



**ZHEJIANG JIASHAN  
KD SLIDING BEARING CO.,LTD.  
嘉善凯蒂滑动轴承有限公司**

地址:浙江省嘉兴市嘉善经济开发区 之江路108号  
NO.108 ZHIJIANG ROAD, JIASHAN ECONOMIC DEVELOPMENT ZONE,  
ZHEJIANG, P.R. CHINA (314100)  
电话(Tel):0086-573-8463 2277  
传真(Fax):0086-573-8463 2255  
邮箱 E-mail: kd@kd-bearing.com  
网址 <http://www.kd-bearing.com>

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# 公司介绍 COMPANY INTRODUCTION



嘉善凯蒂滑动轴承有限公司是一家生产和研制KDB系列滑动轴承的专业厂家。几年来，已研制生产出五大类系列产品，其质量性能已达到国外同类产品水平，国内处于领先地位，具备完善的系统开发能力、机械加工能力、检测测试能力和完备高效的销售服务。

凯蒂公司一向立足国内，不断满足顾客日益多样化的需求，同时积极拓宽国外市场，产品已远销西欧、北美、南美、东南亚、澳洲等几十个国家和地区。

我们坚持于提供一流的产品和最优惠的价格。欢迎来自全球的顾客参观我厂，共创美好未来。



ISO/TS 16949:2002

**KD Sliding Bearing Co., Ltd.** is an enterprise dedicated to the research and manufacture sliding bushings. Up to now, has developed a total of 13 categories of products. The quality and performance of the products has met or exceeded international standards. It has complete in-house research and development, production, testing and marketing capabilities.

KDB builds itself customer base in the Chinese domestic market, by satisfying the ever-increasing demands of modernization. At the same time it also develops overseas markets. KDB products are exported to many countries in Western Europe, the Americas, Southeast Asia and Australia. KDB products have truly entered the world market.

We're strongly committed to providing our advanced products at best price. We are warmly welcome customers from wide world to visit our factory and cooperate with us.





为了保证并稳定产品的质量，为客户提供性能可靠的产品，凯蒂公司致力于推行ISO/TS16949:2002质量标准。整个生产过程从“人、机、料、法、环”五大环节全程控制。

全面质量管理（TQM）理论认为，质量是“人、机、料、法、环”五要素有机结合共同作用的结果。国际标准化组织（ISO）的最新标准则强调，产品是过程的结果，只有对资源配置、采购供应、产品实现、不合格品控制及测量分析改进等生产经营全过程按质量计划要求进行有效控制，才能实现质量保证。

人：从质量构成要素看，设备能力、工艺要求、材料质量、环境状况最终要由操作人员通过实际操作来实现，人是所有要素中最活跃也是最革命的因素。

凯蒂公司认为，只要充分调动人的主动性和创造性，只有形成敬业爱岗、比学赶超的良好氛围，打造出一支具有较高素质的员工队伍。在高标准质量要求的前提下，使用良好的机器设备生产出令客户

惊喜的优质产品。车间的员工中，中专以上学历的占1/2，虽然平均年龄低于24岁，但这是一支经过很多岗前、在岗培训，充满朝气和活力，勇于奉献，敢于创新的队伍。

机：模具是冲压加工中具有举足轻重意义的装备。产品的表面质量、尺寸公差、生产效率以及经济效益等与模具结构及其合理设计的关系很大。公司联合了专业对模具设计和制造有权威性的机构一起研发和生产，保证产品的质量。

法：这包括操作方法和检验方法，凯蒂公司贯彻ISO/TS16949的广度、深度和成效得到了苛刻的第三方的认可。

料：用来生产轴套的各种板材，所需要的钢材主要来自宝钢、鞍钢等国内一流钢铁公司。

环：凯蒂公司的厂房都是现代化的钢结构厂房，走进凯蒂公司的车间，感觉到的是干净、清爽和愉悦。

**复合系列自润滑轴套  
Composite Self-lubricating Bearings**

- P 05. KDB100(SF-1)
- P 05. KDB101(SF-1B)
- P 05. KDB102(SF-1S)
- P 05. KDB103(SF-1T)
- P 05. KDB104(SF-1P)
- P 06. KDB105(KDB100的环保型)
- P 06. KDB106(KDB101的环保型)
- P 06. KDB107(KDB102的环保型)
- P 06. KDB108(KDB103的环保型)
- P 06. KDB109(KDB104的环保型)
- P 07. KDB200(SF-2)
- P 07. KDB201(SF-2H) (KDB200的环保型)
- P 07. KDB202(SF-2S) (KDB200的环保型)
- P 07. KDB203(SF-2L) (KDB200的环保型)
- P 07. KDB206(SF-2H) (KDB200的耐高温型)
- P 08. KDB2000 ( FR )
- P 08. KDB2100

**双金属自润滑轴套  
Bimetal Self-lubricating Bearings**

- P 09. KDB301(SJ-1)
- P 09. KDB302(SJ-2)
- P 09. KDB303(SJ-3)
- P 09. KDB304(SJ-4)
- P 09. KDB305(SJ-5)
- P 10. KDB301(F) 常用规格表

**固体润滑轴套  
Composite Self-lubricating Bearings**

- P 11. KDB500 ( H1 )
- P 11. KDB501 ( H2 )
- P 11. KDB502 ( H2 )
- P 11. KDB503 ( AL )
- P 11. KDB504 ( B )
- P 11. KDB505

**青铜轴套  
Composite Self-lubricating Bearings**

- P 12. KDB800
- P 12. KDB900(FB090)
- P 12. KDB901(FB091)
- P 12. KDB902(FB092)
- P 12. KDB904(FB094)
- P 12. KDB905(FB090G)

**合金钢套  
Composite Self-lubricating Bearings**

- P 13. KDB600(ST)
- P 13. KDB602工程机械用钢套
- P 14. KDB603 弹簧钢套
- P 14. KDB604 内网纹钢套

基本特性：适用于低载高速下的旋转、往复、摇摆运动和无法加油或较难加油的工作部位，耐磨性能好、摩擦系数小、使用寿命长；走合性能好、低噪音、无污染、耐腐蚀性好；运转中形成的转移膜起到保护对磨轴的作用，无咬轴现象；对磨轴的加工要求低，减轻了用户加工成本。

技术参数

| 有关数据<br>Date  | 代号<br>Grade            | KDB100(SF-1)  | KDB101(SF-1B)   | KDB102(SF-1S)  | KDB103(SF-1T)   | KDB104(SF-1P)  |  | KDB105<br>(KDB100的环保型)  | KDB106<br>(KDB101的环保型)  | KDB107<br>(KDB102的环保型)  | KDB108<br>(KDB103的环保型)  | KDB109<br>(KDB104的环保型)  |
|---|------------------------|---|---|--|---|--|--|---|---|---|---|---|
|   | 材料<br>Material         | 碳钢+铜粉<br>(PTFE+Pb)混合物   | 铜板+铜粉<br>(PTFE+Pb)混合物   | 不锈钢+铜粉<br>(PTFE+Pb)混合物   | 碳钢+铜粉<br>(PTFE+填料)  | 碳钢+铜粉<br>(PTFE+Pb)   |  | 碳钢+铜粉<br>(PTFE+填料)  | 铜板+铜粉<br>(PTFE+填料)  | 不锈钢+铜粉<br>(PTFE+填料)   | 碳钢+铜粉<br>(PTFE+填料)  | 碳钢+铜粉<br>(PTFE+填料)  |
| 最大承载压力P<br>Load capacity P<br>(Dry friction)<br>(干摩擦) | 静载<br>Static load      | 250 N/mm <sup>2</sup>   | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>   | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>   |  | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>  |
|   | 动载<br>Dynamic load     | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>   | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>   |  | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>  |
|   | 常用<br>general          | < 49N/mm <sup>2</sup>   | < 49N/mm <sup>2</sup>   | < 49N/mm <sup>2</sup>  | < 60N/mm <sup>2</sup>   | < 49N/mm <sup>2</sup>  |  | < 49N/mm <sup>2</sup>   | < 49N/mm <sup>2</sup>   | < 49N/mm <sup>2</sup>   | < 60N/mm <sup>2</sup>   | < 49N/mm <sup>2</sup>   |
| 最大线速度V<br>Max line speed V                            | 干摩擦<br>Dry friction    | 2.5m/s  | 2.5m/s  | 2.5m/s   | 2.5m/s  | 2m/s   |  | 2.5m/s  | 2.5m/s  | 2.5m/s  | 2.5m/s  | 2.5m/s  |
|   | 油润滑<br>Oil lubrication | > 5m/s  | > 5m/s  | > 5m/s   | > 10m/s   | > 5m/s   |  | > 5m/s  | > 5m/s  | > 5m/s  | > 10m/s   | > 5m/s  |
| 最高PV值<br>PV value limit                               | 干摩擦<br>Dry friction    | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s  | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s  |  | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s   | 1.8N/mm <sup>2</sup> wm/s   |
|   | 油润滑<br>Oil lubrication | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s  | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s  |  | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s   | 3.6N/mm <sup>2</sup> wm/s   |
| PV 流体润滑<br>PV Hydrodynamic limit                      |                        | 10N/mm <sup>2</sup> wm/s  | 10N/mm <sup>2</sup> wm/s  |  | 30N/mm <sup>2</sup> wm/s  |  |  | 10N/mm <sup>2</sup> wm/s  | 10N/mm <sup>2</sup> wm/s  |   | 30N/mm <sup>2</sup> wm/s  |   |
| 摩擦系数u   | 干摩擦<br>Dry friction    | 0.08~0.20   | 0.08~0.20   | 0.08~0.20  | 0.08~0.20   | 0.08~0.20  |  | 0.08~0.20   | 0.08~0.20   | 0.08~0.20   | 0.08~0.20   | 0.08~0.20   |
| Friction coef u                                       | 油润滑<br>Oil lubrication | 0.02~0.08   | 0.02~0.08   | 0.02~0.08  | 0.02~0.08   | 0.02~0.08  |  | 0.02~0.08   | 0.02~0.08   | 0.02~0.08   | 0.02~0.08   | 0.02~0.08   |
| 工作温度<br>Working temperature                           |                        | -200 ~+280  | -200 ~+280  | -200 ~+280   | -200 ~+280  | -200 ~+280   |  | -200 ~+280  | -200 ~+280  | -200 ~+280  | -200 ~+280  | -200 ~+280  |
| 导热系数<br>Thermal conductivity                          |                        | 40W/mk  | 60W/mk  | 40W/mk   | 40W/mk  | 40W/mk   |  | 40W/mk  | 60W/mk  | 40W/mk  | 40W/mk  | 40W/mk  |
| 线膨胀系数(轴向)<br>Coefficient of linear expansion          |                        | 11 × 10 <sup>-6</sup> /K  | 18 × 10 <sup>-6</sup> /K  | 11 × 10 <sup>-6</sup> /K   | 11 × 10 <sup>-6</sup> /K  | 11 × 10 <sup>-6</sup> /K   |  | 11 × 10 <sup>-6</sup> /K  | 18 × 10 <sup>-6</sup> /K  | 11 × 10 <sup>-6</sup> /K  | 11 × 10 <sup>-6</sup> /K  | 11 × 10 <sup>-6</sup> /K  |
| 主要运用领域<br>Typical applicaton                          |                        | 该产品是以低碳钢为基体，中间烧结多孔青铜层，在表面轧制以聚四氟乙烯（PTFE）和铅（Pb）的混合物。产品应用于印刷机械、减震器、纺织机械、烟草机械、健身器等。   | 该产品是以铜板为基体，中间烧结多孔青铜层，在表面轧制以聚四氟乙烯（PTFE）和铅（Pb）的混合物。产品应用于冶金机械、连铸机械、水泥机械等。  | 该产品是以不锈钢为基体，中间烧结多孔青铜层，在表面轧制以聚四氟乙烯（PTFE）和铅（Pb）的混合物，可在中酸、强碱中使用。产品适用于印染机械、海洋工业耐腐蚀部位等。   | 该产品是以低碳钢为基体，中间烧结多孔青铜层，在表面轧制以聚四氟乙烯（PTFE）和铅（Pb）的混合物。产品主要应用于中、高压齿轮油泵、柱塞泵、叶片泵等。   | 该产品是以低碳钢为基体，中间烧结多孔青铜层，在表面轧制以聚四氟乙烯（PTFE）和铅（Pb）的混合物。该产品主要用于汽车减震器、摩托车减震器、液压油缸等。   |  | 产品应用于印刷机械、纺织机械、减震器、烟草机械、健身器等。由于不含铅，使轴承润滑条件更为干净，符合环保要求。  | 产品应用于冶金机械、连铸机械、水泥机械。由于不含铅，使轴承润滑条件更为干净，符合环保要求。   | 产品适用于印染机械、海洋工业耐腐蚀部位等。由于不含铅，使轴承润滑条件更为干净，符合环保要求。  | 产品主要应用于中、高压齿轮油泵、柱塞泵、叶片泵等。由于不含铅，使轴承润滑条件更为干净，符合环保要求。  | 产品主要应用于汽车减震器、摩托车减震器、液压油缸等。由于不含铅，使轴承润滑条件更为干净，符合环保要求。   |
|   |                        | It's made of high quality low-carbon steel backing with sintering porous bronze in its interlayer and the compound of PTFE and Pb on its surface. It can offer the good properties of self-lubricating, anti-abrasion, low-friction, fully developing the advantages of metal and multi-element polymer. It's applied to the printing, woven, tobacco and gymnastic machinery, etc. | It's made of high density special copper alloy with sintering porous bronze in its interlayer and the compound of PTFE and Pb on its surface. It can offer the good properties of self-lubricating, anti-abrasion, low-friction, fully developing the advantages of metal and multi-element polymer. The product is applied to metallurgical industry, continuous casting and rolling mill, concrete machinery and spiral conveyers, etc. | The product is based on stainless steel plate with sintering porous bronze layer and it's surface is coated the compound of PTFE and Pb. It can be used in strong acid and alkaline. It's applied to the corrosion resistant part in dyeing machinery and ocean industry, etc. | The product is developed according to the high PV value of hydraulic pump. It can offer the low friction coefficient and good anti-abrasion, be used in semi-dry condition. The product is applied to medium, high-pressure gear pump, ram pump, vane pumps, etc. | Beccused in semi-dry condition. The product is applied to shock absorber of automobiles, motorcycles and pneumatic cylinder. |  | Because of without lead, the bushing has clean lubricating condition and accord with environmental request. | Because of without lead, the bushing has clean lubricating condition and accord with environmental request. | Because of without Pb, the bushing has clean lubricating condition and accord with environmental request. | Because of without lead, the bushing has clean lubricating condition and accord with environmental requirement. | Because of without lead, the bushing has clean lubricating condition and accord with environmental requirement. |
| 可供产品：标准产品执行 ISO3547标准                                 |                        |   |   |  |   |  |  |   |   |   |   |   |
| 非标准产品按客户要求订做  |                        |   |   |  |   |  |  |   |   |   |   |   |

Features: Suitable for dry running, low coefficient of friction, lower wear, good sliding characteristics, forming a transfer film can protect the mating metal surface, suitable for rotary and oscillating movement. High chemical resistance, low absorption of water and swelling. Also performs well with lubrication.

基本特性：适用于高载低速下的旋转、摇摆运动以及在重载下经常启闭而无法加油的部位，在边界润滑条件下可长期使用而不用加油，过程加油将会大大提高轴套的使用寿命。耐磨层表面有规格的油穴可以作为储油孔使用。

Features: Suitable for rotary and oscillating movement, lower maintenance requirements due to the long re-lubrication intervals, lower wear, lower susceptibility to edge loading, no absorption of water and therefore no swelling, good damping behaviours, good resistance to shock loads.

技术参数

| 有关数据 Data                                   | 代号 Grade                | KDB200(SF-2)  | KDB201 (KDB200的环保型)        | KDB202 (KDB200的环保型)  | KDB203 (KDB200的环保型)        | KDB206                     |
|---|-------------------------|---|----------------------------|--|----------------------------|----------------------------|
|   | 材料 Material             | 碳钢+铜粉+(POM+Pb)  | 碳钢+铜粉+POM                  | 碳钢+铜粉+POM  | 碳钢+铜粉+POM                  | 碳钢+铜粉+(PTFE+PEEK)          |
| 最大承载压力P (干摩擦) Load capacity P(Dry friction) | 静载 Static load          | 250N/mm <sup>2</sup>  | 250N/mm <sup>2</sup>       | 250N/mm <sup>2</sup>   | 250N/mm <sup>2</sup>       | 140N/mm <sup>2</sup>       |
|   | 动载 Dynamic load         | 140N/mm <sup>2</sup>  | 140N/mm <sup>2</sup>       | 140N/mm <sup>2</sup>   | 140N/mm <sup>2</sup>       | 140N/mm <sup>2</sup>       |
|   | 常用 General              | < 70N/mm <sup>2</sup>   | < 70N/mm <sup>2</sup>      | < 70N/mm <sup>2</sup>  | < 70N/mm <sup>2</sup>      | < 70N/mm <sup>2</sup>      |
| 最大线速度 V Max line speed V                    | 脂润滑 Greases lubrication | 2.5m/s  | 2.5m/s                     | 2.5m/s   | 2.5m/s                     | 2.5m/s                     |
| 最高PV值 PV value limit                        |                         | 2.8N/mm <sup>2</sup> w/m/s  | 2.8N/mm <sup>2</sup> w/m/s | 2.8N/mm <sup>2</sup> w/m/s   | 2.8N/mm <sup>2</sup> w/m/s | 2.5N/mm <sup>2</sup> w/m/s |
| 摩擦系数u Friction coef u                       |                         | 0.05~0.15   | 0.05~0.15                  | 0.05~0.15  | 0.05~0.15                  | 0.08~0.12                  |
| 工作温度 Working temperature                    |                         | -40~+120  | -40~+120                   | -60~+120   | -60~+120                   | -150~+250                  |
| 导热系数 Thermal conductivity                   |                         | 52W/mk  | 52W/mk                     | 52W/mk   | 52W/mk                     | 52W/mk                     |
| 线膨胀系数(轴向) Coefficient of linear expansion   |                         | 11 x 10 <sup>-6</sup> /K  | 11 x 10 <sup>-6</sup> /K   | 11 x 10 <sup>-6</sup> /K   | 11 x 10 <sup>-6</sup> /K   | 11 x 10 <sup>-6</sup> /K   |
| 主要运用领域 Typical application                  |                         | <p>该产品是以优质低碳钢板为基体，中间烧结一层多孔青铜层，表面轧制一层改性的聚甲醛。产品应用于汽车底盘、锻压机床、冶金机械、矿山机械、水利行业、轧钢行业等。</p> <p>It is made of high quality low-carbon steel, sintered porous bronze as its interlayer, with the compound of POM&amp; Pb as its surface. And has good load capacity &amp; wear-resistant. It's used in vehicle chassis, forming machine tools, steel metallurgical machinery, mineral mountain machinery, hydraulic industry and rolling steel industry, etc.</p> |                            | <p>该产品以优质低碳钢板为基体，中间烧结一层多孔青铜层，表面轧制一层改性的PEEK、PTFE及其它混合物。产品应用于锻压机床、冶金机械、矿山机械、钢铁行业等。</p> <p>The product is typified by its mild steel backing and the sintering middle of porosity bronze alloy, the rolling surface of modified mixture of PEEK and PTFE and other composites. The product is applied in forging press, metallurgy machine, mine machine, irrigation industry, and steel industry, etc.</p> |                            |                            |
| 可供产品：标准产品执行 ISO3547标准<br>非标准产品按客户要求订做       |                         |   |                            |  |                            |                            |

**KDB 2000(FR)**  
青铜四氟轴套  
**BRONZE SELF-LUBRICATING BUSHING**



基材特性 Material Features

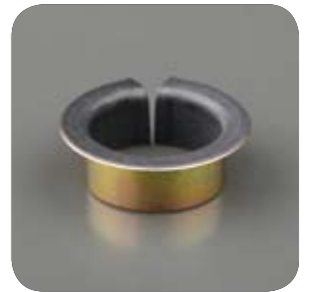
该产品是以优质青铜丝网为基体，单面或双面轧制以聚四氟乙烯(PTFE)为主的混合物加工而成。产品广泛应用于纺织机械、关节轴承、轿车门铰链、汽车操纵杆等。

It is made of bronze mesh and the compound of PTFE is process by rolling on single or double side. The product is widely applied to textile machine, joint bushing, door hinges and joystick of automobile, etc.

技术参数 Tech.Data

|                              |                 |                             |                           |                          |
|------------------------------|-----------------|-----------------------------|---------------------------|--------------------------|
| 最大承载压力 Maximum load capacity | 静载 Static load  | 100N/mm <sup>2</sup>        | 摩擦系数 μ Friction coef μ    | 0.08~0.20                |
|                              | 动载 Dynamic load | 80N/mm <sup>2</sup>         |                           | 适用温度范围 Temperature range |
| 最高滑动速度 Maximum sliding speed |                 | 1m/s                        | 导热系数 Thermal conductivity | 1200w/mk                 |
| 允许最高PV值 Maximum PV value     |                 | 1.65N/mm <sup>2</sup> w/m/s |                           |                          |

**KDB 2100**  
青铜四氟轴套  
**FILLED PTFE SOFT PLATES**



基材特性 Material Features

该产品以优质低碳钢板为基体，中间烧结锡青铜丝网，表面轧制以聚四氟乙烯(PTFE)为主的混合物。适用于变速排挡连杆，离合器制动杆，操纵杆等部位。






The product is based on high quality low-carbon, sintering tin-bronze mesh. The compound of PTFE is rolled on its surface. The bushing is accord with environmental request. It is applied to shift connecting rod, braking rod of clutch, manipulate rod, etc.

技术参数 Tech.Data

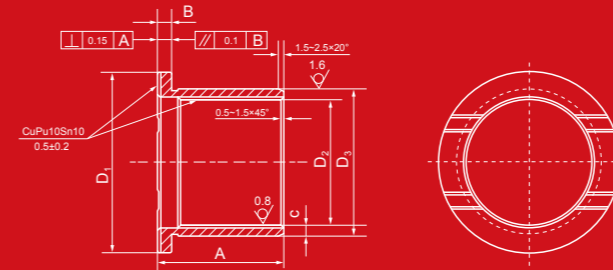
|                              |                 |                             |                           |                          |
|------------------------------|-----------------|-----------------------------|---------------------------|--------------------------|
| 最大承载压力 Maximum load capacity | 静载 Static load  | 120N/mm <sup>2</sup>        | 摩擦系数 μ Friction coef μ    | 0.08~0.20                |
|                              | 动载 Dynamic load | 80N/mm <sup>2</sup>         |                           | 适用温度范围 Temperature range |
| 最高滑动速度 Maximum sliding speed |                 | 1m/s                        | 导热系数 Thermal conductivity | 40w/mk                   |
| 允许最高PV值 Maximum PV value     |                 | 1.65N/mm <sup>2</sup> w/m/s |                           |                          |

双金属自润滑轴套 Bimetal Self-lubricating Bearings

技术参数

| 有关数据<br>Data                    | 代号<br>Grade                 | KDB301(SJ-1)  | KDB302(SJ-2)  | KDB303(SJ-3)  | KDB304(SJ-4)  | KDB305(SJ-5)  |
|---------------------------------|-----------------------------|---|---|---|---|---|
|                                 | 材料<br>Material              | 碳钢 + CuPb <sub>10</sub> Sn <sub>10</sub>  | 碳钢 + CuPb <sub>24</sub> Sn <sub>4</sub>   | 碳钢 + CuPb <sub>24</sub> Sn  | 碳钢 + AlSn <sub>20</sub> Cu  | 碳钢 + CuPb <sub>30</sub>   |
| 最大承载压力P<br>Max Load capacity P  |                             | 150N/mm <sup>2</sup>  | 130N/mm <sup>2</sup>  | 130N/mm <sup>2</sup>  | 100N/mm <sup>2</sup>  | 120N/mm <sup>2</sup>  |
| 最大线速度 V<br>Max line speed V     | 脂润滑<br>Greases lubrication  | 2.5m/s  | 2.5m/s  | 2.5m/s  |   |   |
| 最高PV值<br>Maximum PV value       |                             | 2.8N/mm <sup>2</sup> w/m/s  | 2.8N/mm <sup>2</sup> w/m/s  | 2.8N/mm <sup>2</sup> w/m/s  |   |   |
| 摩擦系数u<br>Friction coef u        |                             | 0.05~0.15   | 0.05~0.15   | 0.05~0.15   |   |   |
| 最大线速度 V<br>Max line speed V     | 流体(油)润滑<br>(Oil)lubrication | 10m/s   | 10m/s   | 10m/s   | 25m/s   | 15m/s   |
| 最高PV值<br>Maximum PV value       |                             | 10N/mm <sup>2</sup> w/m/s   | 10N/mm <sup>2</sup> w/m/s   | 10N/mm <sup>2</sup> w/m/s   | 25N/mm <sup>2</sup> w/m/s   | 8N/mm <sup>2</sup> w/m/s  |
| 摩擦系数u<br>Friction coef u        |                             | 0.05~0.12   | 0.05~0.15   | 0.05~0.12   | 0.06~0.17   | 0.06~0.17   |
| 最高温度<br>Max Working temperature | 脂润滑<br>Greases lubrication  | 150   | 150   | 150   | 150   | 170   |
|                                 | 流体润滑<br>lubrication         | 250   | 250   | 250   | 250   | 250   |
| 合金硬度<br>Alloy hardness          |                             | 60~90HB   | 45~70HB   | 40~60HB   | 30~40HB   | 30~45HB   |
| 主要运用领域<br>Typical application   |                             | 该产品以优质低碳钢板为基体，表面烧结锡青铜合金，经多次烧结轧制而成，它有很高的疲劳强度和承载能力，高的抗冲击力。产品适用于汽车发动机连杆，变速箱齿轮，工程机械、农业机械等。  | 该产品以优质低碳钢板为基体，表面烧结铅锡青铜合金，经多次烧结轧制而成。它有很高的疲劳强度、承载能力、抗冲击力、耐腐蚀、有较好的轴承表面性能，产品适用于高速、重载的内燃机主轴和连杆轴承。  | 该产品以优质低碳钢板为基体，表面烧结铅锡青铜合金，经多次烧结轧制而成。它有很高的疲劳强度、承载能力、抗冲击力、耐腐蚀、有较好的轴承表面性能，产品适用于高速、重载的内燃机主轴和连杆轴承。  | 该产品以优质低碳钢板为基体，表面采用特殊工艺轧制铝锡合金。它有中等疲劳强度和承载能力，良好的耐腐蚀性，较好的轴承表面性能，产品适用于内燃机主轴和连杆轴承、压气机、制冷机用轴承。  | 该产品以优质低碳钢板为基体，表面烧结铅锡青铜合金，经多次烧结轧制而成。它有中等疲劳强度和承载能力，较好的轴承表面性能，产品主要适用于内燃机主轴和连杆轴承。   |
|                                 |                             | It is made of high quality low-carbon steel, and sintered and rolled copper alloy as its surface. It has high fatigue strength, load capacity and impact strength. The product is applies to con-rod of automobile engines, transmission gearbox, engineering and agriculture machinery, etc. | It is made of high quality low-carbon steel, and sintered and rolled copper alloy as its surface. It has high fatigue strength, load capacity and impact strength. The product is applies to con-rod of automobile engines, transmission gearbox, engineering and agriculture machinery, etc. | It is made of high quality low-carbon steel strip, rolled and sintered many times with tin-lead-bronze alloy on surface. It has high fatigue strength, load capacity, excellent surface property. It is mainly applied to main shaft and con rod shaft of internal combustion engine. | It is made of high quality low-carbon steel, rolled with aluminium-tin alloy on surface with special techniques. It has medium fatigue strength, load capacity, good corrosion-resistance and super surface property. It is mainly applied to main shaft and con rod shaft of internal combustion engine, pressure-squeeze machine and cooling machine. | It is made of high quality low-carbon steel strip, rolled and sintered tin-lead-bronze alloy on surface. It has medium fatigue strength, load capacity, excellent surface property. It is mainly applied to main shaft and con rod shaft of internal combustion engine. |
| 可供产品按客户要求订做                     |                             |    |    |   |    |    |

KDB 301F 双金属翻边轴承  
Cast Bronze Bearings with Graphite



| D <sub>1</sub> | B   | D <sub>3</sub> | D <sub>2</sub> | A  | C   |
|----------------|-----|----------------|----------------|----|-----|
| 42             | 3.5 | 37             | 30             | 30 | 3.5 |
| 43             | 2   | 34             | 30             | 28 | 2   |
| 44             | 3.5 | 39             | 32             | 35 | 3.5 |
| 47             | 3.5 | 39             | 32             | 50 | 3.5 |
| 48             | 2   | 39             | 35             | 37 | 2   |
| 52             | 3   | 41             | 35             | 35 | 3   |
| 55             | 3.5 | 42             | 35             | 35 | 3.5 |
| 55             | 3.5 | 45             | 38             | 35 | 3.5 |
| 55             | 3.5 | 45             | 38             | 40 | 3.5 |
| 60             | 3   | 41             | 35             | 42 | 3   |
| 60             | 3   | 46             | 40             | 62 | 3   |
| 63             | 3.5 | 47             | 40             | 40 | 3.5 |
| 65             | 3.5 | 52             | 45             | 40 | 3.5 |
| 68             | 3.5 | 54             | 47             | 35 | 3.5 |
| 70             | 3.5 | 54             | 47             | 40 | 3.5 |
| 70             | 3.5 | 57             | 50             | 48 | 3.5 |
| 72             | 3.5 | 57             | 50             | 45 | 3.5 |
| 72             | 3.5 | 57             | 50             | 50 | 3.5 |
| 75             | 3.5 | 57             | 50             | 50 | 3.5 |
| 77             | 3   | 60             | 54             | 55 | 3   |
| 83             | 3.5 | 66             | 59             | 53 | 3.5 |
| 85             | 3.5 | 65             | 58             | 60 | 3.5 |
| 87             | 3.5 | 67             | 60             | 53 | 3.5 |
| 87             | 3.5 | 67             | 60             | 60 | 3.5 |

| D <sub>1</sub> | B     | D <sub>3</sub> | D <sub>2</sub> | A    | C   |
|----------------|-------|----------------|----------------|------|-----|
| 87             | 3.5   | 67             | 60             | 65   | 3.5 |
| 87             | 4     | 68             | 60             | 60   | 4   |
| 94             | 3.5   | 72             | 65             | 60   | 3.5 |
| 87             | 3.5   | 72             | 65             | 65   | 3.5 |
| 87.5           | 1.95  | 69.12          | 65.22          | 64.5 | 2   |
| 88             | 3.5   | 67             | 60             | 60   | 3.5 |
| 88             | 3.5   | 72             | 65             | 65   | 3.5 |
| 92             | 3.5   | 77             | 70             | 67   | 3.5 |
| 93             | 3.5   | 75             | 68             | 60   | 3.5 |
| 94             | 3.5   | 77             | 70             | 70   | 3.5 |
| 95             | 3.5   | 77             | 70             | 65   | 3.5 |
| 95             | 4     | 78             | 70             | 70   | 4   |
| 97             | 3.48  | 77.14          | 70.18          | 62   | 3.5 |
| 97             | 3.5   | 82             | 75             | 74   | 3.5 |
| 100            | 5     | 85             | 75             | 70   | 5   |
| 103            | 3.525 | 70.8           | 63.75          | 73   | 3.5 |
| 105            | 3.5   | 82             | 75             | 75   | 3.5 |
| 105            | 3.5   | 87             | 80             | 70   | 3.5 |
| 107            | 4     | 83             | 75             | 74   | 4   |
| 115            | 5     | 100            | 90             | 75   | 5   |
| 128            | 3.8   | 92.6           | 85             | 103  | 4   |
| 108            | 3.5   | 72             | 65             | 75   | 3.5 |
| 108            | 3.5   | 77             | 70             | 98   | 3.5 |
| 108            | 5     | 80             | 70             | 90   | 5   |

以上规格外径推荐公差 (+0.12 ~ +0.16)，配合轮体内孔 (+0.03 ~ +0.05)；内孔推荐公差 (+0.20 ~ +0.25)，配合轴 (-0.14 ~ -0.16)。

基材特性 Material Features

该产品以优质低碳钢为基体，表面烧结锡青铜合金，经多次烧结轧制而成，具有很高的疲劳强度和承载能力，高的抗冲击力。经过技术人员的进一步优化工艺，广泛应用到工程机械底盘四轮，空调压缩机等部位。特别在挖掘机四轮部位已广泛替代离心浇铸式双金属轴套，改善了原工艺材料不稳定，合金层偏心，材料浪费严重等缺点，在满足客户性能要求的前提下，进一步提高性价比，降低采购成本。

It is made of high quality low-carbon steel, and sintered and rolled copper alloy as its surface. It has high fatigue strength, load capacity and impact strength. The product is applies to con-rod of automobile engines, transmission gearbox, engineering and agriculture machinery, etc.

### KDB 500

铜基镶嵌式固体润滑轴承

Cast Bronze Bearings with Graphite

#### 基材特性 Material Features

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。产品被广泛用于高载、间歇性或摇摆运动，如汽车生产流水线、水轮机、水库工作/事故门、塑胶机械等。根据使用的工况，KDB可以提供各种类型的铜合金。

This material provides a maintenance free and low friction bearing solution, particularly for high load and intermittent oscillating motion. Solid lubricants within the bronze combine the strength of the bronze with the wear resistance of the graphite. Applications covered are automotive production lines, water industry, dam gates, plastic moulding machinery etc. Different types of bronze alloy can be offered according to the application.

#### 技术参数 Tech.Data

| 代号 Grade  | KDB500(H1)               | KDB501(H2)               | KDB502(H3)               | KDB503                   | KDB504(B)                | KDB505                   |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 材料 Material   | CuZn25Al5Mn4Fe3          | CuZn25Al5Mn4Fe3          | CuZn25Al5Mn4Fe3          | CuAl10Ni5Fe5             | CuSn5Pb5Zn5              | CuSn12                   |
| 密度 Density  | 8.2                      | 8.2                      | 8.2                      | 8.5                      | 8.7                      | 8.8                      |
| 硬度 HB Hardness  | >210                     | >235                     | >260                     | >160                     | >60                      | >90                      |
| 抗拉强度 N/mm <sup>2</sup> Tensile strength               | >750                     | >800                     | >850                     | >590                     | >240                     | >290                     |
| 屈服强度 N/mm <sup>2</sup> Yield strength                 | >400                     | >300                     | >300                     | >150                     | >100                     | >150                     |
| 延伸率 % Elongation                                      | >12                      | >6                       | >2                       | >10                      | >15                      | >8                       |
| 线胀系数 Coefficient of linear expansion                  | 1.9 × 10 <sup>-5</sup> / | 1.9 × 10 <sup>-5</sup> / | 1.8 × 10 <sup>-5</sup> / | 1.6 × 10 <sup>-5</sup> / | 1.8 × 10 <sup>-5</sup> / | 1.8 × 10 <sup>-5</sup> / |
| 使用温度 Max.Temp   | -40~+150                 | -40~+150                 | -40~+150                 | -40~+150                 | -40~+150                 | -40~+150                 |
| 最大动承载 N/mm <sup>2</sup> Max.Load                      | 100                      | 120                      | 130                      | 50                       | 40                       | 45                       |
| 最大线速度(干)m/min Max.speed(Dry)                          | 1.5                      | 1.5                      | 1.5                      | 1.0                      | 1.0                      | 1.2                      |
| 最大pv值(润滑) Max.pv N/mm <sup>2</sup> *m/s (Lubrication) | 3.25                     | 3.25                     | 3.25                     | 2.45                     | 2.0                      | 2.2                      |
| 压缩变形 300N/mm <sup>2</sup> Deformation                 | <0.01mm                  | <0.005mm                 | <0.005mm                 | <0.04mm                  | <0.05mm                  | <0.05mm                  |

#### 固体润滑剂 Solid Lubricants

| Lubricant 固体润滑剂           | Features 特性  | Typical application 典型用途  |
|---------------------------|--|---|
| KD1 Graphite+add 高纯石墨+添加剂 | Excellent resistance against chemical attacks and low friction, Temp limit 400 . 很好的耐磨性和化学稳定性，使用温度<400 。 | Suite for general machines and under atmosphere. 适用于一般机械，在大气中使用。          |
| KD4+MOS2 PTFE+MOS2+CF     | lowest in friction and good of water lubrication, Temp limit 300 . 极低的摩擦系数和很好的水润性，使用温度<300 。             | Ship, hydraulic turbine, gas turbine etc. 适用于水、海水润滑，如船舶，水工弧门，水轮机，制药饮料机械等。 |



### 青铜轴套 Composite Self-lubricating Bearings

#### 技术参数

| 有关数据 Data                              | 代号 Grade | KDB800   | KDB900 (FB090)   | KDB901 (FB901)   | KDB902 (FB092)   | KDB904 (FB094)  | KDB905 (FB090G)  |
|--|----------|--|--|--|--|---|--|
| 材料名称 Alloy Material                    |          | CuSn6Pb6Zn3 (Qsn6-6-3)   | CuSn8P (Qsn8-0.3)  | CuZn31Si (H68)   | CuSn8P (Qsn8-0.3)  | CuSn8P (Qsn8-0.3)   | CuSn8P (Qsn8-0.3)  |
| 密度 Density                             |          | 8.7g/mm <sup>3</sup>   | 8.8g/mm <sup>3</sup>   | 8.4g/mm <sup>3</sup>   | 8.8g/mm <sup>3</sup>   | 8.8g/mm <sup>3</sup>  | 8.3g/mm <sup>3</sup>   |
| 硬度 hardness                            |          | 60~80HB  | 90~120HB   | 80~100HB   | 90~120HB   | 90~120HB  | 90~120HB   |
| 抗拉强度 Pressure strength                 |          | 230N/mm <sup>2</sup>   | 460N/mm <sup>2</sup>   | 440N/mm <sup>2</sup>   | 460N/mm <sup>2</sup>   | 460N/mm <sup>2</sup>  | 460N/mm <sup>2</sup>   |
| 屈服强度                                   |          | >130N/mm <sup>2</sup>  | 260  | 230  | 260  | 260   | 230  |
| 导热系数 coefficient of heat conduction    |          | 52W/mwK  | 58W/mwK  | 71W/mwK  | 58W/mwK  | 58W/mwK   | 58W/mwK  |
| 线膨胀系数(轴向) Linear expansion coefficient |          | 18.5 × 10 <sup>-6</sup> /K   | 18.5 × 10 <sup>-6</sup> /K   | 19.2 × 10 <sup>-6</sup> /K   | 18.5 × 10 <sup>-6</sup> /K   | 18.5 × 10 <sup>-6</sup> /K  | 18.5 × 10 <sup>-6</sup> /K   |
| 最大线速度(干)m/min Max.speed(Dry)           |          | 1.5m/s   | 2m/s   | 2m/s   | 2m/s   | 2m/s  | 2m/s   |
| 最大动承载 N/mm <sup>2</sup> Max.Load       |          | 90N/mm <sup>2</sup>  | 100N/mm <sup>2</sup>   | 90N/mm <sup>2</sup>  | 100N/mm <sup>2</sup>   | 100N/mm <sup>2</sup>  | 100N/mm <sup>2</sup>   |
| 使用温度 Max.Temp                          |          | -40~150  | -40~150  | -40~150  | -40~150  | -40~150   | -40~150  |
| 主要运用领域 Typical applicaton              |          | 该产品以铜合金为基体，产品广泛应用于机器工具、农业机械、起重机、电动摩托、弹簧栓轴套、转向轴轴套和传动装置等。<br><br>It is based on the copper alloy. This kind of products are widely used in machine-tool, agricultural machinery, crane electromotor, spring pin, steering shaft and transmission, etc. | 该产品以特殊配方的高密度铜合金为基体，表面轧制菱形或球形油穴，它有很高的承载压力及很好的耐磨性。产品适用于起重机械、建筑机械、采矿机械等。<br><br>It is based on high density copper alloy of special formula. The alloy surface is rolled to diamond or global oil grooves. It has high density, good load capacity and wear-resistant. The product is applied to lifting machinery, construction machinery and mining machinery, etc. | 该产品是以特殊配方的高密度合金为基体，表面可根据客户要求轧制油穴或油槽等，它有很好的耐磨性，产品运用于建筑机械、机床工业等。<br><br>It is based on high density copper alloy of special formula. The alloy surface is rolled to oil grooves or hole according to client require. It has good load capacity and wear-resistant. The product is applied to construction machinery and machine tool, etc. | 该产品是在KDB090材料的基础上改进而成，表面按一定的角度和密度有序地排列润滑通孔。它具有延长使用期及润滑间隔频率，减少磨损等优点。<br><br>The product is improved from KDB090. The hole is arranged on the surface according to certain angle and density. It can delay life, low lubricating frequency and decrease wear, etc. | 该产品是在KDB092基础上，在轴套高度两端配置密封圈而成。它具有防止油脂倒漏，延长润滑时间，防止灰尘、沙等物质的渗透等优点。<br><br>The product is improved from KDB092. It is configured airproof ring on the bushing according to height. It can prevent grease leaking and dirt penetrating, so as to delay lubricating time. | 该产品是在KDB090基础上，在表面菱形油穴内埋入特殊的固体润滑剂。它具有很低的摩擦系数，较好的耐磨性等优点，能在无油或少油的条件下工作。<br><br>It is improved from KD090. The special solid lubricant is imbedded into lozenge oil hole on surface. It has very low friction coefficient and good wear-resistance, is used to the condition of no or little oil. |
| 可供产品：标准产品执行 ISO3547标准                  |          |  |  |  |  |   |  |
| 非标准产品按客户要求订做                           |          |  |  |  |  |   |  |

## KDB 600(ST)

钢板卷制轴承

WRAPPED STEEL  
BUSHINGS



### 基材特性 Material Features

该产品用优质低碳钢板或不锈钢，使用特殊工艺加工而成。产品广泛应用于汽车部件、重型机械等。

It's made of high quality low-carbon steel or stainless steel with a special technique. It is widely applied to automobile parts, heavy-duty machinery etc.

### 技术参数 Tech.Data

|                                    |                      |
|------------------------------------|----------------------|
| 低碳钢材质<br>Low-carbon steel material | SPCC                 |
| 不锈钢材质<br>Stainless steel material  | SUS 304              |
| 硬度<br>Hardness                     | HV600                |
| 极限动载荷<br>Max load capacity         | 150N/mm <sup>2</sup> |
| 最高使用温度<br>Max temperature          | 350                  |

## KDB 602

十字油线轴套——钢套

STEEL BUSHING WITH CROSS  
OIL GROOVE



### 基材特性 Material Features

十字油线能够使轴与轴套间很好地形成油膜，具有很高的抗压、耐磨性能，适用于挖掘机、起重机等工程机械的重载关节部位。

Cross oil groove can form the oil film between shaft and bush. It has high load capacity and wear resistance. The product is applied in excavators, cranes and some crucial parts of the construction machine.

### 技术参数 Tech.Data

|                         |   |                              |                      |
|-------------------------|---|------------------------------|----------------------|
| 材质<br>Material          | 45、40Cr、20、20Cr等低碳、中碳钢及低碳、中碳合金钢<br>45、40Cr、20、20Cr, and low or mid carbon steel and Low or mid alloy steel. | 摩擦系数<br>Friction coefficient | < 0.17               |
| 硬度<br>Hardness          | 40-46HRC, 52-60HRC  | 最高使用温度<br>Max temperature    | 350                  |
| 热处理方式<br>Heat treatment | 淬火、渗碳淬火、内孔高频淬火，内表面可作磷化处理<br>Quenched; quenched with carbon; high-frequency quenched inner surface;          | 极限动载荷<br>Max load capacity   | 250N/mm <sup>2</sup> |

## KDB 603

弹簧钢套

SPRINGSTEEL-  
BUSHINGS



### 基材特性 Material Features

KDB603弹簧钢套，又称张力轴套，它是一种用50CrV4或65Mn作为材质，经过特殊工艺处理，采用锯齿状接缝，具有高强度、高承载力、高抗冲击力的卷制轴套。50CrV4（或65Mn）材料机械性能较特殊，通常很难进行后续加工及成型，然后这种材料在进行较复杂的加工工艺成型后，却具有了普通自润滑轴套所无法达到的机械强度及力学性能，以使弹簧钢套具有普通DU、DX、铜套，双金属轴套所无法替代的作用。

弹簧钢套所特有的张力可以使象起重机、吊装机、抓斗机.....等大型设备的各个关节部位在受到巨大的不均匀压力时仍能运行自如。国内起重机、吊装机、抓斗机等低速重载设备的关节部位。

The product is based on stainless steel plate with sintering porous bronze layer and it's surface is coated the compound of PTFE and Pb. It can be used in strong acid and alkaline. It's applied to the corrosion resistant part in dyeing machinery and ocean industry, etc.

### 技术参数 Tech.Data

|                          |                       |                                   |                       |
|--------------------------|-----------------------|-----------------------------------|-----------------------|
| 拉伸强度<br>Tensile strength | >230N/mm <sup>2</sup> | 材质<br>Material                    | SAE660(65Mn)          |
| 屈服强度<br>Yield strength   | >130N/mm <sup>2</sup> | 表面硬度<br>hardness                  | 700HV                 |
| 延伸率<br>Elongation        | >9%                   | 弹性系数<br>Coefficient of elasticity | 93KN /mm <sup>2</sup> |

## KDB 604

网纹钢套

MESH SCREWED STEEL  
BUSHING



### 基材特性 Material Features

新一代工程机械轴套产品。能很好地避免轴套内表面的润滑盲区，由于油线密布，储油丰富，可有效延长加油间隔时间，具有较高的抗压、耐磨性能和优异的润滑性能，适用于挖掘机、装载机工程机械的重要关节部位。

It's a new generation of construction machinery bushing. It can remove the lubricating blind spot on inner surface. The widespread oil grooves increase storage of oil, which can prolong the interval of filling. The bushing has high load capacity, wear resistance and good lubricating performance. It can be applied in excavators, loaders and some crucial parts of construction machine.

### 技术参数 Tech.Data

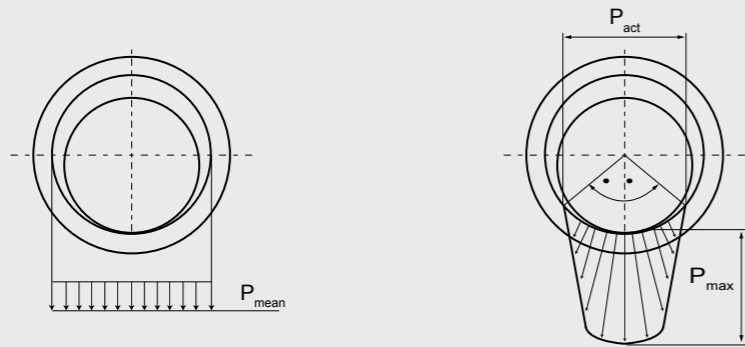
|                         |  |                              |                      |
|-------------------------|--|------------------------------|----------------------|
| 材质<br>Material          | 45、40Cr, ect.  | 摩擦系数<br>Friction coefficient | < 0.17               |
| 硬度<br>Hardness          | 40-46HRC   | 最高使用温度<br>Max temperature    | 350                  |
| 热处理方式<br>Heat treatment | 整体淬火、内表面可作磷化处理<br>Overall quenched; inner surface can be phosphatized. | 极限动载荷<br>Max load capacity   | 250N/mm <sup>2</sup> |

轴承选型 Bearings Selection

KDB公司根据不同的工况条件设计了不同的轴承材料。一般来说，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。

KDB have developed different types of bearings and various materials to suit a range of applications. The customer can select the material and type of bearing to suit their specific working environment, installation, load, speed, max and min temperatures, life, and cost .

面压计算 Bearings Load Calculation



直套、翻边产品 Cylindrical bushes, flange bushes

$$P = \frac{F}{d \times L} \text{ (N/mm}^2\text{)}$$

F= 轴套承载值 Load (N)  
d= 轴径 Shaft (mm)  
L=轴套长度 Bearing Lenth (mm)

止推垫片 Thrust washer

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

F=垫片承载值Load (N)  
D=垫片外径Washer OD (mm)  
d=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<sub>act</sub>) 会大于理论计算值(P<sub>mean</sub>)。As the factor of clearance, bearing chamfer, oil groove etc, The actual load (P<sub>act</sub>) is higher than theory of calculation (P<sub>mean</sub>).

线速度计算 Velocity Calculation

旋转运动 Rotating motion

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

d=轴径 Shaft (mm)  
n=转速/分 Rpm

往复运动 Rotating motion

$$V = \frac{2s \times c}{60} \text{ (m/s)}$$

c=行程长度 Stoke distance (m)  
s=往复频率 requency (次数/分)

摇摆运动 Oscillating motion

$$V = \frac{\pi \times d \times C \times \alpha}{1000 \times 360 \times 60} \text{ (m/s)}$$

d= 轴径 Shaft (mm)  
C=摇摆频率 frequency (次数/分)  
α=摇摆角度 Oscillating angle

PV值计算 PV=P × V(N/mm<sup>2</sup> × 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PV值与轴承的使用寿命成反比关系。因此建议设计时尽量使用比较低的安全的PV值，以确保轴承会有更长的使用寿命。同时在选择材料时也要注意不能超过承载、线速度、使用温度等极限值，并尽可能地小。

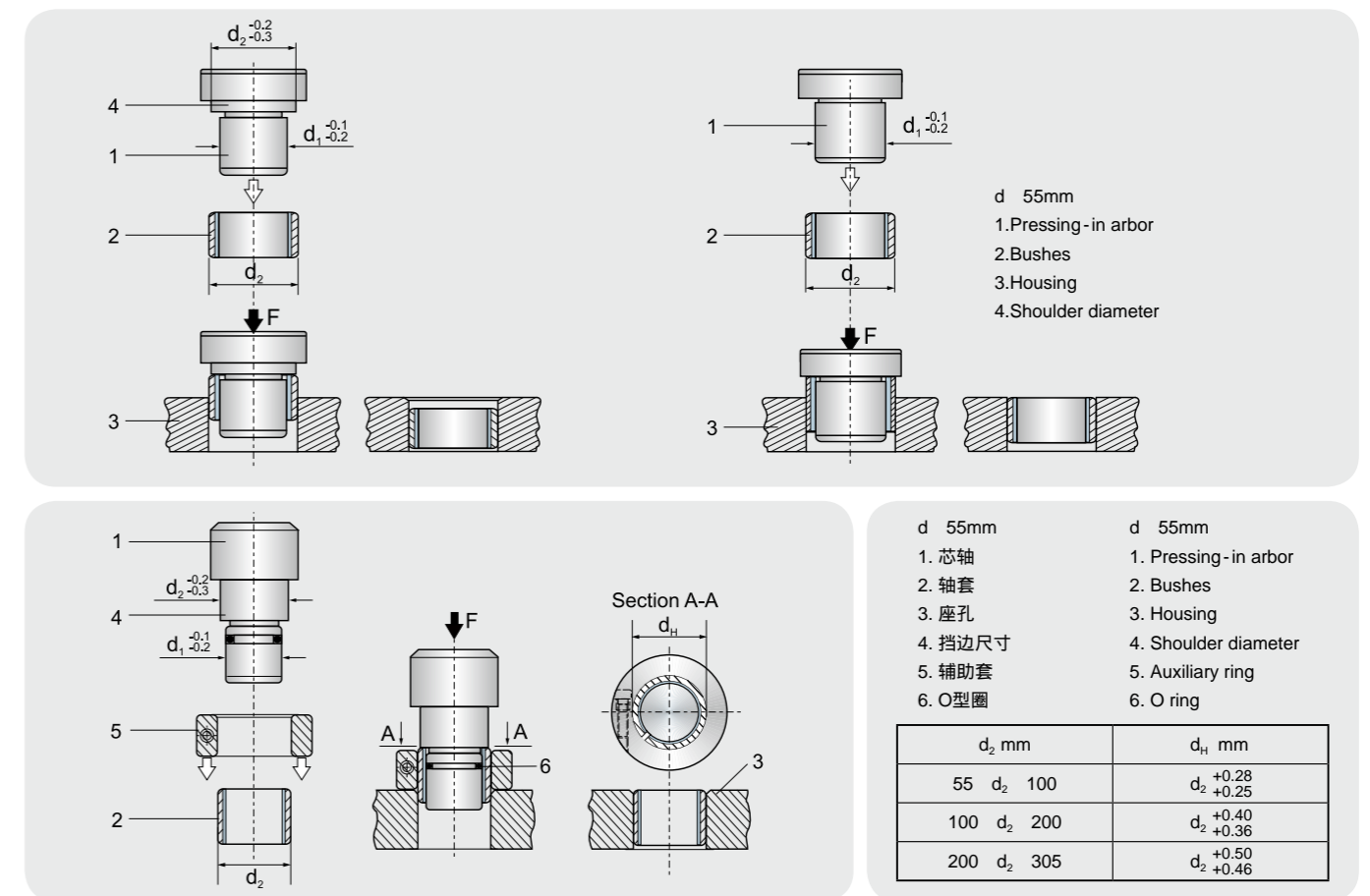
PV is the product of the specific bearing load P and the sliding speed V which is very important design data. The lower the PV value the longer the life will be .

轴承的装配 Bearings Installation

装配前应确保座孔内表面光洁无异物以免装配时划伤，同时要求座孔有导向倒角；装配时应采用芯轴慢慢压入，禁止直接敲打轴套以免产生变形；座孔设计时如需采用易变形材料如铝合金或座孔壁厚较薄时，请予以说明，以免压装时使座孔变形；为了使装配更简单且不会破坏耐磨层，轴的端面必须有倒角圆滑过度，轴的材质建议为轴承钢，表面淬火处理HRC45以上，表面粗糙度为0.4-0.8，表面也可镀硬铬。有可能的话，请在轴表面涂上油脂以缩短轴套走合期。非卷制类厚壁轴承装配时建议使用液氮冷冻。

In most applications, KDB bearings should be a press fit into the housing. Bearings must always be fitted using a fitting mandrel. In the case of a relatively high interference, the housing must be chamfered to assist assembly. Lubricating the bearing OD is also recommended to assist the assembly procedure. For applications using metallic bearings, shrink fitting could also be considered .

装配示意图 Bushes Installation



轴承尺寸检测 Bearings Dimensional Inspection

内径检测 The Inside Dlameter

KDB卷制类产品的内径检测按照ISO3547第2部分的C方法测试，将产品压入环规中，使用止通规对产品的内径进行检测，这类方法无具体检测数据，比较适合于小规格产品；大规格产品可以依据双方技术约定采用三点测量法等方式。

The inside diameter is measured according to ISO3547, part 2, test C To perform this test, the bearings should be fixed in a ring gauge In this situation the inside diameter can be measured with GO and NO GO plug gauges. Normally this method is suitable for smaller series. For the larger sized bearings it is recommended that the use of a three—point micrometer is preferable .

外径检测 The Outside Diameter

最方便的外径检验方式是按照ISO3547的方法B，采用止通规的方式来确定；止通规的公差参照ISO3547标准。这种方式比较适合于小规格产品，大规格产品可采用检测压入力和控制壁厚的方式来确定外径公差或采用哈夫规检测。

The simplified method for testing the outside diameter of plain bearings is based on ISO 3547 Method B The test uses GO and NO GO ring gauges. The corresponding diameters of the GO and NO GO ring gauges are selected according to the DIN standard Normally this method is suitable for smaller series The larger sizes can be checked by the jnstallation pressure and master gauges .

