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创新引领未来

Innovation leads the future

宁波友创精密轴承有限公司

Ningbo Youchuang Precision Bearing Co., LTD

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Ningbo Youchuang Precision Bearing Co., LTD

友创精密轴承

YOUCHUANG PRECISION BEARINGS

公司简介
COMPANY PROFILE

宁波友创精密轴承有限公司（前身慈溪市周巷友创轴承厂）成立于2018年，公司座落于中国东部海滨城市宁波慈溪周巷，距离世界第一跨海大桥"杭州湾大桥"南入口8.5公里，西距省会城市杭州145公里，北与上海市隔海相望，地处沪、杭、甬经济金三角的中心地带，交通便利，地理环境优越。

公司专注于生产法兰轴承,摩托车轴承系列，球面轴承、薄壁轴承、微小型轴承为主。公司设计优化、工艺先进、设备精良、测试手段完备，严格按照GB/19001-2016/ISO9001:2015质量管理体系标准生产。现拥有员工50余人，年生产能力2000余万套，具备技术开发，品质保证，检测手段完善等。

产品广泛使用于家用电器，各种微型电机、通讯设备、电动工具、医疗器械、办公、体育器械、交通工具等领域。公司产品畅销全国各地，并远销美国、欧洲、俄罗斯及东南亚国家等。未来将携手广大新老客户共享、共赢、共谋发展。

Ningbo Youchuang Precision Bearing Co., LTD. (formerly Cixi Zhouxiang Youchuang Bearing Factory) was established in 2018. The company is located in Zhouxiang Cixi, Ningbo, a coastal city in east China, 8.5 kilometers away from the south entrance of the world's first sea Bridge "Hangzhou Bay Bridge", 145 kilometers away from the provincial capital Hangzhou in the west, and across the sea from Shanghai in the north. Located in the center of Shanghai, Hangzhou, Ningbo economic triangle, convenient transportation, superior geographical environment.

The company focuses on the production of flange bearings, motorcycle bearing series, spherical bearings, thin wall bearings, micro bearings. Company design optimization, advanced technology, sophisticated equipment, complete testing means, in strict accordance with GB/19001-2016/ISO9001:2015 quality management system standard production. Now has more than 50 employees, annual production capacity of more than 20 million sets, with technology development, quality assurance, detection means perfect.

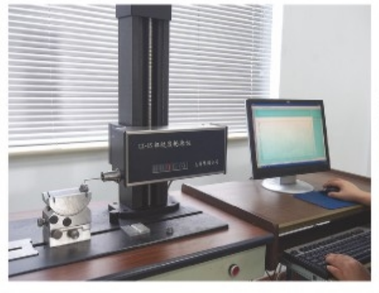
Products are widely used in household appliances, all kinds of micro motor, communication equipment, power tools, medical instruments, office, sports equipment, transportation and other fields. The company's products sell well all over the country, and exported to the United States, Europe, Russia and Southeast Asian countries. In the future, we will join hands with new and old customers to share, win-win and seek common development.

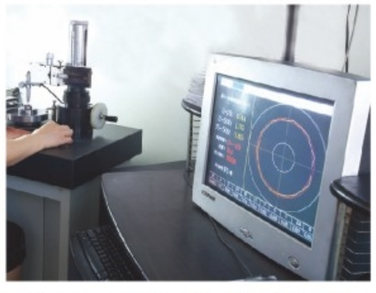

质量管理体系认证证书

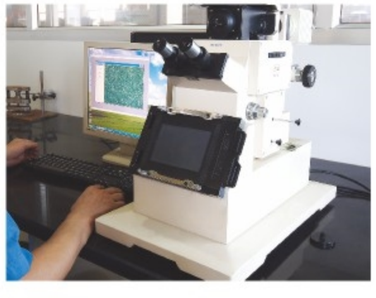

QMS CERTIFICATE OF REGISTRATION

公司生产车间
PRODUCTION WORKSHOP

检测设备
TESTING EQUIPMENT

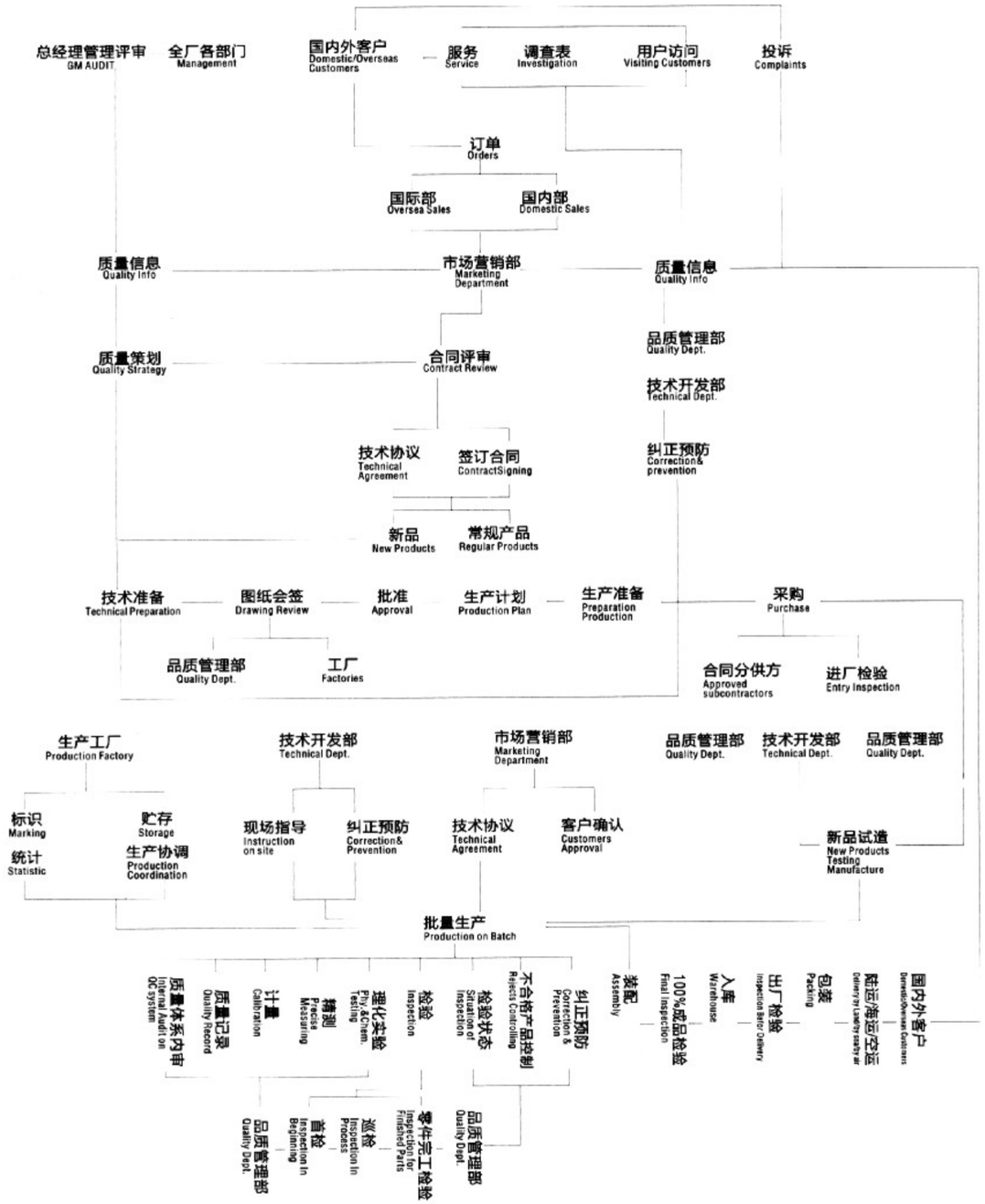






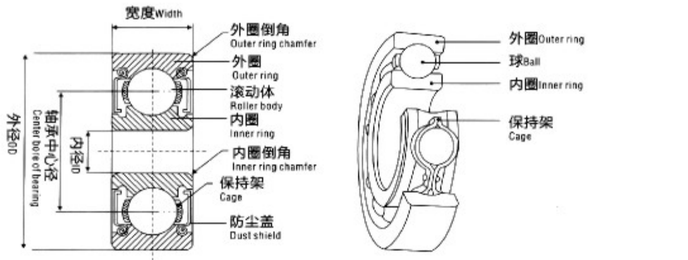
● 诚本丨应用领域
CHENGBEN Applications

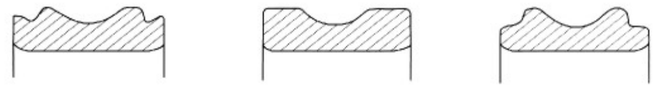
严密的质保体系 STRICTLY QUALITY GUARANTEE SYSTEM



轴承结构及各部分名称 BEARING STRUCTURE AND NAME OF EACH PART

深沟球轴承 Deep groove ball bearings



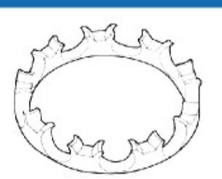


基本组成 Basic Components

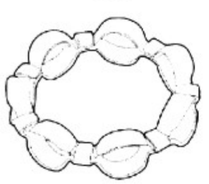
外圈、内圈、钢球 Outer ring.inner ring,ball	高碳铬轴承钢GCr15(JIS SUJ2、AISI52100)或有特别用途要求者亦采用不锈钢9Cr18(AISI440C)。 High-carbon chromium bearing steel GCr15(JIS SUJ2,AISI52100), or stainless steel9Cr18(AISI440C)also can meet special usage requirements.
保持器 Retainer	一般情况用钢板或尼龙，如有特殊用途用橡胶、不锈钢。 Steel plates and nylon can be used in general situation,while rubber and stainless steel for special usage.
防尘盖 Dust cover	钢板、橡胶、塑胶 Steel plate,rubber,plastic

保持器常用之形式 Common types of retainers

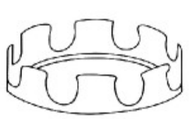
冲制波型保持器（铆钉型）
Punch wave-mode retainer (rivet type)



合成树脂材料保持器（冠型）
Retainer made by Synthetic Resin Material (crown type)



冲制波型保持器（曲爪型）
Punch wave-mode retainer (claw type)



冲制冠型保持器（冠型）
Punch crown-type retainer

轴承材料 BEARING MATERIALS

内外圈和球-真空脱气处理的高碳铬轴承钢GCR15是生产精确内外圈和球的标准材料。该材料跟美国AISL52100，德国DIN100Cr6,日本JISSUJ2规格一致。
rings and all vacun deairing with tratment of high carbon chromium bearingstel poduction GCR15 is th standard matrial toprodce th acurate intenal and extrnal circle and ball.This material with theUnited States AISL52100,Germany DIN1 0OCr6, Japan JiSSU.2 specffications are consistent.

钢材代号 SteelNumber	化学成分% Chemical composition %								
GCr15	C	si	Min	P	S	Cr	Mo	Cu	Ni
	0.95-1.05	0.15-0.35	0.25-0.45	S0.025	S0.025	1.40-1.65	-	S0.25	S0.30

保持架-VCD&XSHB标准的保持架是由冷轧碳钢做成的，但在腐蚀性环境，不平行情况，或高速运转情况下，可以根据要求采用不锈钢.尼龙或酚醛树脂保持架。
The holder-VCD&XSHB standardt holder is made of carbon steel by cold,but in corrosive environment no paralle, o under high-speed aperation, wecan usp stainless steel,nylon orphenolic resin holder according to customer's request.

钢材代号 SteelNumber	化学成分% Chemical composition %						
J1SG 3141	C	Si	Min	P	S	Ni	Cr
SPCC	<0.12	-	<0.5	<0.04	<0.045	-	-

轴承的密封 Bearing Seal

轴承的密封形式分为防尘盖与胶料密封两种，胶料的密封样式较多，因密封材料的不同，轴承的适应工况也会发生改变，现列举几种密封的材料供参照
The sealing forms of bearings are divided into dust cover and rubber seal. There are many sealing styles of rubber materials. Due to different sealing materials, the adaptive working conditions of bearings will also change. Several sealing materials are listed for reference

名称代号Name Code	特点characteristics	使用温度℃ Using temperature
丁腈橡胶 Acrylonitrile-butadiene rubber NBR	耐油、耐磨、耐热性好 oil resistance,heat resistance,resistance to wear	-40~120
氟橡胶 Fluorine rubber FKM	耐热、耐酸碱及化学药品、耐油性佳 Heat resistant,acid and alkali resistant and chemicals, oil resistance preferred	-20~200
硅橡胶 Silicone rubber VMO	耐热、耐寒性好，压缩变形小，但机械强度不佳 Heat and cold resistance,good compression deformation is small, but the mechanical strength is notgood.	-60~230
聚丙烯酸酯橡胶 Polypropyiene acid ester rubber ACM	耐热、耐油优于NBR，但耐水与耐碱性不强 Heat resistance, oil resistance better than NBR,but resistance to water and alkali is not strong	-20~150

公差等级 TOLERANCE GRADES

P0级公差内圈 P0 Inner Ring Tolerance

Tolerance in μ m

钢材代号 SteelNumber	化学成分% Chemical composition %								
GCr15	C	si	Min	P	S	Cr	Mo	Cu	Ni
	0.95-1.05	0.15-0.35	0.25-0.45	S0.025	S0.025	1.40-1.65	-	S0.25	S0.30

d 毫米(mm)		Δ_{dmp}		V_{dp}[2]) 直径系列 Diameter series			V_{dmp}	K_{ia}	Δ_{Bs}		V_{bs}
				9	0,1	2,3,4					
超过 Over	包括 Include	高 High	低 Low	最大 Max			最大 Max	最大 Max	高 High	低 Low	最大 Max
0.6[1)]	2.5	0	-8	10	8	6	6	10	0	-40	12
2.5	10	0	-8	10	8	6	6	10	0	-120	15
10	18	0	-8	10	8	6	6	10	0	-120	20
18	30	0	-10	13	10	8	8	13	0	-120	20
30	50	0	-12	15	12	9	9	15	0	-120	20
50	80	0	-15	19	19	11	11	20	0	-150	25
80	120	0	-20	25	25	15	15	25	0	-200	25

注释:
1)包括0.6在内。
2)直径系列7,8无规定值。

Note:
1)Including 0.6
2)No rated value for diameter series 7,8

P0级公差内圈 P0 Inner Ring Tolerance

Tolerance in μ m

D 毫米(mm)		Δ_{Dmp}		V_{dp}[2]) 开式轴承 Open Bearing			闭式轴承[2)3)] Closed Bearing	V_{Dmp}	K_{ea}	Δ_{Cs}		V_{Cs}
				9	0,1	2,3,4	2,3,4					
超过 Over	包括 Include	高 High	低 Low	最大 Max				最大 Max	最大 Max	高 High	低 Low	最大 Max
2.5[1)]	6	0	-8	10	8	6	10	6	15	与同一轴承内圈的ΔBs及ΔBs相同 same as the one bearing's inner ring ΔBS and ΔBS		
6	18	0	-8	10	8	6	10	6	15			
18	30	0	-9	12	9	7	12	7	15			
30	50	0	-11	14	11	8	16	8	20			
50	80	0	-13	16	13	10	20	10	25			
80	120	0	-15	19	19	11	26	11	35			
120	150	0	-18	23	23	14	30	14	40			
150	180	0	-25	31	31	19	38	19	45			
180	250	0	-30	38	38	23	-	23	50			

注释:
1)包括2.5在内。
2)直径系列7,8无规定值。
3)直径系列9,0,1无规定值。

Note:
1)Including 2.5
2)No rate value for diameter series 7.8
3)No rate value for diameter series 9,0,1

公差等级 TOLERANCE GRADES

P6级公差内圈 P6 Inner Ring Tolerance

Tolerance in μm

d 毫米(mm)		Δ_{dmp}		V_{dp} [2]) 直径系列 Diameter series			V_{dmp}	K_{ia}	Δ_{Bs}		V_{bs}
				9	0,1	2,3,4					
超过 Over	包括 Include	高 High	低 Low	最大 Max			最大 Max	最大 Max	高 High	低 Low	最大 Max
0.6[1)]	2.5	0	-7	9	7	5	5	5	0	-40	12
2.5	10	0	-7	9	7	5	5	6	0	-120	15
10	18	0	-7	9	7	5	5	7	0	-120	20
18	30	0	-8	10	8	6	6	8	0	-120	20
30	50	0	-10	13	10	8	8	10	0	-120	20
50	80	0	-12	15	15	9	9	10	0	-150	25
80	120	0	-15	19	19	11	11	13	0	-200	25

P6级公差外圈 P6 Outer Ring Tolerance

Tolerance in μm

D 毫米(mm)		Δ_{Dmp}		V_{dp} [2]) 开式轴承 Open Bearing			闭式轴承[4)5)] Closed Bearing	V_{Dmp}	K_{ea}	Δ_{Cs}		V_{Cs}
				9	0,1	2,3,4	2,3,4					
超过 Over	包括 Include	高 High	低 Low	最大 Max				最大 Max	最大 Max	高 High	低 Low	最大 Max
2.5[1)]	6	0	-7	9	7	7	9	5	8	与同一轴承内圈的 V_{Bs}及V_{Bs}相同 same as the one bearing' sinner ring $V_{bs}$and V_{bs}		
6	18	0	-7	9	7	7	9	5	8			
18	30	0	-8	10	8	8	10	6	9			
30	50	0	-9	11	9	9	13	7	10			
50	80	0	-11	14	11	11	16	8	13			
80	120	0	-13	16	16	16	20	10	18			
120	150	0	-15	19	19	19	25	11	20			
150	180	0	-18	23	23	23	30	14	23			
180	250	0	-20	25	25	25	-	15	25			

注释:
1)包括2.5在内。
2)直径系列7,8无规定值。
3)直径系列9无规定值。

Note:
1)Including 2.5
2)No rate value for diameter series 7,8
3)No rate value for diameter series 9

公差等级 TOLERANCE GRADES

P5级公差内圈 P5Inner Ring Tolerance

Tolerance in μm

d 毫米(mm)		Δ_{dmp}		V_{dp} [2]) 直径系列Diameter series		V_{dmp}	K_{ia}	Sd	Sia[3)]	Δ_{Bs}		V_{bs}
				9	0,1,2,3,4							
超过 Over	包括 Include	高 High	低 Low	最大 Max		最大 Max	最大 Max	最大 Max	最大 Max	高 High	低 Low	最大 Max
0.6[1)]	2.5	0	-5	5	4	3	4	7	7	0	-40	5
2.5	10	0	-5	5	4	3	4	7	7	0	-40	5
10	18	0	-5	5	4	3	4	7	7	0	-80	5
18	30	0	-6	6	5	3	4	8	8	0	-120	5
30	50	0	-8	8	6	4	5	8	8	0	-120	5
50	80	0	-9	9	7	5	5	8	8	0	-150	6
80	120	0	-10	10	8	5	6	9	9	0	-200	7

注释:
1)包括0.6在内。
2)直径系列7,8无规定值。
3)本标准适用于深沟球轴承。

Note:
1)Including 0.6
2)No rate value for diameter series 7,8
3)Fit for groove ball bearing only.

P5级公差内圈 P5Inner Ring Tolerance

Tolerance in μm

d 毫米(mm)		Δ_{dmp}		V_{dp} [2]) 直径系列 Diameter series		V_{dmp}	K_{ia}	SD[4)]	Sea[4)5)]	Δ_{Bs}		V_{Bs}
				9	0,1,2,3,4							
超过 Over	包括 Include	高 High	低 Low	最大 Max		最大 Max	最大 Max	最大 Max	最大 Max	高 High	低 Low	最大 Max
2.5[1)]	6	0	-5	5	4	3	5	8	8	与同一轴承内圈的V_{Bs}及V_{Bs}相同 same as the one bearing's inner ring Vbs ana v bs		5
6	18	0	-5	5	4	3	5	8	8			5
18	30	0	-6	6	5	3	6	8	8			5
30	50	0	-7	7	5	4	7	8	8			5
50	80	0	-9	g	7	5	8	8	10			6
80	120	0	-10	10	8	5	10	9	11			8
120	150	0	-11	11	8	6	11	10	13			8
150	180	0	-13	13	10	7	13	10	14			8
180	250	0	-15	15	11	8	15	11	15			10

注释:
1)包括2.5在内。
2)直径系列7,8无规定值。
3)直径系列9无规定值。
4)法兰轴承暂无规定值。
5)本标准适用于深沟球轴承。

Note:
1)Including 2.5
2)No rate value for diameter series 7,8
3)No values for shielded and sealed bearings.
4)No values for flanged bearings.
5)Fit for groove ball bearings.

轴承游隙的选用 SELECTION OF BEARING CLEARANCE

轴承游隙的大小直接关系到轴承在使用时的噪音、振动、温升、使用寿命和装配后的机械运动效果。因此选用适合的装配轴承游隙至关.重要，先根据径向游隙大小范围，从小到大分为C2、C0、C3、C4及C5，具体可以参照图表:

The size of bearing clerance d rectly related to the use of noise. vibration. normal temperature. service life and the assembly of machinery motion effect.Tnerefore, it isvery important that we choose the suitable assembly Jearing clearance . We divided from smallto big according to radial clearance range intoC2、C0、C3、C4 and C5.Specific reference see the chart:

Bore				C2		C0		C3		C4		C5	
Over		Including											
mm	Inch	mm	Inch	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
2.5	0.0984	10	0.3937	0	7	2	13	8	23	14	29	20	37
10	0.3937	18	0.7087	0	9	3	18	11	25	18	33	25	45
18	0.7887	24	0.9449	0	10	5	20	13	28	20	36	28	48
24	0.9449	30	1.1811	1	11	5	20	13	28	23	41	30	53
30	1.1811	40	1.5748	1	11	6	20	15	33	28	46	40	64
40	1.5748	50	1.9685	1	11	6	23	18	36	30	51	45	73
50	1.9685	65	2.5591	1	15	8	28	23	43	38	61	55	90

另外也可以参照下表选用轴承的游隙：
Also can consult the table below choose bearing clearance

使用场合The usage situation	用途举例Use examples	选用游隙Choose clearance
严格要求控制噪声，振动安装装配精密、定位高 Strict control noise, vibration Installation precision, high position	仪器、仪表设备压延机辊颈低噪音、小型电机 Instrument and equipmentRoll neck calender Low noise and small motor	C2、CO
一般载荷、转速、工作温度不高 General load,speed,working temperature is not high.	传动机械、减速机等通用机械 Transmission machinery, reducer and other general machinery	C0
高温高速、使用寿命要求高 High temperature,high speed,high requirements for service life	汽车发电机、发动机 Automobile generator and engine	C3
使用环境温度高、不宜散热的场合 Using high temperature environment,should not be the occasion of heat	烘干机、造纸机械等 Drying machine,paper making machinery,and so on.	C3、C4
高温高速、冲击载荷较大 High temperature,high speed,and large impact load	振动筛、速齿轮 Vibrating screen, speed gear	C4
内、外圈采用过盈配合，过盈量大，温度高，不散热 Inner and outer ring take the surplus interference, large volume, high temperature, heat dissipation	振动式压路、机汽车后轮 Vibration type pressure road,machine car rear wheel	C5

在实际使用中，:根据相应的情况调整选用的轴承游隙。理想的工作游隙应为接近零的游隙，因此轴承内的载荷分布状态最佳，寿命最长

In actua uS9, we adjust the selection of bearing clearance according to the corresponding situatinn. The ideal wn*k iclearance shonuld he close to zeroclearance. S0 bear ng load distribution is in the best condition. having the longest lifte.

轴承的润滑 LUBRICATION OF BEARING

轴承可以选用多种多样的油脂。根据不同的工作环境和轴承的操作情况，我们列出下列常用的油脂以方便客户挑选。除了下面列出的油脂外，还可以根据客户的要求添加其他油脂。

Baring can choose diversityofgreases.According to th diffrent work environment and bearing operation conditions, we used the following list of greases,in orderto convenience fr cits to choose.Basidesthese greases of the listed below,can also add other greases according to the reaquirements of our customers.

品牌 Brand	产品 Products	基油 Base oil	使用温度范围 Range of using temperature	特征 Character
协同 KYODO YUSHI	Multemp SRL	多羟基脂+二脂 Polyol ester+Diester	-50~+150	能有效抑制噪音，延长使用寿命 Can effectively restrain the noise,prolong service life
	Multemp Ps	二酯+精练矿物油 Diester+Refined mineral oil	-50~+130	适用于低温，能有效抑制噪音 Suitable forTow temperature,and restrain the noise effectively
	Multemp SM-B	合成经 Synthetic hydrocarbon	-50~+200	高温状态下作业寿命长，宜适用于低温，高速运转 Long life in the high temperature operation,appropriate used in low temperature;low torque in high speed running, low noise
	Multemp ET-K	合成醚+多羟基脂 Synthetic ether+Polyol ester	-40 ≥~+200	高温状态下延续作业寿命更长 High temperature condition continued work, having longer life
	RAREMAX SUPERN	合成油 Synthetic oil	-30 ~+200	高温长寿命脂 High temperature longevity grease
埃克森美孚 EXXON MOBILE	Polyrex EM	矿物油脂 Mineral grease	-40~+180	寿命长，耐高温 Long life and resist to high temperature
	Beacon325	人造油脂 Synthetic grease	-54~+150	普通用途油脂 common use grease
	Andok C	石油油脂 etroleum oil	-27~+120	滑动顺畅，最小滑动时寿命长 Move smoothly and when minimum sliding, has long service life.
埃克森美孚 EXXON MOBILE	Mobil28 (MIL-G-81322)	合成经 Synthetic hydrocarbon	-54~+177	温度范围广，扭矩低 Wide temperature range and low torque.
	Mobil HP	锂化合物 Lithium compounds	-30~+110	速度适中，有效抑制腐蚀 Moderate speed and inhibit the corrosion effectively.
弗龙 CHEVRON	SRI-2	矿物油脂 Mineral grease	-30~+180	温度范围广，防水效果好 Wide temperaturerange,waterproof effect is good.
壳牌 SHELL	Alvania 2	矿物油脂 Mineral grease	-35~+120	寿命长，耐高温 Long life and resist to high temperature
	RLQ#2	矿物油脂 Mineral grease	-50~+150	噪音低，速度快，耐高温 Low noise,fast speed,and resistant high temperature.
杜邦 PUPOIT	Krytox 240AC	氟化油脂 Fluoride grease	-35~+290	高温状态下稳定效果好，润滑效果强 Stability effect is good in high temperature,and lubrication effect is strong.
克鲁勃 KLUBER	ASONIC	合成经 Synthetic hydrocarbon	-50~+140	噪音低，寿命长，扭矩低 Low noise,long life and low torque.

轴承的振动和噪音等级可以分为四级：Z1，Z2，Z3和Z4。可以由S0910-1仪器检测出。根据特殊要求，可用BVT-1检测，并分为V1,V2,V3和V4。具体数据列表如下。客户下定单时应注明振动和噪音等级要求。

Bearing vibration and noise level an be divided into 4 levels:z1,2,73 and z4. Wecan detect by S0910-1 instrument. According to the special requirement, we can use BVT-1detection, and be divided into the V1,Vv2, v3 and V4.Speiffcdata are listd below.Customar' sorder should be inticated the wibration and noise level requirements.

单个轴承振动公差数据
Vibration tolerance data of single bearing

公差 um/s Tolerance um/s

内径 Bore Diancter	V			V1			V2			V3			V4		
毫米 Mm	低频 L	中频 M	高频 H	低频 L	中频 M	高频 H	低频 L	中频 M	高频 H	低频 L	中频 M	高频 H	低频 L	中频 M	高频 H
3,4	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10
5,6	110	72	60	74	48	40	58	36	30	35	21	18	32	11	11
7,8,9	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12
10,12	160	120	100	120	80	70	90	60	50	55	35	30	45	14	14
15	210	150	120	150	100	85	110	78	60	65	46	35	52	18	18
17	210	150	120	150	100	85	110	78	60	65	46	35	52	25	25
20	260	190	150	180	125	100	130	100	75	80	60	45	60	25	25
22,25	260	190	150	180	125	100	130	100	75	80	60	45	60	30	32
28	260	190	150	180	125	100	130	100	75	80	60	45	60	35	40
30,32	300	240	190	200	150	130	150	120	100	90	75	60	70	35	40
35	300	240	190	200	150	130	150	120	100	90	75	60	70	42	45
40	360	300	260	240	180	160	180	150	130	110	90	80	82	50	50
45	360	300	260	240	180	160	180	150	130	110	90	80	82	60	60
50	420	320	320	280	200	200	210	160	160	125	100	100	95	70	70

轴承振动与噪音 BEARING VIBRATION AND NOISE

单个轴承最大振动加速度
The maximum vibration acceleration of single bearing.

公差dB Tolerance dB

内径 Bore Diancter	直径系列(0) Diameter series(o)				直径系列(2) Diameter series(2)					直径系列(3) Diameter series(3)				
毫米 Mm	Z	Z1	Z2	Z3	Z	Z1	Z2	Z3	Z4	Z	Z1	Z2	Z3	Z4
5	37	36	34	30	38	37	34	32	-	39	39	37	33	-
6	37	36	34	30	38	37	34	32	-	39	39	37	33	-
7	39	38	35	31	40	38	36	34	-	-	-	-	-	-
8	39	38	35	31	40	38	36	34	-	-	-	-	-	-
9	41	40	36	32	42	40	37	35	-	-	-	-	-	-
10	43	42	38	33	44	42	39	35	30	37	37	44	37	32
12	44	43	39	34	45	43	39	35	30	47	47	45	37	32
15	45	44	40	35	46	44	41	36	31	48	48	46	38	33
17	46	44	40	35	47	45	41	36	31	49	49	47	38	33
20	47	45	41	36	48	46	42	38	33	50	50	48	39	34
22	47	45	41	36	48	46	42	38	33	50	50	48	39	34
25	48	46	42	38	49	47	43	40	36	51	51	49	41	37
28	49	47	43	39	50	48	44	41	37	52	52	50	42	38
30	49	47	43	39	50	48	44	41	37	52	52	50	42	38
32	50	48	44	40	51	49	45	42	38	53	53	51	43	39
35	51	49	45	41	52	50	46	43	39	54	54	52	44	40
40	53	51	46	42	54	52	47	44	40	56	56	45	45	41
45	55	53	48	45	56	54	19	46	43	58	58	56	47	44
50	57	54	50	47	58	55	51	48	45	60	60	57	49	46

轴承处理 BEARING PROCESSING

轴承是精确的零部件,为保持轴承的精确度和可靠度,操作时必须小心处理,特别要保持轴承的清洁,避免强烈碰撞和锈。

The bearing is of precise components, in order to maintain the bearing' s accuracy and reliability, theo pera tion must be handled with care,particularlytomaintain bearing cleaning, avoid violent collision and rust.

一、轴承的保存 Bearing preservation

公司生产的轴承在表面都附有防锈剂,要保存在室温,相对湿度低于60%。

There are antirust on the bearing surface in company productions, which should be stored in room tempera- ture,and the relative humidity below 60%.

二、安装前的准备 IPreparation before installation

轴承应安装在清洁的,干燥的地方, 特别是对微小轴承来说, - -定要清洁的地方,因为任何污染微粒都会对轴承的功效产生很大的影响。

The bearing should be installed in a clean,dry place, especially for micro bearing. Be sure to clean theplace, because any prticulate contamination will haveinfluence on the bearing function.

在安装前,所有的安装工具、轴、轴承座和相应的部件都要干净,任何毛刺与碎屑都要尽可能地除去。同时还要检查轴和轴承座切合面的粗糙度、尺寸和设计的精确度,确保它们在允许的公差范围内。

Before installation, all the installation tools, axis,bearing seat and the corresponding parts are clean, no burr and debris should be removed. At the same time,checkthe axis and the bearing seat with surface roughness,size and the accuracy of design, ensure that they are within the permitted tolerances.

安装准备工作没完成前,不要拆开轴承的包装,以免污染。通常情况下,带油脂润滑剂的轴承在安装时不用除去防锈剂。但对于用油润滑的或在油脂和防锈剂会导致润滑效果降低的情况下,防锈剂要用苯或石油溶剂洗去,并在使用前弄干。如果包装已损坏或轴承已受到污染,那么在使用前应清洗并弄干。带防尘盖和密封圈的轴承不能被清洗。

Before the istallation preparation is not ready, do not disassemble bearing packaging, in order to avoid pollutin.usually,the bearing withgrease lubricantdon' t remove the antirust when istallation. But the situation for oil lubrication or in oil with antirust causing the reduced lubricating effect,the antirust shouldbe washed by benzene 0r oil solvent.and make dry before use.If the package is damaged or bearing has been contaminated, it should be clean and dry before use.The shielded and sealed bearing can not be cleaned.

三、轴承的安装说明 Instructions of bearing installation

轴承装配时应选在一个没有灰尘和水气及腐蚀性气体的环境下进行,以保证轴承清洁和安装精度,防止异物进入到轴承内部造成损伤和轴承表面锈蚀。安装所使用的机械零件,应根据图纸检查相应的尺寸精度是否符合要求,配合面要经吹,洗干净,特别要注意配合面上不能有金属碎片,轴承室内不能有盲孔等问题。对于过盈配合的轴承,建议在装配前对轴承预热使轴承内孔径膨胀后装配,以减少对轴承的损伤。根据用户使用经验,过盈配合的轴承,其内部游隙减少量为过盈量的55% - 75% ,主要因配合材料的不同产生差异,密度高的材料轴承游隙收缩量大,反之则小。轴承在装入轴或外壳孔内时,应避免轴承内的滚珠和套圈滚动面集中受外力冲击而损坏。

Bearing assembly elected under the environment of no dust and moisture and corrosive gas, to ensure clean and installation accuracy ,to prevent other thingsinto internal bearing causing damage and surface corrosion.Install the use of mechanical parts, should be based on the size of the corresponding drawing,to check whether precision requirements and cooperate to blowand wash the surface clean .Special attention should be paid to cooperate with face no metal fragments,and bearing indoor cannot have blind holes,etc.For interference ftted bearing,advice that before assembly to preheat bearings inside aperture expansion,in order to reduce the damage for bearing. Accordingto the user experience, interference with the bearings, and its internal clearance for surplus quantity decrease from 55% to 75%, mainly because of the differentmaterials with high de nsity differences. The high density material of bearing clearance is shrink large,otherwise,to become small.Bearing in shaft or hole in shell, should avoid the damage from the ball and rolling surface within the external force impact.

四、轴承的拆卸 The disassembly of bearing

在更换其他零件时，轴承是周期性要检测的部件。而且，轴和轴承座也经常更换，有的情况，轴承也要替换。轴承、轴、轴承座和其它相关的零部件的设计要能防止在拆卸时有损坏产生，同时要使用正确的拆卸工具。要拆卸有过盈配合的内外圈时，作用力只能加在受力的那个圈上，不能作用在轴承的其他部位，因为这可能会对轴承滚道或滚动体造成内部损坏

In replacing other parts, bearing is periodically to detect the components. Moreover, a anxis and a bearing seat are also changed frequently, in some cases, bearing need toreplace,too. Bearing, anxis, bearing seat and other parts of the design should prevent damage when disassembly of bearing, at the same time, use the correct removal tools. Toremove a interference fit with inside and outs ide ring.force can be added only to the forced ring. not in other parts of the bearing, be cause it may causes the nternal damage onbearing raceway or rolling body.

相应对策 CORRESPONDING COUNTERMEASURES

五、轴承异常运转状态及相应对策

Bearing abnormal operation condition and the corresponding countermeasures

状态Conditions	推测原因Speculate reasons	措施Measures
异常升温 Abnormal temperature rise	润滑脂过多过少 Grease too much or too little	核实后注入适量的润滑剂 After checking,inject the right amount of lubricant.
	负荷增大 Load increased	调整负荷，修改轴承游隙或配合间隙 Adjust load,and modify bearing clearance or cooperate with clearance.
	安装不良 Bad installation	提高与轴承配合的加工、安装精度，预紧力的大小 Improve the bearing process, installation accuracy, and the size of the prestressing force.
	配合面蠕动或轴承外部摩擦 Cooperate with surface peristalsis or bearing external friction	调整配合精度或换轴承 Adjust precision or change the bearing.
振动大 Big vibration	安装不良 Bad installation	修正轴或外壳的配合精度，预紧力调整 Fixed axis or shell with precision, and adjust the preload.
	异物侵入 Other things invasion	提高轴、外壳配合面上洁净度，改善安装方式 Improve the shaft and shell surface cleanliness, and improve the installation way.
	轴承磨损或变形 Bearing wear or deformation	更换轴承 Change the bearing
油脂外漏或变色 Oil leakage or discoloration	润滑脂过多或密封不牢，外界油、水侵入等 Too much grease or seal rickety, outside oil, water invasion, etc	调整注脂量或更换密封形式，改善轴承工作环境 Adjust the grease capacity or replace the seal form, and improve the bearing work environment.
噪声大 Big noise	轴承磨损或变形 Bearing wear or deformation	更换轴承 Change the bearing
	异物侵入 Other things invasion	清洗零件，更换密封装置，使用干净的脂 Clean parts, replace the seal device, and use clean grease.

以上仅为一些常见异常现象,具体要根据轴承产品的实际使用情况查找原因,制定可行的解决方案.

Above are only some common anomalies, according to the actual use situation in bearing, we can find out the reasons,and make out the feasible solution.

六、轴承常见损伤及相应对策

Common injury and corresponding countermeasures in bearings

类型Types	损伤现象Damage phenomenon	原因Speculate	措施Measures
剥离 Stripping	滚道表面及滚动表面层部分出现鱼鳞状损伤。 Groove surface and part of the rolling surface have damage like fish scales.	轴承内部游隙过小　润滑脂不当或不足轴向负荷变化 锈蚀　安装不良 Bearing internal clearance is too small Improper or inadequate greaseAxial load changed Corrosion　Bad installation	选取合适的轴承内部游隙 重新选择润滑方式和润滑脂轴承配套轴向间隙重新选取 对轴承进行全面防锈处理合理制定配合精度 Choose the suitable internal bearing clearance To choose lubrication method and grease To select the supporting bearing axial clearance Comprehensive anti-rust process to bearing Establish a reasonable accuracy
外圈、内圈断裂 Outer and inner ring fracture		过盈量大　冲击载荷过大 剥离或烧伤的扩展 配合轴或外壳圆角过大 Interference larger　Large impact load Stripping or burn extension Cooperate with shaft or shell round is too large	选取合适的配合　设定稳定载荷 配合面上的圆角小于轴承倒角 Choose the suitable cooperation　Set stable load Rounded corners on cooperate surface is less than bearing corner
电蚀 electrolytic corrosion	滚动表面出现由于电火花产生的熔点，表面有很小的凹坑 Rolling surface appears edm produce the melting point, and the surface has a small indentation.	电流通过轴承产生火花 Current through the bearing produced sparks.	轴承实行绝缘 设置旁路使电流不通过轴承 Implement insulation in bearing Set current bypass not through bearing
锈蚀，腐蚀 Rust corrosion	轴承表面、滚面产生锈蚀 Bearing surface and roll surfaces are rusted.	环境中湿度较大 有水或腐朽性物质进入轴承内部 Environment humidity is bigger. There is water or corrosion material into the internal bearing.	改善密封装置、改善轴承存放环境 Improve sealing device and improve bearing storage environment
蠕变 creep deformation	运动时出现套圈相对轴或外壳轴向移动 Rings movement relative axis or axial shell.	套筒紧固不够　过盈不足 Sleeve tighten is not enough. Interference shortage	适当加强紧固　增大过盈量 Appropriate strengthen Increase the interference
保持器断裂 Holder rupture	有变形、磨损、断裂 There is distortion, wear and fracture.	冲击、力矩过大　滑润不当 安装不良倾斜 Shock and torque is too large Improper lubricant Bad installation	重新设定负荷大小　重新选取合适的润滑方式减小安装误差，改进安装方法 Reset load　To choose the suitable lubricant type Reduce the installation error, improve installation method

以上仅为一些常见异常现象,具体要根据轴承产品的实际使用情况查找原因,制定可行的解决方案.

Above are only some common anomalies, according to the actual use situation in bearing, we can find out the reasons,and make out the feasible solution.

轴承规格67系列 BEARING SIZE 67 SERIES

轴承代码 Bearing No	外径尺寸										额定负荷		参考重量（闭式） kg
	内径 d mm inch		外径 D mm inch		宽度 B 开式 mm inch		宽度 B 闭式 mm inch		倒角 r_{smin} mm inch		动负荷 Cr N	静负荷 Cr N	
603	3	0.1181	9	0.3543	3	0.1181	3	0.1181	0. 2	0. 008	486	223	0. 0014
604	4	0.1575	12	0.4724	4	0.1575	4	0.1575	0. 2	0. 008	960	350	0. 0023
605	5	0.1969	14	0.5512	5	0.1969	5	0.1969	0. 2	0. 008	1070	420	0. 0037
606	6	0.2362	17	0.6693	6	0.2362	6	0.2362	0. 3	0. 012	1960	730	0. 0069
607	7	0.2756	19	0.7480	6	0.2362	6	0.2362	0. 3	0. 012	2800	1060	0. 0082
608	8	0.3150	22	0.8661	7	0.2756	7	0.2756	0. 3	0. 012	3290	1360	0. 0129
609	9	0.3543	24	0.9449	7	0.2756	7	0.2756	0. 3	0. 012	3330	1410	0. 0160
6000	10	0.3937	26	1.0236	8	0.3150	8	0.3150	0. 3	0. 012	4160	1780	0. 0190
6001	12	0.4724	28	1.1024	8	0.3150	8	0.3150	0. 3	0. 012	5110	2380	0. 0220
6002	15	0.5906	32	1.2598	9	0.3543	9	0.3543	0. 3	0. 012	5590	2840	0. 0300
6003	17	0.6693	35	1.3780	10	0.3937	10	0.3937	0. 3	0. 012	6000	3250	0. 0390
6004	20	0.7874	42	1.6535	12	0.4724	12	0.4724	0. 6	0. 024	9390	5020	0. 0690
6005	25	0.9843	47	1.8504	12	0.4724	12	0.4724	0. 6	0. 024	10060	5860	0. 0800
6006	30	1.1811	55	2.1654	13	0.5118	13	0.5118	1	0. 039	11900	7460	0. 1160
6007	35	1.3780	62	2.4409	14	0.5512	14	0.5512	1	0. 039	16210	10420	0. 1550
6008	40	1.5748	68	2.6772	15	0.5906	15	0.5906	1	0. 039	17030	11700	0. 1920
6009	45	1.7717	75	2.9528	16	0.6299	16	0.6229	1	0. 039	21080	14780	0. 2450
6010	50	1.9685	80	3.1496	16	0.6299	16	0.6229	1	0. 039	22000	16260	0. 2610

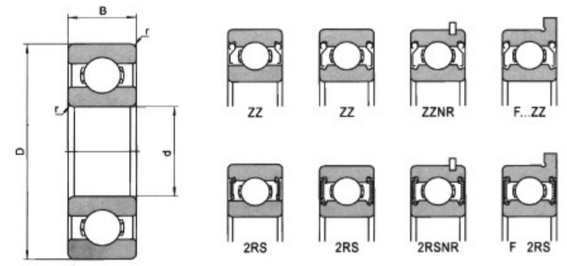
轴承规格62系列 BEARING SIZE 62 SERIES

轴承型号	外径尺寸										额定负荷		参考重量（闭式） kg
	内径 d mm inch		外径 D mm inch		宽度 B 开式 mm inch		宽度 B 闭式 mm inch		倒角 r_{smin} mm inch		动负荷 Cr N	静负荷 Cr N	
623	3	0.1181	10	0.3937	4	0.1575	4	0.1575	0.15	0.006	640	220	0.0016
624	4	0.1575	13	0.5118	5	0.1969	5	0.1969	0.2	0.008	1150	400	0.0032
625	5	0.1969	16	0.6299	5	0.1969	5	0.1969	0.3	0.012	1880	680	0.0051
626	6	0.2362	19	0.7480	6	0.2362	6	0.2362	0.3	0.012	2800	1060	0.0086
267	7	0.2756	22	0.8661	7	0.2756	7	0.2756	0.3	0.012	3290	1360	0.0131
628	8	0.3150	24	0.9449	8	0.3150	8	0.3150	0.3	0.012	3330	1410	0.0170
629	9	0.3543	26	1.0236	8	0.3150	8	0.3150	0.3	0.012	4160	1780	0.0191
6200	10	0.3937	30	1.1811	9	0.3543	9	0.3543	0.6	0.024	5110	2380	0.0320
6201	12	0.4724	32	1.2598	10	0.3937	10	0.3937	0.6	0.024	6180	3060	0.0370
6202	15	0.5906	35	1.3780	11	0.4331	11	0.4331	0.6	0.024	7450	3700	0.0450
6203	17	0.6693	40	1.5748	12	0.4724	12	0.4724	0.6	0.024	9560	4780	0.0650
6203/42	17	0.6693	42	1.6535	12	0.4724	12	0.4724	0.6	0.024	9560	4780	0.0650
6204	20	0.7874	47	1.8504	14	0.5512	14	0.5512	1	0.039	12840	6650	0.1060
6205	25	0.9843	52	2.0472	15	0.5906	15	0.5906	1	0.039	14020	7930	0.1280
6206	30	1.1811	62	2.4409	16	0.6299	16	0.6299	1	0.039	19460	11310	0.1990
6207	35	1.3780	72	2.8346	17	0.6693	17	0.6693	1.1	0.043	25670	15300	0.0880
6208	40	1.5748	80	3.1496	18	0.7087	18	0.7087	1.1	0.043	29520	18140	0.3660
6209	45	1.7717	85	3.3465	19	0.7480	19	0.7480	2.0	0.079	31500	20500	0.4160
6210	50	1.9685	90	3.5433	20	0.7874	20	0.7874	2.0	0.079	35000	23200	0.5000

轴承规格63系列 BEARING SIZE 63 SERIEs

轴承型号	外径尺寸								额定负荷		参考重量（闭式）kg
	内径 d mm	inch	外径 D mm	inch	宽度 B 开式 mm	inch	宽度 B 闭式 mm	inch	倒角 r_{smin} mm	inch	动负荷 Cr N	静负荷 Cr N	
634	4	0.1575	16	0.6299	5	0.1969	5	0.1969	0.3	0.012	1880	680	0.0054
635	5	0.1969	19	0.7480	6	0.2362	6	0.2362	0.3	0.012	2810	1060	0.0089
636	6	0.2362	22	0.8661	7	0.2756	7	0.2756	0.3	0.012	3290	1360	0.0145
637	7	0.2756	26	1.0236	9	0.3543	9	0.3543	0.3	0.012	3340	1410	0.0258
638	8	0.3150	28	1.1024	9	0.3543	9	0.3543	0.3	0.012	4160	1780	0.0303
639	9	0.3543	30	1.1811	10	0.3937	10	0.3937	0.6	0.024	5120	2390	0.0371
6300	10	0.3937	35	1.3780	11	0.4331	11	0.4331	0.6	0.024	7640	3470	0.0530
6301	12	0.4724	37	1.4567	12	0.4724	12	0.4724	1	0.039	9700	4190	0.0600
6302	15	0.5906	42	1.6535	13	0.5118	13	0.5118	1	0.039	11400	5430	0.0820
6303	17	0.6693	47	1.8504	14	0.5512	14	0.5512	1	0.039	13580	6580	0.1150
6304	20	0.7874	52	2.0472	15	0.5906	15	0.5906	1.1	0.043	15940	7880	0.1490
6305	25	0.9843	62	2.4409	17	0.6693	17	0.6693	1.1	0.043	22380	11490	0.2320
6306	30	1.1811	72	2.8346	19	0.7480	19	0.7480	1.1	0.043	27000	15200	0.349
6307	35	1.3780	80	3.1496	21	0.8268	21	0.8268	2.5	0.098	33400	19300	0.457
6308	40	1.5748	90	3.5433	23	0.9055	23	0.9055	2.5	0.098	40800	24000	0.639
6309	45	1.7717	100	3.9370	25	0.9843	25	0.9843	2.5	0.098	52800	31800	0.837
6310	50	1.9685	110	4.3307	27	1.0630	27	1.0630	3.0	0.118	62000	38000	1.07
6311	55	2.1654	120	4.7244	29	1.1417	29	1.1417	3.0	0.118	71500	45000	1.39
6312	60	2.3622	130	5.1181	31	1.2205	31	1.2205	3.5	0.138	82000	48500	1.71
63/22	22	0.8661	56	2.2047	16	0.6299	16	0.6299	1.1	0.043	18400	9250	0.1760
63/28	28	1.1024	68	2.6772	18	0.7087	18	0.7087	1.1	0.043	28600	14000	0.2870
63/32	32	1.2598	75	2.9528	20	0.7874	20	0.7874	1.1	0.043	30000	16200	0.3820

深沟球轴承 DEEO GROOVE BALL BEARING



轴承型号	外径尺寸								额定负荷		参考重量（闭式）kg
	内径 d mm	inch	外径 D mm	inch	宽度 B mm	inch	宽度 B 闭式 mm	inch	倒角 r_{smin} mm	inch	动负荷 Cr N	静负荷 Cr N	
6700	10	0.3937	15	0.5906	3	0.1181	4	0.1575	0.1	0.004	800	390	0.0019
6701	12	0.4724	18	0.7087	4	0.1575	4	0.1575	0.2	0.008	910	530	0.0031
6702	15	0.5906	21	0.8268	4	0.1575	4	0.1575	0.2	0.008	850	490	0.0036
6703	17	0.6693	23	0.9055	4	0.1575	4	0.1575	0.2	0.008	960	610	0.0040
6704	20	0.7874	27	1.0630	4	0.1575	4	0.1575	0.2	0.008	1030	720	0.0059
6705	25	0.9843	32	1.2598	4	0.1575	4	0.1575	0.2	0.008	1090	830	0.0070
6706	30	1.1811	37	1.4567	4	0.1575	4	0.1575	0.2	0.008	1170	980	0.0083
6707	35	1.3780	44	1.7323	5	0.1969	5	0.1969	0.3	0.012	1850	1630	0.0150
6708	40	1.5748	50	1.9685	6	0.2362	6	0.2362	0.3	0.012	2519	2234	0.0230
6709	45	1.7717	55	2.1654	6	0.2362	6	0.2362	0.3	0.012	2577	2401	0.0250
6710	50	1.9685	62	2.4409	6	0.2362	6	0.2362	0.3	0.012	2666	2636	0.034
6711	55	2.1654	68	2.6772	7	0.2756	7	0.2756	0.3	0.012	2880	3070	0.0550

轴承规格68系列 BEARING SIZE 68 SERIES

轴承型号	外径尺寸 内径 d mm	inch	外径 D mm	inch	宽度 B 开式 mm	inch	宽度 B 闭式 mm	inch	倒角 r_{smin} mm	inch	额定负荷 动负荷 Cr N	额定负荷 静负荷 Cr N	参考重量（闭式） kg
684	4	0.1575	9	0.3543	2.5	0.0984	4	0.1575	0.1	0.004	480	170	0.001
685	5	0.1969	11	0.4331	3	0.1181	5	0.1969	0.15	0.006	770	320	0.0019
686	6	0.2362	13	0.5118	3.5	0.1378	5	0.1969	0.15	0.006	1080	440	0.0027
687	7	0.2756	14	0.5512	3.5	0.1378	5	0.1969	0.15	0.006	1170	510	0.003
688	8	0.3150	16	0.6299	4	0.1575	5	0.1969	0.2	0.008	1250	590	0.0038
689	9	0.3543	17	0.6693	4	0.1575	5	0.1969	0.2	0.008	1330	660	0.044
6800	10	0.3937	19	0.7480	5	0.1969	5	0.1969	0.3	0.012	1590	750	0.005
6801	12	0.4724	21	0.8268	5	0.1969	5	0.1969	0.3	0.012	1910	1040	0.006
6802	15	0.5906	24	0.9449	5	0.1969	5	0.1969	0.3	0.012	2070	1250	0.007
6803	17	0.6693	26	1.0236	5	0.1969	5	0.1969	0.3	0.012	2130	1360	0.008
6804	20	0.7874	32	1.2598	7	0.2756	7	0.2756	0.3	0.012	3480	2230	0.019
6805	25	0.9843	37	1.4567	7	0.2756	7	0.2756	0.3	0.012	3680	2630	0.022
6806	30	1.1811	42	1.6535	7	0.2756	7	0.2756	0.3	0.012	4000	3150	0.026
6807	35	1.3780	47	1.8504	7	0.2756	7	0.2756	0.3	0.012	4270	3600	0.029
6808	40	1.5748	52	2.0472	7	0.2756	7	0.2756	0.3	0.012	4410	3890	0.033
6809	45	1.7717	58	2.2835	7	0.2756	7	0.2756	0.3	0.012	4590	4330	0.04
6810	50	1.9685	65	2.5591	7	0.2756	7	0.2756	0.3	0.012	6610	6080	0.0520
6811	55	2.1654	72	2.8346	9	0.3543	9	0.3543	0.3	0.012	8530	8080	0.0830
6812	60	2.3622	78	3.0709	10	0.3937	10	0.3937	0.3	0.012	9200	8760	0.1060

轴承规格69系列 BEARING SIZE 69 SERIES

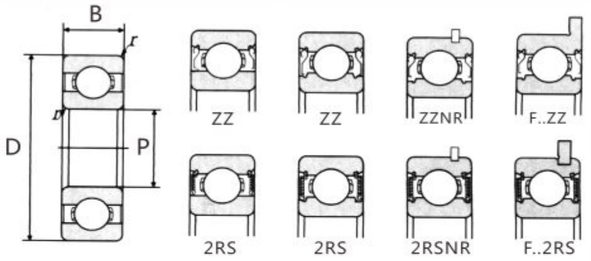
轴承型号	外径尺寸 内径 d mm	inch	外径 D mm	inch	宽度 B 开式 mm	inch	宽度 B 闭式 mm	inch	倒角 r_{smin} mm	inch	额定负荷 动负荷 Cr N	额定负荷 静负荷 Cr N	参考重量（闭式） kg
693	3	0.1181	8	0.3150	3	0.1181	4	0.1575	0.15	0.006	430	170	0.0008
694	4	0.1575	11	0.4331	4	0.1575	4	0.1575	0.15	0.006	960	350	0.0017
695	5	0.1969	13	0.5118	4	0.1575	4	0.1575	0.2	0.008	1070	420	0.0023
696	6	0.2362	15	0.5906	5	0.1969	45	0.1969	0.2	0.008	1470	600	0.0036
697	7	0.2756	17	0.6693	5	0.1969	5	0.1969	0.3	0.012	1600	710	0.0050
698	8	0.3150	19	0.7480	6	0.2362	6	0.2362	0.3	0.012	2230	910	0.0076
699	9	0.3543	20	0.7874	6	0.2362	6	0.2362	0.3	0.012	2480	1090	0.0085
6900	10	0.3937	22	0.8661	6	0.2362	6	0.2362	0.3	0.012	2690	1270	0.0100
6901	12	0.4724	24	0.9449	6	0.2362	6	0.2362	0.3	0.012	2890	1460	0.0120
6902	15	0.5906	28	1.1024	7	0.2756	7	0.2756	0.3	0.012	4320	2250	0.018
6903	17	0.6693	30	1.1811	7	0.2756	7	0.2756	0.3	0.012	4590	2550	0.19
6904	20	0.7874	37	1.4567	9	0.3543	9	0.3543	0.3	0.012	6370	3680	0.038
6905	25	0.9843	42	1.6535	9	0.3543	9	0.3543	0.3	0.012	6660	4180	0.044
6905	30	1.1811	47	0.18504	9	0.3543	9	0.3543	0.3	0.012	7240	5010	0.05
6907	35	1.3780	55	2.1654	10	0.3937	10	0.3937	0.6	0.024	10390	7160	0.75
6908	40	1.5748	62	2.4409	12	0.4724	12	0.4724	0.6	0.0.24	10320	9200	0.118
6909	45	1.7717	68	2.6772	12	0.4724	12	0.4724	0.6	0.024	13490	10130	0.128
6910	50	1.9685	72	2.8346	12	0.4724	12	0.4724	0.6	0.024	13900	10990	0.1330
6911	55	2.1654	80	3.1496	13	0.5118	13	0.5118	1	0.039	14820	12690	0.1770
6912	60	2.3622	85	3.3465	13	0.5118	13	0.5118	1	0.039	15080	13480	0.1910

轴承规格16系列 INCH 16 SERISE

★宽度(width)RS &2RS-5/16英寸(irch)7.938毫米(mm)
△宽度(width)RS & 2RS=11/32英寸(inch)8.731毫米(m)

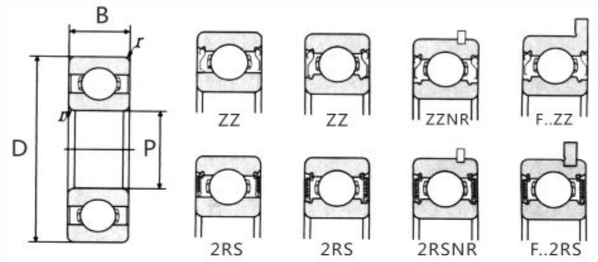
轴承代码 Bearing No	内径 Bore diameter D		外径 Outer diameter D		宽度 width W		倒角 Radius R		基本额定负荷 KN Basic rated load		球 Boll	
											组成状况 Composition condition	
	毫米 Mm	英寸 Inch	毫米 Mm	英寸 Inch	毫米 Mm	英寸 Inch	毫米 Mm	英寸 Inch	超负荷 Static load C	超负荷 Static load C0	粒数	尺寸 Oil 毫米
1601	4.763\.1875		17.4631\.6875		★6.350N\.2500		0.3\.012		1. 511	0. 724	6	3. 969
1602	6.350\.12500		17.463\.6875		★6.350\.2500		0.3\.012		1. 511	0. 724	9	2. 831
1603	7.938\.3125		22.225\.8750		△7.144\.2812		0.3\.012		2. 547	1. 342	7	3. 969
1604	9.525\.3750		22.225\.8750		△7.144\.2812		0.3\.012		2. 547	1. 342	7	3. 969
1605	7.938\.3125		23.019\.9062		7.938\.3125		0.3\.012		2. 547	1. 342	7	3. 969
1606	9.525\.3750		23.019\.9062		7.938\.3125		0.3\.012		2. 547	1. 342	7	3. 969
1607	11.113\.4375		23.019\.9062		7.938\.3125		0.3\.012		3. 556	1. 938	7	3. 969
1614	9.525\.3750		28.5751\.1250		9.525\.3750		0.3\.012		3. 921	2. 245	8	4. 763
1615	11.113\.4375		28.575\.1250		9.525\.3750		0.3\.012		3. 921	2. 245	8	4. 763
1616	12.700\.5000		28.575\.1250		9.525\.3750		0.3\.012		3. 921	2. 245	8	4. 763
1620	11.113\.4375		34.925\.3750		11.113\.4375		0.6\.024		5. 881	3. 471	10	4. 763
1621	12.700\.5000		34.925\.3750		11.113\.4375		0.6\.024		5. 881	3. 471	10	4. 763
1622	14.288\.5625		34.925\.3750		11.1131\.4375		0.6\.024		5. 881	3. 471	10	4. 763
1623	15.875\.6250		34.925\.3750		11.113\.4375		0.6\.024		5. 881	3. 471	10	4. 763
1628	15.875\.6250		41.2751\.6250		12.700\.5000		0.6\.024		7. 232	4. 45	9	6. 35
1630	19.050\.7500		41.2751\.6250		12.700\.5000		0.6\.024		7. 232	4. 45	9	6. 35
1633	15.875\.6250		44.4501\.7500		12.700\.5000		1.0\.039		7. 232	4. 45	9	6. 35
1635	19.050\.7500		44.4501\.7500		12.700\.5000		1.0\.039		7. 232	4. 45	9	6. 35

英制R系列 ENGLISH R SERIES



轴承型号	外径尺寸 内径 d mm	inch	外径 D mm	inch	宽度 B 开式 mm	inch	宽度 B 闭式 mm	inch	倒角 r_{smin} mm	inch	额定负荷 动负荷 Cr N	静负荷 Cr N	参考重量（闭式） kg
R2	3.175	0.125	9.525	0.375	3.969	0.1563	3.969	0.1563	0.3	0.012	640	226	0.0014
R2A	3.175	0.125	12.7	0.5	4.366	0.1719	4.366	0.1719	0.3	0.012	640	226	0.0033
R3	4.762	0.1875	12.7	0.5	3.969	0.1563	4.978	0.196	0.3	0.012	1310	485	0.0029
R3A	4.762	0.1875	15.875	0.625	4.978	0.196	4.978	0.196	0.3	0.012	1470	600	0.0047
R4	6.35	0.25	15.875	0.625	4.978	0.196	4.978	0.196	0.3	0.012	1470	600	0.0045
R4A	6.35	0.25	19.05	0.75	5.556	0.2187	7.144	0.2813	0.4	0.016	2410	911	0.01
R6	9.525	0.375	22.225	0.875	5.556	0.2187	7.144	0.2813	0.4.	0.016	3350	1410	0.0117
R8	12.7	0.5	28.575	1.125	6.35	0.25	7.938	0.3125	0.4	0.016	5110	2380	0.021
R10	15.875	0.625	34. 925	1.375	7.144	0.2813	8.731	0.3437	0.8	0.032	6000	3250	0.0367
R12	19.05	0.75	41.275	1.625	7.938	0.3125	11.112	0.4375	0.8	0.032	8370	4520	0.063
R14	22.225	0.875	47.625	1.875	9.525	0.375	12.7	0.5	0.8	0.032	10060	5920	0.097
R16	25.4	1	50.8	2	9.525	0.375	12.7	0.5	0.8	0.032	10060	5920	0.107
R18	28.575	1.125	53.975	2.125	9.525	0.375	12.7	0.5	0.8	0.032	11900	7460	0.122
R20	31.75	1.25	57.15	2.25	9.525	0.375	12.7	0.5	0.8	0.032	13230	8300	0.125
R22	34.925	1.375	63.5	2.5	11.112	0.4375	14.288	0.5625	0.8	0.032	16210	10420	0.165
R24	38.1	1.5	66.675	2.625	11.112	0.4375	14.288	0.5625	0.8	0.032	17030	11700	0.172
R144	3.175	0.125	6.35	0.25	2.779	0.1094	2.779	0.1094	0.08	0.003	294	98	0.0003
R155	3.969	0.1563	7.938	0.3125	2.779	0.1094	3.175	0.125	0.08	0.003	392	147	0.00055
R156	4.762	0.1875	7.938	0.3125	3.175	0.1094	3.175	0.125	0.08	0.003	392	147	0.00045
R166	4.762	0.1875	9.525	0.375	3.175	0.125	3.175	0.125	0.08	0.003	715	274	0.0008
R168	6.35	0.25	9.525	0.375	3.175	0.125	3.175	0.125	0.08	0.003	421	205	0.0006
R186	4.762	0.1875	12.7	0.5	2.779	0.1094	3.969	0.1563	0.13	0.005	1313	490	0.002
R188	6.35	0.25	12.7	0.5	3.175	0.125	4.762	0.1875	0.13	0.005	833	372	0.002
R1810	7.938	0.3125	12.7	0.5	3.969	0.1563	3.969	0.1563	0.13	0. 005	882	421	0.0017

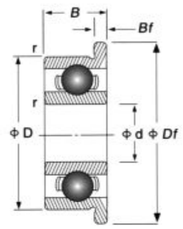
MR系列 MR SERIES



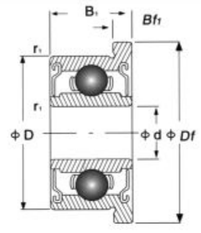
轴承型号	外径尺寸 内径 d mm inch		外径 D mm inch		宽度 B 开式 mm inch		宽度 B 闭式 mm inch		倒角 r_{smin} mm inch		额定负荷 动负荷 Cr N	额定负荷 静负荷 Cr N	参考重量（闭式）kg
MR52	2	0.0787	5	0.1968	1.5	0 0590	2.5	0.0984	0.1	0.004	181	78	-
MA62	2	0.0787	6	0.2362	-	-	2.5	0.0984	0.1	0.004	181	78	-
MR72	2	0.0787	7	0.2756	-	-	3	0.1181	0.1	0.004	181	78	-
MR63	3	0.1181	6	0.2362	2	0.0787	2.5	0.0984	0.1	0.004	181	78	-
MR83	3	0.1181	8	0.3150	3	0.1181	4	0.1575	0.1	0.004	181	78	-
MR93	3	0.1181	9	0.3543	3	0.1181	4	0.1969	0.1	0.004	181	78	-
MR74	4	0.1575	7	0.2756	2	0.0787	2.5	0.0984	0.1	0.004	181	78	-
MR84	4	0.1675	8	0.3150	2	0.0787	3	0.1181	0.1	0.004	181	78	0.00056
MR85	5	0.1969	8	0.3150	2	0.0787	2.5	0.0984	0.008	0.003	181	78	0.00025
MR95	5	0.1969	9	0.3543	2.5	0.0984	3	0.1181	0.15	0.006	332	142	0.00058
MR104	4	0.1575	10	0.3937	3	0.1181	4	0.1575	0.15	0.006	715	265	0.00133
MA105	5	0.1969	10	0.3937	3	0.1181	4	0.1575	0.15	0.008	460	196	0.00126
MA106	6	0.2362	10	0.3937	2.5	0.0984	3	0.1181	0.1	0.004	460	196	0.00070
MR115	5	0.1969	11	0.4331	4	0.1575	4	0.1575	0.15	0.006	735	284	0.00062
MR117	7	0.2756	11	0.4331	2.5	0.0984	3	0.1181	0.1	0.004	450	206	0.00071
MR126	6	0.2362	12	0.4724	3	0.1181	4	0.1575	0.15	0.006	774	329	0.00166
MR128	8	0.3150	12	0.4724	2.5	0.0984	3.5	0.1378	0.01	0.004	510	255	0.00099
MR137	7	0.2756	13	0.5118	3	0.1181	4	0.1575	0.15	0.006	715	265	0.00201
MR148	8	0.3150	14	0.5512	3.5	0.1378	4	0.1575	0.15	0.006	715	265	0.00219
MR166	6	0.2362	16	0.6299	6	0.2362	6	0.2362	0.15	0.006	1470	600	0.00580

F法兰轴承系列 FIANGED BAILBEARING SERIES

内径
5-9(mm)
Bore
5~9(mm)



Open type

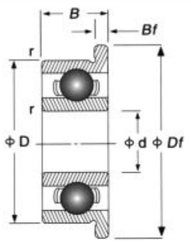


Shielded type(ZZ)

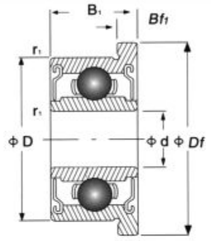
外形尺寸(mm) d	D	B	B1	r1	Df	Bf	Bf1	型号 开式	型号 防尘盖型	额定负荷 Cr	额定负荷 Cor	极限转速 *1000rpm
2	5	1.5	2.3	0.08	6.1	0.5	0.6	F682	F682ZZ	169	50	85
	5	2.0	2.5	0.10	6.2	0.6	0.6	FMR52	FMR52ZZ	169	50	85
	6	2.3	3	0.15	7.5	0.6	0.8	F692	F692ZZ	330	99	75
	7	2.5	3	0.15	8.2	0.6	0.6	MF72	MF72ZZ	386	129	75
	7	2.8	3.5	0.15	8.5	0.7	0.9	F602	F602ZZ	386	129	71
2.5	6	1.8	2.6	0.08	7.1	0.5	0.8	F682X	F682XZZ	209	74	80
	7	2.5	3.5	0.15	8.5	0.7	0.9	F692X	F692XZZ	386	129	75
	8	2.8	4	0.15	9.5	0.7	0.9	F602X	F602XZZ	552	177	60
3	6	2.0	2.5	0.10	7.2	0.6	0.6	MF63	MF63ZZ	209	74	80
	7	2	3	0.10	8.1	0.5	0.08	F683	F683ZZ	311	112	75
	8	3	4	0.15	9.5	0.7	0.9	F693	F693ZZ	558	180	67
	9	2.5	4	0.20	10.2	0.6	0.8	MF93	MF93ZZ	571	189	67
	9	3	5	0.15	10.5	0.7	1	F603	F603ZZ	571	189	67
	10	4	4	0.15	11.5	1	1	F623	F623ZZ	631	219	60
4	8	2	3	0.15	9.2	0.6	0.6	MF84	MF84ZZ	395	141	67
	9	2.5	4	0.10	10.3	0.6	1	F684	F684ZZ	641	227	63
	10	3	4	0.20	11.2	0.6	0.8	MF104	MF104ZZ	711	272	56
	11	4	4	0.15	12.5	1	1	F694	F694ZZ	957	350	56
	12	4	4	0.20	13.5	1	1	F604	F604ZZ	957	350	56
	13	5	5	0.30	15	1	1	F624	F624ZZ	1301	488	48
	16	5	5	0.30	18	1	1	F634	F634ZZ	1340	523	43
5	8	2.0	2.5	0.10	9.2	0.6	0.6	MF85	MF85ZZ	218	90	63
	9	2.5	3	0.15	10.2	0.6	0.6	MF95	MF95ZZ	431	169	60
	10	3	4	0.15	11.2	0.6	0.8	MF105	MF105ZZ	431	169	60
	11	-	4	0.15	12.6	-	0.8	-	MF115ZZ	716	282	53
	11	3	5	0.15	12.5	0.8	1	F685	F685ZZ	716	282	53
	13	4	4	0.20	15	1	1	F965	F695ZZ	1077	432	50
	14	5	5	0.20	16	1	1	F605	F605ZZ	1329	507	50
	16	5	5	0.30	18	1	1	F625	F625ZZ	1729	675	43
	19	6	6	0.30	22	1.5	1.5	F635	F635ZZ	2336	896	40

F法兰轴承系列 FIANGED BAILBEARING SERIES

内径
5-9(mm)
Bore
5~9(mm)



Open type

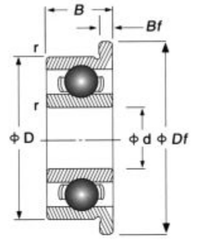


Shielded type(ZZ)

外形尺寸(mm)								型号		额定负荷		极限转速
d	D	B	B1	r1	Df	Bf	Bf1	开式	防尘盖型	Cr	Cor	*1000rpm
6	10	2.5	3	0.15	11.2	0.6	0.6	MF106	MF106ZZ	496	218	53
	12	3	4	0.2	13.6	0.6	0.8	MF126	MF126ZZ	714	295	50
	13	3.5	5	0.15	15	1	1.1	F686	F686ZZ	1082	442	50
	15	5	5	0.2	17	1.2	1.2	F696	F696ZZ	1340	523	45
	17	6	6	0.3	19	1.2	1.2	F606	F606ZZ	2263	846	45
	19	6	6	0.3	22	1.5	1.5	F626	F626ZZ	2336	896	40
	22	7	7	0.3	25	1.5	1.5	F636	F636ZZ	3287	1379	36
7	11	2.5	3	0.15	12.2	0.6	0.6	MF117	MF117ZZ	455	202	50
3	13	3	4	0.2	14.2	0.6	0.8	MF137	MF137ZZ	541	276	48
	14	3.5	5	0.15	16	1	1.1	F687	F687ZZ	1173	513	50
	17	5	5	0.3	19	1.2	1.2	F697	F697ZZ	1605	719	43
	19	6	6	0.3	22	1.5	1.5	F607	F607ZZ	2336	896	43
	22	7	7	0.3	25	1.5	1.5	F627	F627ZZ	3287	1379	36
8	12	2.5	3.5	0.15	13.6	0.6	0.8	MF128	MF128ZZ	543	274	48
	14	3.5	4	0.2	15.6	0.8	0.8	MF148	MF148ZZ	817	396	45
	16	4	5	0.2	18	1	1.1	F688	F688ZZ	1252	592	43
	16	-	6	0.2	18	-	1.1	-	WF688ZZ	1252	592	43
	19	6	6	0.03	22	1.5	1.5	F698	F698ZZ	2237	917	43
	22	7	7	0.03	25	1.5	1.5	F608	F608ZZ	3293	1379	40
	24	8	8	0.3	27	1.5	1.5	F628	F628ZZ	3333	1423	34
9	17	4	5	0.2	19	1	1.1	F689	F689ZZ	1327	668	43
	20	6	6	0.3	23	1.5	1.5	F699	F699ZZ	2467	1081	40
	24	7	7	0.3	27	1.5	1.5	F609	F609ZZ	3356	1444	38
	26	8	8	0.3	28	2	2	F629	F629ZZ	4579	1970	34
10	15	3	4	0.1	16.5	0.8	0.8	F6700	F6700ZZ	577	302	
	19	5	5	0.3	21	1	1	F6800	F6800ZZ	1600	756	34
	19	-	6	0.3	21	-	1	-	F62800ZZ	1600	756	34
	19	7	7	0.3	21	1.5	1.5	F63800	F63800ZZ	1600	756	34
	22	6	6	0.3	25	1.5	1.5	F6900	F6900ZZ	2696	1273	32
	26	8	8	0.3	28	2	2	F6000	F6000ZZ	4579	1970	34
	26	-	8	0.3	28	-	1.5	-	F6000ZZE	4579	1970	34
	30	-	9	0.6	32.25	-	2.25	-	F6200ZZ	5110	2390	30

F法兰轴承系列 FIANGED BAILBEARING SERIES

内径
5-9(mm)
Bore
5~9(mm)



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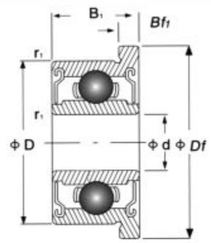
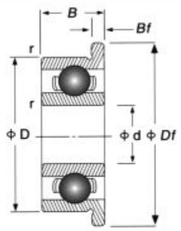


Shielded type(ZZ)

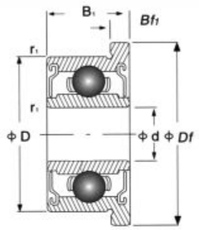
外形尺寸(mm)								型号		额定负荷		极限转速
d	D	B	B1	r1	Df	Bf	Bf1	开式	防尘盖型	Cr	Cor	*1000rpm
12	18	4	4	0.2	19.5	0.8	0.8	F6701	F6701ZZ	880	491	30
	21	5	5	0.3	23	1.1	1.1	F6801	F6801ZZ	1917	1042	30
	21	7	7	0.3	23	1.5	1.5	F63801	F63801ZZ	1917	1042	30
	24	6	6	0.3	26.5	1.5	1.5	F6901	F69012ZZ	2892	1454	28
	28	8	8	0.3	30	-	2	-	F6001ZZ	5114	2387	26
	32	-	10	0.6	34.5	-	2.5	-	F6201ZZ	6819	3060	26
15	21	4	4	0.2	22.5	0.8	0.8	F6702	F6702ZZ	846	498	-
	24	5	5	0.3	26	1.1	1.1	F6802	F6802ZZ	2075	1257	28
	28	7	7	0.3	30.5	1.5	1.5	F6902	F6902ZZ	4032	2029	26
	32	9	9	0.6	34.25	2.25	2.25	F6002	F6002ZZ	5590	2840	26
	35	11	11	0.6	37.75	-	2.75	-	F6202ZZ	7635	3722	23
17	23	4	4	0.2	24.5	0.8	0.8	F6703	F6703ZZ	871	534	-
	26	5	5	0.3	28	1.1	1.1	F6803	F6803ZZ	2136	1368	26
	26	-	7	0.3	28	-	1.5	-	F63803ZZ	2136	1368	26
	30	7	7	0.3	32.5	1.5	1.5	F6903	F6903ZZ	4596	2551	24
	35	10	10	0.6	37.5	2.5	2.5	F6003	F6003ZZ	6000	3250	24
	40	12	12	0.6	43	3	3	F6203	F6203ZZ	9570	4790	21
20	32	7	7	0.3	35.00	1.5	1.5	F6804	F6804ZZ	3480	2230	22
	37	9	9	0.3	40	2.2	2.2	F6904	F6904ZZ	6370	3680	22
	42	8	-	0.6	45	2	2	F16004	-	-	-	20
	42	-	12	0.6	45	-	-	-	F6004ZZ	9390	5020	21
25	37	7	7	0.3	40	1.5	1.5	F6805	F6805ZZ	3832	2800	19
	42	9	9	0.3	45	2	2	F6905	F6905ZZ	6660	4180	18
	47	12	12	0.6	50	3	3	F6005	F6005ZZ	10060	5850	18
30	42	7	7	0.6	45	1.5	1.5	F6806	F6806ZZ	4000	3150	17
	47	9	9	0.3	50	2.25	2.25	F6906	F6906ZZ	7240	5010	16
	55	13	13	0.6	58.25	3.25	3.25	F6006	F6006ZZ	13230	8300	15
35	55	10	10	0.60	58	2.50	2.50	F6907	F6907ZZ	10390	7160	
	47	7	7	0.3	50	1.50	1.50	F6807	F6807ZZ	42700	3600	

法兰英制轴承系列 FLANGE INCH BEARING SERIES

内径
5-9(mm)
Bore
5~9(mm)



Open type



Shielded type(ZZ)

外形尺寸(mm)								型号		额定负荷		极限转速
d	D	B	B1	rs	Df	Bf	Bf	开式	防尘盖型	Cr	Cor	*1000rpm
3.175	7.938	2.779	3.571	0.1	9.119	0.584	10.787	FR2-5	FR2-5ZZ	558	180	67
	9.525	2.779	3.571	0.15	10.719	0.584	0.787	FR2-6	FR2-6ZZ	640	227	63
	9.525	3.967	3.967	0.3	11.176	0.762	0.762	FR2	FR2ZZ	631	219	67
3.969	7.938	2.779	3.175	0.1	9.119	0.584	0.914	FR155	FR155ZZS	359	150	63
4.762	7.938	2.779	3.175	0.1	9.119	0.584	0.914	FR156	FR156ZZS	359	150	63
	9.525	3.175	3.175	0.1	10.719	0.584	0.787	FR166	FR166ZZ	709	272	60
	12.700	3.969	4.798	0.3	14.351	1.067	1.067	FR3	FR3ZZ	1301	488	53
6.35	9.525	3.175	3.175	0.1	10.719	0.584	0.914	FR168	FR168ZZS	373	172	56
	12.700	3.175	4.762	0.15	13.894	0.584	1.143	FR188	FR188ZZ	1082	442	50
	15.875	4.978	4.978	0.3	17.526	1.067	1.067	FR4	FR4ZZ	1480	621	45
7.938	12.700	3.967	3.967	0.15	13.894	0.787	0.787	FR1810	FR1810ZZS	542	276	48
9.525	22.225	5.558	7.142	0.4	24.613	1.575	1.575	FR6	FR6ZZ	3332	1422	38
12.7	28.575	6.35	7.938	0.4	31.12	1.575	1.575	FR8	FR8ZZ	5108	2413	32
15.875	34.925	7.142	8.733	0.8	38.1	1.745	1.745	Fr10	FR10ZZ	5988	3287	25

67系列 sixty-sevenseries

67系列作为公制尺系列，应用于极度有限空间的应用,同时，因它的壁十分薄，在应用设计时需要考虑负载能力

As a metric ruler series, the 67 series is used in extremely limited space applications. At the same time, because its wall is very thin, it is necessary to consider the load capacity in the application design

68系列 sixty-eight series

68系列应用于空间有限的应用领域，但它的负载能力比67系列要高，目前E经广泛应用于家用电器、自行车、自动化领城等

Series 68 is used in the application field with limited space, but its load capacity is higher than that of series 67. At present, e-jing is widely used in household appliances, bicycles, automation cities, etc

69系列 sixty-nines eries

69系列有效地提升了设计空间,它的负载能力是整个薄壁系列中最强,也是最早替代60，62系列进行优化产品的系列。目前在各个行业，都有广泛应用该产品

The 69 series has effectively improved the design space. Its load capacity is the strongest in the entire thin-wall series, and it is also the first series to replace the 60 and 62 series to optimize products. At present, the product is widely used in various industries