make sure the bush not rotating in the housing or moving in the axial direction and at the same time make the outer surface surface fully contact to the base hole, generally guarantee the contact area over 70% thus to improve load capacity and transmission of friction heat. The inner surface of SF bush is made of self-lubricating plastic, the outer surface steel backing, The friction coefficient of steel to steel is bigger that of steel to plastic, So we should choose the light-graded tight fit, preventing the axle sleeve from moving in the base when working, and also preventing the inner holes from getting deformed and too big because of the large tight fit of the outer diameter.

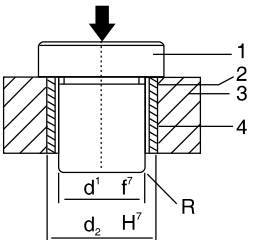
Out Circle of the axle sleeve should be avoided in the high-pressure working conditions. Two methods are recommended here:

1. Increase the outer diameter of the axle sleeve, and the deformation of inner holes can be calibrated with calibrating core stick.

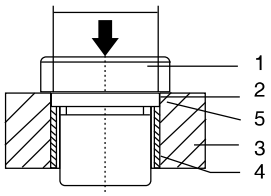
2. When installing, apply ZY 801 Oxygen-hatred glue in the housing to strengthen the combination strength between the axle sleeve and base hole.

For bush (outer diameter<55mm), press the bush into the housing gently and carefully using an core axle with a handle. Fig A.

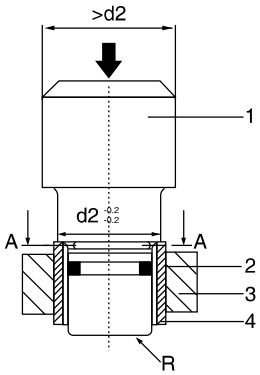
For bush (outer diameter>55mm), press the bush into the housing gently and carefully using a handle with a shoulder, an "O" ring and an assisting circle. Fig. B

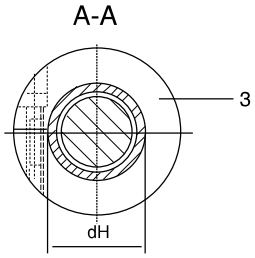


(Fig Aa) Plane Installation



(B) Inset Installation





d2	dH
> 55 100	$d2^{+0.28}_{+0.25}$
> 100 200	$d2^{+0.40}_{+0.36}$
> 200 305	$d2^{+0.50}_{+0.40}$

1. Press the core axle into bushing
2. Housing chamfer at end : 0.8 x 15^0
3. HOUsing
4. Diameter of inset shoulder

R. Radius of the round angle of the core axle end

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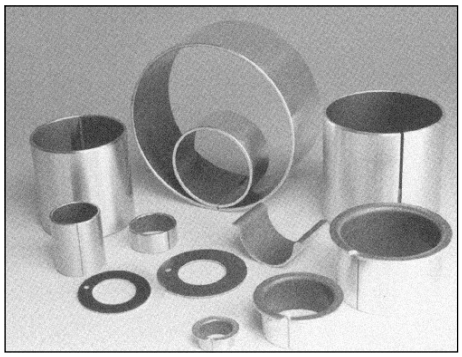
BUSHES SELF LUBRICATING

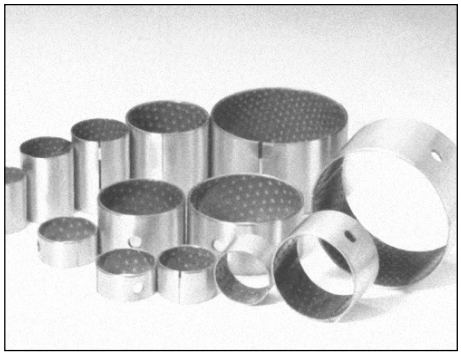
PAP PAF PAW Self-Lubricating Bearing



This product takes the steel plate as the base . and with the sintering of bronze powder in the middle layer and rolling of the mixture of PTEE and Pb at it's surface. It has the characteristic of small rubbing coefficient, wear-resisting and corrode resisting. Long life. The adoption of this product can reduce the cost of machine, reducing noises and negligible"stick-slip". It is widely used in printing machine, wearing machine, motorcycles and etc.

	Static Load 250N/mm^2
Max Load	Low Speed Load 120N/mm^2
	Rotating & Ocsillating Load 60N/mm^2
Max Speed	5 m/s
Friction Coefficient	0.03 ~ 0.20
Wear Depth Limit	0.05 mm
Max PV Value	Dry Lubricating 3.6N/mm^2 · m/s
	Oil Lubricating 50N/mm^2 · m/s
Temperature Range	-195^{0}C ~ +280^{0}C

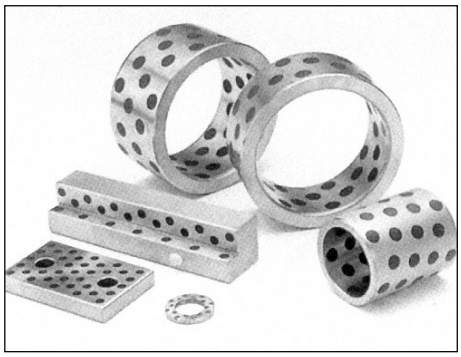
PAP..H PAF..H PAW..H Border Lubricating Bearing



This product takes steel plate as the base. With the sintering of bronze powder in the middle layer and rolling of the modified POM at its surface. It has the characteristice of good, wear resistance and high load capacity. It is suitable for conditions which do not promote the formation of oil film oscillating movements, high load/low speed frequent, stop start up under load. It was widely used in forging machine, metallurgy & mining machine. hydroelectric industrial machine and etc.

Max Load	Static Load 250N/mm^2
	Dynamic Load 120N/mm^2
Max Speed	5 m/s
Friction Coefficient	0.05~0.25
Wear Depth Limit	0.50mm
Max PV Value	Dry Lubricating 3N/mm^2 • m/s
	Oil Lubricating 22N/mm^2 • m/s
Temperature Range	-40^{0}C~+130^{0}C

JDB JBF Inlaid Solid Lubricating Bearing



This product base on alloy of bronze of special formula. The solid lubricating medium is inlaid in the friction surface and the friction area of the solid lubricating medium take over 20%. The combination of advantages of alloy of bronze and non-metal Friction reducing matercing has broken in the limit of general that depend on oil film. It was widely used in metallurgy, stell rolles in metallography, mineral machines, ships gas turbine and etc.

Max Load	Static Load 150N/mm^2
	Dynamic Load 100N/mm^2
Max Speed	Dry Lubricating 0.4m/s
	Oil Lubricating 1.5m/s
Max PV Value	Dry Lubricating 3.3N/mm^2 · m/s
Friction Coefficient	0.05 ~ 0.20
Temperature Range	-100^{0}C ~ +300^{0}C
Brinnal Composition	HBsC4
Brinnal Hardness	> HB200

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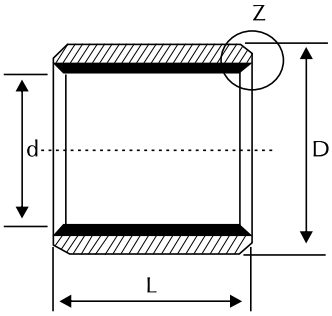
BUSHES SELF LUBRICATING

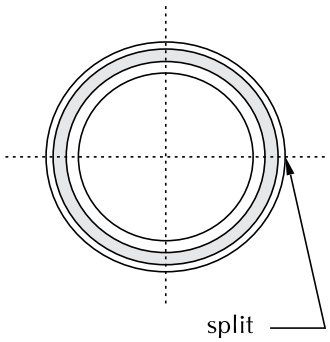
PAP / MB / DU

d	D	$L^{0}_{-0.3}$												Unit :mm
		3	4	5	6	8	10	12	15	20	25	30	40	50
3	4.5	0303	0304		0306									
4	5.5		0404	0405	0406		0410							
5	7			0505		0508	0510							
6	8		0604		0606	0608	0610	0612						
8	10				0806	0808	0810	0812	0815					
10	12				1006	1008	1010	1012	1015	1020				
12	14				1206	1208	1210	1212	1215	1220	1225			
13	15						1310		1315	1320				
14	16						1410	1412	1415	1420	1425			
15	17						1510	1512	1515	1520	1525			
16	18						1610	1612	1615	1620	1625			
17	19						1710	1712	1715	1720	1725			
18	20						1810	1812	1815	1820	1825			
20	23						2010	2012	2015	2020	2025	2030		
22	25						2210	2212	2215	2220	2225	2230		
24	27								2415	2420	2425	2430		
25	28						2510	2512	2515	2520	2525	2530	2540	2550
28	32								2815	2820	2825	2830	2840	
30	34							3012	3015	3020	3025	3030	3040	3050
32	36								3215	3220		3230	3240	
35	39							3512	3515	3520	3525	3530	3540	3550
38	42								3815	3820		3830	3840	
40	44							4012		4020	4025	4030	4040	4050



NOTE : How to order : select inner dia d1 from table, outer dia D & the length L required
E.g id 10mm od 12mm length 15mm order code will be PAP 1015

d	D	$L^{0}_{-0.3}$								Unit :mm
		20	25	30	40	50	60	70	80	100
45	50	4520	4525	4530	4540	4550				
50	55	5020		5030	5040	5050	5060			
55	60			5530	5540	5550	5560			
60	65			6030	6040	6050	6060	6070		
65	70			6530	6540	6550	6560	6570		
70	75				7040	7050	7060	7050	7080	
75	80			7530	7540	7550	7560	7570	7580	
80	85				8040	8050	8060	8070	8080	80100
85	90				8540		8560		8580	85100
90	95				9040	9050	9060		9080	90100
95	100					9550	9560		9580	95100
100	105					10050	10060		10080	
105	110						10560		10580	
110	115						11060		11080	
115	120					15050	11560			
120	125						12060		12080	120100
125	130						12560			125100
130	135						13060		13080	130100
140	145						14060		14080	140100
150	155						15060		15080	150100
160	165						16060		16080	160100
180	185								18080	180100
190	195								19080	190100
200	205						20060		20080	200100
220	225								22080	220100
250	255								25080	250100
260	265								26080	260100
280	285								28080	280100
300	305								30080	300100



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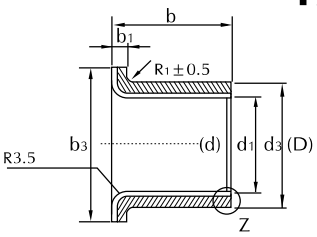
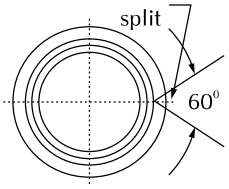
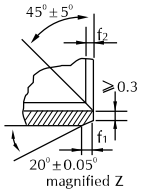
FLANGED BUSHES

PAF/FMB/DUF





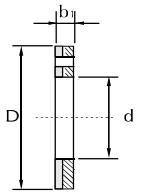


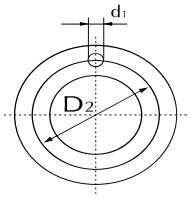
Unit : mm

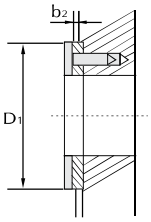
d_1	D	d_3 (±0.4)	b_1	b_2	diameter of axle	Housing broe	$b\text{-}^{0}_{0.30}$									
							6	8	10	12	15	20	25	30	40	50
6	8	12	$1^{0}_{-0.020}$	$1^{0}_{-0.03}$	$6^{-0.010}_{-0.022}$	$8^{+0.015}_{0}$										
8	10	15	$1^{0}_{-0.020}$	$1^{0}_{-0.03}$	$8^{-0.013}_{-0.028}$	$10^{+0.015}_{0}$	0606	0608	0610	0812						
10	12	18	$1^{0}_{-0.020}$	$1^{0}_{-0.03}$	$10^{-0.013}_{-0.028}$	$12^{+0.018}_{0}$	0806	0808	0810	1012	1015					
12	14	20	$1^{0}_{-0.020}$	$1^{0}_{-0.03}$	$12^{-0.016}_{-0.028}$	$14^{+0.018}_{0}$	1006	1008	1010	1212	1215					
14	16	22	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$14^{-0.016}_{-0.034}$	$16^{+0.018}_{0}$	1206	1208	1210	1412	1415	1420				
15	17	23	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$15^{-0.016}_{-0.034}$	$17^{+0.018}_{0}$			1410	1512	1515	1520	1525			
16	18	24	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$16^{-0.016}_{-0.034}$	$18^{+0.018}_{0}$			1510	1612	1615	1620	1625			
18	20	26	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$18^{-0.016}_{-0.034}$	$20^{+0.021}_{0}$			1610	1812	1815	1820	1825			
20	23	31	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$20^{-0.020}_{-0.034}$	$23^{+0.021}_{0}$				2012	2015	2020	2025	2030		
22	25	33	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$22^{-0.020}_{-0.041}$	$25^{+0.021}_{0}$				2212	2215	2220	2225			
24	27	35	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$24^{-0.020}_{-0.041}$	$27^{+0.021}_{0}$				2412	2415	2420	2425	2430		
25	28	36	$1.5^{0}_{-0.020}$	$1.5^{0}_{-0.03}$	$25^{-0.020}_{-0.041}$	$28^{+0.021}_{0}$				2512	2515	2520	2525	3530		
28	32	40	$2.0^{0}_{-0.020}$	$2.0^{0}_{-0.035}$	$28^{-0.020}_{-0.041}$	$32^{+0.025}_{0}$					2815	2820	2825	2830		
30	34	42	$2.0^{0}_{-0.020}$	$2.0^{0}_{-0.035}$	$30^{-0.020}_{-0.041}$	$34^{+0.025}_{0}$					3015	3020	3025	3030		
32	36	46	$2.0^{0}_{-0.020}$	$2.0^{0}_{-0.035}$	$32^{-0.025}_{-0.050}$	$36^{+0.025}_{0}$					3215	3220		3230		
35	39	49	$2.0^{0}_{-0.020}$	$2.0^{0}_{-0.035}$	$35^{-0.025}_{-0.050}$	$39^{+0.025}_{0}$					3515	3520	3525	3530		
38	42	52	$2.0^{0}_{-0.020}$	$2.0^{0}_{-0.035}$	$38^{-0.025}_{-0.050}$	$42^{+0.025}_{0}$						3820		3830		
40	44	54	$2.0^{0}_{-0.020}$	$2.0^{0}_{-0.035}$	$40^{-0.025}_{-0.050}$	$44^{+0.025}_{0}$						4020	4020	4030		

NOTE : How to order : select inner dia d1 from table, outer dia D & the length required b. E.g id 10mm od 12mm length 15mm order code will be PAF 1015

PAW/WC/ WASHER BUSHES







Unit: mm

Designation	Size of washer				Size of Installation			Axle diameter
	$d^{+0.25}_{0}$	$D^{0}_{-0.25}$	$b1^{0}_{-0.05}$	$D2^{\pm 0.15}_{2-}$	$d_1{}^{+0.40}_{+0.10}$	$b_2 \pm 0.2$	$D_1{}^{+0.25}_{0}$	
PAW10	10	20	1.5	15	1.5	1	20	8
PAW12	12	24	1.5	18	1.5	1	24	10
PAW14	14	26	1.5	20	2	1	26	12
PAW16	16	30	1.5	22	2	1	30	14
PAW18	18	32	1.5	25	2	1	32	16
PAW20	20	36	1.5	28	3	1	36	18
PAW22	22	38	1.5	30	3	1	38	20
PAW24	24	42	1.5	33	3	1	42	22
PAW26	26	44	1.5	35	3	1	44	24
PAW28	28	48	1.5	38	4	1	48	25
PAW32	32	54	1.5	43	4	1	54	30
PAW38	38	62	1.5	50	4	1	62	35
PAW42	42	66	1.5	54	4	1	66	40
PAW48	48	74	2	61	4	1.5	74	45
PAW52	52	78	2	65	4	1.5	78	50
PAW62	62	80	2	76	4	1.5	90	60

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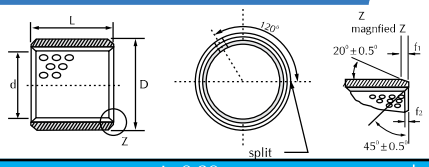
BORDER LUBRICATING BUSHES

PAP..H BORDER LUBRICATING BUSHES



Unit : mm

d	D	diameter of axle	Housing bore	Wall thickness min	Wall thickness max	inside diameter	Ø	f1	f2	L -0.30 length -0.											
										10	12	15	20	25	30	35	40	45	50	55	60
10	13	$10^{0}_{-0.022}$	$13^{+0.018}$	1.454	1.480	$10^{+0.110}_{+0.040}$	4	0.5	0.3	1010	1012	1015	1020								
12	15	$12^{0}_{-0.027}$	$15^{+0.018}$	1.454	1.480	$12^{+0.110}_{+0.040}$	4	0.5	0.3	1210	1212	1215	1220								
14	17	$14^{0}_{-0.027}$	$17^{+0.018}$	1.454	1.480	$14^{+0.110}_{+0.040}$	4	0.5	0.3		1412	1415	1420								
15	18	$15^{0}_{-0.027}$	$18^{+0.018}$	1.454	1.480	$15^{+0.110}_{+0.040}$	4	0.5	0.3			1515	1520	1525							
16	19	$16^{0}_{-0.027}$	$19^{+0.021}$	1.454	1.480	$16^{+0.110}_{+0.040}$	4	0.5	0.3			1615	1620	1625							
18	21	$18^{0}_{-0.027}$	$21^{+0.021}$	1.454	1.480	$18^{+0.110}_{+0.040}$	4	0.5	0.3			1815	1820	1825							
20	23	$20^{0}_{-0.033}$	$23^{+0.021}$	1.442	1.474	$20^{+0.137}_{+0.052}$	4	0.8	0.4			2015	2020	2025	2030						
22	25	$22^{0}_{-0.033}$	$25^{+0.021}$	1.442	1.474	$22^{+0.137}_{+0.052}$	6	0.8	0.4			2215	2220	2225							
24	27	$24^{0}_{-0.033}$	$27^{+0.021}$	1.442	1.474	$24^{+0.137}_{+0.052}$	6	0.8	0.4			2415	2420	2425	2430						
25	28	$25^{0}_{-0.033}$	$28^{+0.021}$	1.442	1.474	$25^{+0.137}_{+0.052}$	6	0.8	0.4			2515	2520	2525	2530						
28	31	$28^{0}_{-0.033}$	$31^{+0.025}$	1.442	1.474	$28^{+0.137}_{+0.052}$	6	1.0	0.5				2820		2830						
30	34	$30^{0}_{-0.039}$	$34^{+0.025}$	1.932	1.968	$30^{+0.161}_{+0.064}$	6	1.0	0.5				3020	3025	3030		3040				
32	36	$32^{0}_{-0.039}$	$36^{+0.025}$	1.932	1.968	$32^{+0.161}_{+0.064}$	6	1.0	0.5				3220		3230		3240				
35	39	$36^{0}_{-0.039}$	$39^{+0.025}$	1.932	1.968	$36^{+0.161}_{+0.064}$	6	1.0	0.5				3520	3525	3530	3535	3540				
36	40	$36^{0}_{-0.039}$	$40^{+0.025}$	1.932	1.968	$36^{+0.161}_{+0.064}$	6	1.0	0.5						3630		3640				
40	44	$40^{0}_{-0.039}$	$44^{+0.025}$	1.932	1.968	$40^{+0.161}_{+0.064}$	8	1.0	0.5				4020		4030		4040	4045	4050	5055	
45	50	$45^{0}_{-0.039}$	$50^{+0.025}$	2.414	2.460	$45^{+0.197}_{+0.080}$	8	1.2	0.6						4530		4540	4545	4550		
50	55	$50^{0}_{-0.039}$	$55^{+0.030}$	2.414	2.460	$50^{+0.202}_{+0.080}$	8	1.2	0.6						5030		5040		5050		5060
55	60	$55^{0}_{-0.046}$	$60^{+0.030}$	2.414	2.460	$55^{+0.202}_{+0.080}$	8	1.2	0.6						5530		5540		5550		5560
60	65	$60^{0}_{-0.046}$	$65^{+0.030}$	2.414	2.460	$60^{+0.202}_{+0.080}$	8	1.2	0.6						6030		6040		6050		6060

Unit : mm

d	D	diameter of axle	Housing bore	Wall thickness min	Wall thickness max	inside diameter	Ø	f1	f2	$L^{0}_{-0.3}$										
										40	50	60	65	70	80	90	95	100	110	120
65	70	$65^{0}_{-0.046}$	$70^{+0.030}$	2.384	2.450	$65^{+0.262}_{+0.100}$	8	1.2	0.6	6540		6560								
70	75	$70^{0}_{-0.046}$	$75^{+0.030}$	2.384	2.450	$70^{+0.262}_{+0.100}$	8	1.2	0.6	7040	7050		7065	7070	7080					
75	80	$75^{0}_{-0.046}$	$80^{+0.030}$	2.384	2.450	$75^{+0.262}_{+0.100}$	9.5	1.2	0.6	7540		7560			7580					
80	85	$80^{0}_{-0.046}$	$85^{+0.035}$	2.384	2.450	$80^{+0.267}_{+0.100}$	9.5	1.4	0.7	8040		8060			8080					
85	90	$85^{0}_{-0.054}$	$90^{+0.035}$	2.384	2.450	$85^{+0.267}_{+0.100}$	9.5	1.4	0.7	8540		8560			8580					
90	95	$90^{0}_{-0.054}$	$95^{+0.035}$	2.384	2.450	$90^{+0.267}_{+0.100}$	9.5	1.4	0.7	9040		9060			9080	9090		90100		
100	105	$100^{0}_{-0.054}$	$105^{+0.035}$	2.384	2.450	$100^{+0.267}_{+0.100}$	9.5	1.4	0.7		10050				10080		10095	100100		
105	110	$105^{0}_{-0.054}$	$110^{+0.035}$	2.384	2.450	$105^{+0.267}_{+0.100}$	10	1.4	0.7			10560			10580				105110	
110	115	$110^{0}_{-0.054}$	$115^{+0.035}$	2.384	2.450	$110^{+0.267}_{+0.100}$	10	1.4	0.7			11060			11080				100110	
120	125	$120^{0}_{-0.054}$	$125^{+0.040}$	2.384	2.450	$120^{+0.272}_{+0.100}$	10	1.6	0.8			12060			12080				120110	
125	130	$125^{0}_{-0.063}$	$130^{+0.040}$	2.384	2.450	$125^{+0.272}_{+0.100}$	10	1.6	0.8			12560							125110	
130	135	$130^{0}_{-0.063}$	$135^{+0.040}$	2.384	2.450	$130^{+0.280}_{+0.130}$	10	1.6	0.8		13050	13060			13080			130100		
140	145	$140^{0}_{-0.063}$	$145^{+0.040}$	2.380	2.435	$140^{+0.280}_{+0.130}$	10	1.6	0.8		14050	14060			14080			140100	150110	
150	155	$150^{0}_{-0.063}$	$155^{+0.040}$	2.380	2.435	$150^{+0.280}_{+0.130}$	10	1.6	0.8		15050	15060			15080			150100	160110	150120
160	165	$160^{0}_{-0.063}$	$165^{+0.040}$	2.380	2.435	$160^{+0.280}_{+0.130}$	10	1.6	0.8		16000	16060			16080			160100	170110	160120
170	175	$170^{0}_{-0.063}$	$175^{+0.040}$	2.380	2.435	$170^{+0.280}_{+0.130}$	10	1.6	0.8		17050	17060						170100	180100	170120
180	185	$180^{0}_{-0.063}$	$185^{+0.046}$	2.380	2.435	$180^{+0.286}_{+0.130}$	10	1.6	0.8		18050	18060			18080			180100		180120
190	195	$190^{0}_{-0.072}$	$195^{+0.046}$	2.380	2.435	$190^{+0.286}_{+0.130}$	10	1.6	0.8		19050	19060			19080			190100		190120
200	205	$200^{0}_{-0.072}$	$205^{+0.046}$	2.380	2.435	$200^{+0.286}_{+0.130}$	10	1.6	0.8		20050	20060			20080			200100		200120
220	225	$220^{0}_{-0.072}$	$225^{+0.046}$	2.380	2.435	$220^{+0.286}_{+0.130}$	10	1.6	0.8		22050	22060			22080			220100		220120
240	245	$240^{0}_{-0.072}$	$245^{+0.046}$	2.380	2.435	$240^{+0.286}_{+0.130}$	10	1.6	0.8		24050	24060			24080			240100		240120
250	255	$250^{0}_{-0.072}$	$255^{+0.052}$	2.380	2.435	$250^{+0.292}_{+0.130}$	10	1.6	0.8		25050	25060			25080			250100		250120
260	265	$260^{0}_{-0.081}$	$265^{+0.052}$	2.380	2.435	$260^{+0.292}_{+0.130}$	10	1.6	0.8		26050	26060			26080			260100		260120
280	285	$280^{0}_{-0.081}$	$285^{+0.052}$	2.380	2.435	$280^{+0.292}_{+0.130}$	10	1.6	0.8		28050	28060			28080			280100		280120
300	305	$300^{0}_{-0.081}$	$305^{+0.052}$	2.380	2.435	$300^{+0.292}_{+0.130}$	10	1.6	0.8		30050	30060			30080			300100		300120

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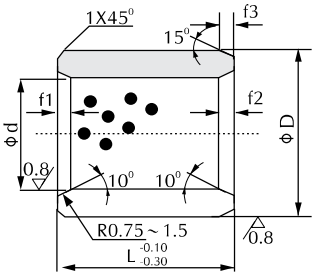
SOLID LUBRICATING BUSHES

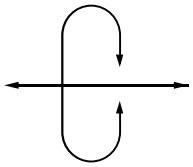
JDB STANDARD SERIES OF JDB BUSHES

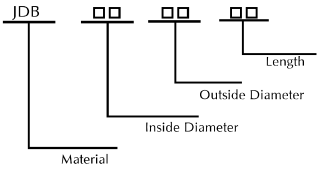
Unit : mm

d (F7)	D (p7)	Axle diameter	f_1	f_2	f_3	L $^{-0.10}_{-0.30}$ 10	12	15	16	20	25	30	35	40	45	50	60	70	80	100
14 $^{+0.034}_{+0.016}$	20 $^{+0.043}_{+0.022}$	14 $^{-0.032}_{-0.050}$	1	1	1	●	●	●		●	●	●								
15 $^{+0.034}_{+0.016}$	21 $^{+0.043}_{+0.022}$	15 $^{-0.032}_{-0.050}$	1	1	1	●	●	●	●	●	●	●								
16 $^{+0.034}_{+0.016}$	22 $^{+0.043}_{+0.022}$	16 $^{-0.032}_{-0.050}$	1	1	1	●	●	●	●	●	●	●	●	●						
18 $^{+0.034}_{+0.016}$	24 $^{+0.043}_{+0.022}$	18 $^{-0.032}_{-0.050}$	1	1	1			●	●	●	●	●								
20 $^{+0.041}_{+0.020}$	28 $^{+0.043}_{+0.022}$	20 $^{-0.042}_{-0.061}$	1	1	1			●	●	●	●	●	●	●	●	●				
25 $^{+0.041}_{+0.020}$	33 $^{+0.051}_{+0.026}$	25 $^{-0.040}_{-0.061}$	2	2	2					●	●	●	●	●	●	●				
30 $^{+0.041}_{+0.020}$	38 $^{+0.051}_{+0.026}$	30 $^{-0.040}_{-0.061}$	2	2	2					●	●	●	●	●	●	●	●			
35 $^{+0.050}_{+0.025}$	45 $^{+0.051}_{+0.026}$	35 $^{-0.050}_{-0.075}$	2	2	2					●	●	●	●	●	●	●	●			
40 $^{+0.050}_{+0.025}$	50 $^{+0.051}_{+0.026}$	40 $^{-0.050}_{-0.075}$	2	2	2					●	●	●	●	●	●	●	●		●	
45 $^{+0.050}_{+0.025}$	55 $^{+0.062}_{+0.032}$	45 $^{-0.050}_{-0.075}$	2	2	2							●	●	●	●	●	●	●		
50 $^{+0.050}_{+0.025}$	60 $^{+0.062}_{+0.032}$	50 $^{-0.050}_{-0.075}$	3	3	3							●	●	●	●	●	●	●	●	
55 $^{+0.060}_{+0.030}$	70 $^{+0.062}_{+0.032}$	55 $^{-0.060}_{-0.090}$	3	3	3								●	●	●	●	●	●		
60 $^{+0.060}_{+0.030}$	75 $^{+0.062}_{+0.032}$	60 $^{-0.060}_{-0.090}$	3	3	3							●	●	●	●	●	●	●	●	●
65 $^{+0.060}_{+0.030}$	80 $^{+0.062}_{+0.032}$	65 $^{-0.060}_{-0.090}$	3	3	3											●	●	●	●	
70 $^{+0.060}_{+0.030}$	85 $^{+0.062}_{+0.032}$	70 $^{-0.060}_{-0.090}$	3	3	3								●	●	●	●	●	●	●	●
75 $^{+0.060}_{+0.030}$	90 $^{+0.072}_{+0.037}$	75 $^{-0.060}_{-0.090}$	4	4	4											●	●	●	●	●
80 $^{+0.060}_{+0.030}$	100 $^{+0.072}_{+0.037}$	80 $^{-0.060}_{-0.090}$	4	4	4									●	●	●	●	●	●	●
90 $^{+0.071}_{+0.036}$	110 $^{+0.072}_{+0.037}$	90 $^{-0.072}_{-0.107}$	4	4	4												●		●	●
100 $^{+0.071}_{+0.036}$	120 $^{+0.072}_{+0.037}$	100 $^{-0.072}_{-0.107}$	4	4	4												●	●	●	●
110 $^{+0.071}_{+0.036}$	130 $^{+0.083}_{+0.043}$	110 $^{-0.072}_{-0.107}$	4	4	4														●	●
120 $^{+0.071}_{+0.036}$	140 $^{+0.083}_{+0.043}$	120 $^{-0.072}_{-0.107}$	5	5	5												●		●	●
130 $^{+0.083}_{+0.043}$	150 $^{+0.083}_{+0.043}$	130 $^{-0.085}_{-0.125}$	5	5	5															●
140 $^{+0.083}_{+0.043}$	160 $^{+0.083}_{+0.043}$	140 $^{-0.085}_{-0.125}$	5	5	5														●	●



Directions of Motion

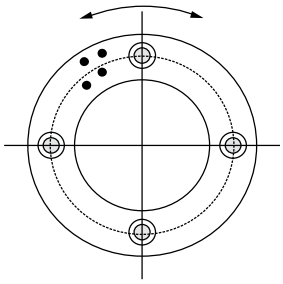


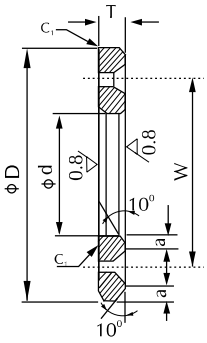


Unit : mm

Designnations	Φd	ΦD	T $^{0}_{-0.10}$	w	Flat Head Screw	No. of Holes	a Chamfer
JTW10	10.2	30	3	20	M3	2	1.5
JTW12	12.2	40	3	28	M3	2	2
JTW13	13.2	40	3	28	M3	2	2
JTW14	14.2	40	3	28	M3	2	2
JTW15	15.2	50	3	35	M3	2	2
JTW16	16.2	50	3	35	M3	2	2
JTW18	18.2	50	3	35	M3	2	2
JTW20	20.2	50	5	35	M5	2	2.5
JTW25	25.2	55	5	40	M5	2	2.5
JTW30	30.2	60	5	45	M5	2	2.5
JTW35	35.2	70	5	50	M6	2	3
JTW40	40.2	80	7	60	M6	2	3
JTW45	45.2	90	7	70	M6	2	4
JTW50	50.3	100	8	85	M6	4	4
JTW55	55.3	110	8	85	M6	4	5
JTW60	60.3	120	8	90	M8	4	5
JTW65	65.3	125	8	95	M8	4	5
JTW70	70.3	130	10	100	M8	4	5
JTW75	75.3	140	10	110	M8	4	5
JTW80	80.3	150	10	120	M8	4	5
JTW90	90.5	170	10	140	M10	4	5
JTW100	100.5	190	10	160	M10	4	5

Directions of Motion





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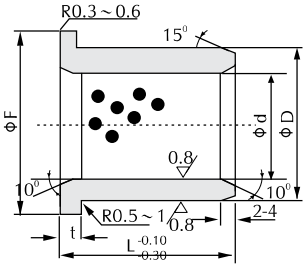
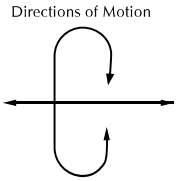
SOLID LUBRICATING BUSHES

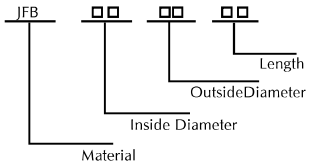
JDBF STANDARD SERIES OF JDBF FLANGED BUSHES

Unit : mm

d (F7)	D (p7)	F -0.25	Axle diameter	t -0.10	10	15	20	25	30	L -0.10 -0.30 35	40	50	60	70	80	100
14 +0.034 +0.016	20 +0.043 +0.022	27	14 -0.032 -0.050	3	●	●	●									
15 +0.034 +0.016	21 +0.043 +0.022	28	15 -0.032 -0.050	3	●	●	●	●	●							
16 +0.034 +0.016	22 +0.043 +0.022	29	16 -0.032 -0.050	3		●	●	●	●							
20 +0.041 +0.020	28 +0.043 +0.022	40	20 -0.040 -0.061	5		●	●	●	●							
25 +0.041 +0.020	33 +0.051 +0.026	45	25 -0.040 -0.061	5		●	●	●	●		●					
30 +0.041 +0.020	38 +0.051 +0.026	50	30 -0.040 -0.061	5			●	●	●	●	●	●				
35 +0.050 +0.025	45 +0.051 +0.026	60	35 -0.050 -0.075	8			●		●		●	●				
40 +0.050 +0.025	50 +0.051 +0.026	65	40 -0.050 -0.075	8			●		●		●	●	●			
45 +0.050 +0.025	55 +0.062 +0.032	70	45 -0.050 -0.075	8					●		●	●	●			
50 +0.050 +0.025	60 +0.062 +0.032	75	50 -0.050 -0.075	5					●		●	●	●			
55 +0.060 +0.030	70 +0.062 +0.032	80	55 -0.060 -0.090	5							●		●			
60 +0.060 +0.030	75 +0.062 +0.032	90	60 -0.060 -0.090	7.5							●		●			
65 +0.060 +0.030	80 +0.062 +0.032	95	65 -0.060 -0.090	7.5									●	●		
70 +0.060 +0.030	85	105	70 -0.060 -0.090	7.5								●			●	
75 +0.060 +0.030	90 +0.072 +0.037	110	75 -0.060 -0.090	7.5									●		●	
80 +0.060 +0.030	100 +0.072 +0.037	120	80 -0.060 -0.090	10								●	●		●	●
90 +0.071 +0.036	110 +0.072 +0.037	130	90 -0.072 -0.107	10								●	●		●	●
100 +0.071 +0.036	120 +0.072 +0.037	150	100 -0.072 -0.107	10									●		●	●
120 +0.107 +0.072	140 +0.083 +0.043	170	120 -0.072 -0.107	10									●		●	●



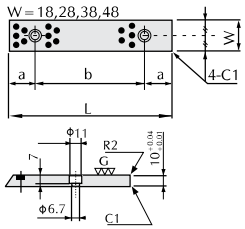


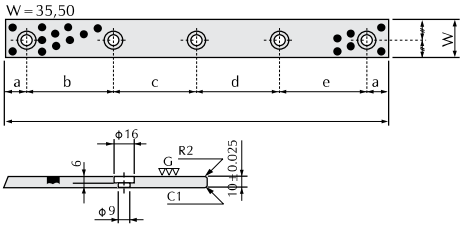


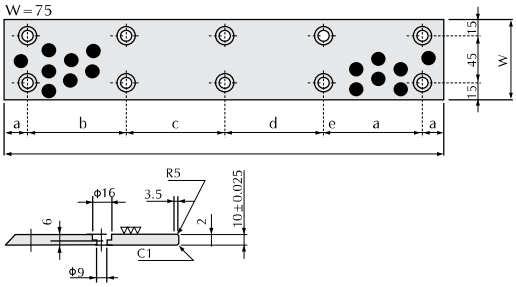
JSOP STANDARD SERIES OF OF JSP SLIDES

Unit : mm

Designnations	W	L	A	B	C	D	E	No. of Holes
JSP-1875	18	75	15	45				2
JSP-18100	18	100	25	50				2
JSP-18125	18	125	25	75				2
JSP-18150	18	150	25	100				2
JSP-2875	28	75	15	45				2
JSP-28100	28	100	25	50				2
JSP-28125	28	125	25	75				2
JSP-28150	28	150	25	100				2
JSP-35100	35	100	20	60				2
JSP-35150	35	150	20	55	55			3
JSP-35200	35	200	20	55	50	55		4
JSP-35250	35	250	20	70	70	50		4
JSP-35300	35	300	20	65	65	70	65	5
JSP-35350	35	350	20	80	75	75	80	5
JSP-3875	38	75	15	45				2
JSP-38100	38	100	25	50				2
JSP-38125	38	125	25	75				2
JSP-38150	38	150	25	100				2
JSP-4875	48	75	15	45				2
JSP-48100	48	100	25	50				2
JSP-48125	48	125	25	75				2
JSP-48150	48	150	25	100				2
JSP-50100	50	100	20	60				2
JSP-50150	50	150	20	55	55			3
JSP-50200	50	200	20	55	50	55		4
JSP-50250	50	250	20	70	70	50		4
JSP-50300	50	300	20	65	65	70	65	5
JSP-50400	50	400	20	90	75	75	90	5
JSP-75150	75	150	20	110				4
JSP-75200	75	200	20	80	80			6
JSP-75250	75	250	20	105	105			6
JSP-75300	75	300	20	85	90	85		8
JSP-75400	75	400	20	120	120	120		8
JSP-75500	75	500	20	115	115	115	115	10







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