



久大軸承有限公司  
JOTA BEARING CO., LTD.



含油軸承  
**Oilless Bearings**

## SF系列複合軸承 SF Series Bushes

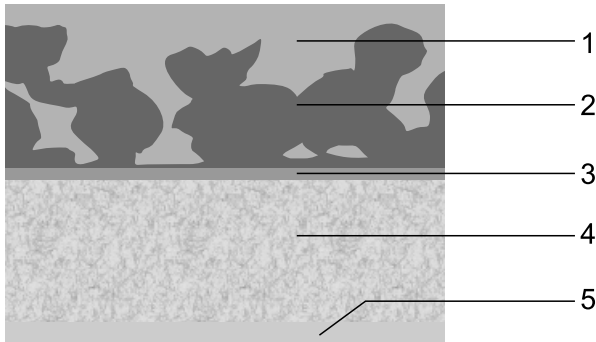
### SF-1、SF-2的結構 Structure of SF-1, SF-2 bearing materials

**SF-1**是由PTFE複合材料制成的無油潤滑軸承，是將錫青銅球粉燒結到鍍銅鋼板上形成多孔層，然後將PTFE和鉛的混合物軋制到燒結層的表面。

SF-1 is a kind of Oilless Slide Bushing made of the PTFE composite material, which is a copper-plated steel plate on to which a porous layer of tin bronze powder is sintered and also a mixture of PTFE and lead are filled into and covered the porous layer by a rolling process.

**SF2**是由POM複合材料制成的邊界潤滑軸承，是以鍍銅鋼板為基體，中間層為燒結錫青銅粉，表面牢固軋制改性聚甲醛（POM）材料，其上有許多微孔以儲存潤滑劑。

SF-2 is a boundary lubricating bushes made of the POM composite material, which also has a copper-plated steel plate on to which a tin bronze powder is sintered, modified polyformaldehyde resin (POM) is firmly anchored in the sintered bronze layer. The surface of covering layer has many pockets to retain lubricating grease.

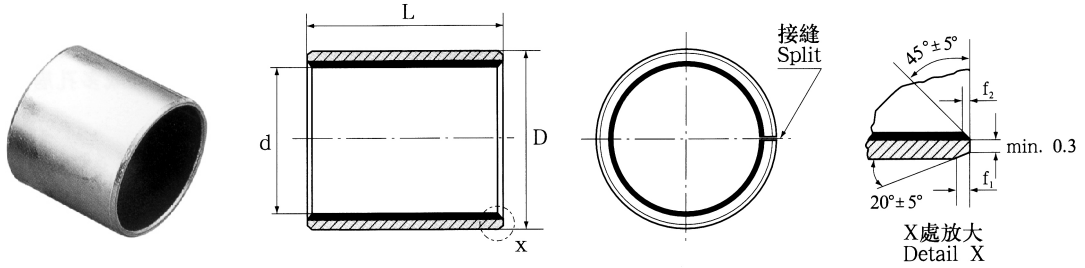


	SF-1	SF-2
1	聚四氟乙烯與鉛 PTFE and lead	改性聚甲醛 POM
2	錫青銅粉 Tin Bronze Powder	錫青銅粉 Tin Bronze Powder
3	鍍銅層 Copper Layer	鍍銅層 Copper Layer
4	鋼背 Steel Backing	鋼背 Steel Backing
5	鍍銅層 Copper Layer	鍍銅層 Copper Layer

### SF-1, SF-2的性能 Properties of SF-1, SF-2 bearing materials

項目 Item/Material	抗壓強度 Compressive strength (Mpa)	工作溫度 Temperature range (°C)	摩擦系數 Coefficient of friction	磨痕寬度 width of wear (mm)	極限PV值 PV factor limit (MPa · m/s)	磨損極限 Wear depth Limit (mm)	導熱系數 Thermal Comductivity Kcal/M.br.C	熱漲系數 Coefficient of Linear expansion (per C)
<b>SF-1</b>	280	-195~+270	<0.20	<5.5	3.6	0.05	2.41	27x10 <sup>-5</sup>
<b>SF-2</b>	140	-20~+100	<0.20(脂) (grease)	<4.5(脂) (grease)	10(脂) (grease)	0.50	2.03	5.1x10 <sup>-5</sup>

### SF-1標準軸承尺寸(mm) Standard Series of SF-1 Bushes



Unit:mm

d	D	軸徑 Axle	座孔 Housing H7	壁厚 Wall thickness		f <sub>1</sub>	f <sub>2</sub>	長度 L <sup>0</sup> ( $< \phi 28$ L-0.3) <sub>-0.40 (<math>&gt; \phi 30</math> L-0.4)</sub>															
				最小 min	最大 max			6	8	10	12	15	20	25	30	40	50	60					
6	8	6 <sup>-0.013 -0.028</sup>	8 <sup>+0.015</sup>	0.980	1.005	0.5	0.3	0606	0608	0610													
8	10	8 <sup>-0.013 -0.028</sup>	10 <sup>+0.015</sup>					0806	0808	0810	0812	0815											
10	12	10 <sup>-0.016 -0.034</sup>	12 <sup>+0.018</sup>					1006	1008	1010	1012	1015	1020										
12	14	12 <sup>-0.016 -0.034</sup>	14 <sup>+0.018</sup>					1206	1208	1210	1212	1215	1220	1225									
13	15	13 <sup>-0.016 -0.034</sup>	15 <sup>+0.018</sup>							1310			1320										
14	16	14 <sup>-0.016 -0.034</sup>	16 <sup>+0.018</sup>							1410	1412	1415	1420	1425									
15	17	15 <sup>-0.016 -0.034</sup>	17 <sup>+0.018</sup>							1510	1512	1515	1520	1525									
16	18	16 <sup>-0.016 -0.034</sup>	18 <sup>+0.018</sup>							1610	1612	1615	1620	1625									
17	19	17 <sup>-0.016 -0.034</sup>	19 <sup>+0.021</sup>							1710	1712		1720										
18	20	18 <sup>-0.016 -0.034</sup>	20 <sup>+0.021</sup>							1810	1812	1815	1820	1825									
20	23	20 <sup>-0.020 -0.041</sup>	23 <sup>+0.021</sup>	1.475	1.505	0.8	0.4		2010	2012	2015	2020	2025	2030									
22	25	22 <sup>-0.020 -0.041</sup>	25 <sup>+0.021</sup>							2210	2212	2215	2220	2225	2230								
24	27	24 <sup>-0.020 -0.041</sup>	27 <sup>+0.021</sup>									2415	2420	2425	2430								
25	28	25 <sup>-0.020 -0.041</sup>	28 <sup>+0.021</sup>							2510	2512	2515	2520	2525	2530	2540	2550						
28	32	28 <sup>-0.020 -0.041</sup>	32 <sup>+0.025</sup>	1.970	2.005	1.0	0.6				2815	2820	2825	2830	2840								
30	34	30 <sup>-0.020 -0.041</sup>	34 <sup>+0.025</sup>								3012	3015	3020	3025	3030	3040							
32	36	32 <sup>-0.025 -0.050</sup>	36 <sup>+0.025</sup>										3220		3230	3240							
35	39	35 <sup>-0.025 -0.050</sup>	39 <sup>+0.025</sup>								3512	3515	3520	3525	3530	3540	3550						
38	42	38 <sup>-0.025 -0.050</sup>	42 <sup>+0.025</sup>									3815			3830	3840							
40	44	40 <sup>-0.025 -0.050</sup>	44 <sup>+0.025</sup>								4012		4020	4025	4030	4040	4050						

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Unit:mm

d	D	軸徑 Axle	座孔 Housing H7	壁厚 Wall thickness		f <sub>1</sub>	f <sub>2</sub>	長度 L <sup>0</sup> -0.40											
				最小 min	最大 max			20	25	30	40	50	60	70	80	100	115		
45	50	45 <sup>-0.025</sup> <sub>-0.050</sub>	50 <sup>+0.025</sup>	2.460	2.505	1.2	0.8	4520	4525	4530	4540	4550							
50	55	50 <sup>-0.025</sup> <sub>-0.050</sub>	55 <sup>+0.030</sup>					5020		5030	5040	5050	5060						
55	60	55 <sup>-0.030</sup> <sub>-0.060</sub>	60 <sup>+0.030</sup>							5530	5540	5550	5560						
60	65	60 <sup>-0.030</sup> <sub>-0.060</sub>	65 <sup>+0.030</sup>							6030	6040	6050	6060	6070					
65	70	65 <sup>-0.030</sup> <sub>-0.060</sub>	70 <sup>+0.030</sup>							6530	6540	6550	6560	6570					
70	75	70 <sup>-0.030</sup> <sub>-0.060</sub>	75 <sup>+0.030</sup>								7040	7050	7060	7070	7080				
75	80	75 <sup>-0.030</sup> <sub>-0.060</sub>	80 <sup>+0.030</sup>								7530	7540	7550	7560	7570	7580			
80	85	80 <sup>-0.030</sup>	85 <sup>+0.035</sup>	2.440	2.490	1.4	0.8				8040	8050	8060	8070	8080	80100			
85	90	85 <sup>-0.035</sup>	90 <sup>+0.035</sup>									8540		8560		8580	85100		
90	95	90 <sup>-0.035</sup>	95 <sup>+0.035</sup>									9040	9050	9060		9080	90100		
95	100	95 <sup>-0.035</sup>	100 <sup>+0.035</sup>										9550	9560		9580	95100		
100	105	100 <sup>-0.035</sup>	105 <sup>+0.035</sup>										10050	10060		10080		100115	
105	110	105 <sup>-0.035</sup>	110 <sup>+0.035</sup>											10560		10580		105115	
110	115	110 <sup>-0.035</sup>	115 <sup>+0.035</sup>											11060		11080		110115	
120	125	120 <sup>-0.035</sup>	125 <sup>+0.040</sup>	2.415	2.465	1.4	0.8					12060		12080	120100				
125	130	125 <sup>-0.040</sup>	130 <sup>+0.040</sup>											12560			125100	125115	
130	135	130 <sup>-0.040</sup>	135 <sup>+0.040</sup>												13060		13080	130100	
140	145	140 <sup>-0.040</sup>	145 <sup>+0.040</sup>												14060		14080	140100	
150	155	150 <sup>-0.040</sup>	155 <sup>+0.040</sup>												15060		15080	150100	
160	165	160 <sup>-0.040</sup>	165 <sup>+0.040</sup>												16060		16080	160100	160115
180	185	180 <sup>-0.040</sup>	185 <sup>+0.046</sup>					2.415	2.465	1.4	0.8							18080	180100
190	195	190 <sup>-0.046</sup>	195 <sup>+0.046</sup>														19080	190100	
200	205	200 <sup>-0.046</sup>	205 <sup>+0.046</sup>												20060		20080	200100	
220	225	220 <sup>-0.046</sup>	225 <sup>+0.046</sup>														22080	220100	
250	255	250 <sup>-0.046</sup>	255 <sup>+0.052</sup>														25080	250100	
260	265	260 <sup>-0.052</sup>	265 <sup>+0.052</sup>														26080	260100	
280	285	280 <sup>-0.052</sup>	285 <sup>+0.052</sup>														28080	280100	
300	305	300 <sup>-0.052</sup>	305 <sup>+0.052</sup>										30080	300100					