

FZB

用心让世界运转更高效

Make the world more efficient by heart



高转速，低噪音，更稳定，高价值
High speed, low noise, more stable, high-value

高转速 低噪音 更稳定 高价值

HIGH SPEED LOW NOISE
MORE STABLE HIGH-VALUE

承载世界 转向未来

HOSTING THE WORLD TURN TO THE FUTURE



我们以生产优质的产品，精选最优质的原材料，配备一流的设备以及建立高效的管理体系，采用国内最先进的技术，对产品的整个制造加工过程进行有效的控制，确保生产出来的产品达到最高精密，从而在轴承行业赢得了卓越的声誉。目前主要生产带座外球面球轴承、外球面球轴承、关节轴承等23个系列，3000多个品种规格的产品。

客户的成功就是我们的成功。这意味着我们的销售活动取决于与客户合作的理念，我们致力于提供最高水平的客户服务，尤其是提供全面的技术和商务支持。我们深信，作为技术和服务的合作伙伴，我们能够帮助客户成功并愿意与客户共同取得更佳业绩。

我们有责任在一个发展越来越快的世界里不断进取。作为FZB，我们必须保持竞争力，共同努力并实现我们的目标。我们有决心持之以恒，并确保可持续发展，为中国轴承行业打造一个世界知名品牌而努力。

We to the production of high quality products, selected the best quality raw materials, equipped with first-class equipment and the establishment of effective management system, using the most advanced technology, on the products of the whole manufacturing process for effective control, to ensure that the production of products to achieve the highest precision, resulting in bearing industry won the excellent reputation. The main production of spherical ball bearing, outer spherical ball bearings, joint bearings 23 series, more than 3000 varieties of different specifications of the products. Customer's success is our success. This means that our sales activities depend on the concept of cooperation with customers, we are committed to providing the highest level of customer service, in particular, to provide comprehensive technical and business support. We are confident that, as a technology and service partner, we can help customers succeed and are willing to work with customers to achieve better results. We have a responsibility to continue to forge ahead in a world that is growing faster and faster. As FZB, we must remain competitive and work together to achieve our goals. We have the determination to persevere, and to ensure sustainable development, for the Chinese bearing industry to create a world famous brand and strive.

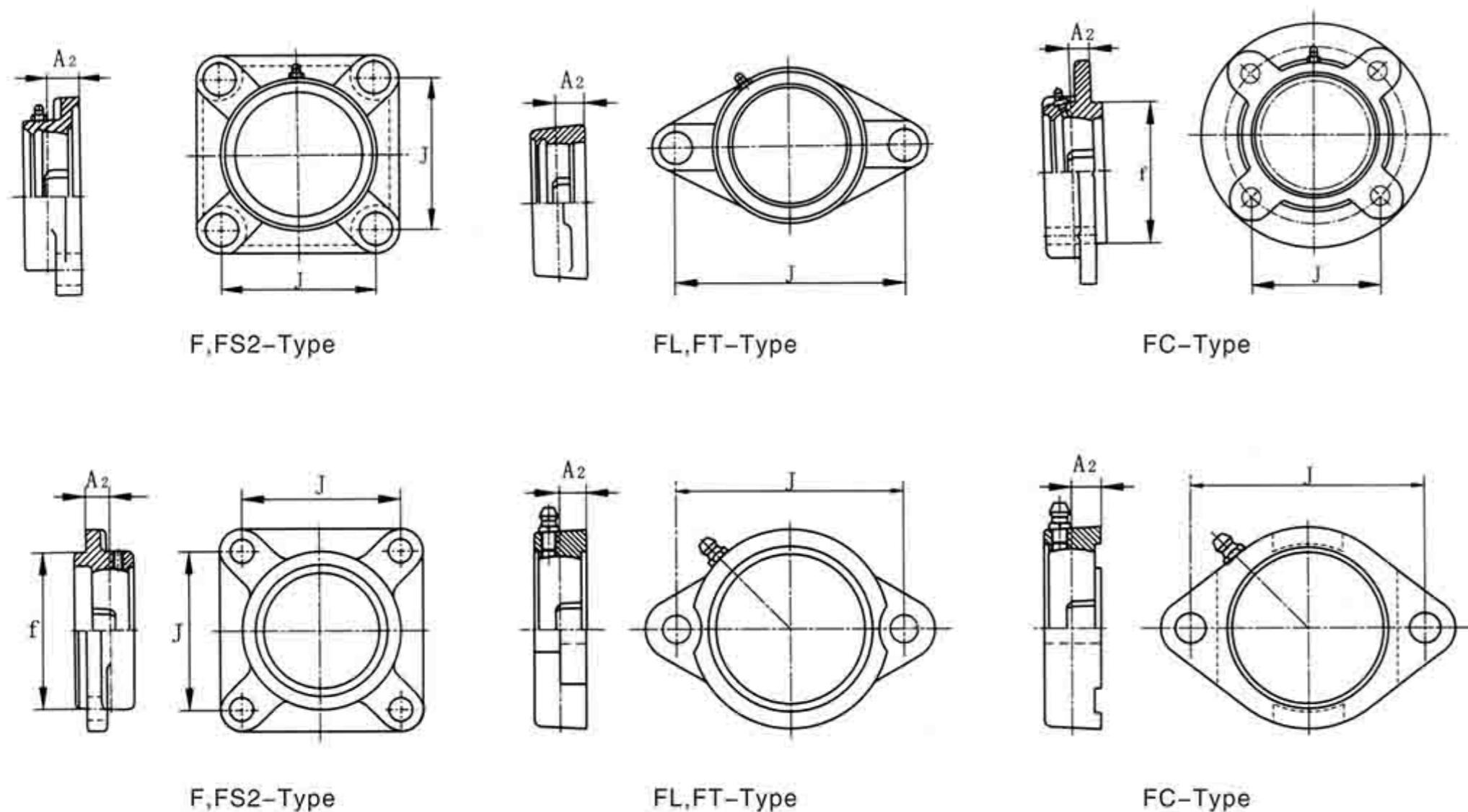
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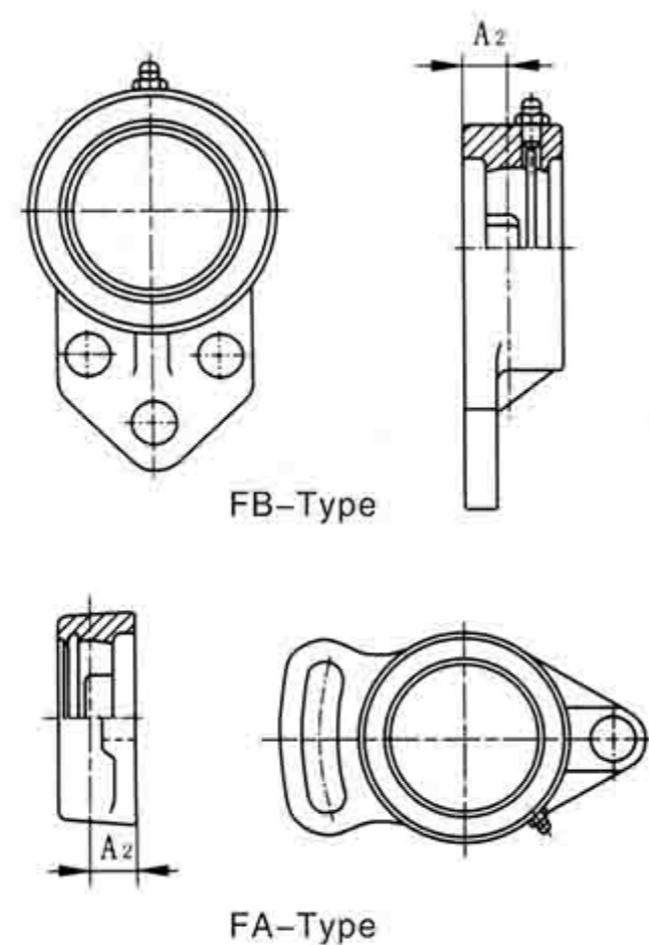


Flange Unit Housings
法兰座

表9 Table9

座的代号 Housings		偏差 Deviations
NO		A2
FB204	F204	± 500
FB205	F205	± 500
FB206	F206	± 500
FB207	F207	± 500
FB208	F208	± 500
FB209	F209	± 500
FB210	F210	± 500
FB211	F211	± 800
FB212	F212	± 800
FB213	F213	± 800

注: A2-安装表面到轴承中心线间距离
Notes: A2-Bearing centering distance from mounting surface.



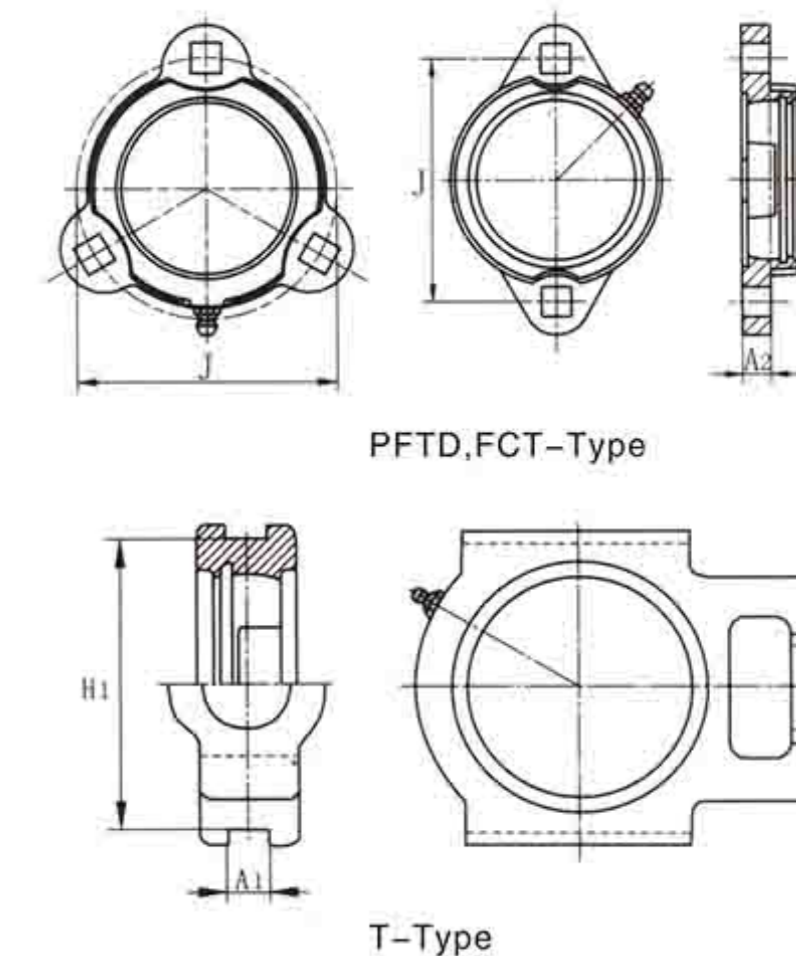
法兰座
Flange Unit housings

表10 Table10

座的代号 Housings	偏差 Deviations	
PFTD.FCT	J	A2
203	± 700	± 500
204	± 700	± 500
205	± 700	± 500
206	± 700	± 500
207	± 800	± 500

注(Notes):

- J-孔中心距
J-bolt holes centerline dimension.
- A2-安装表面到轴承中心线间距离
A2-bearing centerline distance from mounting surface.



2.4 滑块座的公差
Tolerances for take-up type housings

表11 Table11

座的代号 Housings	偏差 Deviations				滑动槽平行度 Parallelism of sliding slot MAX.		
	A1		H1				
	上差 High	下差 Low	上差 High	下差 Low			
T204		+200	0	0	-500	500	
T205	T305	TX05	+200	0	0	-500	500
T206	T306	TX06	+200	0	0	-500	500
T207	T307	TX07	+200	0	0	-500	500
T208	T308	TX08	+200	0	0	-500	500
T209	T309	TX09	+200	0	0	-500	500
T210	T310	TX10	+200	0	0	-500	500
T211	T311	TX11	+300	0	0	-800	600
T212	T312	TX12	+300	0	0	-800	600
T213	T313	TX13	+300	0	0	-800	600
T214	T314	TX14	+300	0	0	-800	600
T215	T315	TX15	+300	0	0	-800	600
T216	T316	TX16	+300	0	0	-800	600
T217	T317	TX17	+300	0	0	-800	600
T218	T318		+300	0	0	-800	600
	T319		+300	0	0	-800	700
	T320		+300	0	0	-800	700
	T322		+300	0	0	-800	700
	T324		+300	0	0	-800	800
	T326		+300	0	0	-800	800
	T328		+300	0	0	-800	800

注(Notes):

- A1-滑动槽宽度
1.A1-Width of guide rail grooves
- H1-滑动槽间距
1.H1-The space of guide rail grooves.

环形座
Gartridge Type Housings

表12 Table12

(μm)

座的代号 Housings	偏差 Deviations				外径径向跳动 Radial runout of outside surface 最大MAX.	偏差 Deviations				
	C200		C300				CX00			
	上差 High	下差 Low	上差 High	下差 Low			上差 High	下差 Low		
C204		-30	0	-35	0	-35	200	±200		
C205	C305	CX05	0	-30	0	-35	0	-35	200	±200
C206	C306	CX06	0	-35	0	-35	0	-35	200	±200
C207	C307	CX07	0	-35	0	-40	0	-35	200	±200
C208	C308	CX08	0	-35	0	-40	0	-35	200	±200
C209	C309	CX09	0	-35	0	-40	0	-40	200	±200
C210	C310	CX10	0	-35	0	-40	0	-40	200	±200
C211	C311	CX11	0	-40	0	-40	0	-40	300	±300
C212	C312	CX12	0	-40	0	-40	0	-40	300	±300
C213	C313		0	-40	0	-40			300	±300
	C314		0		0	-46			300	±300
	C315				0	-46			300	±300
	C316				0	-46			300	±300
	C317				0	-46			300	±300
	C318				0	-46			300	±300
	C319				0	-52			400	±300
	C320				0	-52			400	±300
	C322				0	-57			400	±300
	C324				0	-57			400	±300
	C326								400	±300
	C328								400	±300

注(Notes):

- 1.D1-环形座外径
D1-outside diameter of cartridge housing.
- 2.A-环形座宽度
A-width of cartridge housing

Tolerances for pressed steel units

2.6 冲压座的公差

冲压座
Pressed Steel Units

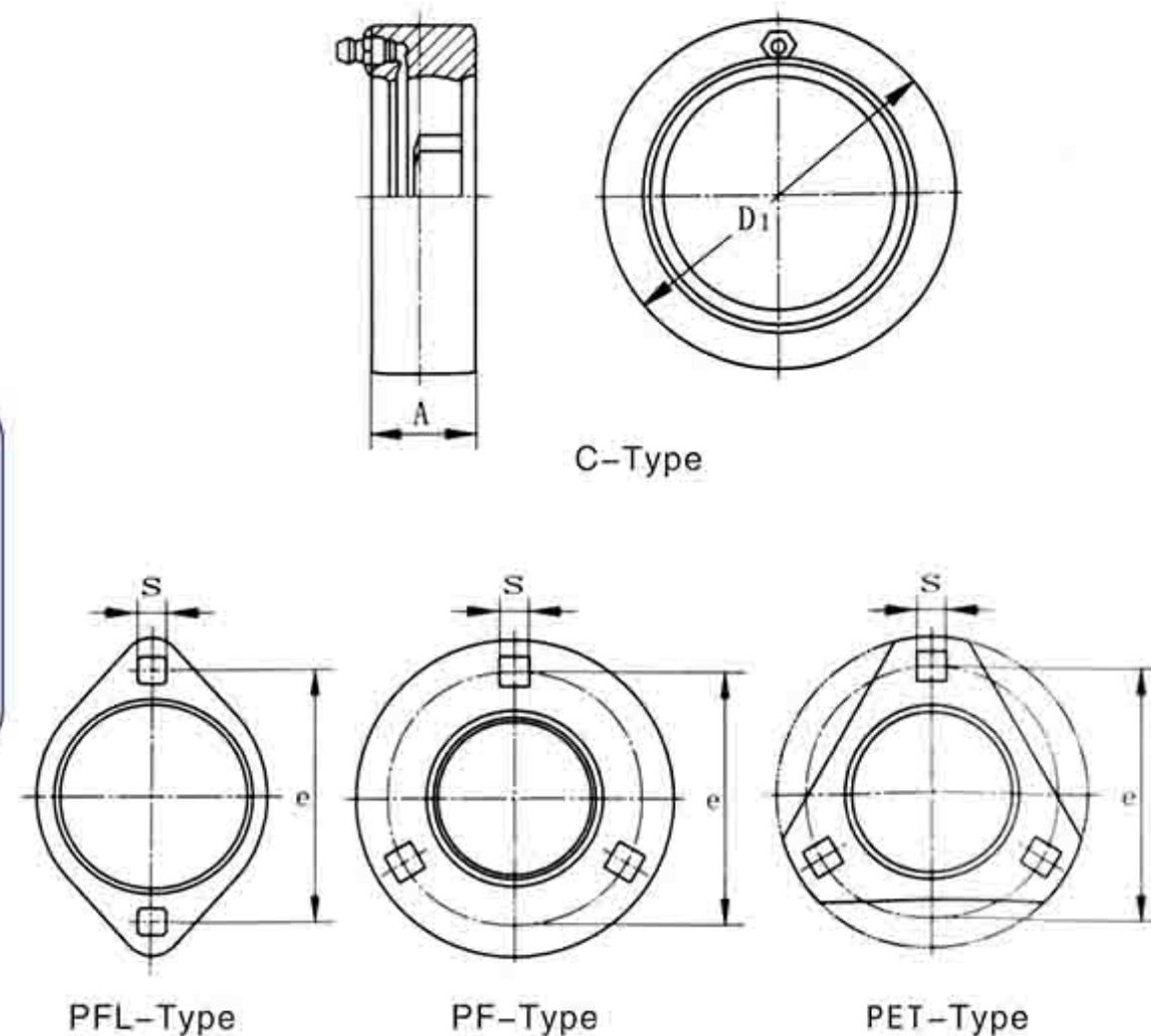
表13 Table13

(μm)

座的代号 Housings	偏差 Deviations	偏差 Deviations
PFL203-PFL207 PF203-PF207 PFT203-PFT207	±400	±250

注(Notes):

- 1)e-螺孔中心线直径
e-centerline diameter.
- 2)s-螺孔孔径
s-bolt hole diameter.



所有本目录包含的“FZB”轴承产品，均体现国鑫轴承有限公司的最新技术开发和质量控制政策。如用户有在本目录中不包含的特殊要求，请另行通知我们，我们可以根据用户的具体要求来进行分析开发。

All FZB bearings available in this catalogue reflect the implementation of company's latest engineering design skill and quality assurance policy.If you have special needs that are not found in this catalogue,please be sure to contact us.We offer assistance with applicable analysis and can customize design for your special applications.

Materials

材料

轴承的使用性能和可靠性能与轴承各部件的使用有很大关系。FZB轴承的内外圈和钢球是用高质GCr15真空脱氧轴承钢制作的。GCr15轴承钢的化学成分基本等同下表所示的几种有代表性的国外轴承钢型号：

The performance and reliability of rolling bearings are greatly affected by the materials which the bearing components are made from.FZB bearing rings and balls are made of high quality of high quality of GCr15 vacuum-degassed bearing steel.Chemical composition of GCr15 bearing steel is basically equivalent to some representative bearing steel as the chart shown below.

高碳铬轴承钢化学成分表

Chemical composition of high-carbon chrome bearing steel

表14 Table14

化学成份 (%) Analysis (%)

材料 Material		C	Si	Mn	Cr	Mo	P	S
		GB/T	GCr15	0.95-1.05	0.15-0.35	0.25-0.45	1.40-1.65	≤0.08
DIN	100Cr6	0.95-1.05	0.15-0.35	0.25-0.45	1.40-1.65		≤0.030	≤0.025
ASTM	52100	0.98-1.10	0.15-0.35	0.25-0.45	1.30-1.60	≤0.10	≤0.025	≤0.025
JIS	SUJ2	0.95-1.10	0.15-0.35	≤0.50	1.30-1.60		≤0.025	≤0.025

绝大多数球轴承的保持架都是由冷轧钢板制作的。有部分轴承型号或特殊使用情形下，轴承保持架用玻璃纤维增强尼龙66塑料，酚醛树脂或黄铜制作。

轴承座的材料一般是灰口铸铁或球墨铸铁。特殊情形下，也有铁板冲压轴承座，不锈钢轴承座和工程塑料轴承座。Most of ball bearing cages are made of cold rolled steel sheet. And for some bearing types and special applications, cages are made of glass fiber reinforced nylon 66 plastic, phenolic of machined brass.

The material of bearing housings gray or ductile cast iron,housings can also be made of pressed steel,or engineering plastics for special purposes.

Lubrication and Operating Temperature

5.带座外球面球轴承的润滑以及工作温度

5.1 润滑油脂 Lubricants

在制造过程中，轴承里面已经装入国标GB7324“锂基润滑脂”所规定的锂基2号润滑油脂。其物理和化学性质如表15所示：The industry lithium based No.2 lubricating grease defined in GB7324 Lithium based lubricant greases is sealed in the spherical outside outside surface ball bearings during.its physical and chemical properties are shown in table 15.

表15 Table15

针入度 Density (1/10mm)	在没有使用的情况下 Without operation	265-295
滴点 Dropping point(°C)		≥175
机械杂质 Mechanical impurities (pc/cm ³)	10-25 μm 25-75 μm 75-125 μm >125 μm	≤5000 ≤3000 ≤500 0

5.2工作温度

Operating Temperature

轴承的工作温度通常在摄氏120°C以下（轴承外环测量温度应当在摄氏100°C以下）。轴承工作温度高于摄氏70°C时，油脂使用寿命比正常工作温度下要缩短。最低工作温度不应低于报错温度-10°C。

需要的轴承超出正常工作温度范围时，请与我们联系

The bearings usually operate below the temperature of 120°C (the measuring temperature of the outer ring is 100°C). Grease life reduction has to be taken into account when the bearings continue to operate at a temperature above 70°C. The lowest operating temperature should not be lower than -10°C.

For higher or lower temperature application, please consult us for further informations.

5.3润滑周期

Relubricate Period

正常情形下，油脂的寿命基本等同轴承的使用寿命。可重新润滑产品，当使用时间比较久时，应当进行定期加脂。注脂周期与轴承的工作速度、温度以及环境均有关系。

下表为标准重新润滑周期表

Under normal operating condition, the grease should conform to the life of the bearings. Relubricatable type bearing units must be periodically greased to assure long life.

The greasing interval is dependent on the bearing running speed, operating temperatures and ambient conditions.

The following table shows the standard relubrication period.

表16 Table16

d.n值 d.N Value	清洁度 Cleanliness	温度		润滑周期 Greasing interval
		°C		
≤40,000	清洁 Clean	-15 ~ 65到65 ~ 100	+5 ~ 150到150 ~ 210	6 ~ 12月 (month) 2 ~ 6月 (month)
		-15 ~ 65 upto 65 ~ 100	+5 ~ 150 up to 150 ~ 210	
>40,000 ≤70,000	清洁 Clean	-15 ~ 65到65 ~ 100	+5 ~ 150到150 ~ 210	2~6月 (month) 1月 (month)
		-15 ~ 65 upto 65 ~ 100	+5 ~ 150 up to 150 ~ 210	
任何d.n值 Any.n Value	有点灰尘 Dirty	到65 超过65 up to 65 over 65	到150 超过150 up to 150 over 150	1周 ~ 1月 1天 ~ 2周 1wk. to 1month 1dato to 2wk
任何d.n值 Any.n Value	有很多灰尘 Very Dirty	任何温度 Any Temp	任何温度 Any Temp	1天 ~ 1周 1day to 1 wk
任何d.n值 Any.n Value	潮湿、水雾、溅水 Exposed to water splashes	任何温度 Any Temp	任何温度 Any Temp	每天 Every day

Grease Fitting

6.油嘴

FZB带座轴承的油嘴有A类（直油嘴），B类（45°弯头油嘴）和C类（90°弯头油嘴）三种铜制或铁制油嘴。FZB轴承的油嘴标准如表17示。可供选用的油嘴有M6X1, M8X1, M10X1, 1/4-28UNF, 1/8-27NPT, G1/4-19以及G1/8等，如表18示。客人可以根据实际需要指定。

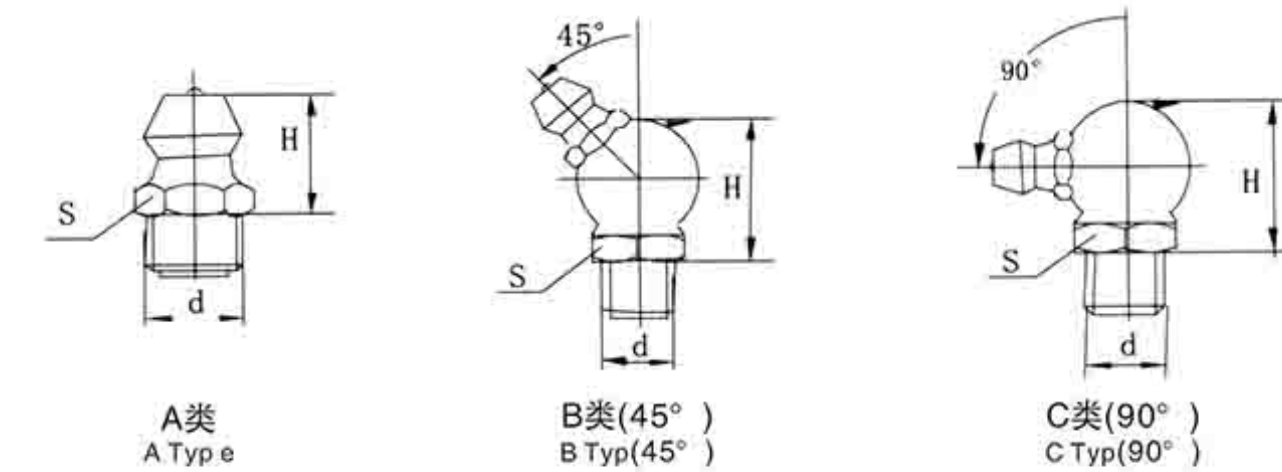
The grease fittings applied by FZB bearing units are classified as A type (straight), B type (type 45°) and C type (type 90°) which are made of brass or steel. Grease nipple types for FS standard bearing units are given in table 17. The availability of the grease nipple dimensions and designation to each type is M6x1, M8x1, M10x1, 1/4-28UNF, 1/8-27NPT, G1/4-19 and G1/8, as given in table 18. Customers are free to order with the specified dimensions and designations.

FZB标准带座外球面轴承油嘴型号

Grease nipple types for FS standard bearing units

表17 Table17

座型号	油嘴类型及尺寸 Grease fitting type and dimension
201-209 305-307 X05-X08	A类, M6*1 A Type.M6*1
210-215 308-312 X09-X14	A类, M8*1 A Type.M8*1
216-218 313-328 X15-X20	A类, M10*1 A Type.M10*1



带座外球面轴承油嘴类型及尺寸表

Applicable grease fittings dimensions and designations of bearing units

表18 Table18

油嘴类型 Grease fitting Type	d	H(mm)	S(mm)
A类 A Type	M6*1	9	7
	M8*1	9	10
	M10*1	9.5	11
	1/4-28UNF	9	7
	1/8-27NPT	9.5	11
B类 B Typ45	G1/4-19	14	14
	M6*1	15	10
	M8*1	15	10
	1/4-28UNF	15	10
C类 C Typ90	1/8-27NPT	15	10
	M6*1	15	10
	M8*1	15	10
	1/4-28UNF	15	10
	1/8-27NPT	14.5	10

在轴承内圈一端成120°的两处装有两内六角螺钉，用以安装固定轴，轴与轴承正常工作状态下通常是采用松配合，这时轴的尺寸精度如表19示。

The ball bearing unit is provided with two hexagonal setscrew's 120° apart on one side of the inner ring. Under normal operating conditions, the inner ring is mounted on shaft by means of a loose fit to ensure convenience of installation. In this case, the dimensional accuracy of the shaft is show in Table 19.

用于圆柱孔轴承的轴的尺寸精度 (松配合)
Dimensional accuracy of the shaft to be used in the cylindrical bore bearing (Loose fit)

表19 Table19 (μm)

轴径 Shaft Diameter (mm)		轴的尺寸精度 Deviation of tolerance in shaft							
		低速 for lower speed		中速 for medium speed		较高速 for rather high speed		高速 for high speed	
		h9		h8		h7		j6	
超过 over	到 incl.	最大 max	最小 min	最大 max	最小 min	最大 max	最小 min	最大 max	最小 min
10	18	0	-43	0	-27	0	-18	+8	-3
18	30	0	-52	0	-33	0	-21	+9	-4
30	50	0	-62	0	-39	0	-25	+11	-5
50	80	0	-74	0	-46	0	-30	+12	-7
80	120	0	-87	0	-54	0	-35	+13	-9
120	180	0	-100	0	-63	0	-40	+14	-11

但是，如果轴承需要很高的转速，或须承受很高的负荷，这时轴承与轴的配合就应该采用紧配合。如下表。

When the ball bearing is used at a high speed or under a heavy load, the inner ring of the ball bearing should be mounted to the shaft by means of a tight fit. As shown in Table 20.

用于用于圆柱孔轴承的轴的尺寸公差 (紧配合)
Dimensional accuracy of the shafts to be used in the cylindrical bore bearings (Tight fit)

表20 Table20 (μm)

轴径 Shaft Diameter (mm)		轴的尺寸精度 Deviation of tolerance in shaft							
		较高速 higher speed		较重载 rather heavy load		高速 highest speed		重速 heavy load	
		m9		m8		n7		n6	
超过 over	到 incl.	最大 max	最小 min	最大 max	最小 min	最大 max	最小 min	最大 max	最小 min
10	18	+18	+7	+25	+7	+23	+12	+30	+12
18	30	+21	+8	+29	+8	+28	+15	+36	+15
30	50	+25	+9	+34	+9	+33	+17	+42	+17
50	80	+30	+11	+41	+11	+39	+20	+50	+20
80	120	+35	+13	+48	+13	+45	+23	+58	+23
120	180	+40	+15	+55	+15	+52	+27	+67	+27

有的轴承带有紧定套，这种轴承的内孔为1:12的锥孔，它适合于作为长轴的中间支承。这时轴的尺寸精度如下表：

Some bearings can be installed to the shaft by means of adapter sleeves. In this method, the bearing bore is made of 1:12 taper and the corresponding tapered adapter sleeve is applied. This is a convenient method that can be used as the intermediate bearing of a long shaft. In this case, the dimensional accuracy of shaft is shown in Table 21.

用天锥孔轴承的轴的尺寸精度
Dimensional accuracy of shaft to be used in tapered bore bearing

表21 Table21 (μm)

轴径 Shaft Diameter (mm)		轴的尺寸公差 Deviation of tolerance in shaft					
		短轴 for short shaft			长轴 for long shaft		
		h9			h7		
超过 over	到 incl.	最大 max	最小 min	最大 max	最小 min		
10	18	0	-43	0	-70		
18	30	0	-52	0	-84		
30	50	0	-62	0	-100		
50	80	0	-74	0	-120		
80	120	0	-87	0	-140		
120	180	0	-100	0	-160		

Mounting of Bearings on Shafts

8.轴承的安装与固定

8.1带顶丝轴承 Setscrews Locking Type Bearings

这种轴承内圈的一端装有成120°角的两个紧定螺钉，紧定螺钉把轴固定在轴承上。安装轴时，按下表的紧定扭矩来拧紧螺钉。

There are two setscrews located at two places on one side of the wide inner ring 120° apart with which the bearing can be mounted to the shaft. When mounting the bearing to the shaft, the torque shown in the following table 22 is recommended to tighten the setscrews to shaft.

紧定螺钉的正确紧定扭矩
Proper tightening torque of setscrews

表22 Table22

轴承型号 Bearings No.	螺丝 Setscrews (mm)	紧固扭矩 Tightening torque N.m(max)	螺丝 Setscrews (in.)	紧固扭矩 Tightening torque lbf.in.(max)
UC201-UC203(SΦ40)	SB201-SB203	3.9	10-32UNF	32
UC201-UC206 UC305-UC306	SB204-SB206	4.9	1/4-28UNF	43
UC207-UC209 UC307	SB207-SB211	8.0	5/16-24UNF	70.5
UC210-UC213		16.8	3/8-24UNF	148
UC308-UC309	SB212	16.8	3/8-24UNF	148
UC214-UC218 UC310-UC314		29.4	1/2-20UNF	260
UC315-UC316		34.3	9/16-18UNF	300
UC317-UC319		54.2	5/8-18UNF	478
UC320-UC324		58.0	5/8-18UNF	496
UC326-UC328		78.0	3/4-16UNF	

如果轴承工作在下列情况下: 1) 轴承有振动; 2) 轴承中有相对移动; 3) 轴承的载荷较大或者转速较高, 在轴上紧定螺钉的相应位置应开有紧定槽或窝, 如果轴承的轴向载荷较大, 则有必要在轴上用螺母锁紧端面。(如图1示)

In case of either the vibration is caused to the bearing, the alternating movement takes place, the load applied to the bearing is large, or the shaft rotation speed is rapid, it is desired to provide with the filed seat of concave section at the part where the setscrews contact with the shaft. If large thrust load is charged, it is recommended that joggling tightened with nuts be used to install the bearing most effectively to the shaft. As shown in Fig. 1.

006-026

FZB概况

FZB Introduction

1.轴承与座结合表 Bearing And Housings Mtable	6
2.英制系列 Inch seriesInch series	7
3.轴承游隙 Radial Internal Clearance of Bearings	8
4.轴承公差 Bearing Tolerances	9
5.轴承座公差 Tolerances for Housings	10
6.FS轴承性能 Features of FS Bearings	15
7.润滑周期 Relubricate Period	16
8.油嘴 Grease Fitting	17
9.轴的选择 Selection of Shafts	19
10.轴承的安装与固定 Mounting of Bearings on Shafts	20
11.轴承座的安装 Mounting Method of Housings	21
12.极限转速 Permissible Speed of Rotation	22

027-100

带座外球面球轴承

Mounted ball bearing units

13.UCP200 立式座 Pillow Blocks	27
14.HCP200 立式座 Pillow Blocks	28
15.UKP200 立式座 Pillow Blocks	29
16.SAP200 立式座 Pillow Blocks	30
17.SBP200 立式座 Pillow Blocks	31
18.UCPX00 立式座 Pillow Blocks	32
19.UKPX00 立式座 Pillow Blocks	33
20.UCP300 立式座 Pillow Blocks	34
21.HCP300 立式座 Pillow Blocks	35
22.UKP300 立式座 Pillow Blocks	36
23.UCIP200/300 加固型立式座 Pillow Blocks	37
24.UKIP200/300 加固型立式座 Pillow Blocks	38
25.SALLP200/SBLLP200 立式座 Pillow Blocks	39
26.UCPH200 高中心立式座 Pillow Blocks (High Center Height)	40
27.UCPA200 窄立式座 Tapped-base Pillow Blocks	41
28.UCPW200 窄立式座 Tapped-base Pillow Blocks	42
29.UCPG200 窄立式座 Tapped-base Pillow Blocks	43
30.UCF200 方形座 Flange Units(Square)	44

31.HCF200 方形座 Flange Units(Square)	45
32.UKF200 方形座 Flange Units(Square)	46
33.SAF200 方形座 Flange Units(Square)	47
34.SBF200 方形座 Flange Units(Square)	48
35.UCFX00 方形座 Flange Units(Square)	49
36.UKFX00 方形座 Flange Units(Square)	50
37.UCF300 方形座 Flange Units(Square)	51
38.HCF300 方形座 Flange Units(Square)	52
39.UKF300 方形座 Flange Units(Square)	53
40.UCFS200 方形座 Flange Units(Square)	54
41.HCFS200 方形座 Flange Units(Square)	55
42.UCFL200 菱形座 Flange Units(Oval)	56
43.HCFL200 菱形座 Flange Units(Oval)	57
44.UKFL200 菱形座 Flange Units(Oval)	58
45.SAFL200 菱形座 Flange Units(Oval)	59
46.SBFL200 菱形座 Flange Units(Oval)	60
47.UCFLX00 菱形座 Flange Units(Oval)	61
48.UKFLX00 菱形座 Flange Units(Oval)	62
49.UCFL300 菱形座 Flange Units(Oval)	63
50.HCFL300 菱形座 Flange Units(Oval)	64
51.UKFL300 菱形座 Flange Units(Oval)	65
52.UCFT200 菱形座 Flange Units(Oval)	66
53.HCFT200 菱形座 Flange Units(Oval)	67
54.UCFC200 凸台圆形座 Flange Cartridge Units	68
55.HCFC200 凸台圆形座 Flange Cartridge Units	69
56.UKFC200 凸台圆形座 Flange Cartridge Units	70
57.UCFCX00 凸台圆形座 Flange Cartridge Units	71
58.UKFSX00 凸台圆形座 Flange Cartridge Units	72
59.UCFS300 凸台圆形座 Flange Cartridge Units(Square)	73
60.HCFS300 凸台圆形座 Flange Cartridge Units(Square)	74
61.UKFS300 凸台圆形座 Flange Cartridge Units(Square)	75
62.UCT200 滑块座 Take-up Units	76
63.HCT200 滑块座 Take-up Units	77
64.UKT200 滑块座 Take-up Units	78
65.UCTX00 滑块座 Take-up Units	79
66.UKTX00 滑块座 Take-up Units	80
67.UCT300 滑块座 Take-up Units	81
68.HCT300 滑块座 Take-up Units	82
69.UKT300 滑块座 Take-up Units	83
70.UCC200 环形座 Cartridge Units	84
71.UKC200 环形座 Cartridge Units	85

72.UCCX00 环形座 Cartridge Units	86
73.UKCX00 环形座 Cartridge Units	87
74.UCC300 环形座 Cartridge Units	88
75.UKC300 环形座 Cartridge Units	89
76.UCFA200 可调菱形座 Adjustable Flange Units	90
77.UCFB200 悬挂式座 Flange Bracket Units	91
78.UCHA200 悬吊式座 Screw Conveyor Units	92
79.SALF200/SBLF200 短菱形座 Light-duty Oval Flange Units	93
80.SAFD200/SBFD200 窄菱形座 Light-duty Oval Flange Units	94
81.SAFD200/SBFD200	95
球墨铸铁短菱形座 Ductile Iron Oval Flange Units	
82.SAFCT200/SBFT200	96
球墨铸铁三角座 Ductile Iron Oval Flange Units (FCT Type)	

101-115

其它带座外球面轴承

Balance of ball bearing units

83.SA(SB)PP200 冲压立式座 Pressed Housing Pillow Blocks	101
84.SA(SB)PF200 冲压圆形座 Pressed Housing Pillow Units	102
85.SA(SB)PFL200 冲压菱形座 Pressed Housing Pillow Units	103
86.SA(SB)PFT200 冲压三角座 Pressed Housing Pillow Units	104
87.UCPL200 塑料立式座 Thermoplastic Bearings Housing	105
88.UCPL200 塑料方形座 Thermoplastic Bearings Housing	106
89.UCNFL200 塑料菱形座 Thermoplastic Bearings Housing	107
90.UCPL200 塑料窄立式座 Thermoplastic Bearings Housing	108
91.UCTPL200 塑料滑块座 Thermoplastic Bearings Housing	109
92.通用防护装置类型 Types of Protection Available	110
93.塑料轴承座的静态破坏强度	113
Static Breaking Strength of Thermoplastic Housing	

116-134

外球面球轴承

Spherical outside surface ball bearing (insert bearing)

94.UC200 带顶丝外球面球轴承	116
Ball Bearings(with setscrews)	

95.UCX00 带顶丝外球面球轴承	117
Ball Bearings(with setscrews)	
96.UC300 带顶丝外球面球轴承	118
Ball Bearings(with setscrews)	
97.HC200 带偏心套外球面球轴承	119
Ball Bearings(with eccentric locking collar)	
98.HC300 带偏心套外球面球轴承	120
Ball Bearings(with setscrews locking collar)	
99.UK200 带圆锥孔外球面球轴承	121
UK Ball Bearings(with tapered bore)	
100.UKX00 带圆锥孔外球面球轴承	122
UK Ball Bearings(with tapered bore)	
101.UK300 带圆锥孔外球面球轴承	123
UK Ball Bearings(with tapered bore)	
102.SER200 带止动环深沟球轴承	124
Ball Bearings(with locating snap ring)	
103.SA(CSA)200 带偏心套球轴承	125
Ball Bearings(with eccentric locking collar)	
104.SB(CSB)200 带顶丝球轴承	126
Ball Bearings(with setscrews)	
105.CS200/ORAE SERIES 两端平头外球面球轴承	127
Spherical Radial Ball Bearings	
106.GRA200 带偏心套球轴承	128
Ball Bearings(with eccentric collar)(light-duty)	
107.SA000 带偏心套球轴承	129
Ball Bearings(with eccentric collar)(light-duty)	
108.H2300 紧定套 Adapter Sleeve	130

表24 Table24

座型号 Take-up No	H1 ± 0.5	A1	d	D	N
T204	77	12.5	16	28	12
T205	77	12.5	16	28	12
T206	90	12.5	18	32	12
T207	90	12.5	18	32	12
T208	103	16.5	24	42	14
T209	103	16.5	24	42	14
T210	103	16.5	24	42	14
T211	131	25	30	56	20
T212	131	25	30	56	26

表26 Table26

座型号 Take-up No	H1 ± 0.5	A1	d	D	N
T305	81	11	22	32	12
T306	91	15	24	38	14
T307	101	15	26	38	16
T308	113	16	28	46	18
T309	126	16	30	50	20
T310	141	18	32	55	22
T311	151	20	34	60	24
T312	161	20	36	64	24
T313	172	24	38	64	26
T314	182	24	42	75	28
T315	194	24	42	75	28
T316	206	28	46	90	34
T317	216	30	46	90	34
T318	230	30	50	95	38
T319	242	32	50	95	38
T320	262	32	52	100	38
T322	287	36	55	110	42
T324	322	42	60	120	48
T326	352	48	65	130	52
T328	382	48	70	140	56

表25 Table25

座型号 Take-up No	H1 ± 0.5	A1	d	D	N
TX05	90	11	18	32	12
TX06	90	11	18	32	12
TX07	103	15	26	42	14
TX08	103	15	26	42	14
TX09	103	15	26	42	14
TX10	131	20	30	56	20
TX11	131	20	30	56	26
TX12	152	24	36	60	26
TX13	152	24	36	60	26
TX14	152	24	36	60	26
TX15	167	26	36	60	26
TX16	175	26	42	65	30
TX17	175	26	42	65	30

Permissible Speed of Rotation

10. 极限转速

带座外球面轴承的极限转速，主要取决于轴承与轴的配合，正常工作状态该各轴承与轴的配合选用h7，相应的极限转速列于表27中，轻负荷选用较轻的配合，其允许的极限转速要有所降低，重负荷选用较紧的配合，其允许的极限转速可相应提高。

The permissible speed of rotation of the ball bearing units is connected with the fit between shaft and bearing. It is recommended that, under normal operating conditions, the fit between the bearing and the shaft be h7, the relevant values of permissible speed of rotation are shown in table 27. Loose fit allowing lower speed is recommended when lighter load is applied, while tighter fit allowing higher speed is recommended when heavier load is applied.

表27 Table27

轴承代号 Bearing No.	极限转速 Limit speed (r/min)	轴承代号 Bearing No.	极限转速 Limit speed (r/min.)
UC HC SA SB UCX CSA CSB SER UK	Grease Lubrication 脂润滑	UC UK	Grease Lubrication 脂润滑
201	4500	305	2800
202	4500	306	2600
203	4500	307	2200
204	4000	308	2000
205	3400	309	1800
206	2800	310	1700
207	2400	311	1400
208	2200	312	1300
209	1900	313	1200
210	1800	314	1100
211	1600	315	1000
212	1500	316	1000
213	1400	317	950
214	1300	318	900
215	1200	319	850
216	1100	320	800
217	1000		
218	950		

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Make the world more efficient by heart



高转速，低噪音，更稳定，高价值

High speed, low noise, more stable, high-value

带座外球面球轴承是外球面球轴承与座组合在一起的轴承部件。其结构形式多样，适合于在恶劣环境下工作。

优点：结构紧凑、密封完善、装卸方便、通用性和互换性好、自动调心范围大。

应用：纺织、印染、塑料、农业、食品、建筑、矿山、工程、化工机械设备等领域。

Spherical ball bearings are ball bearings and bearing components in combination with seat. The structure forms, suitable for working under bad environment. Has the advantages of compact structure, perfect sealing, convenient handling, versatility and interchangeability, self-aligning range. Application: textile, printing and dyeing, plastics, food, agriculture, construction, mining, chemical engineering, mechanical equipment and other fields.



带座外球面球轴承

Mounted ball bearing units

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承载世界 转向未来
HOSTING THE WORLD TURN TO THE FUTURE

高转速 低噪音 更稳定 高价值

HIGH SPEED LOW NOISE

MORE STABLE HIGH-VALUE

高转速 低噪音

更稳定 高价值

High speed low noise
more stable high-value

座 Housings	轴承 Bearings	带顶丝类型 Setscrews type	带偏心套类型 Eccentric Locking Collar type	带紧定套类型 Adapter Sleeve Locking type	其它类型 Other type		
	P200 P300 PX00 LLP200	UCP200 UCP300 UCPX00	SBP200G SBLLP200G	HCP200 HCP300	SAP200G SALLP200G	UKP200 UKP300 UKPX00	
	F200 F300 FX00 FS200	UCF200 UCF300 UCFX00 UCFS200	SBF200G	HCF200 HCF300 HCF300 HCF300	SAF200G	UKF200 UKF300 UKFX00	
	FL200 FL300 FLX00 FT200	UCFL200 UCFL300 UCFLX00 UCFT200	SBFL200G	HCFL200 HCFL300 HCFL300	SAFL200G	UKFL200 UKFL300 UKFLX00	
	IP200 IP300					UKIP200 UKIP300	
	T200 T300 TX00	UCT200 UCT300 UCTX00		HCT200 HCT300		UKT200 UKT300 UKTX00	
	FC200 FCX00			HCFC200		UKFC200 UKFCX00	
	FS300	UCFS300		HCFS300		UKFS300	
	PH200	UCPH200		HCPH200		UKPH200	
	PA200 PW200 PG200	UCPA200 UCPW200 UCPG200		HCPA200		UKPA200	
	HA200	UCHA200		HCHA200		UKHA200	
	FB200	UCFB200		HCFB200		UKFB200	
	FA200	UCFA200		HCFA200		UKFA200	
	C200 C300 CX00	UCC200 UCC300 UCCX00		HCC200		UKC200 UKC300 UKCX00	
	LF200		SBLF200G		SALF200G		
	FD200 FW200		SBFD200G SBFW200G		SAFD200G SAFW200G		
	PFTD200		SBFTD200G		SAFTD200G		
	FCT200		SBFCT200G		SAFCT200G		
	PP200		SBPP200		SAPP200		
	PF200		SBPF200		SAPF200		
	PFL200		SBPFL200		SAPFL200		
	PFT200		SBPFT200		SAPFT200		

本公司也可提供英制系列轴承和带座轴承，其尺寸除内径外全部与其对应的公制轴承相同
The Bearing or Bearing Unit of inch series is also available with all dimensions same as those of metric one except Diameter of Bore(SHAFT DIAMETER)

轴承 Bearings	轴径 Shaft Dia		轴承及带座轴承类型 Bearings And Bearing Units			
	英寸(inch)	毫米(mm)				
201-08	1/2	12.700				
202-09	9/16	14.288				
202-10	5/8	15.875				
203-11	11/16	17.463				
204-12	3/4	19.050				
204-13	13/16	20.638				
205-13	13/16	20.638				
205-14	7/8	22.225				
205-15	305-15	23.813				
205-16	305-16	25.400				
206-17	1 1/16	26.988				
206-18	306-18	28.575				
206-19	306-19	30.163				
206-20	1 1/4	31.750				
207-20	307-20	31.750				
207-21	307-21	33.338				
207-22	307-22	34.925				
207-23	307-23	36.513				
208-24	308-24	38.100				
208-25	308-25	39.688				
209-26	309-26	41.275				
209-27	309-27	42.863				
209-28	309-28	44.450				
210-29	1 13/16	46.038				
210-30	310-30	47.625				
210-31	310-31	49.213				
210-32	2	50.800				
211-32	311-32	50.800				
211-33	2 1/16	52.388				
211-34	311-34	53.975				
211-35	311-35	55.563				
212-36	312-36	57.150				
212-37	2 5/16	58.738				
212-38	312-38	60.325				
212-39	312-39	61.913				
213-40	313-40	63.500				
213-41	2 9/16	65.088				
214-42	2 5/8	66.675				
214-43	2 11/16	68.263				
214-44	314-44	69.850				
215-45	2 13/16	71.438				
215-46	2 7/8	73.025				
215-47	2 15/16	74.613				
215-48	315-48	76.200				
216-50	316-50	79.375				
217-52	317-52	82.550				
217-55	3 7/16	87.313				
218-56	3 1/2	88.900				

外球面球轴承径向游隙符合JB5304-91标准, 圆柱孔外球面球轴承的径向游隙值见表1. 圆锥孔外球面球轴承的径向游隙值见表2

The radial internal clearance of bearings for the unit is the same as the value of JB5304-91. The clearance for the cylindrical bore bearings is shown in table 1. The clearance for the taper bore bearings is shown in table 2.

圆柱孔轴承的径向游隙

Radial Internal Clearance of Cylindrical Bore Bearings

表1 Table1 (μm)

公称内径 Nominal Bore Diameter d(mm)		第2组 Group 2		基本组 Basic Group		第3组 Group 3	
超过 Over	到 Incl	最小 Min.	最大 Max.	最小 Min.	最大 Max.	最小 Min.	最大 Max.
10	18	3	18	10	25	18	33
18	24	5	20	12	28	20	36
24	30	5	20	12	28	23	41
30	40	6	20	13	33	28	46
40	50	6	23	14	36	30	51
50	65	8	28	18	43	38	61
65	80	10	30	20	51	46	71
80	100	12	36	24	58	53	84
100	120	15	41	28	66	61	97
120	140	18	48	33	81	71	114

圆锥孔轴承的径向游隙

Tapered bore bearing radial clearance

表2 Table2 (μm)

公称内径 Nominal Bore Diameter d(mm)		第2组 Group 2		基本组 Basic Group		第3组 Group 3	
超过 Over	到 Incl	最小 Min.	最大 Max.	最小 Min.	最大 Max.	最小 Min.	最大 Max.
10	18	10	25	18	33	25	45
18	24	12	28	20	36	28	48
24	30	12	28	23	41	30	53
30	40	13	33	28	46	40	64
40	50	14	36	30	51	45	73
50	65	18	43	38	61	55	90
65	80	20	51	46	71	65	105
80	100	24	58	53	84	75	120
100	120	28	66	61	97	90	140
120	140	33	81	71	114	105	160

1.1 外圆公差
Outer rings tolerance

表3 Table3

外圆公差 Outer Rings Tolerance

D (mm)		▲Dmp		Kea
超过 Over	到 Incl	上差 High	下差 Low	最大 Max.
30	50	0	-11	20
50	80	0	-13	25
80	120	0	-15	35
120	150	0	-18	40
150	180	0	-25	45
180	250	0	-30	50
250	315	0	-35	60

注(Notes):

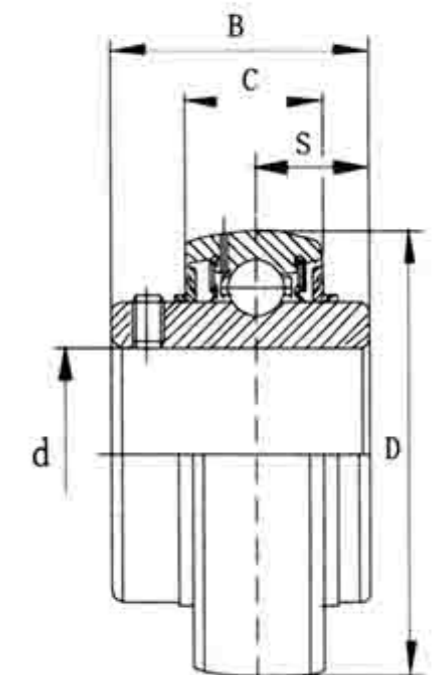
1. ▲Dmp-单一平面平均外径偏差
The deviation of a single plane mean outside diameter of the outer ring.

2. Kea-成套轴承外圆的径向跳动
Radial runout of assembled bearing outer ring.

1.2. 内圆公差 Inner rings tolerances

内圆公差见表4及表5
The inner rings tolerances are shown in Table 4 and Table 5.

1.2.1. 圆柱孔轴承内圆公差
Tolerances for cylindrical bore bearing inner rings



带圆柱孔的轴承内圆公差
Cylindrical Bore Inner Rings Tolerances

表4 Table4

d (mm)	▲dmp		Vdp max	▲Hs		▲Bs		Kia max
	上偏差 High	下偏差 Low		上偏差 High	下偏差 Low	上偏差 High	下偏差 Low	
>10-18	+15	0	10	+100	-100	0	-120	12
>18-30	+18	0	12	+100	-100	0	-120	15
>30-50	+21	0	14	+100	-100	0	-120	18
>50-80	+24	0	16	+100	-100	0	-150	22
>80-120	+28	0	19	+100	-100	0	-200	28
>120-180	+33	0	22	+100	-100	0	-250	35

注(Notes):

1. Dmp-单一平面内轴承平均内径偏差
Single plane mean bore diameter deviation

2. Kea-成套轴承内圈的径向跳动
Radial runout of assembled bearing inner ring

3. Bs-内圈单一宽度偏差
Deviation of a single width of inner ring.

4. Hs-内圈或偏心套单一偏心量的偏差
The deviation of a single eccentric volume of inner ring or eccentric locking collar

5. Vdp-内圈单一径向平面内轴承内径变动量
The deviation of a single radial plane bearing bore diameter of the inner ring