

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

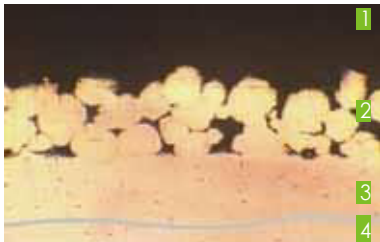


◇ FD

## SF-1 自润滑卷制轴承 SF-1 Self-Lubricatin Bearin s



1. 聚四氟乙烯与铅 PTFE with Iead
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<br>Max.Load  | 静承载 Static       | 250N/mm <sup>2</sup>      |
|                   | 动承载 Dynamic      | 140N/mm <sup>2</sup>      |
|                   | 摇摆运动 Oscillating | 60N/mm <sup>2</sup>       |
| 最大PV值<br>PV limit | 干摩擦 Dry          | 3.6N/mm <sup>2</sup> ·m/s |
|                   | 油润滑 Oil          | 50N/mm <sup>2</sup> ·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<br>Speed limit              | 干摩擦 Dry | 2mm <sup>2</sup>           |
|                                  | 油润滑 Oil | 5mm <sup>2</sup>           |
| 导热系数 Thermal conductivity        |         | 2.41Kcal/M.br.c            |
| 热膨胀系数 Coeff. of linear expansion |         | 27 × 10 <sup>-6</sup> 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.

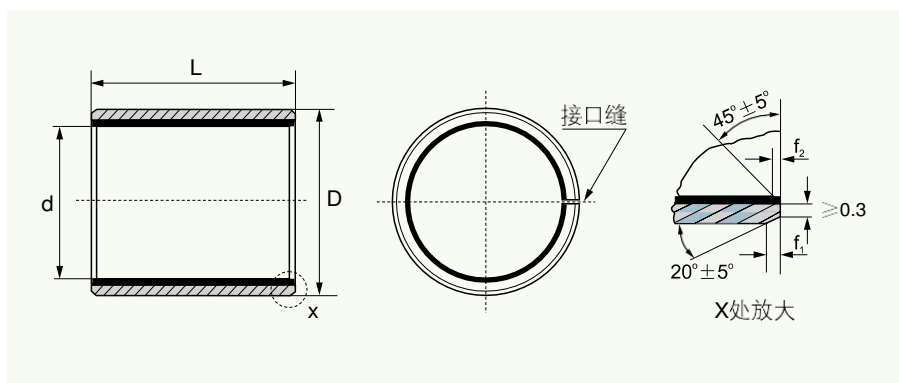
◎It can be used in low harness of mating shaft, so the shafts processing is easy.

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

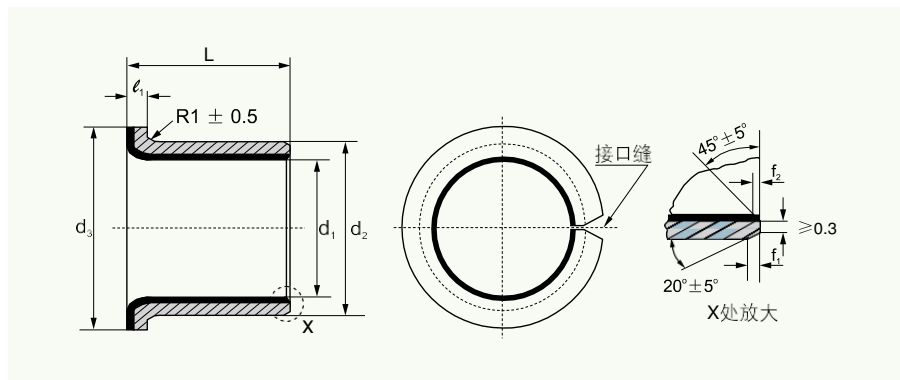
Note: Bearing size besides above mentioned sizes, can be customized and produced. Customer please offer us the dimensions.

单位Unit: mm

[illegible]

## 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<br>Shaft Dia.<br>$f_7$     | 座孔<br>Housing<br>H7  | 代号<br>Code number | 尺寸 Size |       |               |              |                | $f_1$ | $f_2$ |
|---------------------------------|----------------------|-------------------|---------|-------|---------------|--------------|----------------|-------|-------|
|                                 |                      |                   | $d_1$   | $d_2$ | $d_3 \pm 0.5$ | $L \pm 0.25$ | $\ell_1 - 0.2$ |       |       |
| 6 <sup>-0.013<br/>-0.028</sup>  | 8 <sup>+0.015</sup>  | 06040             | 6       | 8     | 12            | 4            |                |       |       |
|                                 |                      | 06070             |         |       |               | 7            |                |       |       |
| 8 <sup>-0.013<br/>-0.028</sup>  | 10 <sup>+0.015</sup> | 08055             | 8       | 10    | 15            | 5.5          |                |       |       |
|                                 |                      | 08075             |         |       |               | 7.5          |                |       |       |
| 10 <sup>-0.016<br/>-0.034</sup> | 12 <sup>+0.018</sup> | 10070             | 10      | 12    | 18            | 7            |                |       |       |
|                                 |                      | 10090             |         |       |               | 9            |                |       |       |
|                                 |                      | 10120             |         |       |               | 12           |                |       |       |
| 12 <sup>-0.016<br/>-0.034</sup> | 14 <sup>+0.018</sup> | 12070             | 12      | 14    | 20            | 7            |                |       |       |
|                                 |                      | 12090             |         |       |               | 9            |                |       |       |
|                                 |                      | 12120             |         |       |               | 12           | 1              | 0.6   | 0.3   |
| 14 <sup>-0.016<br/>-0.043</sup> | 16 <sup>+0.018</sup> | 14120             | 14      | 16    | 22            | 12           |                |       |       |
|                                 |                      | 14170             |         |       |               | 17           |                |       |       |
|                                 |                      | 15090             |         |       |               | 9            |                |       |       |
| 15 <sup>-0.016<br/>-0.034</sup> | 17 <sup>+0.018</sup> | 15120             | 15      | 17    | 23            | 12           |                |       |       |
|                                 |                      | 15170             |         |       |               | 17           |                |       |       |
|                                 |                      | 16120             | 16      | 18    | 24            | 12           |                |       |       |
| 16 <sup>-0.016<br/>-0.034</sup> | 18 <sup>+0.018</sup> | 16170             |         |       |               | 17           |                |       |       |
|                                 |                      | 18120             |         |       |               | 12           |                |       |       |
| 18 <sup>-0.016<br/>-0.034</sup> | 20 <sup>+0.021</sup> | 18170             | 18      | 20    | 26            | 17           |                |       |       |
|                                 |                      | 18200             |         |       |               | 20           |                |       |       |
|                                 |                      | 20115             |         |       |               | 11.5         |                |       |       |
| 20 <sup>-0.020<br/>-0.041</sup> | 23 <sup>+0.021</sup> | 20165             | 20      | 23    | 30            | 16.5         |                |       |       |
|                                 |                      | 20215             |         |       |               | 21.5         |                |       |       |
|                                 |                      | 22150             | 22      | 25    | 32            | 15           | 1.5            | 0.6   | 0.4   |
| 22 <sup>-0.020<br/>-0.041</sup> | 25 <sup>+0.021</sup> | 22200             |         |       |               | 20           |                |       |       |
|                                 |                      | 25115             |         |       |               | 11.5         |                |       |       |
| 25 <sup>-0.020<br/>-0.041</sup> | 28 <sup>+0.021</sup> | 25165             | 25      | 28    | 35            | 16.5         |                |       |       |
|                                 |                      | 25215             |         |       |               | 21.5         |                |       |       |
|                                 |                      | 30160             | 30      | 34    | 42            | 16           |                |       |       |
| 30 <sup>-0.025<br/>-0.050</sup> | 34 <sup>+0.025</sup> | 30260             |         |       |               | 26           |                |       |       |
|                                 |                      | 35160             | 35      | 39    | 47            | 16           |                |       |       |
|                                 |                      | 35260             |         |       |               | 26           | 2              | 1.2   | 0.4   |
| 40 <sup>-0.025<br/>-0.050</sup> | 44 <sup>+0.025</sup> | 40260             | 40      | 44    | 53            | 26           |                |       |       |
|                                 |                      | 40400             |         |       |               | 40           |                |       |       |

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

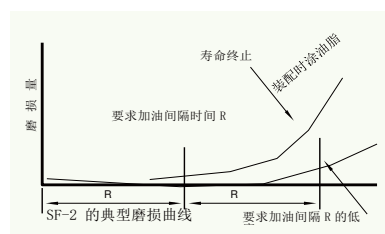


1. 改性聚甲醛 POM with lead 0.3-0.5mm
2. 球形青铜粉 Porous bronze sintere
3. 钢背 Steel backaking
4. 镀铜层 Copper plating



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

|                                                        |                  |                           |
|--------------------------------------------------------|------------------|---------------------------|
| 最大何载<br>Max load                                       | 静承载 Static       | 250N/mm <sup>2</sup>      |
|                                                        | 动承载 Dynamic      | 140N/mm <sup>2</sup>      |
|                                                        | 摇摆运动 Oscillating | 60N/mm <sup>2</sup>       |
| 最大 PV 值<br>PV limit                                    | 干摩擦 Dry          | 2.8N/mm <sup>2</sup> ·m/s |
|                                                        | 润滑油 Oil          | 22N/mm <sup>2</sup> ·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 <sup>-6</sup> per℃  |
| 装配时内孔涂润滑油 Initial pre-lubrication at assembly required |                  |                           |

### SF-2 应用特点 Characteristic of preformance

◎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 磨擦性能及允许 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 较其它材料特别是金属材料的间隔时间显著地长。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)

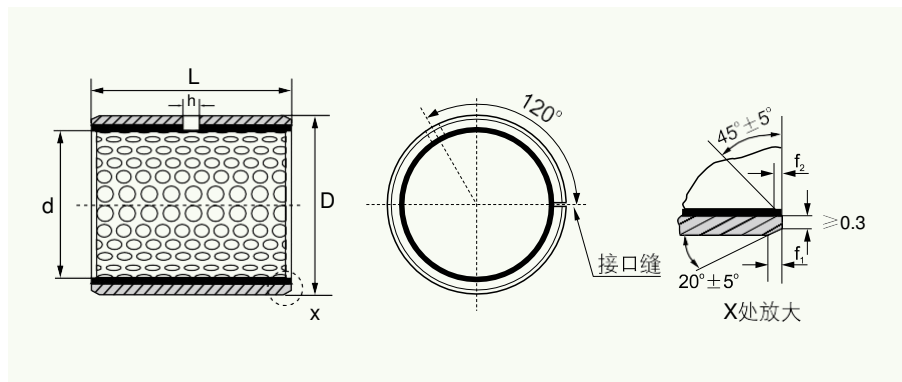
SF-2 衬套的加油保养周期 R 约为寿命的一半左右。例如当 PV=2.5MPa·m/s 时，要求每隔 100 小时必须加油保养一次。

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



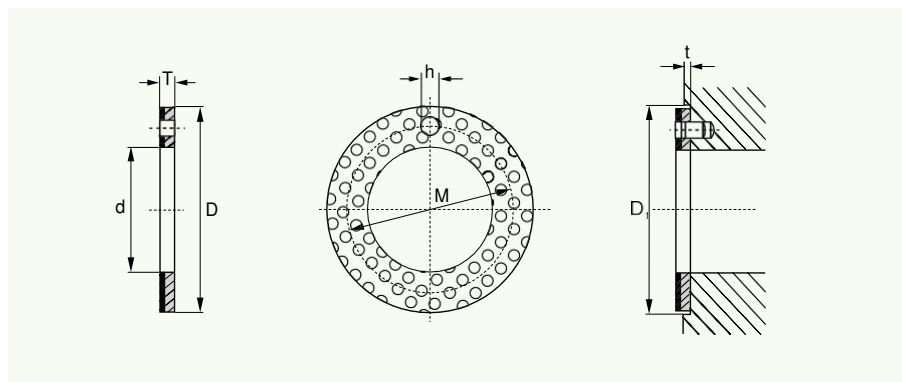
## SF-2 边界润滑轴承标准公制尺寸

## SF-2 Marginal-Lubrication Bearing Standard Metric Size

单位Unit: mm

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

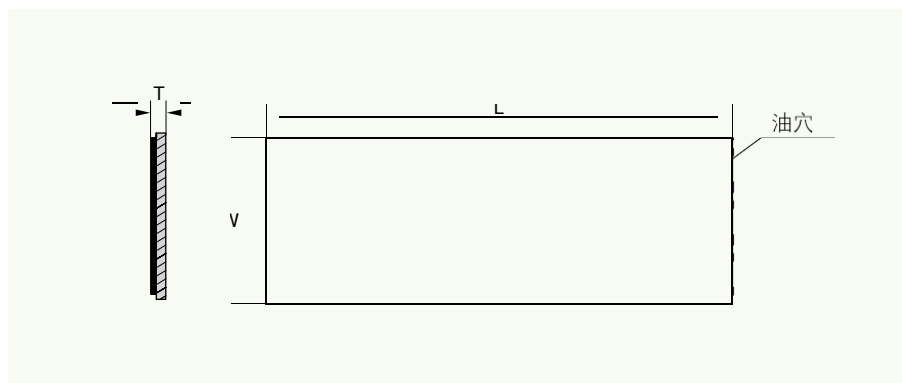
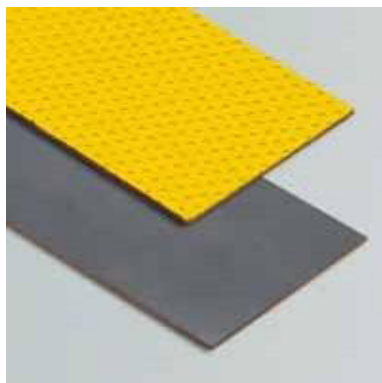
## SF-1WD/SF-2WD 止推垫片标准公制尺寸 SF-1WD/SF-2WD Thrust Washer Standard Metric Size



单位 Unit: mm

| 轴径<br>Axle | 型号规格<br>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 <sup>+0.40</sup> <sub>+0.10</sub> | t ± 0.20 | D <sub>1</sub> +0.12 |    |
| 8          | WD 10               | 10                    | 20      | 1.5     | 15        | 1.5                                 | 1.0      | 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      |         | 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      |         | 43        |                                     | 54       |                      |    |
| 36         | WD 38               | 38                    | 62      |         | 50        |                                     | 62       |                      |    |
| 40         | WD 42               | 42                    | 66      |         | 54        | 4.0                                 |          | 66                   |    |
| 46         | WD 48               | 48                    | 74      |         | 61        |                                     |          | 74                   |    |
| 50         | WD 52               | 52                    | 78      | 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<br>Types of Material | 铜合金牌号<br>Specifications of Bronze alloy | 化学成分%<br>Chemical Compositions     | 合金层硬度<br>Alloy Hrdness | 特性与用途<br>Characteristics and Application                                 |
|---------------------------|-----------------------------------------|------------------------------------|------------------------|--------------------------------------------------------------------------|
| JF-930                    | CuSn6.5P0.1                             | 铜锡磷<br>Cu Sn P 93 6.0~7.0 0.1~0.25 | HB(60-90)              | 无铅<br>Lead Free                                                          |
| JF-850                    | CuSn6Zn6Pb3                             | 铜锡锌铅<br>Cu Sn Zn Pb 85 6 6 3       | HB(40-80)              | 启动电机<br>Starting Motor                                                   |
| JF-800                    | CuPb10Sn10                              | 铜铅锡<br>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<br>The strongest material type, wide application scope. |
| JF-750                    | CuPb24Sn1                               | 铜铅锡<br>Cu Pb Sn 75 24 1            | HB(45-70)              | 连杆摇臂<br>Link Arm                                                         |
| JF-720                    | CuPb24Sn4                               | 铜铅锡<br>Cu Pb Sn 72 24 4            | HB(45-70)              | 连杆摇臂<br>Link Arm                                                         |

### 技术参数 Tech.Data

|                                 |             |                           |                           |                                     |
|---------------------------------|-------------|---------------------------|---------------------------|-------------------------------------|
| 最大荷载<br>Max.Load                | 静承载 Static  | 250N/mm <sup>2</sup>      | 屈服强度 Yield strength       | 240N/mm <sup>2</sup>                |
|                                 | 动承载 Dynamic | 140N/mm <sup>2</sup>      | 使用温度 Temp.limit           | -40℃~+250℃                          |
| 最高线速度 Max. linear speed         |             | 2m/s                      | 摩擦系数 Friction Coeff.      | 0.08~0.20                           |
| 最大PV值 PV limit                  |             | 2.8N/mm <sup>2</sup> ·m/s | 导热系数 Thermal conductivity | 60W(m·k)-1                          |
| 抗剪切强度 Shear resistance strength |             | 350N/mm <sup>2</sup>      | 导热系数 Thermal conductivity | 14·10 <sup>-6</sup> K <sup>-1</sup> |

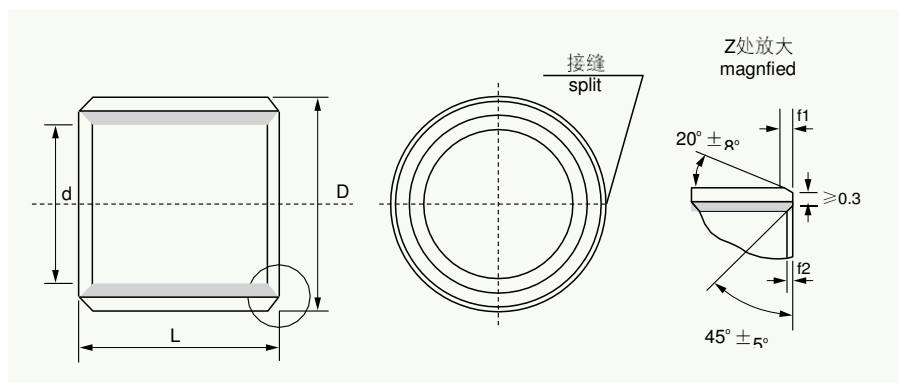
### JF-800 双金属内孔加工与不可加工厚度公差

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

| 公称厚度<br>Nominal Thickness | 内孔不可加工厚度公差<br>Tolerances of Series B (non-machinable) | 内孔可加工厚度公差<br>Tolerances of Series C (non-machinable) |
|---------------------------|-------------------------------------------------------|------------------------------------------------------|
| 1                         | -0.025                                                | +0.25<br>+0.15<br>+0.25                              |
| 1.5                       | -0.030                                                | +0.15<br>+0.25<br>+0.15                              |
| 2                         | -0.035                                                | +0.25<br>+0.15<br>+0.30                              |
| 2.5                       | -0.040                                                | +0.15<br>+0.30<br>+0.15                              |
| 3                         | -0.045                                                | +0.30<br>+0.15<br>+0.30                              |
| 3.5                       | -0.050                                                | +0.30<br>+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<br>Wall<br>Thickness | 外径<br>O.D<br>Tolerance                    | 内径公差<br>I.D.(H8)<br>Tolerance             | 配合座孔<br>H7<br>Housing<br>Bore             | 轴径<br>f <sub>7</sub><br>Journal<br>Diameter | f <sub>1</sub> | f <sub>2</sub> | L -0.40 |      |      |      |      |      |      |      |      |    |     |  |
|----|----|-------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------|----------------|----------------|---------|------|------|------|------|------|------|------|------|----|-----|--|
|    |    |                         |                                           |                                           |                                           |                                             |                |                | 10      | 15   | 20   | 25   | 30   | 40   | 50   | 60   | 80   | 90 | 100 |  |
| 10 | 12 | 1 -0.025                | 12 <sup>+0.065</sup><br><sub>+0.030</sub> | 10 <sup>+0.022</sup><br><sub>+0.000</sub> | 10 <sup>-0.013</sup><br><sub>-0.028</sub> | 12 <sup>+0.018</sup>                        | 0.5            | 0.3            | 1010    | 1015 | 1020 |      |      |      |      |      |      |    |     |  |
| 12 | 14 |                         | 14 <sup>+0.065</sup><br><sub>+0.030</sub> | 12 <sup>+0.027</sup><br><sub>+0.000</sub> | 12 <sup>-0.016</sup><br><sub>-0.034</sub> | 14 <sup>+0.018</sup>                        | 0.5            | 0.3            | 1210    | 1215 | 1220 |      |      |      |      |      |      |    |     |  |
| 14 | 16 |                         | 16 <sup>+0.065</sup><br><sub>+0.030</sub> | 14 <sup>+0.027</sup><br><sub>+0.000</sub> | 14 <sup>-0.016</sup><br><sub>-0.034</sub> | 16 <sup>+0.018</sup>                        | 0.5            | 0.3            | 1410    | 1415 | 1420 |      |      |      |      |      |      |    |     |  |
| 15 | 17 |                         | 17 <sup>+0.065</sup><br><sub>+0.030</sub> | 15 <sup>+0.027</sup><br><sub>+0.000</sub> | 15 <sup>-0.016</sup><br><sub>-0.034</sub> | 17 <sup>+0.018</sup>                        | 0.5            | 0.3            | 1510    | 1515 | 1520 |      |      |      |      |      |      |    |     |  |
| 16 | 18 |                         | 18 <sup>+0.075</sup><br><sub>+0.035</sub> | 16 <sup>+0.027</sup><br><sub>+0.000</sub> | 16 <sup>-0.016</sup><br><sub>-0.034</sub> | 18 <sup>+0.018</sup>                        | 0.8            | 0.4            | 1610    | 1615 | 1620 |      |      |      |      |      |      |    |     |  |
| 18 | 20 | 1.5 -0.030              | 20 <sup>+0.075</sup><br><sub>+0.035</sub> | 18 <sup>+0.033</sup><br><sub>+0.000</sub> | 18 <sup>-0.016</sup><br><sub>-0.034</sub> | 20 <sup>+0.021</sup>                        | 0.8            | 0.4            | 1810    | 1815 | 1820 | 1825 |      |      |      |      |      |    |     |  |
| 20 | 23 |                         | 23 <sup>+0.075</sup><br><sub>+0.035</sub> | 20 <sup>+0.033</sup><br><sub>+0.000</sub> | 20 <sup>-0.020</sup><br><sub>-0.041</sub> | 23 <sup>+0.021</sup>                        | 0.8            | 0.4            | 2010    | 2015 | 2020 | 2025 |      |      |      |      |      |    |     |  |
| 22 | 25 |                         | 25 <sup>+0.075</sup><br><sub>+0.035</sub> | 22 <sup>+0.033</sup><br><sub>+0.000</sub> | 22 <sup>-0.020</sup><br><sub>-0.041</sub> | 25 <sup>+0.021</sup>                        | 0.8            | 0.4            | 2210    | 2215 | 2220 | 2225 |      |      |      |      |      |    |     |  |
| 24 | 27 |                         | 27 <sup>+0.075</sup><br><sub>+0.035</sub> | 24 <sup>+0.033</sup><br><sub>+0.000</sub> | 24 <sup>-0.020</sup><br><sub>-0.041</sub> | 27 <sup>+0.021</sup>                        | 1.0            | 0.5            | 2410    | 2415 | 2420 |      | 2430 |      |      |      |      |    |     |  |
| 25 | 28 |                         | 28 <sup>+0.075</sup><br><sub>+0.035</sub> | 25 <sup>+0.033</sup><br><sub>+0.000</sub> | 25 <sup>-0.020</sup><br><sub>-0.041</sub> | 28 <sup>+0.021</sup>                        | 1.0            | 0.5            |         | 2515 | 2520 | 2525 | 2530 |      |      |      |      |    |     |  |
| 26 | 30 | 2 -0.035                | 30 <sup>+0.075</sup><br><sub>+0.035</sub> | 26 <sup>+0.033</sup><br><sub>+0.000</sub> | 26 <sup>-0.020</sup><br><sub>-0.041</sub> | 30 <sup>+0.021</sup>                        | 1.0            | 0.5            |         | 2615 | 2620 | 2625 | 2630 |      |      |      |      |    |     |  |
| 28 | 32 |                         | 32 <sup>+0.085</sup><br><sub>+0.045</sub> | 28 <sup>+0.033</sup><br><sub>+0.000</sub> | 28 <sup>-0.020</sup><br><sub>-0.041</sub> | 32 <sup>+0.025</sup>                        | 1.0            | 0.5            |         | 2815 | 2820 | 2825 | 2830 | 2840 |      |      |      |    |     |  |
| 30 | 34 |                         | 34 <sup>+0.085</sup><br><sub>+0.045</sub> | 30 <sup>+0.039</sup><br><sub>+0.000</sub> | 30 <sup>-0.020</sup><br><sub>-0.041</sub> | 34 <sup>+0.025</sup>                        | 1.2            | 0.6            |         | 3015 | 3020 | 3025 | 3030 | 3040 |      |      |      |    |     |  |
| 32 | 36 |                         | 36 <sup>+0.085</sup><br><sub>+0.045</sub> | 32 <sup>+0.039</sup><br><sub>+0.000</sub> | 32 <sup>-0.025</sup><br><sub>-0.050</sub> | 36 <sup>+0.025</sup>                        | 1.2            | 0.6            |         | 3215 | 3220 | 3225 | 3230 | 3240 |      |      |      |    |     |  |
| 35 | 39 |                         | 39 <sup>+0.085</sup><br><sub>+0.045</sub> | 35 <sup>+0.039</sup><br><sub>+0.000</sub> | 35 <sup>-0.025</sup><br><sub>-0.050</sub> | 39 <sup>+0.025</sup>                        | 1.2            | 0.6            |         |      | 3520 | 3525 | 3530 | 3540 | 3550 |      |      |    |     |  |
| 38 | 42 | 2.5 -0.040              | 42 <sup>+0.085</sup><br><sub>+0.045</sub> | 38 <sup>+0.039</sup><br><sub>+0.000</sub> | 38 <sup>-0.025</sup><br><sub>-0.050</sub> | 42 <sup>+0.025</sup>                        | 1.2            | 0.6            |         |      | 3825 | 3825 | 3830 | 3840 | 3850 |      |      |    |     |  |
| 40 | 44 |                         | 44 <sup>+0.085</sup><br><sub>+0.045</sub> | 40 <sup>+0.039</sup><br><sub>+0.000</sub> | 40 <sup>-0.025</sup><br><sub>-0.050</sub> | 44 <sup>+0.025</sup>                        | 1.2            | 0.6            |         |      | 4020 | 4025 | 4030 | 4040 | 4050 |      |      |    |     |  |
| 45 | 50 |                         | 50 <sup>+0.085</sup><br><sub>+0.045</sub> | 45 <sup>+0.039</sup><br><sub>+0.000</sub> | 45 <sup>-0.025</sup><br><sub>-0.050</sub> | 50 <sup>+0.025</sup>                        | 1.5            | 1.0            |         |      | 4520 | 4525 | 4530 | 4540 | 4550 |      |      |    |     |  |
| 50 | 55 |                         | 55 <sup>+0.100</sup><br><sub>+0.050</sub> | 50 <sup>+0.039</sup><br><sub>+0.000</sub> | 50 <sup>-0.025</sup><br><sub>-0.050</sub> | 55 <sup>+0.030</sup>                        | 1.5            | 1.0            |         |      |      |      | 5030 | 5040 | 5050 | 5060 |      |    |     |  |
| 55 | 60 |                         | 60 <sup>+0.100</sup><br><sub>+0.050</sub> | 55 <sup>+0.046</sup><br><sub>+0.000</sub> | 55 <sup>-0.030</sup><br><sub>-0.060</sub> | 60 <sup>+0.030</sup>                        | 1.5            | 1.0            |         |      |      |      | 5530 | 5540 | 5550 | 5560 |      |    |     |  |
| 60 | 65 | 3 -0.045                | 65 <sup>+0.100</sup><br><sub>+0.050</sub> | 60 <sup>+0.046</sup><br><sub>+0.000</sub> | 60 <sup>-0.030</sup><br><sub>-0.060</sub> | 65 <sup>+0.030</sup>                        | 1.5            | 1.0            |         |      |      |      | 6030 | 6040 | 6050 | 6060 |      |    |     |  |
| 65 | 70 |                         | 70 <sup>+0.100</sup><br><sub>+0.050</sub> | 65 <sup>+0.046</sup><br><sub>+0.000</sub> | 65 <sup>-0.030</sup><br><sub>-0.060</sub> | 70 <sup>+0.030</sup>                        | 1.5            | 1.0            |         |      |      |      | 6530 | 6540 | 6550 | 6560 |      |    |     |  |
| 70 | 75 |                         | 75 <sup>+0.100</sup><br><sub>+0.050</sub> | 70 <sup>+0.046</sup><br><sub>+0.000</sub> | 70 <sup>-0.030</sup><br><sub>-0.060</sub> | 75 <sup>+0.030</sup>                        | 1.5            | 1.0            |         |      |      |      | 7030 | 7040 | 7050 | 7060 | 7080 |    |     |  |
| 75 | 80 |                         | 80 <sup>+0.100</sup><br><sub>+0.050</sub> | 75 <sup>+0.046</sup><br><sub>+0.000</sub> | 75 <sup>-0.030</sup><br><sub>-0.060</sub> | 80 <sup>+0.035</sup>                        | 1.5            | 1.0            |         |      |      |      | 7530 | 7540 | 7550 | 7560 |      |    |     |  |
| 80 | 85 |                         | 85 <sup>+0.120</sup><br><sub>+0.070</sub> | 80 <sup>+0.054</sup><br><sub>+0.000</sub> | 80 <sup>-0.030</sup><br><sub>-0.060</sub> | 85 <sup>+0.035</sup>                        | 1.5            | 1.0            |         |      |      |      | 8040 | 8050 | 8060 | 8080 |      |    |     |  |

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



### 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。

### 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

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.

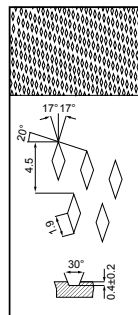
Non-standard products available: straight bushings, thrust plates, planks, bearing bushings, slide plates and steel bushing assembly.

## FB090 轴承简介 FB090 Bearing Introduction

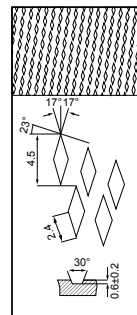
### 材料结构 Material Structure

◎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。

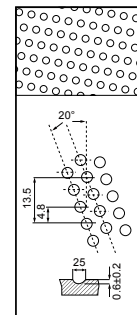
◎High-density bronze is rolled into shape or oil bags and oil holes are specially integrated into the inner surface to reduce the wearing and prolong the service hours. Besides, it has excellent anti-corrosion functions.



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 <sup>3</sup> | $18.5 \times 10^{-2} \times K^{-1}$ | 58W(m·k)           | 90~120HB   | 470N/mm <sup>2</sup> | 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<br>+0.030 | +0.018<br>0      | +0.046<br>0    | - 0.016<br>- 0.043          |
| 18~30             | +0.075<br>+0.035 | +0.021<br>0      | +0.052<br>0    | - 0.020<br>- 0.020          |
| 30~50             | +0.085<br>+0.045 | +0.025<br>0      | +0.062<br>0    | - 0.025<br>- 0.064          |
| 50~80             | +0.100<br>+0.055 | +0.030<br>0      | +0.074<br>0    | - 0.030<br>- 0.076          |
| 80~120            | +0.120<br>+0.070 | +0.035<br>0      | +0.087<br>0    | - 0.036<br>- 0.090          |
| 120~180           | +0.170<br>+0.100 | +0.400<br>0      | +0.100<br>0    | - 0.043<br>- 0.106          |
| 180~250           | +0.210<br>+0.130 | +0.046<br>0      | +0.115<br>0    | - 0.050<br>- 0.122          |
| 250~315           | +0.260<br>+0.170 | +0.052<br>0      | +0.130<br>0    | - 0.056<br>- 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**

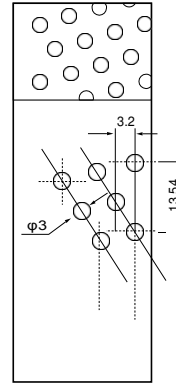
1. Saving large amount of bronze material and save the working hours normally spent for lathing the bronze bushing.
2. Compared with lathed bushings and roller bearings, it is lights and more cost-effective.
3. Various holes and dents can be made on the friction surface for grease storage, prolonging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

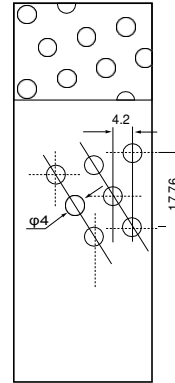
Standard products available: straight bushings, thrust plates and pressure bearings.

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  $r \leq 25$



轴承球形 内径  
 $r > 25$

### 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<br>Type | 密度<br>Density        | 散热热胀<br>Heat Emission<br>and Expansion | 热传导<br>Heat<br>Conducting | 硬度<br>Hardness | 抗压强度<br>Extensile    | 延伸率<br>Extensile |
|------------|----------------------|----------------------------------------|---------------------------|----------------|----------------------|------------------|
| FB092      | 8.8g/cm <sup>3</sup> | $18.5 \times 10^{-2} \times K^1$       | 58W(m·k)                  | 90~120HB       | 470N/mm <sup>2</sup> | 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<br>Standard Dia. | 衬套外径尺寸<br>O.D.Size | 相配座孔<br>Housing Bore | 衬套内径尺寸<br>I.D.Size | 相配轴径<br>Matching Shaft Diameter |
|-----------------------|--------------------|----------------------|--------------------|---------------------------------|
| 10~18                 | +0.065<br>+0.030   | +0.018<br>0          | +0.046<br>0        | - 0.016<br>- 0.043              |
| 18~30                 | +0.075<br>+0.035   | +0.021<br>0          | +0.052<br>0        | - 0.020<br>- 0.020              |
| 30~50                 | +0.085<br>+0.045   | +0.025<br>0          | +0.062<br>0        | - 0.025<br>- 0.064              |
| 50~80                 | +0.100<br>+0.055   | +0.030<br>0          | +0.074<br>0        | - 0.030<br>- 0.076              |
| 80~120                | +0.120<br>+0.070   | +0.035<br>0          | +0.087<br>0        | - 0.036<br>- 0.090              |
| 120~180               | +0.170<br>+0.100   | +0.400<br>0          | +0.100<br>0        | - 0.043<br>- 0.106              |
| 180~250               | +0.210<br>+0.130   | +0.046<br>0          | +0.115<br>0        | - 0.050<br>- 0.122              |
| 250~315               | +0.260<br>+0.170   | +0.052<br>0          | +0.130<br>0        | - 0.056<br>- 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 <sup>2</sup>      |
| 适应温度范围     | Temperature limit | -100℃~+250℃               |
| 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 <sup>2</sup> ·m/s |
| 允许最高PV值(油) | PV limit (oil)    | 15N/mm <sup>2</sup> ·m/s  |

### **可供形式 Availability**

直套、止推垫片、滑板及其它非标品部件等。

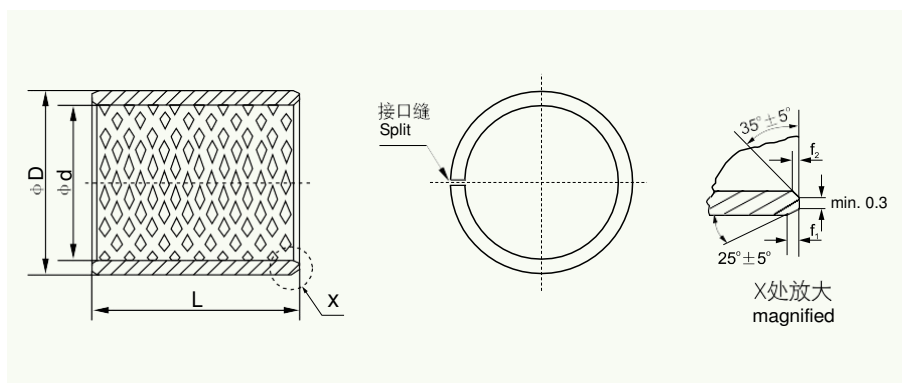
Cylindrical bushes, thrust washers, strip and non-standard parts as the clients supplied drawing etc.

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

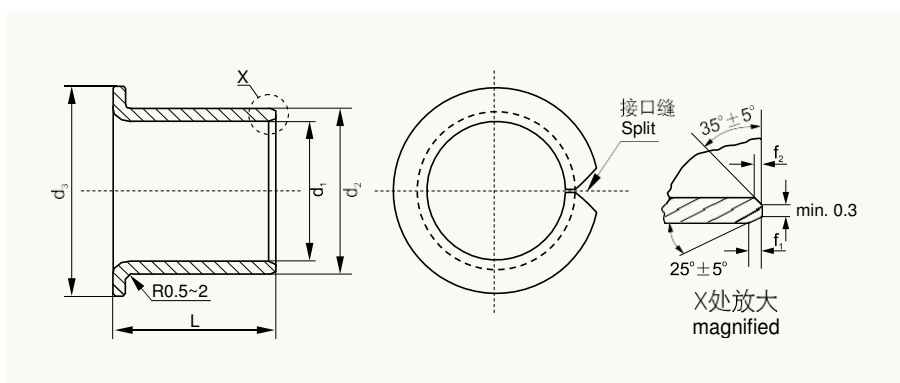
| d   | D   | 相配轴径<br>Shaft Dia.<br>f <sub>7</sub>   | 座孔<br>Housing<br>H7   | 壁厚<br>Wall Thickness |            | f <sub>1</sub> | f <sub>2</sub> | L <sup>0</sup> <sub>-0.40</sub> |      |      |      |       |       |       |       |        |        |        |        |
|-----|-----|----------------------------------------|-----------------------|--------------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

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 <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | f <sub>1</sub> | f <sub>2</sub> | L <sup>0</sup> <sub>-0.40</sub> |      |      |      |      |      |       |       |       |       |       |
|----------------|----------------|----------------|----------------|----------------|---------------------------------|------|------|------|------|------|-------|-------|-------|-------|-------|
|                |                |                |                |                | 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

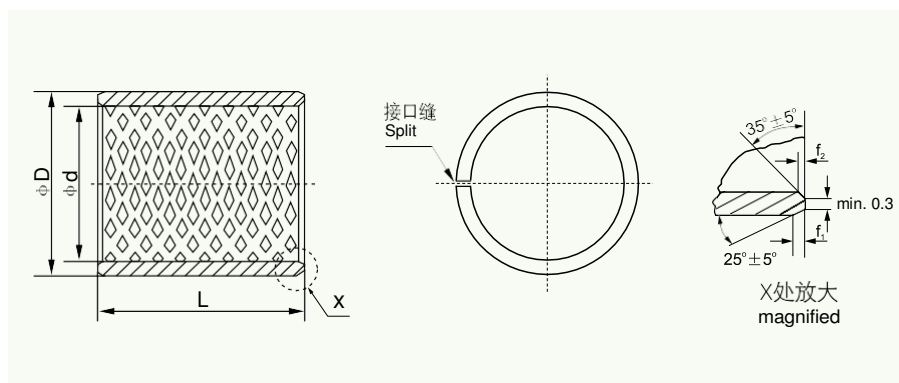
resistant action as extraordinary exploited. The lubrication area of the bearing surface is being about 25%. This type of bearing is particularly applied in starting motor for automobiles, generators cranes and those machines in metallurgical industry.

### **技术参数 Tech.Data**

|            |                   |                           |
|------------|-------------------|---------------------------|
| 最大承载压力     | Load capacity     | 150N/mm <sup>2</sup>      |
| 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 clef     | 0.06~0.25                 |
| 允许最高PV值(干) | PV limit (dry)    | 2.5N/mm <sup>2</sup> ·m/s |
| 允许最高PV值(油) | PV limit (oil)    | 15N/mm <sup>2</sup> ·m/s  |

## FB08G 固体润滑卷制轴承标准公制尺寸

## FB08G Solid-Lubricant-Embedded Wrapped Bearings Standard Metric Size



单位 Unit: mm

| d   | D   | f <sub>1</sub> | f <sub>2</sub> | L <sup>0</sup> <sub>-0.40</sub> |      |      |      |      |      |      |       |       |       |       |       |        |        |
|-----|-----|----------------|----------------|---------------------------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|--------|--------|
|     |     |                |                | 10                              | 15   | 20   | 25   | 30   | 35   | 40   | 50    | 60    | 70    | 80    | 90    | 100    |        |
| 10  | 12  | 0.3            | 0.5            | 1010                            | 1015 | 1020 |      |      |      |      |       |       |       |       |       |        |        |
| 12  | 14  |                |                | 1210                            | 1215 | 1220 |      |      |      |      |       |       |       |       |       |        |        |
| 14  | 16  |                |                | 1410                            | 1415 | 1420 | 1425 |      |      |      |       |       |       |       |       |        |        |
| 15  | 17  |                |                | 1510                            | 1515 | 1520 | 1525 |      |      |      |       |       |       |       |       |        |        |
| 16  | 18  |                |                | 1610                            | 1615 | 1620 | 1625 |      |      |      |       |       |       |       |       |        |        |
| 18  | 20  |                |                | 1810                            | 1815 | 1820 | 1825 |      |      |      |       |       |       |       |       |        |        |
| 20  | 23  | 0.8            | 0.4            | 2210                            | 2015 | 2020 | 2025 |      |      |      |       |       |       |       |       |        |        |
| 22  | 25  |                |                | 2010                            | 2215 | 2220 | 2225 | 2230 |      |      |       |       |       |       |       |        |        |
| 24  | 27  |                |                |                                 | 2415 | 2420 | 2425 | 2430 |      |      |       |       |       |       |       |        |        |
| 25  | 28  |                |                |                                 | 2515 | 2520 | 2525 | 2530 |      |      |       |       |       |       |       |        |        |
| 28  | 32  |                |                |                                 | 2815 | 2820 | 2825 | 2830 |      |      |       |       |       |       |       |        |        |
| 30  | 34  | 1.0            | 0.6            |                                 | 3015 | 3020 | 3025 | 3030 | 3035 | 3040 |       |       |       |       |       |        |        |
| 32  | 36  |                |                |                                 | 3215 | 3220 | 3225 | 3230 | 3235 | 3240 |       |       |       |       |       |        |        |
| 35  | 39  |                |                |                                 | 3515 | 3520 | 3525 | 3530 | 3535 | 3540 |       |       |       |       |       |        |        |
| 40  | 44  |                |                |                                 |      | 4020 | 4025 | 4030 | 4035 | 4040 | 4050  |       |       |       |       |        |        |
| 45  | 50  |                |                |                                 |      | 4520 | 4525 | 4530 | 4535 | 4540 | 4550  |       |       |       |       |        |        |
| 50  | 55  |                |                |                                 |      | 5020 | 5025 | 5030 | 5035 | 5040 | 5050  | 5060  |       |       |       |        |        |
| 55  | 60  | 1.2            |                |                                 |      | 5520 | 5525 | 5530 | 5535 | 5540 | 5550  | 5560  |       |       |       |        |        |
| 60  | 65  |                |                |                                 |      |      | 6025 | 6030 | 6035 | 6040 | 6050  | 6060  | 6070  |       |       |        |        |
| 65  | 70  |                |                |                                 |      |      |      | 6530 | 6535 | 6540 | 6560  | 6560  | 6570  |       |       |        |        |
| 70  | 75  |                |                |                                 |      |      |      | 7030 | 7035 | 7040 | 7050  | 7060  | 7070  | 7080  |       |        |        |
| 75  | 80  |                |                |                                 |      |      |      |      | 7530 | 7535 | 7540  | 7550  | 7560  | 7570  | 7580  |        |        |
| 80  | 85  |                |                |                                 |      |      |      | 8030 | 8035 | 8040 | 8050  | 8060  | 8070  | 8080  |       |        |        |
| 85  | 90  |                |                |                                 |      |      |      |      |      |      | 7550  | 8560  | 8570  | 8580  | 9590  |        |        |
| 90  | 95  |                |                |                                 |      |      |      |      |      |      | 9050  | 9060  | 9070  | 9080  | 9090  |        |        |
| 95  | 100 | 0.8            |                |                                 |      |      |      |      |      |      | 9550  | 9560  | 9570  | 9580  | 9590  | 951000 |        |
| 100 | 105 |                |                |                                 |      |      |      |      |      |      |       | 10050 | 10060 | 10070 | 10080 | 10090  | 100100 |
| 105 | 110 |                |                |                                 |      |      |      |      |      |      |       | 10550 | 10560 | 10570 | 10580 | 10590  | 105100 |
| 110 | 115 |                |                |                                 |      |      |      |      |      |      | 11050 | 11060 | 11070 | 11080 | 11090 | 110100 |        |
| 115 | 120 | 1.4            |                |                                 |      |      |      |      |      |      |       | 11550 | 11560 | 11570 | 11580 | 11590  | 115100 |
| 120 | 125 |                |                |                                 |      |      |      |      |      |      |       |       | 12060 | 12070 | 12080 | 12090  | 120100 |
| 125 | 130 |                |                |                                 |      |      |      |      |      |      |       |       | 12560 | 12570 | 12580 | 12590  | 125100 |
| 130 | 135 |                |                |                                 |      |      |      |      |      |      |       |       | 13060 | 13070 | 13080 | 13090  | 130100 |
| 135 | 140 |                |                |                                 |      |      |      |      |      |      |       |       | 13560 | 13570 | 13580 | 13590  | 135100 |
| 140 | 145 |                |                |                                 |      |      |      |      |      |      |       | 14060 | 14070 | 14080 | 14090 | 140100 |        |
| 145 | 150 |                |                |                                 |      |      |      |      |      |      |       | 14560 | 14570 | 14580 | 14590 | 145100 |        |
| 150 | 155 |                |                |                                 |      |      |      |      |      |      |       | 15060 | 15070 | 15080 | 15090 | 150100 |        |
| 155 | 160 |                |                |                                 |      |      |      |      |      |      |       | 15560 | 15570 | 15580 | 15590 | 155100 |        |
| 160 | 165 |                |                |                                 |      |      |      |      |      |      |       | 16060 | 16070 | 16080 | 16090 | 160100 |        |



JINTAI FB090 similar as SKS MEKANIIKKA Raka glidlager / Plain bearing Rullatut SKS090 ja SKS092 tinapronssilaakerit SKS090 –liukulaakerit on valmistettu kokonaan pronssista CuSn8 SKS090/092 serien är glidlager av högvärdig fosfortennbrons

## JINTAI FB090 Bearing and SKS Bearing Standard Metric Size

单位 Unit: mm

| JINTAI CODE  | d*D*L(mm) | SKS CODE      | JINTAI CODE  | d*D*L(mm)   | SKS CODE      |
|--------------|-----------|---------------|--------------|-------------|---------------|
| FB090 1010   | 10x12x10  | SKS090 1010   | FB090 10570  | 105x110x70  | SKS090 10570  |
| FB090 1015   | 10x12x15  | SKS090 1015   | FB090 10580  | 105x110x80  | SKS090 10580  |
| FB090 1020   | 10x12x20  | SKS090 1020   | FB090 10590  | 105x110x90  | SKS090 10590  |
| FB090 1210   | 12x14x10  | SKS090 1210   | FB090 105100 | 105x110x100 | SKS090 105100 |
| FB090 1215   | 12x14x15  | SKS090 1215   | FB090 11050  | 110x115x50  | SKS090 11050  |
| FB090 1220   | 12x14x20  | SKS090 1220   | FB090 11060  | 110x115x60  | SKS090 11060  |
| FB090 1410   | 14x16x10  | SKS090 1410   | FB090 11070  | 110x115x70  | SKS090 11070  |
| FB090 1415   | 14x16x15  | SKS090 1415   | FB090 11080  | 110x115x80  | SKS090 11080  |
| FB090 1420   | 14x16x20  | SKS090 1420   | FB090 11090  | 110x115x90  | SKS090 11090  |
| FB090 1425   | 14x16x25  | SKS090 1425   | FB090 11095  | 110x115x95  | SKS090 11095  |
| FB090 1510   | 15x17x10  | SKS090 1510   | FB090 110100 | 110x115x100 | SKS090 110100 |
| FB090 1515   | 15x17x15  | SKS090 1515   | FB090 11550  | 115x120x50  | SKS090 11550  |
| FB090 1520   | 15x17x20  | SKS090 1520   | FB090 11560  | 115x120x60  | SKS090 11560  |
| FB090 1525   | 15x17x25  | SKS090 1525   | FB090 11570  | 115x120x70  | SKS090 11570  |
| FB090 1610   | 16x18x10  | SKS090 1610   | FB090 11580  | 115x120x80  | SKS090 11580  |
| FB090 1615   | 16x18x15  | SKS090 1615   | FB090 11590  | 115x120x90  | SKS090 11590  |
| FB090 1620   | 16x18x20  | SKS090 1620   | FB090 115100 | 115x120x100 | SKS090 115100 |
| FB090 1625   | 16x18x25  | SKS090 1625   | FB090 12025  | 120x125x25  | SKS090 12025  |
| FB090 1810   | 18x20x10  | SKS090 1810   | FB090 12050  | 120x125x50  | SKS090 12050  |
| FB090 1815   | 18x20x15  | SKS090 1815   | FB090 12060  | 120x125x60  | SKS090 12060  |
| FB090 1820   | 18x20x20  | SKS090 1820   | FB090 12070  | 120x125x70  | SKS090 12070  |
| FB090 1825   | 18x20x25  | SKS090 1825   | FB090 12080  | 120x125x80  | SKS090 12080  |
| FB090 182115 | 18x21x15  | SKS090 182115 | FB090 12090  | 120x125x90  | SKS090 12090  |
| FB090 182120 | 18x21x20  | SKS090 182120 | FB090 12095  | 120x125x95  | SKS090 12095  |
| FB090 182125 | 18x21x25  | SKS090 182125 | FB090 120100 | 120x125x100 | SKS090 120100 |
| FB090 202210 | 20x22x10  | SKS090 202210 | FB090 12560  | 125x130x60  | SKS090 12560  |
| FB090 202215 | 20x22x15  | SKS090 202215 | FB090 12570  | 125x130x70  | SKS090 12570  |
| FB090 202220 | 20x22x20  | SKS090 202220 | FB090 12580  | 125x130x80  | SKS090 12580  |
| FB090 202225 | 20x22x25  | SKS090 202225 | FB090 12590  | 125x130x90  | SKS090 12590  |
| FB090 2010   | 20x23x10  | SKS090 2010   | FB090 125100 | 125x130x100 | SKS090 125100 |
| FB090 2015   | 20x23x15  | SKS090 2015   | FB090 13060  | 130x135x60  | SKS090 13060  |
| FB090 2020   | 20x23x20  | SKS090 2020   | FB090 13070  | 130x135x70  | SKS090 13070  |
| FB090 2025   | 20x23x25  | SKS090 2025   | FB090 13080  | 130x135x80  | SKS090 13080  |
| FB090 2030   | 20x23x30  | SKS090 2030   | FB090 13090  | 130x135x90  | SKS090 13090  |
| FB090 2210   | 22x25x10  | SKS090 2210   | FB090 130100 | 130x135x100 | SKS090 130100 |
| FB090 2215   | 22x25x15  | SKS090 2215   | FB090 13560  | 135x140x60  | SKS090 13560  |
| FB090 2220   | 22x25x20  | SKS090 2220   | FB090 13570  | 135x140x70  | SKS090 13570  |
| FB090 2225   | 22x25x25  | SKS090 2225   | FB090 13580  | 135x140x80  | SKS090 13580  |
| FB090 2230   | 22x25x30  | SKS090 2230   | FB090 13590  | 135x140x90  | SKS090 13590  |
| FB090 2410   | 24x27x10  | SKS090 2410   | FB090 135100 | 135x140x100 | SKS090 135100 |
| FB090 2415   | 24x27x15  | SKS090 2415   | FB090 14050  | 140x145x50  | SKS090 14050  |
| FB090 2420   | 24x27x20  | SKS090 2420   | FB090 14060  | 140x145x60  | SKS090 14060  |
| FB090 2425   | 24x27x25  | SKS090 2425   | FB090 14070  | 140x145x70  | SKS090 14070  |
| FB090 242810 | 24x28x10  | SKS090 242810 | FB090 14080  | 140x145x80  | SKS090 14080  |
| FB090 242815 | 24x28x15  | SKS090 242815 | FB090 14090  | 140x145x90  | SKS090 14090  |
| FB090 242820 | 24x28x20  | SKS090 242820 | FB090 140100 | 140x145x100 | SKS090 140100 |
| FB090 242825 | 24x28x25  | SKS090 242825 | FB090 14560  | 145x150x60  | SKS090 14560  |
| FB090 242830 | 24x28x30  | SKS090 242830 | FB090 14570  | 145x150x70  | SKS090 14570  |
| FB090 2515   | 25x28x15  | SKS090 2515   | FB090 14580  | 145x150x80  | SKS090 14580  |
| FB090 2520   | 25x28x20  | SKS090 2520   | FB090 14590  | 145x150x90  | SKS090 14590  |
| FB090 2525   | 25x28x25  | SKS090 2525   | FB090 145100 | 145x150x100 | SKS090 145100 |
| FB090 2530   | 25x28x30  | SKS090 2530   | FB090 15045  | 150x155x45  | SKS090 15045  |
| FB090 2550   | 25x28x50  | SKS090 2550   | FB090 15060  | 150x155x60  | SKS090 15060  |
| FB090 283115 | 28x31x15  | SKS090 283115 | FB090 15070  | 150x155x70  | SKS090 15070  |
| FB090 283120 | 28x31x20  | SKS090 283120 | FB090 15080  | 150x155x80  | SKS090 15080  |
| FB090 283125 | 28x31x25  | SKS090 283125 | FB090 15090  | 150x155x90  | SKS090 15090  |
| FB090 283130 | 28x31x30  | SKS090 283130 | FB090 150100 | 150x155x100 | SKS090 150100 |
| FB090 2815   | 28x32x15  | SKS090 2815   | FB090 15560  | 155x160x60  | SKS090 15560  |
| FB090 2820   | 28x32x20  | SKS090 2820   | FB090 15570  | 155x160x70  | SKS090 15570  |
| FB090 2825   | 28x32x25  | SKS090 2825   | FB090 15580  | 155x160x80  | SKS090 15580  |
| FB090 2830   | 28x32x30  | SKS090 2830   | FB090 15590  | 155x160x90  | SKS090 15590  |
| FB090 3015   | 30x34x15  | SKS090 3015   | FB090 155100 | 155x160x100 | SKS090 155100 |
| FB090 3020   | 30x34x20  | SKS090 3020   | FB090 16060  | 160x165x60  | SKS090 16060  |
| FB090 3025   | 30x34x25  | SKS090 3025   | FB090 16070  | 160x165x70  | SKS090 16070  |
| FB090 3030   | 30x34x30  | SKS090 3030   | FB090 16080  | 160x165x80  | SKS090 16080  |
| FB090 3035   | 30x34x35  | SKS090 3035   | FB090 16090  | 160x165x90  | SKS090 16090  |
| FB090 3040   | 30x34x40  | SKS090 3040   | FB090 160100 | 160x165x100 | SKS090 160100 |
| FB090 3215   | 32x36x15  | SKS090 3215   | FB090 16560  | 165x170x60  | SKS090 16560  |
| FB090 3220   | 32x36x20  | SKS090 3220   | FB090 16570  | 165x170x70  | SKS090 16570  |
| FB090 3225   | 32x36x25  | SKS090 3225   | FB090 16580  | 165x170x80  | SKS090 16580  |
| FB090 3230   | 32x36x30  | SKS090 3230   | FB090 16590  | 165x170x90  | SKS090 16590  |
| FB090 3235   | 32x36x35  | SKS090 3235   | FB090 165100 | 165x170x100 | SKS090 165100 |
| FB090 3240   | 32x36x40  | SKS090 3240   | FB090 17060  | 170x175x60  | SKS090 17060  |
| FB090 3520   | 35x39x20  | SKS090 3520   | FB090 17070  | 170x175x70  | SKS090 17070  |
| FB090 3525   | 35x39x25  | SKS090 3525   | FB090 17080  | 170x175x80  | SKS090 17080  |
| FB090 3530   | 35x39x30  | SKS090 3530   | FB090 17090  | 170x175x90  | SKS090 17090  |
| FB090 3540   | 35x39x40  | SKS090 3540   | FB090 170100 | 170x175x100 | SKS090 170100 |
| FB090 3550   | 35x39x50  | SKS090 3550   | FB090 17550  | 175x180x50  | SKS090 17550  |

|             |            |              |              |             |               |
|-------------|------------|--------------|--------------|-------------|---------------|
| FB090 4020  | 40x44x20   | SKS090 4020  | FB090 17560  | 175x180x60  | SKS090 17560  |
| FB090 4025  | 40x44x25   | SKS090 4025  | FB090 17570  | 175x180x70  | SKS090 17570  |
| FB090 4030  | 40x44x30   | SKS090 4030  | FB090 17580  | 175x180x80  | SKS090 17580  |
| FB090 4035  | 40x44x35   | SKS090 4035  | FB090 17590  | 175x180x90  | SKS090 17590  |
| FB090 4040  | 40x44x40   | SKS090 4040  | FB090 175100 | 175x180x100 | SKS090 175100 |
| FB090 4050  | 40x44x50   | SKS090 4050  | FB090 18045  | 180x185x45  | SKS090 18045  |
| FB090 4520  | 45x50x20   | SKS090 4520  | FB090 18060  | 180x185x60  | SKS090 18060  |
| FB090 4525  | 45x50x25   | SKS090 4525  | FB090 18070  | 180x185x70  | SKS090 18070  |
| FB090 4530  | 45x50x30   | SKS090 4530  | FB090 18080  | 180x185x80  | SKS090 18080  |
| FB090 4535  | 45x50x35   | SKS090 4535  | FB090 18090  | 180x185x90  | SKS090 18090  |
| FB090 4540  | 45x50x40   | SKS090 4540  | FB090 180100 | 180x185x100 | SKS090 180100 |
| FB090 4550  | 45x50x50   | SKS090 4550  | FB090 18560  | 185x190x60  | SKS090 18560  |
| FB090 4560  | 45x50x50   | SKS090 4560  | FB090 18570  | 185x190x70  | SKS090 18570  |
| FB090 5020  | 50x55x20   | SKS090 5020  | FB090 18580  | 185x190x80  | SKS090 18580  |
| FB090 5025  | 50x55x25   | SKS090 5025  | FB090 18590  | 185x190x90  | SKS090 18590  |
| FB090 5030  | 50x55x30   | SKS090 5030  | FB090 185100 | 185x190x100 | SKS090 185100 |
| FB090 5035  | 50x55x35   | SKS090 5035  | FB090 19060  | 190x195x60  | SKS090 19060  |
| FB090 5040  | 50x55x40   | SKS090 5040  | FB090 19070  | 190x195x70  | SKS090 19070  |
| FB090 5050  | 50x55x50   | SKS090 5050  | FB090 19080  | 190x195x80  | SKS090 19080  |
| FB090 5060  | 50x55x60   | SKS090 5060  | FB090 19090  | 190x195x90  | SKS090 19090  |
| FB090 5520  | 55x60x20   | SKS090 5520  | FB090 190100 | 190x195x100 | SKS090 190100 |
| FB090 5525  | 55x60x25   | SKS090 5525  | FB090 19560  | 195x200x60  | SKS090 19560  |
| FB090 5530  | 55x60x30   | SKS090 5530  | FB090 19570  | 195x200x70  | SKS090 19570  |
| FB090 5535  | 55x60x35   | SKS090 5535  | FB090 19580  | 195x200x80  | SKS090 19580  |
| FB090 5540  | 55x60x40   | SKS090 5540  | FB090 19590  | 195x200x90  | SKS090 19590  |
| FB090 5550  | 55x60x50   | SKS090 5550  | FB090 195100 | 195x200x100 | SKS090 195100 |
| FB090 5560  | 55x60x60   | SKS090 5560  | FB090 20060  | 200x205x60  | SKS090 20060  |
| FB090 6025  | 60x65x25   | SKS090 6025  | FB090 20070  | 200x205x70  | SKS090 20070  |
| FB090 6030  | 60x65x30   | SKS090 6030  | FB090 20080  | 200x205x80  | SKS090 20080  |
| FB090 6035  | 60x65x35   | SKS090 6035  | FB090 20090  | 200x205x90  | SKS090 20090  |
| FB090 6040  | 60x65x40   | SKS090 6040  | FB090 200100 | 200x205x100 | SKS090 200100 |
| FB090 6045  | 60x65x45   | SKS090 6045  | FB090 20560  | 205x210x60  | SKS090 20560  |
| FB090 6050  | 60x65x50   | SKS090 6050  | FB090 20570  | 205x210x70  | SKS090 20570  |
| FB090 6060  | 60x65x60   | SKS090 6060  | FB090 20580  | 205x210x80  | SKS090 20580  |
| FB090 6070  | 60x65x70   | SKS090 6070  | FB090 20590  | 205x210x90  | SKS090 20590  |
| FB090 6530  | 65x70x30   | SKS090 6530  | FB090 205100 | 205x210x100 | SKS090 205100 |
| FB090 6535  | 65x70x35   | SKS090 6535  | FB090 21060  | 210x215x60  | SKS090 21060  |
| FB090 6540  | 65x70x40   | SKS090 6540  | FB090 21070  | 210x215x70  | SKS090 21070  |
| FB090 6550  | 65x70x50   | SKS090 6550  | FB090 21080  | 210x215x80  | SKS090 21080  |
| FB090 6560  | 65x70x60   | SKS090 6560  | FB090 21090  | 210x215x90  | SKS090 21090  |
| FB090 6570  | 65x70x70   | SKS090 6570  | FB090 210100 | 210x215x100 | SKS090 210100 |
| FB090 7030  | 70x75x30   | SKS090 7030  | FB090 21560  | 215x220x60  | SKS090 21560  |
| FB090 7035  | 70x75x35   | SKS090 7035  | FB090 21570  | 215x220x70  | SKS090 21570  |
| FB090 7040  | 70x75x40   | SKS090 7040  | FB090 21580  | 215x220x80  | SKS090 21580  |
| FB090 7045  | 70x75x45   | SKS090 7045  | FB090 21590  | 215x220x90  | SKS090 21590  |
| FB090 7050  | 70x75x50   | SKS090 7050  | FB090 215100 | 215x220x100 | SKS090 215100 |
| FB090 7060  | 70x75x60   | SKS090 7060  | FB090 22060  | 220x225x60  | SKS090 22060  |
| FB090 7070  | 70x75x80   | SKS090 7070  | FB090 22070  | 220x225x70  | SKS090 22070  |
| FB090 7530  | 75x80x30   | SKS090 7530  | FB090 22080  | 220x225x80  | SKS090 22080  |
| FB090 7535  | 75x80x35   | SKS090 7535  | FB090 22090  | 220x225x90  | SKS090 22090  |
| FB090 7540  | 75x80x40   | SKS090 7540  | FB090 220100 | 220x225x100 | SKS090 220100 |
| FB090 7550  | 75x80x50   | SKS090 7550  | FB090 22560  | 225x230x60  | SKS090 22560  |
| FB090 7560  | 75x80x60   | SKS090 7560  | FB090 22570  | 225x230x70  | SKS090 22570  |
| FB090 7570  | 75x80x70   | SKS090 7570  | FB090 22580  | 225x230x80  | SKS090 22580  |
| FB090 7580  | 75x80x80   | SKS090 7580  | FB090 22590  | 225x230x90  | SKS090 22590  |
| FB090 8030  | 80x85x30   | SKS090 8030  | FB090 225100 | 225x230x100 | SKS090 225100 |
| FB090 8035  | 80x85x35   | SKS090 8035  | FB090 23060  | 230x235x60  | SKS090 23060  |
| FB090 8040  | 80x85x40   | SKS090 8040  | FB090 23070  | 230x235x70  | SKS090 23070  |
| FB090 8050  | 80x85x50   | SKS090 8050  | FB090 23080  | 230x235x80  | SKS090 23080  |
| FB090 8060  | 80x85x60   | SKS090 8060  | FB090 23090  | 230x235x90  | SKS090 23090  |
| FB090 8070  | 80x85x70   | SKS090 8070  | FB090 230100 | 230x235x100 | SKS090 230100 |
| FB090 8080  | 80x85x80   | SKS090 8080  | FB090 24060  | 240x245x60  | SKS090 24060  |
| FB090 8530  | 85x90x30   | SKS090 8530  | FB090 24070  | 240x245x70  | SKS090 24070  |
| FB090 8535  | 85x90x35   | SKS090 8535  | FB090 24080  | 240x245x80  | SKS090 24080  |
| FB090 8540  | 85x90x40   | SKS090 8540  | FB090 24090  | 240x245x90  | SKS090 24090  |
| FB090 8550  | 85x90x50   | SKS090 8550  | FB090 240100 | 240x245x100 | SKS090 240100 |
| FB090 8560  | 85x90x60   | SKS090 8560  | FB090 25060  | 250x255x60  | SKS090 25060  |
| FB090 8570  | 85x90x70   | SKS090 8570  | FB090 25070  | 250x255x70  | SKS090 25070  |
| FB090 8580  | 85x90x80   | SKS090 8580  | FB090 25080  | 250x255x80  | SKS090 25080  |
| FB090 8590  | 85x90x90   | SKS090 8590  | FB090 25090  | 250x255x90  | SKS090 25090  |
| FB090 9030  | 90x95x30   | SKS090 9030  | FB090 250100 | 250x255x100 | SKS090 250100 |
| FB090 9035  | 90x95x35   | SKS090 9035  | FB090 26060  | 260x265x60  | SKS090 26060  |
| FB090 9040  | 90x95x40   | SKS090 9040  | FB090 26070  | 260x265x70  | SKS090 26070  |
| FB090 9050  | 90x95x50   | SKS090 9050  | FB090 26080  | 260x265x80  | SKS090 26080  |
| FB090 9060  | 90x95x60   | SKS090 9060  | FB090 26090  | 260x265x90  | SKS090 26090  |
| FB090 9070  | 90x95x70   | SKS090 9070  | FB090 260100 | 260x265x100 | SKS090 260100 |
| FB090 9080  | 90x95x80   | SKS090 9080  | FB090 27060  | 270x275x60  | SKS090 27060  |
| FB090 9090  | 90x95x90   | SKS090 9090  | FB090 27070  | 270x275x70  | SKS090 27070  |
| FB090 90100 | 90x95x100  | SKS090 90100 | FB090 27080  | 270x275x80  | SKS090 27080  |
| FB090 9540  | 95x100x40  | SKS090 9540  | FB090 27090  | 270x275x90  | SKS090 27090  |
| FB090 9550  | 95x100x50  | SKS090 9550  | FB090 270100 | 270x275x100 | SKS090 270100 |
| FB090 9560  | 95x100x60  | SKS090 9560  | FB090 28060  | 280x285x60  | SKS090 28060  |
| FB090 9570  | 95x100x70  | SKS090 9570  | FB090 28070  | 280x285x70  | SKS090 28070  |
| FB090 9580  | 95x100x80  | SKS090 9580  | FB090 28080  | 280x285x80  | SKS090 28080  |
| FB090 9590  | 95x100x90  | SKS090 9590  | FB090 28090  | 280x285x90  | SKS090 28090  |
| FB090 95100 | 95x100x100 | SKS090 95100 | FB090 280100 | 280x285x100 | SKS090 280100 |
| FB090 10040 | 100x105x40 | SKS090 10040 | FB090 29060  | 290x295x60  | SKS090 29060  |
| FB090 10050 | 100x105x50 | SKS090 10050 | FB090 29070  | 290x295x70  | SKS090 29070  |
| FB090 10060 | 100x105x60 | SKS090 10060 | FB090 29080  | 290x295x80  | SKS090 29080  |
| FB090 10070 | 100x105x70 | SKS090 10070 | FB090 29090  | 290x295x90  | SKS090 29090  |
| FB090 10080 | 100x105x80 | SKS090 10080 | FB090 290100 | 290x295x100 | SKS090 290100 |
| FB090 10090 | 100x105x90 | SKS090 10090 | FB090 30060  | 300x305x60  | SKS090 30060  |



JINTAI FB092 similar as SKS MEKANIIKKA Raka glidlager / Plain bearing Rullatut SKS090 ja SKS092 tinapronssilaakerit SKS092 -liukulaakerit valmistetaan myös pronssista (CuSn8)  
SKS090/092 serien är glidlager av högvärdig fosfortennbrons

## JINTAI FB092 Bearing and SKS Bearing Standard Metric Size

| JINTAI CODE  | d*D*L(mm) | SKS CODE      | JINTAI CODE  | d*D*L(mm)   | SKS CODE      |
|--------------|-----------|---------------|--------------|-------------|---------------|
| FB092 1010   | 10x12x10  | SKS092 1010   | FB092 10570  | 105x110x70  | SKS092 10570  |
| FB092 1015   | 10x12x15  | SKS092 1015   | FB092 10580  | 105x110x80  | SKS092 10580  |
| FB092 1020   | 10x12x20  | SKS092 1020   | FB092 10590  | 105x110x90  | SKS092 10590  |
| FB092 1210   | 12x14x10  | SKS092 1210   | FB092 105100 | 105x110x100 | SKS092 105100 |
| FB092 1215   | 12x14x15  | SKS092 1215   | FB092 11050  | 110x115x50  | SKS092 11050  |
| FB092 1220   | 12x14x20  | SKS092 1220   | FB092 11060  | 110x115x60  | SKS092 11060  |
| FB092 1410   | 14x16x10  | SKS092 1410   | FB092 11070  | 110x115x70  | SKS092 11070  |
| FB092 1415   | 14x16x15  | SKS092 1415   | FB092 11080  | 110x115x80  | SKS092 11080  |
| FB092 1420   | 14x16x20  | SKS092 1420   | FB092 11090  | 110x115x90  | SKS092 11090  |
| FB092 1425   | 14x16x25  | SKS092 1425   | FB092 11095  | 110x115x95  | SKS092 11095  |
| FB092 1510   | 15x17x10  | SKS092 1510   | FB092 110100 | 110x115x100 | SKS092 110100 |
| FB092 1515   | 15x17x15  | SKS092 1515   | FB092 11550  | 115x120x50  | SKS092 11550  |
| FB092 1520   | 15x17x20  | SKS092 1520   | FB092 11560  | 115x120x60  | SKS092 11560  |
| FB092 1525   | 15x17x25  | SKS092 1525   | FB092 11570  | 115x120x70  | SKS092 11570  |
| FB092 1610   | 16x18x10  | SKS092 1610   | FB092 11580  | 115x120x80  | SKS092 11580  |
| FB092 1615   | 16x18x15  | SKS092 1615   | FB092 11590  | 115x120x90  | SKS092 11590  |
| FB092 1620   | 16x18x20  | SKS092 1620   | FB092 115100 | 115x120x100 | SKS092 115100 |
| FB092 1625   | 16x18x25  | SKS092 1625   | FB092 12025  | 120x125x25  | SKS092 12025  |
| FB092 1810   | 18x20x10  | SKS092 1810   | FB092 12050  | 120x125x50  | SKS092 12050  |
| FB092 1815   | 18x20x15  | SKS092 1815   | FB092 12060  | 120x125x60  | SKS092 12060  |
| FB092 1820   | 18x20x20  | SKS092 1820   | FB092 12070  | 120x125x70  | SKS092 12070  |
| FB092 1825   | 18x20x25  | SKS092 1825   | FB092 12080  | 120x125x80  | SKS092 12080  |
| FB092 182115 | 18x21x15  | SKS092 182115 | FB092 12090  | 120x125x90  | SKS092 12090  |
| FB092 182120 | 18x21x20  | SKS092 182120 | FB092 12095  | 120x125x95  | SKS092 12095  |
| FB092 182125 | 18x21x25  | SKS092 182125 | FB092 120100 | 120x125x100 | SKS092 120100 |
| FB092 20210  | 20x22x10  | SKS092 20210  | FB092 12560  | 125x130x60  | SKS092 12560  |
| FB092 202215 | 20x22x15  | SKS092 202215 | FB092 12570  | 125x130x70  | SKS092 12570  |
| FB092 202220 | 20x22x20  | SKS092 202220 | FB092 12580  | 125x130x80  | SKS092 12580  |
| FB092 202225 | 20x22x25  | SKS092 202225 | FB092 12590  | 125x130x90  | SKS092 12590  |
| FB092 2010   | 20x23x10  | SKS092 2010   | FB092 125100 | 125x130x100 | SKS092 125100 |
| FB092 2015   | 20x23x15  | SKS092 2015   | FB092 13060  | 130x135x60  | SKS092 13060  |
| FB092 2020   | 20x23x20  | SKS092 2020   | FB092 13070  | 130x135x70  | SKS092 13070  |
| FB092 2025   | 20x23x25  | SKS092 2025   | FB092 13080  | 130x135x80  | SKS092 13080  |
| FB092 2030   | 20x23x30  | SKS092 2030   | FB092 13090  | 130x135x90  | SKS092 13090  |
| FB092 2210   | 22x25x10  | SKS092 2210   | FB092 130100 | 130x135x100 | SKS092 130100 |
| FB092 2215   | 22x25x15  | SKS092 2215   | FB092 13560  | 135x140x60  | SKS092 13560  |
| FB092 2220   | 22x25x20  | SKS092 2220   | FB092 13570  | 135x140x70  | SKS092 13570  |
| FB092 2225   | 22x25x25  | SKS092 2225   | FB092 13580  | 135x140x80  | SKS092 13580  |
| FB092 2230   | 22x25x30  | SKS092 2230   | FB092 13590  | 135x140x90  | SKS092 13590  |
| FB092 2410   | 24x27x10  | SKS092 2410   | FB092 135100 | 135x140x100 | SKS092 135100 |
| FB092 2415   | 24x27x15  | SKS092 2415   | FB092 14050  | 140x145x50  | SKS092 14050  |
| FB092 2420   | 24x27x20  | SKS092 2420   | FB092 14060  | 140x145x60  | SKS092 14060  |
| FB092 2425   | 24x27x25  | SKS092 2425   | FB092 14070  | 140x145x70  | SKS092 14070  |
| FB092 242810 | 24x28x10  | SKS092 242810 | FB092 14080  | 140x145x80  | SKS092 14080  |
| FB092 242815 | 24x28x15  | SKS092 242815 | FB092 14090  | 140x145x90  | SKS092 14090  |
| FB092 242820 | 24x28x20  | SKS092 242820 | FB092 140100 | 140x145x100 | SKS092 140100 |
| FB092 242825 | 24x28x25  | SKS092 242825 | FB092 14560  | 145x150x60  | SKS092 14560  |
| FB092 242830 | 24x28x30  | SKS092 242830 | FB092 14570  | 145x150x70  | SKS092 14570  |
| FB092 2515   | 25x28x15  | SKS092 2515   | FB092 14580  | 145x150x80  | SKS092 14580  |
| FB092 2520   | 25x28x20  | SKS092 2520   | FB092 14590  | 145x150x90  | SKS092 14590  |
| FB092 2525   | 25x28x25  | SKS092 2525   | FB092 145100 | 145x150x100 | SKS092 145100 |
| FB092 2530   | 25x28x30  | SKS092 2530   | FB092 15045  | 150x155x45  | SKS092 15045  |
| FB092 2550   | 25x28x50  | SKS092 2550   | FB092 15060  | 150x155x60  | SKS092 15060  |
| FB092 283115 | 28x31x15  | SKS092 283115 | FB092 15070  | 150x155x70  | SKS092 15070  |
| FB092 283120 | 28x31x20  | SKS092 283120 | FB092 15080  | 150x155x80  | SKS092 15080  |
| FB092 283125 | 28x31x25  | SKS092 283125 | FB092 15090  | 150x155x90  | SKS092 15090  |
| FB092 283130 | 28x31x30  | SKS092 283130 | FB092 150100 | 150x155x100 | SKS092 150100 |
| FB092 2815   | 28x32x15  | SKS092 2815   | FB092 15560  | 155x160x60  | SKS092 15560  |
| FB092 2820   | 28x32x20  | SKS092 2820   | FB092 15570  | 155x160x70  | SKS092 15570  |
| FB092 2825   | 28x32x25  | SKS092 2825   | FB092 15580  | 155x160x80  | SKS092 15580  |
| FB092 2830   | 28x32x30  | SKS092 2830   | FB092 15590  | 155x160x90  | SKS092 15590  |
| FB092 3015   | 30x34x15  | SKS092 3015   | FB092 155100 | 155x160x100 | SKS092 155100 |
| FB092 3020   | 30x34x20  | SKS092 3020   | FB092 16060  | 160x165x60  | SKS092 16060  |
| FB092 3025   | 30x34x25  | SKS092 3025   | FB092 16070  | 160x165x70  | SKS092 16070  |
| FB092 3030   | 30x34x30  | SKS092 3030   | FB092 16080  | 160x165x80  | SKS092 16080  |
| FB092 3035   | 30x34x35  | SKS092 3035   | FB092 16090  | 160x165x90  | SKS092 16090  |
| FB092 3040   | 30x34x40  | SKS092 3040   | FB092 160100 | 160x165x100 | SKS092 160100 |
| FB092 3215   | 32x36x15  | SKS092 3215   | FB092 16560  | 165x170x60  | SKS092 16560  |
| FB092 3220   | 32x36x20  | SKS092 3220   | FB092 16570  | 165x170x70  | SKS092 16570  |
| FB092 3225   | 32x36x25  | SKS092 3225   | FB092 16580  | 165x170x80  | SKS092 16580  |
| FB092 3230   | 32x36x30  | SKS092 3230   | FB092 16590  | 165x170x90  | SKS092 16590  |
| FB092 3235   | 32x36x35  | SKS092 3235   | FB092 165100 | 165x170x100 | SKS092 165100 |
| FB092 3240   | 32x36x40  | SKS092 3240   | FB092 17060  | 170x175x60  | SKS092 17060  |
| FB092 3520   | 35x39x20  | SKS092 3520   | FB092 17070  | 170x175x70  | SKS092 17070  |
| FB092 3525   | 35x39x25  | SKS092 3525   | FB092 17080  | 170x175x80  | SKS092 17080  |
| FB092 3530   | 35x39x30  | SKS092 3530   | FB092 17090  | 170x175x90  | SKS092 17090  |
| FB092 3540   | 35x39x40  | SKS092 3540   | FB092 170100 | 170x175x100 | SKS092 170100 |
| FB092 3550   | 35x39x50  | SKS092 3550   | FB092 17550  | 175x180x50  | SKS092 17550  |
| FB092 4020   | 40x44x20  | SKS092 4020   | FB092 17560  | 175x180x60  | SKS092 17560  |
| FB092 4025   | 40x44x25  | SKS092 4025   | FB092 17570  | 175x180x70  | SKS092 17570  |

|              |             |               |              |             |               |
|--------------|-------------|---------------|--------------|-------------|---------------|
| FB092 4030   | 40x44x30    | SKS092 4030   | FB092 17580  | 175x180x80  | SKS092 17580  |
| FB092 4035   | 40x44x35    | SKS092 4035   | FB092 17590  | 175x180x90  | SKS092 17590  |
| FB092 4040   | 40x44x40    | SKS092 4040   | FB092 175100 | 175x180x100 | SKS092 175100 |
| FB092 4050   | 40x44x50    | SKS092 4050   | FB092 18045  | 180x185x45  | SKS092 18045  |
| FB092 4520   | 45x50x20    | SKS092 4520   | FB092 18060  | 180x185x60  | SKS092 18060  |
| FB092 4525   | 45x50x25    | SKS092 4525   | FB092 18070  | 180x185x70  | SKS092 18070  |
| FB092 4530   | 45x50x30    | SKS092 4530   | FB092 18080  | 180x185x80  | SKS092 18080  |
| FB092 4535   | 45x50x35    | SKS092 4535   | FB092 18090  | 180x185x90  | SKS092 18090  |
| FB092 4540   | 45x50x40    | SKS092 4540   | FB092 180100 | 180x185x100 | SKS092 180100 |
| FB092 4550   | 45x50x50    | SKS092 4550   | FB092 18560  | 185x190x60  | SKS092 18560  |
| FB092 4560   | 45x50x50    | SKS092 4560   | FB092 18570  | 185x190x70  | SKS092 18570  |
| FB092 5020   | 50x55x20    | SKS092 5020   | FB092 18580  | 185x190x80  | SKS092 18580  |
| FB092 5025   | 50x55x25    | SKS092 5025   | FB092 18590  | 185x190x90  | SKS092 18590  |
| FB092 5030   | 50x55x30    | SKS092 5030   | FB092 185100 | 185x190x100 | SKS092 185100 |
| FB092 5035   | 50x55x35    | SKS092 5035   | FB092 19060  | 190x195x60  | SKS092 19060  |
| FB092 5040   | 50x55x40    | SKS092 5040   | FB092 19070  | 190x195x70  | SKS092 19070  |
| FB092 5050   | 50x55x50    | SKS092 5050   | FB092 19080  | 190x195x80  | SKS092 19080  |
| FB092 5060   | 50x55x60    | SKS092 5060   | FB092 19090  | 190x195x90  | SKS092 19090  |
| FB092 5520   | 55x60x20    | SKS092 5520   | FB092 190100 | 190x195x100 | SKS092 190100 |
| FB092 5525   | 55x60x25    | SKS092 5525   | FB092 19560  | 195x200x60  | SKS092 19560  |
| FB092 5530   | 55x60x30    | SKS092 5530   | FB092 19570  | 195x200x70  | SKS092 19570  |
| FB092 5535   | 55x60x35    | SKS092 5535   | FB092 19580  | 195x200x80  | SKS092 19580  |
| FB092 5540   | 55x60x40    | SKS092 5540   | FB092 19590  | 195x200x90  | SKS092 19590  |
| FB092 5550   | 55x60x50    | SKS092 5550   | FB092 195100 | 195x200x100 | SKS092 195100 |
| FB092 5560   | 55x60x60    | SKS092 5560   | FB092 20060  | 200x205x60  | SKS092 20060  |
| FB092 6025   | 60x65x25    | SKS092 6025   | FB092 20070  | 200x205x70  | SKS092 20070  |
| FB092 6030   | 60x65x30    | SKS092 6030   | FB092 20080  | 200x205x80  | SKS092 20080  |
| FB092 6035   | 60x65x35    | SKS092 6035   | FB092 20090  | 200x205x90  | SKS092 20090  |
| FB092 6040   | 60x65x40    | SKS092 6040   | FB092 200100 | 200x205x100 | SKS092 200100 |
| FB092 6045   | 60x65x45    | SKS092 6045   | FB092 20560  | 205x210x60  | SKS092 20560  |
| FB092 6050   | 60x65x50    | SKS092 6050   | FB092 20570  | 205x210x70  | SKS092 20570  |
| FB092 6060   | 60x65x60    | SKS092 6060   | FB092 20580  | 205x210x80  | SKS092 20580  |
| FB092 6070   | 60x65x70    | SKS092 6070   | FB092 20590  | 205x210x90  | SKS092 20590  |
| FB092 6530   | 65x70x30    | SKS092 6530   | FB092 205100 | 205x210x100 | SKS092 205100 |
| FB092 6535   | 65x70x35    | SKS092 6535   | FB092 21060  | 210x215x60  | SKS092 21060  |
| FB092 6540   | 65x70x40    | SKS092 6540   | FB092 21070  | 210x215x70  | SKS092 21070  |
| FB092 6550   | 65x70x50    | SKS092 6550   | FB092 21080  | 210x215x80  | SKS092 21080  |
| FB092 6560   | 65x70x60    | SKS092 6560   | FB092 21090  | 210x215x90  | SKS092 21090  |
| FB092 6570   | 65x70x70    | SKS092 6570   | FB092 210100 | 210x215x100 | SKS092 210100 |
| FB092 7030   | 70x75x30    | SKS092 7030   | FB092 21560  | 215x220x60  | SKS092 21560  |
| FB092 7035   | 70x75x35    | SKS092 7035   | FB092 21570  | 215x220x70  | SKS092 21570  |
| FB092 7040   | 70x75x40    | SKS092 7040   | FB092 21580  | 215x220x80  | SKS092 21580  |
| FB092 7045   | 70x75x45    | SKS092 7045   | FB092 21590  | 215x220x90  | SKS092 21590  |
| FB092 7050   | 70x75x50    | SKS092 7050   | FB092 215100 | 215x220x100 | SKS092 215100 |
| FB092 7060   | 70x75x60    | SKS092 7060   | FB092 22060  | 220x225x60  | SKS092 22060  |
| FB092 7070   | 70x75x80    | SKS092 7070   | FB092 22070  | 220x225x70  | SKS092 22070  |
| FB092 7530   | 75x80x30    | SKS092 7530   | FB092 22080  | 220x225x80  | SKS092 22080  |
| FB092 7535   | 75x80x35    | SKS092 7535   | FB092 22090  | 220x225x90  | SKS092 22090  |
| FB092 7540   | 75x80x40    | SKS092 7540   | FB092 220100 | 220x225x100 | SKS092 220100 |
| FB092 7550   | 75x80x50    | SKS092 7550   | FB092 22560  | 225x230x60  | SKS092 22560  |
| FB092 7560   | 75x80x60    | SKS092 7560   | FB092 22570  | 225x230x70  | SKS092 22570  |
| FB092 7570   | 75x80x70    | SKS092 7570   | FB092 22580  | 225x230x80  | SKS092 22580  |
| FB092 7580   | 75x80x80    | SKS092 7580   | FB092 22590  | 225x230x90  | SKS092 22590  |
| FB092 8030   | 80x85x30    | SKS092 8030   | FB092 225100 | 225x230x100 | SKS092 225100 |
| FB092 8035   | 80x85x35    | SKS092 8035   | FB092 23060  | 230x235x60  | SKS092 23060  |
| FB092 8040   | 80x85x40    | SKS092 8040   | FB092 23070  | 230x235x70  | SKS092 23070  |
| FB092 8050   | 80x85x50    | SKS092 8050   | FB092 23080  | 230x235x80  | SKS092 23080  |
| FB092 8060   | 80x85x60    | SKS092 8060   | FB092 23090  | 230x235x90  | SKS092 23090  |
| FB092 8070   | 80x85x70    | SKS092 8070   | FB092 230100 | 230x235x100 | SKS092 230100 |
| FB092 8080   | 80x85x80    | SKS092 8080   | FB092 24060  | 240x245x60  | SKS092 24060  |
| FB092 8530   | 85x90x30    | SKS092 8530   | FB092 24070  | 240x245x70  | SKS092 24070  |
| FB092 8535   | 85x90x35    | SKS092 8535   | FB092 24080  | 240x245x80  | SKS092 24080  |
| FB092 8540   | 85x90x40    | SKS092 8540   | FB092 24090  | 240x245x90  | SKS092 24090  |
| FB092 8550   | 85x90x50    | SKS092 8550   | FB092 240100 | 240x245x100 | SKS092 240100 |
| FB092 8560   | 85x90x60    | SKS092 8560   | FB092 25060  | 250x255x60  | SKS092 25060  |
| FB092 8570   | 85x90x70    | SKS092 8570   | FB092 25070  | 250x255x70  | SKS092 25070  |
| FB092 8580   | 85x90x80    | SKS092 8580   | FB092 25080  | 250x255x80  | SKS092 25080  |
| FB092 8590   | 85x90x90    | SKS092 8590   | FB092 25090  | 250x255x90  | SKS092 25090  |
| FB092 9030   | 90x95x30    | SKS092 9030   | FB092 250100 | 250x255x100 | SKS092 250100 |
| FB092 9035   | 90x95x35    | SKS092 9035   | FB092 26060  | 260x265x60  | SKS092 26060  |
| FB092 9040   | 90x95x40    | SKS092 9040   | FB092 26070  | 260x265x70  | SKS092 26070  |
| FB092 9050   | 90x95x50    | SKS092 9050   | FB092 26080  | 260x265x80  | SKS092 26080  |
| FB092 9060   | 90x95x60    | SKS092 9060   | FB092 26090  | 260x265x90  | SKS092 26090  |
| FB092 9070   | 90x95x70    | SKS092 9070   | FB092 260100 | 260x265x100 | SKS092 260100 |
| FB092 9080   | 90x95x80    | SKS092 9080   | FB092 27060  | 270x275x60  | SKS092 27060  |
| FB092 9090   | 90x95x90    | SKS092 9090   | FB092 27070  | 270x275x70  | SKS092 27070  |
| FB092 90100  | 90x95x100   | SKS092 90100  | FB092 27080  | 270x275x80  | SKS092 27080  |
| FB092 9540   | 95x100x40   | SKS092 9540   | FB092 27090  | 270x275x90  | SKS092 27090  |
| FB092 9550   | 95x100x50   | SKS092 9550   | FB092 270100 | 270x275x100 | SKS092 270100 |
| FB092 9560   | 95x100x60   | SKS092 9560   | FB092 28060  | 280x285x60  | SKS092 28060  |
| FB092 9570   | 95x100x70   | SKS092 9570   | FB092 28070  | 280x285x70  | SKS092 28070  |
| FB092 9580   | 95x100x80   | SKS092 9580   | FB092 28080  | 280x285x80  | SKS092 28080  |
| FB092 9590   | 95x100x90   | SKS092 9590   | FB092 28090  | 280x285x90  | SKS092 28090  |
| FB092 95100  | 95x100x100  | SKS092 95100  | FB092 280100 | 280x285x100 | SKS092 280100 |
| FB092 10040  | 100x105x40  | SKS092 10040  | FB092 29060  | 290x295x60  | SKS092 29060  |
| FB092 10050  | 100x105x50  | SKS092 10050  | FB092 29070  | 290x295x70  | SKS092 29070  |
| FB092 10060  | 100x105x60  | SKS092 10060  | FB092 29080  | 290x295x80  | SKS092 29080  |
| FB092 10070  | 100x105x70  | SKS092 10070  | FB092 29090  | 290x295x90  | SKS092 29090  |
| FB092 10080  | 100x105x80  | SKS092 10080  | FB092 290100 | 290x295x100 | SKS092 290100 |
| FB092 10090  | 100x105x90  | SKS092 10090  | FB092 30060  | 300x305x60  | SKS092 30060  |
| FB092 10095  | 100x105x95  | SKS092 10095  | FB092 30070  | 300x305x70  | SKS092 30070  |
| FB092 100100 | 100x105x100 | SKS092 100100 | FB092 30080  | 300x305x80  | SKS092 30080  |
| FB092 10550  | 105x110x50  | SKS092 10550  | FB092 30090  | 300x305x90  | SKS092 30090  |
| FB092 10560  | 105x110x60  | SKS092 10560  | FB092 300100 | 300x305x100 | SKS092 300100 |

## 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。

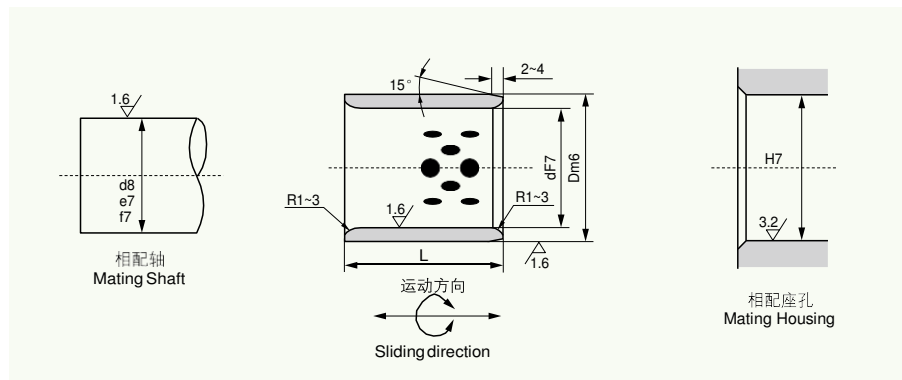
This material provides a maintenance-free bearing solution, particularly for high load, intermittent of oscillating motion. Solid lubricants within a bronze combines the strength of the bronze with the wear resistance and low friction. The application including automotive products line, water engineering, 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                  | 静承载 Static Load  | 250N/mm <sup>2</sup>       |
| Max. Load             | 动承载 Dynamic Load | 100N/mm <sup>2</sup>       |
| 最高线速度                 | 干摩擦 Dry Friction | 0.3m/s                     |
| Max linear speed      | 油摩擦 Oil Friction | 1.0m/s                     |
| 最大PV值 PV limit        |                  | 1.65N/mm <sup>2</sup> ·m/s |
| 抗拉强度 Tensile strength |                  | 750N/mm <sup>2</sup>       |

|                                  |                                     |
|----------------------------------|-------------------------------------|
| 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) <sup>-1</sup>             |
| 热膨胀系数 Heat expansion coefficient | 19·10 <sup>-6</sup> K <sup>-1</sup> |
| 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<br>I.D. F7 |                  | 外径<br>O.D. m6 |                  | L <sup>-0.10</sup> / <sub>-0.30</sub> |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----|----|---------------|------------------|---------------|------------------|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|    |    |               |                  |               |                  | 8                                     | 10     | 12     | 15     | 16     | 20     | 25     | 30     | 35     | 40     | 50     | 60     | 70     | 80     |
| 8  | 12 | 8             | +0.028<br>+0.013 | 12            | +0.018<br>+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<br>+0.016 | 20            |                  |                                       | 142010 | 142012 | 142015 |        | 142020 | 142025 | 142030 |        |        |        |        |        |        |
| 15 | 21 | 15            |                  | 21            |                  |                                       | 152110 | 152112 | 152115 | 152116 | 152120 | 152125 | 152130 |        |        |        |        |        |        |
| 16 | 22 | 16            |                  | 22            | +0.021<br>+0.008 |                                       | 162210 | 162212 | 162215 | 162216 | 162220 | 162225 | 162230 | 162235 | 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 | 253320 | 253325 | 253330 | 253335 | 253340 | 253350 | 253360 |        |        |
| 30 | 38 | 30            | +0.041<br>+0.020 | 38            |                  |                                       |        | 303812 | 303815 |        | 303820 | 303825 | 303830 | 303835 | 303840 | 303850 | 303860 |        |        |
| 35 | 45 | 35            |                  | 45            |                  |                                       |        |        |        |        | 354520 | 354525 | 354530 | 354535 | 354540 | 354550 | 354560 |        |        |
| 40 | 50 | 40            |                  | 50            | +0.025<br>+0.009 |                                       |        |        |        |        | 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

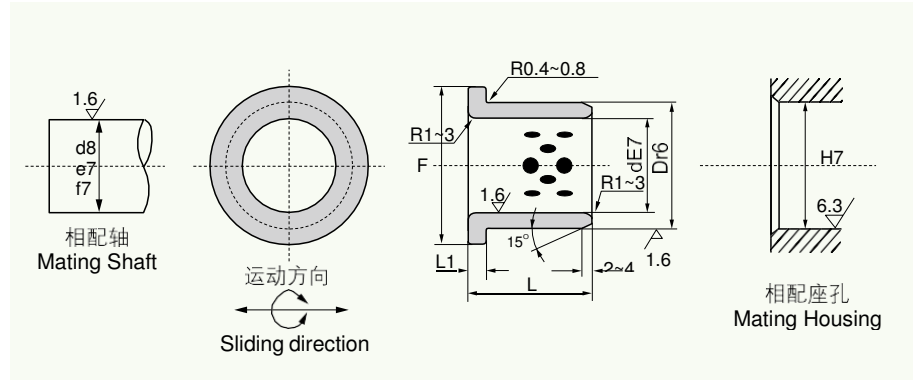
## JDB Solid-lubricant-Inlaid Bearings Standard Metric Size

单位Unit: mm

| d   | D   | 内径<br>I.D. F7 |                  | 外径<br>O.D. m6 |                  | L <sup>-0.10<br/>-0.30</sup> |        |         |         |          |          |          |           |           |           |           |           |
|-----|-----|---------------|------------------|---------------|------------------|------------------------------|--------|---------|---------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
|     |     |               |                  |               |                  | 30                           | 35     | 40      | 50      | 60       | 70       | 80       | 100       | 120       | 130       | 140       | 150       |
| 50  | 62  | 50            | +0.050<br>+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<br>+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<br>+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            | +0.035<br>+0.013 |                              |        |         |         | 759560   | 759570   | 759580   | 7595100   |           |           |           |           |
| 80  | 96  | 80            |                  | 96            |                  |                              |        | 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           | +0.071<br>+0.036 | 120           |                  |                              |        |         |         | 10012060 | 10012070 | 10012080 | 100120100 | 100120120 |           | 100120140 |           |
| 110 | 130 | 110           |                  | 130           |                  |                              |        |         |         |          |          | 11013080 | 110130100 | 110130120 |           |           |           |
| 120 | 140 | 120           |                  | 140           |                  |                              |        |         |         |          |          | 12014080 | 120140100 | 120140120 |           | 120140140 |           |
| 125 | 145 | 125           |                  | 145           |                  |                              |        |         |         |          |          |          | 125145100 | 125145120 |           |           |           |
| 130 | 150 | 130           |                  | 150           | +0.040<br>+0.015 |                              |        |         |         |          |          |          | 130150100 |           | 130150130 |           |           |
| 140 | 160 | 140           | +0.083<br>+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

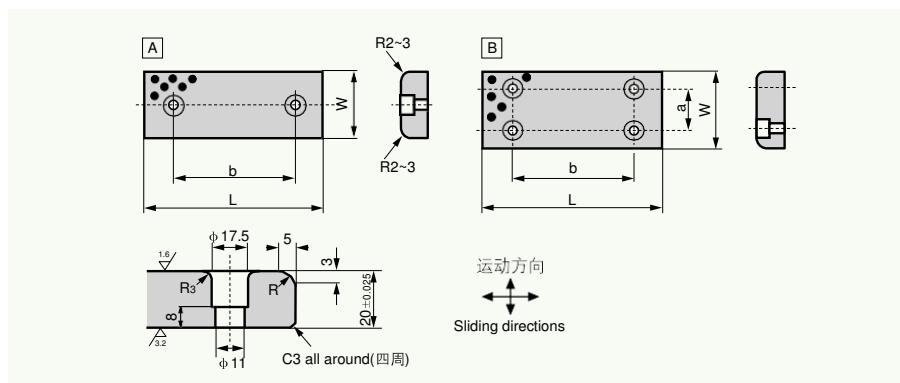
## JFB Flange Bearings Standard Metric Size



单位Unit: mm

| d   | D   | 内径<br>I.D. F7 |                                       | 外径<br>O.D. m6 |                                       | F   | L <sub>1</sub> | L <sup>-0.10</sup> / <sub>-0.30</sub> |      |      |      |      |      |      |       |       |        |
|-----|-----|---------------|---------------------------------------|---------------|---------------------------------------|-----|----------------|---------------------------------------|------|------|------|------|------|------|-------|-------|--------|
|     |     |               |                                       |               |                                       |     |                | 15                                    | 20   | 25   | 30   | 35   | 40   | 50   | 60    | 80    | 100    |
| 10  | 14  | 10            | <sup>+0.040</sup> / <sub>+0.025</sub> | 14            | <sup>+0.034</sup> / <sub>+0.023</sub> | 22  | 2              | 1015                                  | 1020 |      |      |      |      |      |       |       |        |
| 12  | 18  | 12            |                                       | 18            |                                       | 25  |                | 1215                                  | 1220 |      |      |      |      |      |       |       |        |
| 13  | 19  | 13            |                                       | 19            |                                       | 26  |                | 1315                                  | 1320 |      |      |      |      |      |       |       |        |
| 14  | 20  | 14            | <sup>+0.050</sup> / <sub>+0.032</sub> | 20            |                                       | 27  | 3              | 1415                                  | 1420 |      |      |      |      |      |       |       |        |
| 15  | 21  | 15            |                                       | 21            | <sup>+0.041</sup> / <sub>+0.028</sub> | 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            | <sup>+0.061</sup> / <sub>+0.040</sub> | 35            |                                       | 45  |                |                                       | 2520 | 2525 | 2530 | 2535 |      |      |       |       |        |
| 30  | 40  | 30            |                                       | 40            | <sup>+0.050</sup> / <sub>+0.034</sub> | 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            | <sup>+0.075</sup> / <sub>+0.050</sub> | 55            |                                       | 70  |                |                                       |      |      | 4530 | 4535 | 4540 | 4550 | 4560  |       |        |
| 50  | 60  | 50            |                                       | 60            | <sup>+0.060</sup> / <sub>+0.041</sub> | 75  |                |                                       |      |      |      |      | 5050 | 5050 | 5060  |       |        |
| 55  | 65  | 55            |                                       | 65            |                                       | 80  |                |                                       |      |      |      |      | 5540 | 5550 | 5560  |       |        |
| 60  | 75  | 60            |                                       | 75            | <sup>+0.062</sup> / <sub>+0.043</sub> | 90  |                |                                       |      |      |      |      | 6040 | 6050 | 6060  | 6080  |        |
| 70  | 85  | 70            | <sup>+0.090</sup> / <sub>+0.060</sub> | 85            |                                       | 105 | 7.5            |                                       |      |      |      |      |      | 7050 | 7060  | 7080  |        |
| 75  | 90  | 75            |                                       | 90            | <sup>+0.073</sup> / <sub>+0.051</sub> | 110 |                |                                       |      |      |      |      |      | 7550 | 7560  |       |        |
| 80  | 100 | 80            |                                       | 100           |                                       | 120 |                |                                       |      |      |      |      |      |      | 8060  | 8080  | 80100  |
| 100 | 120 | 100           |                                       | 120           | <sup>+0.076</sup> / <sub>+0.054</sub> | 150 | 10             |                                       |      |      |      |      |      |      | 10060 | 10080 | 100100 |
| 120 | 140 | 120           | <sup>+0.107</sup> / <sub>+0.072</sub> | 140           | <sup>+0.088</sup> / <sub>+0.063</sub> | 170 |                |                                       |      |      |      |      |      |      | 12060 | 12080 | 120100 |

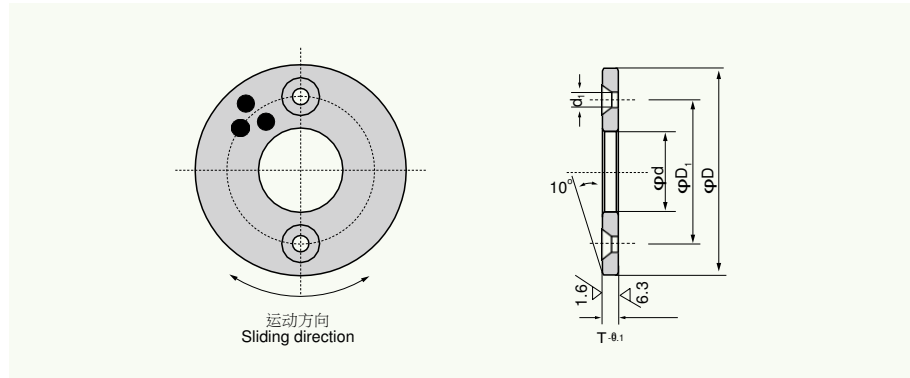
## JSP 滑块标准公制尺寸 JSP Sliding Plate Standard Metric Size



单位Unit: mm

| 型号规格<br>Designation | W   | L   | a   | b   | Sketch<br>图示 |
|---------------------|-----|-----|-----|-----|--------------|
| JSP 28 × 75         | 28  | 75  | -   | 45  | A            |
| JSP 28 × 100        |     | 100 |     | 50  |              |
| JSP 28 × 150        |     | 150 |     | 100 |              |
| JSP 38 × 75         | 38  | 75  | -   | 45  | A            |
| JSP 38 × 100        |     | 100 |     | 50  |              |
| JSP 38 × 150        |     | 150 |     | 100 |              |
| JSP 48 × 75         | 48  | 75  | -   | 45  | A            |
| JSP 48 × 100        |     | 100 |     | 50  |              |
| JSP 48 × 125        |     | 125 |     | 75  |              |
| JSP 48 × 150        | 58  | 150 | -   | 100 | A            |
| JSP 48 × 200        |     | 200 |     | 150 |              |
| JSP 58 × 75         |     | 75  |     | 45  |              |
| JSP 58 × 100        | 58  | 100 | -   | 50  | A            |
| JSP 58 × 150        |     | 150 |     | 100 |              |
| JSP 75 × 75         |     | 75  | -   | 25  | A            |
| JSP 75 × 100        | 75  | 100 |     | 50  |              |
| JSP 75 × 125        |     | 125 |     | 75  |              |
| JSP 75 × 150        | 100 | 150 | 50  | 100 | A            |
| JSP 75 × 200        |     | 200 |     | 150 |              |
| JSP 100 × 100       |     | 100 |     | 50  |              |
| JSP 100 × 125       | 100 | 125 | 50  | 75  | A            |
| JSP 100 × 150       |     | 150 |     | 100 |              |
| JSP 100 × 200       |     | 200 |     | 150 |              |
| JSP 100 × 250       | 125 | 250 | 50  | 200 | B            |
| JSP 100 × 300       |     | 300 |     | 200 |              |
| JSP 125 × 125       |     | 125 |     | 75  |              |
| JSP 125 × 150       | 125 | 150 | 50  | 100 | B            |
| JSP 125 × 200       |     | 200 |     | 150 |              |
| JSP 125 × 250       |     | 250 |     | 200 |              |
| JSP 125 × 300       | 150 | 300 | 100 | 200 | B            |
| JSP 125 × 350       |     | 350 |     | 200 |              |
| JSP 150 × 150       |     | 150 |     | 100 |              |
| JSP 150 × 200       | 150 | 200 | 100 | 150 | B            |
| JSP 150 × 250       |     | 250 |     | 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<br>Designation | $\phi d$ | $\phi D$ | $T_{-0.10}^0$ | 螺孔 Bolt Hole |                   |            |                   |
|---------------------|----------|----------|---------------|--------------|-------------------|------------|-------------------|
|                     |          |          |               | $\phi D_1$   | 平头螺钉<br>Crop Bolt | $\phi d_1$ | 孔数<br>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       | 5             | 40           | M5                | 6          |                   |
| JTW 30              | 30.2     | 60       |               | 45           |                   |            |                   |
| JTW 35              | 35.2     | 70       |               | 50           |                   |            |                   |
| JTW 40              | 40.2     | 80       | 7             | 60           |                   |            |                   |
| JTW 45              | 45.3     | 90       |               | 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      | 10            | 120          |                   |            |                   |
| JTW 90              | 90.5     | 170      |               | 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 Intruduction

◎FZH (铜基)、FZL (铝基)、FZP (树脂基) 钢球保持器, 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 retainer s 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 maintainits vertical motion. we believe this will give you the benefit of increasing accijracy.

### 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, 并孔与轴之间运动磨擦系数较大, 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.

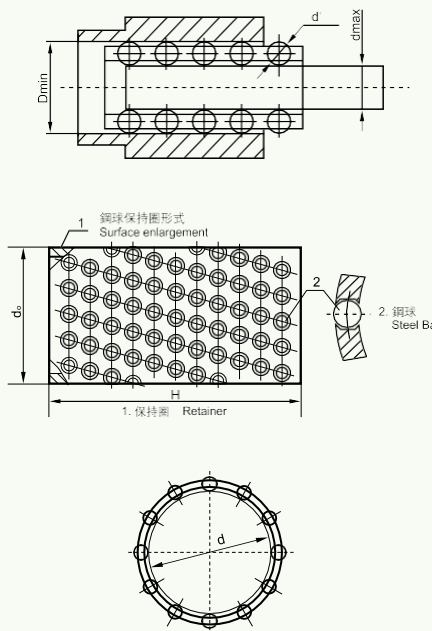
### 相配零件的要求 Installed Spares Requested

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<sup>0.05</sup> 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<sup>0.05</sup> 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

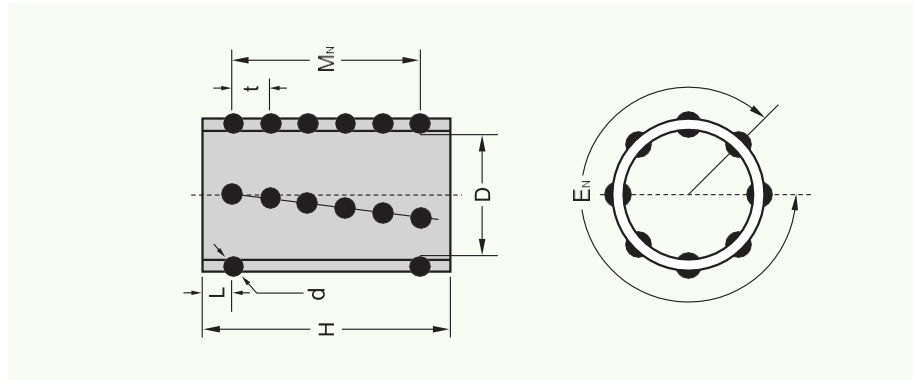
1. GUIDE BUSHING: MATERIAL GCr15, YB9, HEAT TREATMENT HRC62-66, TECHNIQUE CONDITION ACCORDING TO GB/T1 2446. REQUEST 0.01-0.02mm THE SURFACE ROUGHNESS IS<sup>0.05</sup>

2. GUIDIE POSTS: MATRIAL GCr15, YB9, HEAT TREATMENT HRC62-66, THE TOLERANCE OF SHAFT IS h5, THE SURFACE ROUGHNESS IS<sup>0.05</sup>

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<br>Designation | D  | H   | d | E <sub>N</sub> | M <sub>N</sub> | 球<br>BALLS | t   | L    |
|---------------------|----|-----|---|----------------|----------------|------------|-----|------|
| FZ(*)1950           | 19 | 50  |   | 12             | 8              | 96         |     | 5.75 |
| FZ(*)1960           |    | 60  |   |                | 10             | 120        |     | 5.25 |
| FZ(*)2050           | 20 | 50  |   |                | 8              | 96         |     | 5.75 |
| FZ(*)2060           |    | 60  |   |                | 10             | 120        |     | 5.25 |
| FZ(*) 2250          | 22 | 50  |   |                | 8              | 112        |     | 5.75 |
| FZ(*) 2260          |    | 60  |   |                | 10             | 140        |     | 5.25 |
| FZ(*)2360           | 23 | 60  | 3 | 14             | 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  |   |                | 13             | 208        |     | 4.50 |
| FZ(*)2860           | 28 | 60  |   | 14             | 8              | 112        |     | 7.25 |
| FZ(*)2875           |    | 75  |   |                | 11             | 154        |     | 5.00 |
| FZ(*)3060           | 30 | 60  |   |                | 8              | 112        |     | 7.25 |
| FZ(*)3075           |    | 75  |   |                | 11             | 154        |     | 5.00 |
| FZ(*)3260           | 32 | 60  | 4 |                | 8              | 128        | 6.5 | 7.25 |
| FZ(*)3275           |    | 75  |   |                | 11             | 192        |     | 5.00 |
| FZ(*)3390           |    | 90  |   |                | 13             | 208        |     | 6.00 |
| FZ(*)3685           | 36 | 85  |   | 16             | 12             | 192        |     | 6.75 |
| FZ(*)3690           |    | 90  |   |                | 13             | 208        |     | 6.00 |
| FZ(*)3870           | 38 | 70  |   |                | 8              | 128        |     | 7.00 |
| FZ(*)3890           |    | 90  |   |                | 11             | 176        |     | 5.00 |
| FZ(*)4090           | 40 | 90  |   |                | 11             | 176        |     | 5.00 |
| FZ(*)4590           | 45 | 90  |   | 18             | 11             | 198        |     | 5.00 |
| FZ(*)45110          |    | 110 |   |                | 13             | 234        |     | 7.00 |
| FZ(*)5090           | 50 | 90  |   | 20             | 11             | 220        |     | 5.00 |
| FZ(*)50110          |    | 110 |   |                | 13             | 260        |     | 7.00 |
| FZ(*)6090           | 60 | 90  |   | 22             | 11             | 242        |     | 5.00 |
| FZ(*)60110          |    | 110 |   |                | 13             | 286        |     | 7.00 |
| FZ(*)80130          | 80 | 130 |   | 28             | 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                    | 静承载 Static Load  | 30N/mm <sup>2</sup>        |
| Max. Load               | 动承载 Dynamic Load | 20N/mm <sup>2</sup>        |
| 使用温度 Temp. Limit        |                  | -40℃~+250℃                 |
| 最高滑动速度                  | 干摩擦 Dry Friction | 0.5m/s                     |
| Tiptop Sliding Velocity | 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 <sup>2</sup> ·m/s |

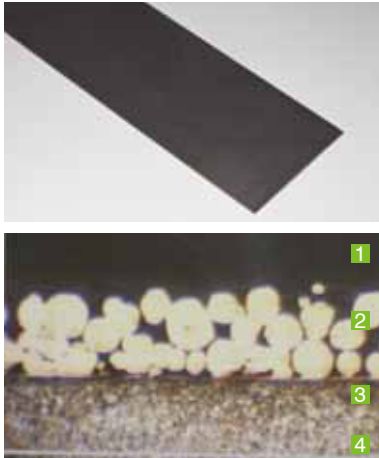
### **FD 产品活塞环尺寸 Size of The Products**

|            |           |              |
|------------|-----------|--------------|
| 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



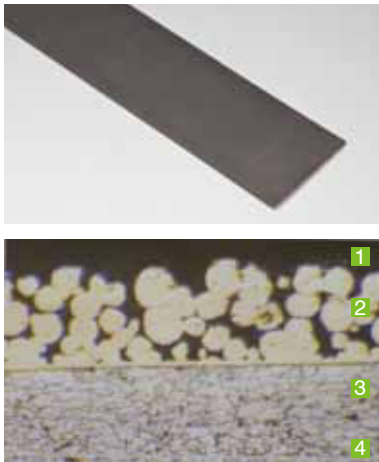
### 材料组织结构:

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 1、聚四氟乙烯与铅的混合物 0.01~0.03mm         | ■ 摩擦系数: 0.04~0.20                   |
| 2、球形青铜粉: 0.2~0.3mm                | ■ 导热系数: 13W/MK                      |
| 3、钢背: 0.5~3.03mm                  | ■ 使用温度范围: -195℃~270℃                |
| 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm | ■ 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



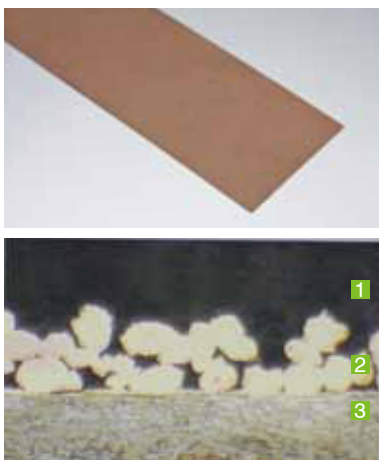
### 材料组织结构:

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 1、聚四氟乙烯与铅及其他填充混合物 0.01~0.03mm     | ■ 摩擦系数: 0.03~0.18                   |
| 2、球形青铜粉: 0.2~0.3mm                | ■ 导热系数: 13W/MK                      |
| 3、钢背: 0.5~3.3mm                   | ■ 使用温度范围: -195℃~260℃                |
| 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm | ■ 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 120N/mm<sup>2</sup>\*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



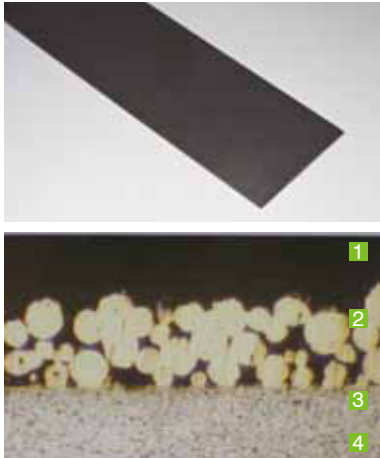
### 材料组织结构:

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 1、聚四氟乙烯与铜混合物 0.02~0.04mm          | ■ 摩擦系数: 0.04~0.20                   |
| 2、球形青铜粉: 0.2~0.3mm                | ■ 导热系数: 13W/MK                      |
| 3、钢背: 0.5~3.3mm                   | ■ 使用温度范围: -195℃~270℃                |
| 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm | ■ 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



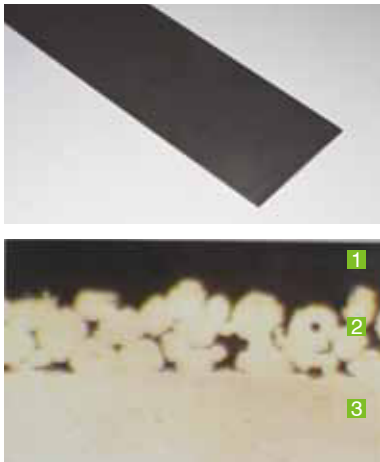
### 材料组织结构:

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 1、聚四氟乙烯与纤维混合物 0.01~0.03mm         | ■ 摩擦系数: 0.04~0.20                   |
| 2、球形青铜粉: 0.2~0.3mm                | ■ 导热系数: 13W/MK                      |
| 3、钢背: 0.5~3.3mm                   | ■ 使用温度范围: -195℃ ~270℃               |
| 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm | ■ 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



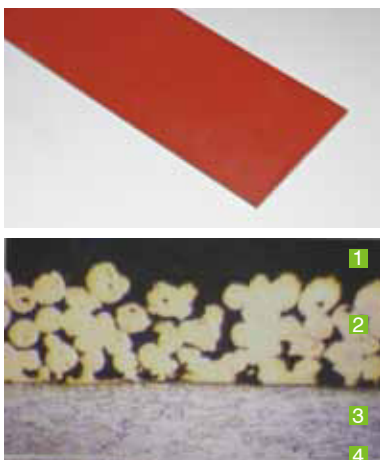
### 材料组织结构:

- |                           |                                     |
|---------------------------|-------------------------------------|
| 1、聚四氟乙烯与铅的混合物 0.01~0.03mm | ■ 摩擦系数: 0.04~0.18                   |
| 2、球形青铜粉: 0.2~0.3mm        | ■ 导热系数: 18W/MK                      |
| 3、钢背: 0.5~3.3mm           | ■ 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



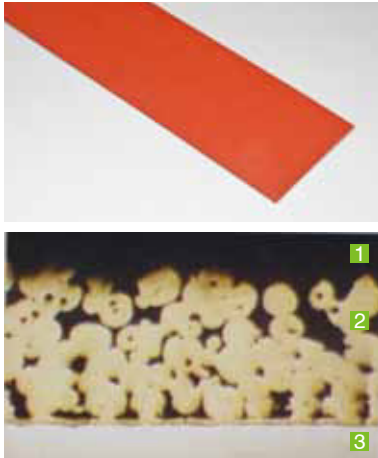
### 材料组织结构:

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

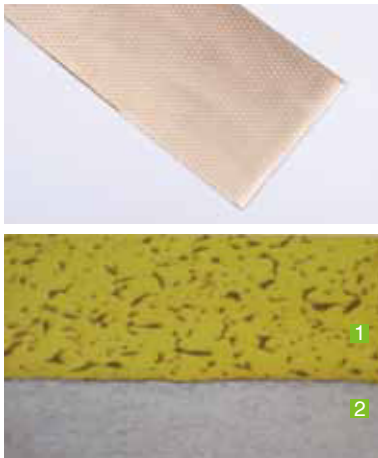
- 1、聚四氟乙烯与亲油性纤维混合物 0.01~0.03mm
- 2、球形青铜粉 :0.2~0.3mm
- 3、钢背: 0.5~3.3mm

- 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:

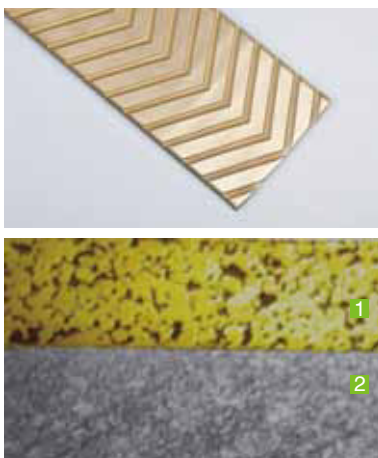
- 1、合金层: CuPb10Sn10
- 2、钢背: 0.6~5mm

- 合金层材质: CuPb10Sn10
- 摩擦系数:  $\leq 0.12$
- 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:  $\leq 0.13$
- 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:  $\leq 0.13$
- 最高使用温度: 260℃
- 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℃ ~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℃ ~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         | ■ 摩擦系数: 0.05~0.20    |
| 2、球形青铜粉: 0.2~0.3mm                | ■ 导热系数: 13W/MK       |
| 3、钢背: 0.4~2.7mm                   | ■ 使用温度范围: -40℃ ~130℃ |
| 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm | ■ 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:  $\leq 0.15$
- 磨损量:  $\leq 0.008$

## 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:  $\leq 0.12$
- 磨损量:  $\leq 0.008$

## 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:  $\leq 0.12$
- 磨损量:  $\leq 0.008$

## 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、起重机械及冶金机械行业。

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

## 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         | ■ 摩擦系数: 0.05~0.20    |
| 2、球形青铜粉: 0.2~0.3mm                | ■ 导热系数: 13W/MK       |
| 3、钢背: 0.4~2.7mm                   | ■ 使用温度范围: -40℃ ~130℃ |
| 4、电镀层: 镀锡层厚 0.005mm 或镀铜层厚 0.008mm | ■ 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:  $\leq 0.15$
- 磨损量:  $\leq 0.008$

## 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:  $\leq 0.12$
- 磨损量:  $\leq 0.008$

## 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

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

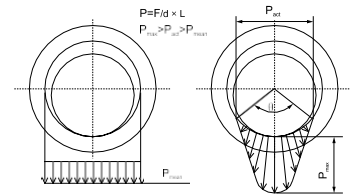
F = 轴承载值 Load (N)  
d = 轴径 Shaft (mm)  
L = 轴承长度 Bearing Length (mm)

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)  $\theta$   
= 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 $PV = PXV \quad (\text{N/mm}^2 \times \text{m/s})$

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 < 55mm 的轴承可按图 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。

◎当轴承外径 > 55mm 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，将轴承压入座孔中。

◎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 than that of steel to plastic, So we should choose the light-graded tight fit, preventing the axle sleeve from moving in the base when working, and also preventing the inner holes from getting deformed and too big because of the large tight fit of the outer diameter.

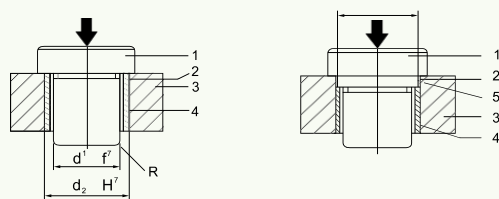
◎Out circle of the axle sleeve should be avoided in the high-pressure working conditions. Two methods are recommended here:

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

2. When installing, apply ZY 801 Oxygen-hatred glue in the housing to streng 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.

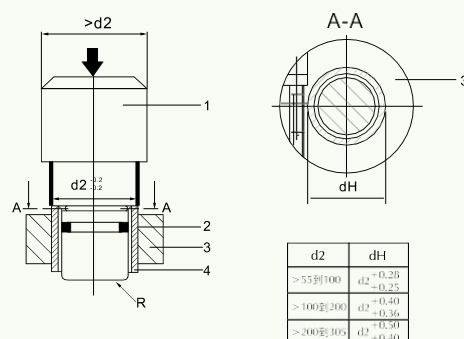


(图A a) 平面式安装  
(Fig A a) Plane Installation

- 1、压入芯轴
- 2、轴承座孔倒角  $0.8 \times 15^\circ$
- 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、Press the core axle into bushing
- 2、Housing chamfer at end:  $0.8 \times 15^\circ$
- 3、Housing
- 4、JS-F bush
- 5、Diameter of inset shoulder
- R、Radius of the round angle of the core axle end

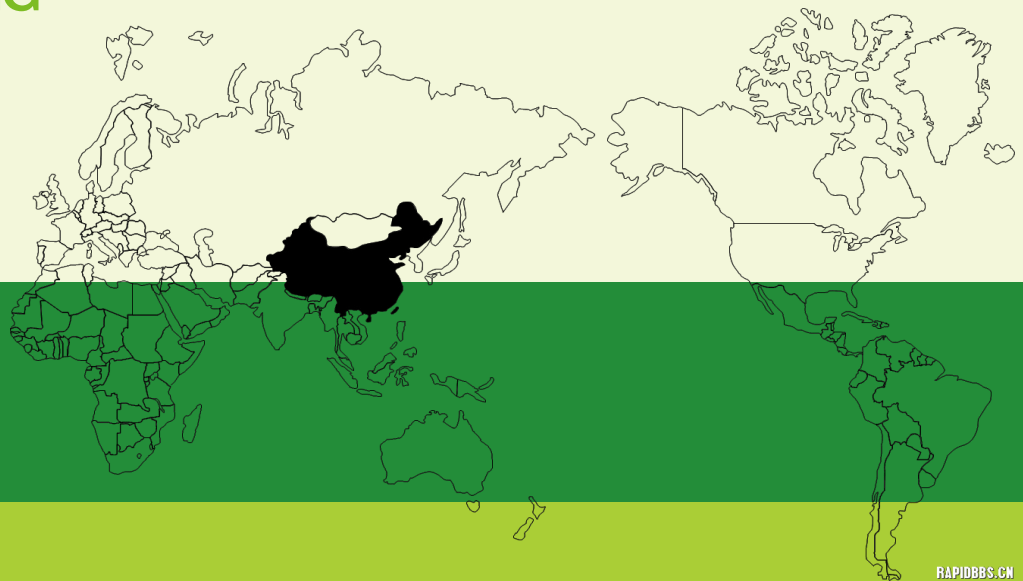


| d2          | dH        |
|-------------|-----------|
| > 55 到 100  | d2 + 0.25 |
| > 100 到 200 | d2 + 0.40 |
| > 200 到 300 | d2 + 0.50 |
| > 300 到 400 | d2 + 0.60 |



**JINTAI  
BEARING**

SENDOO DESIGN  
13957330053 滑动平面设计



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