

通过 ISO9001:2000
质量管理体系认证



JINTAI SLIDE BEARING

湖南锦泰五金机电有限公司

Hunan Jintai Hardware and Machinery Co., LTD



JINTAI SLIDE BEARING INTRODUCTION

COMPANY & CERTIFICATES



Hunan Jintai Hardware and Machinery Co.,Ltd is a professional manufacturer on various kind of bearings in China for over 15 years.We are making all kinds of slide bearings including DU PTFE composit bushing, DX POM composite bushing,bimetal bushing,wrapped bronze bushing, cast sliding bushings and wear plate bearing pad, sintered bronze bushing and sintering parts, graphite bearing, etc.

The shapes of bearings can be in sleeve, flanged, spherical, plate, washer, pad, ring, square , etc.

Base materials in carbon steel, harden steel, iron, stainless steel, bronze, brass, copper, bronze-steel alloy.Lubricant materials in PTFE, teflon, POM, nylon, plastic, oil, graphite, grease, MoS2,etc.



◇ SF-1



◇ SF-1F



◇ SF-WD



◇ SF-2



◇ JF-800



◇ FB090



◇ FB092



◇ FB08G



◇ FB09G



◇ JDB



◇ FZ

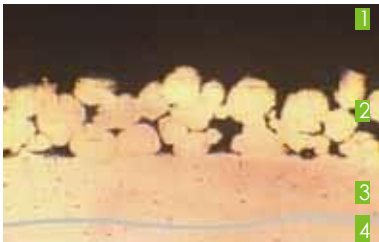


◇ FD

SF-1 自润滑卷制轴承 SF-1 Self-Lubricating Bearings



1. 聚四氟乙烯与铅 PTFE with Lead
2. 球形青铜粉 Porous bronze sintere
3. 钢背 Steel backing
4. 镀铜/锡层 Copper-plating/tin-plating



注: SF-1 系列产品还可根据不同工况条件选择不同的基体材料, 如: 青铜基板

(SF-1B)、不锈钢基板 (SF-1S)、以及无铅 (SF-1W) 等配方产品。

Note: Various materials are suitable for SF-1 Series products according to different working conditions, such as bronze backing (SF-1B), stainless steel backing (SF-1S) and lead-free material (SF-1W)...

技术参数 Tech.Data

最大荷载 Max.Load	静承载 Static	250N/mm ²
	动承载 Dynamic	140N/mm ²
	摇摆运动 Oscillating	60N/mm ²
最大PV值 PV limit	干摩擦 Dry	3.6N/mm ² ·m/s
	油润滑 Oil	50N/mm ² ·m/s
使用温度 Temp.limit		-195℃~+280℃

摩擦系数 Friction Coeff.		0.03~0.20 μ
最大速率 Speed limit	干摩擦 Dry	2mm ²
	油润滑 Oil	5mm ²
导热系数 Thermal conductivity		2.41Kcal/M.br.c
热膨胀系数 Coeff. of linear expansion		27 × 10 ⁻⁶ per℃

SF-1 应用特点 Product characteristics

◎无油润滑或少油润滑, 适用于无法加油或很难加油的场所, 可在使用时不保养或少保养。

◎耐磨性能好, 摩擦系数小, 使用寿命长。

◎有适量的弹塑性, 能将应力分布在较宽的接触面上, 提高轴承的承载能力。

◎静动摩擦系数相近, 能消除低速下的爬行, 从而保证机械的工作精度。

◎能使机械减少振动、降低噪音, 防止污染, 改善劳动条件。

◎在运转过程中能形成转移膜, 起到保护对磨轴的使用, 无咬轴现象。

◎对磨轴的硬度要求低, 未经调质处理的轴都可使用, 从而降低了相关零件的加工难度。

◎薄壁结构、质量轻, 可减小机械体积。

◎钢背面可电镀多种金属, 可在腐蚀介质中使用; 目前已广泛应用于各种机械的滑动部分, 例如: 印刷机、纺织机、烟草机械、微电机, 汽车、摩托车与农林机械等等。

◎It may be used where no oil can be applied or oil is difficult to be applied.

◎It has the advantage of low wear, low friction and with long life.

Load will spread over a wider area due to the bearing material' s elastic nature.

◎Low stick slip properties ensuring accuracy of machine operation under low sliding speeds.

◎Low vibration, low noise and non-pollution in operation.

◎PTFE and Lead film is transferred to the mating shaft to improve running properties.

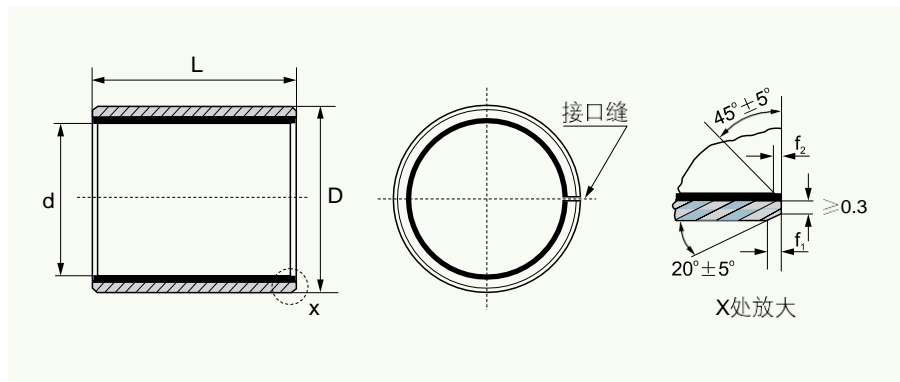
◎It can be used in low harness of mating shaft, so the shafts processing is easy.

◎The machine will be compact because of the thin thickness and low weight of the bush.

◎Electro plating is possible to prevent corrosion. It is widely used in various sliding motions of different kind of machines such as textile machine, tobacco machines, hydraulic vehicles Automobiles, agriculture machines and so on.

SF-1 自润滑卷制轴承标准公制尺寸

SF-1 Self-Lubricating Bearings Standard Metric Size



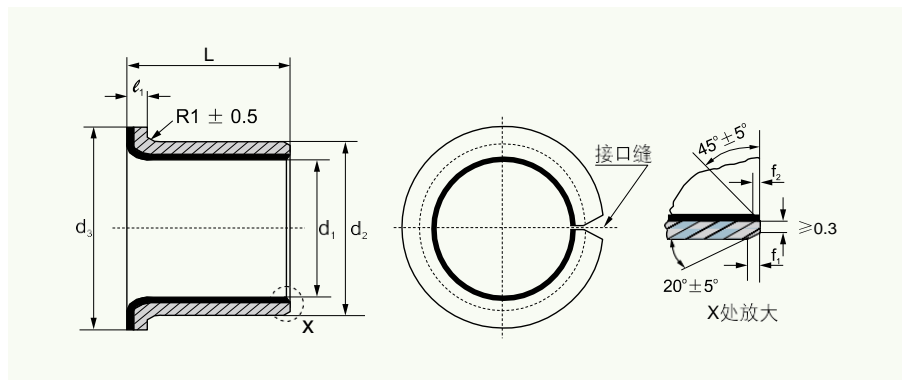
单位 Unit: mm

d	D	相配轴径 Shaft Dia. f ₇	座孔 Housing H7	壁厚 Wall Thickness		f ₁	f ₂	L ⁰ _{-0.40}													
				最小 Min.	最大 Max.			6	8	10	12	15	20	25	30	40	50				
6	8	6 ^{-0.013} _{-0.028}	8 ^{+0.015}					0606	0608	0610											
8	10	8 ^{-0.013} _{-0.028}	10 ^{+0.015}					0806	0808	0810	0812	0815									
10	12	10 ^{-0.016} _{-0.034}	12 ^{+0.018}					1006	1008	1010	1012	1015	1020								
12	14	12 ^{-0.016} _{-0.034}	14 ^{+0.018}					1206	1208	1210	1212	1215	1220	1225							
13	15	13 ^{-0.016} _{-0.034}	15 ^{+0.018}	0.980	1.005	0.6	0.3			1310			1320								
14	16	14 ^{-0.016} _{-0.034}	16 ^{+0.018}									1410	1412	1415	1420	1425					
15	17	15 ^{-0.016} _{-0.034}	17 ^{+0.018}										1510	1512	1515	1520	1525				
16	18	16 ^{-0.016} _{-0.034}	18 ^{+0.018}										1610	1612	1615	1620	1625				
17	19	17 ^{-0.016} _{-0.034}	19 ^{+0.021}							1710	1712		1720								
18	20	18 ^{-0.016} _{-0.034}	20 ^{+0.021}							1810	1812	1815	1820	1825							
20	23	20 ^{-0.020} _{-0.041}	23 ^{+0.021}							2010	2012	2015	2020	2025	2030						
22	25	22 ^{-0.020} _{-0.041}	25 ^{+0.021}	1.475	1.505	0.6	0.4			2210	2212	2215	2220	2225	2230						
24	27	24 ^{-0.020} _{-0.041}	27 ^{+0.021}												2415	2420	2425	2430			
25	28	25 ^{-0.020} _{-0.041}	28 ^{+0.021}							2510	2512	2515	2520	2525	2530	2540	2550				
28	32	28 ^{-0.020} _{-0.041}	32 ^{+0.025}									2815	2820	2825	2830	2840					
30	34	30 ^{-0.020} _{-0.041}	34 ^{+0.025}								3012	3015	3020	3025	3030	3040					
32	36	32 ^{-0.025} _{-0.050}	36 ^{+0.025}	1.970	2.005	1.2	0.4					3220		3230	3240						
35	39	35 ^{-0.025} _{-0.050}	39 ^{+0.025}											3512	3515	3520	3525	3530	3540	3550	
38	42	38 ^{-0.025} _{-0.050}	42 ^{+0.025}									3815		3830	3840						
40	44	40 ^{-0.025} _{-0.050}	44 ^{+0.025}								4012		4020	4025	4030	4040	4050				

注：孔径壁厚符合样本，宽度尺寸不在样本范围内客户要求，制造厂可定制加工。

Note: Bearing size besides above mentioned sizes, can be customized and produced. Customer please offer us the dimensions.

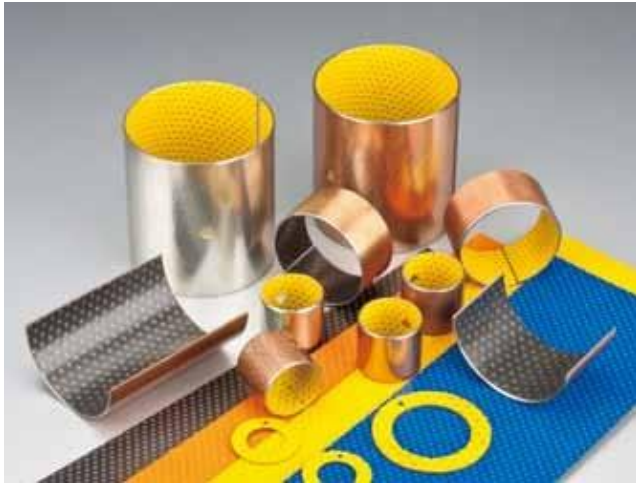
SF-1F 自润滑卷制翻边轴承标准公制尺寸 SF-1F Self-Lubricating Flanged Bearings Standard Metric Size



单位 Unit: mm

相配轴径 Shaft Dia. f ₇	座孔 Housing H7	代号 Code number	尺寸 Size					f ₁	f ₂
			d ₁	d ₂	d ₃ ± 0.5	L ± 0.25	l ₁ - 0.2		
6 ^{-0.013 -0.028}	8 ^{+0.015}	06040	6	8	12	4			
		06070				7			
8 ^{-0.013 -0.028}	10 ^{+0.015}	08055	8	10	15	5.5			
		08075				7.5			
10 ^{-0.016 -0.034}	12 ^{+0.018}	10070	10	12	18	7			
		10090				9			
		10120				12			
		12070				7			
12 ^{-0.016 -0.034}	14 ^{+0.018}	12090	12	14	20	9			
		12120				12			
		14120				12			
14 ^{-0.016 -0.043}	16 ^{+0.018}	14170	14	16	22	17	1	0.6	
		15090				9			
15 ^{-0.016 -0.034}	17 ^{+0.018}	15120	15	17	23	12			
		15170				17			
		16120				12			
16 ^{-0.016 -0.034}	18 ^{+0.018}	16170	16	18	24	17			
		18120				12			
18 ^{-0.016 -0.034}	20 ^{+0.021}	18170	18	20	26	17			
		18200				20			
		20115				11.5			
20 ^{-0.020 -0.041}	23 ^{+0.021}	20165	20	23	30	16.5			
		20215				21.5			
		22150				15			
22 ^{-0.020 -0.041}	25 ^{+0.021}	22200	22	25	32	20	1.5	0.6	
		25115				11.5			
25 ^{-0.020 -0.041}	28 ^{+0.021}	25165	25	28	35	16.5			
		25215				21.5			
		30160				16			
30 ^{-0.025 -0.050}	34 ^{+0.025}	30260	30	34	42	26			
		35160				16			
35 ^{-0.025 -0.050}	39 ^{+0.025}	35260	35	39	47	26	2	1.2	
		40260				26			
40 ^{-0.025 -0.050}	44 ^{+0.025}	40400	40	44	53	40			

SF-2 边界润滑轴承 SF-2 Marginal-Lubrication Bearings

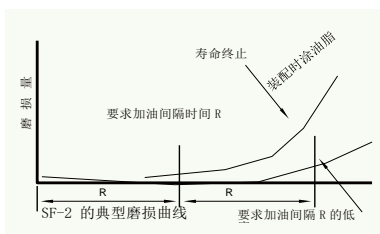


1. 改性聚甲醛 POM with lead 0.3-0.5mm
2. 球形青铜粉 Porous bronze sintere
3. 钢背 Steel backing
4. 镀铜层 Copper plating



注: SF-2 系列产品还可根据
不同工况条件选择不同的基
体材料, 如: 青铜基板、不
锈钢基板、以及“无铅”等
配方产品。SF-2Y 属环保无
铅产品, 颜色为桔黄色。

Note: Various materials
are suitable for SF- 2
series products
according to different
working conditions,
such as bronze-
backing, stainless steel
backing and lead-free
material. SF-2Y is an
environmental friendly
lead-free product and its
color is orange.



技术参数 Tech.Data

取入何载 Max Load	静承载 Static	250N/mm ²
	动承载 Dynamic	140N/mm ²
	摇摆运动 Oscillating	60N/mm ²
最大 PV 值 PV limit	干摩擦 Dry	2.8N/mm ² ·m/s
	润滑油 Oil	22N/mm ² ·m/s
使用温度 Temp.limit		-40℃~+130℃
摩擦系数 Friction Coeff.		0.05~0.25 μ
最大速率 Speed limit		0.25m/s
导热系数 Thermal conductivity		2.03Kcal/M.br.C
热膨胀系数 Coeff. of linear expansion		51×10 ⁻⁶ per℃
装配时内孔涂润滑油 Initial pre-lubrication at assembly required		

SF-2 应用特点 Characteristic of performance

◎SF-2 型材料是以填充四氟改性的聚甲醛塑料为表面层三层复合自润滑材料, 它是一种良性的边界润滑材料, 因此特别适用与高载低速下的旋转运动, 摇摆运动以及经常在载荷下启闭而不易形成流体动力润滑的轴承, 止推垫片、滑块、球座等摩擦零件。SF-2 能够充分地利用微量润滑脂, 在边界润滑条件下可以长期的不用加油保养。在完全无油润滑条件下, SF-2 摩擦性能及允许 PV 值较低, 因此通常在塑料表面轧出储油坑, 装配时涂上锂基润滑油脂或硅脂等。

◎SF-2 is triple-layer self lubricating material that can fill modified POM plastic as surface layer; it is benignant boundary lubrication material, therefore, it is particularly applicable high-load low-speed rotating and wing movement, as well as in the condition that frequent loaded start-stop is the requirement while hydrodynamic lubrication membrane is difficult to form, in the parts such as bearing, thrust washer, sliding block, ball socket and so on. SF-2 can take full advantage of less grease to work long time without lubrication maintenance under boundary lubrication condition. But under oil-free condition, SF-2 the frictional behavior and permissible PV value is relatively low, so generally storage pit can be formed on the plastic surface, where lithiumbased lubricant grease or silicone grease and so on should be applied when being installed.

SF-2 磨损规律 Wear and tear a law

◎SF-2 型材料有其特殊的磨损规律, 如图 4 所示在安装时涂油脂的情况下, 能在 R 阶段内极微量的磨损。经过 R 阶段时间后失去边界油润滑条件, 磨损就开始加剧。如果在此时重新加油, 可保持无显著磨损, 其寿命亦可以大大地延长。所以 SF-2 材料的优点就在于需要间融 R 阶段时间加油一次, 其间隔时间 R 较其它些材料特别是金属材料的时间显著地长。约为五倍左右。

◎SF-2 material follows special wearing rule as shown in Fig. 4, infinitesimal abrasion can occur in R phase when being applied with grease and then being installed. But after the R phase, the boundary lubrication condition will disappear and wearing will be exaggerated. If you do refill with oil, the product can be drastically held by non-remarkable wearing and its life will also be greatly extended. Therefore the advantage of SF-2 material is that oil should be added with an interval of R, which is remarkably longer than that of other metal materials. It is approximately five times as long.

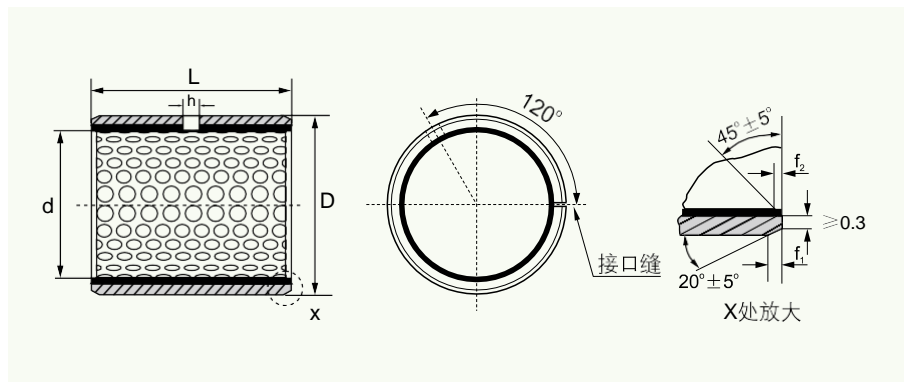
◎当装配时涂以润滑脂(如锂基脂或硅脂等), SF-2 衬套的使用寿命, 随工作时所处的 PV 值而上下, 如当 PV 值在 2.5MPa·m/s 左右时, 其使用寿命约为 200 小时, 而当 PV 值在 0.1MPa·m/s 时, 其使用寿命可在 10000 小时以上(详见表)

SF-2 衬套的加油保养周期 R 约为寿命的一半左右。例如当 PV=2.5MPa·m/s 时, 要求每隔 100 小时必须加油保养一次。

◎When SF-2 bush is installed with application of grease such as lithium-based or silicone grease, its service life varies from the PV value under working condition, for instance, when PV value is about 2.5MPa·m/s, its service life will be about 200hr; when PV value is 0.1MPa·m/s, its service life can be above 10,000hr (see the table for details)

The cycle R of lubrication maintenance of SF-2 bush is about the half of its service life. For instance, when PV=25MPa·m/s, it is required to be oil-lubricated every 100hr.

SF-2 边界润滑轴承标准公制尺寸 SF-2 Marginal-Lubrication Bearings Standard Metric Size



单位 Unit: mm

d	D	相配轴径 Shaft Dia. f ₇	座孔 Housing H7	壁厚 Wall Thickness		油孔 Oil bore H	f ₁	f ₂	L ⁰ _{-0.40}									
				最小 Min.	最大 Max.				10	15	20	25	30	35	40	45	50	60
10	12	10 _{-0.022}	12 ^{+0.018}			4			1010	1015	1020							
12	14	12 _{-0.027}	14 ^{+0.018}			4			1210	1215	1220							
14	16	14 _{-0.027}	16 ^{+0.018}	0.955	0.980	4	0.6	0.3		1415	1420							
15	17	15 _{-0.027}	17 ^{+0.018}			4					1515	1520	1525					
16	18	16 _{-0.027}	18 ^{+0.018}			4			1615	1620	1625							
18	20	18 _{-0.027}	20 ^{+0.021}			4			1815	1820	1825							
20	23	20 _{-0.033}	23 ^{+0.021}			4			2015	2020	2025	2030						
22	25	22 _{-0.033}	25 ^{+0.021}	1.445	1.475	6	0.6	0.4		2215		2225						
25	28	25 _{-0.033}	28 ^{+0.021}			6			2515	2520	2525	2530						
28	32	28 _{-0.033}	32 ^{+0.025}			6				2820		2830						
30	34	30 _{-0.033}	34 ^{+0.025}	1.935	1.970	6	1.2	0.4			3020	3025	3030		3040			
35	39	35 _{-0.039}	39 ^{+0.025}			6						3520		3530	3535	3540		
40	44	40 _{-0.039}	44 ^{+0.025}			8				4020		4030		4040		4050		
45	50	45 _{-0.039}	50 ^{+0.025}			8				4520		4530		4540	4545	4550		
50	55	50 _{-0.039}	55 ^{+0.030}	2.415	2.460	8	1.8	0.6				5030		5040		5050	5060	
55	60	55 _{-0.046}	60 ^{+0.030}			8						5530		5540		5550	5560	
60	65	60 _{-0.046}	65 ^{+0.030}			8						6030		6040		6050	6060	

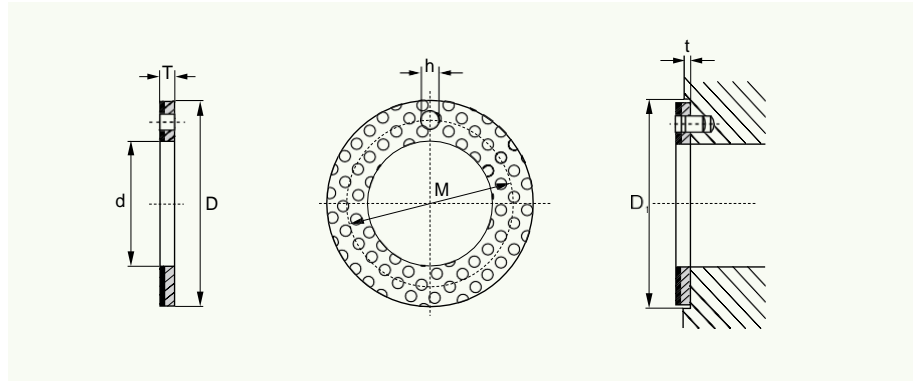


SF-2 边界润滑轴承标准公制尺寸 SF-2 Marginal-Lubrication Bearing Standard Metric Size

单位Unit: mm

d	D	相配轴径 Shaft Dia. f ₇	座孔 Housing H7	壁厚 Wall Thickness		油孔 Oil bore H	f ₁	f ₂	L ⁰ _{-0.40}								
				最小 Min.	最大 Max.				40	50	60	80	90	95	100	110	120
65	70	65 ^{-0.046}	70 ^{+0.030}			8			6540		6560						
70	75	70 ^{-0.046}	75 ^{+0.030}	2.415	2.460	8	1.8	0.6	7040	7050		7080					
75	80	75 ^{-0.046}	80 ^{+0.030}			8			7540		7560	7580					
80	85	80 ^{-0.046}	85 ^{+0.035}			9.5			8040		8060	8080					
85	90	85 ^{-0.054}	90 ^{+0.035}			9.5			8540		8560	8580					
90	95	90 ^{-0.054}	95 ^{+0.035}			9.5			9040		9060	9080	9090				
100	105	100 ^{-0.054}	105 ^{+0.035}			9.5	1.8	0.6		10050		10080		10095			
105	110	105 ^{-0.054}	110 ^{+0.035}			9.5					10560	10580		10595		105110	
110	115	110 ^{-0.054}	115 ^{+0.035}			9.5					11060	11080		11095		110110	
120	125	120 ^{-0.054}	125 ^{+0.040}			9.5					12060	12080				120110	
125	130	125 ^{-0.063}	130 ^{+0.040}			9.5					12560					125110	
130	135	130 ^{-0.063}	135 ^{+0.040}			9.5				13050	13060	13080			130100		
140	145	140 ^{-0.063}	145 ^{+0.040}			9.5				14050	14060	14080			140100		
150	155	150 ^{-0.063}	155 ^{+0.040}			9.5				15050	15060	15080			150100		
160	165	160 ^{-0.063}	165 ^{+0.040}	2.385	2.450	9.5				16050	16060	16080			160100		
170	175	170 ^{-0.063}	175 ^{+0.040}			9.5				17050		17080			170100		
180	185	180 ^{-0.063}	185 ^{+0.046}			9.5				18050	18060	18080			180100		
190	195	190 ^{-0.072}	195 ^{+0.046}			9.5	1.8	0.6		19050	19060	19080			190100		190120
200	205	200 ^{-0.072}	205 ^{+0.046}			9.5				20050	20060	20080			200100		200120
220	225	220 ^{-0.072}	225 ^{+0.046}			9.5				22050	22060	22080			220100		220120
240	245	240 ^{-0.072}	245 ^{+0.046}			9.5				24050	24060	24080			240100		240120
250	255	250 ^{-0.072}	255 ^{+0.052}			9.5				25050	25060	25080			250100		250120
260	265	260 ^{-0.081}	265 ^{+0.052}			9.5				26050	26060	26080			260100		260120
280	285	280 ^{-0.081}	285 ^{+0.052}			9.5				28050	28060	28080			280100		280120
300	305	300 ^{-0.081}	305 ^{+0.052}			9.5				30050	30060	30080			300100		300120

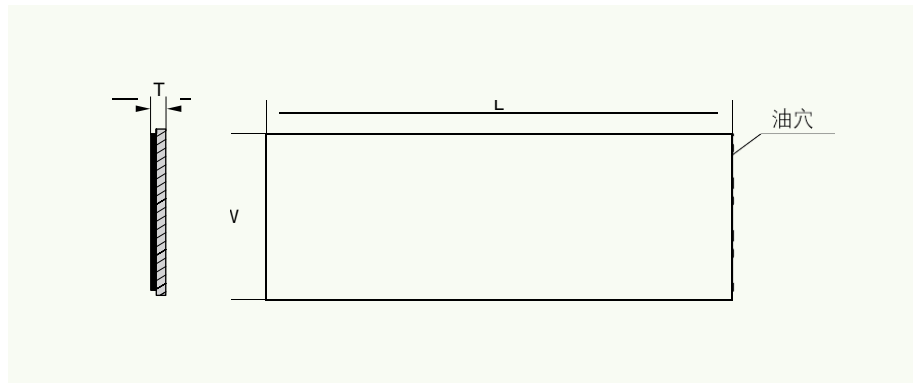
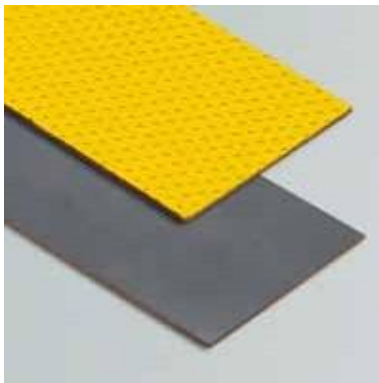
SF-1WD/SF-2WD 止推垫片标准公制尺寸
SF-1WD/SF-2WD Thrust Washer Standard Metric Size



单位 Unit: mm

轴径 Axle	型号规格 Designation	垫片尺寸 Washer Dimension				安装尺寸 Installation Size		
		d +0.25	D -0.25	T -0.05	M ± 0.125	h ^{+0.40} / _{+0.10}	t ± 0.20	D ₁ +0.12
8	WD 10	10	20	1.5	15	1.5		20
10	WD 12	12	24		18			24
12	WD 14	14	26		20	26		
14	WD 16	16	30		23	30		
16	WD 18	18	32	2.0	25	2.0	32	
18	WD 20	20	36		28		36	
20	WD 22	22	38	2.0	30	3.0	38	
22	WD 24	24	42		33		42	
24	WD 26	26	44		35	44		
26	WD 28	28	48		38	48		
30	WD 32	32	54	2.0	43	4.0	54	
36	WD 38	38	62		50		62	
40	WD 42	42	66	2.0	54	4.0	66	
46	WD 48	48	74		61		74	
50	WD 52	52	78	2.0	65	1.5	78	
60	WD 62	62	90		76		90	

SF-1/SF-2 板材标准公制尺寸
SF-1/SF-2 Strip Standard Metric Size



单位 Unit: mm

代号 Code number	长度(L) ± 1	宽度(W) ± 1	壁厚(T)-0.05
SF-1/SF-2	500	150	1.0
SF-1/SF-2	500	150	1.5
SF-1/SF-2	500	150	2.0
SF-1/SF-2	500	150	2.5

JF-800 系列双金属轴承 JF-800 Bimetal Bearings



◎JF-800 以碳钢为基体，表面烧结铜粉，适用于高载低速下的旋 转、摇摆运动，铜粉面可根据要求加工出各种油孔、油槽。目前已 广泛使用于矿山机械、汽车、摩托车、建筑机械、农用机械、轧钢 机械等。

◎Steel backed Lead bronze lined bearing material for lubricated applications, high load capacity and good fatigue properties, have been widely used in automotive, common industrial like steering gear, power steering, pedal bushes, king-pin bushes, tailgate pivots, mechanical handling, lifting equipment, hydraulic motors, agricultural machines etc.

成分、特性、用途

Chemical Compositions, Characteristics and Application

材料型号 Types of Material	铜合金牌号 Specifications of Bronze alloy	化学成分% Chemical Compositions	合金层硬度 Alloy Hrdness	特性与用途 Characteristics and Application
JF-930	CuSn6.5P0.1	铜锡磷 Cu Sn P 93 6.0~7.0 0.1~0.25	HB(60-90)	无铅 Lead Free
JF-850	CuSn6Zn6Pb3	铜锡锌铅 Cu Sn Zn Pb 85 6 6 3	HB(40-80)	启动电机 Starting Motor
JF-800	CuPb10Sn10	铜铅锡 Cu Pb Sn Zn 80 10 10	HB(60-90)	在铜合金中最强的一种，应用范围广 The strongest material type, wide application scope.
JF-750	CuPb24Sn1	铜铅锡 Cu Pb Sn 75 24 1	HB(45-70)	连杆摇臂 Link Arm
JF-720	CuPb24Sn4	铜铅锡 Cu Pb Sn 72 24 4	HB(45-70)	连杆摇臂 Link Arm

技术参数 Tech.Data

最大荷载 Max.Load	静承载 Static	250N/mm ²
	动承载 Dynamic	140N/mm ²
最高线速度 Max. linear speed		2m/s
最大PV值 PV limit		2.8N/mm ² ·m/s
抗剪切强度 Shear resistance strength		350N/mm ²

屈服强度 Yield strength	240N/mm ²
使用温度 Temp.limit	-40℃~+250℃
摩擦系数 Friction Coeff.	0.08~0.20
导热系数 Thermal conductivity	60W(m·k)-1
导热系数 Thermal conductivity	14·10 ⁻⁶ K ⁻¹

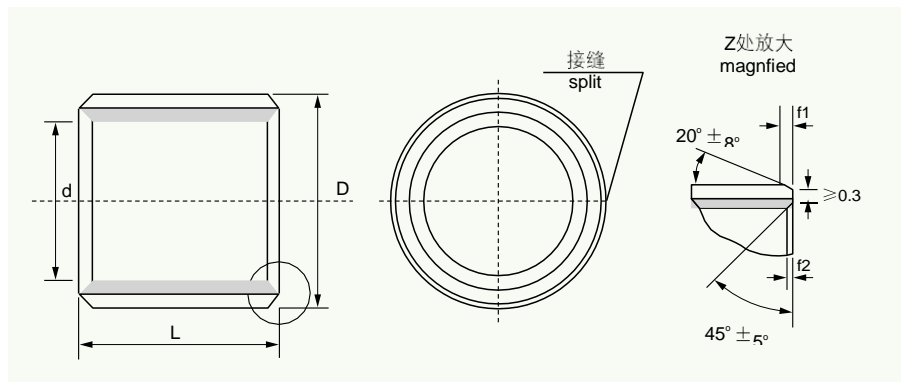
JF-800 双金属内孔加工与不可加工厚度公差

Wall Thickness of The Machinable and Non-machinable Bore of JF-800 Bearings and Their Tolerances

公称厚度 Nominal Thiickness	内孔不可加工厚度公差 Tolerances of Series B (non-machinable)	内孔可加工厚度公差 Tolerances of Series C (non-machinable)
1	-0.025	+0.25 +0.15
1.5	-0.030	+0.25 +0.15
2	-0.035	+0.25 +0.15
2.5	-0.040	+0.30 +0.15
3	-0.045	+0.30 +0.15
3.5	-0.050	+0.30 +0.15



**JF-800 双金属轴承标准公制尺寸
JF-800 Bimetal Bearings Standard Metric Size**



单位 unit:mm

d	D	壁厚 Wall Thickness	外径 O.D Tolerance	内径公差 I.D.(H8) Tolerance	配合座孔 H7 Housing Bore	轴径 f ₇ Journal Diameter	f ₁	f ₂	L -0.40											
									10	15	20	25	30	40	50	60	80	90	100	
10	12		12 +0.065 +0.030	10 +0.022 +0.000	10 -0.013 -0.028	12 +0.018	0.5	0.3	1010	1015	1020									
12	14		14 +0.065 +0.030	12 +0.027 +0.000	12 -0.016 -0.034	14 +0.018	0.5	0.3	1210	1215	1220									
14	16	1 -0.025	16 +0.065 +0.030	14 +0.027 +0.000	14 -0.016 -0.034	16 +0.018	0.5	0.3	1410	1415	1420									
15	17		17 +0.065 +0.030	15 +0.027 +0.000	15 -0.016 -0.034	17 +0.018	0.5	0.3	1510	1515	1520									
16	18		18 +0.075 +0.035	16 +0.027 +0.000	16 -0.016 -0.034	18 +0.018	0.8	0.4	1610	1615	1620									
18	20		20 +0.075 +0.035	18 +0.033 +0.000	18 -0.016 -0.034	20 +0.021	0.8	0.4	1810	1815	1820	1825								
20	23		23 +0.075 +0.035	20 +0.033 +0.000	20 -0.020 -0.041	23 +0.021	0.8	0.4	2010	2015	2020	2025								
22	25	1.5 -0.030	25 +0.075 +0.035	22 +0.033 +0.000	22 -0.020 -0.041	25 +0.021	0.8	0.4	2210	2215	2220	2225								
24	27		27 +0.075 +0.035	24 +0.033 +0.000	24 -0.020 -0.041	27 +0.021	1.0	0.5	2410	2415	2420		2430							
25	28		28 +0.075 +0.035	25 +0.033 +0.000	25 -0.020 -0.041	28 +0.021	1.0	0.5		2515	2520	2525	2530							
26	30		30 +0.075 +0.035	26 +0.033 +0.000	26 -0.020 -0.041	30 +0.021	1.0	0.5		2615	2620	2625	2630							
28	32		32 +0.085 +0.045	28 +0.033 +0.000	28 -0.020 -0.041	32 +0.025	1.0	0.5		2815	2820	2825	2830	2840						
30	34		34 +0.085 +0.045	30 +0.039 +0.000	30 -0.020 -0.041	34 +0.025	1.2	0.6		3015	3020	3025	3030	3040						
32	36	2 -0.035	36 +0.085 +0.045	32 +0.039 +0.000	32 -0.025 -0.050	36 +0.025	1.2	0.6		3215	3220	3225	3230	3240						
35	39		39 +0.085 +0.045	35 +0.039 +0.000	35 -0.025 -0.050	39 +0.025	1.2	0.6			3520	3525	3530	3540	3550					
38	42		42 +0.085 +0.045	38 +0.039 +0.000	38 -0.025 -0.050	42 +0.025	1.2	0.6			3825	3825	3830	3840	3850					
40	44		44 +0.085 +0.045	40 +0.039 +0.000	40 -0.025 -0.050	44 +0.025	1.2	0.6			4020	4025	4030	4040	4050					
45	50		50 +0.085 +0.045	45 +0.039 +0.000	45 -0.025 -0.050	50 +0.025	1.5	1.0			4520	4525	4530	4540	4550					
50	55		55 +0.100 +0.050	50 +0.039 +0.000	50 -0.025 -0.050	55 +0.030	1.5	1.0					5030	5040	5050	5060				
55	60		60 +0.100 +0.050	55 +0.046 +0.000	55 -0.030 -0.060	60 +0.030	1.5	1.0					5530	5540	5550	5560				
60	65	2.5 -0.040	65 +0.100 +0.050	60 +0.046 +0.000	60 -0.030 -0.060	65 +0.030	1.5	1.0					6030	6040	6050	6060				
65	70		70 +0.100 +0.050	65 +0.046 +0.000	65 -0.030 -0.060	70 +0.030	1.5	1.0					6530	6540	6550	6560				
70	75		75 +0.100 +0.050	70 +0.046 +0.000	70 -0.030 -0.060	75 +0.030	1.5	1.0					7030	7040	7050	7060	7080			
75	80		80 +0.100 +0.050	75 +0.046 +0.000	75 -0.030 -0.060	80 +0.035	1.5	1.0					7530	7540	7550	7560				
80	85		85 +0.120 +0.070	80 +0.054 +0.000	80 -0.030 -0.060	85 +0.035	1.5	1.0					8040	8050	8060	8080				

FB090 系列青铜卷制轴承 FB090 Bronze-Wrapped Bearings



Product Overview

◎FB090 series bronze rolled bushing is our new generation bushing based upon steel-bronze lead double metal bushings. This product is widely applied overseas. With the increase of our country's introduction of foreign machineries, designer's requirements on new abrasive materials and bushings are accordingly increasing. Therefore, our products see a wide application scope and practical value in machinery production.

◎The major feature of FB090 series bushing is their thin-wall structure, which doesn't take up too large assembly space. Specially formulated high-density bronze alloy bands are used for the building of the bushing, which, compared with traditional bushings, is featured in the high

产品概述

◎FB090 系列青铜卷制轴承套是我公司在钢-铜铅双金属轴套产品基础上开发设计的新一代轴套。该产品在国外应用十分普遍，随着我国引进机械的设备新机种的日益增多，设计师们寻找新型摩擦材料、轴套的要求也日益需要，因此该产品在我们机械制造中有着广泛应用领域和实用价值。

◎FB090 系列轴套最大特点是薄壁结构，不占据很大的装配空间。轴套材料采用特殊配方高密度铜合金带材。它与传统的铺型铜套相比，具有密度高，无气缩孔、承载能力大，又有耐磨耐疲劳等优点。轴套制造采用先进的工装模具，可在带材摩擦面上加工出适用各种工程条件的油穴、油坑、油槽，从而使轴套在使用可储存大量润滑油脂，延长加油间隔时间，有效的提高了使用寿命。

◎FB090 系列轴承广泛应用与农业机械、建筑机械、工程机械、汽车行业等。

density, no shrinkage blowholes, high load sustainability and anti-wearing and anti-fatigue. The production of the bushing is by means of advanced fixture and molds, able to make oil holes, hole dents and grooves on the friction surfaces of the bands to suit various engineering applications, making it possible for the bushing to store large amount of lubricating grease when working. Therefore, the lubrication interval is prolonged and the service hours are effectively lengthened.

◎FB090 series bearings are widely used in applications such as agricultural machineries, construction machineries, engineering machineries and automobile industry.

FB090 系列产品的优点

1. 节约大量铜材、节省车制铜套工时；
2. 与车制轴套、滚动轴承相比其重量轻、成本低；
3. 可在摩擦面加工出各种有穴、有坑、储存一定油脂，延长加油的时间是铜套的 5 倍
4. 极高的承载能力，特别是适用于粗糙的摩擦面； 可供产品：直套、止推垫片、翻边衬套、轴瓦、滑板、钢套组合件。

FB090 Product Benefits

1. Saving large amount of bronze material and save the working hours normally spent for lathing the bronze bushing.
2. Compared with lathed bushings and roller bearings, it is lights and more cost-effective.
3. Various holes and dents can be made on the friction surface for grease storage, prolonging the lubrication interval to 5 times as long as required by the bronze bushing.

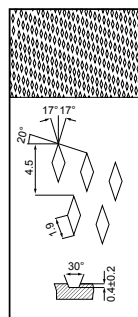
4. Extremely high load sustainability, especially suitable for coarse abrasion surfaces.
Standard products available: straight bushings, thrust plates and pressure bearings.
Non-standard products available: straight bushings, thrust plates, planks, bearing bushings, slide plates and steel bushing assembly.

FB090 轴承简介 FB090 Bearing Introduction

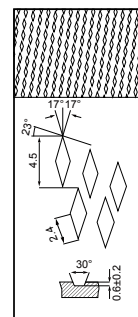
材料结构 Material Structure

◎采用高密度青铜卷制成形或球形油袋、油穴特殊合成内部表面以减少磨损延长使用时间并且很好的做到防腐功能。

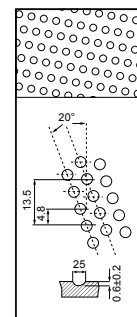
◎High-density bronze is rolled into shape or oil bags and oil holes are specially integrated into the inner surface to reduce the wearing and prolong the service hours. Besides, it has excellent anti-corrosion functions.



轴衬套内
Inside the bush of the shaft
菱形油穴 $r \leq \phi 22$
Rhomb oil holes $r \leq \phi 22$



轴衬套内
Inside the bush of the shaft
菱形油穴 $r > \phi 22$
Rhomb oil holes $r > \phi 22$



形成菱形
Forming a rhomb

化学成分 Chemical Composition

材料Material	铜 Cu	锡 Sn	磷 P	铅 Pb	锌 Zn
CuSn8	91.3%	8.5%	0.2%	-	-

物理特性 Physical Property

型号 Type	密度 Density	散热热胀 Heat Emission and Expansion	热传导 Heat Conducting	硬度 Hardness	抗压强度 Extensile	延伸率 Extensile
FB090	8.8g/cm ³	18.5 × 10 ⁻² × K ⁻¹	58W(m·k)	90~120HB	470N/mm ²	40%

应用范围 Application scope

此系列轴承广泛应用与农用、建设机械以及工程机械等。

This series of bearing is widely applied to agricultural, construction and engineering machineries, etc.

油穴类别(依据 DIW1494/ISO3457)。

Categories of oil holes (As per to DIW1494/ISO3457)。

标准衬套公差 (依据 DIW W91/1503547) Standard tolerance for bushes (As per to DIW W91/1503547)

标准直径 Standard Dia.	衬套外径尺寸 O.D.Size	相配座孔 Housing Bore	衬套内径尺寸 I.D.Size	相配轴径 Matching Shaft Diameter
10~18	+0.065 +0.030	+0.018 0	+0.046 0	- 0.016 - 0.043
18~30	+0.075 +0.035	+0.021 0	+0.052 0	- 0.020 - 0.020
30~50	+0.085 +0.045	+0.025 0	+0.062 0	- 0.025 - 0.064
50~80	+0.100 +0.055	+0.030 0	+0.074 0	- 0.030 - 0.076
80~120	+0.120 +0.070	+0.035 0	+0.087 0	- 0.036 - 0.090
120~180	+0.170 +0.100	+0.400 0	+0.100 0	- 0.043 - 0.106
180~250	+0.210 +0.130	+0.046 0	+0.115 0	- 0.050 - 0.122
250~315	+0.260 +0.170	+0.052 0	+0.130 0	- 0.056 - 0.137



FB092 系列青铜卷制轴承 FB092 Bronze-Wrapped Bearings

产品概述

◎FB092系列青铜卷制轴承是与FB090材料结构相同，我单位根据国外同类产品基础上开发出的新一代产品轴套，能改良产品设计、替代原有铜套,能降低采购成本，因此产品在我们机械制造中有着广泛实用价值和应用领域。

◎FB092系列轴套最大特点是薄壁结构，不占据很大的装配空间。轴套材料采用特殊配方高密度铜合金带材。它与传统的铺型铜套相

比，可在带材摩擦面上加工出适用各种工程条件的油穴、油坑、油槽，排列润滑通孔，从而使轴套在使用可储存大量润滑油脂，延长加油间隔时间，有效的提高了使用寿命。

◎FB092系列轴承广泛应用与农业机械、建筑机械、工程机械、高载低速场合等。

Product Overview

◎FB092 series bronze rolled bushing is our new generation bushing based upon steel-bronze lead double metal bushings. This product is widely applied overseas. With the increase of our country's introduction of foreign machineries, designer's requirements on new abrasive materials and bushings are accordingly increasing. Therefore, our products see a wide application scope and practical value in machinery production.

◎The major feature of FB092 series bushing is their thin-wall structure, which doesn't take up too large assembly space. Specially formulated high-density bronze alloy bands are used for the building of the bushing, which, compared with traditional bushings, is featured in the high

density, no shrinkage blowholes, high load sustainability and anti-wearing and anti-fatigue. The production of the bushing is by means of advanced fixture and molds, able to make oil holes, hole dents and grooves on the friction surfaces of the bands to suit various engineering applications, making it possible for the bushing to store large amount of lubricating grease when working. Therefore, the lubrication interval is prolonged and the service hours are effectively lengthened.

◎FB092 series bearings are widely used in applications such as agricultural machineries, construction machineries, engineering machineries and automobile industry.

FB092 系列产品的优点

1. 节约大量铜材、节省车制铜套工时；
 2. 与车制轴套、滚动轴承相比其重量轻、成本低；
 3. 可在摩擦面加工出各种有穴、有坑、储存一定油脂，延长加油的时间是铜套的5倍
 4. 极高的承载能力，特别是适用于粗糙的摩擦面；
- 可供标准产品：直套、翻边衬套、组合钢套。

FB092 Product Benefits

1. Saving large amount of bronze material and save the working hours normally spent for lathing the bronze bushing.
2. Compared with lathed bushings and roller bearings, it is lights and more cost-effective.
3. Various holes and dents can be made on the friction surface for grease storage, prolonging the lubrication interval to 5 times as long as required by the bronze bushing.

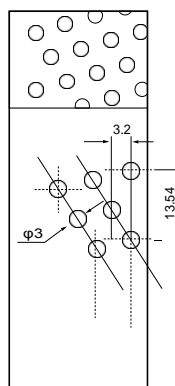
4. Extremely high load sustainability, especially suitable for coarse abrasion surfaces.

Standard products available: straight bushings, thrust plates and pressure bearings.

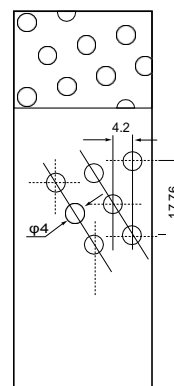
Non-standard products available: straight bushings, thrust plates, planks, bearing bushings, slide plates and steel bushing assembly.

FB092 轴承简介

FB092 Bearing Introduction



轴承内部 球形
内径 $r \leq \phi 25$



轴承球形 内径
 $r > \phi 25$

化学成分 Chemical Composition

材料Material	铜 Cu	锡 Sn	磷 P	铅 Pb	锌 Zn
CuSn8	91.3%	8.5%	0.2%	-	-

物理特性 Physical Property

型号 Type	密度 Density	散热热胀 Heat Emission and Expansion	热传导 Heat Conducting	硬度 Hardness	抗压强度 Extensile	延伸率 Extensile
FB092	8.8g/cm ³	$18.5 \times 10^{-2} \times K^{-1}$	58W(m·k)	90~120HB	470N/mm ²	40%

应用范围 Application scope

此系列轴承广泛应用与农用、建设机械以及工程机械等。

This series of bearing is widely applied to agricultural, construction and engineering machineries, etc.

标准衬套公差 (依据 DIW W91/1503547) Standard tolerance for bushes (As per to DIW W91/1503547)

标准直径 Standard Dia.	衬套外径尺寸 O.D.Size	相配座孔 Housing Bore	衬套内径尺寸 I.D.Size	相配轴径 Matching Shaft Diameter
10~18	+0.065 +0.030	+0.018 0	+0.046 0	- 0.016 - 0.043
18~30	+0.075 +0.035	+0.021 0	+0.052 0	- 0.020 - 0.020
30~50	+0.085 +0.045	+0.025 0	+0.062 0	- 0.025 - 0.064
50~80	+0.100 +0.055	+0.030 0	+0.074 0	- 0.030 - 0.076
80~120	+0.120 +0.070	+0.035 0	+0.087 0	- 0.036 - 0.090
120~180	+0.170 +0.100	+0.400 0	+0.100 0	- 0.043 - 0.106
180~250	+0.210 +0.130	+0.046 0	+0.115 0	- 0.050 - 0.122
250~315	+0.260 +0.170	+0.052 0	+0.130 0	- 0.056 - 0.137

FB09G 系列青铜卷制轴承 FB09G Bronze-Wrapped Bearings



材料结构 Material Structure

◎与FB090具有相同的生产工艺及使用场合，其基体为青铜基板，在其菱形油穴内填充了以石墨为主的固体润滑剂，使产品在起始运用阶段及过程中能有更低的摩擦系数，在短时间断油的情况下仍能保持良好的工作状态。因此被广泛使用在工程机械、齿轮箱传动部件、汽机车离合器等高载中速部位、户外高空设备的转动部位。

◎The same produce process and application except overlay the solid lubricants into the diamond shaped lubrication indents on the bearing surface, which will offer good friction at the start and process works and keep good condition even no oil giving at short time. So can be used in construction machines, gears, automotive clutch pads etc.

技术参数 Tech.Data

最大承载压力	Load capacity	140N/mm ²
适应温度范围	Temperature limit	-100°C~ +250°C
最高滑动速度	Speed limit	1.5M/s
摩擦系数	Friction clef	0.06~0.25
允许最高PV值(干)	PV limit (dry)	2.6N/mm ² ·m/s
允许最高PV值(油)	PV limit (oil)	15N/mm ² ·m/s

可供形式 Availability

直套、止推垫片、滑板及其它非标品部件等。

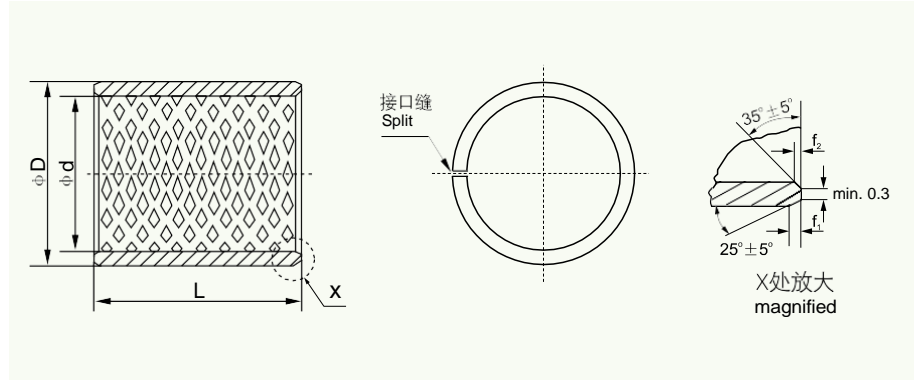
Cylindrical bushes, thrust washers, strip and non-standard parts as the clients supplied drawing etc.

公差 Tolerance

一般推荐座孔公差为H7，轴径公差为f7。

Recommend housing tolerance H7 and the shaft as f7.

FB090/FB092/FB09G 青铜卷制轴承标准公制尺寸
FB090/FB092/FB09G Bronze-Wrapped Bearings Standard Metric Size



单位 Unit: mm

d	D	相配轴径 Shaft Dia. f ₇	座孔 Housing H7	壁厚 Wall Thickness		f ₁	f ₂	L ⁰ _{-0.40}									
				最小 Min.	最大 Max.			6	8	10	12	15	20	25	30	40	50
6	8	6 ^{-0.013} _{-0.028}	8 ^{+0.015}					0606	0608	0610							
8	10	8 ^{-0.013} _{-0.028}	10 ^{+0.015}					0806	0808	0810	0812	0815					
10	12	10 ^{-0.016} _{-0.034}	12 ^{+0.018}					1006	1008	1010	1012	1015	1020				
12	14	12 ^{-0.016} _{-0.034}	14 ^{+0.018}					1206	1208	1210	1212	1215	1220	1225			
13	15	13 ^{-0.016} _{-0.034}	15 ^{+0.018}							1310			1320				
14	16	14 ^{-0.016} _{-0.034}	16 ^{+0.018}	0.980	1.005	0.6	0.3			1410	1412	1415	1420	1425			
15	17	15 ^{-0.016} _{-0.034}	17 ^{+0.018}							1510	1512	1515	1520	1525			
16	18	16 ^{-0.016} _{-0.034}	18 ^{+0.018}							1610	1612	1615	1620	1625			
17	19	17 ^{-0.016} _{-0.034}	19 ^{+0.021}							1710	1712		1720				
18	20	18 ^{-0.016} _{-0.034}	20 ^{+0.021}							1810	1812	1815	1820	1825			
20	23	20 ^{-0.020} _{-0.041}	23 ^{+0.021}							2010	2012	2015	2020	2025	2030		
22	25	22 ^{-0.020} _{-0.041}	25 ^{+0.021}	1.475	1.505	0.6	0.4			2210	2212	2215	2220	2225	2230		
24	27	24 ^{-0.020} _{-0.041}	27 ^{+0.021}									2415	2420	2425	2430		
25	28	25 ^{-0.020} _{-0.041}	28 ^{+0.021}							2510	2512	2515	2520	2525	2530	2540	2550
28	32	28 ^{-0.020} _{-0.041}	32 ^{+0.025}									2815	2820	2825	2830	2840	
30	34	30 ^{-0.020} _{-0.041}	34 ^{+0.025}								3012	3015	3020	3025	3030	3040	
32	36	32 ^{-0.025} _{-0.050}	36 ^{+0.025}	1.970	2.005	1.2	0.4					3220		3230	3240		
35	39	35 ^{-0.025} _{-0.050}	39 ^{+0.025}								3512	3515	3520	3525	3530	3540	3550
38	42	38 ^{-0.025} _{-0.050}	42 ^{+0.025}									3815			3830	3840	
40	44	40 ^{-0.025} _{-0.050}	44 ^{+0.025}								4012		4020	4025	4030	4040	4050



FB090/FB092/FB09G 青铜卷制轴承标准公制尺寸

FB090/FB092/FB09G Bronze-Wrapped Bearings Standard Metric Size

单位Unit: mm

d	D	相配轴径 Shaft Dia. f ₇	座孔 Housing H7	壁厚 Wall Thickness		f ₁	f ₂	L ⁰ _{-0.40}										
				最小 Min.	最大 Max.			20	25	30	40	50	60	70	80	100	115	
45	50	45 ^{-0.025} _{-0.050}	50 ^{+0.025}					4520	4525	4530	4540	4550						
50	55	50 ^{-0.025} _{-0.050}	55 ^{+0.030}					5020		5030	5040	5050	5060					
55	60	55 ^{-0.030} _{-0.060}	60 ^{+0.030}							5530	5540	5550	5560					
60	65	60 ^{-0.030} _{-0.060}	65 ^{+0.030}	2.460	2.505	1.8	0.6			6030	6040	6050	6060	6070				
65	70	65 ^{-0.030} _{-0.060}	70 ^{+0.030}							6530	6540	6550	6560	6570				
70	75	70 ^{-0.030} _{-0.060}	75 ^{+0.030}								7040	7050	7060	7070	7080			
75	80	75 ^{-0.030}	80 ^{+0.030}							7530	7540	7550	7560	7570	7580			
80	85	80 ^{-0.035}	85 ^{+0.035}								8040	8050	8060	8070	8080	80100		
85	90	85 ^{-0.035}	90 ^{+0.035}								8540		8560		8580	85100		
90	95	90 ^{-0.035}	95 ^{+0.035}								9040	9050	9060		9080	90100		
95	100	95 ^{-0.035}	100 ^{+0.035}	2.440	2.490	1.8	0.6					9550	9560		9580	95100		
100	105	100 ^{-0.035}	105 ^{+0.035}									10050	10060		10080		100115	
105	110	105 ^{-0.035}	110 ^{+0.035}										10560		10580		105115	
110	115	110 ^{-0.035}	115 ^{+0.035}										11060		11080		110115	
120	125	120 ^{-0.035}	125 ^{+0.040}										12060		12080	120100		
125	130	125 ^{-0.040}	130 ^{+0.040}										12560			125100	125115	
130	135	130 ^{-0.040}	135 ^{+0.040}	2.415	2.465	1.8	0.6						13060		13080	130100		
140	145	140 ^{-0.040}	145 ^{+0.040}										14060		14080	140100		
150	155	150 ^{-0.040}	155 ^{+0.040}										15060		15080	150100		
160	165	160 ^{-0.040}	165 ^{+0.040}										16060		16080	160100	160115	
180	185	180 ^{-0.040}	185 ^{+0.046}												18080	180100		
190	195	190 ^{-0.046}	195 ^{+0.046}	2.415	2.465	1.8	0.6								19080	190100		
200	205	200 ^{-0.046}	205 ^{+0.046}												20080	200100		
220	225	220 ^{-0.046}	225 ^{+0.046}										20060		22080	220100		
250	255	250 ^{-0.046}	255 ^{+0.052}												25080	250100		
260	265	260 ^{-0.052}	265 ^{+0.052}	2.415	2.465	1.8	0.6								26080	260100		
280	285	280 ^{-0.052}	285 ^{+0.052}												28080	280100		
300	305	300 ^{-0.052}	305 ^{+0.052}															

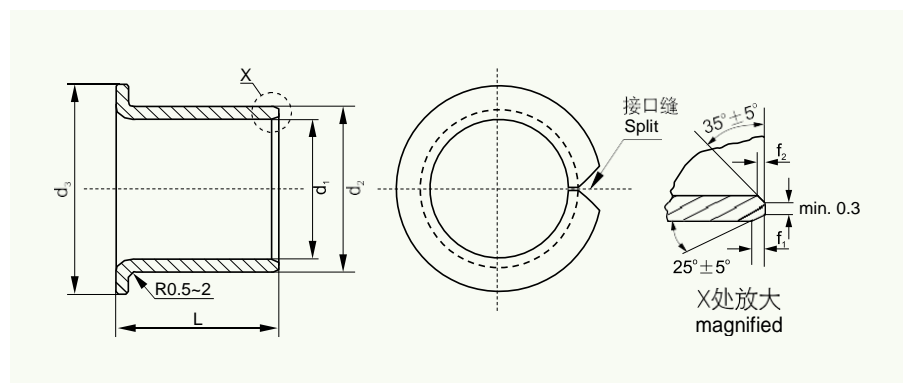
注: 要求相配轴孔H7, 轴径f7, 衬套压入座孔后内孔值为H8。

Note: Shaft hole is required to be H7. Shaft diameter is f7. After bearing is installed, the inner hole should be H8.



FB090/FB092 青铜卷制翻边轴承标准公制尺寸

FB090/FB092 Bronze-Wrapped Flange Bearing Standard Metric Size



单位Unit: mm

d ₁	d ₂	d ₃	f ₁	f ₂	L ⁰ / _{-0.40}										
					15	20	25	30	35	40	50	60	70	80	90
25	28	35	0.8	0.4	2515	2520	2525								
30	34	45				3020	3025	3030							
35	39	50	1.0	0.6		3520	3525	3530	3535						
40	44	55					4025	4030	4035	4040					
45	50	60						4530	4535	4540	4550				
50	55	65						5030	5035	5040	5050				
55	60	70						5530	5535	5540	5550				
60	65	75	1.2	0.8				6030	6035	6040	6050	6060			
65	70	80						6530	6535	6540	6550	6560			
70	75	85							7035	7040	7050	7060	7070		
75	80	90							7535	7540	7550	7560	7570		
80	85	100							8035	8040	8050	8060	8070	8080	
90	95	110									9050	9060	9070	9080	9090
100	105	120									10050	10060	10070	10080	10090
110	115	130									11050	11060	11070	11080	11090
120	125	140									12050	12060	12070	12080	12090
130	135	155										13060	13070	13080	13090
140	145	165										14060	14070	14080	14090
150	155	180										15060	15070	15080	15090
160	165	190										16060	16070	16080	16090
170	175	200	1.4	0.8								17060	17070	17080	17090
180	185	215										18060	18070	18080	18090
190	195	225										19060	19070	19080	19090
200	205	235										20060	20070	20080	20090
225	230	260										22560	22570	22580	22590
250	255	290										25060	25070	25080	25090
265	270	305										26560	26570	26580	26590
285	290	325										28560	28570	28580	28590
300	305	340										30060	30070	30080	30090

FB08G 固体润滑卷制轴承

FB08G Solid-Lubricant-Embedded Wrapped Bearings



材料结构 Material Structure

◎FB08G固体润滑轴承是以JF-800双金属材料为基体，再埋入特殊固体润滑剂制作成的新型滑动轴承。由于高强度承载的合金材料作基体，并经过严格选择的高分子填充材料为耐磨剂，合理的螺旋角度菱形块状均布的润滑面，润滑面积达25%，因此，能发挥超群的低摩擦，良好的润滑性和抗磨损性免除加油。该产品已广泛应用于起重起、微型电机、升降机、吊车及冶金机械等行业。

◎FB08G is a kind of steel-lead bronze alloys based bearing, which is embedded with particular formulation of solid lubricants. Owing to the high strength, high load capacity and the spirally distributed diamond type of the embedded solid lubricant, the high temperature

resistant action as extraordinary exploited. The lubrication area of the bearing surface is being about 25%. This type of bearing is particularly applied in starting motor for automobiles, generators cranes and those machines in metallurgical industry.

技术参数 Tech.Data

最大承载压力	Load capacity	150N/mm ²
适应温度范围	Temperature limit	-100℃~+200℃
最高滑动速度	Speed limit	1.5M/s
摩擦系数	Friction coef	0.06~0.25
允许最高PV值(干)	PV limit (dry)	2.5N/mm ² ·m/s
允许最高PV值(油)	PV limit (oil)	15N/mm ² ·m/s



JINTAI FB090 similar as GLT-GleitLagerTechnik GmbH BRO-MET BMZ Cylindrical bushing

JINTAI FB090 Bearing and GLT Bearing Standard Metric Size

单位 Unit: mm

JINTAI CODE	d*D*L(mm)	GLT CODE	JINTAI CODE	d*D*L(mm)	GLT CODE
FB090 1010	10x12x10	BMZ 1010	FB090 10570	105x110x70	BMZ 10570
FB090 1015	10x12x15	BMZ 1015	FB090 10580	105x110x80	BMZ 10580
FB090 1020	10x12x20	BMZ 1020	FB090 10590	105x110x90	BMZ 10590
FB090 1210	12x14x10	BMZ 1210	FB090 105100	105x110x100	BMZ 105100
FB090 1215	12x14x15	BMZ 1215	FB090 11050	110x115x50	BMZ 11050
FB090 1220	12x14x20	BMZ 1220	FB090 11060	110x115x60	BMZ 11060
FB090 1410	14x16x10	BMZ 1410	FB090 11070	110x115x70	BMZ 11070
FB090 1415	14x16x15	BMZ 1415	FB090 11080	110x115x80	BMZ 11080
FB090 1420	14x16x20	BMZ 1420	FB090 11090	110x115x90	BMZ 11090
FB090 1425	14x16x25	BMZ 1425	FB090 11095	110x115x95	BMZ 11095
FB090 1510	15x17x10	BMZ 1510	FB090 110100	110x115x100	BMZ 110100
FB090 1515	15x17x15	BMZ 1515	FB090 11550	115x120x50	BMZ 11550
FB090 1520	15x17x20	BMZ 1520	FB090 11560	115x120x60	BMZ 11560
FB090 1525	15x17x25	BMZ 1525	FB090 11570	115x120x70	BMZ 11570
FB090 1610	16x18x10	BMZ 1610	FB090 11580	115x120x80	BMZ 11580
FB090 1615	16x18x15	BMZ 1615	FB090 11590	115x120x90	BMZ 11590
FB090 1620	16x18x20	BMZ 1620	FB090 115100	115x120x100	BMZ 115100
FB090 1625	16x18x25	BMZ 1625	FB090 12025	120x125x25	BMZ 12025
FB090 1810	18x20x10	BMZ 1810	FB090 12050	120x125x50	BMZ 12050
FB090 1815	18x20x15	BMZ 1815	FB090 12060	120x125x60	BMZ 12060
FB090 1820	18x20x20	BMZ 1820	FB090 12070	120x125x70	BMZ 12070
FB090 1825	18x20x25	BMZ 1825	FB090 12080	120x125x80	BMZ 12080
FB090 182115	18x21x15	BMZ 182115	FB090 12090	120x125x90	BMZ 12090
FB090 182120	18x21x20	BMZ 182120	FB090 12095	120x125x95	BMZ 12095
FB090 182125	18x21x25	BMZ 182125	FB090 120100	120x125x100	BMZ 120100
FB090 202210	20x22x10	BMZ 202210	FB090 12560	125x130x60	BMZ 12560
FB090 202215	20x22x15	BMZ 202215	FB090 12570	125x130x70	BMZ 12570
FB090 202220	20x22x20	BMZ 202220	FB090 12580	125x130x80	BMZ 12580
FB090 202225	20x22x25	BMZ 202225	FB090 12590	125x130x90	BMZ 12590
FB090 2010	20x23x10	BMZ 2010	FB090 125100	125x130x100	BMZ 125100
FB090 2015	20x23x15	BMZ 2015	FB090 13060	130x135x60	BMZ 13060
FB090 2020	20x23x20	BMZ 2020	FB090 13070	130x135x70	BMZ 13070
FB090 2025	20x23x25	BMZ 2025	FB090 13080	130x135x80	BMZ 13080
FB090 2030	20x23x30	BMZ 2030	FB090 13090	130x135x90	BMZ 13090
FB090 2210	22x25x10	BMZ 2210	FB090 130100	130x135x100	BMZ 130100
FB090 2215	22x25x15	BMZ 2215	FB090 13560	135x140x60	BMZ 13560
FB090 2220	22x25x20	BMZ 2220	FB090 13570	135x140x70	BMZ 13570
FB090 2225	22x25x25	BMZ 2225	FB090 13580	135x140x80	BMZ 13580
FB090 2230	22x25x30	BMZ 2230	FB090 13590	135x140x90	BMZ 13590
FB090 2410	24x27x10	BMZ 2410	FB090 135100	135x140x100	BMZ 135100
FB090 2415	24x27x15	BMZ 2415	FB090 14050	140x145x50	BMZ 14050
FB090 2420	24x27x20	BMZ 2420	FB090 14060	140x145x60	BMZ 14060
FB090 2425	24x27x25	BMZ 2425	FB090 14070	140x145x70	BMZ 14070
FB090 242810	24x28x10	BMZ 242810	FB090 14080	140x145x80	BMZ 14080
FB090 242815	24x28x15	BMZ 242815	FB090 14090	140x145x90	BMZ 14090
FB090 242820	24x28x20	BMZ 242820	FB090 140100	140x145x100	BMZ 140100
FB090 242825	24x28x25	BMZ 242825	FB090 14560	145x150x60	BMZ 14560
FB090 242830	24x28x30	BMZ 242830	FB090 14570	145x150x70	BMZ 14570
FB090 2515	25x28x15	BMZ 2515	FB090 14580	145x150x80	BMZ 14580
FB090 2520	25x28x20	BMZ 2520	FB090 14590	145x150x90	BMZ 14590
FB090 2525	25x28x25	BMZ 2525	FB090 145100	145x150x100	BMZ 145100
FB090 2530	25x28x30	BMZ 2530	FB090 15045	150x155x45	BMZ 15045
FB090 2550	25x28x50	BMZ 2550	FB090 15060	150x155x60	BMZ 15060
FB090 283115	28x31x15	BMZ 283115	FB090 15070	150x155x70	BMZ 15070
FB090 283120	28x31x20	BMZ 283120	FB090 15080	150x155x80	BMZ 15080
FB090 283125	28x31x25	BMZ 283125	FB090 15090	150x155x90	BMZ 15090
FB090 283130	28x31x30	BMZ 283130	FB090 150100	150x155x100	BMZ 150100
FB090 2815	28x32x15	BMZ 2815	FB090 15560	155x160x60	BMZ 15560
FB090 2820	28x32x20	BMZ 2820	FB090 15570	155x160x70	BMZ 15570
FB090 2825	28x32x25	BMZ 2825	FB090 15580	155x160x80	BMZ 15580
FB090 2830	28x32x30	BMZ 2830	FB090 15590	155x160x90	BMZ 15590
FB090 3015	30x34x15	BMZ 3015	FB090 155100	155x160x100	BMZ 155100
FB090 3020	30x34x20	BMZ 3020	FB090 16060	160x165x60	BMZ 16060
FB090 3025	30x34x25	BMZ 3025	FB090 16070	160x165x70	BMZ 16070
FB090 3030	30x34x30	BMZ 3030	FB090 16080	160x165x80	BMZ 16080
FB090 3035	30x34x35	BMZ 3035	FB090 16090	160x165x90	BMZ 16090
FB090 3040	30x34x40	BMZ 3040	FB090 160100	160x165x100	BMZ 160100
FB090 3215	32x36x15	BMZ 3215	FB090 16560	165x170x60	BMZ 16560
FB090 3220	32x36x20	BMZ 3220	FB090 16570	165x170x70	BMZ 16570
FB090 3225	32x36x25	BMZ 3225	FB090 16580	165x170x80	BMZ 16580
FB090 3230	32x36x30	BMZ 3230	FB090 16590	165x170x90	BMZ 16590
FB090 3235	32x36x35	BMZ 3235	FB090 165100	165x170x100	BMZ 165100
FB090 3240	32x36x40	BMZ 3240	FB090 17060	170x175x60	BMZ 17060
FB090 3520	35x39x20	BMZ 3520	FB090 17070	170x175x70	BMZ 17070
FB090 3525	35x39x25	BMZ 3525	FB090 17080	170x175x80	BMZ 17080
FB090 3530	35x39x30	BMZ 3530	FB090 17090	170x175x90	BMZ 17090
FB090 3540	35x39x40	BMZ 3540	FB090 170100	170x175x100	BMZ 170100
FB090 3550	35x39x50	BMZ 3550	FB090 17550	175x180x50	BMZ 17550
FB090 4020	40x44x20	BMZ 4020	FB090 17560	175x180x60	BMZ 17560
FB090 4025	40x44x25	BMZ 4025	FB090 17570	175x180x70	BMZ 17570
FB090 4030	40x44x30	BMZ 4030	FB090 17580	175x180x80	BMZ 17580
FB090 4035	40x44x35	BMZ 4035	FB090 17590	175x180x90	BMZ 17590
FB090 4040	40x44x40	BMZ 4040	FB090 175100	175x180x100	BMZ 175100
FB090 4050	40x44x50	BMZ 4050	FB090 18045	180x185x45	BMZ 18045

FB090 4520	45x50x20	BMZ 4520	FB090 18060	180x185x60	BMZ 18060
FB090 4525	45x50x25	BMZ 4525	FB090 18070	180x185x70	BMZ 18070
FB090 4530	45x50x30	BMZ 4530	FB090 18080	180x185x80	BMZ 18080
FB090 4535	45x50x35	BMZ 4535	FB090 18090	180x185x90	BMZ 18090
FB090 4540	45x50x40	BMZ 4540	FB090 180100	180x185x100	BMZ 180100
FB090 4550	45x50x50	BMZ 4550	FB090 18560	185x190x60	BMZ 18560
FB090 4560	45x50x50	BMZ 4560	FB090 18570	185x190x70	BMZ 18570
FB090 5020	50x55x20	BMZ 5020	FB090 18580	185x190x80	BMZ 18580
FB090 5025	50x55x25	BMZ 5025	FB090 18590	185x190x90	BMZ 18590
FB090 5030	50x55x30	BMZ 5030	FB090 185100	185x190x100	BMZ 185100
FB090 5035	50x55x35	BMZ 5035	FB090 19060	190x195x60	BMZ 19060
FB090 5040	50x55x40	BMZ 5040	FB090 19070	190x195x70	BMZ 19070
FB090 5050	50x55x50	BMZ 5050	FB090 19080	190x195x80	BMZ 19080
FB090 5060	50x55x60	BMZ 5060	FB090 19090	190x195x90	BMZ 19090
FB090 5520	55x60x20	BMZ 5520	FB090 190100	190x195x100	BMZ 190100
FB090 5525	55x60x25	BMZ 5525	FB090 19560	195x200x60	BMZ 19560
FB090 5530	55x60x30	BMZ 5530	FB090 19570	195x200x70	BMZ 19570
FB090 5535	55x60x35	BMZ 5535	FB090 19580	195x200x80	BMZ 19580
FB090 5540	55x60x40	BMZ 5540	FB090 19590	195x200x90	BMZ 19590
FB090 5550	55x60x50	BMZ 5550	FB090 195100	195x200x100	BMZ 195100
FB090 5560	55x60x60	BMZ 5560	FB090 20060	200x205x60	BMZ 20060
FB090 6025	60x65x25	BMZ 6025	FB090 20070	200x205x70	BMZ 20070
FB090 6030	60x65x30	BMZ 6030	FB090 20080	200x205x80	BMZ 20080
FB090 6035	60x65x35	BMZ 6035	FB090 20090	200x205x90	BMZ 20090
FB090 6040	60x65x40	BMZ 6040	FB090 200100	200x205x100	BMZ 200100
FB090 6045	60x65x45	BMZ 6045	FB090 20560	205x210x60	BMZ 20560
FB090 6050	60x65x50	BMZ 6050	FB090 20570	205x210x70	BMZ 20570
FB090 6060	60x65x60	BMZ 6060	FB090 20580	205x210x80	BMZ 20580
FB090 6070	60x65x70	BMZ 6070	FB090 20590	205x210x90	BMZ 20590
FB090 6530	65x70x30	BMZ 6530	FB090 205100	205x210x100	BMZ 205100
FB090 6535	65x70x35	BMZ 6535	FB090 21060	210x215x60	BMZ 21060
FB090 6540	65x70x40	BMZ 6540	FB090 21070	210x215x70	BMZ 21070
FB090 6550	65x70x50	BMZ 6550	FB090 21080	210x215x80	BMZ 21080
FB090 6560	65x70x60	BMZ 6560	FB090 21090	210x215x90	BMZ 21090
FB090 6570	65x70x70	BMZ 6570	FB090 210100	210x215x100	BMZ 210100
FB090 7030	70x75x30	BMZ 7030	FB090 21560	215x220x60	BMZ 21560
FB090 7035	70x75x35	BMZ 7035	FB090 21570	215x220x70	BMZ 21570
FB090 7040	70x75x40	BMZ 7040	FB090 21580	215x220x80	BMZ 21580
FB090 7045	70x75x45	BMZ 7045	FB090 21590	215x220x90	BMZ 21590
FB090 7050	70x75x50	BMZ 7050	FB090 215100	215x220x100	BMZ 215100
FB090 7060	70x75x60	BMZ 7060	FB090 22060	220x225x60	BMZ 22060
FB090 7070	70x75x70	BMZ 7070	FB090 22070	220x225x70	BMZ 22070
FB090 7530	75x80x30	BMZ 7530	FB090 22080	220x225x80	BMZ 22080
FB090 7535	75x80x35	BMZ 7535	FB090 22090	220x225x90	BMZ 22090
FB090 7540	75x80x40	BMZ 7540	FB090 220100	220x225x100	BMZ 220100
FB090 7550	75x80x50	BMZ 7550	FB090 22560	225x230x60	BMZ 22560
FB090 7560	75x80x60	BMZ 7560	FB090 22570	225x230x70	BMZ 22570
FB090 7570	75x80x70	BMZ 7570	FB090 22580	225x230x80	BMZ 22580
FB090 7580	75x80x80	BMZ 7580	FB090 22590	225x230x90	BMZ 22590
FB090 8030	80x85x30	BMZ 8030	FB090 225100	225x230x100	BMZ 225100
FB090 8035	80x85x35	BMZ 8035	FB090 23060	230x235x60	BMZ 23060
FB090 8040	80x85x40	BMZ 8040	FB090 23070	230x235x70	BMZ 23070
FB090 8050	80x85x50	BMZ 8050	FB090 23080	230x235x80	BMZ 23080
FB090 8060	80x85x60	BMZ 8060	FB090 23090	230x235x90	BMZ 23090
FB090 8070	80x85x70	BMZ 8070	FB090 230100	230x235x100	BMZ 230100
FB090 8080	80x85x80	BMZ 8080	FB090 24060	240x245x60	BMZ 24060
FB090 8530	85x90x30	BMZ 8530	FB090 24070	240x245x70	BMZ 24070
FB090 8535	85x90x35	BMZ 8535	FB090 24080	240x245x80	BMZ 24080
FB090 8540	85x90x40	BMZ 8540	FB090 24090	240x245x90	BMZ 24090
FB090 8550	85x90x50	BMZ 8550	FB090 240100	240x245x100	BMZ 240100
FB090 8560	85x90x60	BMZ 8560	FB090 25060	250x255x60	BMZ 25060
FB090 8570	85x90x70	BMZ 8570	FB090 25070	250x255x70	BMZ 25070
FB090 8580	85x90x80	BMZ 8580	FB090 25080	250x255x80	BMZ 25080
FB090 8590	85x90x90	BMZ 8590	FB090 25090	250x255x90	BMZ 25090
FB090 9030	90x95x30	BMZ 9030	FB090 250100	250x255x100	BMZ 250100
FB090 9035	90x95x35	BMZ 9035	FB090 26060	260x265x60	BMZ 26060
FB090 9040	90x95x40	BMZ 9040	FB090 26070	260x265x70	BMZ 26070
FB090 9050	90x95x50	BMZ 9050	FB090 26080	260x265x80	BMZ 26080
FB090 9060	90x95x60	BMZ 9060	FB090 26090	260x265x90	BMZ 26090
FB090 9070	90x95x70	BMZ 9070	FB090 260100	260x265x100	BMZ 260100
FB090 9080	90x95x80	BMZ 9080	FB090 27060	270x275x60	BMZ 27060
FB090 9090	90x95x90	BMZ 9090	FB090 27070	270x275x70	BMZ 27070
FB090 90100	90x95x100	BMZ 90100	FB090 27080	270x275x80	BMZ 27080
FB090 9540	95x100x40	BMZ 9540	FB090 27090	270x275x90	BMZ 27090
FB090 9550	95x100x50	BMZ 9550	FB090 270100	270x275x100	BMZ 270100
FB090 9560	95x100x60	BMZ 9560	FB090 28060	280x285x60	BMZ 28060
FB090 9570	95x100x70	BMZ 9570	FB090 28070	280x285x70	BMZ 28070
FB090 9580	95x100x80	BMZ 9580	FB090 28080	280x285x80	BMZ 28080
FB090 9590	95x100x90	BMZ 9590	FB090 28090	280x285x90	BMZ 28090
FB090 95100	95x100x100	BMZ 95100	FB090 280100	280x285x100	BMZ 280100
FB090 10040	100x105x40	BMZ 10040	FB090 29060	290x295x60	BMZ 29060
FB090 10050	100x105x50	BMZ 10050	FB090 29070	290x295x70	BMZ 29070
FB090 10060	100x105x60	BMZ 10060	FB090 29080	290x295x80	BMZ 29080
FB090 10070	100x105x70	BMZ 10070	FB090 29090	290x295x90	BMZ 29090
FB090 10080	100x105x80	BMZ 10080	FB090 290100	290x295x100	BMZ 290100
FB090 10090	100x105x90	BMZ 10090	FB090 30060	300x305x60	BMZ 30060
FB090 10095	100x105x95	BMZ 10095	FB090 30070	300x305x70	BMZ 30070
FB090 100100	100x105x100	BMZ 100100	FB090 30080	300x305x80	BMZ 30080
FB090 10550	105x110x50	BMZ 10550	FB090 30090	300x305x90	BMZ 30090
FB090 10560	105x110x60	BMZ 10560	FB090 300100	300x305x100	BMZ 300100



JINTAI FB090F similar as GLT-GleitLagerTechnik GmbH BRO-MET BMB Flanged bushing

JINTAI FB090F Bearing and GLT Bearing Standard Metric Size

單位 Unit: mm

JINTAI CODE	d1*d2/d3*L(mm)	GLT CODE	JINTAI CODE	d1*d2/d3*L(mm)	GLT CODE
FB090F 2016F	20x23/30x16	BMB 2016	FB090F 10070F	100x105/120x70	BMB 10070
FB090F 2020F	20x23/30x20	BMB 2020	FB090F 10080F	100x105/120x80	BMB 10080
FB090F 2512.5F	25x28/35x12.5	BMB 2512.5	FB090F 10090F	100x105/120x90	BMB 10090
FB090F 2515F	25x28/35x15	BMB 2515	FB090F 11050F	110x115/130x50	BMB 11050
FB090F 2516F	25x28/35x16	BMB 2516	FB090F 11060F	110x115/130x60	BMB 11060
FB090F 2520F	25x28/35x20	BMB 2520	FB090F 11070F	110x115/130x70	BMB 11070
FB090F 2525F	25x28/35x25	BMB 2525	FB090F 11080F	110x115/130x80	BMB 11080
FB090F 3020F	30x34/45x20	BMB 3020	FB090F 11090F	110x115/130x90	BMB 11090
FB090F 3025F	30x34/45x25	BMB 3025	FB090F 12050F	120x125/145x50	BMB 12050
FB090F 3030F	30x34/45x30	BMB 3030	FB090F 12060F	120x125/145x60	BMB 12060
FB090F 3520F	35x39/50x20	BMB 3520	FB090F 12070F	120x125/145x70	BMB 12070
FB090F 3525F	35x39/50x25	BMB 3525	FB090F 12080F	120x125/145x80	BMB 12080
FB090F 3530F	35x39/50x30	BMB 3530	FB090F 12090F	120x125/145x90	BMB 12090
FB090F 3535F	35x39/50x35	BMB 3535	FB090F 13060F	130x135/155x60	BMB 13060
FB090F 4025F	40x44/55x25	BMB 4025	FB090F 13070F	130x135/155x70	BMB 13070
FB090F 4030F	40x44/55x30	BMB 4030	FB090F 13080F	130x135/155x80	BMB 13080
FB090F 4035F	40x44/55x35	BMB 4035	FB090F 13090F	130x135/155x90	BMB 13090
FB090F 4040F	40x44/55x40	BMB 4040	FB090F 14060F	140x145/165x60	BMB 14060
FB090F 4530F	45x50/60x30	BMB 4530	FB090F 14070F	140x145/165x70	BMB 14070
FB090F 4535F	45x50/60x35	BMB 4535	FB090F 14080F	140x145/165x80	BMB 14080
FB090F 4540F	45x50/60x40	BMB 4540	FB090F 14090F	140x145/165x90	BMB 14090
FB090F 4545F	45x50/60x45	BMB 4545	FB090F 15060F	150x155/180x60	BMB 15060
FB090F 4550F	45x50/60x50	BMB 4550	FB090F 15070F	150x155/180x70	BMB 15070
FB090F 5030F	50x55/65x30	BMB 5030	FB090F 15080F	150x155/180x80	BMB 15080
FB090F 5035F	50x55/65x35	BMB 5035	FB090F 15090F	150x155/180x90	BMB 15090
FB090F 5040F	50x55/65x40	BMB 5040	FB090F 16060F	160x165/190x60	BMB 16060
FB090F 5050F	50x55/65x50	BMB 5050	FB090F 16070F	160x165/190x70	BMB 16070
FB090F 5530F	55x60/70x30	BMB 5530	FB090F 16080F	160x165/190x80	BMB 16080
FB090F 5535F	55x60/70x35	BMB 5535	FB090F 16090F	160x165/190x90	BMB 16090
FB090F 5540F	55x60/70x40	BMB 5540	FB090F 17060F	170x175/200x60	BMB 17060
FB090F 5550F	55x60/70x50	BMB 5550	FB090F 17070F	170x175/200x70	BMB 17070
FB090F 6025F	60x65/75x25	BMB 6025	FB090F 17080F	170x175/200x80	BMB 17080
FB090F 6030F	60x65/75x30	BMB 6030	FB090F 17090F	170x175/200x90	BMB 17090
FB090F 6035F	60x65/75x35	BMB 6035	FB090F 18060F	180x185/215x60	BMB 18060
FB090F 6040F	60x65/75x40	BMB 6040	FB090F 18070F	180x185/215x70	BMB 18070
FB090F 6050F	60x65/75x50	BMB 6050	FB090F 18080F	180x185/215x80	BMB 18080
FB090F 6060F	60x65/75x60	BMB 6060	FB090F 18090F	180x185/215x90	BMB 18090
FB090F 6530F	65x70/80x30	BMB 6530	FB090F 19060F	190x195/225x60	BMB 19060
FB090F 6535F	65x70/80x35	BMB 6535	FB090F 19070F	190x195/225x70	BMB 19070
FB090F 6540F	65x70/80x40	BMB 6540	FB090F 19080F	190x195/225x80	BMB 19080
FB090F 654085F	65x70/85x40	BMB 654085	FB090F 19090F	190x195/225x90	BMB 19090
FB090F 6550F	65x70/80x50	BMB 6550	FB090F 20060F	200x205/235x60	BMB 20060
FB090F 6560F	65x70/80x60	BMB 6560	FB090F 20070F	200x205/235x70	BMB 20070
FB090F 7035F	70x75/85x35	BMB 7035	FB090F 20080F	200x205/235x80	BMB 20080
FB090F 7040F	70x75/85x40	BMB 7040	FB090F 20090F	200x205/235x90	BMB 20090
FB090F 7050F	70x75/85x50	BMB 7050	FB090F 22090F	220x225/245x90	BMB 22090
FB090F 7060F	70x75/85x60	BMB 7060	FB090F 22560F	225x230/x60	BMB 22560
FB090F 7070F	70x75/85x80	BMB 7070	FB090F 22570F	225x230/x70	BMB 22570
FB090F 7535F	75x80/90x35	BMB 7535	FB090F 22580F	225x230/x80	BMB 22580
FB090F 7540F	75x80/90x40	BMB 7540	FB090F 22590F	225x230/x90	BMB 22590
FB090F 7550F	75x80/90x50	BMB 7550	FB090F 23090F	230x235/265x90	BMB 23090
FB090F 7560F	75x80/90x60	BMB 7560	FB090F 25060F	250x255/x60	BMB 25060
FB090F 7570F	75x80/90x70	BMB 7570	FB090F 25070F	250x255/x70	BMB 25070
FB090F 8035F	80x85/95x35	BMB 8035	FB090F 25080F	250x255/x80	BMB 25080
FB090F 8040F	80x85/95x40	BMB 8040	FB090F 25090F	250x255/x90	BMB 25090
FB090F 8050F	80x85/95x50	BMB 8050	FB090F 26560F	265x270/x60	BMB 26560
FB090F 8060F	80x85/95x60	BMB 8060	FB090F 26570F	265x270/x70	BMB 26570
FB090F 8070F	80x85/95x70	BMB 8070	FB090F 26580F	265x270/x80	BMB 26580
FB090F 8080F	80x85/95x80	BMB 8080	FB090F 26590F	265x270/x90	BMB 26590
FB090F 9050F	90x95/110x50	BMB 9050	FB090F 28560F	285x285/x60	BMB 28560
FB090F 9060F	90x95/110x60	BMB 9060	FB090F 28570F	285x285/x70	BMB 28570
FB090F 9070F	90x95/110x70	BMB 9070	FB090F 28580F	285x285/x80	BMB 28580
FB090F 9080F	90x95/110x80	BMB 9080	FB090F 28590F	285x285/x90	BMB 28590
FB090F 9090F	90x95/110x100	BMB 9090	FB090F 30060F	300x305/x60	BMB 30060
FB090F 10050F	100x105/120x50	BMB 10050	FB090F 30070F	300x305/x70	BMB 30070
FB090F 10060F	100x105/120x60	BMB 10060	FB090F 30080F	300x305/x80	BMB 30080
FB090F 30090F	300x305/x90	BMB 30090			



JINTAI FB092 similar as GLT-GleitLagerTechnik GmbH BRO-MET BMZ/L Cylindrical bushing

JINTAI FB092 Bearing and GLT Bearing Standard Metric Size

单位 Unit: mm

JINTAI CODE	d*D*L(mm)	GLT CODE	JINTAI CODE	d*D*L(mm)	GLT CODE
FB092 1010	10x12x10	BMZ/L 1010	FB092 10570	105x110x70	BMZ/L 10570
FB092 1015	10x12x15	BMZ/L 1015	FB092 10580	105x110x80	BMZ/L 10580
FB092 1020	10x12x20	BMZ/L 1020	FB092 10590	105x110x90	BMZ/L 10590
FB092 1210	12x14x10	BMZ/L 1210	FB092 105100	105x110x100	BMZ/L 105100
FB092 1215	12x14x15	BMZ/L 1215	FB092 11050	110x115x50	BMZ/L 11050
FB092 1220	12x14x20	BMZ/L 1220	FB092 11060	110x115x60	BMZ/L 11060
FB092 1410	14x16x10	BMZ/L 1410	FB092 11070	110x115x70	BMZ/L 11070
FB092 1415	14x16x15	BMZ/L 1415	FB092 11080	110x115x80	BMZ/L 11080
FB092 1420	14x16x20	BMZ/L 1420	FB092 11090	110x115x90	BMZ/L 11090
FB092 1425	14x16x25	BMZ/L 1425	FB092 11095	110x115x95	BMZ/L 11095
FB092 1510	15x17x10	BMZ/L 1510	FB092 110100	110x115x100	BMZ/L 110100
FB092 1515	15x17x15	BMZ/L 1515	FB092 11550	115x120x50	BMZ/L 11550
FB092 1520	15x17x20	BMZ/L 1520	FB092 11560	115x120x60	BMZ/L 11560
FB092 1525	15x17x25	BMZ/L 1525	FB092 11570	115x120x70	BMZ/L 11570
FB092 1610	16x18x10	BMZ/L 1610	FB092 11580	115x120x80	BMZ/L 11580
FB092 1615	16x18x15	BMZ/L 1615	FB092 11590	115x120x90	BMZ/L 11590
FB092 1620	16x18x20	BMZ/L 1620	FB092 115100	115x120x100	BMZ/L 115100
FB092 1625	16x18x25	BMZ/L 1625	FB092 12025	120x125x25	BMZ/L 12025
FB092 1810	18x20x10	BMZ/L 1810	FB092 12050	120x125x50	BMZ/L 12050
FB092 1815	18x20x15	BMZ/L 1815	FB092 12060	120x125x60	BMZ/L 12060
FB092 1820	18x20x20	BMZ/L 1820	FB092 12070	120x125x70	BMZ/L 12070
FB092 1825	18x20x25	BMZ/L 1825	FB092 12080	120x125x80	BMZ/L 12080
FB092 182115	18x21x15	BMZ/L 182115	FB092 12090	120x125x90	BMZ/L 12090
FB092 182120	18x21x20	BMZ/L 182120	FB092 12095	120x125x95	BMZ/L 12095
FB092 182125	18x21x25	BMZ/L 182125	FB092 120100	120x125x100	BMZ/L 120100
FB092 202210	20x22x10	BMZ/L 202210	FB092 12560	125x130x60	BMZ/L 12560
FB092 202215	20x22x15	BMZ/L 202215	FB092 12570	125x130x70	BMZ/L 12570
FB092 202220	20x22x20	BMZ/L 202220	FB092 12580	125x130x80	BMZ/L 12580
FB092 202225	20x22x25	BMZ/L 202225	FB092 12590	125x130x90	BMZ/L 12590
FB092 2010	20x23x10	BMZ/L 2010	FB092 125100	125x130x100	BMZ/L 125100
FB092 2015	20x23x15	BMZ/L 2015	FB092 13060	130x135x60	BMZ/L 13060
FB092 2020	20x23x20	BMZ/L 2020	FB092 13070	130x135x70	BMZ/L 13070
FB092 2025	20x23x25	BMZ/L 2025	FB092 13080	130x135x80	BMZ/L 13080
FB092 2030	20x23x30	BMZ/L 2030	FB092 13090	130x135x90	BMZ/L 13090
FB092 2210	22x25x10	BMZ/L 2210	FB092 130100	130x135x100	BMZ/L 130100
FB092 2215	22x25x15	BMZ/L 2215	FB092 13560	135x140x60	BMZ/L 13560
FB092 2220	22x25x20	BMZ/L 2220	FB092 13570	135x140x70	BMZ/L 13570
FB092 2225	22x25x25	BMZ/L 2225	FB092 13580	135x140x80	BMZ/L 13580
FB092 2230	22x25x30	BMZ/L 2230	FB092 13590	135x140x90	BMZ/L 13590
FB092 2410	24x27x10	BMZ/L 2410	FB092 135100	135x140x100	BMZ/L 135100
FB092 2415	24x27x15	BMZ/L 2415	FB092 14050	140x145x50	BMZ/L 14050
FB092 2420	24x27x20	BMZ/L 2420	FB092 14060	140x145x60	BMZ/L 14060
FB092 2425	24x27x25	BMZ/L 2425	FB092 14070	140x145x70	BMZ/L 14070
FB092 242810	24x28x10	BMZ/L 242810	FB092 14080	140x145x80	BMZ/L 14080
FB092 242815	24x28x15	BMZ/L 242815	FB092 14090	140x145x90	BMZ/L 14090
FB092 242820	24x28x20	BMZ/L 242820	FB092 140100	140x145x100	BMZ/L 140100
FB092 242825	24x28x25	BMZ/L 242825	FB092 14560	145x150x60	BMZ/L 14560
FB092 242830	24x28x30	BMZ/L 242830	FB092 14570	145x150x70	BMZ/L 14570
FB092 2515	25x28x15	BMZ/L 2515	FB092 14580	145x150x80	BMZ/L 14580
FB092 2520	25x28x20	BMZ/L 2520	FB092 14590	145x150x90	BMZ/L 14590
FB092 2525	25x28x25	BMZ/L 2525	FB092 145100	145x150x100	BMZ/L 145100
FB092 2530	25x28x30	BMZ/L 2530	FB092 15045	150x155x45	BMZ/L 15045
FB092 2550	25x28x50	BMZ/L 2550	FB092 15060	150x155x60	BMZ/L 15060
FB092 283115	28x31x15	BMZ/L 283115	FB092 15070	150x155x70	BMZ/L 15070
FB092 283120	28x31x20	BMZ/L 283120	FB092 15080	150x155x80	BMZ/L 15080
FB092 283125	28x31x25	BMZ/L 283125	FB092 15090	150x155x90	BMZ/L 15090
FB092 283130	28x31x30	BMZ/L 283130	FB092 150100	150x155x100	BMZ/L 150100
FB092 2815	28x32x15	BMZ/L 2815	FB092 15560	155x160x60	BMZ/L 15560
FB092 2820	28x32x20	BMZ/L 2820	FB092 15570	155x160x70	BMZ/L 15570
FB092 2825	28x32x25	BMZ/L 2825	FB092 15580	155x160x80	BMZ/L 15580
FB092 2830	28x32x30	BMZ/L 2830	FB092 15590	155x160x90	BMZ/L 15590
FB092 3015	30x34x15	BMZ/L 3015	FB092 155100	155x160x100	BMZ/L 155100
FB092 3020	30x34x20	BMZ/L 3020	FB092 16060	160x165x60	BMZ/L 16060
FB092 3025	30x34x25	BMZ/L 3025	FB092 16070	160x165x70	BMZ/L 16070
FB092 3030	30x34x30	BMZ/L 3030	FB092 16080	160x165x80	BMZ/L 16080
FB092 3035	30x34x35	BMZ/L 3035	FB092 16090	160x165x90	BMZ/L 16090
FB092 3040	30x34x40	BMZ/L 3040	FB092 160100	160x165x100	BMZ/L 160100
FB092 3215	32x36x15	BMZ/L 3215	FB092 16560	165x170x60	BMZ/L 16560
FB092 3220	32x36x20	BMZ/L 3220	FB092 16570	165x170x70	BMZ/L 16570
FB092 3225	32x36x25	BMZ/L 3225	FB092 16580	165x170x80	BMZ/L 16580
FB092 3230	32x36x30	BMZ/L 3230	FB092 16590	165x170x90	BMZ/L 16590
FB092 3235	32x36x35	BMZ/L 3235	FB092 165100	165x170x100	BMZ/L 165100
FB092 3240	32x36x40	BMZ/L 3240	FB092 17060	170x175x60	BMZ/L 17060
FB092 3520	35x39x20	BMZ/L 3520	FB092 17070	170x175x70	BMZ/L 17070
FB092 3525	35x39x25	BMZ/L 3525	FB092 17080	170x175x80	BMZ/L 17080
FB092 3530	35x39x30	BMZ/L 3530	FB092 17090	170x175x90	BMZ/L 17090
FB092 3540	35x39x40	BMZ/L 3540	FB092 170100	170x175x100	BMZ/L 170100
FB092 3550	35x39x50	BMZ/L 3550	FB092 17550	175x180x50	BMZ/L 17550
FB092 4020	40x44x20	BMZ/L 4020	FB092 17560	175x180x60	BMZ/L 17560
FB092 4025	40x44x25	BMZ/L 4025	FB092 17570	175x180x70	BMZ/L 17570
FB092 4030	40x44x30	BMZ/L 4030	FB092 17580	175x180x80	BMZ/L 17580
FB092 4035	40x44x35	BMZ/L 4035	FB092 17590	175x180x90	BMZ/L 17590
FB092 4040	40x44x40	BMZ/L 4040	FB092 175100	175x180x100	BMZ/L 175100

FB092 4050	40x44x50	BMZ/L 4050	FB092 18045	180x185x45	BMZ/L 18045
FB092 4520	45x50x20	BMZ/L 4520	FB092 18060	180x185x60	BMZ/L 18060
FB092 4525	45x50x25	BMZ/L 4525	FB092 18070	180x185x70	BMZ/L 18070
FB092 4530	45x50x30	BMZ/L 4530	FB092 18080	180x185x80	BMZ/L 18080
FB092 4535	45x50x35	BMZ/L 4535	FB092 18090	180x185x90	BMZ/L 18090
FB092 4540	45x50x40	BMZ/L 4540	FB092 180100	180x185x100	BMZ/L 180100
FB092 4550	45x50x50	BMZ/L 4550	FB092 18560	185x190x60	BMZ/L 18560
FB092 4560	45x50x60	BMZ/L 4560	FB092 18570	185x190x70	BMZ/L 18570
FB092 5020	50x55x20	BMZ/L 5020	FB092 18580	185x190x80	BMZ/L 18580
FB092 5025	50x55x25	BMZ/L 5025	FB092 18590	185x190x90	BMZ/L 18590
FB092 5030	50x55x30	BMZ/L 5030	FB092 185100	185x190x100	BMZ/L 185100
FB092 5035	50x55x35	BMZ/L 5035	FB092 19060	190x195x60	BMZ/L 19060
FB092 5040	50x55x40	BMZ/L 5040	FB092 19070	190x195x70	BMZ/L 19070
FB092 5050	50x55x50	BMZ/L 5050	FB092 19080	190x195x80	BMZ/L 19080
FB092 5060	50x55x60	BMZ/L 5060	FB092 19090	190x195x90	BMZ/L 19090
FB092 5520	55x60x20	BMZ/L 5520	FB092 190100	190x195x100	BMZ/L 190100
FB092 5525	55x60x25	BMZ/L 5525	FB092 19560	195x200x60	BMZ/L 19560
FB092 5530	55x60x30	BMZ/L 5530	FB092 19570	195x200x70	BMZ/L 19570
FB092 5535	55x60x35	BMZ/L 5535	FB092 19580	195x200x80	BMZ/L 19580
FB092 5540	55x60x40	BMZ/L 5540	FB092 19590	195x200x90	BMZ/L 19590
FB092 5550	55x60x50	BMZ/L 5550	FB092 195100	195x200x100	BMZ/L 195100
FB092 5560	55x60x60	BMZ/L 5560	FB092 20060	200x205x60	BMZ/L 20060
FB092 6025	60x65x25	BMZ/L 6025	FB092 20070	200x205x70	BMZ/L 20070
FB092 6030	60x65x30	BMZ/L 6030	FB092 20080	200x205x80	BMZ/L 20080
FB092 6035	60x65x35	BMZ/L 6035	FB092 20090	200x205x90	BMZ/L 20090
FB092 6040	60x65x40	BMZ/L 6040	FB092 200100	200x205x100	BMZ/L 200100
FB092 6045	60x65x45	BMZ/L 6045	FB092 20560	205x210x60	BMZ/L 20560
FB092 6050	60x65x50	BMZ/L 6050	FB092 20570	205x210x70	BMZ/L 20570
FB092 6060	60x65x60	BMZ/L 6060	FB092 20580	205x210x80	BMZ/L 20580
FB092 6070	60x65x70	BMZ/L 6070	FB092 20590	205x210x90	BMZ/L 20590
FB092 6530	65x70x30	BMZ/L 6530	FB092 205100	205x210x100	BMZ/L 205100
FB092 6535	65x70x35	BMZ/L 6535	FB092 21060	210x215x60	BMZ/L 21060
FB092 6540	65x70x40	BMZ/L 6540	FB092 21070	210x215x70	BMZ/L 21070
FB092 6550	65x70x50	BMZ/L 6550	FB092 21080	210x215x80	BMZ/L 21080
FB092 6560	65x70x60	BMZ/L 6560	FB092 21090	210x215x90	BMZ/L 21090
FB092 6570	65x70x70	BMZ/L 6570	FB092 210100	210x215x100	BMZ/L 210100
FB092 7030	70x75x30	BMZ/L 7030	FB092 21560	215x220x60	BMZ/L 21560
FB092 7035	70x75x35	BMZ/L 7035	FB092 21570	215x220x70	BMZ/L 21570
FB092 7040	70x75x40	BMZ/L 7040	FB092 21580	215x220x80	BMZ/L 21580
FB092 7045	70x75x45	BMZ/L 7045	FB092 21590	215x220x90	BMZ/L 21590
FB092 7050	70x75x50	BMZ/L 7050	FB092 215100	215x220x100	BMZ/L 215100
FB092 7060	70x75x60	BMZ/L 7060	FB092 22060	220x225x60	BMZ/L 22060
FB092 7070	70x75x80	BMZ/L 7070	FB092 22070	220x225x70	BMZ/L 22070
FB092 7530	75x80x30	BMZ/L 7530	FB092 22080	220x225x80	BMZ/L 22080
FB092 7535	75x80x35	BMZ/L 7535	FB092 22090	220x225x90	BMZ/L 22090
FB092 7540	75x80x40	BMZ/L 7540	FB092 220100	220x225x100	BMZ/L 220100
FB092 7550	75x80x50	BMZ/L 7550	FB092 22560	225x230x60	BMZ/L 22560
FB092 7560	75x80x60	BMZ/L 7560	FB092 22570	225x230x70	BMZ/L 22570
FB092 7570	75x80x70	BMZ/L 7570	FB092 22580	225x230x80	BMZ/L 22580
FB092 7580	75x80x80	BMZ/L 7580	FB092 22590	225x230x90	BMZ/L 22590
FB092 8030	80x85x30	BMZ/L 8030	FB092 225100	225x230x100	BMZ/L 225100
FB092 8035	80x85x35	BMZ/L 8035	FB092 23060	230x235x60	BMZ/L 23060
FB092 8040	80x85x40	BMZ/L 8040	FB092 23070	230x235x70	BMZ/L 23070
FB092 8050	80x85x50	BMZ/L 8050	FB092 23080	230x235x80	BMZ/L 23080
FB092 8060	80x85x60	BMZ/L 8060	FB092 23090	230x235x90	BMZ/L 23090
FB092 8070	80x85x70	BMZ/L 8070	FB092 230100	230x235x100	BMZ/L 230100
FB092 8080	80x85x80	BMZ/L 8080	FB092 24060	240x245x60	BMZ/L 24060
FB092 8530	85x90x30	BMZ/L 8530	FB092 24070	240x245x70	BMZ/L 24070
FB092 8535	85x90x35	BMZ/L 8535	FB092 24080	240x245x80	BMZ/L 24080
FB092 8540	85x90x40	BMZ/L 8540	FB092 24090	240x245x90	BMZ/L 24090
FB092 8550	85x90x50	BMZ/L 8550	FB092 240100	240x245x100	BMZ/L 240100
FB092 8560	85x90x60	BMZ/L 8560	FB092 25060	250x255x60	BMZ/L 25060
FB092 8570	85x90x70	BMZ/L 8570	FB092 25070	250x255x70	BMZ/L 25070
FB092 8580	85x90x80	BMZ/L 8580	FB092 25080	250x255x80	BMZ/L 25080
FB092 8590	85x90x90	BMZ/L 8590	FB092 25090	250x255x90	BMZ/L 25090
FB092 9030	90x95x30	BMZ/L 9030	FB092 250100	250x255x100	BMZ/L 250100
FB092 9035	90x95x35	BMZ/L 9035	FB092 26060	260x265x60	BMZ/L 26060
FB092 9040	90x95x40	BMZ/L 9040	FB092 26070	260x265x70	BMZ/L 26070
FB092 9050	90x95x50	BMZ/L 9050	FB092 26080	260x265x80	BMZ/L 26080
FB092 9060	90x95x60	BMZ/L 9060	FB092 26090	260x265x90	BMZ/L 26090
FB092 9070	90x95x70	BMZ/L 9070	FB092 260100	260x265x100	BMZ/L 260100
FB092 9080	90x95x80	BMZ/L 9080	FB092 27060	270x275x60	BMZ/L 27060
FB092 9090	90x95x90	BMZ/L 9090	FB092 27070	270x275x70	BMZ/L 27070
FB092 90100	90x95x100	BMZ/L 90100	FB092 27080	270x275x80	BMZ/L 27080
FB092 9540	95x100x40	BMZ/L 9540	FB092 27090	270x275x90	BMZ/L 27090
FB092 9550	95x100x50	BMZ/L 9550	FB092 270100	270x275x100	BMZ/L 270100
FB092 9560	95x100x60	BMZ/L 9560	FB092 28060	280x285x60	BMZ/L 28060
FB092 9570	95x100x70	BMZ/L 9570	FB092 28070	280x285x70	BMZ/L 28070
FB092 9580	95x100x80	BMZ/L 9580	FB092 28080	280x285x80	BMZ/L 28080
FB092 9590	95x100x90	BMZ/L 9590	FB092 28090	280x285x90	BMZ/L 28090
FB092 95100	95x100x100	BMZ/L 95100	FB092 280100	280x285x100	BMZ/L 280100
FB092 10040	100x105x40	BMZ/L 10040	FB092 29060	290x295x60	BMZ/L 29060
FB092 10050	100x105x50	BMZ/L 10050	FB092 29070	290x295x70	BMZ/L 29070
FB092 10060	100x105x60	BMZ/L 10060	FB092 29080	290x295x80	BMZ/L 29080
FB092 10070	100x105x70	BMZ/L 10070	FB092 29090	290x295x90	BMZ/L 29090
FB092 10080	100x105x80	BMZ/L 10080	FB092 290100	290x295x100	BMZ/L 290100
FB092 10090	100x105x90	BMZ/L 10090	FB092 30060	300x305x60	BMZ/L 30060
FB092 10095	100x105x95	BMZ/L 10095	FB092 30070	300x305x70	BMZ/L 30070
FB092 100100	100x105x100	BMZ/L 100100	FB092 30080	300x305x80	BMZ/L 30080
FB092 10550	105x110x50	BMZ/L 10550	FB092 30090	300x305x90	BMZ/L 30090
FB092 10560	105x110x60	BMZ/L 10560	FB092 300100	300x305x100	BMZ/L 300100



JINTAI FB092F similar as GLT-GleitLagerTechnik GmbH BRO-MET BMB/L Flanged bushing

JINTAI FB092F Bearing and GLT Bearing Standard Metric Size

单位 Unit: mm

JINTAI CODE	d*D*L(mm)	GLT CODE	JINTAI CODE	d*D*L(mm)	GLT CODE
FB092F 2016F	20x23/30x16	BMB/L 2016	FB092F 10070F	100x105/120x70	BMB/L 10070
FB092F 2020F	20x23/30x20	BMB/L 2020	FB092F 10080F	100x105/120x80	BMB/L 10080
FB092F 2512.5F	25x28/35x12.5	BMB/L 2512.5	FB092F 10090F	100x105/120x90	BMB/L 10090
FB092F 2515F	25x28/35x15	BMB/L 2515	FB092F 11050F	110x115/130x50	BMB/L 11050
FB092F 2516F	25x28/35x16	BMB/L 2516	FB092F 11060F	110x115/130x60	BMB/L 11060
FB092F 2520F	25x28/35x20	BMB/L 2520	FB092F 11070F	110x115/130x70	BMB/L 11070
FB092F 2525F	25x28/35x25	BMB/L 2525	FB092F 11080F	110x115/130x80	BMB/L 11080
FB092F 3020F	30x34/45x20	BMB/L 3020	FB092F 11090F	110x115/130x90	BMB/L 11090
FB092F 3025F	30x34/45x25	BMB/L 3025	FB092F 12050F	120x125/145x50	BMB/L 12050
FB092F 3030F	30x34/45x30	BMB/L 3030	FB092F 12060F	120x125/145x60	BMB/L 12060
FB092F 3520F	35x39/50x20	BMB/L 3520	FB092F 12070F	120x125/145x70	BMB/L 12070
FB092F 3525F	35x39/50x25	BMB/L 3525	FB092F 12080F	120x125/145x80	BMB/L 12080
FB092F 3530F	35x39/50x30	BMB/L 3530	FB092F 12090F	120x125/145x90	BMB/L 12090
FB092F 3535F	35x39/50x35	BMB/L 3535	FB092F 13060F	130x135/155x60	BMB/L 13060
FB092F 4025F	40x44/55x25	BMB/L 4025	FB092F 13070F	130x135/155x70	BMB/L 13070
FB092F 4030F	40x44/55x30	BMB/L 4030	FB092F 13080F	130x135/155x80	BMB/L 13080
FB092F 4035F	40x44/55x35	BMB/L 4035	FB092F 13090F	130x135/155x90	BMB/L 13090
FB092F 4040F	40x44/55x40	BMB/L 4040	FB092F 14060F	140x145/165x60	BMB/L 14060
FB092F 4530F	45x50/60x30	BMB/L 4530	FB092F 14070F	140x145/165x70	BMB/L 14070
FB092F 4535F	45x50/60x35	BMB/L 4535	FB092F 14080F	140x145/165x80	BMB/L 14080
FB092F 4540F	45x50/60x40	BMB/L 4540	FB092F 14090F	140x145/165x90	BMB/L 14090
FB092F 4545F	45x50/60x45	BMB/L 4545	FB092F 15060F	150x155/180x60	BMB/L 15060
FB092F 4550F	45x50/60x50	BMB/L 4550	FB092F 15070F	150x155/180x70	BMB/L 15070
FB092F 5030F	50x55/65x30	BMB/L 5030	FB092F 15080F	150x155/180x80	BMB/L 15080
FB092F 5035F	50x55/65x35	BMB/L 5035	FB092F 15090F	150x155/180x90	BMB/L 15090
FB092F 5040F	50x55/65x40	BMB/L 5040	FB092F 16060F	160x165/190x60	BMB/L 16060
FB092F 5050F	50x55/65x50	BMB/L 5050	FB092F 16070F	160x165/190x70	BMB/L 16070
FB092F 5530F	55x60/70x30	BMB/L 5530	FB092F 16080F	160x165/190x80	BMB/L 16080
FB092F 5535F	55x60/70x35	BMB/L 5535	FB092F 16090F	160x165/190x90	BMB/L 16090
FB092F 5540F	55x60/70x40	BMB/L 5540	FB092F 17060F	170x175/200x60	BMB/L 17060
FB092F 5550F	55x60/70x50	BMB/L 5550	FB092F 17070F	170x175/200x70	BMB/L 17070
FB092F 6025F	60x65/75x25	BMB/L 6025	FB092F 17080F	170x175/200x80	BMB/L 17080
FB092F 6030F	60x65/75x30	BMB/L 6030	FB092F 17090F	170x175/200x90	BMB/L 17090
FB092F 6035F	60x65/75x35	BMB/L 6035	FB092F 18060F	180x185/215x60	BMB/L 18060
FB092F 6040F	60x65/75x40	BMB/L 6040	FB092F 18070F	180x185/215x70	BMB/L 18070
FB092F 6050F	60x65/75x50	BMB/L 6050	FB092F 18080F	180x185/215x80	BMB/L 18080
FB092F 6060F	60x65/75x60	BMB/L 6060	FB092F 18090F	180x185/215x90	BMB/L 18090
FB092F 6530F	65x70/80x30	BMB/L 6530	FB092F 19060F	190x195/225x60	BMB/L 19060
FB092F 6535F	65x70/80x35	BMB/L 6535	FB092F 19070F	190x195/225x70	BMB/L 19070
FB092F 6540F	65x70/80x40	BMB/L 6540	FB092F 19080F	190x195/225x80	BMB/L 19080
FB092F 654085F	65x70/85x40	BMB/L 654085	FB092F 19090F	190x195/225x90	BMB/L 19090
FB092F 6550F	65x70/80x50	BMB/L 6550	FB092F 20060F	200x205/235x60	BMB/L 20060
FB092F 6560F	65x70/80x60	BMB/L 6560	FB092F 20070F	200x205/235x70	BMB/L 20070
FB092F 7035F	70x75/85x35	BMB/L 7035	FB092F 20080F	200x205/235x80	BMB/L 20080
FB092F 7040F	70x75/85x40	BMB/L 7040	FB092F 20090F	200x205/235x90	BMB/L 20090
FB092F 7050F	70x75/85x50	BMB/L 7050	FB092F 22090F	220x225/245x90	BMB/L 22090
FB092F 7060F	70x75/85x60	BMB/L 7060	FB092F 22560F	225x230/x60	BMB/L 22560
FB092F 7070F	70x75/85x80	BMB/L 7070	FB092F 22570F	225x230/x70	BMB/L 22570
FB092F 7535F	75x80/90x35	BMB/L 7535	FB092F 22580F	225x230/x80	BMB/L 22580
FB092F 7540F	75x80/90x40	BMB/L 7540	FB092F 22590F	225x230/x90	BMB/L 22590
FB092F 7550F	75x80/90x50	BMB/L 7550	FB092F 23090F	230x235/265x90	BMB/L 23090
FB092F 7560F	75x80/90x60	BMB/L 7560	FB092F 25060F	250x255/x60	BMB/L 25060
FB092F 7570F	75x80/90x70	BMB/L 7570	FB092F 25070F	250x255/x70	BMB/L 25070
FB092F 8035F	80x85/95x35	BMB/L 8035	FB092F 25080F	250x255/x80	BMB/L 25080
FB092F 8040F	80x85/95x40	BMB/L 8040	FB092F 25090F	250x255/x90	BMB/L 25090
FB092F 8050F	80x85/95x50	BMB/L 8050	FB092F 26560F	265x270/x60	BMB/L 26560
FB092F 8060F	80x85/95x60	BMB/L 8060	FB092F 26570F	265x270/x70	BMB/L 26570
FB092F 8070F	80x85/95x70	BMB/L 8070	FB092F 26580F	265x270/x80	BMB/L 26580
FB092F 8080F	80x85/95x80	BMB/L 8080	FB092F 26590F	265x270/x90	BMB/L 26590
FB092F 9050F	90x95/110x50	BMB/L 9050	FB092F 28560F	285x285/x60	BMB/L 28560
FB092F 9060F	90x95/110x60	BMB/L 9060	FB092F 28570F	285x285/x70	BMB/L 28570
FB092F 9070F	90x95/110x70	BMB/L 9070	FB092F 28580F	285x285/x80	BMB/L 28580
FB092F 9080F	90x95/110x80	BMB/L 9080	FB092F 28590F	285x285/x90	BMB/L 28590
FB092F 9090F	90x95/110x100	BMB/L 9090	FB092F 30060F	300x305/x60	BMB/L 30060
FB092F 10050F	100x105/120x50	BMB/L 10050	FB092F 30070F	300x305/x70	BMB/L 30070
FB092F 10060F	100x105/120x60	BMB/L 10060	FB092F 30080F	300x305/x80	BMB/L 30080
FB092F 30090F	300x305/x90	BMB/L 30090			

JDB 固体镶嵌轴承 JDB Solid-lubricant-Inlaid Bearings



材料结构 Material Structure

铜合金镶嵌式固体润滑剂自润滑轴承，结合了铜合金的耐磨性及固体润滑剂的自润滑性能，使其在使用过程中无需加油维护。产品被广泛应用于高载、间歇性或摇摆运动，如汽机车生产流水线、水轮机、水库工作/事故门、塑胶机械、冲床周边设备等。根据使用的工况，可以提供各种类型的铜合金。

This material provides a maintenance-free bearing solution, particularly for high load, intermittent of oscillating motion. Solid lubricants within a bronze combines the strength of the bronze with the wear resistance and low friction. The application including automotive products line, water engineering, dam gate, plastic industries etc. Different bronze alloy type can be available according to the work condition.

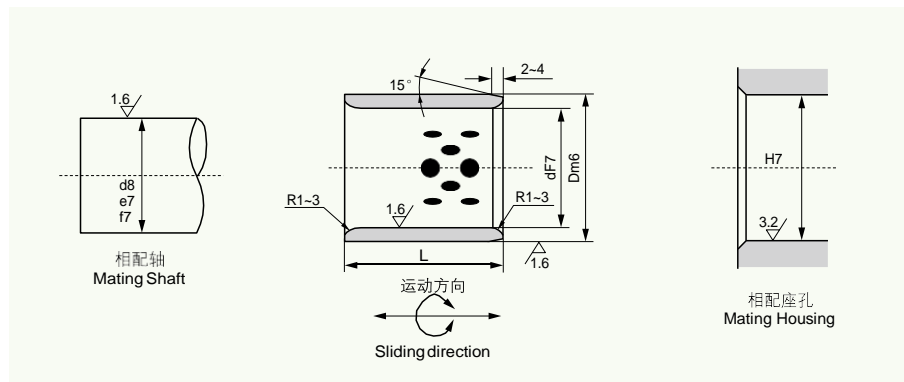
技术参数 Tech.Data

最大承载 Max. Load	静承载 Static Load	250N/mm ²
	动承载 Dynamic Load	100N/mm ²
最高线速度 Max linear speed	干摩擦 Dry Friction	0.3m/s
	油摩擦 Oil Friction	1.0m/s
最大PV值 PV limit		1.65N/mm ² ·m/s
抗拉强度 Tensile strength		750N/mm ²

使用温度 Working temperature		-100℃~+300℃
摩擦系数 Abrasion coefficient		0.03~0.20
导热系数 Heat conducting coefficient		60W(m·K) ⁻¹
热膨胀系数 Heat expansion coefficient		19·10 ⁻⁶ K ⁻¹
延伸率 Extensile rate		12%
硬度 Hardness		HB < 210



**JDB 直固体镶嵌轴承标准公制尺寸
JDB Solid-lubricant-Inlaid Bearings Standard Metric Size**



单位Unit: mm

d	D	内径 I.D. F7		外径 O.D. m6		L ^{-0.10} / _{-0.30}														
						8	10	12	15	16	20	25	30	35	40	50	60	70	80	
8	12	8	+0.028 +0.013	12	+0.018 +0.007	081208	081210	081212	081215											
10	14	10		14		101408	101410	101412	101415		101420									
12	18	12		18			121810	121812	121815	121816	121820	121825	121830							
13	19	13		19			131910		131915	131916										
14	20	14	+0.034 +0.016	20	+0.021 +0.008		142010	142012	142015		142020	142025	142030							
15	21	15		21			152110	152112	152115	152116	152120	152125	152130							
16	22	16		22			162210	162212	162215	162216	162220	162225	162230	162240						
18	24	18		24				182412	182415	182416	182420	182425	182430	182435	182440					
20	28	20		28			202810	202812	202815	202816	202820	202825	202830	202835	202840	202850				
22	32	22		32					223212	223215		223220	223225							
25	33	25		33					253312	253315	253316	253220	253325	253330	253335	253340	253350	253360		
30	38	30	+0.041 +0.020	38	+0.025 +0.009				303812	303815		303820	303825	303830	303835	303840	303850	303860		
35	45	35		45									354520	354525	354530	354535	354540	354550	354560	
40	50	40		50							405020	405025	405030	405035	405040	405050	405060	405070	405080	
45	55	45		55									455530	455535	455540	455550	455560			
50	60	50		60										506030	506035	506040	506050	506060	506070	506080



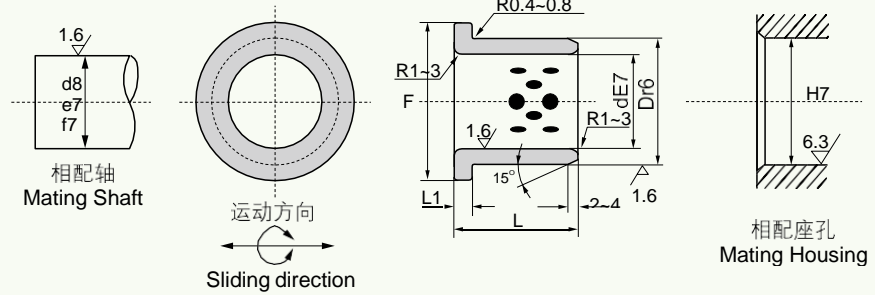
JDB 直固体镶嵌轴承标准公制尺寸

JDB Solid-lubricant-Inlaid Bearings Standard Metric Size

单位Unit: mm

d	D	内径 I.D. F7		外径 O.D. m6		L ^{-0.10} L _{-0.30}											
						30	35	40	50	60	70	80	100	120	130	140	150
50	62	50	+0.050 +0.025	62		506230	506235	506240	506250	506260	506270						
50	65	50		65		506530		506540	506550	506560	506570	506580	5065100				
55	70	55		70				557040	557050	557060	557070						
60	75	60		75	+0.030 +0.011	607430	607435	607440	607540	607460	607470	607480					
60	75	60		75		607530	607535	607540	607550	607560	607570	607580	6075100				
63	75	63		75						637560	637570	637580					
65	80	65		80					658050	658060	658070	658080					
70	85	70	+0.060 +0.030	85			708535	708540	708550	708560	708570	708580	7085100				
70	90	70		90					709050	709060	709070	709080					
75	90	75		90						759060	759070	759080	7590100				
75	95	75		95						759560	759570	759580	7595100				
80	96	80		96	+0.035 +0.013			809640	809560	809660	809670	809680	8096100	8096120			
80	100	80		100				8010040	8010050	8010060	8010070	8010080	80100100	80100120		80100140	
90	110	90		110		9011030			9011050	9011060	9011070	9011080	90110100	90110120			
100	120	100		120						10012060	10012070	10012080	100120100	100120120		100120140	
110	130	110	+0.071 +0.036	130								11013080	110130100	110130120			
120	140	120		140								12014080	120140100	120140120		120140140	
125	145	125		145									125145100	125145120			
130	150	130		150	+0.040 +0.015								130150100		130150130		
140	160	140	+0.083 +0.043	160									140160100			140160140	
150	170	150		170									150170100				150170150
160	180	160		180									160180100				160180150

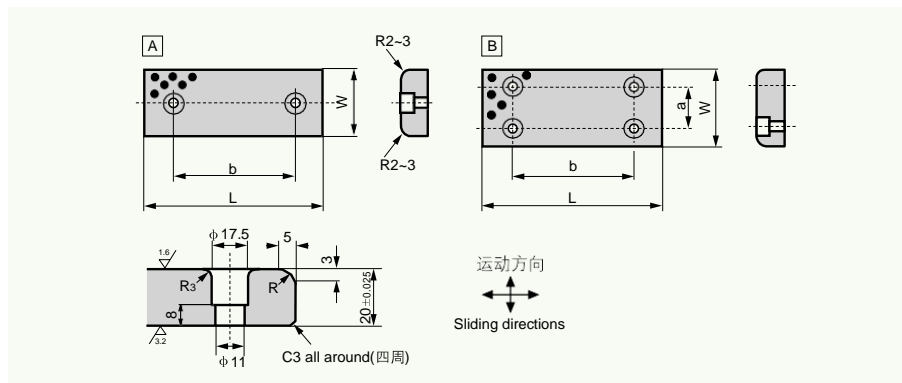
**JFB 翻边轴承标准公制尺寸
JFB Flange Bearings Standard Metric Size**



单位Unit: mm

d	D	内径 I.D. F7		外径 O.D. m6		F	L ₁	L ^{-0.10} / _{-0.30}									
		10	12	14	16			18	20	25	30	35	40	50	60	80	100
10	14	10	^{+0.040} / _{+0.025}	14	^{+0.034} / _{+0.023}	22	2	1015	1020								
12	18	12		18		25		1215	1220								
13	19	13		19		26		1315	1320								
14	20	14	^{+0.050} / _{+0.032}	20		27	3	1415	1420								
15	21	15		21	^{+0.041} / _{+0.028}	28		1515	1520	1525	1530						
16	22	16		22		29		1615	1620	1625	1630						
20	30	20		30		40			2020	2025	2030	2035					
25	35	25	^{+0.061} / _{+0.040}	35		45			2520	2525	2530	2535					
30	40	30		40	^{+0.050} / _{+0.034}	50			3020	3025	3030	3035	3040	3050			
35	45	35		45		60	5			3525	3530	3535	3540	3550			
40	50	40		50		65					4030	4035	4040	4050			
45	55	45	^{+0.075} / _{+0.050}	55		70					4530	4535	4540	4550	4560		
50	60	50		60	^{+0.060} / _{+0.041}	75						5050	5050	5060			
55	65	55		65		80						5540	5550	5560			
60	75	60		75	^{+0.062} / _{+0.043}	90						6040	6050	6060	6080		
70	85	70	^{+0.090} / _{+0.060}	85		105	7.5						7050	7060	7080		
75	90	75		90	^{+0.073} / _{+0.051}	110							7550	7560			
80	100	80		100		120								8060	8080	80100	
100	120	100		120	^{+0.076} / _{+0.054}	150	10							10060	10080	100100	
120	140	120	^{+0.107} / _{+0.072}	140	^{+0.088} / _{+0.063}	170								12060	12080	120100	

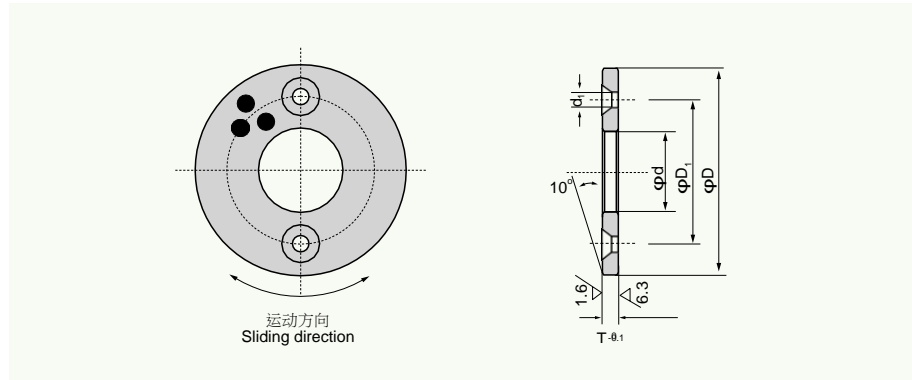
**JSP 滑块标准公制尺寸
JSP Sliding Plate Standard Metric Size**



单位Unit: mm

型号规格 Designation	W	L	a	b	Sketch 图示
JSP 28 × 75	28	75	-	45	
JSP 28 × 100		100		50	
JSP 28 × 150		150		100	
JSP 38 × 75	38	75	-	45	
JSP 38 × 100		100		50	
JSP 38 × 150		150		100	
JSP 48 × 75	48	75	-	45	
JSP 48 × 100		100		50	
JSP 48 × 125		125		75	
JSP 48 × 150	48	150	-	100	A
JSP 48 × 200		200		150	
JSP 58 × 75		75		45	
JSP 58 × 100	58	100	-	50	
JSP 58 × 150		150		100	
JSP 75 × 75		75		25	
JSP 75 × 100	75	100	-	50	
JSP 75 × 125		125		75	
JSP 75 × 150		150		100	
JSP 75 × 200	75	200	-	150	
JSP 100 × 100		100		50	
JSP 100 × 125		125		75	
JSP 100 × 150	100	150	50	100	
JSP 100 × 200		200		150	
JSP 100 × 250		250		200	
JSP 100 × 300	100	300	50	200	
JSP 125 × 125		125		75	
JSP 125 × 150		150		100	
JSP 125 × 200	125	200	50	150	B
JSP 125 × 250		250		200	
JSP 125 × 300		300		200	
JSP 125 × 350	125	350	50	200	
JSP 150 × 150		150		100	
JSP 150 × 200		200		150	
JSP 150 × 250	150	250	100	200	
JSP 150 × 300		300		200	

**JTW 止推垫片标准公制尺寸
JTW Thrust Washer Standard Metric Size**



单位Unit: mm

型号规格 Designation	ϕd	ϕD	$T_{-0.10}^0$	螺孔 Bolt Hole			
				ϕD_1	平头螺钉 Crop Bolt	ϕd_1	孔数 Bore Number
JTW 10	10.2	30		20			
JTW 12	12.2						
JTW 13	13.2	40		28			
JTW 14	14.2		3		M3	3.5	
JTW 15	15.2						
JTW 16	16.2	50		35			
JTW 18	18.2						2
JTW 20	20.2						
JTW 25	25.2	55		40	M5	6	
JTW 30	30.2	60	5	45			
JTW 35	35.2	70		50			
JTW 40	40.2	80		60			
JTW 45	45.3	90	7	70	M6	7	
JTW 50	50.3	100		75			
JTW 55	55.3	110	8	85			
JTW 60	60.3	120		90			
JTW 70	70.3	130		100			
JTW 75	75.3	140		110	M8	9	4
JTW 80	80.3	150		120			
JTW 90	90.5	170	10	140			
JTW 100	100.5	190		160	M10	11	
JTW 120	120.5	200		175			

FZ 直线轴承 FZ Ball Retainer Bearings



产品简介 Introduction

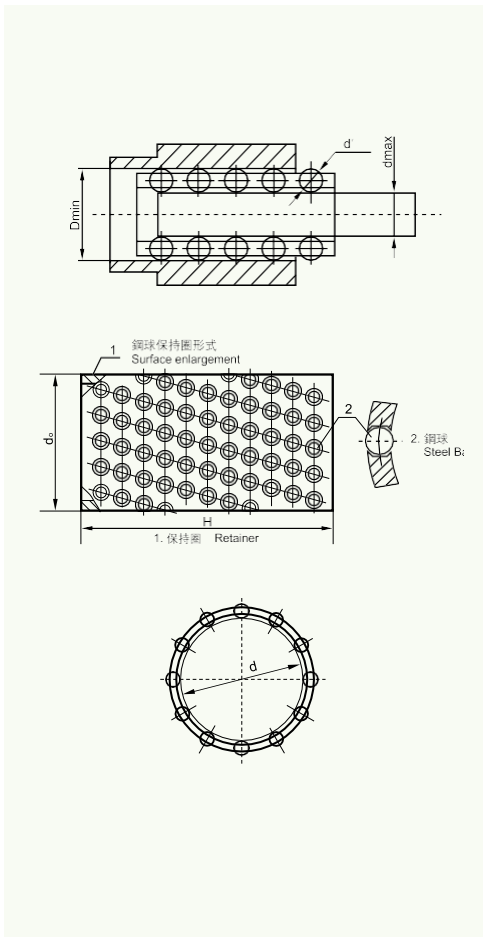
◎FZH (铜基)、FZL (铝基)、FZP (树脂基) 钢球保持圈, 分别以铜合金、硬铝合金、POM 树脂为基体, 并在其外圆表面上, 加工出排列有序、大小适当, 形状特殊的孔穴, 在其孔穴中镶入滚动轴承钢球。口采用最新的沟槽圆周锁球工艺, 有效地解决了传统式锁球和压痕式锁球不能完全防止钢球脱落的难题。孔底加工出 90° 止口使钢球在孔内自由转动而不脱落。由于钢球的直径大于保持圈的壁厚, 所以在使用时钢球高出保持圈内、外圆表面, 直接与相配的孔与轴接触, 使基体(保持圈)浮于中间, 并且相配的孔与轴半径之差小于钢球直径, 即钢球与之配合为过盈配合, 配合精度高, 轴与孔相对运动灵活。是保持圈的更新换代产品。

◎FZH. FZL. FZP. ball retainer are as copper, aluminium, POM base. they are machined some regular holes and embedded the steel-ball into. The new work-craft will prevent the ball getting out of as old. as the ball diameter is larger than the retainers thickness, so it will face to face directly with 90° guide bushing, that will bring high precision match now the ball retainer series items are designed to rotate on the post, as well as maintain its vertical motion. we believe this will give you the benefit of increasing accuracy.

优点与用途 Advantage And Use

◎传统的具有相对运动的孔与轴是有一定间隙的, 并孔与轴之间运动摩擦系数较大, 使用钢球保持圈后, 使轴与孔不直接接触, 而是通过中间微量过盈的钢球, 因而运动精度高, 滚动摩擦代替滑动摩擦, 滚动灵活, 摩擦系数小, 使用寿命长, 在既有转动、又有移动的场合, 用无油或加油的轴套与轴相配合, 虽然能满足, 但运动精度较低, 用滚动轴承, 只能满足轴相对转动的场合, 而钢球保持圈, 则上述二个条件均得到满足, 目前已广泛应用于冷冲模滚动模架、高精度机床、机床附件以及要求高精度轴向或轴径向同时运动场合。

◎As the traditional work-craft has some grudge between bushing with posts, and the coefficient of friction is larger. now we have changed the work-ways to steel-ball directly face to face guide bushing, so the precision is improved. it composes of both active roll and lower friction coefficient, now they have been widely used in punching machine, die machine, high precision machine which need rotation and vertical motion.



相配零件的要求 Installed Spares Requested

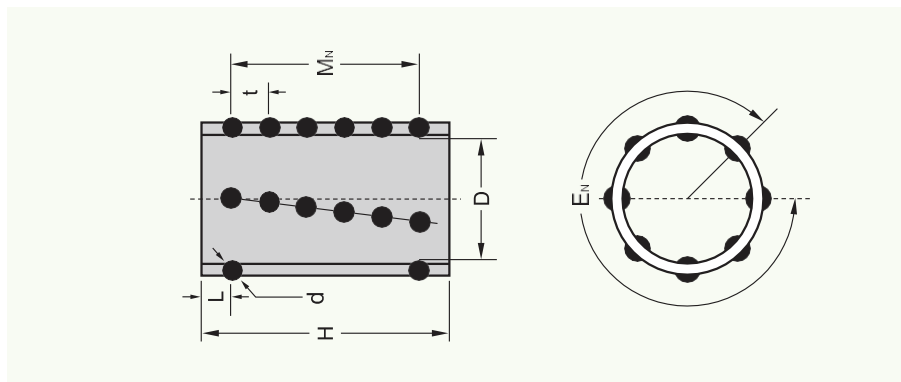
1. 导套: 材料 GCr15、YB9, 热处理, 硬度 HRC62~66, 技术条件按 GB/T12446 与轴配合应具有 0.01-0.02 径向过盈量, 表面粗糙度为 $R_0.05$ 2. 轴: 材料 GCr15、YB9, 热处理, 硬度 HRC62~66, 技术条件按 GB/T12446, 轴的公差采用 h5, 表面粗糙度为 $R_0.05$ 3. 测量: 用通用的测量手段 (气动量仪、外径千分尺、内径千分表等) 测量轴套和钢球的尺寸偏差值, 即可求出配合后的过盈量, 即 $Y_{max} = d_{max} + 2d' - D_{min}$, 要求过盈量为 0.01-0.02mm

1. GUIDE BUSHING: MATERIAL GCr15, YB9, HEAT TREATMENT HRC62-66, TECHNIQUE CONDITION ACCORDING TO GB/T1 2446. REQUEST 0.01-0.02mm THE SURFACE ROUGHNESS IS $R_0.05$

2. GUIDIE POSTS: MATERIAL GCr15, YB9, HEAT TREATMENT HRC62-66, THE TOLERANCE OF SHAFT IS h5, THE SURFACE ROUGHNESS IS $R_0.05$

3. SIZE TEST: IT IS TESTED BY OUTSIDE MICROMETER & DIAL GAUGE AS USUAL. THE $Y_{max} (Y_{max} + 2d' - D_{min})$ REQUEST 0.01-0.02mm

**FZ 钢球保持圈标准公制尺寸
FZ Ball Retainers Standard Metric Size**



单位unit:mm

型号规格 Designation	D	H	d	E_N	M_N	球 BALLS	t	L
FZ(*)1950	19	50		12	8	96		5.75
FZ(*)1960		60			10	120		5.25
FZ(*)2050	20	50		12	8	96		5.75
FZ(*)2060		60			10	120		5.25
FZ(*) 2250	22	50		14	8	112		5.75
FZ(*) 2260		60			10	140		5.25
FZ(*)2360	23	60	3		10	208	5.5	5.25
FZ(*)2475	24	75			13	128		4.50
FZ(*)2550	25	50		16	8	112		5.75
FZ(*)2560		60			10	160		5.25
FZ(*)2575		75			13	208		4.50
FZ(*)2775	27	75		14	13	208		4.50
FZ(*)2860	28	60			8	112		7.25
FZ(*)2875		75	11	154	5.00			
FZ(*)3060	30	60	4	16	8	112	6.5	7.25
FZ(*)3075		75			11	154		5.00
FZ(*)3260		60			8	128		7.25
FZ(*)3275	32	75			11	192		5.00
FZ(*)3390	36	90		16	13	208		6.00
FZ(*)3685		85			12	192		6.75
FZ(*)3690		90			13	208		6.00
FZ(*)3870	38	70		18	8	128		7.00
FZ(*)3890		90			11	176		5.00
FZ(*)4090	40	90		20	11	176		5.00
FZ(*)4590	45	90			11	198		5.00
FZ(*)45110		110	5	13	234	8.0	7.00	
FZ(*)5090	50	90		22	11	220		5.00
FZ(*)50110		110			13	260		7.00
FZ(*)6090	60	90		28	11	242		5.00
FZ(*)60110		110			13	286		7.00
FZ(*)80130	80	130			15	420		9.00

注: FZ(*)为: FZH(铜基)、FZL(铝基)、FZP(树脂基)

Notes: FZ(*) : FZH (Bronze based) FZL (Aluminum based) FZP (Resin based)

FD 四氟软带 FD PTFE Soft Strips



材料结构 Material Structure

◎FD以PTFE为主材，以铜粉及其它高分子添加剂为辅的耐磨性材料。产品广泛运用化工行业、油压、油缸、汽摩减振器、机床导轨、印刷机械、纺织机械等轻载但需要自润滑的场合。产品如经过特殊处理，可粘帖于钢质或者橡胶面上，产品在使用过程中无爬行现象。

◎FD consist of PTFE with bronze powder and additive material, This material structure enables the final goods have more light and easy for install. It is widely been used in chemica lindustries, medicalindustries, fluid hydraulic industries, textile machines, OA machines, Door/window hinges etc.

技术参数 Tech.Data

最大承载 Max. Load	静承载 Static Load	30N/mm ²
	动承载 Dynamic Load	20N/mm ²
使用温度 Temp. Limit		-40℃~+250℃
最高滑动速度 Tiptop Sliding Velocity	干摩擦 Dry Friction	0.5m/s
	油摩擦 Oil Friction	2m/s
摩擦系数 Friction Coeff.		0.10-0.20
允许最高PV值 PV limit	干摩擦 Dry Friction	1.65N/mm ² ·m/s

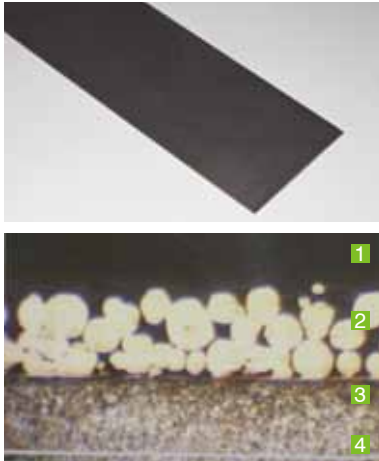
FD 产品活塞环尺寸 Size of The Products

20×18×2	25×23.2×8	30×38.2×8
20×18×3	25×23×8	30×28×8
5×22.2×2.5	27×25×8	30×38.2×11.4
25×22×2.5	30×28×9	32×30.2×8

FD 产品带材尺寸 Strip Measurement of The Products

100×1.5	100×1	200×0.5
8×2.5	12×2.5	25×2.5
6.1×2.5	7.9×2.5	14.8×2.5
19.5×2.5	24.5×2.5	29.5×2.5

SF-1X 无油润滑材料



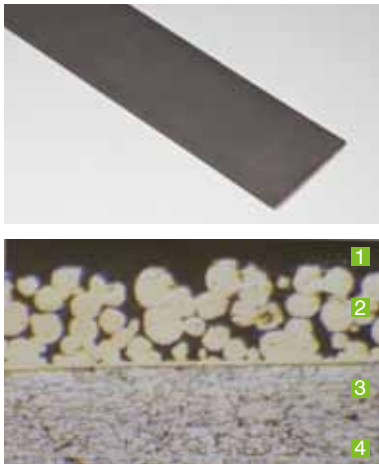
材料组织结构:

- 1、聚四氟乙烯与铅的混合物 0.01~0.03mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.5~3.03mm
 - 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm
- 摩擦系数: 0.04~0.20
 - 导热系数: 13W/MK
 - 使用温度范围: -195℃ ~270℃
 - 线膨胀系数: $11 \times 10^{-6} K^{-1}$

应用特点:

- 1、无油润滑或少油润滑场合, 耐磨性能好, 摩擦系数小, 使用寿命长。
- 2、有适量的弹塑性, 能将应力分布在较宽的接触面上。
- 3、静动摩擦系数相近, 能消除低速下的爬行。
- 4、对于对磨轴的硬度要求低, 未经调质处理的轴都可使用, 在运转构成中能形成转移膜, 起到保护对磨轴的作用, 无咬轴现象。
- 5、钢背可电镀多种金属, 可在腐蚀介质中使用, 目前已广泛应用于各种机械的滑动部位, 例如: 印刷机、纺织机、烟草机械、微电机、汽车、摩托车与农林机械等等。

SF-1T 齿轮石泵专用材料



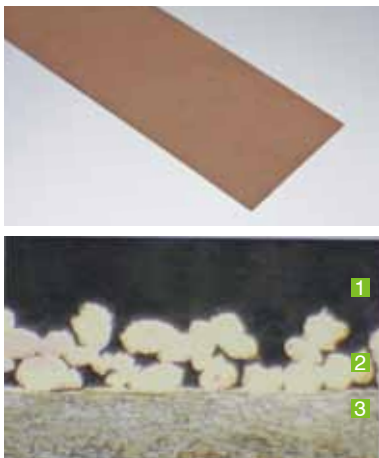
材料组织结构:

- 1、聚四氟乙烯与铅及其他填充混合物 0.01~0.03mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.5~3.3mm
 - 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm
- 摩擦系数: 0.03~0.18
 - 导热系数: 13W/MK
 - 使用温度范围: -195℃ ~260℃
 - 线膨胀系数: $11 \times 10^{-6} K^{-1}$

应用特点:

- 1、在有油润滑条件下摩擦系数小而稳定。
- 2、耐磨性能好, 抗冲击性能好。
- 3、由此材料制作的衬套, 在流体润滑条件下 PV 值可达到 $120 N/mm^2 \cdot m/s$
- 4、目前已广泛运用于各种齿轮油泵、柱塞泵、叶片泵等场合, 对流体润滑或境界润滑条件下的中高压齿轮泵尤其使用。

SF-1P 往复运动材料



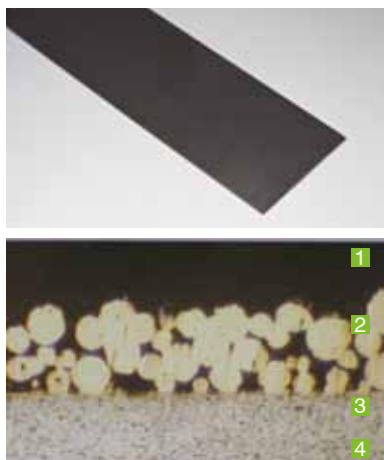
材料组织结构:

- 1、聚四氟乙烯与铜混合物 0.02~0.04mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.5~3.3mm
 - 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm
- 摩擦系数: 0.04~0.20
 - 导热系数: 13W/MK
 - 使用温度范围: -195℃ ~270℃
 - 线膨胀系数: $11 \times 10^{-6} K^{-1}$

应用特点:

- 1、具有在沾油情况下润滑能力强、耐磨性能好、保护油膜清晰的特点。
- 2、能较好的保护对轴表面不受磨损, 对往复运动场合较能适用。
- 3、应其含铅量很少, 故迎合了环保要求。
- 4、适用于摩托车减震器、各种液压油缸、液压马达、气动元件等领域。

SF-1W 无铅材料



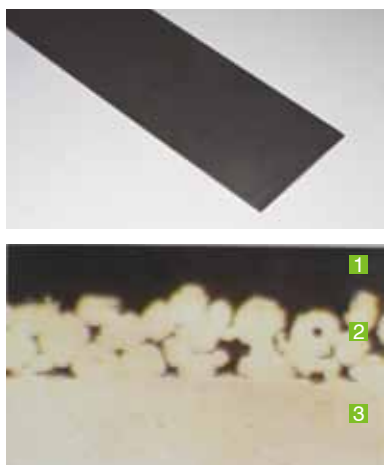
材料组织结构:

- 1、聚四氟乙烯与纤维混合物 0.01~0.03mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.5~3.3mm
 - 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm
- 摩擦系数: 0.04~0.20
 - 导热系数: 13W/MK
 - 使用温度范围: -195℃ ~270℃
 - 线膨胀系数: $11 \times 10^{-6} K^{-1}$

应用特点:

- 1、PTFE、纤维的混合物在运动时可形成很好的转移膜保护对磨轴。
- 2、因其不含铅, 故对于人体无害。铜和钢板具有良好的导热性能, 表面的电镀层具有较好的耐腐蚀性。
- 3、已广泛运用于食品机械、医疗机械、烟草机械、饮料机械及其他绿色机械上。随着国际环保的逐步发展, SF-1W 将是 SF-1 产品的替代品。

SF-1B 青铜基材料



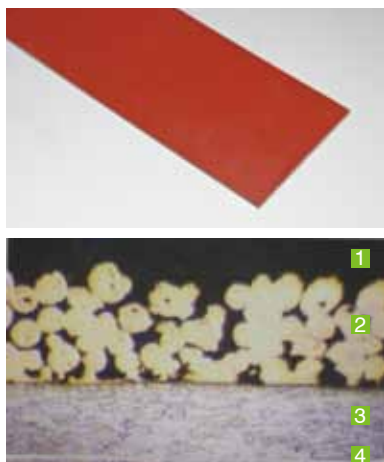
材料组织结构:

- 1、聚四氟乙烯与铅的混合物 0.01~0.03mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.5~3.3mm
- 摩擦系数: 0.04~0.18
 - 导热系数: 18W/MK
 - 使用温度范围: -195℃ ~300℃
 - 线膨胀系数: $21 \times 10^{-6} K^{-1}$

应用特点:

- 1、PTFE、铅的混合物在运动时可形成很好的转移膜保护对磨轴。
- 2、烧结层和铜基板具有良好的导热性, 可迅速转移运作过程中产生的热量。
- 3、铜具有自润滑性能, 可运用于长期运作而无法停机检修的部位。
- 4、基体铜具有良好的抗腐蚀能力, 可运用于弱酸、强碱场合。
- 5、已广泛运用于冶金钢铁工业、高温炉钢环部位、水泥灌浆泵、螺旋式输送机、港口机械及船舶机械上等。
- 6、可在外部组合钢套, 或制成翻边, 达到内孔、端面同时使用的效果。

SF-1D 液压专用材料



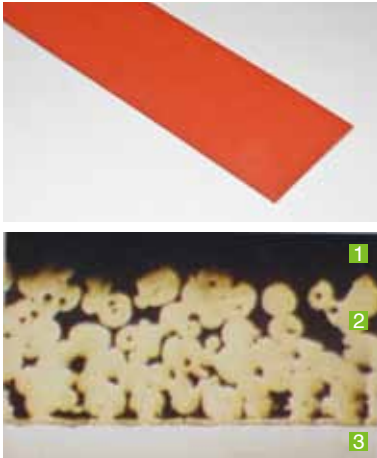
材料组织结构:

- 1、聚四氟乙烯与亲油性纤维混合物 0.01~0.03mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.5~3.3mm
 - 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm
- 摩擦系数: 0.04~0.18
 - 导热系数: 16W/MK
 - 使用温度范围: -195℃ ~270℃
 - 线膨胀系数: $15 \times 10^{-6} K^{-1}$

应用特点:

- 1、PTFE、亲油性纤维的混合物在运动时可形成很好的转移膜保护对磨轴。
- 2、抗冲击能力强, 耐磨性能好, 摩擦系数低, 走合性能好, 无咬轴现象。
- 3、可用于旋转、摇摆、往复运动之中。
- 4、由于不含铅, 故可用于食品机械、医疗机械等绿色环保设备。
- 5、除具有 SF-1P 的特点小, 特别适合于往复运动频繁、大侧向力的场合, 适用于液压马达、汽车、摩托车减震器及各类液压油缸等领域。

SF-1S 不锈钢耐蚀材料



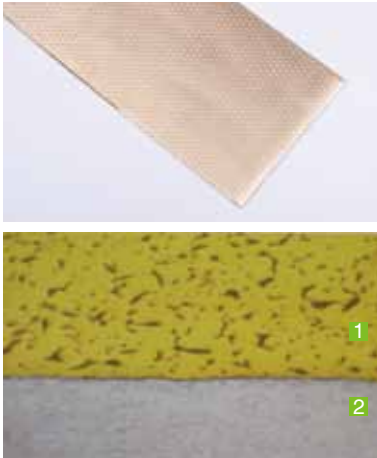
材料组织结构:

- 1、聚四氟乙烯与亲油性纤维混合物 0.01~0.03mm
 - 2、球形青铜粉:0.2~0.3mm
 - 3、钢背: 0.5~3.3mm
- 摩擦系数: 0.04~0.20
 - 导热系数: 16W/MK
 - 使用温度范围: -195℃~270℃
 - 线膨胀系数: $15 \times 10^{-6} \text{K}^{-1}$

应用特点:

- 1、PTFE、亲油性纤维的混合物在运动时可形成很好的转移膜保护对磨轴。
- 2、耐磨性能好, 摩擦系数低, 走合性能好, 无咬轴现象。
- 3、可用于旋转、摇摆、往复运动之中。
- 4、耐腐蚀性能好。
- 5、由于不含铅, 故适用于食品饮料机械、医疗机械等绿色环保设备。
- 6、典型用途: 主要运用于中酸、强碱场合、例如: 化工中酸碱流量计、泵、阀、印染机械、海洋工业耐腐蚀滑动部位。

JF-800 双金属材料



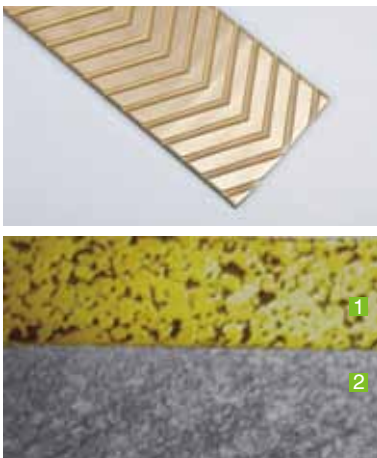
材料组织结构:

- 1、合金层: CuPb10Sn10
 - 2、钢背: 0.6~5mm
- 合金层材质: CuPb10Sn10
 - 摩擦系数: ≤ 0.12
 - 最高使用温度: 260℃
 - 合金层硬度: (60~90) HB

应用特点:

- 1、双金属合金材料中承载能力最强的一种。
- 2、适用于低速高载场合。
- 3、可在摩擦面加工各种油槽、油穴及油孔, 满足不同工况条件的需要。
- 4、产品性能稳定, 已通过“蓝宝石实验”, 疲劳强度达 125MPa 以上。
- 5、广泛运用于重型车的平衡桥衬套、垫片; 推土机的重动轮、支动轮、汽车钢板衬套等。

JF-850 双金属材料



材料组织结构:

- 1、合金层: CuSn6Zn6Pb3
 - 2、钢背: 0.6~5mm
- 合金层材质: CuSn6Zn6Pb3
 - 摩擦系数: ≤ 0.13
 - 最高使用温度: 170℃
 - 合金层硬度: (40~80) HB

应用特点:

- 1、双金属合金材料中承载能力较强的一种。
- 2、适用于低速高载场合。
- 3、可在摩擦面加工各种油槽、油穴及油孔。
- 4、广泛运用于汽车发动机、底盘、摩托车离合器、齿轮摩擦板和起重设备领域。

JF-930 双金属材料



材料组织结构:

- 1、合金层: CuSn6.5P0.1
- 2、钢背: 0.6~5mm

- 合金层材质: CuSn6.5P0.1
- 摩擦系数: ≤ 0.13
- 最高使用温度: 260°C
- 合金层硬度: (60~90) HB

应用特点:

- 1、结合强度高, 承载能力大, 耐磨性能好。
- 2、适用于低速高载场合。
- 3、可在摩擦面加工各种油槽、油穴及油孔。
- 4、具有无铅特点, 可以是其他有铅产品的替代产品。
- 5、广泛运用于矿山机械、汽机车、建筑机械、农用机械、轧钢机械等。

SF-2X 边界润滑材料



材料组织结构:

- 1、聚四氟乙烯与铅混合物 0.3~0.5mm
- 2、球形青铜粉: 0.2~0.3mm
- 3、钢背: 0.4~2.7mm
- 4、电镀层: 镀铜层 0.008mm

- 摩擦系数: 0.05~0.25
- 导热系数: 13W/MK
- 使用温度范围: -40°C ~130°C
- 线膨胀系数: 11*10-6K-1

应用特点:

- 1、承载好, 耐磨性能好。
- 2、适用于高载低速下的旋转运动, 摇摆运动及经常在载荷下启闭频繁而不易形成流体动力润滑的场合。
- 3、表面的塑料层在加工成型时可留一定的余量, 装配压入座孔后可自行加工, 以达到更好的装配尺寸。
- 4、主要运用于汽车底盘、冶金机械、矿山机械、水利机械、建筑机械、农用机械、轧钢设备等。

SF-2Y 边界润滑材料



材料组织结构:

- 1、缩醛树脂与亲油性纤维混合物 0.3~0.5mm
- 2、球形青铜粉: 0.2~0.3mm
- 3、钢背: 0.4~2.7mm
- 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm

- 摩擦系数: 0.05~0.25
- 导热系数: 13W/MK
- 使用温度范围: -40°C ~130°C
- 线膨胀系数: 11*10-6K-1

应用特点:

- 1、承载好, 耐磨性能好。
- 2、适用于高载低速下的旋转运动, 摇摆运动及经常在载荷下启闭频繁而不易形成流体动力润滑的场合。
- 3、表面的塑料层在加工成型时可留一定的余量, 装配压入座孔后可自行加工, 以达到更好的装配尺寸。
- 4、主要运用于进口纺织设备、柱塞泵摆动部位、汽车操纵杆部位等。
- 5、因其不含铅, 故可广泛运用于无铅领域。



SF-2S 边界润滑材料



材料组织结构:

- 1、缩醛树脂与亲油性纤维混合物 0.3~0.5mm
- 2、球形青铜粉: 0.2~0.3mm
- 3、钢背: 0.4~2.7mm
- 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm

- 摩擦系数: 0.05~0.20
- 导热系数: 13W/MK
- 使用温度范围: -40℃ ~130℃
- 线膨胀系数: 11*10⁻⁶K⁻¹

应用特点:

- 1、承载好, 耐磨性能好。
- 2、适用于干摩擦和少油润滑的场合。
- 3、目前产品已应用在摇摆运动、易磨损、易腐蚀的场合, 如卷扬机、推土机、印染机、采煤机及吊车、行车高空作业机等场合。

FB090 无油润滑材料



FB090 无油润滑材料是采用高密度铜合金带材为基体, 表面轧制菱形或半球形油穴。具有密度高、承载能力大、耐磨性能好、使用寿命长等优点, 该材料已广泛应用于起重机械、建筑机械、汽车拖拉机底盘、机床工业及采矿机械中, 还可以制成轴瓦、翻边轴套、止推垫片和球碗等。

- 基体材质: CuSn8P0.3 或 CuSn6.5P0.1
- 硬度: HB110~140
- 使用温度范围: -80℃ ~200℃
- 摩擦系数: ≤ 0.15
- 磨损量: ≤ 0.008

FB092 无油润滑材料



FB092 无油润滑材料是以青铜材料为基体。具有耐磨性能好, 使用寿命长等优点, 该产品在卷制成轴承前, 应布置 $\phi 4\text{mm} \sim \phi 6\text{mm}$ 的油孔, 面积达到 25%, 使油脂润滑充足。目前该产品已应用于输送机、升降机、卷扬机、校平机等中载、低速的场合。

- 基体材质: CuSn8P0.3 或 CuSn6.5P0.1
- 硬度: HB90~120
- 使用温度范围: -100℃ ~200℃
- 摩擦系数: ≤ 0.12
- 磨损量: ≤ 0.008

FB09G 青铜固体润滑材料



FB09G 青铜固体润滑材料是以青铜材料为基体，表面埋入固体润滑剂制作而成。由于此材料是以延伸率较高的铜合金材料为基体，所以可以制作特薄的卷制轴套，再加上理想的填充材料为耐磨剂，因此适用于汽车传动轴内作为耐磨的轴套使用，也可在无油润滑的场合使用。

- 基体材质: CuSn10P10+ 石墨
- 硬度: HB80~110
- 使用温度范围: -100℃ ~260℃
- 摩擦系数: ≤ 0.12
- 磨损量: ≤ 0.008

FB08G 固体润滑材料



FB08G 固体润滑材料是以 JF-800 双金属材料为基体，合金层埋入特殊固体润滑剂制作而成的新颖薄壁固体润滑材料。由于高强度承载的合金材料作基体，理想的填充材料为耐磨剂，合理的菱形块状润滑设计，使润滑面积达 25% 以上，因此，能发挥良好的润滑性和抗磨损性能。该材料主要应用于汽车变速齿轮箱、发电机、升降机、起重机及冶金机械行业。

- 基体材质: CuSn10P10+ 石墨
- 硬度: HB60~90
- 使用温度范围: -100℃ ~260℃
- 摩擦系数: ≤ 0.15
- 磨损量: ≤ 0.01

FR 四氟软带材料



FR 四氟软带材料是以青铜丝网为基体，通过特殊烧结工艺，表面轧制聚四氟乙烯（PTFE）和其他填充减摩材料的混合物。它具有较低的摩擦系数，较好的耐磨特性。由于它的柔软性能好，所以可作为钢与钢对磨的隔离膜，实现无间隙、无噪音、无油润滑、无需保养、无污染的理想目的。目前该材料广泛用于纺织机械、关节轴承、汽车门铰链等场合。

- 使用温度范围: -40℃ ~280℃
- 摩擦系数: 0.05~0.20

SF-2S 边界润滑材料



材料组织结构:

- 1、缩醛树脂与亲油性纤维混合物 0.3~0.5mm
 - 2、球形青铜粉: 0.2~0.3mm
 - 3、钢背: 0.4~2.7mm
 - 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm
- 摩擦系数: 0.05~0.20
 - 导热系数: 13W/MK
 - 使用温度范围: -40℃ ~130℃
 - 线膨胀系数: 11*10-6K-1

应用特点:

- 1、承载好, 耐磨性能好。
- 2、适用于干摩擦和少油润滑的场合。
- 3、目前产品已应用在摇摆运动、易磨损、易腐蚀的场合, 如卷扬机、推土机、印染机、采煤机及吊车、行车高空作业机等场合。



FB090 无油润滑材料



FB090 无油润滑材料是采用高密度铜合金带材为基体, 表面轧制菱形或半球形油穴。具有密度高、承载能力大、耐磨性能好、使用寿命长等优点, 该材料已广泛应用于起重机械、建筑机械、汽车拖拉机底盘、机床工业及采矿机械中, 还可以制成轴瓦、翻边轴套、止推垫片和球碗等。

- 基体材质: CuSn8P0.3 或 CuSn6.5P0.1
- 硬度: HB110~140
- 使用温度范围: -80℃ ~200℃
- 摩擦系数: ≤ 0.15
- 磨损量: ≤ 0.008

FB092 无油润滑材料



FB092 无油润滑材料是以青铜材料为基体。具有耐磨性能好, 使用寿命长等优点, 该产品在卷制成轴承前, 应布置 $\phi 4\text{mm} \sim \phi 6\text{mm}$ 的油孔, 面积达到 25%, 使油脂润滑充足。目前该产品已应用于输送机、升降机、卷扬机、校平等中载、低速的场合。

- 基体材质: CuSn8P0.3 或 CuSn6.5P0.1
- 硬度: HB90~120
- 使用温度范围: -100℃ ~200℃
- 摩擦系数: ≤ 0.12
- 磨损量: ≤ 0.008



轴承的选择与计算

轴承的选型 Bearing Selection

杰盛无油轴承根据不同的工况条件设计了不少的轴承材料。用户在使用和设计时应当根据轴承的使用温度、轴承的承载面压、线速度、耐磨性能要求、运动类型、安装情况、轴承成本等各方面因素综合考虑。

SF bush have developed kinds of bearing material according to difference work condition,the user can select the material base on bearing work environment, load, speed, wear, resistance request, moving method, installation, the cost of the material etc.

面压计算 Bearing Load

直套、翻边轴承 Cylindrical bushes, flange bushes

$$P = \frac{F}{dL} \quad (\text{N/mm}^2)$$

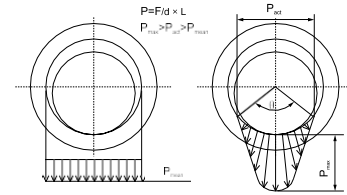
F = 轴承载值 Load (N)
d = 轴径 Shaft (mm)
L = 轴承长度 Bearing Length (mm)

止推垫片 Thrust Washer

$$P = \frac{4F}{(D^2 - d^2)\pi} \quad (\text{N/mm}^2)$$

F = 垫片承载值 Load (N)
d = 垫片外径 Washer OD (mm)
L = 垫片内径 Washer ID (mm)

由于受配合间隙、材料强度、轴承倒角、内部油槽等原因的影响，轴承的真正承载面压 (P_{act}) 会大于理论计算值 (P_{mean})。
As the factor of clearance, bushes chamfer, oil groove etc. The actually load (P_{act}) is higher than theory of calculation (P_{mean}).



线速度计算 Velocity

旋转运动 Rotating motion

$$V = \frac{dn\pi}{1000 \times 60} \quad (\text{m/s})$$

D = 轴径 Shaft (mm)
n = 转速/分 Rpm

摇摆运动 Oscillating motion

$$V = \frac{Dc\theta\pi}{1000 \times 360 \times 60} \quad (\text{m/s})$$

d = 轴径 Shaft (mm)
c = 摇摆频率 Frequency (次数/分) θ
= 摇摆角度 Oscillating angle

往复运动 Reciprocating motion

$$V = \frac{2sc}{60} \quad (\text{m/s})$$

s = 行程长度 (mm)
c = 往复频率 Frequency (次数/分)

PV 值计算 PV=PXV (N/mm² × m/s)

PV 是指轴承在一定的承载和线速度条件下的乘积之和。设备的 PV 值与轴承的使用寿命成反比关系，因此建议设计时设备的 PV 取值尽量使用比较低的安全 PV 值，以确保轴承会有更长的使用寿命。同时也要考虑设备上轴承实际的承载、线速度、使用温度等不能超过所选择材料的极限值，并尽可能地小。

PV is the product of the specific bearing load P and the sliding speed V which is very important design data. We recommend design lower PV value will lead to longer service life. Also don't exceed the max. Of material load, speed, temp. And lower if possible.

滑动轴承与座孔的装配 The Installation of The Sliding Bushing And The Housing

◎SF 系列轴承在装配前宜先用煤油或柴油清洗干净，然后在机油内浸油、沥干。轴承与座孔装配时，即要保证轴承在座孔中不发生转动和轴向移动，要使轴承外表面与座孔充分接触，一般应保证接触面积大于 70% 以上，以利于承受载荷和传导摩擦热，SF 系列轴承内表面是自润滑塑料，外表面是铜背，钢对钢的摩擦系数比钢对塑料的摩擦系数大，因此采用较轻盈配合，既保证使用时衬套不会在座孔内发生相对移动，又不会使衬套外径过大致使衬套内孔变形较大。

◎对于工作压力较高的场合为避免轴套走外圆，推荐用以下二方法：

- 1、加大轴套外径尺寸，内孔变形用较正芯棒校正。
 - 2、安装时，座孔涂 ZY801 厌氧胶，增强轴套与座孔的结合强度。
- ◎对于外 < 55cm 的轴套可按图 A 所示，利用一个带有手柄的压头轴芯，小心操作，轻轻压力座孔中。
- ◎当轴套外径 > 55cm 时可按图 B 所示，利用带台肩的手柄以及一个“O”形圈和一个辅助圈小心操作，将轴套压入座孔中。

◎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

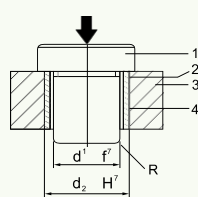
guarantee the contact area over 70%, thus to improve load capacity and transmission of friction heat. The inner surface of SF bush is made of self-lubricating plastic, the outer surface steel backing, The friction coefficient of steel to steel is bigger that of steel to plastic, So we should choose the 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 dia meter 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 then the combination strength between the axle sleeve and base hole.

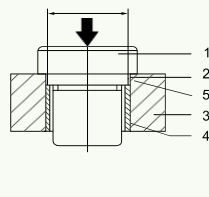
◎For bush (outer diameter < 55mm), press the bush into the housing gently and carefully using an core axle with a handle. Fig A.

◎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.



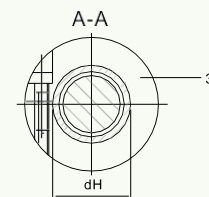
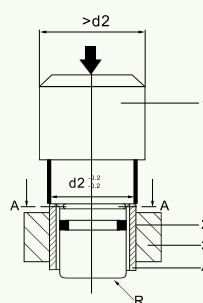
(图A a)平面式安装
(Fig A a)Plane Installation

- 1、压入芯轴
- 2、轴承座孔倒角 0.8 × 15°
- 3、轴承座
- 4、JS-F 轴承
- 5、嵌入肩直径
- R、芯轴端圆角半径



(b)嵌入式安装
(B)Inset Installation

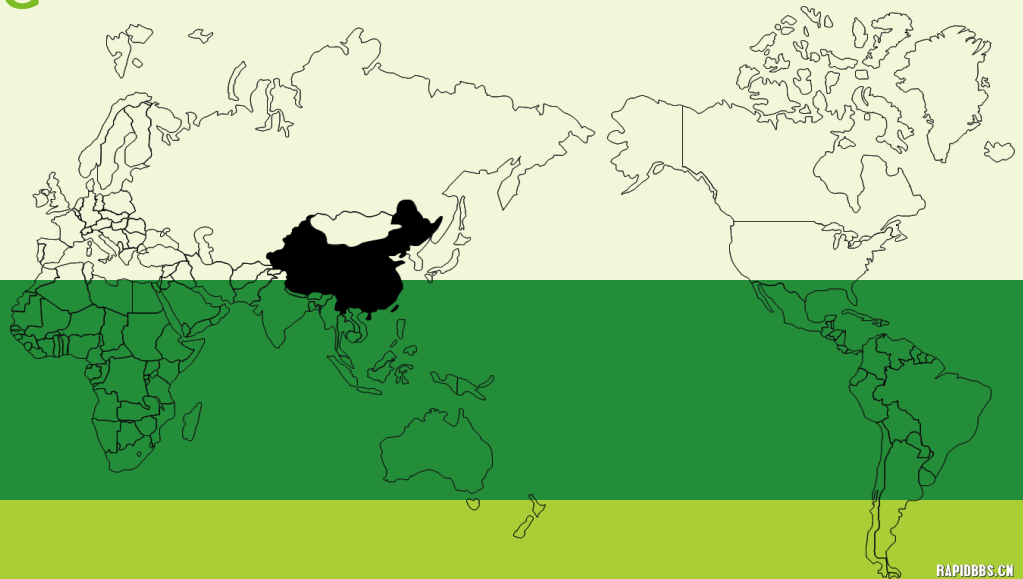
- 1、压入芯轴
- 2、Housing chamfer at end: 0.8 × 15°
- 3、Housing
- 4、JS-F bush
- 5、Diameter of inset shoulder
- R、Radius of the round angle of the core axle end



d2	dH
> 55到100	d2 +0.26 d2 +0.25
> 100到200	d2 +0.40 d2 +0.36
> 200到300	d2 +0.50 d2 +0.40



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13957330053 滑动平面设计

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