



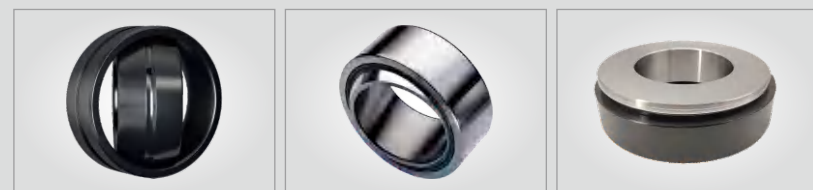
高端关节轴承生产厂家
HIGH-END SPHERICAL PLAIN BEARING



SPHERICAL PLAIN BEARING

临清市森豪轴承有限公司
LINQING SENHAO BEARING CO., LTD.

关节轴承专业制造商



临清市森豪轴承有限公司
LINQING SENHAO BEARING CO., LTD.

+86 635 2359191

www.snbal.com

15063585566 / 14763585566

snbal@snbalbearing.com

山东省临清市八岔路镇工业园

Industrial Park, BaChaLu Town, Linqing City, Shandong Province.



添加微信



查看官网



查看公众号



查看画册



内 求
SEEK WITHIN

利 他
BENEFIT OTHERS

诚 信
BE HONEST

创 新
INNOVATIVE

目录

CATALOGUE

企业简介 Company Profile	01
企业文化 Company Culture	03
企业荣誉 Company Honor	04
生产设备 Production Equipment	05
检测设备 Testing Equipment	06
关节轴承的配合与公差 Fit And Tolerance	07
尺寸公差 Dimensional Tolerance	10
关节轴承的径向游隙 Radial Internal Clearance Of Sphderical Plain Bearings	13
向心关节轴承选择准则 Selection Of Radial Spherical Plain Bearings	15
角接触关节轴承选择准则 Selection Of Angular Contact Spherical Plain Bearings	18
推力关节轴承选择准则 Selection Of Thrust Spherical Plain Bearings	19
杆端关节轴承选择准则 Selection Of Rod Ends	20
关节轴承的安装与润滑 Mounting And Lubrication For Spherical Plain Bearings	23
关节轴承额定载荷与寿命计算 Kgbalcalculation Of Basic Load Ratings And Service Life Of Spherical Plain Bearing	25

油润滑向心关节轴承 Oil-lubricated Radial Ball Bearing	
GE...ES(2RS)	36
GEG...ES(2RS)	37
GE...LO	38
GE...HO(2RS)	38
GEZ...ES(2RS)	39
GEGZ...ES(2RS)	40
GEWZ...ES(2RS)	41
GEF...ES	42
GEK...XS(2GS)	42
GEBK...S	43
GEBJ...S	43
COM...	44
自润滑向心关节轴承 Self-lubricating Radial Joint Bearing	
GE...ET(2RS)	45
GEG...ET(2RS)	46
GEZ...ET(2RS)	47
GE...ET(2RS/X)	48
GE...XT(2RS/X)	48
GE...C	49
GEG...C	49
GE...PW	50
COM...T	51
GEH...HTL GEH...XTL(2RS)	52
GE...XF/Q	53
GEC...XF/Q	53
GEH...XF/Q	54
GEH...HF/Q	54
俄式关节轴承 Russian-style Ball Bearing	
ШСП	56
2ШСП	57
2ШС	57
6ШСП	57
9ШСП	58
ШС	58
GШСП...K	58

角接触/推力关节轴承 Angular Contact / Thrust Spherical Roller Bearing	
GAC...S GAC...T	60
GACZ...S	61
GX...S GX...T	62
油缸耳环/杆端关节轴承 Cylinder Ear Ring / Rod End Joint Bearing	
GIHR-K...DO	64
GIHN-K...LO	65
GAS	66
GIHN-K...DO	67
GF...DO	68
GF...LO	69
TS...NF	69
GK...DO	70
SI...ES(2RS)	71
SA...ES(2RS) SAS...ES(2RS)	72
SIG...ES(2RS)	73
SAG...ES(2RS)	74
PHS	75
POS	76
SI...C SI...ETL(2RS)	77
SA...C SA...ETL(2RS)	78
SI...T/K	79
SA...T/K	80
NH...T	81
NOS...T	82
LHSA...RS	83
CS	83
SQ...RS	84
小松配套专用关节轴承 KOMATSU Accessories	85
卡特彼勒配套专用关节轴承 CAT Accessories	86
向心关节轴承型号对照表 Bearing Model Comparison Table	87
杆端关节轴承型号对照表 Bearing Model Comparison Table	88



润滑型向心关节轴承

Lubricated radial joint bearing

自润滑型向心关节轴承

Self-lubricating radial joint bearing

不锈钢关节轴承

Stainless steel joint bearing

角接触关节轴承

Angular contact joint bearing

推力关节轴承

Thrust joint bearing

油缸耳环轴承

Cylinder ear ring bearing



临清市森豪轴承有限公司始建于2009年，坐落于山东省临清市，坐拥“轴承之乡”临清完善的产业生态与便捷交通优势，是一家集轴承设计、生产、经营及进出口业务于一体的现代化制造企业。

Linqing Senhao Bearing Co., Ltd. was founded in 2009 and is located in Linqing City, Shandong Province. It enjoys the complete industrial ecosystem and convenient transportation advantages of Linqing, known as the "Hometown of Bearings". It is a modern manufacturing enterprise integrating bearing design, production, operation and import and export business.

作为专业的高端关节轴承生产厂家，公司深耕核心领域，专注研发生产润滑型向心关节轴承、自润滑型向心关节轴承、角接触关节轴承、推力关节轴承、油缸耳环轴承等系列产品，兼具高精度、低摩擦、大承载、长寿命等核心优势，广泛适配汽车、工程机械、水利机械、冶金钢铁、液压油缸、气动离合制动器等多元场景，更成为卡特、小松等工程车辆的优质配件供应商。公司旗下SNBAL品牌凭借可靠品质，产品远销亚洲、欧美、南美、澳大利亚等几十个国家和地区，赢得全球市场的广泛认可与赞誉。

公司占地10000平方米，配备先进的自动化生产设备、一流的检测设备与优秀技术团队，建立完善品质控制体系并通过ISO 9001质量体系认证，年产能达500万套，为产品稳定性提供坚实保障。

As a professional manufacturer of high-end spherical plain bearings, the company has been deeply engaged in core fields, focusing on the research and development and production of a series of products such as lubricated radial plain bearings, self-lubricating radial plain bearings, angular contact spherical plain bearings, thrust spherical plain bearings, and cylinder ring bearings. These products feature core advantages such as high precision, low friction, large load capacity, and long service life. It is widely applicable to various scenarios such as automobiles, construction machinery, water conservancy machinery, metallurgical steel, hydraulic cylinders, pneumatic clutches and brakes, and has become a high-quality parts supplier for engineering vehicles of brands like Caterpillar and Komatsu. The SNBAL brand under the company, with its reliable quality, has its products exported to dozens of countries and regions in Asia, Europe, America, South America, Australia, etc., and has won wide recognition and praise in the global market.

The company covers an area of 10,000 square meters, equipped with advanced automated production equipment, first-class testing equipment and an outstanding technical team. It has established a complete quality control system and passed the ISO 9001 quality system certification. The annual production capacity reaches 5 million sets, providing a solid guarantee for product stability.

临清市森豪轴承有限公司
HIGH-END SPHERICAL PLAIN BEARING
高端关节轴承生产厂家



企业文化
COMPANY CULTURE



愿景 Vision
缔造中国知名轴承品牌
Create a well-known bearing brand in China



价值观 Values
内求 利他 诚信 创新
Seek within, benefit others, be honest and innovative

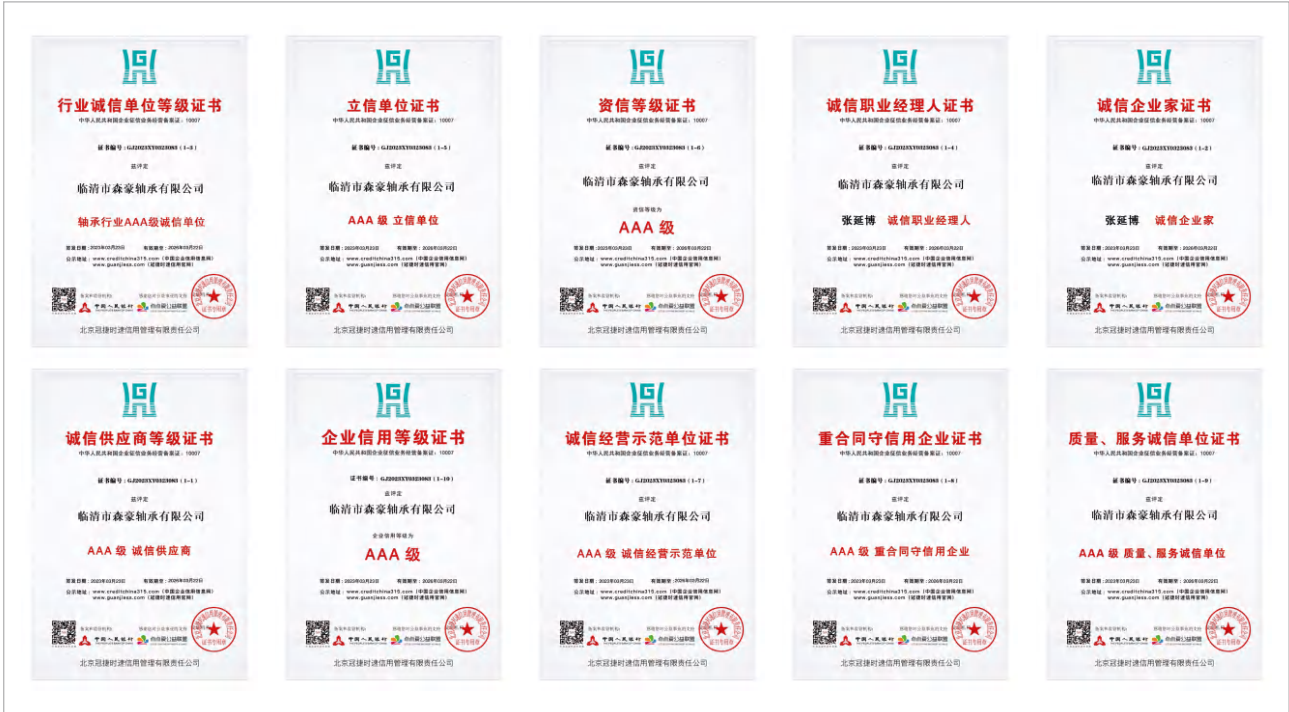


企业使命 Corporate Mission
为客户创造价值，为员工创造未来
Create value for customers and a future for employees



服务理念 Service Philosophy
精益求精 客户至上 严谨细致 精诚合作
Strive for excellence, put customers first, be meticulous and rigorous, and cooperate sincerely

企业荣誉
COMPANY HONOR





生产设备 PRODUCTION EQUIPMENT



金相显微镜
Metallographic Microscope



测长仪
Length Measuring Instrument



光谱仪
Spectrometer



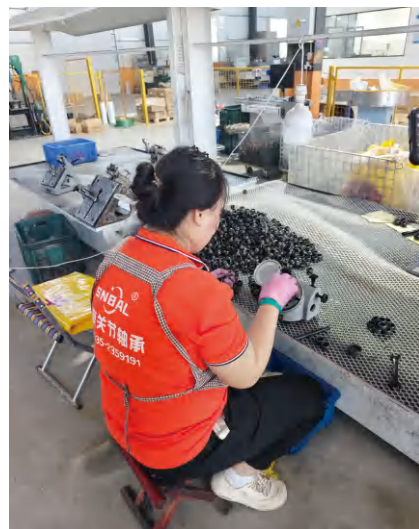
硬度计、振动仪
Hardness Tester, Vibration Instrument



轮廓粗糙度仪
Profile Roughness Meter



圆度仪
Roundness Tester



在关节轴承内、外圈安装时有一个适当的过盈量，才能获得满意的径向方位和支撑力。不恰当或错误的配合不仅会降低轴承的使用寿命通常也会对其他配件造成损害，由于配合不当会引起轴承的失效，如：

- 向心关节轴承内圈球面出现裂纹，早期剥落及球面位移；
- 向心关节轴承内圈与轴或外圈与轴承座间因蠕动及磨蚀产生磨损；
- 由于不正确的配合导致内部游隙值变小出现卡死或造成轴承烧伤；
- 引起球面变形而导致噪声值上升和旋转精度的降低。

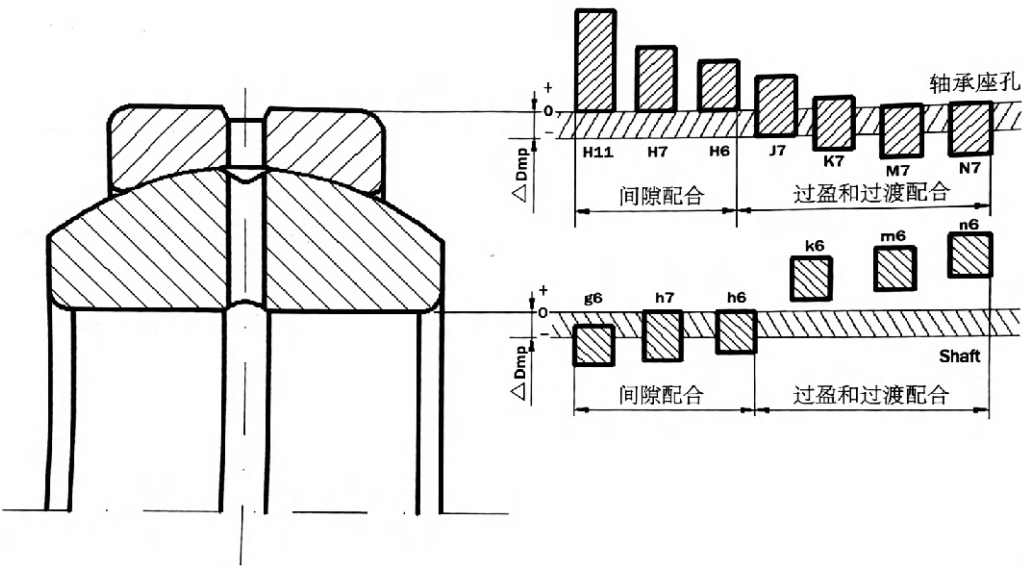
关节轴承的配合类型以及轴、孔公差带

轴承与轴和轴承座孔的配合代号以及所选用的轴、孔公差带应符合GB1800~1804的规定，根据轴承内圈(或轴圈)与轴配合的性质，轴颈直径的极限偏差，在基孔制配合中选择：

a.过盈和过度配合：

b.间隙配合：

轴和座孔公差带与轴承内径和外径公差带的相对位置如下图所示：



轴配合公差

工作条件	需维护	免维护
各种载荷， 间隙或过渡配合	h6(轴淬火)	h6,g6
各种载荷， 过盈配合	m6	k6

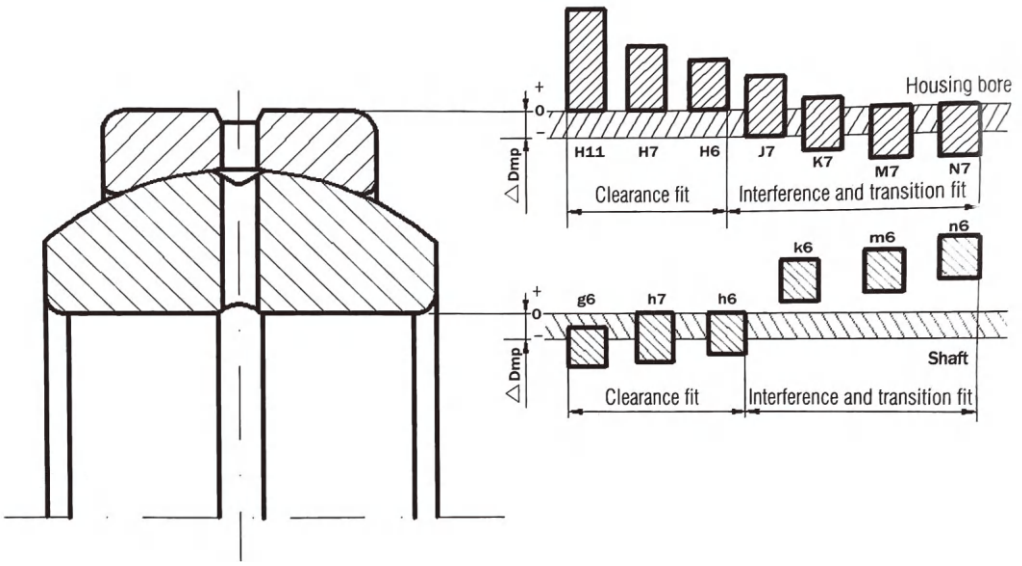
轴承座配合公差

工作条件	需维护	免维护
可轴向移动	H7	H7
重载	M7	K7
轻合金支承座	N7	M7

Generally speaking,satisfactory radial location and adequate support can only be obtained when the Inner and outrings are mounted with an appropriate degree of interference. Inadequately or incorrectly secured bearing rings maycause damage to the bearings and associated components.Therefore It is necessary to make careful investigationin selecting a proper fit.Some of the bearing failures caused by Improper fit are listed below:

- Spherical surface cracking,early flaking and displacement of spherical surface
- Abrasion caused by creeping between bearing and shaft housing
- Seizing or overheating damage caused by negative internal clearances
- Increased noise and deteriorated rotational accuracy due to spherical surface deformation

The following table contains recommendations for suitable shaft and housing tolerances.



Shaft fits

Operating conditions	Requiring maintenance	Maintenance-free
Loads of all kinds,clearance or transition fit	h6(Shaft hardened)	h6,g6
Loads of all kinds,interference fit	m6	k6

Housing fits

Operating conditions	Requiring maintenance	Maintenance-free
Light load-Axial displacement allowed	H7	H7
Heavy load	M7	K7
Light alloy housings	N7	M7

轴径公差
 Shaft diameter tolerances

轴径 Shaft diameter /mm		轴径公差 Shaft diameter tolerances /pm							
		g6		h6		k6		m6	
超过Over	到Incl	上偏差High	下偏差Low	上偏差High	下偏差Low	上偏差High	下偏差Low	上偏差High	下偏差Low
3	6	-4	-12	0	-8	9	1	1	4
6	10	-5	-14	0	-9	10	1	1	6
10	18	-6	-17	0	-11	12	1	1	7
18	30	-7	-20	0	-13	15	2	2	8
30	50	-9	-25	0	-16	18	2	2	9
50	80	-10	-29	0	-19	21	2	2	11
80	120	-12	-34	0	-22	25	3	3	13
120	180	-14	-39	0	-25	28	3	3	15
180	250	-15	-44	0	-29	33	4	4	17
250	315	-17	-49	0	-32	36	4	4	20
315	400	-18	-54	0	-36	40	4	4	21
400	500	-20	-60	0	-40	45	5	5	23
500	630	-22	-66	0	-44	44	0	0	26

轴承座孔公差
 Housing bore tolerances

轴承座孔直径 Housing bore diameter /mm		轴承座孔公差 Housing bore tolerances /pm							
		H7		K7		M7		N7	
超过Over	到Incl	下公差Low	上公差High	下公差Low	上公差High	下公差Low	上公差High	下公差Low	上公差High
10	18	0	18	-12	6	-18	0	-23	-5
18	30	0	21	-15	6	-21	0	-28	-7
30	50	0	25	-18	7	-25	0	-33	-8
50	80	0	30	-21	9	-30	0	-39	-9
80	120	0	35	-25	10	-35	0	-45	-10
120	150	0	40	-28	12	-40	0	-52	-12
150	180	0	40	-28	12	-40	0	-52	-12
180	250	0	46	-33	13	-46	0	-60	-14
250	315	0	52	-36	16	-52	0	-66	-14
315	400	0	57	-40	17	-57	0	-73	-16
400	500	0	63	-45	18	-63	0	-80	-17
500	630	0	70	-70	0	-	-	-	-
630	800	0	80	-80	0	-	-	-	-
800	1000	0	90	-90	0	-	-	-	-

1. 向心关节轴承内圈
 Inner ring of spherical plain bearing

d内径 mm	超过over	-	6	10	18	30	50	80	120	180	250
	到Incl	6	10	18	30	50	80	120	180	250	315
GE..E		0 -0.008	0 -0.008	0 -0.008							
GE..ES				0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	0 -0.035
GE..ES 2RS				0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	0 -0.035
GEG..E		0 -0.008	0 -0.008								0 -0.035
GEG..ES				0 -0.088	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	
GEG..ES 2RS				0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	
GE..LO				+0.018 0	+0.021 0	+0.025 0	+0.030 0	+0.035 0	+0.040 0		
WCN..		0 -0.008	0 -0.008	0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	
GE..HO 2RS					0 -0.010	0 -0.012	0 -0.015				
GEZ..ES GEWZ..ES	GEGZ..ES			0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025		
GEZ..ES 2RS GEWZ..ES 2RS	GEGZ..ES 2RS			0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025		
GAC..S	GACZ..S				0 -0.012	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	
GX..S		0 -0.008	0 -0.008	0 -0.008	0 -0.010	0 -0.012		0 -0.020	0 -0.025	0 -0.030	
GE..C GE..ET/X GE..UK 2RS GEZ..ET 2RS	SGE..C GE..XT/X	0 -0.008	0 -0.008	0 -0.008	0 -0.010	0 -0.012	0 -0.015				
GEG..C		0 -0.008	0 -0.008	0 -0.008	0 -0.010	0 -0.012	0 -0.015				
GEG..ET 2RS	GEG..XT 2RS			0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	
GAC..T					0 -0.012	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	
GX..T		0 -0.008	0 -0.008	0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020	0 -0.025	0 -0.030	0 -0.035
GEBK..S		+0.0120 0	+0.0150 0	+0.0180 0	+0.0210 0	+0.0250 0	+0.0300 0	+0.0350 0			
GEBJ..S		+0.0120 0	+0.0150 0	+0.0180 0	+0.0210 0	+0.0250 0	+0.0300 0	+0.0350 0			
G..PB		+0.0120 0	+0.0150 0	+0.0180 0	+0.0210 0	+0.0250 0	+0.0300 0	+0.0350 0			
S..PB		+0.0120 0	+0.0150 0	+0.0180 0	+0.0210 0	+0.0250 0	+0.0300 0	+0.0350 0			
G..PW GEBJ..C		+0.0120 0	+0.0150 0	+0.0180 0	+0.0210 0	+0.0250 0	+0.0300 0	+0.0350 0			
S..PW		+0.0120 0	+0.0150 0	+0.0180 0	+0.0210 0	+0.0250 0	+0.0300 0	+0.0350 0			
COM.. HCOM.. COM..T HCOM..T		+0.038 -0.013 +0.038 -0.013	+0.038 -0.013 +0.038 -0.013	+0.038 -0.013 +0.038 -0.013	+0.038 -0.013 +0.038 -0.013	+0.038 -0.013 +0.038 -0.013	+0.038 -0.013 +0.038 -0.013				

内圈高度公差
 Inner ring width tolerance

d内径 mm	超过over	-	50	80	120	180	250	315
	到Incl	50	80	120	180	250	315	400
△Bs		0 -0.12	0 -0.15	0 -0.20	0 -0.25	0 -0.30	0 -0.35	0 -0.40

2. 向心关节轴承外圈

Outer ring of spherical plain bearing

d内径 mm	超过over	10	18	30	50	60	80	120	150	180	250	315
	到Incl	18	30	50	60	80	120	150	180	250	315	400
GE..E		0 -0.008	0 -0.009									
GE..ES			0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GE..ES 2RS				0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GEG..E		0 -0.008	0 -0.009	0 -0.011								
GEG..ES				0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GEG..ES 2RS				0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GE..LO				0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
		0 -0.008	0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030		
GE..HO 2RS				0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018				
GEZ..ES GEGZ..ES GEWZ..ES			0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.0150	0 -0.0180	0 -0.025	0 -0.030		
GEZ..ES 2RS GEGZ..ES 2RS GEWZ..ES 2RS				0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018				
GAC..S GACZ..S				0 -0.014	0 -0.016	0 -0.016	0 -0.018	0 -0.020	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GX..S			0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GE..C SGE..C GE..ET/X GE..XT/X		0 -0.008	0 -0.009	0 -0.011								
GE..UK 2RS GEZ..ET 2RS			0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GEG..C		0 -0.008	0 -0.009	0 -0.011	0 -0.013							0 -0.040
GEG..ET 2RS GEG..XT 2RS			0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GAC..T				0 -0.014	0 -0.016	0 -0.016	0 -0.018	0 -0.020	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GX..T			0 -0.009	0 -0.011	0 -0.013	0 -0.013	0 -0.015	0 -0.018	0 -0.025	0 -0.030	0 -0.035	0 -0.040
GEBK..S		0 -0.011	0 -0.013	0 -0.016	0 -0.019							
GEBJ..S		0 -0.011	0 -0.013	0 -0.016	0 -0.019							
G..PB		0 -0.011	0 -0.013	0 -0.016	0 -0.019							
S..PB		0 -0.011	0 -0.013	0 -0.016	0 -0.019							
G..PW GEBJ..C		0 -0.011	0 -0.013	0 -0.016	0 -0.019							
S..PW		0 -0.011	0 -0.013	0 -0.016	0 -0.019							
COM.. HCOM..		0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018			
COM..T HCOM..T		0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018	0 -0.018			

外圈高度公差

Outer ring width tolerance

d内径 mm	超过over	-	50	80	120	180	250	315
	到Incl	50	80	120	180	250	315	400
△Cs		0 -0.24	0 -0.30	0 -0.40	0 -0.50	0 -0.60	0 -0.70	0 -0.80

3. 杆端关节轴承内圈

Inner ring of rod ends

d内径 mm	超过over	-	6	10	18	30	50	80
	到Incl	6	10	18	30	50	80	120
S..E SI..ES SI..ES 2RS SA.E SA..ES SA..ES 2RS GIR.UK GAR..UK GIR..UK 2RS GAR..UK 2RS GK..DO GIHR.DO GFDO GIHR-K..DO GK..SK TS..NF								
		0 -0.008	0 -0.008	0 -0.008	0 -0.010	0 -0.012	0 -0.015	0 -0.020
GIHN-K..LO GFLO				+0.018 0	+0.021 0	+0.025 0	+0.030 0	+0.035 0
SI..T/K SA..T/K S..PK SA..PK SSI..T/K SSA..T/K PHS.. POS.. SIZ..S SAZP.S SI..ZK SA..ZK		+0.012 0	+0.015 0	+0.018 0	+0.021 0	+0.025 0	+0.030 0	
CE. CE..T C..Y CM.. CM..T CM..Y JE.. JM.. JE..FJM..F		+0.038 -0.013	+0.038 -0.013	+0.038 -0.013	+0.038 -0.013	+0.038 -0.013		
KF. KM..						0 -0.013	0 -0.013	
PE.GPM..G		+0.064 -0.013	+0.064 -0.013	+0.064 -0.013	+0.064 -0.013	+0.064 -0.013		

4. 杆端关节轴承中心高偏差

Centre height deviation of rod ends

d内径 mm	超过over	-	6	20	30	45	60
	到Incl	6	20	30	45	60	80
△hs		+0.80 -1.20	+0.80 -1.20	+1.00 -1.70	+1.40 -2.10	+1.80 -2.70	+2.25 -3.40

关节轴承的径向游隙

RADIAL INTERNAL CLEARANCE OF SPHDERICAL PLAIN BEARINGS



1. 向心关节轴承

Spherical plain bearing

型号 Part No.	孔径 超过 到	C2组 Group C2	基本组 Group normal	C3组 Group C3
	d Over~incl. (mm)	min~max(um)	min~max(um)	min~max(um)
GE..E GE..ES GE..ES 2RS GE..HO 2RS GE..LO	~12	8~32	32~68	68~104
	12~20	10~40	40~82	82~124
	20~35	12~50	50~100	100~150
	35~60	15~60	60~120	120~180
	60~90	18~72	72~142	142~212
	90~140	18~85	85~165	165~245
	140~240	18~100	100~192	192~284
	240~300	18~110	110~214	214~318
	300~320	18~135	135~261	261~387
GEG..E GEG..ES GEG..ES 2RS	~10	8~32	32~68	68~104
	10~17	10~40	40~80	82~124
	17~30	12~50	50~100	100~150
	30~50	15~60	60~120	120~180
	50~80	18~72	72~142	142~212
	80~120	18~85	85~165	165~245
	120~220	18~100	100~192	192~284
	220~280	18~110	110~214	214~318
GEGZ..ES GEZ..ES GEWZ..ES GEZ..ES 2RS GEWZ.ES 2RS GEGZ.ES 2RS	~15.875		50~150	
	15.875~50.8		80~180	
	50.8~76.2		100~200	
	76.2~152.4		130~230	
G..PB S..PB COM.. GEBK..S GEBJ.S HCOM..	~8		20~60	
	8~14		40~90	
	14~20		50~110	
	20~60		60~120	
GE..UK G..PW SGE..UK S..PW GE..FW COM..T SGE..FW HCOM..T GEBJ..C	~12		4~28	
	12~20		5~35	
	20~30		6~44	
	30~50		6~60	
GE..FW 2RS	~30		0~50	
	30~50		0~60	
	50~80		0~72	
	80~120		0~85	
	120~220		0~100	
	220~280		0~110	
GE..UK 2RS GEZ..ET 2RS	~20		0~40	
	20~35		0~50	
	35~60		0~60	
	60~90		0~72	
	90~140		0~85	
	140~240		0~100	
	240~300		0~110	

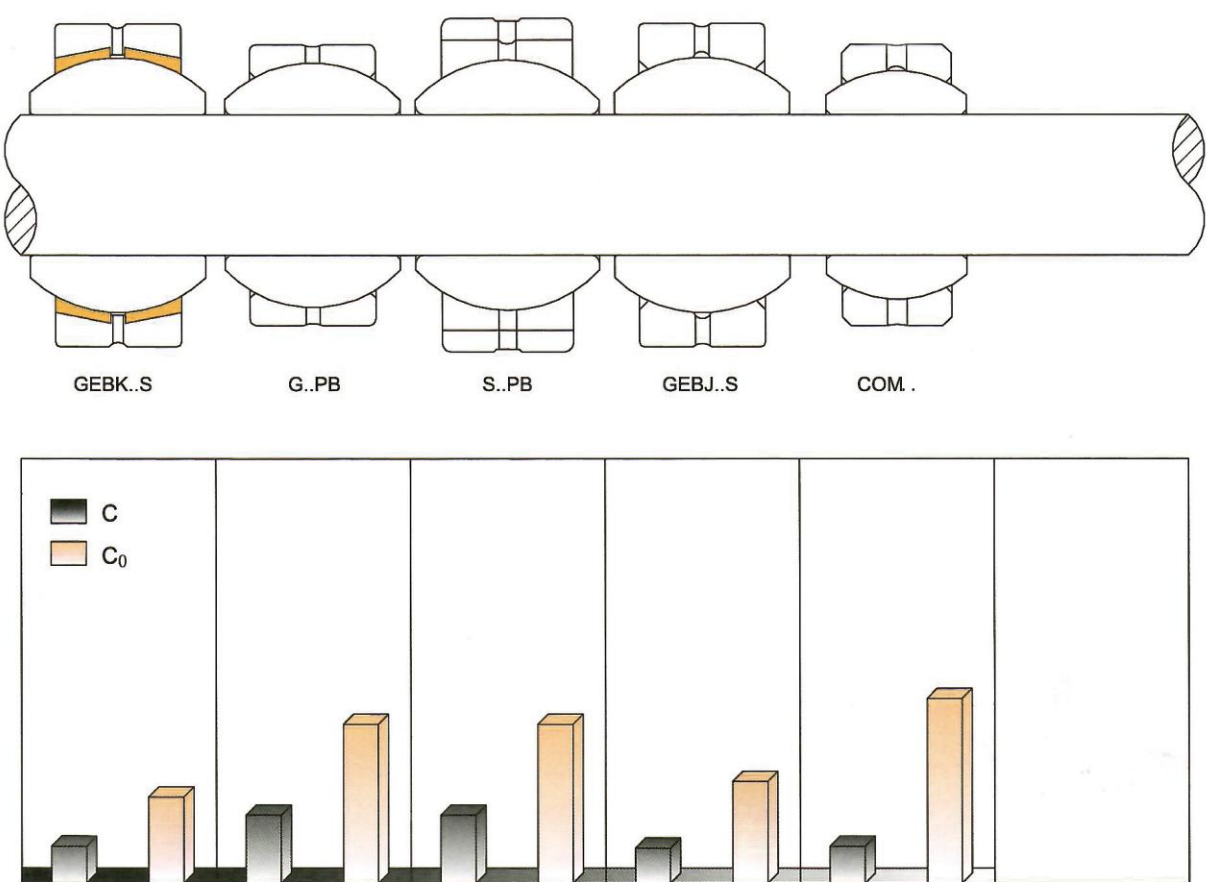
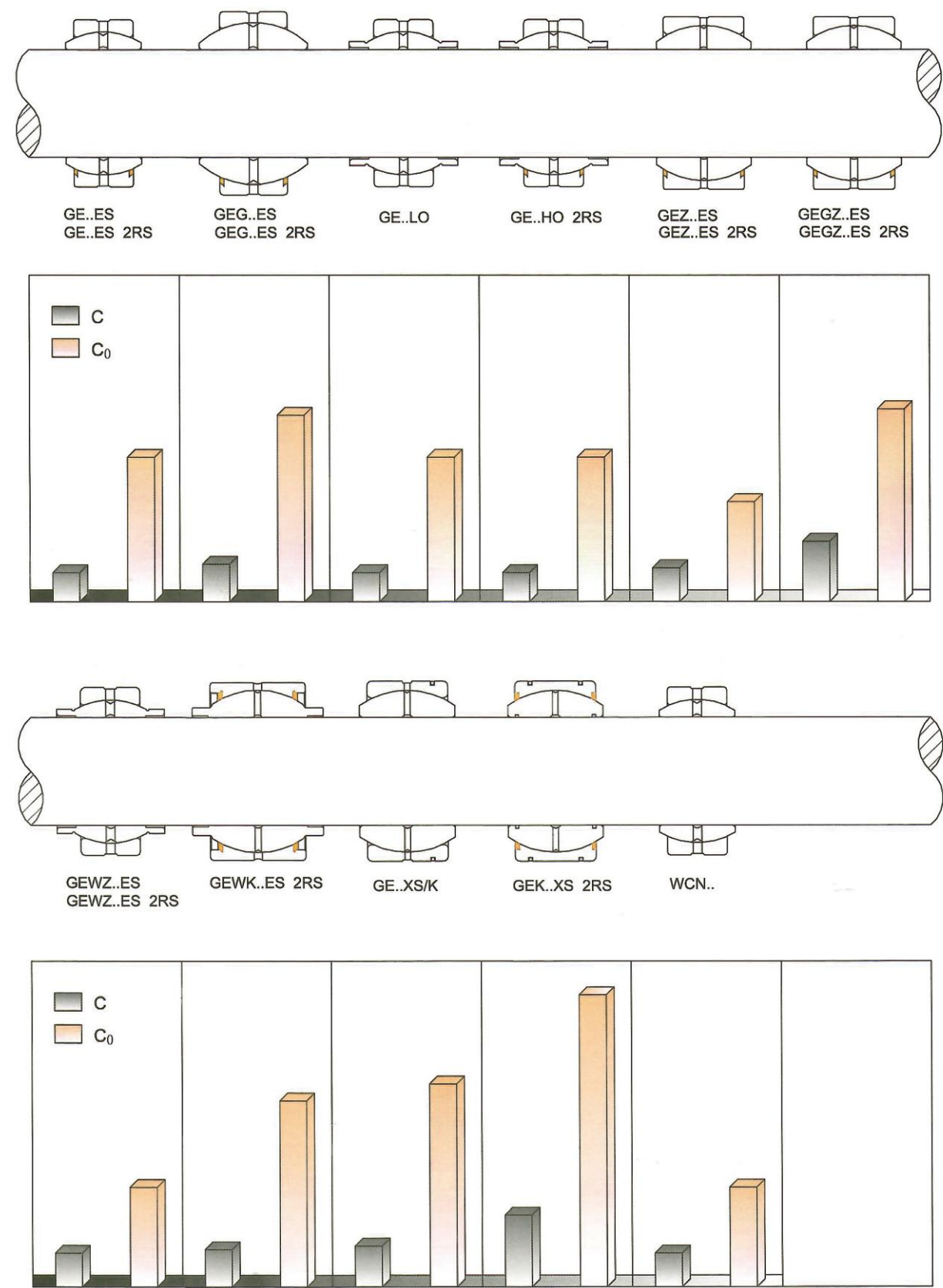
2. 杆端关节轴承

Rod ends

型号 Part No.	孔径 超过 到	C2组 Group C2
	d Over~incl. (mm)	min~max(um)
SI..E SI..ES SI..ES 2RS SA..E SA..ES SA..ES 2RS GIHR-K..DO GIHR-K.LO GK..DO GF.DO	~12	8~68
	12~20	8~82
	20~35	8~100
	35~60	8~120
	60~80	8~142
	80~120	8~165
CE.. CM.. CE..Y CM..Y JF.. JM..	~8	10~30
	8~14	15~60
	14~20	40~80
	20~35	50~90
	35~50	60~110
SIZP.S SAZ..S PHS.. POS.. JF..F JM..F	~30	8~55
SI..T/K SA..T/K SSI.T/K SSA..T/K CE..T CM..T SL..PK SA..PK	~12	0~32
	12~20	0~40
	20~30	0~50
GIR..UK GIR..UK 2RS GAR..UK GAR..UK 2RS	~12	0~32
	12~20	0~40
	20~35	0~50
	35~60	0~60
	60~80	0~72
SQ..S SQ..RS		20~60
SQZ..RS		0~30

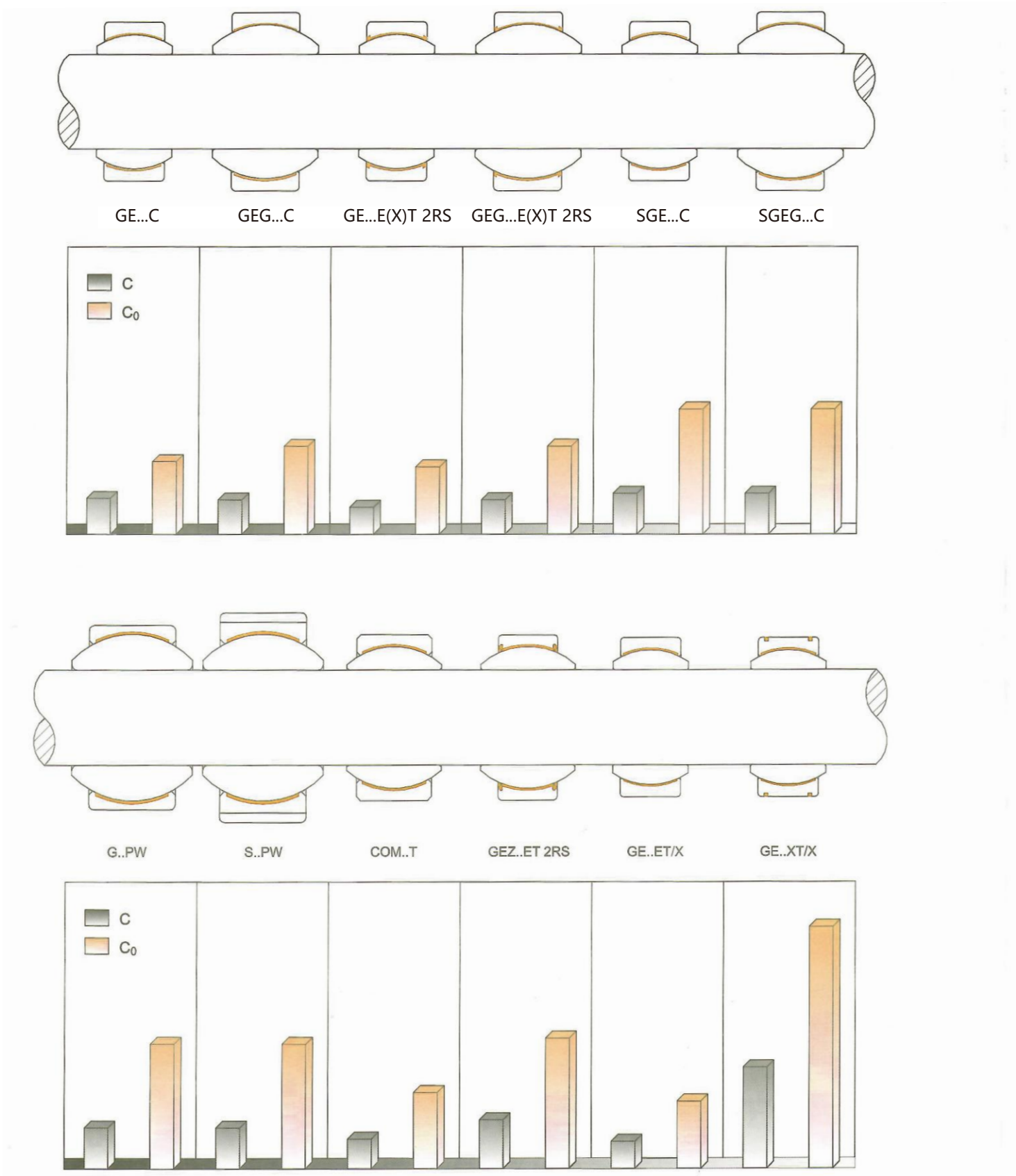
向心关节轴承选择准则
SELECTION OF RADIAL SPHERICAL PLAIN BEARINGS

1、润滑型向心关节轴承 Radial spherical plain bearings requiring maintenance



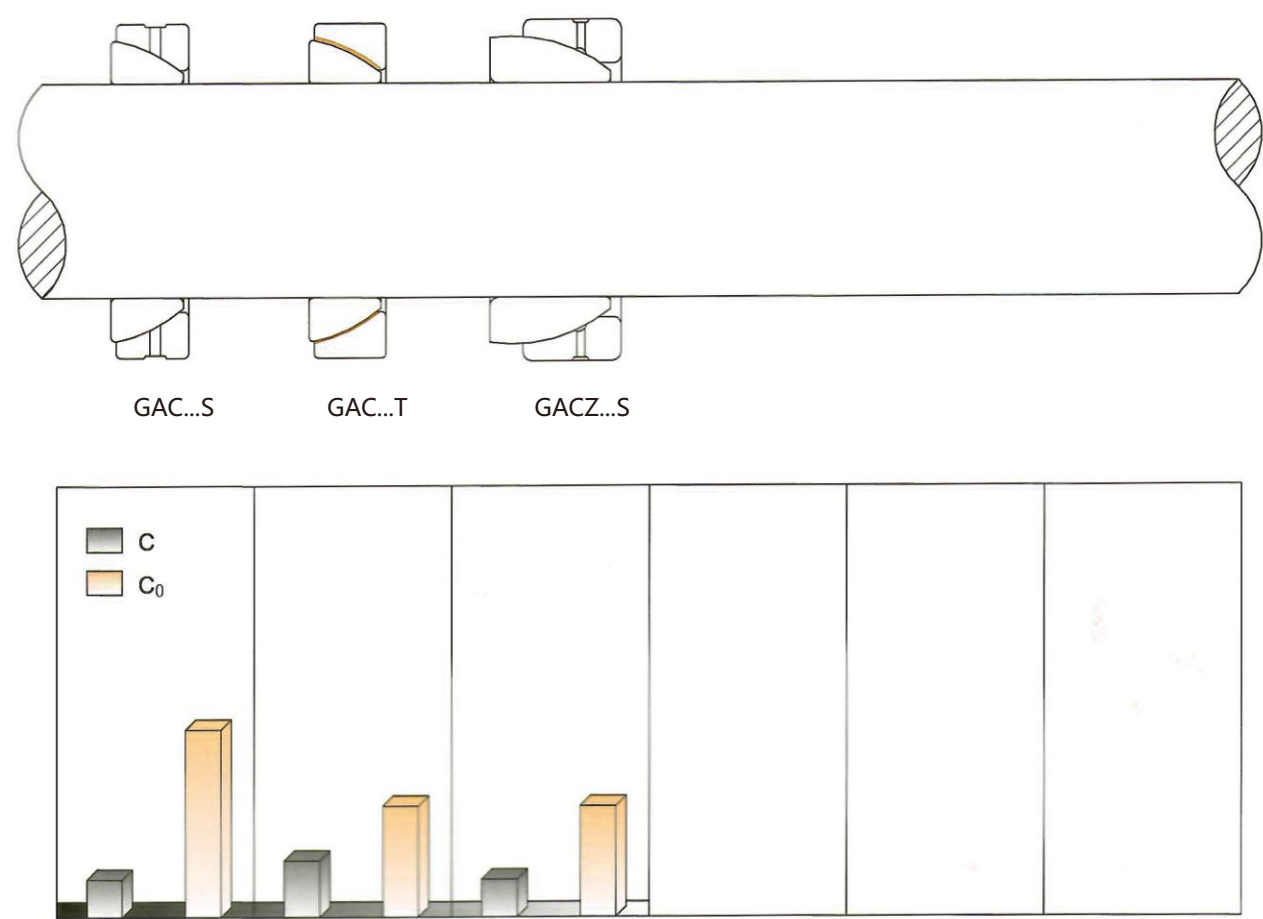
向心关节轴承选择准则
SELECTION OF RADIAL SPHERICAL PLAIN BEARINGS

2、自润滑型向心关节轴承 Maintenance-free radial spherical plain bearings



角接触关节轴承选择准则
SELECTION OF ANGULAR CONTACT SPHERICAL PLAIN BEARINGS

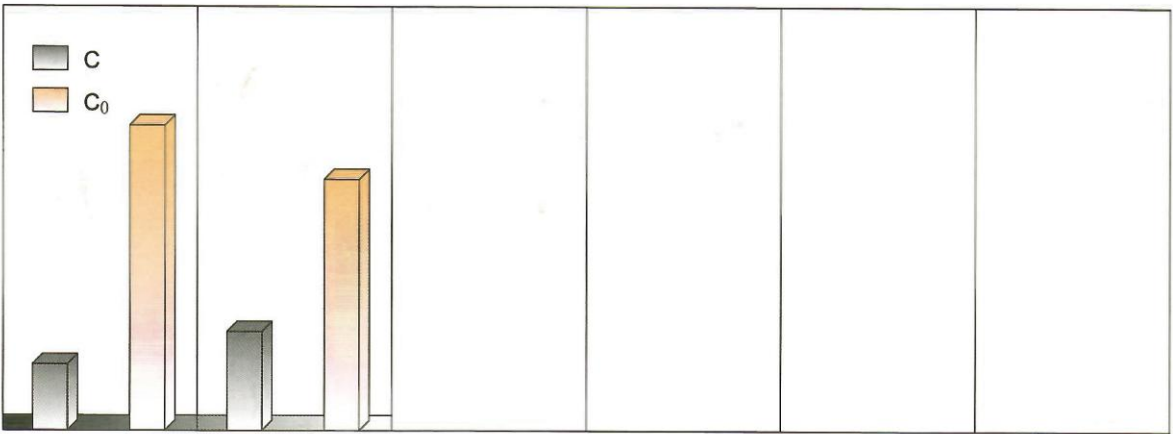
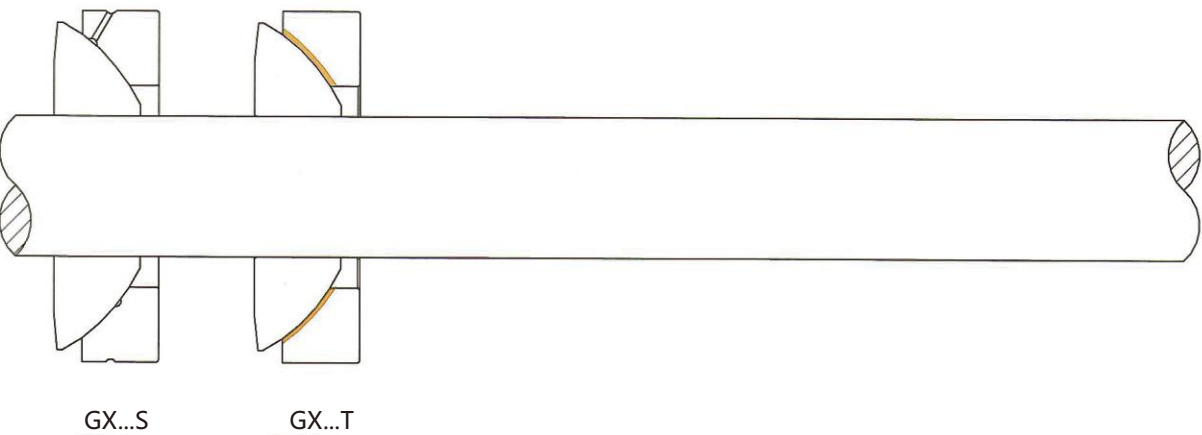
角接触关节轴承 Angular contact spherical plain bearings



推力关节轴承选择准则

SELECTION OF THRUST SPHERICAL PLAIN BEARINGS

推力关节轴承 Thrust spherical plain bearings

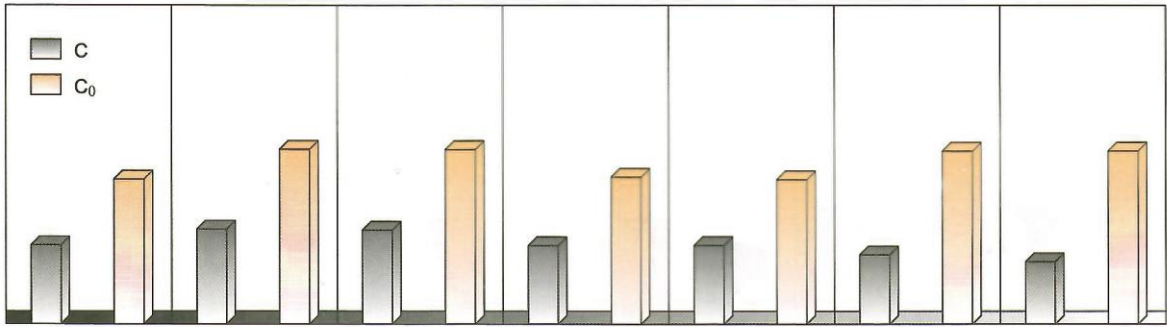
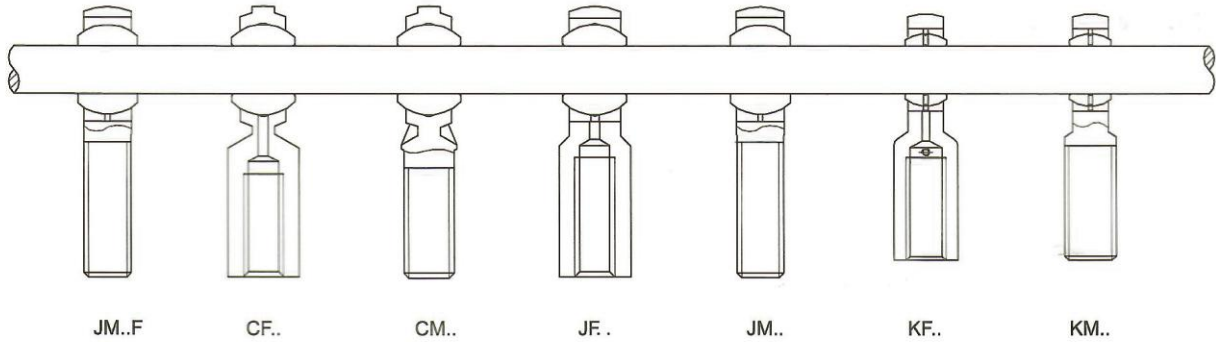
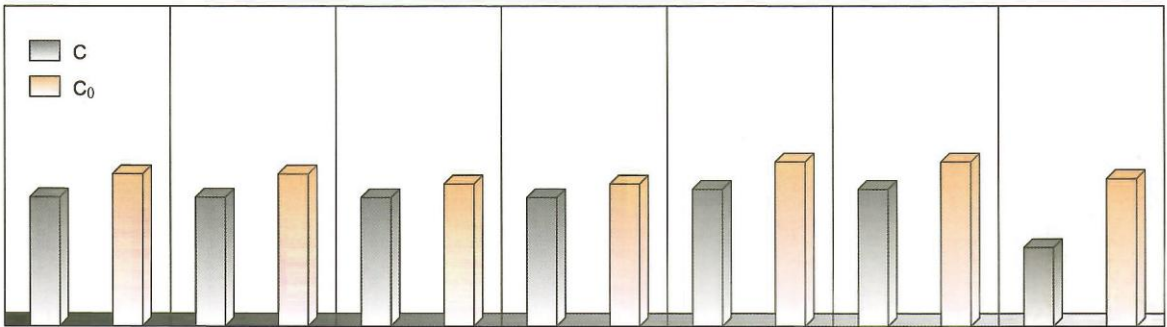
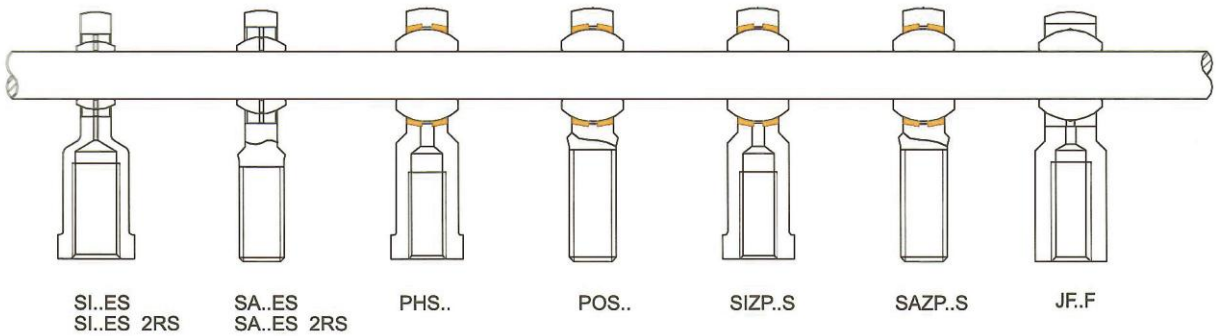


杆端关节轴承选择准则

SELECTION OF ROD ENDS

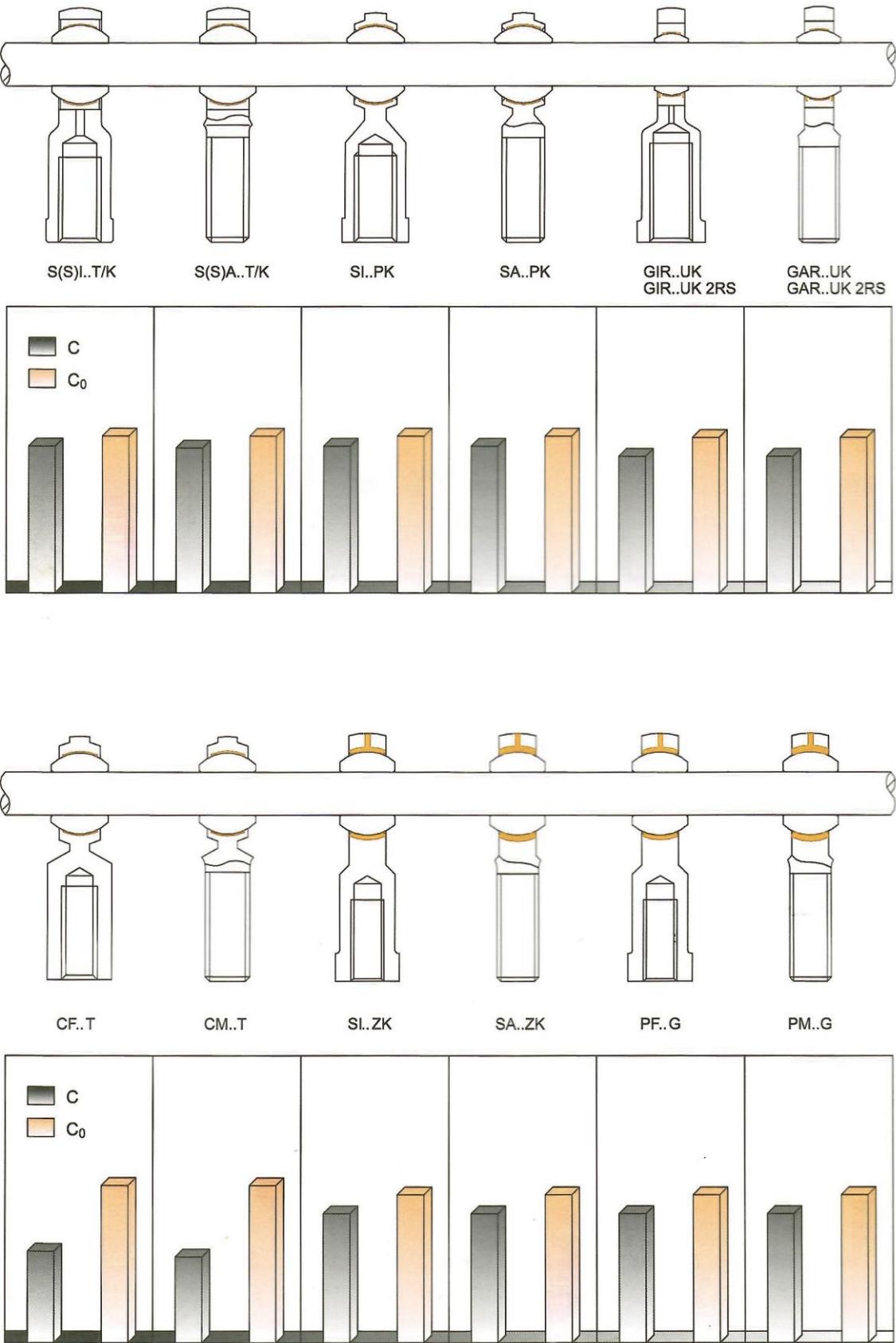


1、润滑型杆端关节轴承 Rod ends requiring maintenance



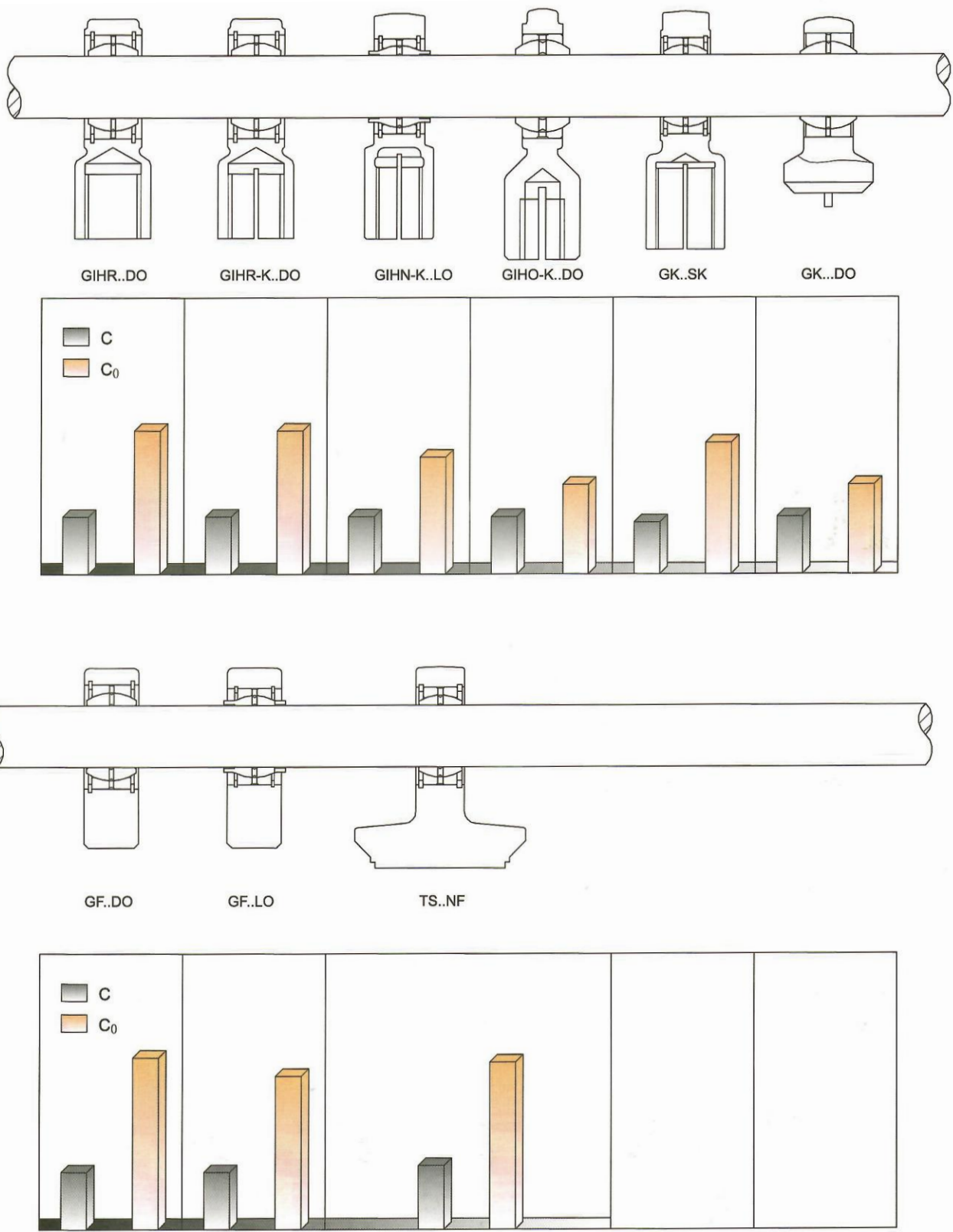
杆端关节轴承选择准则
SELECTION OF ROD ENDS

2、自润滑型杆端关节轴承 Maintenance-free rod ends



杆端关节轴承选择准则
SELECTION OF ROD ENDS

3、带座、带锁口杆端关节轴承 Hydraulic rod ends

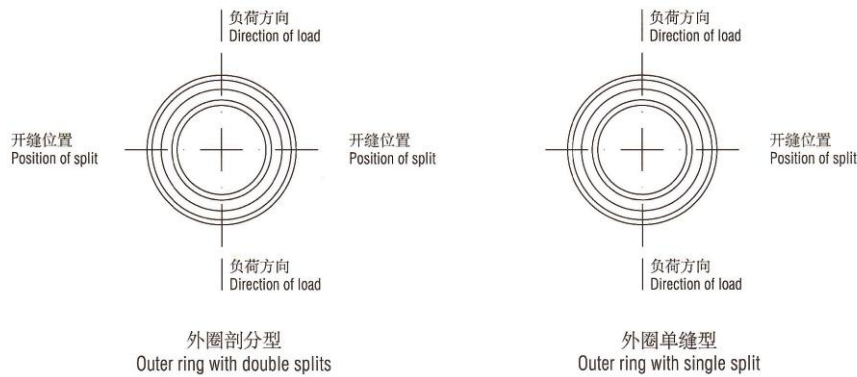


关节轴承的安装与润滑

Mounting and lubrication for spherical plain bearings

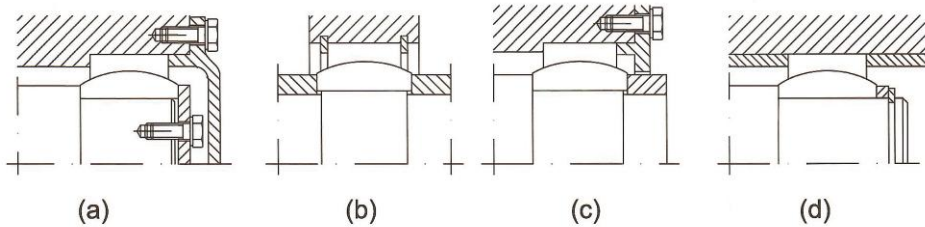
1、负荷方向与开裂位置

Direction of Load and position of split



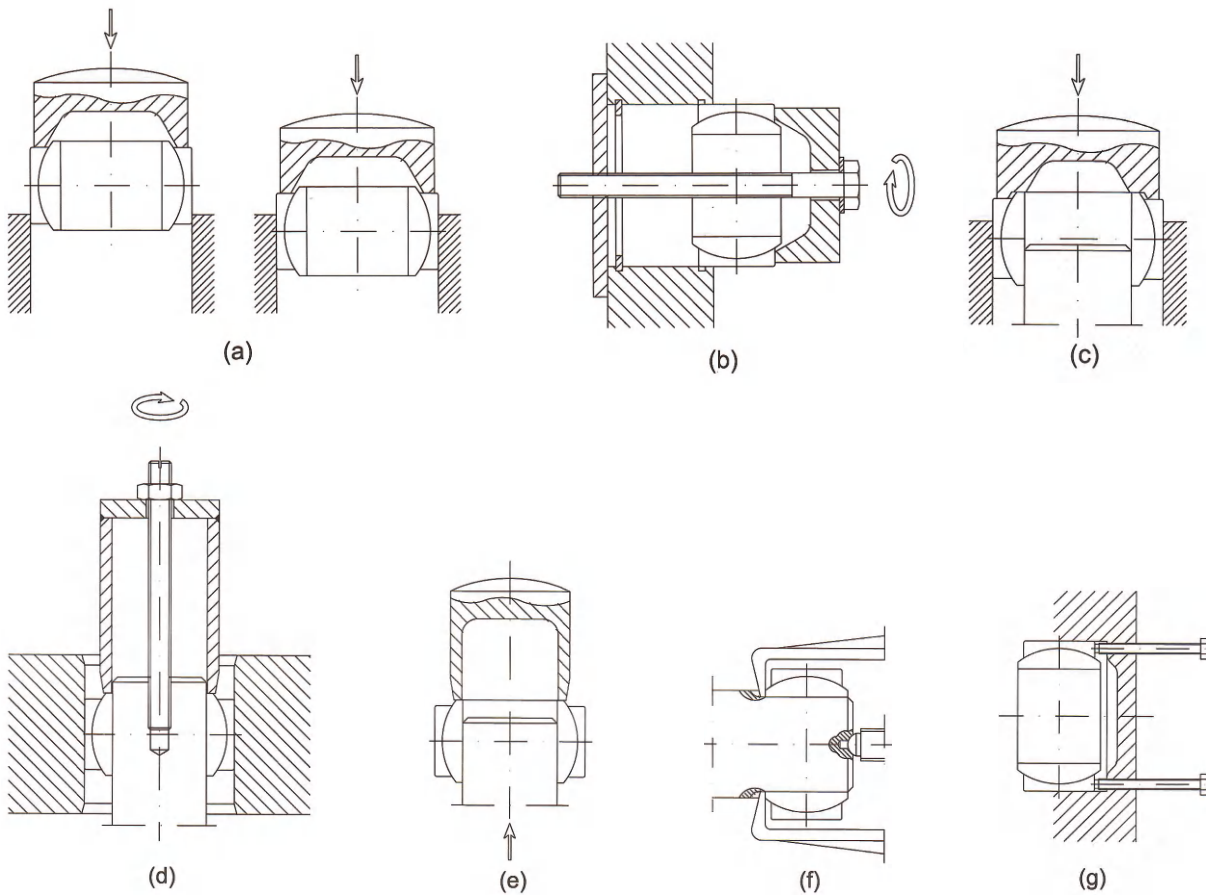
2、安装简例

Mounting example



3、安装与拆卸

Mounting and dismounting

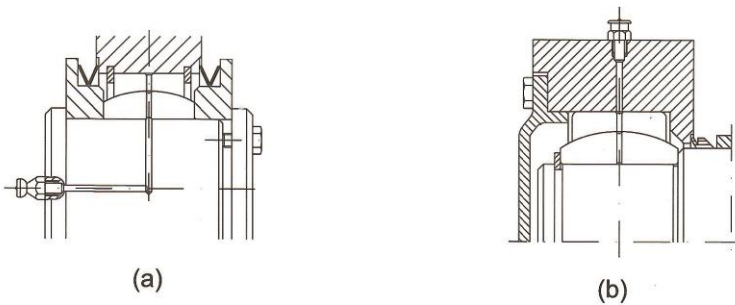


关节轴承的安装与润滑

Mounting and lubrication for spherical plain bearings

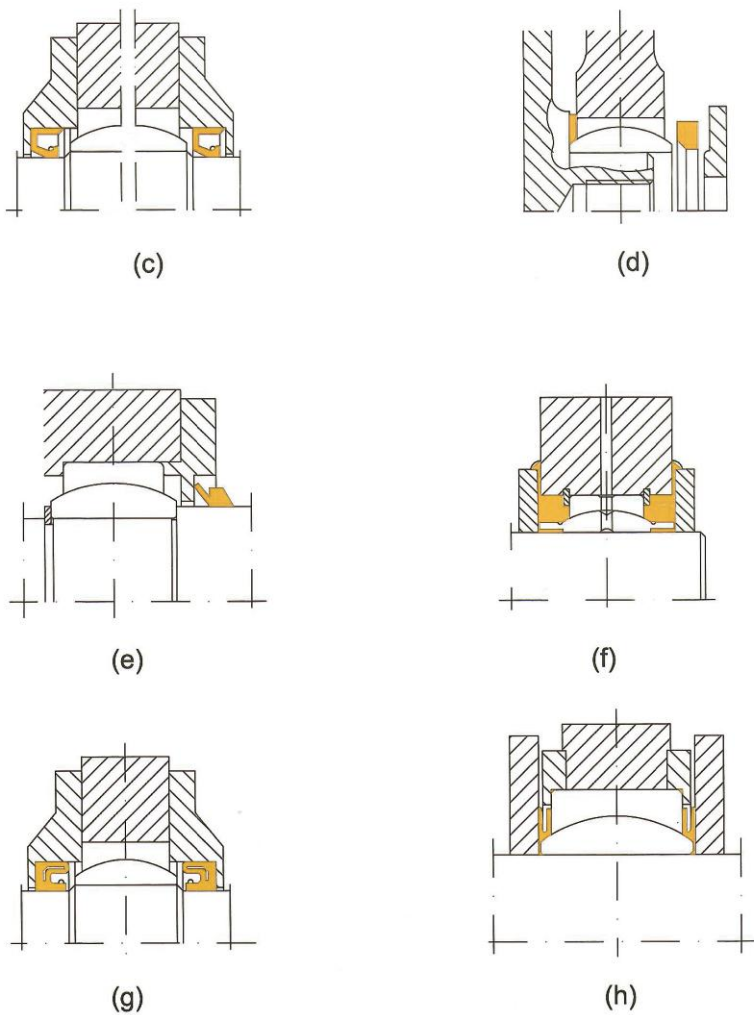
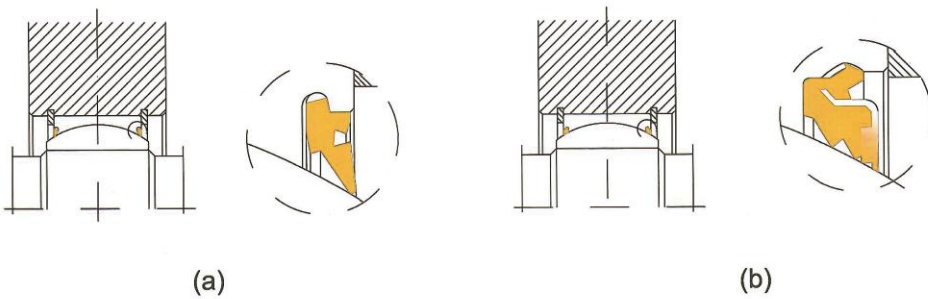
4、润滑与维护

Lubrication and maintenance



5、密封

Sealing



关节轴承额定载荷与寿命计算

1、关节轴承额定静载荷与当量静载荷

关节轴承额定静载荷的一般计算式为: $C_s=[p]\bar{C}d_m(\epsilon)$
①、对向心关节轴承，在正常游隙条件下,公式可转化为: $C_{sr}=f_sCdm(N)$
式中 $f_s=f_s([p],\epsilon,d_m)$ 与轴承材料、结构型式、径向游隙等因素有关，如下表列出了正常游隙下的 f_s 值:

向心关节轴承 f_s 值

dm/mm		摩擦副材料			
超过	到	钢/钢	钢/铜	钢/PTFE织物	钢/PTFE复合物
5	400	425	125	242	225
400	500	435	—	261	—
500	700	454	—	268	—
700	1000	468	—	278	—
1000	1200	475	—	284	—

当向心关节轴承承受径向和轴向联合静载荷时，其径向当量静载荷为: $P_r=X_rF_r(N)$ ，式中系数 X_r 与 F_a/F_r 值有关，如下表列出了 X_r 的取值:

X_r 值					
F_a/F_r	0	0.1	0.2	0.3	0.4
X_r	1	1.3	1.7	2.45	3.5

②、对角接触关节轴承,径向额定静载荷为: $C_{sr}=f_s(B+C-T)d_m(N)$ 式中系数 f_s 见下页表格:

角接触关节轴承 f_s 值

dm/mm		摩擦副材料	
超过	到	钢/钢	钢/PTFE织物
5	55	426	254.0
55	500	440	263.5

当角接触关节轴承承受径向和轴向联合静载荷时，其当量静载荷为: $P_r=X_{ra}F_r(N)$ ，式中 X_{ra} 按下表选取:

X_{ra}							
F_a/F_r	0	0.5	1	1.5	2	2.6	3
X_{ra}	1	1.22	1.51	1.86	2.265	2.63	3

③、对推力关节轴承，轴向额定静载荷为: $C_{sa}=f_s(B+C-H)d_m(N)$ 式中系数 f_s 按下表选取:

推力关节轴承 f_s 值

dm/mm		摩擦副材料	
超过	到	钢/钢	钢/PTFE织物
5	60	855	512
60	100	924	560
100	150	966	575
150	200	920	550
200	300	768	462
300	500	710	425
500	700	—	529

SNBAL CALCULATION OF BASIC LOAD RATINGS AND SERVICE LIFE OF SPHERICAL PLAIN BEARING

1.Rated static load and equivalent static load of spherical plain bearing

The general calculation formula of rated static load of spherical plain bearing is: $C_s=[p]Cdm(\epsilon)$
①、For the radial spherical plain bearing,under the condition of normal clearance ,the aboveformula can be converted as $C_{sr}=f_sCdm(N)$, where: $f_s=f_s([p],\epsilon,d_m)$,related to factors like bearing material,structure type , radial clearance and so on .The values of f_s under the condition ofnormal clearance are listed in the following table:

dm/mm		Material of Friction Pair			
Over	To(incl.)	Steel/Steel	Steel/Bronze	Steel /PTFE Fabric	Steel/PTFE Composite Material
5	400	425	125	242	225
400	500	435	—	261	—
500	700	454	—	268	—
700	1000	468	—	278	—
1000	1200	475	—	284	—

When the combined load of both radial and axial directions is applied on the radial spherical plain bearing,its staticequivalent radial load is: $P_r=X_f(N)$,where: the coefficient X related to F_a/F ,the X value is listed in the following table. :

X_r values					
F_a/F_r	0	0.1	0.2	0.3	0.4
X_r	1	1.3	1.7	2.45	3.5

②、For the angular-contact spherical plain bearing, rated static radial load is given by: $C_{sr}=f_s(B+C-T)dm(N)$, the values ofcoefficient f_s are given in the following table:

f_s Values of angular-contact spherical plain bearing

dm/mm		Material of Friction Pair	
Over	To(incl.)	Steel/Steel	Steel /PTFE Fabric
5	55	426	254.0
55	500	440	263.5

When the combined load of both radial and axial directions is applied on the angular-contact spherical plain bearing,itsstatic equivalent load is: $P_r=X_{ra}F_r(N)$, where: $X_{ra}X_{ra}$ is given in the following table:

X_{ra} Values							
F_a/F_r	0	0.5	1	1.5	2	2.6	3
X_{ra}	1	1.22	1.51	1.86	2.265	2.63	3

③、For thrust spherical plain bearing,rated static axial load is: $C_{sa}=f_s(B+C-H)d_m(N)$ ，Where: coefficient f_s is given in the following table:

dm/mm		Material of Friction Pair	
Over	To(incl.)	Steel/Steel	Steel /PTFE Fabric
5	60	855	512
60	100	924	560
100	150	966	575
150	200	920	550
200	300	768	462
300	500	710	425
500	700	—	529

关节轴承额定载荷与寿命计算

当推力关节轴承承受径向和轴向联合静载荷时，其当量静载荷为： $P_a=Y_aF_a$ 式中 Y_a 按下表选取：

Y _a 值						
F _r /F _a	0	0.1	0.2	0.3	0.4	0.5
Y _a	1	1.1	1.22	1.33	1.48	1.61

④、杆端关节轴承的额定静载荷计算方法，应根据杆端关节轴承的结构型式来选择。当杆端关节轴承为向心型时，可采用向心关节轴承的额定静载荷计算公式计算。当杆端关节轴承为球头型时，可采用推力关节轴承的额定静载荷计算公式计算。另外还应考虑杆体材料的屈服强度极限。当轴承的额定静载荷超过杆体材料的屈服强度的许用值时，应取杆体材料屈服强度极限的许用值作为计算杆端关节轴承的额定静载荷。

2、关节轴承额定动载荷与当量动载荷

①、向心关节轴承的径向额定动载荷为: $C_{dr}=f_rC_{dm}(N)$
式中系数 f_r 与轴承摩擦副的材料、结构型式、径向游隙等因素有关，下表列出了正常游隙下 f_r 值:

dm/mm		摩擦副材料			
超过	到	钢/钢	钢/铜	钢/PTFE织物	钢/PTFE复合物
5	400	85	50	120	90
400	500	87	—	125	—
500	700	90	—	136	—
700	1200	93	—	138	—

当向心关节轴承承受不变的径向和轴向联合载荷时，其当量动载荷为: $P=X_rF_r(N)$ ，式中系数 X_r 与 F_a/F_r 值有关， X_r 的取值与当量静载荷中 X_r 取值相同。

②、角接触关节轴承的额定动载荷 C_{dr} 为: $C_{dr}=f_{ra}(B+C-T)d_m(N)$ 式中系数 f_{ra} 与轴承摩擦副材料及结构尺寸有关, 如下页表格列出 f_{ra} 值:

dm/mm		摩擦副材料	
超过	到	钢/钢	钢/PTFE织物
5	55	85.5	128
55	500	88	132

当角接触关节轴承承受不变的径向和轴向联合载荷时,其当量动载荷为: $P=X_{ra}F_r(N)$, 式中 X_{ra} 的取值与当量静载荷中 X_{ra} 取值相同。

SNBAL CALCULATION OF BASIC LOAD RATINGS AND SERVICE LIFE OF SPHERICAL PLAIN BEARING

When the combined load of both radial and axial directions is applied on the thrust spherical plain bearing, its static equivalent load is: $P_a=Y_aF_a$, where: Y_a is given in the following table:

Y _a Values						
F _r /F _a	0	0.1	0.2	0.3	0.4	0.5
Y _a	1	1.1	1.22	1.33	1.48	1.61

④.The computation method of rated static load for rod end bearing should be selected according to the structure type of rod end bearing. If the rod end bearing is of radial type,it can be calculated by the rated static load formula of radial spherical plain bearing.If the rod end bearing is of ball joint type, it can be calculated by the rated static load formula of thrust spherical plain bearing. in addition,the yield strength limit of body material should be considered . When the static load rating of spherical plain bearing exceeds the allowable value of the yield strength limit of body material,the allowable value of the yield strength limit of body material should be selected as the basis of calculating the rated static load of rod end bearing.

2. Rated dynamic load and equivalent dynamic load of spherical plain bearing

①、The rated dynamic radial load of the radial spherical plain bearing is: $C_{dr}=f_rC_{dm}(N)$
where: f_r related to the factors such as material of friction pair,structure type, radial clearance and so on .The values of f_r under the condition of normal clearance are listed in the following table:

dm/mm		Material of Friction Pair			
Over	To (incl.)	Steel/Steel	Steel/Bronze	Steel /PTFE Fabric	Steel/PTFE Composite Material
5	400	85	50	120	90
400	500	87	—	125	—
500	700	90	—	136	—
700	1200	93	—	138	—

When the invariable combined load in both radial and axial direction is applied on the radial spherical plain bearing,its dynamic equivalent load is: $P=X_rF_r(N)$, where the coefficient X_r is related with F_a/F_r ,the X_r value is the same as the X_r value in equivalent static load formula .

②.The rated dynamic load C_{dr} of angular-contact spherical plain bearing is: $C_{dr}=f_{ra}(B+C-T)d_m(N)$, where the coefficient f_{ra} is related to the material of friction pair and bore diameter of the bearing, f_{ra} values are listed in the following table:

dm/mm		Material of Friction Pair	
Over	To (incl.)	Steel/Steel	Steel /PTFE Fabric
5	55	85.5	128
55	500	88	132

When the invariable combined load in both radial and axial direction is applied on the angular-contact spherical plain bearing,its equivalent dynamic load is: $P=X_{ra}F_r(N)$, where the coefficient X_{ra} r a value is the same as the X_{ra} r a value in static equivalent load formula.

关节轴承额定载荷与寿命计算

③、推力关节轴承轴向额定动载荷**C_{da}**为:**C_{da}=f_a(B+C-H)d_m (N)**式中系数**f_a**与轴承摩擦副材料及结构尺寸有关，如下表所示:

推力关节轴承**f_a**值

dm/mm		摩擦副材料	
超过	到	钢/钢	钢/PTFE织物
5	60	170	255
60	100	185	280
100	150	190	288
150	200	180	275
200	300	155	230
300	500	143	222
500	700	—	256

当推力关节轴承承受不变的径向和轴向联合载荷时，其当量载荷为: **P=Y_aF_a(N)**，式中**Y_a**取值与当量静载荷中**Y_a**取值相同。

④、杆端关节轴承的额定动载荷计算方法，应根据杆端关节轴承的结构型式来选择。当杆端关节轴承为向心型时，可采用向心关节轴承的额定动载荷计算公式计算。当杆端关节轴承为球头型时，可采用推力关节轴承的额定动载荷计算公式计算。

⑤、当关节轴承在一个摆动周期内承受变动载荷时，其当量动载荷为:

$$P=\sqrt{\frac{F_{min}^2+F_{max}^2}{2}}$$

3、关节轴承寿命计算方法

关节轴承的寿命是指它的摩擦系数达到规定的极限值或轴承的磨损量超过规定的极限值时，轴承工作摆动的总次数。关节轴承的寿命与轴承的承载能力和使用条件有关。

关节轴承的球面滑动速度为: **v=2.9089x10⁻⁴βfd_m(mm/s)**，式中**d_m=ξd_m**，折算系数ξ的值如下表:

折算系数ξ值

轴承类型	向心轴承	角接触球轴承	推力轴承
ξ	1	0.9	0.7

关节轴承中的名义接触压力为: **P= k $\frac{P}{C_d}$ (N/mm²)**，式中耐压系数k如下

耐压系数k值

摩擦副材料	钢/钢	钢/铜	钢/PTFE织物	钢/PTFE复合物
ξ	100	50	150	100

关节轴承工作表面的**pv**值必须加以限制，否则轴承会过热，导致轴承寿命缩短，**pv**值计算公式为:

$$pv=2.9089 \times 10^{-4} k \beta f d_m \frac{P}{C_d} \left(\frac{N}{mm^2} \cdot \frac{mm}{s} \right)$$

SNBAL CALCULATION OF BASIC LOAD RATINGS AND SERVICE LIFE OF SPHERICAL PLAIN BEARING

3、The rated dynamic load **C_{da}** of thrust spherical plain bearing is: **C_{da}=f_a(B+C-H)d_m (N)**,where the coefficient **f_a** is related to the material of friction pair and bore diameter of the bearing, **f_a** values are listedout in the following table:

f_s Values of thrust spherical plain bearing

dm/mm		Material of Friction Pair	
Over	To(incl.)	Steel/Steel	Steel /PTFE Fabric
5	60	170	255
60	100	185	280
100	150	190	288
150	200	180	275
200	300	155	230
300	500	143	222
500	700	—	256

When the invariable combined load in both radial and axial direction is applied on the thrust spherical plain bearing,itsequivalent load is: **P=Y_aF_a(N)**, where the **Y_a** value is the same as the **Y_a** value in static equivalent load formula.

④、The computational method of rated dynamic load of rod end bearing should be selected according to the structuretype of rod end bearing.If the rod end bearing is of radial type, it can be calculated by the rated dynamic load formula ofradial spherical plain bearing.If the rod end bearing is of ball joint type,it can be calculated by the rated dynamic loadformula of thrust spherical plain bearing.

⑤、when the variable dynamic load is applied on the spherical plain bearing in a swing period,its equivalent dynamic load is:

$$P=\sqrt{\frac{F_{min}^2+F_{max}^2}{2}}$$

3. Computational method of spherical plain bearing life

Spherical plain bearing life means, when the friction coefficient reaches the stipulated limit value or the wear loss exceeds the stipulated limit value, the total times that bearing swings .The spherical plain bearing life is related to load capacity and working conditions .

The slide speed of spherical working surface is: **v=2.9089x10⁻⁴βfd_m(mm/s)**, where: **d_m=ξd_m**, the values of convert coefficient ξ are listed in the following table:

Values of convert coefficient ξ

Bearing type	Radial	Angular-contact	Thrust
ξ	1	0.9	0.7

The nominal contact pressure of spherical plail bearing is: **P= k $\frac{P}{C_d}$ (N/mm²)** where:pressure resistant coefficient k is as follows :

Values of pressure resistant coefficient k

Material of Friction Pair	Steel/Steel	Steel/Bronze	Steel /PTFE Fabric	Steel/PTFE Composite Material
ξ	100	50	150	100

The pv value of working surface of spherical plain bearing must be restricted, otherwise bearing would be overheated, resulting in shorter life, the formula to calculate pv value is :

$$pv=2.9089 \times 10^{-4} k \beta f d_m \frac{P}{C_d} \left(\frac{N}{mm^2} \cdot \frac{mm}{s} \right)$$

关节轴承额定载荷与寿命计算

不同材料摩擦副的pv值限制范围如下表:

摩擦副材料	钢/钢	钢/铜	钢/PTFE织物	钢/PTFE复合物
v/(mm/s)	≤100	≤100	≤300	≤300
p/(N/mm²)	≤100	≤50	≤150	≤100
pv(N·mm²·mm·S-)	≤400	≤400	≤300	≤300

关节轴承寿命计算:

关节轴承的计算磨损寿命L为:

$$L=\alpha_k\alpha_t\alpha_p\alpha_v\alpha_z\frac{K_mC_d}{vP}$$

式中各系数分别如下表所示:

寿命系数					
摩擦副材料 系数	钢/钢	钢/铜	钢/PTFE织物	钢/PTFE复合物	备注
k _m	830	207600	2.592X10 ⁵	2.946X10 ⁵	
α _k	1	1	1	1	恒定载荷
	1	1	0.6062-6.0207 X10 ⁻³ f _p P ^{1.11}	0.6062-3.1309 X10 ⁻³ f _p P ^{1.25}	脉动载荷
	2	2	0.433-4.3005 X10 ⁻³ f _p P ^{1.11}	0.433-2.2364 X10 ⁻³ f _p P ^{1.25}	交变载荷
α _t	1	1	1	1	T≤60℃
	0.9	1.15-2.5X10 ⁻³ t	1.225-3.75X 10 ⁻³ t	2.2-0.02t	60C<t≤100C
	0.8	2.1-0.012t	1.35-0.05t		150℃<t≤200℃
	0.6		v ^{0.86} β ^{0.84} f ^{0.64}		100℃<t≤150℃
α _v	v ^{0.86} β ^{0.84} f ^{0.64}	v ^{0.4} f ^{0.8}	$\frac{f}{(1.00475)_{av} \times 1.0093^{\beta}}$	$\frac{f}{(1.00344)_{av}}$	
α _p	v ^{0.4} f ^{0.8} a _p =G/P ^b				
α			a=1.0193 ^p	a=1.0399 ^p	

SNBAL CALCULATION OF BASIC LOAD RATINGS AND SERVICE LIFE OF SPHERICAL PLAIN BEARING

The restricted ranges of pv value of different material friction pairs are listed in the following table:

Material of Friction Pair	Steel/Steel	Steel/Bronze	Steel /PTFE Fabric	Steel/PTFE Composite Material
v/(mm/s)	≤100	≤100	≤300	≤300
p/(N/mm²)	≤100	≤50	≤150	≤100
pv(N·mm²·mm·S-)	≤400	≤400	≤300	≤300

Calculation of spherical plain bearing life :

The computational wear life of spherical plain bearing L is :

$$L=\alpha_k\alpha_t\alpha_p\alpha_v\alpha_z\frac{K_mC_d}{vP}$$

The coefficients in the formula are listed in the following table.

Life Coefficients					
Material of Friction Pair Coefficient	Steel/Steel	Steel/Bronze	Steel /PTFE Fabric	Steel/PTFE Composite Material	Remarks
k _m	830	207600	2.592X10 ⁵	2.946X10 ⁵	
α _k	1	1	1	1	Constant Load
	1	1	0.6062-6.0207 X10 ⁻³ f _p P ^{1.11}	0.6062-3.1309 X10 ⁻³ f _p P ^{1.25}	Pulsating Load
	2	2	0.433-4.3005 X10 ⁻³ f _p P ^{1.11}	0.433-2.2364 X10 ⁻³ f _p P ^{1.25}	Alternating Load
α _t	1	1	1	1	T≤60℃
	0.9	1.15-2.5X10 ⁻³ t	1.225-3.75X 10 ⁻³ t	2.2-0.02t	60C<t≤100C
	0.8	2.1-0.012t	1.35-0.05t		150℃<t≤200℃
	0.6		v ^{0.86} β ^{0.84} f ^{0.64}		100℃<t≤150℃
α _v	v ^{0.86} β ^{0.84} f ^{0.64}	v ^{0.4} f ^{0.8}	$\frac{f}{(1.00475)_{av} \times 1.0093^{\beta}}$	$\frac{f}{(1.00344)_{av}}$	
α _p	v ^{0.4} f ^{0.8} a _p =G/P ^b				
α			a=1.0193 ^p	a=1.0399 ^p	

关节轴承额定载荷与寿命计算

摩擦副材料 P		G,b值		G,b值		G,b值		G,b值	
		钢/钢		钢/铜		钢/PTFE织物		钢/PTFE复合物	
超过	到	G	b	G	b	G	b	G	b
0	10	2	0	0.25	0	15.3460	0.0488	4.5102	0.2230
10	25	80.533	1.465	1	0.6	15.3460	0.0488	4.5102	0.2230
25	45	80.533	1.465	1	0.6	22.9060	0.1732	13.7170	0.5686
45	65	80.533	1.465	—	—	47.7259	0.3660	13.7170	0.5686
65	100	80.533	1.465	—	—	157.9193	0.6527	13.7170	0.5686
100	150	—	—	—	—	402.0115	0.8556	—	—

αz系数			
润滑与结构	油脂润滑		自润滑
	无油槽	有油槽	
αz	0.1~0.5	0.3~1	0.5~1

对于需要维护的关节轴承，应定期更换轴承中的润滑剂，此时轴承的寿命估算方法为：**L_R=α_hα_βL**（摆次）
式中系数 **α_h**、**α_β** 取值如下表:

α _h 系数							
h=L/Lw	1	5	10	20	30	40	50
α _h	1	2	2.85	4	4.9	5.45	5.45

α _β 系数								
β / (°)	≤7	10	15	20	25	30	35	40
α _β	0.8	1	2.4	3.7	4.6	5.2	5.2	5.2

当关节轴承在分段载荷工作下，其寿命计算为：

$$L=T/\sum_{i=1}^n \frac{T_i}{L_i}$$

式中: **T_i**—— 第i段载荷的作用时间;
L_i—— 第i段载荷下的计算寿命;

$$T=T/\sum_{i=1}^n T_i$$

n—— 载荷的分段数

SNBAL CALCULATION OF BASIC LOAD RATINGS AND SERVICE LIFE OF SPHERICAL PLAIN BEARING

Material of Friction Pair P		G,b值		G,b值		G,b值		G,b值	
		Steel/Steel		Steel/Bronze		Steel /PTFE Fabric		Steel/PTFE Composite Material	
Over	To (incl.)	G	b	G	b	G	b	G	b
0	10	2	0	0.25	0	15.3460	0.0488	4.5102	0.2230
10	25	80.533	1.465	1	0.6	15.3460	0.0488	4.5102	0.2230
25	45	80.533	1.465	1	0.6	22.9060	0.1732	13.7170	0.5686
45	65	80.533	1.465	—	—	47.7259	0.3660	13.7170	0.5686
65	100	80.533	1.465	—	—	157.9193	0.6527	13.7170	0.5686
100	150	—	—	—	—	402.0115	0.8556	—	—

αz Coefficient			
Lubricate and Structure	Oil Lubricate		Self-lubricate
	Without Oil Groove	With Oil Groove	
αz	0.1~0.5	0.3~1	0.5~1

For the spherical plain bearing that needs maintenance,the lubricant should be replaced periodically, herein estimating method of the bearing life is: **L_R=α_hα_βL** (swing circles),
where: coefficient **α_h**、**α_β** is given by following table:

α _h Coefficient							
h=L/Lw	1	5	10	20	30	40	50
α _h	1	2	2.85	4	4.9	5.45	5.45

α _β Coefficient								
β / (°)	≤7	10	15	20	25	30	35	40
α _β	0.8	1	2.4	3.7	4.6	5.2	5.2	5.2

If the spherical plain bearing served under a segmented loading,its life can be calculated by the following formula:

$$L=T/\sum_{i=1}^n \frac{T_i}{L_i}$$

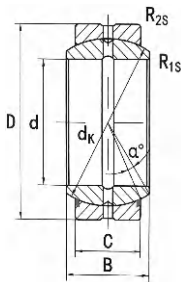
where: **T_i**—— The acting time of i-th loading segment;
L_i—— The calculating life of -th loading segment;

$$T=T/\sum_{i=1}^n T_i$$

n—— Number of Load Segments

向心关节轴承
RADIAL JOINT BEARING

油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GE...ES(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢 Bearing steel	轴承钢 Bearing steel
热处理 Heat treated: HRC58-64	热处理 Heat treated: HRC54-60
磷化 Phosphating	磷化 Phosphating
摩擦副 Sliding contact surfaces:	钢/钢 Steel/Steel



向心关节轴承是由带有内球面的外圈和带有外球面的内圈构成一对滑动摩擦副，主要用于机械同心度要求不高，工作表面压力较大且又要做低速摆动、倾斜或迴转运动的机械机构中。向心关节轴承的滑动摩擦副可由不同材料组成，主要有两种：润滑型(钢对钢)向心关节轴承和自润滑向心关节轴承。

润滑型(钢对钢)向心关节轴承滑动表面一般经过淬火，磷化和涂敷二硫化钼，具有耐磨损、抗腐蚀的特点。这种轴承在正常情况下，周期性润滑是必须的。由于滑动表面具有很高的强度，这种轴承特别适合于承受交变重载、冲击载荷和静态重载。

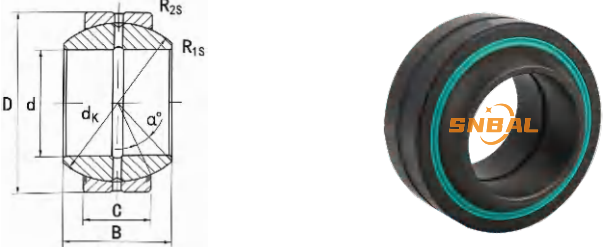
The radial joint bearing is composed of an outer ring with an inner spherical surface and an inner ring with an outer spherical surface, forming a pair of sliding friction components. It is mainly used in mechanical mechanisms where the concentricity requirements are not high, the working surface pressure is large, and low-speed oscillation, inclination or rotation movements need to be performed. The sliding friction components of the radial joint bearing can be made of different materials, mainly including two types: lubricated type (steel on steel) radial joint bearings and self-lubricating radial joint bearings.

The sliding surfaces of the lubricated (steel-on-steel) radial joint bearings are generally hardened, phosphated and coated with molybdenum disulfide, featuring wear resistance and corrosion resistance. Under normal circumstances, periodic lubrication is necessary for these bearings. Due to the high strength of the sliding surfaces, these bearings are particularly suitable for withstanding alternating heavy loads, impact loads and static heavy loads.

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE4E	4	12	5	3	8	0.3	0.3	16	2	10	0.003
GE5E	5	14	6	4	10	0.3	0.3	13	3.4	17	0.005
GE6E	6	14	6	4	10	0.3	0.3	13	3.4	17	0.004
GE8E	8	16	8	5	13	0.3	0.3	15	5.5	27	0.007
GE10E	10	19	9	6	16	0.3	0.3	12	8.1	40	0.011
GE12E	12	22	10	7	18	0.3	0.3	10	10	53	0.016
GE15ES GE15ES-2RS	15	26	12	9	22	0.3	0.3	8	16	84	0.026
GE17ES GE17ES-2RS	17	30	14	10	25	0.3	0.3	10	21	106	0.041
GE20ES GE20ES-2RS	20	35	16	12	29	0.3	0.3	9	30	146	0.061
GE25ES GE25ES-2RS	25	42	20	16	35.5	0.6	0.6	7	48	240	0.11
GE30ES GE30ES-2RS	30	47	22	18	40.7	0.6	0.6	6	62	310	0.14
GE35ES GE35ES-2RS	35	55	25	20	47	0.6	1	6	79	399	0.22
GE40ES GE40ES-2RS	40	62	28	22	53	0.6	1	7	99	495	0.30
GE45ES GE45ES-2RS	45	68	32	25	60	0.6	1	7	127	637	0.41
GE50ES GE50ES-2RS	50	75	35	28	66	0.6	1	6	156	780	0.53
GE55ES GE55ES-2RS	55	85	40	32	74	0.6	1	7	200	1000	0.94
GE60ES GE60ES-2RS	60	90	44	36	80	1	1	6	245	1220	1.00
GE70ES GE70ES-2RS	70	105	49	40	92	1	1	6	313	1560	1.50
GE80ES GE80ES-2RS	80	120	55	45	105	1	1	6	400	2000	2.20
GE90ES GE90ES-2RS	90	130	60	50	115	1	1	5	488	2440	2.70
GE100ES GE100ES-2RS	100	150	70	55	130	1	1	7	607	3030	4.30
GE110ES GE110ES-2RS	110	160	70	55	140	1	1	6	654	3270	4.70
GE120ES GE120ES-2RS	120	180	85	70	160	1	1	6	950	4750	8.00
GE140ES GE140ES-2RS	140	210	90	70	180	1	1	7	1070	5350	11.00
GE160ES GE160ES-2RS	160	230	105	80	200	1	1	8	1360	6800	14.00
GE180ES GE180ES-2RS	180	260	105	80	225	1.1	1.1	6	1530	7650	18.50
GE200ES GE200ES-2RS	200	290	130	100	250	1.1	1.1	7	2120	10600	28.00
GE220ES GE220ES-2RS	220	320	135	100	275	1.1	1.1	8	2320	11600	35.51
GE240ES GE240ES-2RS	240	340	140	100	300	1.1	1.1	8	2550	12700	39.91
GE260ES GE260ES-2RS	260	370	150	110	325	1.1	1.1	7	3030	15190	51.54
GE280ES GE280ES-2RS	280	400	155	120	350	1.1	1.1	6	3570	17850	65.06
GE300ES GE300ES-2RS	300	430	165	120	375	1.1	1.1	7	3800	19100	78.07

油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING

GEG...ES(2RS)

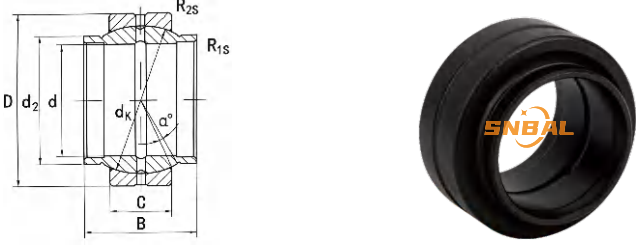


内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEG4E	4	14	7	4	10	0.3	0.3	20	3.4	17	0.005
GEG5E	5	16	9	5	13	0.3	0.3	21	5.5	27	0.009
GEG6E	6	16	9	5	13	0.3	0.3	21	5.5	27	0.008
GEG8E	8	19	11	6	16	0.3	0.3	21	8.1	40	0.014
GEG10E	10	22	12	7	18	0.3	0.3	18	10	53	0.020
GEG12E	12	26	15	9	22	0.3	0.3	18	16	84	0.034
GEG15ES GEG15ES-2RS	15	30	16	10	25	0.3	0.3	16	21	106	0.046
GEG17ES GEG17ES-2RS	17	35	20	12	29	0.3	0.3	19	30	146	0.077
GEG20ES GEG20ES-2RS	20	42	25	16	35.5	0.3	0.6	17	48	240	0.15
GEG25ES GEG25ES-2RS	25	47	28	18	40.7	0.6	0.6	17	62	310	0.19
GEG30ES GEG30ES-2RS	30	55	32	20	47	0.6	1	17	79	399	0.29
GEG35ES GEG35ES-2RS	35	62	35	22	53	0.6	1	16	99	495	0.38
GEG40ES GEG40ES-2RS	40	68	40	25	60	0.6	1	17	127	637	0.54
GEG45ES GEG45ES-2RS	45	75	43	28	66	0.6	1	15	156	780	0.68
GEG50ES GEG50ES-2RS	50	90	56	36	80	0.6	1	17	245	1220	1.44
GEG60ES GEG60ES-2RS	60	105	63	40	92	1	1	17	313	1560	2.00
GEG70ES GEG70ES-2RS	70	120	70	45	105	1	1	16	400	2000	2.90
GEG80ES GEG80ES-2RS	80	130	75	50	115	1	1	14	488	2440	3.50
GEG90ES GEG90ES-2RS	90	150	85	55	130	1	1	15	607	3030	5.40
GEG100ES GEG100ES-2RS	100	160	85	55	140	1	1	14	654	3270	5.90
GEG110ES GEG110ES-2RS	110	180	100	70	160	1	1	12	950	4750	9.60
GEG120ES GEG120ES-2RS	120	210	115	70	180	1	1	16	1070	5350	15.10
GEG140ES GEG140ES-2RS	140	230	130	80	200	1	1	16	1360	6800	19.01
GEG160ES GEG160ES-2RS	160	260	135	80	225	1.1	1.1	16	1530	7650	24.70
GEG180ES GEG180ES-2RS	180	290	155	100	250	1.1	1.1	14	2120	10600	35.40
GEG200ES GEG200ES-2RS	200	320	165	100	275	1.1	1.1	15	2320	11600	45.28
GEG220ES GEG220ES-2RS	220	340	175	100	300	1.1	1.1	16	2550	12700	51.12
GEG240ES GEG240ES-2RS	240	370	190	110	325	1.1	1.1	15	3030	15190	65.12
GEG260ES GEG260ES-2RS	260	400	205	120	350	1.1	1.1	15	3570	17850	82.44
GEG280ES GEG280ES-2RS	280	430	210	120	375	1.1	1.1	15	3800	19100	97.21

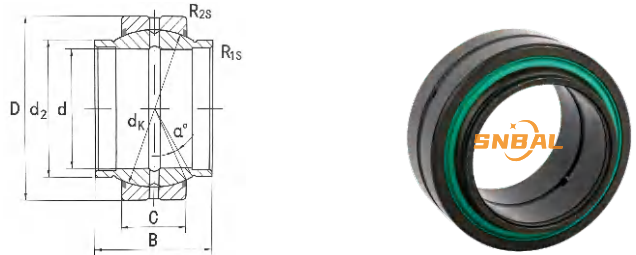
油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING

GE...LO GE...HO(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/钢Steel/Steel

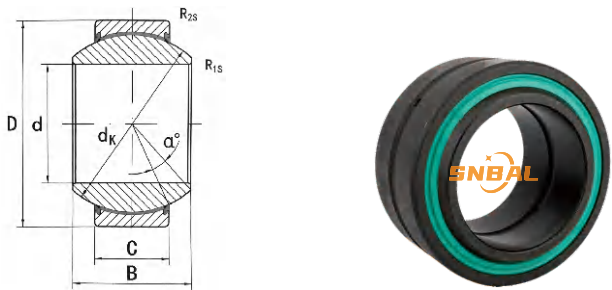
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE12LO*	12	22	12	7	18	0.3	0.3	4	10	53	0.017
GE15LO	15	26	15	9	22	0.3	0.3	5	16	84	0.028
GE16LO	16	28	16	9	23	0.3	0.3	4	17	85	0.034
GE17LO	17	30	17	10	25	0.3	0.3	7	21	106	0.04
GE20LO	20	35	20	12	29	0.3	0.3	4	30	146	0.07
GE25LO	25	42	25	16	35.5	0.6	0.6	4	48	240	0.12
GE30LO	30	47	30	18	40.7	0.6	0.6	4	62	310	0.15
GE32LO	32	52	32	18	43	0.6	1	4	65	328	0.207
GE35LO	35	55	35	20	47	0.6	1	4	79	399	0.26
GE40LO	40	62	40	22	53	0.6	1	4	99	495	0.32
GE45LO	45	68	45	25	60	0.6	1	4	127	637	0.43
GE50LO	50	75	50	28	66	0.6	1	4	156	780	0.55
GE60LO	60	90	60	36	80	1	1	4	245	1220	1.10
GE63LO	63	95	63	36	83	1	1	4	253	1260	1.27
GE70LO	70	105	70	40	92	1	1	4	313	1560	1.60
GE80LO	80	120	80	45	105	1	1	4	400	2000	2.50
GE90LO	90	130	90	50	115	1	1	4	488	2440	2.88
GE100LO	100	150	100	55	130	1	1	4	607	3030	4.65
GE110LO	110	160	110	55	140	1	1	4	654	3270	5.53
GE125LO	125	180	125	70	160	1	1	4	950	4750	8.19
GE160LO	160	230	160	80	200	1	1	4	1360	6800	15.8
GE200LO	200	290	200	100	250	1.1	1.1	4	2120	10600	31.7
GE250LO	250	400	250	120	350	1.1	1.1	4	3750	17800	101
GE320LO	320	520	320	160	450	1.1	1.1	4	6200	30500	225



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE20HO-2RS	20	35	24	12	29	0.3	0.3	6	30	146	0.07
GE25HO-2RS	25	42	29	16	35.5	0.3	0.6	4	48	240	0.13
GE30HO-2RS	30	47	30	18	40.7	0.3	0.6	4	62	310	0.16
GE35HO-2RS	35	55	35	20	47	0.6	1	4	79	399	0.25
GE40HO-2RS	40	62	38	22	53	0.6	1	4	99	495	0.34
GE45HO-2RS	45	68	40	25	60	0.6	1	4	127	637	0.45
GE50HO-2RS	50	75	43	28	66	0.6	1	4	156	780	0.59
GE60HO-2RS	60	90	54	36	80	0.6	1	3	245	1220	1.06
GE70HO-2RS	70	105	65	40	92	0.6	1	4	313	1560	1.66
GE80HO-2RS	80	120	74	45	105	0.6	1	4	400	2000	2.47
GE90HO-2RS	90	130	80	50	115	1	1	4	488	2440	2.88
GE100HO-2RS	100	150	90	55	130	1	1	4	607	3030	4.65
GE120HO-2RS	120	180	108	70	160	1	1	4	950	4750	8.44

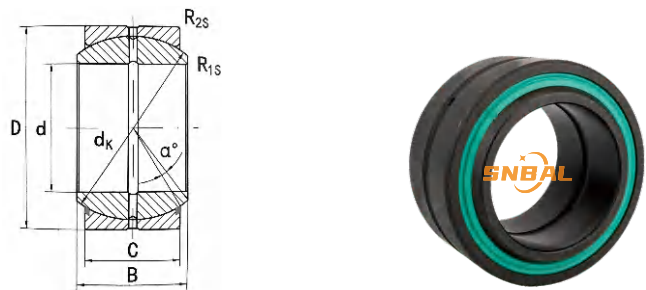
油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEZ...ES(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
镀铬Hard chrome plated	磷化Phosphating
摩擦副Sliding contact surfaces:钢/PEET 织布Steel/PEET fabric	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEZ12ES	12.7 0.5	22.225 0.875	11.1 0.437	9.525 0.375	18 0.709	0.15 0.006	0.6 0.024	6	13	41	0.022
GEZ15ES	15.875 0.625	26.988 1.0625	13.894 0.547	11.913 0.469	23 0.906	0.15 0.006	0.6 0.024	6	22	65	0.036
GEZ19ES GEZ19ES-2RS	19.05 0.75	31.75 1.25	16.662 0.656	14.275 0.562	27.5 1.083	0.3 0.012	0.6 0.024	6	31	95	0.053
GEZ22ES GEZ22ES-2RS	22.225 0.875	36.513 1.4375	19.431 0.765	16.662 0.656	32 1.26	0.3 0.012	0.6 0.024	6	42	127	0.085
GEZ25ES GEZ25ES-2RS	25.4 1	41.275 1.625	22.225 0.875	19.05 0.75	36.5 1.437	0.3 0.012	0.6 0.024	6	56	166	0.121
GEZ31ES GEZ31ES-2RS	31.75 1.25	50.8 2	27.762 1.093	23.8 0.937	45.5 1.791	0.6 0.024	0.6 0.024	6	86	260	0.23
GEZ34ES GEZ34ES-2RS	34.925 1.375	55.563 2.1875	30.15 1.187	26.187 1.031	49 1.929	0.6 0.024	1 0.04	5	102	310	0.35
GEZ38ES GEZ38ES-2RS	38.1 1.5	61.913 2.4375	33.325 1.312	28.575 1.125	54.7 2.154	0.6 0.024	1 0.04	6	125	375	0.42
GEZ44ES GEZ44ES-2RS	44.45 1.75	71.438 2.8125	38.887 1.531	33.325 1.312	63.9 2.516	0.6 0.024	1 0.04	6	170	510	0.64
GEZ50ES GEZ50ES-2RS	50.8 2	80.963 3.1875	44.45 1.75	38.1 1.5	73 2.874	0.6 0.024	1 0.04	6	224	670	0.93
GEZ57ES GEZ57ES-2RS	57.15 2.25	90.488 3.5625	50.013 1.969	42.85 1.687	82 3.228	0.6 0.024	1 0.04	6	280	850	1.3
GEZ63ES GEZ63ES-2RS	63.5 2.5	100.013 3.9375	55.55 2.187	47.625 1.875	92 3.622	1 0.04	1 0.04	6	355	1060	1.85
GEZ69ES GEZ69ES-2RS	69.85 2.75	111.125 4.375	61.112 2.406	52.375 2.062	100 3.937	1 0.04	1 0.04	6	415	1250	2.4
GEZ76ES GEZ76ES-2RS	76.2 3	120.65 4.75	66.675 2.625	57.15 2.25	109.5 4.311	1 0.04	1 0.04	6	500	1500	3.1
GEZ82ES GEZ82ES-2RS	82.55 3.25	130.175 5.125	72.238 2.844	61.9 2.437	119 4.685	1 0.04	1 0.04	6	585	1760	3.8
GEZ88ES GEZ88ES-2RS	88.9 3.5	139.7 5.5	77.775 3.062	66.675 2.625	128 5.039	1 0.04	1 0.04	6	680	2040	4.8
GEZ95ES GEZ95ES-2RS	95.25 3.75	149.225 5.875	83.337 3.281	71.425 2.812	137 5.394	1 0.04	1 0.04	6	780	2360	5.8
GEZ101ES GEZ101ES-2RS	101.6 4	158.75 6.25	88.9 3.5	76.2 3	146 5.748	1 0.04	1 0.04	6	900	2650	7
GEZ107ES GEZ107ES-2RS	107.95 4.25	168.275 6.625	94.463 3.719	80.95 3.187	155 6.102	1 0.04	1 0.04	6	1000	3000	8.4
GEZ114ES GEZ114ES-2RS	114.300 4.5	177.800 7	100.013 3.937	85.725 3.375	164.5 6.476	1 0.04	1 0.04	6	1120	3400	9.8
GEZ120ES GEZ120ES-2RS	120.650 4.75	187.325 7.375	105.562 4.156	90.475 3.562	173.5 6.83	1 0.04	1 0.04	6	1250	3750	11.5
GEZ127ES GEZ127ES-2RS	127.000 5	196.850 7.75	111.125 4.375	95.250 3.75	183 7.204	1 0.04	1 0.04	6	1400	4150	13.5
GEZ152ES GEZ152ES-2RS	152.400 6	222.250 8.75	120.65 4.75	104.775 4.125	207 8.15	1 0.04	1 0.04	5	1730	5200	17.5

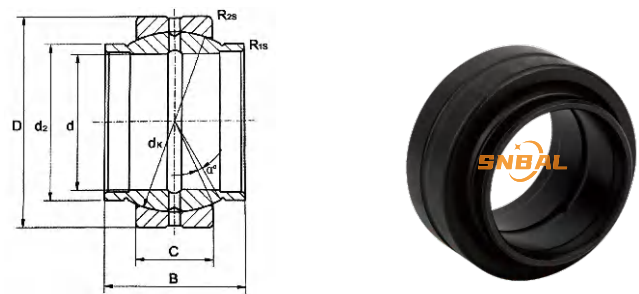
油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEGZ...ES(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:钢/钢Steel/Steel	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEGZ31ES GEGZ31ES-2RS	31.750 1.25	61.913 2.4375	35.306 1.39	28.575 1.125	54.7 2.154	0.6 0.024	1 0.04	8	125	375	0.454
GEGZ38ES GEGZ38ES-2RS	38.100 1.5	71.438 2.8125	40.132 1.58	33.325 1.312	63.9 2.516	0.6 0.024	1 0.04	7	170	510	0.726
GEGZ44ES GEGZ44ES-2RS	44.450 1.75	80.963 3.1875	46.228 1.82	38.100 1.5	73 2.874	0.6 0.024	1 0.04	7	224	670	1.14
GEGZ50ES GEGZ50ES-2RS	50.800 2	90.488 3.5625	52.578 2.07	42.850 1.687	82 3.228	0.6 0.024	1 0.04	8	280	850	1.68
GEGZ57ES GEGZ57ES-2RS	57.150 2.25	100.013 3.9375	58.877 2.318	47.625 1.875	92 3.622	0.6 0.024	1 0.04	8	355	1060	2.01
GEGZ63ES GEGZ63ES-2RS	63.500 2.5	111.125 4.375	64.643 2.545	52.375 2.062	100 3.937	1 0.04	1 0.04	8	415	1250	2.95
GEGZ69ES GEGZ69ES-2RS	69.850 2.75	120.650 4.75	70.866 2.79	57.150 2.25	109.5 4.311	1 0.04	1 0.04	8	500	1500	3.63
GEGZ76ES GEGZ76ES-2RS	76.200 3	130.175 5.125	76.759 3.022	61.900 2.437	119 4.685	1 0.04	1 0.04	8	585	1760	4.36
GEGZ82ES GEGZ82ES-2RS	82.550 3.25	139.700 5.5	82.931 3.265	66.675 2.625	128 5.039	1 0.04	1 0.04	8	680	2040	5.31
GEGZ88ES GEGZ88ES-2RS	88.900 3.5	149.225 5.875	90.424 3.56	71.425 2.812	137 5.394	1 0.04	1 0.04	9	780	2360	6.81
GEGZ95ES GEGZ95ES-2RS	95.250 3.75	158.750 6.25	94.945 3.738	76.200 3	146 5.748	1 0.04	1 0.04	9	900	2650	8.85
GEGZ101ES GEGZ101ES-2RS	101.600 4	177.800 7	107.315 4.225	85.725 3.375	164.5 6.476	1 0.04	1 0.04	9	1120	3400	10.2
GEGZ114ES GEGZ114ES-2RS	114.300 4.5	196.850 7.75	119.126 4.69	95.250 3.75	183 7.205	1 0.04	1 0.04	9	1400	4150	13.6
GEGZ139ES GEGZ139ES-2RS	139.700 5.5	222.250 8.75	125.730 4.95	104.775 4.125	207 8.15	1 0.04	1 0.04	6	1730	5200	20.4

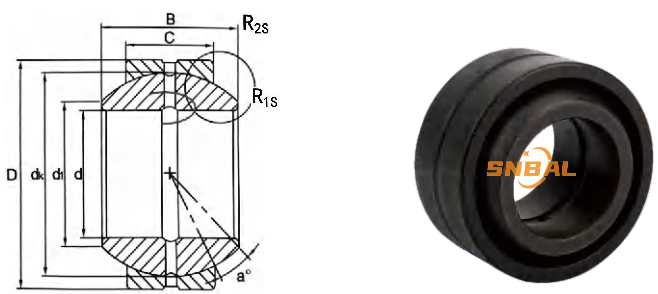
油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEWZ...ES(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

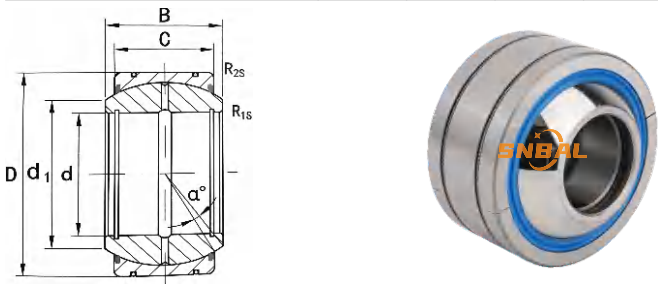
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEWZ12ES	12.700	22.225	19.050	9.525	18	0.15	0.6	5	13	41	0.024
	0.5	0.875	0.75	0.375	0.709	0.006	0.024				
GEWZ15ES	15.875	26.988	23.800	11.913	23	0.15	0.6	5	22	65	0.038
	0.625	1.0625	0.937	0.469	0.906	0.006	0.024				
GEWZ19ES GEWZ19ES-2RS	19.050	31.750	28.575	14.275	27.5	0.3	0.6	5	31	95	0.064
	0.75	1.25	1.125	0.562	1.083	0.012	0.024				
GEWZ22ES GEWZ22ES-2RS	22.225	36.513	33.325	16.662	32	0.3	0.6	5	42	127	0.098
	0.875	1.4375	1.312	0.656	1.26	0.012	0.024				
GEWZ25ES GEWZ25ES-2RS	25.400	41.275	38.100	19.050	36.5	0.3	0.6	5	56	166	0.142
	1	1.625	1.5	0.75	1.437	0.012	0.024				
GEWZ31ES GEWZ31ES-2RS	31.750	50.800	47.625	23.800	45.5	0.6	0.6	5	86	260	0.271
	1.25	2	1.875	0.937	1.791	0.024	0.024				
GEWZ34ES GEWZ34ES-2RS	34.925	55.563	52.375	26.187	49	0.6	1	5	102	310	0.373
	1.375	2.1875	2.062	1.031	1.929	0.024	0.04				
GEWZ38ES GEWZ38ES-2RS	38.100	61.913	57.150	28.575	54.7	0.6	1	5	125	375	0.494
	1.5	2.4375	2.25	1.125	2.154	0.024	0.04				
GEWZ44ES GEWZ44ES-2RS	44.450	71.438	66.675	33.325	63.9	0.6	1	5	170	510	0.762
	1.75	2.8125	2.625	1.312	2.516	0.024	0.04				
GEWZ50ES GEWZ50ES-2RS	50.800	80.963	76.200	38.100	73	0.6	1	5	224	670	1.11
	2	3.1875	3	1.5	2.874	0.024	0.04				
GEWZ57ES GEWZ57ES-2RS	57.150	90.488	85.725	42.850	82	0.6	1	5	280	850	1.57
	2.25	3.5625	3.375	1.687	3.228	0.024	0.04				
GEWZ63ES GEWZ63ES-2RS	63.500	100.013	95.250	47.625	92	1	1	5	355	1060	2.15
	2.5	3.9375	3.75	1.875	3.622	0.04	0.04				
GEWZ69ES GEWZ69ES-2RS	69.850	111.125	104.775	52.375	100	1	1	5	415	1250	2.9
	2.75	4.375	4.125	2.062	3.937	0.04	0.04				
GEWZ76ES GEWZ76ES-2RS	76.200	120.65	114.300	57.150	109.5	1	1	5	500	1500	3.59
	3	4.75	4.5	2.25	4.311	0.04	0.04				
GEWZ82ES GEWZ82ES-2RS	82.550	130.17	123.825	61.900	119	1	1	5	585	1760	4.69
	3.25	5.125	4.875	2.437	4.685	0.04	0.04				
GEWZ88ES GEWZ88ES-2RS	88.900	139.70	133.35	66.675	128	1	1	5	680	2040	5.86
	3.5	5.5	5.25	2.625	5.039	0.04	0.04				
GEWZ95ES GEWZ95ES-2RS	95.250	149.225	142.875	71.425	137	1	1	5	780	2360	7.11
	3.75	5.875	5.625	2.812	5.394	0.04	0.04				
GEWZ101ES GEWZ101ES-2RS	101.600	158.750	152.400	76.200	146	1	1	5	900	2650	8.56
	4	6.25	6	3	5.748	0.04	0.04				
GEWZ114ES GEWZ114ES-2RS	114.30	177.80	171.45	85.725	164.5	1	1	5	1120	3400	12.24
	4.5	7	6.75	3.375	6.476	0.04	0.04				
GEWZ127ES GEWZ127ES-2RS	127.00	196.85	190.50	95.250	183	1	1	5	1400	4150	16.63
	5	7.75	7.5	3.75	7.205	0.04	0.04				
GEWZ152ES GEWZ152ES-2RS	152.40	222.25	209.55	104.775	207	1	1	5	1730	5200	20.7
	6	8.75	8.25	4.125	8.15	0.04	0.04				

油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEF...ES GEK...XS(2GS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

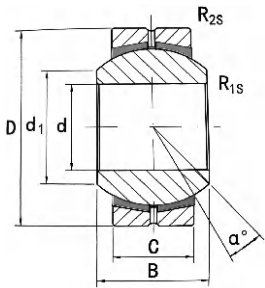
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEF12ES	12	22	11	9	18	0.5	0.5	7	13	68	0.019
GEF15ES	15	26	13	11	22	0.5	0.5	6	20	102	0.031
GEF20ES	20	32	16	14	28	0.5	0.5	4	33	166	0.054
GEF22ES	22	37	19	16	32	0.5	0.5	6	43	217	0.088
GEF25ES	25	42	21	18	36	0.5	0.5	5	55	275	0.128
GEF30ES	30	50	27	23	45	1		6	87	439	0.232
GEF35ES	35	55	30	26	50	1	1	5	110	552	0.291
GEF40ES	40	62	33	28	55	1	1	6	130	654	0.392
GEF45ES	45	72	36	31	62	1	1	5	163	816	0.609
GEF50ES	50	80	42	36	72	1	1	5	220	1100	0.885
GEF55ES	55	90	47	40	80	1	1	6	272	1360	1.29
GEF60ES	60	100	53	45	90	1	1	6	344	1720	1.84
GEF65ES	65	105	55	47	94	1	1	5	375	1870	2.03
GEF70ES	70	110	58	50	100	1	1	5	425	2125	2.28
GEF75ES	75	120	64	55	110	1	1	5	510	2570	3.08
GEF80ES	80	130	70	60	120	1	1	5	610	3060	4.04
GEF85ES	85	135	74	63	125	1	1	6	669	3340	4.44
GEF90ES	90	140	76	65	130	1	1	5	718	3590	4.79
GEF95ES	95	150	82	70	140	1	1	5	833	4165	6.07
GEF100ES	100	160	88	75	150	1.5	1.5	5	956	4780	7.56
GEF110ES	110	170	93	80	160	1.5	1.5	5	1080	5440	8.63
GEF115ES	115	180	98	85	165	1.5	1.5	5	1190	5960	10.4
GEF120ES	120	190	105	90	175	1.5	1.5	6	1330	6690	12.5
GEF130ES	130	200	110	95	185	1.5	1.5	5	1490	7460	14.0
GEF150ES	150	220	120	105	205	1.5	1.5	5	1820	9140	17.2



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC58-64
镀铬Hard chrome plated	
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

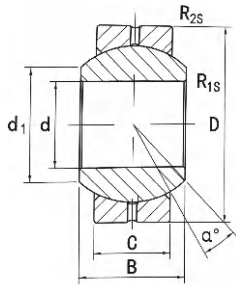
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEK25XS-2GS	25	68	40	28	50	0.6	1	19	117	590	0.516
GEK30XS-2GS	30	70	47	32	60	0.6	1	19	163	813	0.785
GEK35XS-2GS	35	80	54	38	70	0.6	1	17	226	1130	1.23
GEK40XS-2GS	40	90	64	44	80	0.6	1	19	298	1490	1.83
GEK45XS-2GS	45	100	72	52	90	0.6	1	17	398	1990	2.56
GEK50XS-2GS	50	110	80	58	100	1	1	17	493	2450	3.43
GEK55XS-2GS	55	125	90	64	110	1	1	19	598	2990	5.02
GEK60XS-2GS	60	135	98	72	120	1	1	17	732	3660	6.43

油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEBK...S GEBJ...S



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	碳钢Carbon steel
热处理Heat treated:HRC58-64	
摩擦副Sliding contact surfaces: 钢/铜Steel/Brass	

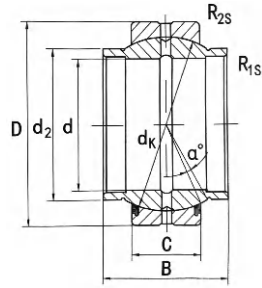
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEBK5S	5	16	8	6	11.112	0.3	0.3	13	3.3	7.8	0.009
GEBK6S	6	18	9	6.75	12.7	0.3	0.3	13	4.3	9.8	0.013
GEBK8S	8	22	12	9	15.88	0.3	0.3	14	6.8	16	0.024
GEBK10S	10	26	14	10.5	19.05	0.3	0.6	14	10	23	0.039
GEBK12S	12	30	16	12	22.23	0.3	0.6	13	13	31	0.058
GEBK14S	14	34	19	13.5	25.4	0.3	0.6	16	17	40	0.084
GEBK16S	16	38	21	15	28.58	0.3	0.6	15	21	50	0.111
GEBK18S	18	42	23	16.5	31.75	0.6	0.6	15	26	61	0.16
GEBK20S	20	46	25	18	34.93	0.6	0.6	15	31	73	0.21
GEBK22S	22	50	28	20	38.1	0.6	0.6	15	38	88	0.26
GEBK25S	25	56	31	22	42.86	0.6	0.6	15	47	110	0.39
GEBK28S	28	62	35	25	47.63	0.6	0.6	15	59	138	0.50
GEBK30S	30	66	37	25	50.8	0.6	0.6	17	63	148	0.61



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	碳钢Carbon steel
热处理Heat treated:HRC58-64	
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEBJ5S	5	13	8	6	11.112	0.3	0.3	13	3.2	9	0.006
GEBJ6S	6	16	9	6.75	12.7	0.3	0.3	13	4.1	12	0.010
GEBJ8S	8	19	12	9	15.88	0.3	0.3	14	6.5	20	0.018
GEBJ10S	10	22	14	10.5	19.05	0.3	0.6	13	9.6	28	0.027
GEBJ12S	12	26	16	12	22.23	0.3	0.6	13	12	37	0.043
GEBJ14S	14	28	19	13.5	25.4	0.3	0.6	16	16	49	0.055
GEBJ16S	16	32	21	15	28.58	0.3	0.6	15	20	61	0.081
GEBJ18S	18	35	23	16.5	31.75	0.6	0.6	15	25	74	0.103
GEBJ20S	20	40	25	18	34.93	0.6	0.6	14	30	89	0.149
GEBJ22S	22	42	28	20	38.1	0.6	0.6	15	36	108	0.176
GEBJ25S	25	47	31	22	42.86	0.6	0.6	15	45	130	0.242
GEBJ30S	30	55	37	25	50.8	0.6	0.6	17	61	178	0.378
GEBJ35S	35	62	43	28	57.15	0.6	1	19	76	224	0.522
GEBJ40S	40	75	49	33	66.67	0.6	1	17	105	308	0.931
GEBJ50S	50	90	60	45	82.5	0.6	1	13	178	519	1.69

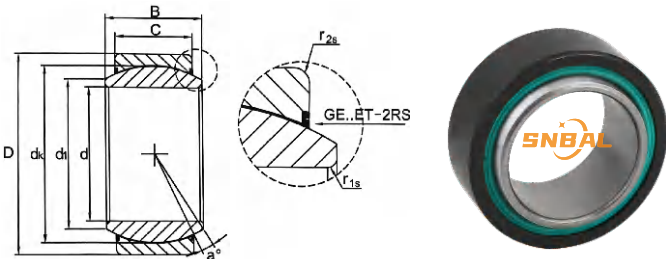
油润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
COM...



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	碳钢Carbon steel
热处理Heat treated:HRC58-64	
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN	重量 Weight ≈kg
	d	D	B	C	d _k	d _i	m	α°	静载荷 Static	
COM3	4.826	14.29	7.14	5.54	10.31	7.44	0.381	11	14.464	0.006
	0.19	0.5625	0.281	0.218	0.406	0.293	0.015			
COM4	6.35	16.67	8.71	6.35	12.7	9.25	0.56	13.5	22.015	0.010
	0.25	0.6562	0.343	0.25	0.5	0.364	0.022			
COM5	7.938	19.05	9.53	7.14	14.27	10.64	0.81	12	28.800	0.014
	0.3125	0.75	0.375	0.281	0.562	0.419	0.032			
COM6	9.525	20.64	10.31	7.92	16.66	13.11	0.81	10	37.361	0.017
	0.375	0.8125	0.406	0.312	0.656	0.516	0.032			
COM7	11.113	23.02	11.1	8.71	17.45	13.46	0.81	8	42.048	0.021
	0.4375	0.9062	0.437	0.343	0.687	0.530	0.032			
COM8	12.7	25.40	12.7	9.91	20.65	16.26	0.81	9.5	58.934	0.029
	0.5	1	0.5	0.39	0.813	0.640	0.032			
COM9	14.288	27.78	14.27	11.1	23.01	18.03	0.81	9.5	73.967	0.039
	0.5625	1.0937	0.562	0.437	0.906	0.710	0.032			
COM10	15.875	30.16	15.88	12.7	25.40	19.81	0.81	8.5	94.658	0.050
	0.625	1.1875	0.625	0.5	1	0.780	0.032			
COM12	19.050	36.51	19.05	15.06	30.15	23.37	1.12	9	141.982	0.093
	0.75	1.4375	0.75	0.593	1.187	0.920	0.044			
COM14	22.225	39.69	22.23	17.86	33.32	24.89	1.12	9.5	186.639	0.119
	0.875	1.5625	0.875	0.703	1.312	0.980	0.044			
COM16	25.4	44.45	25.4	20.24	38.1	28.4	1.12	10	245.534	0.175
	1	1.75	1	0.797	1.5	1.118	0.044			

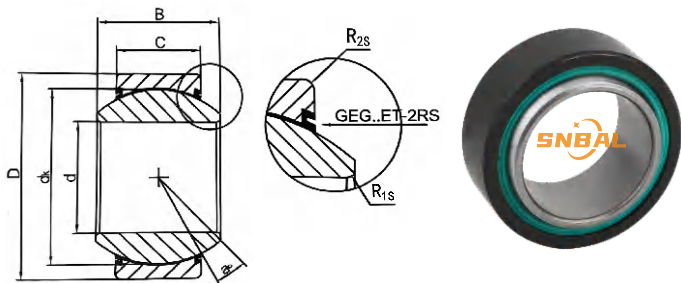
自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GE...ET(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
镀铬Hard chrome plated	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/PTFE 织物 Stell/PTFE fabric

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GE15ET-2RS	15	26	12	9	22	0.3	0.3	8	47	79	0.026
GE17ET-2RS	17	30	14	10	25	0.3	0.3	10	60	100	0.040
GE20ET-2RS	20	35	16	12	29	0.3	0.3	9	83	139	0.064
GE25ET-2RS	25	42	20	16	35.5	0.6	0.6	7	135	225	0.115
GE30ET-2RS	30	47	22	18	40.7	0.6	0.6	6	175	290	0.149
GE35ET-2RS	35	55	25	20	47	0.6	1	6	225	375	0.228
GE40ET-2RS	40	62	28	22	53	0.6	1	7	275	465	0.318
GE45ET-2RS	45	68	32	25	60	0.6	1	7	360	600	0.421
GE50ET-2RS	50	75	35	28	66	0.6	1	6	440	735	0.562
GE55ET-2RS	55	85	40	32	74	0.6	1	7	560	940	0.864
GE60ET-2RS	60	90	44	36	80	1	1	6	690	1150	1.03
GE70ET-2RS	70	105	49	40	92	1	1	6	880	1470	1.57
GE80ET-2RS	80	120	55	45	105	1	1	6	1130	1890	2.32
GE90ET-2RS	90	130	60	50	115	1	1	5	1380	2300	2.79
GE100ET-2RS	100	150	70	55	130	1	1	7	1710	2860	4.44
GE110ET-2RS	110	160	70	55	140	1	1	6	1840	3080	4.83
GE120ET-2RS	120	180	85	70	160	1	1	6	2680	4480	8.11
GE140XT-2RS	140	210	90	70	180	1	1	7	3020	5040	11.2
GE160XT-2RS	160	230	105	80	200	1	1	8	3840	6400	14.1
GE180XT-2RS	180	260	105	80	225	1.1	1.1	6	4320	7200	18.5
GE200XT-2RS	200	290	130	100	250	1.1	1.1	7	6000	10000	28.4
GE220XT-2RS	220	320	135	100	275	1.1	1.1	8	6600	11000	35.7
GE240XT-2RS	240	340	140	100	300	1.1	1.1	8	7200	12000	39.7
GE260XT-2RS	260	370	150	110	325	1.1	1.1	7	8580	14300	51.5
GE280XT-2RS	280	400	155	120	350	1.1	1.1	6	10000	16800	64.9
GE300XT-2RS	300	430	165	120	375	1.1	1.1	7	10800	18000	77.6

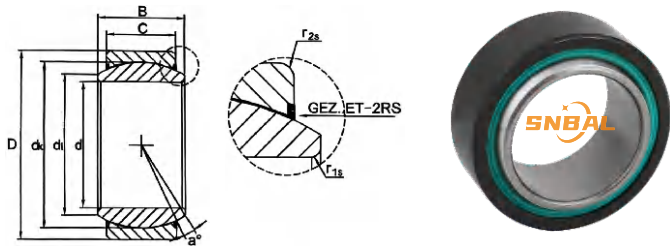
自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEG...ET(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
镀铬Hard chrome plated	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/PTFE 织物 Stell/PTFE fabric

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEG15ET-2RS	15	30	16	10	25	0.3	0.3	16	60	100	0.048
GEG17ET-2RS	17	35	20	12	29	0.3	0.3	19	83	139	0.080
GEG20ET-2RS	20	42	25	16	35.5	0.3	0.6	17	135	225	0.152
GEG25ET-2RS	25	47	28	18	40.7	0.6	0.6	17	175	290	0.199
GEG30ET-2RS	30	55	32	20	47	0.6	1	17	225	375	0.296
GEG35ET-2RS	35	62	35	22	53	0.6	1	16	275	465	0.402
GEG40ET-2RS	40	68	40	25	60	0.6	1	17	360	600	0.535
GEG45ET-2RS	45	75	43	28	66	0.6	1	15	440	735	0.698
GEG50ET-2RS	50	90	56	36	80	0.6	1	17	690	1150	1.42
GEG60ET-2RS	60	105	63	40	92	1	1	17	880	1470	2.09
GEG70ET-2RS	70	120	70	45	105	1	1	16	1130	1890	3.01
GEG80ET-2RS	80	130	75	50	115	1	1	14	1380	2300	3.61
GEG90ET-2RS	90	150	85	55	130	1	1	15	1710	2860	5.50
GEG100ET-2RS	100	160	85	55	140	1	1	14	1840	3080	6.04
GEG110ET-2RS	110	180	100	70	160	1	1	12	2680	4480	9.74
GEG120XT-2RS	120	210	115	70	180	1	1	16	3020	5040	15.1
GEG140XT-2RS	140	230	130	80	200	1	1	16	3840	6400	18.9
GEG160XT-2RS	160	260	135	80	225	1.1	1.1	16	4320	7200	24.8
GEG180XT-2RS	180	290	155	100	250	1.1	1.1	14	6000	10000	35.9
GEG200XT-2RS	200	320	165	100	275	1.1	1.1	15	6600	11000	44.9
GEG220XT-2RS	220	340	175	100	300	1.1	1.1	16	7200	12000	50.9
GEG240XT-2RS	240	370	190	110	325	1.1	1.1	15	8580	14300	65.3
GEG260XT-2RS	260	400	205	120	350	1.1	1.1	15	10000	16800	82.0
GEG280XT-2RS	280	430	210	120	375	1.1	1.1	15	10800	18000	96.6

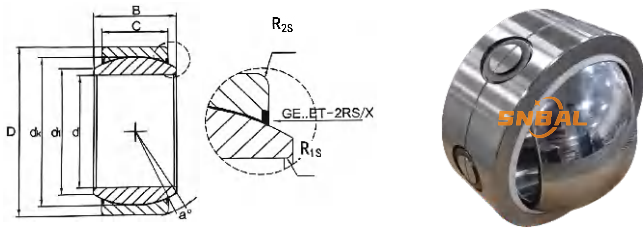
自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEZ...ET(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
镀铬Hard chrome plated	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/PTFE 织物 Stell/PTFE fabric

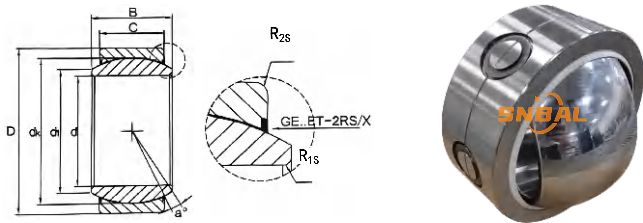
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEZ19ET-2RS	19.05	31.75	16.662	14.275	27.5	0.3	0.6	6	50	117	0.053
	0.75	1.25	0.656	0.562	1.081	0.012	0.024				
GEZ22ET-2RS	22.225	36.513	19.431	16.662	32	0.3	0.6	6	69	160	0.085
	0.875	1.4375	0.756	0.656	1.258	0.012	0.024				
GEZ25ET-2RS	25.4	41.275	22.225	19.05	36.5	0.3	0.6	6	104	250	0.121
	1	1.625	0.875	0.75	1.437	0.012	0.024				
GEZ31ET-2RS	31.75	50.8	27.762	23.8	45.5	0.6	0.6	6	160	390	0.23
	1.25	2	1.093	0.937	1.788	0.024	0.024				
GEZ34ET-2RS	34.925	55.563	30.15	26.187	49	0.6	1	5	190	460	0.35
	1.375	2.1875	1.187	1.031	1.926	0.024	0.04				
GEZ38ET-2RS	38.1	61.913	33.325	28.575	54.7	0.6	1	6	235	560	0.42
	1.5	2.4375	1.312	1.125	2.154	0.024	0.04				
GEZ44ET-2RS	44.45	71.438	38.887	33.325	63.9	0.6	1	6	320	765	0.64
	1.75	2.8125	1.531	1.312	2.511	0.024	0.04				
GEZ50ET-2RS	50.8	80.963	44.45	38.1	73	0.6	1	6	415	1000	0.93
	2	3.1875	1.75	1.5	2.869	0.024	0.04				
GEZ57ET-2RS	57.15	90.488	50.013	42.85	82	0.6	1	6	525	1260	1.3
	2.25	3.5625	1.969	1.687	3.223	0.024	0.04				
GEZ63ET-2RS	63.5	100.013	55.55	47.625	92	1	1	6	655	1570	1.85
	2.5	3.9375	2.187	1.875	3.616	0.04	0.04				
GEZ69ET-2RS	69.85	111.125	61.112	52.375	100	1	1	6	785	1880	2.4
	2.75	4.375	2.406	2.062	3.937	0.04	0.04				
GEZ76ET-2RS	76.2	120.65	66.675	57.15	109.5	1	1	6	935	2250	3.1
	3	4.75	2.625	2.25	4.303	0.04	0.04				
GEZ82ET-2RS	82.55	130.175	72.238	61.9	119	1	1	6	1100	2650	3.8
	3.25	5.125	2.844	2.437	4.685	0.04	0.04				
GEZ88ET-2RS	88.9	139.7	77.775	66.675	128	1	1	6	1280	3070	4.8
	3.5	5.5	3.062	2.625	5.04	0.04	0.04				
GEZ95ET-2RS	95.25	149.225	83.337	71.425	137	1	1	6	1460	3520	5.8
	3.75	5.875	3.281	2.812	5.393	0.04	0.04				
GEZ101ET-2RS	101.6	158.75	88.9	76.2	146	1	1	6	1660	4000	7
	4	6.25	3.5	3	5.748	0.04	0.04				
GEZ107ET-2RS+	107.95	168.275	94.463	80.95	155	1	1	6	1880	4510	8.4
	4.25	6.625	3.719	3.187	6.102	0.04	0.04				
GEZ114ET-2RS	114.3	177.8	100.013	85.725	164.5	1	1	6	2110	5070	9.8
	4.5	7	3.937	3.375	6.476	0.04	0.04				
GEZ120ET-2RS	120.65	187.325	105.562	90.475	173.5	1	1	6	2350	5650	11.5
	4.75	7.375	4.156	3.562	6.83	0.04	0.04				
GEZ127ET-2RS	127	196.85	111.125	95.25	183	1	1	6	2610	6270	13.5
	5	7.75	4.375	3.75	7.204	0.04	0.04				
GEZ152ET-2RS	152.4	222.25	120.65	104.775	207	1	1	5	3250	7800	17.5
	6	8.75	4.75	4.125	8.15	0.04	0.04				

不锈钢向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GE...ET(2RS/X) GE...XT(2RS/X)



内圈 Inner ring	外圈 Outer ring
不锈钢Stainless steel	不锈钢Stainless steel
热处理Heat treated:HRC56-60	热处理Heat treated:HRC54-60
摩擦副Sliding contact surfaces:	钢/PTFE 织物 Stell/PTFE fabric

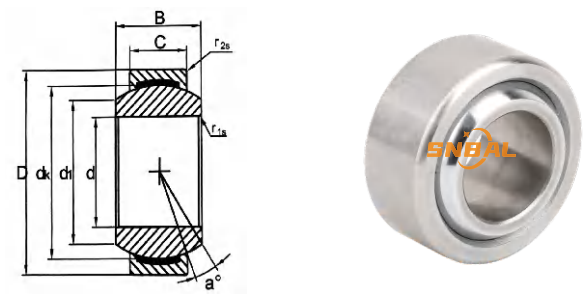
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE15ET-2RS/X	15	26	12	9	22	0.3	0.3	8	47	79	0.026
GE17ET-2RS/X	17	30	14	10	25	0.3	0.3	10	60	100	0.040
GE20ET-2RS/X	20	35	16	12	29	0.3	0.3	9	83	139	0.064
GE25ET-2RS/X	25	42	20	16	35.5	0.6	0.6	7	135	225	0.115
GE30ET-2RS/X	30	47	22	18	40.7	0.6	0.6	6	175	290	0.149
GE35ET-2RS/X	35	55	25	20	47	0.6	1	6	225	375	0.228
GE40ET-2RS/X	40	62	28	22	53	0.6	1	7	275	465	0.318
GE45ET-2RS/X	45	68	32	25	60	0.6	1	7	360	600	0.421
GE50ET-2RS/X	50	75	35	28	66	0.6	1	6	440	735	0.562
GE55ET-2RS/X	55	85	40	32	74	0.6	1	7	560	940	0.864
GE60ET-2RS/X	60	90	44	36	80	1	1	6	690	1150	1.03



内圈 Inner ring	外圈 Outer ring
不锈钢Stainless steel	不锈钢Stainless steel
热处理Heat treated:HRC56-60	热处理Heat treated:HRC56-60
摩擦副Sliding contact surfaces:	钢/PTFE 织物 Stell/PTFE fabric

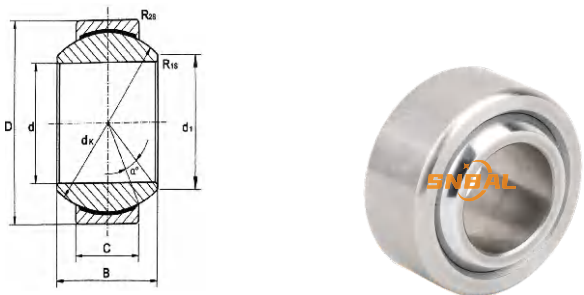
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE70XT-2RS/X	70	105	49	40	92	1	1	6	880	1470	1.57
GE80XT-2RS/X	80	120	55	45	105	1	1	6	1130	1890	2.32
GE90XT-2RS/X	90	130	60	50	115	1	1	5	1380	2300	2.79
GE100XT-2RS/X	100	150	70	55	130	1	1	7	1710	2860	4.44
GE110XT-2RS/X	110	160	70	55	140	1	1	6	1840	3080	4.83
GE120XT-2RS/X	120	180	85	70	160	1	1	6	2680	4480	8.11
GE140XT-2RS/X	140	210	90	70	180	1	1	7	3020	5040	11.2
GE160XT-2RS/X	160	230	105	80	200	1	1	8	3840	6400	14.1
GE180XT-2RS/X	180	260	105	80	225	1.1	1.1	6	4320	7200	18.5
GE200XT-2RS/X	200	290	130	100	250	1.1	1.1	7	6000	10000	28.4

自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GE...C GEG...C



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	碳钢Carbon steel
热处理Heat treated:HRC58-64	
镀铬Hard chrome plated	
摩擦副Sliding contact surfaces: 钢/PTFE Stell/PTFE	

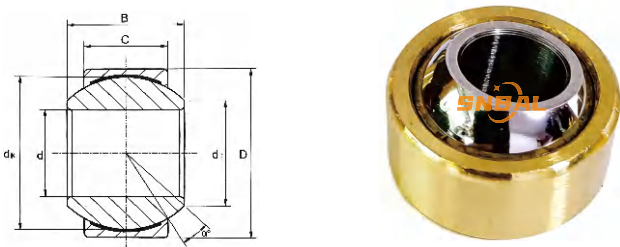
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE4C	4	12	5	3	8	0.3	0.3	16	2.1	5.4	0.003
GE5C	5	14	6	4	10	0.3	0.3	13	3.6	9.1	0.005
GE6C	6	14	6	4	10	0.3	0.3	13	3.6	9.1	0.004
GE8C	8	16	8	5	13	0.3	0.3	15	5.8	14	0.007
GE10C	10	19	9	6	16	0.3	0.3	12	8.6	21	0.011
GE12C	12	22	10	7	18	0.3	0.3	10	11	28	0.017
GE15C	15	26	12	9	22	0.3	0.3	8	18	45	0.026
GE17C	17	30	14	10	25	0.3	0.3	10	22	56	0.040
GE20C	20	35	16	12	29	0.3	0.3	9	31	78	0.064
GE25C	25	42	20	16	35.5	0.6	0.6	7	51	127	0.115
GE30C	30	47	22	18	40.7	0.6	0.6	6	65	166	0.149
GE35C	35	55	25	20	47	0.6	1	6	84	211	0.228
GE40C	40	62	28	22	53	0.6	1	7	104	262	0.318
GE45C	45	68	32	25	60	0.6	1	7	135	337	0.421
GE50C	50	75	35	28	66	0.6	1	6	166	415	0.562



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	碳钢Carbon steel
热处理Heat treated:HRC58-64	
镀铬Hard chrome plated	
摩擦副Sliding contact surfaces: 钢/PTFE Stell/PTFE	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEG4C	4	14	7	4	10	0.3	0.3	20	3.6	9.1	0.005
GEG5C	5	16	9	5	13	0.3	0.3	21	5.8	14	0.008
GEG6C	6	16	9	5	13	0.3	0.3	21	5.8	14	0.006
GEG8C	8	19	11	6	16	0.3	0.3	21	8.6	21	0.014
GEG10C	10	22	12	7	18	0.3	0.3	18	11	28	0.021
GEG12C	12	26	15	9	22	0.3	0.3	18	18	45	0.033
GEG15C	15	30	16	10	25	0.3	0.3	16	22	56	0.049
GEG17C	17	35	20	12	29	0.3	0.3	19	31	78	0.083
GEG20C	20	42	25	16	35.5	0.3	0.3	17	51	127	0.153
GEG25C	25	47	28	18	40.7	0.6	0.6	17	65	166	0.203
GEG30C	30	55	32	20	47	0.6	1	17	84	211	0.304
GEG35C	35	62	35	22	53	0.6	1	16	104	262	0.408
GEG40C	40	68	40	25	60	0.6	1	17	135	337	0.542
GEG45C	45	75	43	28	66	0.6	1	15	166	415	0.713

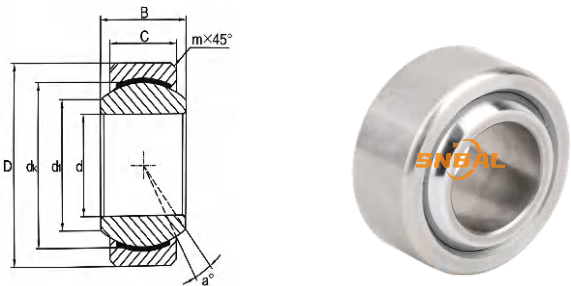
自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GE...PW



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	黄铜Brass
热处理Heat treated:HRC58-64	
镀铬Hard chrome plated	
摩擦副Sliding contact surfaces: 钢/PTFE Stell/PTFE	

轴承型号 Bearing Number	外形尺寸 Dimensions							额定载荷 Load ratings kN		重量 Weight ≈kg
	d	d1	B	C	D	dk	α° ≈	动载荷 Dynamic	静载荷 Static	
GE5PW	5	7.7	8	6	13	11.1	13	6.2	17	0.007
GE6PW	6	8.9	9	6.75	16	12.7	13	7.5	22	0.010
GE8PW	8	10.3	12	9	19	15.8	13	12	36	0.016
GE10PW	10	12.9	14	10.5	22	19.0	13	17	50	0.031
GE12PW	12	15.4	16	12	26	22.2	13	22	67	0.065
GE14PW	14	16.8	19	13.5	28	25.4	15	28	86	0.090
GE16PW	16	19.3	21	15	32	28.5	15	35	107	0.100
GE18PW	18	21.8	23	16.5	35	31.7	15	47	131	0.125
GE20PW	20	24.3	25	18	40	34.9	15	51	157	0.180
GE22PW	22	25.8	28	20	42	38.1	15	62	191	0.210
GE25PW	25	29.8	31	22	47	42.8	15	77	236	0.295
GE30PW	30	34.8	37	25	55	50.8	15	103	318	0.425
GE35PW	35	37.7	43	28	62	57.1	16	130	400	0.500
GE40PW	40	45.2	49	33	75	66.6	17	179	550	0.900
GE50PW	50	56.6	60	45	90	82.5	12	302	928	1.640

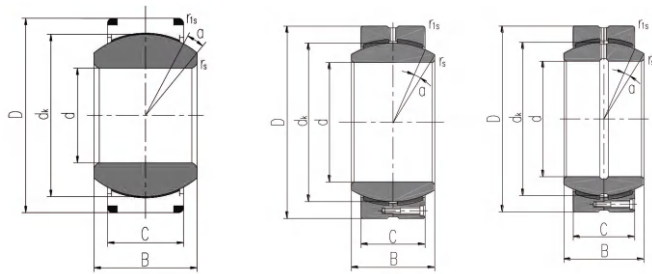
自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
COM...T



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	碳钢/合金钢
热处理Heat treated:HRC58-62	Carbon steel/Alloy steel
镀铬Hard chrome plated	
摩擦副Sliding contact surfaces:	钢/PTFE Stell/PTFE

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN	重量 Weight ≈kg
	d	D	B	C	dk	d1	m	α°	静载荷 Static	
COM3T	4.826	14.29	7.14	5.54	10.31	7.44	0.381	11	21.68	0.006
	0.19	0.5625	0.281	0.218	0.406	0.293	0.015			
COM4T	6.350	16.67	8.71	6.35	12.7	9.25	0.56	13.5	33.02	0.010
	0.25	0.6562	0.343	0.25	0.5	0.364	0.022			
COM5T	7.938	19.05	9.53	7.14	14.27	10.64	0.81	12	43.20	0.014
	0.3125	0.75	0.375	0.281	0.562	0.419	0.032			
COM6T	9.525	20.64	10.31	7.92	16.66	13.11	0.81	10	56.04	0.017
	0.375	0.8125	0.406	0.312	0.656	0.516	0.032			
COM7T	11.113	23.02	11.1	8.71	17.45	13.46	0.81	8	63.07	0.021
	0.4375	0.9062	0.437	0.343	0.687	0.530	0.032			
COM8T	12.700	25.40	12.7	9.91	20.65	16.26	0.81	9.5	88.39	0.029
	0.5	1	0.5	0.39	0.813	0.640	0.032			
COM9T	14.288	27.78	14.27	11.1	23.01	18.03	0.81	9.5	110.94	0.039
	0.5625	1.0937	0.562	0.437	0.906	0.710	0.032			
COM10T	15.875	30.16	15.88	12.7	25.40	19.81	0.81	8.5	141.96	0.050
	0.625	1.1875	0.625	0.5	1	0.780	0.032			
COM 12T	19.050	36.51	19.05	15.06	30.15	23.37	1.12	9	212.94	0.093
	0.75	1.4375	0.75	0.593	1.187	0.920	0.044			
COM14T	22.225	39.69	22.23	17.86	33.32	24.89	1.12	9.5	279.93	0.119
	0.875	1.5625	0.875	0.703	1.312	0.980	0.044			
COM16T	25.400	44.45	25.4	20.24	38.1	28.4	1.12	10	368.25	0.175
	1	1.75	1	0.797	1.500	1.118	0.044			

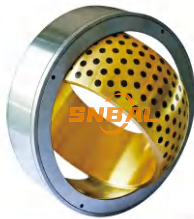
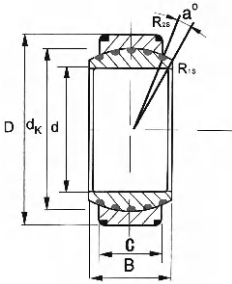
自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEH...HTL GEH...XTL(2RS)



内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
镀铬Hard chrome plated	磷化Phosphating
摩擦副Sliding contact surfaces:	钢/PTFE 织物 Stell/PTFE fabric

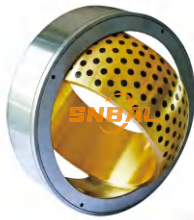
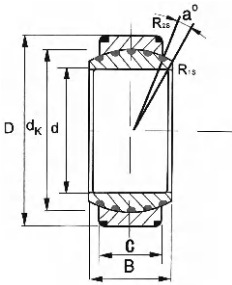
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEH100HTL GEH100XTL-2RS	100	150	71	67	135	1	1	2	2710	4520	5.07
GEH110HTL GEH110XTL-2RS	110	160	78	74	145	1	1	2	3210	5360	6.21
GEH120HTL GEH120XTL-2RS	120	180	85	80	160	1	1		3840	6400	8.87
GEH140HTL GEH140XTL-2RS	140	210	100	95	185	1	1	2	5270	8780	14.6
GEH160HTL GEH160XTL-2RS	160	230	115	109	210	1	1	2	6860	11440	18.6
GEH180HTL GEH180XTL-2RS	180	260	128	122	240	1.1	1.1	2	8780	14640	26.7
GEH200HTL GEH200XTL-2RS	200	290	140	134	260	1.1	1.1	2	10450	17420	37.1
GEH220HTL GEH220XTL-2RS	220	320	155	148	290	1.1	1.1	2	12870	21460	49.4
GEH240HTL GEH240XTL-2RS	240	340	170	162	310	1.1	1.1	2	15060	25110	57.9
GEH260HTL GEH260XTL-2RS	260	370	185	175	310	1.1	1.1	2	17850	29750	75.2
GEH280HTL GEH280XTL-2RS	280	400	200	190	370	1	1.1	2	21090	35150	96
GEH300HTL GEH300XTL-2RS	300	430	212	200	390	1.1	1.1	2	23400	39000	117
GEH320HTL GEH320XTL-2RS	320	460	230	218	414	1.1	3	2	27070	45120	148
GEH340HTL GEH340XTL-2RS	340	480	243	230	434	1.1	3	2	29940	49910	163
GEH360HTL GEH360XTL-2RS	360	520	258	243	474	1.1	4	2	34550	57590	213
GEH380HTL GEH380XTL-2RS	380	540	272	258	494	1.5	4	2	38230	63720	236
GEH400HTL GEH400XTL-2RS	400	580	280	265	514	1.5	4	2	40860	68100	290
GEH420HTL GEH420XTL-2RS	420	600	300	280	534	1.5	4	2	44850	74760	319
GEH440HTL GEH440XTL-2RS	440	630	315	300	574	1.5	4	2	51660	86100	379
GEH460HTL GEH460XTL-2RS	460	650	325	308	593	1.5	4	2	54790	91320	404
GEH480HTL GEH480XTL-2RS	480	680	340	320	623	2	5	2	59800	99680	463
GEH500HTL GEH500XTL-2RS	500	710	355	335	643	2	5	2	64620	107700	529
GEH530HTL GEH530XTL-2RS	530	750	375	355	673	2	5	2	71670	119450	620
GEH560HTL GEH560XTL-2RS	560	800	400	380	723	2	5	2	82420	137370	770
GEH600HTL GEH600XTL-2RS	600	850	425	400	773	2	6	2	92760	154600	903
GEH630HTL	630	900	450	425	813	3	6	2	103650	172760	1092
GEH670HTL	670	950	475	450	862	3	6	2	116370	193950	1270
GEH710HTL	710	1000	500	475	912	3	6	2	129960	216600	1465
GEH750HTL	750	1060	530	500	972	3	6	2	145800	243000	1750
GEH800HTL	800	1120	565	530	1022	3	6	2	162490	270830	2029
GEH850HTL	850	1220	600	565	1112	3	7.5	2	188480	314140	2704
GEH900HTL	900	1250	635	600	1142	3	7.5	2	205560	342600	2806
GEH950HTL	950	1360	670	635	1242	4	7.5	2	236600	394330	3752
GEH1000HTL	1000	1450	710	670	1312	4	7.5	2	263710	439520	4612

自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GE...XF/Q GEC...XF/Q



内圈 Inner ring	外圈 Outer ring
铜合金Copper alloy	轴承钢Bearing steel
	热处理Heat treated:HRC58-64
摩擦副Sliding contact surfaces: 钢/铜合金 Steel/copper alloy	

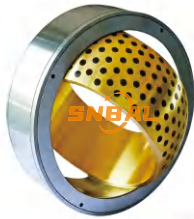
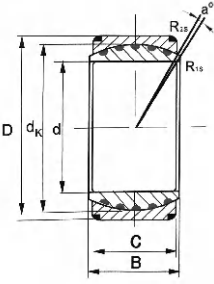
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GE100XF/Q	100	150	70	55	130	1	1	7	710	1420	4.24
GE110XF/Q	110	160	70	55	140	1	1	6	770	1540	4.55
GE120XF/Q	120	180	85	70	160	1	1	6	1120	2240	7.77
GE140XF/Q	140	210	90	70	180	1	1	7	1260	2520	10.7
GE160XF/Q	160	230	105	80	200	1	1	8	1600	3200	13.5
GE180XF/Q	180	260	105	80	225	1.1	1.1	6	1800	3600	17.9
GE200XF/Q	200	290	130	100	250	1.1	1.1	7	2500	5000	27.3
GE220XF/Q	220	320	135	100	275	1.1	1.1	8	2750	5500	34.5
GE240XF/Q	240	340	140	100	300	1.1	1.1	8	3000	6000	38.3
GE260XF/Q	260	370	150	110	325	1.1	1.1	7	3570	7140	49.7
GE280XF/Q	280	400	155	120	350	1.1	1.1	6	4200	8400	63
GE300XF/Q	300	430	165	120	375	1.1	1.1	7	4500	9000	75.3



内圈 Inner ring	外圈 Outer ring
铜合金Copper alloy	轴承钢Bearing steel
	热处理Heat treated:HRC58-64
摩擦副Sliding contact surfaces: 钢/铜合金 Steel/copper alloy	

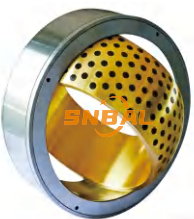
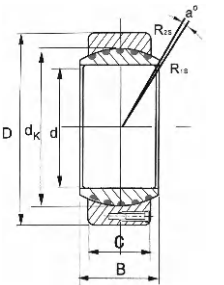
轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEC320XF/Q	320	440	160	135	380	1.1	3	4	5130	10260	75.8
GEC340XF/Q	340	460	160	135	400	1.1	3	3	5400	10800	80.8
GEC360XF/Q	360	480	160	135	420	1.1	3	3	5670	11340	84.5
GEC380XF/Q	380	520	190	160	450	1.5	4	4	7200	14400	125
GEC400XF/Q	400	540	190	160	470	1.5	4	3	7520	15040	131
GEC420XF/Q	420	560	190	160	490	1.5	4	3	7840	15680	137
GEC440XF/Q	440	600	218	185	520	1.5	4	3	9620	19240	191
GEC460XF/Q	460	620	218	185	540	1.5	4	3	9990	19980	199

自润滑向心关节轴承 RADIAL SPHERICAL PLAIN BEARING
GEH...XF/Q GEH...HF/Q



内圈 Inner ring	外圈 Outer ring
铜合金Copper alloy	碳钢Carbon steel
	热处理Heat treated:HRC58-64
摩擦副Sliding contact surfaces: 钢/铜合金 Steel/copper alloy	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEH100XF/Q	100	150	71	67	135	1	1	2	900	1800	4.85
GEH110XF/Q	110	160	78	74	145	1	1	2	1070	2140	5.9
GEH120XF/Q	120	180	85	80	160	1	1	2	1280	2560	8.49
GEH140XF/Q	140	210	100	95	185	1	1	2	1750	3500	14.1
GEH160XF/Q	160	230	115	109	210	1	1	2	2280	4560	17.9
GEH180XF/Q	180	260	128	122	240	1.1	1.1	2	2920	5840	25.9
GEH200XF/Q	200	290	140	134	260	1.1	1.1	2	3480	6960	35.9
GEH220XF/Q	220	320	155	148	290	1.1	1.1	2	4290	8580	48
GEH240XF/Q	240	340	170	162	310	1.1	1.1	2	5020	10040	56
GEH260XF/Q	260	370	185	175	340	1.1	1.1	2	5950	11900	72.8
GEH280XF/Q	280	400	200	190	370	1.1	1.1	2	7030	14060	93.3
GEH300XF/Q	300	430	212	200	390	1.1	1.1	2	7800	15600	114
GEH320XF/Q	320	460	230	218	414	1.1	3	2	9020	18040	144
GEH340XF/Q	340	480	243	230	434	1.1	3	2	9980	19960	158
GEH360XF/Q	360	520	258	243	474	1.1	4	2	11510	23020	207
GEH380XF/Q	380	540	272	258	494	1.5	4	2	12740	25480	230
GEH400XF/Q	400	580	280	265	514	1.5	4	2	13620	27240	283
GEH420XF/Q	420	600	300	280	534	1.5	4	2	14950	29900	312



内圈 Inner ring	外圈 Outer ring
铜合金Copper alloy	碳钢Carbon steel
	热处理Heat treated:HRC58-64
摩擦副Sliding contact surfaces: 钢/铜合金 Steel/copper alloy	

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	dk	R1s min	R2s min	α°	动载荷 Dynamic	静载荷 Static	
GEH440HF/Q	440	630	315	300	574	1.5	4	2	17220	34440	370
GEH460HF/Q	460	650	325	308	593	1.5	4	2	18260	36520	395
GEH480HF/Q	480	680	340	320	623	2	5	2	19930	39860	453
GEH500HF/Q	500	710	355	335	643	2	5	2	21540	43080	519
GEH530HF/Q	530	750	375	355	673	2	5	2	23890	47780	609
GEH560HF/Q	560	800	400	380	723	2	5	2	27470	54940	754
GEH600HF/Q	600	850	425	400	773	2	6	2	30920	61840	885
GEH630HF/Q	630	900	450	425	813	3	6	2	34550	69100	1072

俄式关节轴承
RUSSIAN-STYLE BALL BEARING



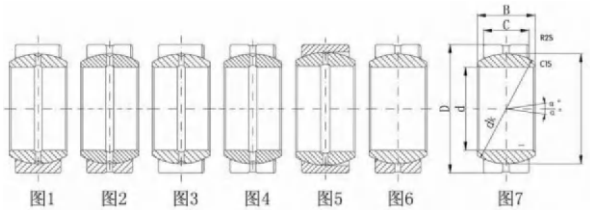
俄式关节轴承是指遵循俄罗斯国家标准（GOST）生产的球面滑动轴承，也常被称为俄制关节轴承。它在结构、材料和应用上都有鲜明的特点，广泛应用于重型机械和特殊工况。

本结构轴承采用内球面与外球面的配合结构，可在一定角度内摆动和倾斜，具备优异的自动调心能力，能补偿安装误差和轴的偏斜。常见结构包括向心关节轴承（如 GE 系列）和杆端关节轴承，部分型号带有密封圈（如 - 2RS）或自润滑衬。套圈多采用高强度合金钢，滑动表面经磷化、镀铬等特殊处理，以提升耐磨性和抗腐蚀性。自润滑型轴承会在滑动面嵌入 PTFE 等固体润滑剂，可在无油或少油工况下长期工作。

The Russian-style joint bearing refers to the spherical sliding bearings produced in accordance with the Russian national standard (GOST), and is also commonly known as the Russian-made joint bearing. It has distinct characteristics in terms of structure, materials and applications, and is widely used in heavy machinery and special working conditions.

This structure bearing adopts a combination of inner and outer spherical surfaces, allowing it to swing and tilt within a certain angle. It has excellent automatic self-aligning ability and can compensate for installation errors and shaft skew. Common structures include radial ball bearings (such as the GE series) and rod-end ball bearings. Some models come with sealing rings (such as -2RS) or self-lubricating linings. The rings are mostly made of high-strength alloy steel, and the sliding surfaces undergo special treatments such as phosphating and chrome plating to enhance wear resistance and corrosion resistance. Self-lubricating bearings will embed solid lubricants like PTFE on the sliding surface, enabling long-term operation in oil-free or low-oil conditions.

俄式关节轴承 RUSSIAN-STYLE BALL BEARING
ШСП...(K) ШСЛ... (K) ШСЛ...(K1)



滑动摩擦副：结构为俄式结构，内外表面不磷化处理。
Sliding contact surfaces: Russian design Inner and outer ring not phosphate treated



轴承型号 Bearing Number	外形尺寸 Dimensions								结构形式 Dimonsiohs	重量 Weight ≈kg
	d	D	B	C	d _k	R _{1s} min	R _{2s} min	α°		
ШСП6(K)	6	14	6	4	10	0.4	2	13	1	0.004
ШСП8(K)	8	17	8	5	13	0.4	2	15	1	0.008
ШСП10(K)	10	20	9	6	16	0.4	2	12	2	0.013
ШСП12(K)	12	22	10	7	18	0.4	2	10	2	0.016
ШСП15(K)	15	28	12	8	23	0.5	2	11	2	0.028
ШСП17(K)	17	32	14	10	26	0.5	2	10	2	0.044
ШСП20(K)	20	35	16	12	29	0.5	2	9	2	0.061
ШСП25(K)	25	42	20	16	35.5	0.5	2	7	2	0.11
ШСП30(K)	30	47	22	18	40.7	0.5	2	6.5	2	0.14
ШСП35(K)	35	55	26	21	47	0.5	2	7	2	0.22
ШСП40(K)	40	62	28	22	53	0.5	2	7	2	0.3
ШСП42(K)	42	62	25	20	53	0.6	1	6	2	0.266
ШСП42(K)	42	62	25	22	53	0.6	1	7	2	0.251
ШСП45(K)	45	70	32	25	60	0.5	2	7	3	0.44
ШСП50(K)	50	75	35	28	66	0.5	2	7	3	0.54
ШСП55(K)	55	85	40	32	74	0.5	2	7	2	0.75
ШСЛ60(K)	60	90	44	34	80	0.8	2.5	8	2	0.97
ШСЛ70(K)	70	105	49	40	92	0.8	2.5	6.5	4	1.5
ШСЛ80(K)	80	125	76	70	114	0.8	2.5	4	2	3.8
ШСЛ90(K)	90	130	60	50	115	0.8	2.5	5.5	5	2.7
ШСЛ100(K)	100	150	70	55	130	1.0	3	7.5	4	4.3
ШСЛ110(K)	110	160	70	55	140	1.0	3	6.5	2	4.7
ШСЛ120(K)	120	180	85	70	160	1.0	3	6	4	8
ШСЛ130(K)	130	200	95	52	175	1.0	3	15	2	10.5

俄式关节轴承 RUSSIAN-STYLE BALL BEARING

2ШСЛ 2ШС 6ШСЛ



轴承型号 Bearing Number	外形尺寸 Dimensions						额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	α° ≈	动载荷 Dynamic	静载荷 Static	
2ШСЛ 60	Φ60	Φ110	60	34	95	18	275	1372	2.184
2ШСЛ 70	Φ70	Φ125	70	35	110	20.5	387	1930	3.25
2ШСЛ 90	Φ90	Φ160	80	50	130	13.5	552	2762	6.1
2ШСЛ 120	Φ120	Φ215	130	90	190	13.5	1470	7268	19.8
2ШСЛ 150	Φ150	Φ270	160	110	240	15	2270	11220	37.4



轴承型号 Bearing Number	外形尺寸 Dimensions						额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	α° ≈	动载荷 Dynamic	静载荷 Static	
2ШС 10	Φ10	Φ30	14	10	23	11	19.5	97.7	0.0523
2ШС 12	Φ12	Φ32	16	12	26	11	26.5	132.6	0.064
2ШС 15	Φ15	Φ35	18	14	28	11	33.3	166.6	0.0816
2ШС 17	Φ17	Φ40	21	14	32	15	38	190	0.146
2ШС 20	Φ20	Φ47	26	15	35	22	44.6	223	0.185



轴承型号 Bearing Number	外形尺寸 Dimensions						额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	α° ≈	动载荷 Dynamic	静载荷 Static	
6ШСЛ 60	Φ60	Φ130	85	70	115	10	684	3421	6

俄式关节轴承 RUSSIAN-STYLE BALL BEARING

9ШСП ШС GШСЛ...K



轴承型号 Bearing Number	外形尺寸 Dimensions						额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	α° ≈	动载荷 Dynamic	静载荷 Static	
9ШСП 32	Φ32	Φ55	26	21	47	7	75	375	0.275
9ШСП 40Y	Φ40	Φ62	28	27	53	1	100	400	0.375
9ШСП 110K	Φ110	Φ150	40	35	130	2	391	1394	2.3



轴承型号 Bearing Number	外形尺寸 Dimensions						额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	α° ≈	动载荷 Dynamic	静载荷 Static	
ШС 20	Φ20	Φ35	16	12	29	9	40	148	0.0623



轴承型号 Bearing Number	外形尺寸 Dimensions						额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	α° ≈	动载荷 Dynamic	静载荷 Static	
GШСЛ 60K	Φ60	Φ105	63	40	92	17	315	1560	2
GШСЛ 70K	Φ70	Φ120	70	45	105	16	400	2000	2.9

角接触 / 推力关节轴承

ANGULAR CONTACT / THRUST SPHERICAL ROLLER BEARING



角接触关节轴承的球面倾斜于轴承内径中心线， 适合于承受径向和轴向的联合载荷， 单套安装的角接触关节轴承只能承受单一方向的轴向载荷。当角接触关节轴承承受径向载荷时， 会产生轴向分载荷。角接触关节轴承通常成对安装以形成一套可调游隙的向心关节轴承， 这样就可以承受两个方向的轴向载荷。角接触关节轴承的滑动摩擦副可由不同材料组成， 主要有两种： 钢对钢角接触关节轴承和自润滑角接触关节轴承。

The spherical surfaces of the angular contact joint bearings are inclined to the centerline of the inner diameter of the bearings, which is suitable for bearing combined radial and axial loads. A single set of angular contact joint bearings installed separately can only withstand axial loads in a single direction. When the angular contact joint bearings bear radial loads, axial component loads will be generated. Angular contact joint bearings are usually installed in pairs to form a set of radial joint bearings with adjustable clearance, so that they can withstand axial loads in two directions. The sliding friction pairs of angular contact joint bearings can be composed of different materials, mainly including two types: steel-to-steel angular contact joint bearings and self-lubricating angular contact joint bearings.

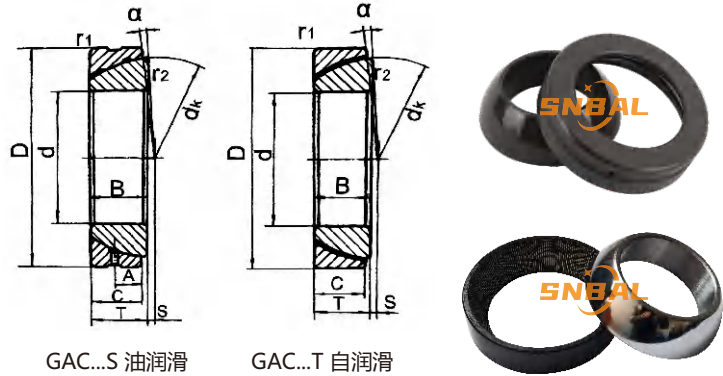
推力关节轴承的滑动面倾斜于轴承内径中心线， 主要用于承受单一方向轴向载荷， 也可以承受一定大小的联合载荷。推力关节轴承的滑动摩擦副可由不同材料组成， 主要有两种:钢对钢推力关节轴承和自润滑推力关节轴承。

The sliding surface of the thrust joint bearing is inclined to the centerline of the inner diameter of the bearing. It is mainly used to bear a single-directional axial load, and can also bear a certain magnitude of combined load. The sliding friction pair of the thrust joint bearing can be composed of different materials, and there are mainly two types: steel-on-steel thrust joint bearings and self-lubricating thrust joint bearings.

角接触关节轴承 ANGULAR CONTACT SPHERICAL PLAIN BEARING

GAC...S GAC...T

SNBAL®

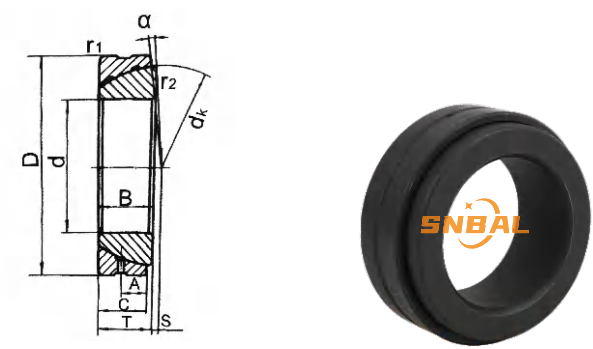


内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

轴承型号 Bearing Number		外形尺寸 Dimensions										额定载荷 Load ratings kN		重量 Weight ≈kg
		d	D	B	C	T	dk	S	A	r1 r2 min	α° ≈	动载荷 Dynamic	静载荷 Static	
GAC25S	GAC25T	25	47	15	14	15	42	0.6	7.5	1	2.5	50	250	0.148
GAC28S	GAC28T	28	52	15	15	16	47	1	8	1	2	60	300	0.186
GAC30S	GAC30T	30	55	17	15	17	49.5	1.3	8.5	1	4.5	63	315	0.208
GAC32S	GAC32T	32	58	17	16	17	52	2	8.5	1	2	71	354	0.241
GAC35S	GAC35T	35	62	18	16	18	55.5	2.1	9	1	4	78	390	0.268
GAC40S	GAC40T	40	68	19	17	19	62	2.8	9.5	1	3.5	92	463	0.327
GAC45S	GAC45T	45	75	20	18	20	68.5	3.5	10	1	3	108	540	0.416
GAC50S	GAC50T	50	80	20	19	20	74	4.3	10	1	1.5	123	618	0.455
GAC55S	GAC55T	55	90	23	20	23	82	5	11.5	1.1	4	144	721	0.645
GAC60S	GAC60T	60	95	23	21	23	88.5	5.7	11.5	1.1	2.5	163	817	0.714
GAC65S	GAC65T	65	100	23	22	23	93.5	6.5	11.5	1.1	1	180	905	0.759
GAC70S	GAC70T	70	110	25	23	25	102	7.2	12.5	1.1	2	206	1030	1.04
GAC75S	GAC75T	75	115	25	24	25	107	7.9	12.5	1.1	1	220	1129	1.12
GAC80S	GAC80T	80	125	29	25.5	29	115	8.6	14.5	1.1	3.5	258	1290	1.54
GAC85S	GAC85T	85	130	29	26.5	29	122	9.4	14.5	1.1	2	284	1422	1.61
GAC90S	GAC90T	90	140	32	28	32	128.5	10.1	16	1.5	3.5	316	1580	2.09
GAC95S	GAC95T	95	145	32	29.5	32	135	10.8	16	1.5	2	350	1750	2.22
GAC100S	GAC100T	100	150	32	31	32	141	11.6	16	1.5	0.5	384	1923	2.34
GAC105S	GAC105T	105	160	35	32.5	35	148	12.3	17.5	2	2	423	2116	2.93
GAC110S	GAC110T	110	170	38	34	38	155	13	19	2	3	463	2318	3.68
GAC120S	GAC120T	120	180	38	37	38	168	14.5	19	2	0.5	547	2735	3.97
GAC130S	GAC130T	130	200	45	43	45	188	18	19	2.5	1	710	3550	5.92
GAC140S	GAC140T	140	210	45	43	45	198	19	19	2.5	1	740	3740	6.33
GAC150S	GAC150T	150	225	48	46	48	211	20	20.5	3	1	850	4270	8.01
GAC160S	GAC160T	160	240	51	49	51	225	20	22	3	1	970	4850	9.79
GAC170S	GAC170T	170	260	57	55	57	246	21	27	3	1	1190	5950	12.3
GAC180S	GAC180T	180	280	64	61	64	260	21	28	3	1	1395	6970	17.4
GAC190S	GAC190T	190	290	64	62	64	275	26	30	3	0.5	1500	7500	18.2
GAC200S	GAC200T	200	310	70	66	70	290	26	30	3	1.5	1680	8420	23.8

角接触关节轴承 ANGULAR CONTACT SPHERICAL PLAIN BEARING

GACZ...S

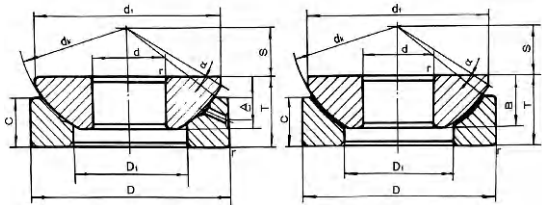


内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	

轴承型号 Bearing Number	外形尺寸 Dimensions										额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	T	dk	S	A	r _s r _{1s} max	α° ≈	动载荷 Dynamic	静载荷 Static	
GACZ12S	12.7	22.225	6.86	4.83	7.62	18.26	1.3	2.39	0.51	7	6	18	0.013
	0.5	0.875	0.27	0.19	0.3	0.719	0.051	0.094	0.02				
GACZ15S	15.875	26.988	8.64	6.35	9.40	22.83	1.48	2.77	0.76	6	10	31	0.025
	0.625	1.0625	0.34	0.25	0.37	0.899	0.058	0.109	0.03				
GACZ19S	19.05	31.75	10.41	7.87	11.18	27.43	1.79	3.18	1	6	16	47	0.038
	0.75	1.25	0.41	0.31	0.44	1.08	0.07	0.125	0.04				
GACZ22S	22.225	36.512	12.19	9.65	13.21	31.95	2.02	4.37	2	5.5	22	66	0.049
	0.875	1.4375	0.48	0.38	0.52	1.258	0.08	0.172	0.08				
GACZ25S	25.4	41.275	13.97	11.18	15.24	36.50	2.54	5.16	2	6	29	87	0.085
	1	1.625	0.55	0.44	0.6	1.437	0.1	0.203	0.08				
GACZ31S	31.75	50.8	17.78	13.97	18.80	45.59	3.36	5.94	2	6	47	142	0.159
	1.25	2	0.7	0.55	0.74	1.795	0.132	0.234	0.08				
GACZ34S	34.925	55.562	19.56	15.24	21.34	49.20	3.69	7.14	2.54	4	53	159	0.213
	1.375	2.1875	0.77	0.6	0.84	1.937	0.145	0.281	0.1				
GACZ38S	38.1	61.912	21.34	16.76	23.11	54.74	3.93	7.92	2.54	5.5	66	197	0.301
	1.5	2.4375	0.84	0.66	0.91	2.155	0.155	0.312	0.1				
GACZ44S	44.45	71.438	24.89	20.07	27.18	63.88	4.72	8.33	2.54	6	91	273	0.458
	1.75	2.8125	0.98	0.79	1.07	2.515	0.186	0.328	0.1				
GACZ50S	50.8	80.962	28.70	23.37	31.24	73.02	5.51	9.52	3.56	5.5	122	365	0.671
	2	3.1875	1.13	0.92	1.23	2.875	0.217	0.375	0.14				
GACZ57S	57.15	90.488	32.26	26.67	35.31	82.17	6.18	11.51	3.56	5.5	155	466	0.948
	2.25	3.5625	1.27	1.05	1.39	3.235	0.243	0.453	0.14				
GACZ63S	63.5	100.013	36.07	29.97	39.12	91.19	6.79	12.7	3.56	5	196	589	1.13
	2.5	3.9375	1.42	1.18	1.54	3.59	0.267	0.5	0.14				
GACZ69S	69.85	111.125	39.62	32.38	43.18	100.33	7.46	13.08	4.6	5	231	694	1.75
	2.75	4.375	1.56	1.275	1.7	3.95	0.294	0.515	0.18				
GACZ76S	76.2	120.65	43.43	35.69	47.24	109.52	8.17	14.68	4.6	5	279	838	2.28
	3	4.75	1.71	1.405	1.86	4.312	0.322	0.578	0.18				
GACZ82S	82.55	130.175	47.24	39.24	51.56	118.74	9.04	16.66	4.6	5	332	995	2.89
	3.25	5.125	1.86	1.545	2.03	4.675	0.356	0.656	0.18				
GACZ88S	88.9	139.7	50.80	42.54	55.37	128.02	9.51	17.86	4.6	5	389	1167	3.57
	3.5	5.5	2	1.675	2.18	5.04	0.374	0.703	0.18				
GACZ95S	95.25	149.225	54.61	45.85	59.44	136.91	10.1	19.43	4.6	4.5	449	1348	4.35
	3.75	5.875	2.15	1.805	2.34	5.39	0.398	0.765	0.18				
GACZ101S	101.6	158.75	58.42	49.15	63.50	146.05	10.4	19.84	4.6	4.5	515	1545	5.26
	4	6.25	2.3	1.935	2.5	5.75	0.409	0.781	0.18				
GACZ114S	114.3	177.8	65.79	55.75	71.12	164.46	12.4	22.22	4.6	4.5	663	1990	7.76
	4.5	7	2.59	2.195	2.8	6.475	0.488	0.875	0.18				
GACZ127S	127	196.85	73.15	62.36	79.50	182.63	13.9	25.4	4.6	4.5	818	2455	11.07
	5	7.75	2.88	2.455	3.13	7.19	0.547	1	0.18				
GACZ152S	152.4	222.25	78.74	66.42	85.72	207.16	16.1	34.8	4.6	4.5	985	2955	17.37
	6	8.75	3.1	2.615	3.375	8.156	0.634	1.37	0.18				

推力关节轴承 SPHERICAL PLAIN THRUST BEARING

GX...S GX...T



GX..S 油润滑

GX..T 自润滑

内圈 Inner ring	外圈 Outer ring
轴承钢Bearing steel	轴承钢Bearing steel
热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces: 钢/钢Steel/Steel	



轴承型号 Bearing Number		外形尺寸 Dimensions										额定载荷 Load ratings kN		重量 Weight ≈kg
		d	D	B	C	T	dk	S	A	r _{min}	α° ≈	动载荷 Dynamic	静载荷 Static	
GX10S	GX10T	10	30	7.5	7	9.5	32	7	3	0.6	5	27	136	0.036
GX12S	GX12T	12	35	9.5	9.3	13	38	8	4	0.6	5	37	188	0.072
GX15S	GX15T	15	42	11	10.8	15	46	10	5	0.6	6	53	267	0.108
GX17S	GX17T	17	47	11.8	11.2	16	52	11	5	0.6	4	61	311	0.137
GX20S	GX20T	20	55	14.5	13.8	20	60	12.5	6	1	5	84	425	0.246
GX25S	GX25T	25	62	16.5	16.7	22.5	68	14	6	1	5	134	672	0.415
GX30S	GX30T	30	75	19	19	26	82	17.5	8	1	5	182	909	0.614
GX35S	GX35T	35	90	22	20.7	28	98	22	8	1	5	266	1330	0.973
GX40S	GX40T	40	105	27	21.5	32	114	24.5	9	1	6	357	1810	1.59
GX45S	GX45T	45	120	31	25.5	36.5	128	27.5	11	1	6	486	2470	2.24
GX50S	GX50T	50	130	33	30.5	42.5	139	30	10	1	6	554	2810	3.14
GX60S	GX60T	60	150	37	34	45	160	35	12.5	1	6	748	3820	4.63
GX70S	GX70T	70	160	42	36.5	50	176	35	13.5	1	3	902	4610	5.37
GX80S	GX80T	80	180	43.5	38	50	197	42.5	14.5	1	4	1110	5700	6.91
GX100S	GX100T	100	210	51	46	59	222	45	15	1.1	4	1300	6470	11
GX120S	GX120T	120	230	53.5	50	64	250	52.5	16.5	1.1	3	1530	7580	14
GX140S	GX140T	140	260	61	54	72	274	52.5	23	1.5	3	1820	9040	19.1
GX160S	GX160T	160	290	66	58	77	313	65	23	1.5	2	2100	10440	25
GX180S	GX180T	180	320	74	62	86	340	67.5	26	1.5	4	2430	12070	32.8
GX200S	GX200T	200	340	80	66	87	365	70	27	1.5	1	3070	15280	35.4

油缸耳环/杆端关节轴承
CYLINDER EAR RING / ROD END JOINT BEARING



杆端关节轴承分别可由带有座孔的杆端体和向心关节轴承、杆端体和内圈或杆端体和内圈、滑动层组成，通常可分为左、右旋和内、外螺纹。杆端关节轴承滑动摩擦副可由不同材料组成，主要有钢对钢、钢对青铜、钢对PTFE 复合材料、钢对PTFE编织物和钢对PTFE 塑料五种。

钢对钢杆端关节轴承和钢对青铜杆端关节轴承具有较好的耐磨损能力，在少润滑情况下也能正常工作，但在正常情况下，周期性润滑是必须的。这种轴承特别适合于承受交变重载。

The end joint bearings can be composed of a rod end body with a seat hole and a radial joint bearing, a rod end body and an inner ring or a rod end body and an inner ring, and a sliding layer. They are usually classified as left-handed, right-handed, internal threads, and external threads. The sliding friction pair of the rod end joint bearings can be made of different materials, mainly including steel on steel, steel on bronze, steel on PTFE composite material, steel on PTFE fabric, and steel on PTFE plastic.

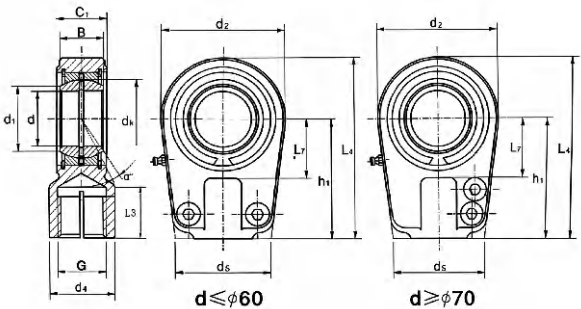
The steel-on-steel rod end joint bearings and the steel-on-bronze rod end joint bearings have good wear resistance and can work normally even with little lubrication. However, under normal circumstances, periodic lubrication is necessary. These bearings are particularly suitable for withstanding alternating heavy loads.

油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GIHR-K...DO



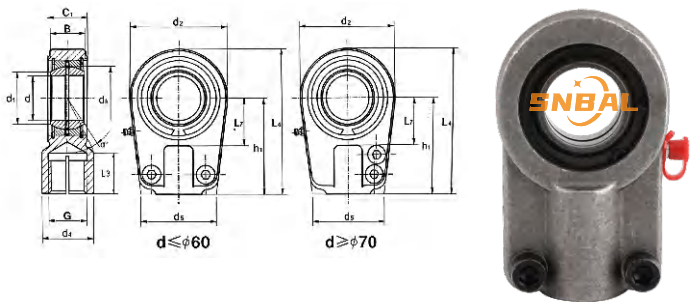
油润滑锁口型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel



轴承型号 Bearing Number	外形尺寸 Dimensions															负荷 kN		重量 Weight ≈kg
	d	B	dk	C ₁	d ₂	G _{6H}	h ₁	L ₃ min	L ₄ max	d ₄	d ₅	d ₁	b	r _s min	α° ≈	动 Dynamic	静 Static	
GIHR-K20 DO	20	16	29	19	56	M16x1.5	50	17	80	25	46	24.1	17	0.3	9	30	42	0.37
GIHR-K25 DO	25	20	35.5	23	56	M16x1.5	50	17	80	25	46	29.3	21	0.6	7	48	52	0.43
GIHR-K30 DO	30	22	40.7	28	64	M22x1.5	60	23	94	32	50	34.2	26	0.6	6	62	72	0.70
GIHR-K35 DO	35	25	47	30	78	M28x1.5	70	29	112	40	66	39.7	28	0.6	6	79	104	1.1
GIHR-K40 DO	40	28	53	35	94	M35x1.5	85	36	135	49	76	45	33	0.6	7	99	173	2.1
GIHR-K50 DO	50	35	66	40	116	M45x1.5	105	46	168	61	90	55.9	37	0.6	7	156	265	3.3
GIHR-K60 DO	60	44	80	50	130	M58x1.5	130	59	200	75	120	66.8	46	1	6	245	320	5.5
GIHR-K70 DO	70	49	92	55	154	M65x1.5	150	66	232	86	130	77.9	51	1	6	313	440	8.6
GIHR-K80 DO	80	55	105	60	176	M80x2	170	81	265	105	160	89.4	55	1	6	400	570	12.0
GIHR-K90 DO	90	60	115	65	206	M100x2	210	101	323	124	180	98.1	60	1	5	490	980	21.5
GIHR-K100 DO	100	70	130	70	230	M110x2	235	111	360	138	200	109.5	65	1	7	607	1120	28.0
GIHR-K110 DO	110	70	140	80	265	M120x3	265	125	407.5	152	220	120	75	1	6	655	1700	40.5
GIHR-K120 DO	120	85	160	90	340	M130x3	310	135	490	172	257	130	85	1	6	950	2900	76
GIHR-K140 DO	140	90	180	100	350	M140x4	345	145	530	200	290	150	92	1	7	1080	5400	102
GIHR-K160 DO	160	105	200	110	380	M150x4	400	165	600	220	300	170	102	1	8	1370	6800	170

油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GIHN-K...LO

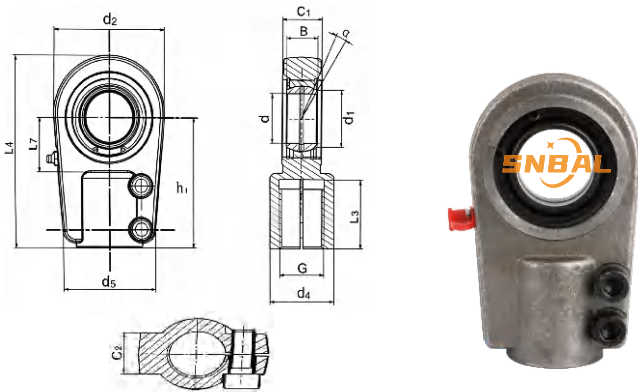


油润滑锁口型杆端关节轴承
Rod ends for hydraulic components

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions														负荷 kN		重量 Weight ≈kg
	d H7	B	d _k	C ₁	d ₂	G	h ₁	L ₃	L ₄	d ₄	d ₅	C ₂	r _s	α° ≈	动 Dynamic	静 Static	
GIHN-K12 LO*	12	12	18	11	32	M12x1.25	38	17	54	16	32	15	0.3	4	10	15	0.11
GIHN-K16 LO	16	16	23	14	40	M14x1.5	44	19	64	21	40	15	0.3	4	17	24	0.21
GIHN-K20 LO	20	20	29	17	47	M16x1.5	52	23	77	25	47	19	0.3	4	30	36	0.40
GIHN-K25 LO	25	25	35.5	22	58	M20x1.5	65	29	96	30	54	19	0.6	4	48	57	0.66
GIHN-K32 LO	32	32	43	28	71	M27×2	80	37	118.5	38	66	22	0.6	4	65	81	1.2
GIHN-K40 LO	40	40	53	33	90	M33x2	97	46	146	47	80	26	0.6	4	99	156	2.1
GIHN-K50 LO	50	50	66	40	109	M42x2	120	57	179.5	58	96	32	0.6	4	156	250	4.5
GIHN-K63 LO	63	63	83	53	136	M48x2	140	64	211	70	114	38	1	4	253	343	7.6
GIHN-K70 LO	70	70	92	57	155	M56x2	160	76	245	80	135	42	1	4	315	540	9.5
GIHN-K80 LO	80	80	105	67	170	M64x3	180	86	270	90	148	48	1	4	400	560	14.0
GIHN-K90 LO	90	90	115	72	185	M72x3	195	91	296	100	160	52	1	4	490	750	17
GIHN-K100 LO	100	100	130	85	211	M80x3	210	96	322	110	178	62	1	4	607	960	28.0
GIHN-K110 LO	110	110	140	88	235	M90x3	235	106	364	125	190	62	1	4	655	1200	32
GIHN-K125 LO	125	125	160	103	265	M100x3	260	113	405	135	200	72	1	4	950	1430	46
GIHN-K160 LO	160	160	200	130	326	M125x4	310	126	488	165	250	82	1	4	1370	2200	82.5
GIHN-K200 LO	200	200	250	162	418	M160x4	390	161	620	215	320	102	1	4	2120	3650	168
GIHN-K250 LO	250	250	350	192	580	M200x4	530	205	847	300	420	142	1	4	3550	6400	425
GIHN-K320 LO	320	320	450	260	700	M250x6	640	260	1015	360	520	170	1	4	6100	8650	790

油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GAS

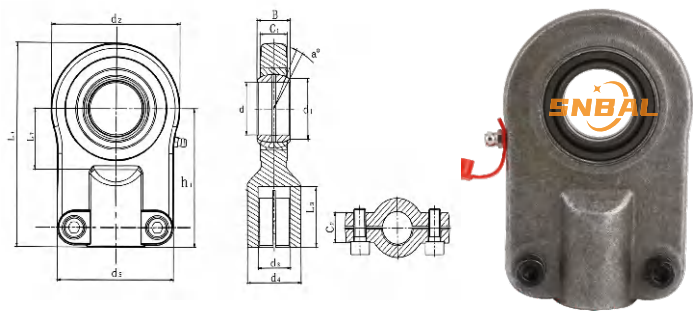


油润滑锁口型杆端关节轴承
Rod ends for hydraulic components

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions											额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	C ₁	d ₂	G	d ₄	L ₇	L _{3 min}	d ₅	h ₁	L ₄	动 Dynamic	静 Static	
GAS20	20	16	23	56	M18×2	28	25	30	48	65	95	48	82	0.42
GAS25	25	20	23	56	M18×2	28	25	30	48	65	95	63	82	0.57
GAS30	30	22	28	64	M24×2	34	30	35	56	75	109	82.7	122	0.91
GAS35	35	25	30	78	M30×2	45	40	40	66	90	132	107	177	1.9
GAS40	40	28	35	94	M39×3	56.5	45	48	78	105	155	135	287	3.0
GAS50	50	35	40	116	M50×3	70	55	66	89	135	198	210	422	4.9
GAS60	60	44	50	130	M64×3	87	65	84	118	170	240	234	522	7.5
GAS70	70	49	55	154	M80×3	110	75	110	128	195	278	431	707	11.5
GAS80	80	55	60	176	M90×3	128	80	120	156	210	305	554	870	16.5
GAS90	90	60	65	210	M100×3	152	90	140	168	250	365	671	1284	35.5
GAS100	100	70	70	230	M110×4	170	105	150	171	275	400	842	1460	43.5
GAS110	110	70	80	264	M120×4	180	115	160	189	300	442	910	2024	60.5
GAS120	120	85	90	340	M150×4	210	140	190	243	360	540	1336	2970	96.5
GAS140	140	90	110	380	M160×4	230	185	200	248	420	620	1665	3500	138
GAS160	160	105	110	480	M180×4	260	200	220	273	460	710	1935	4302	209

油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GIHN-K...DO

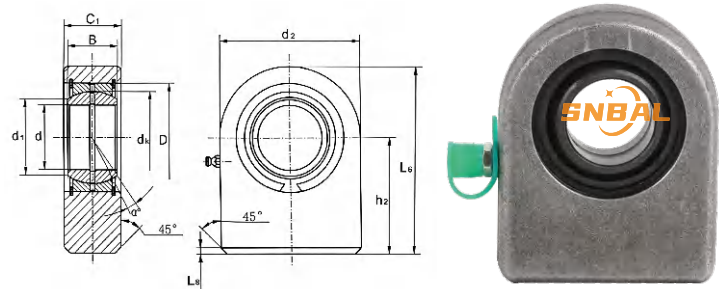


油润滑锁口型杆端关节轴承
Rod ends for hydraulic components

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions														负荷 kN		重量 Weight ≈kg
	d	B ^{0-0.12}	d ₁	C ₁ _{max}	d ₂ _{max}	G _{6H}	h ₁	L ₃ _{min}	L ₄ _{max}	C ₂	d ₄	d ₅	L ₇	α° ≈	动 Dynamic	静 Static	
GIHO-K12 DO*	12	10	15	8	35	M10×1.25	42	15	59.5	13	17	40	16	11	10.8	17	0.12
GIHO-K16 DO	16	14	20.7	11	45	M12×1.25	48	17	70.5	13	21	45	20	10	21.1	28.5	0.22
GIHO-K20 DO	20	16	24.2	13	55	M14×1.5	58	19	85.5	17	25	55	25	9	30	42.5	0.43
GIHO-K25 DO	25	20	29.3	17	65	M16×1.5	68	23	100.5	17	30	62	30	7	48.0	67	0.67
GIHO-K30 DO	30	22	34.2	19	80	M20×1.5	85	29	125	19	36	77	35	6	62.0	108	1.25
GIHO-K40 DO	40	28	45.0	23	100	M27×2.0	105	37	155	23	45	90	45	7	100	156	2.16
GIHO-K50 DO	50	35	55.9	30	120	M33×2.0	130	46	190	30	55	105	58	6	156	245	3.90
GIHO-K60 DO	60	44	66.8	38	160	M42×2.0	150	57	230	38	68	134	68	6	245	380	7.15
GIHO-K80 DO	80	55	89.4	47	205	M48×2.0	185	64	287.5	47	90	156	82	6	400	585	15.0
GIHO-K100 DO	100	70	109.5	55	240	M64×3.0	240	86	360	55	110	190	116	7	610	865	27.3

油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GF...DO

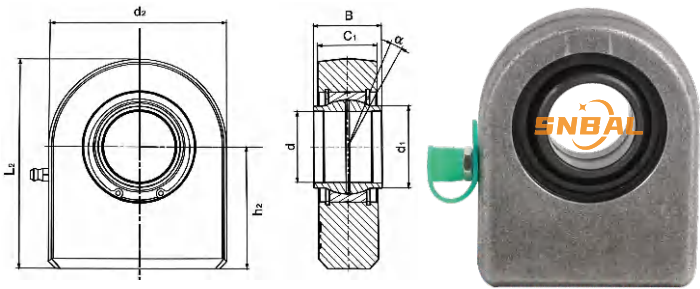


油润滑焊接型杆端关节轴承
Rod ends for hydraulic components

壳体 Housing	内圈 Inner ring	外圈 Outer ring
合金钢Alloy steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions											额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	d _k	C ₁	d ₂	h ₂	L ₆ max	r _s min	d ₁	L ₈	α° ≈	动 Dynamic	静 Static	
GF15DO	15	12	22	16	45	31	53.5	0.3	18.4	2	8	17	53	0.22
GF16DO	16	14	22	17.5	48	35	59	0.3	20.7	2	10	21.2	59	0.29
GF17DO	17	14	25	17.5	48	35	59	0.3	20.7	2	10	21.2	65	0.29
GF20DO	20	16	29	19	50	38	63	0.3	24.2	2	9	30	67	0.35
GF25DO	25	20	35.5	23	55	45	72.5	0.6	29.3	2	7	48	69	0.53
GF30DO	30	22	40.7	28	65	51	83.5	0.6	34.2	2	6	62	118	0.87
GF35DO	35	25	47	30	83	61	102.5	0.6	39.8	2	6	79	196	1.5
GF40DO	40	28	53	35	100	69	119	0.6	45	3	7	99	305	2.4
GF45DO	45	32	60	40	110	77	132	0.6	50.8	3	7	127	386	3.4
GF50DO	50	35	66	40	123	88	149.5	0.6	55.9	3	6	156	441	4.4
GF60DO	60	44	80	50	140	100	170	1	66.8	4	6	245	570	7.1
GF70DO	70	49	92	55	164	115	197	1	77.9	4	6	313	724	10
GF80DO	80	55	105	60	180	141	231	1	89.4	4	6	400	804	15
GF90DO	90	60	115	65	226	150	263	1	98.1	4	5	490	1340	23.5
GF100DO	100	70	130	70	250	170	295	1	109.5	4	7	610	1500	31.5
GF110DO	110	70	140	80	295	185	332.5	1	121.2	4	6	655	2160	48.5
GF120DO	120	85	160	90	360	210	390	1	135.5	4	6	950	3250	79

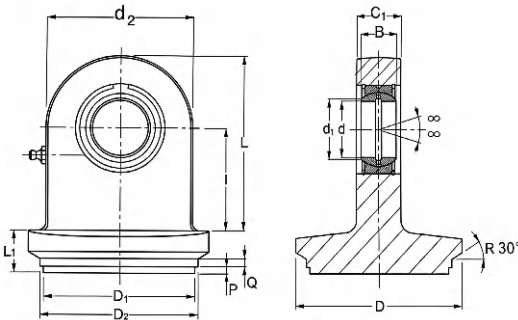
油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GF...LO TS...NF



油润滑焊接型杆端关节轴承
Rod ends for hydraulic components

壳体 Housing	内圈 Inner ring	外圈 Outer ring
合金钢Alloy steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	d ₁	h ₂	d ₂	C ₁	L ₆	α° ≈	动载荷 Dynamic	静载荷 Static	
GF20 LO	20	20	25	38	50	19	63	4	30	74	0.36
GF25 LO	25	25	30.5	45	55	23	72.5	4	48	95	0.54
GF32 LO	32	32	38	65	70	27	100	4	62.5	168	1.12
GF40 LO	40	40	46	69	100	35	119	4	100	268	2.50
GF50 LO	50	50	57	88	123	40	149.5	4	156	362	4.60
GF63 LO	63	63	71.5	107	145	50	179.5	4	248	570	9.30
GF70 LO	70	70	79	115	164	55	197	4	315	800	11.25
GF80 LO	80	80	91	141	180	60	231	4	400	874	15.75
GF90 LO	90	90	99	150	226	65	263	4	490	1045	24.00
GF100 LO	100	100	113	170	250	70	295	4	610	1330	33.95
GF110 LO	110	110	124	185	295	80	332.5	4	655	1490	49.00

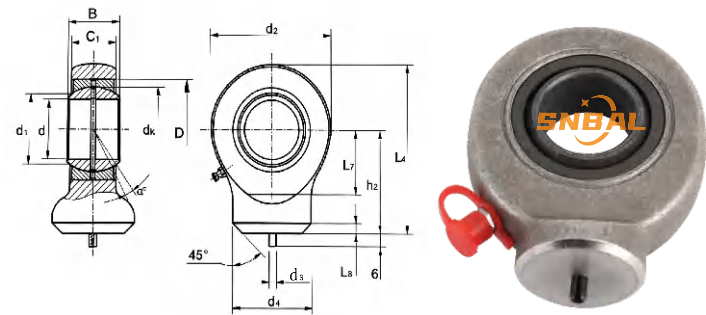


油润滑焊接型杆端关节轴承
Oil-lubricated welding type rod end joint bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
合金钢Alloy steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions														额定载荷 Load ratings kN		重量 Weight ≈kg
	P	Q	d	B	d ₁	l	d ₂	C ₁	L	L ₁ max	D _{max}	D ₁	α° ≈	D ₂	动 Dynamic	静 Static	
TS20NF	2	1.5	20	16	24.1	38	50	19	63	13	60	50	9	53	30	67	0.62
TS25NF	2	1.5	25	20	29.3	45	55	23	72.5	14	73	63	7	66	48	69.5	0.84
TS30NF	2	1.5	30	22	34.2	51	65	28	83.5	15	95	80	6	83	62	118	1.31
TS35NF	2	1.5	35	25	39.7	61	83	30	102.5	15	105	90	6	93	80	196	1.85
TS40NF	2	1.5	40	28	45	69	100	35	119	16	115	100	7	103	100	305	2.46
TS50NF	2	1.5	50	35	56	88	123	40	149.5	19	145	125	6	128	156	441	3.82
TS60NF	2	1.5	60	44	66.8	100	140	50	170	21	170	150	6	153	245	570	5.50

油缸耳环关节轴承 ROD ENDS FOR HYDRAULIC COMPONENTS
GK...DO

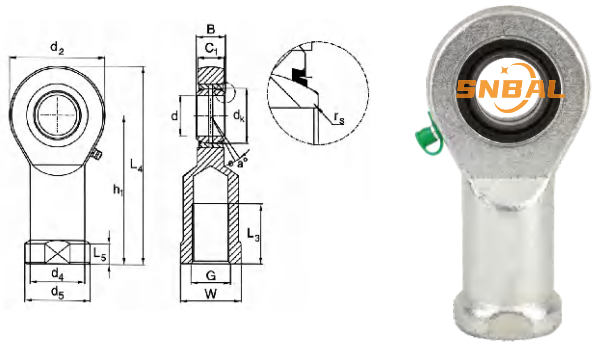


油润滑焊接型杆端关节轴承
Rod ends for hydraulic components

壳体 Housing	内圈 Inner ring	外圈 Outer ring
合金钢Alloy steel	轴承钢Bearing steel	轴承钢Bearing steel
	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions												额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	dk	C ₁	d ₂	h ₂	L ₄ max	d ₄	d ₃	L ₈	r _s min	α° ≈	动 Dynamic	静 Static	
GK10DO ¹⁾	10	9	16	7	29	24	38.5	15	3	1.5	0.3	12	8.1	15	0.041
GK12DO ¹⁾	12	10	18	8	34	27	44	17.5	3	1.5	0.3	10	10	21	0.066
GK15DO	15	12	22	10	40	31	51	21	4	2	0.3	8	16	32	0.12
GK17DO	17	14	25	11	46	35	58	24	4	2	0.3	10	21	40	0.19
GK20DO	20	16	29	13	53	38	64.5	27.5	4	2	0.3	9	30	54	0.23
GK25DO	25	20	35.5	17	64	45	77	33.5	4	3	0.6	7	48	72	0.43
GK30DO	30	22	40.7	19	73	51	87.5	40	4	3	0.6	6	62	95	0.64
GK35DO	35	25	47	21	82	61	102	47	4	3	0.6	6	79	125	0.96
GK40DO	40	28	53	23	92	69	115	52	4	4	0.6	7	99	156	1.3
GK45DO	45	32	60	27	102	77	128	58	6	4	0.6	7	127	208	1.8
GK50DO	50	35	66	30	112	88	144	62	6	4	0.6	6	156	250	2.5
GK60DO	60	44	80	38	135	100	167.5	70	6	4.5	1	6	245	390	3.9
GK70DO	70	49	92	42	160	115	195	80	6	6	1	6	313	510	6.6
GK80DO	80	55	105	47	180	141	231	95	6	6	1	6	400	620	8.7

杆端关节轴承 ROD ENDS BEARING
SI...ES(2RS)

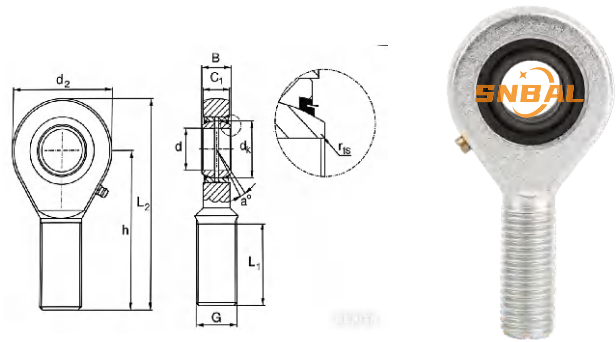


油润滑组合型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
镀锌Zinc plated	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions															额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	dk	C1 max	d2 max	G 6H	h1	L3 min	L4 max	L5	W	d4	d5	r's min	α° ≈	动 Dynamic	静 Static	
SI5E	5	6	10	4.5	21	M5	30	11	40.5	5	10	10	13	0.3	13	3.4	8.1	0.023
SI6E	6	6	10	4.5	21	M6	30	11	40.5	5	11	11	13	0.3	13	3.4	8.1	0.023
SI8E	8	8	13	6.5	24	M8	36	15	48	5	13	13	16	0.3	15	5.5	12.9	0.040
SI10E	10	9	16	7.5	29	M10	43	20	57.5	6.5	16	16	19	0.3	12	8.1	17.6	0.065
SI12E	12	10	18	8.5	34	M12	50	23	67	7	18	19	22	0.3	10	10	24.5	0.108
SI15ES	15	12	22	10.5	40	M14	61	30	81	8	21	21	26	0.3	8	16	36	0.169
SI17ES	17	14	25	11.5	46	M16	67	34	90	10	27	25	29	0.3	10	21	45	0.235
SI20ES	20	16	29	13.5	53	M20X1.5	77	40	103.5	10	30	28	34	0.3	9	30	60	0.335
SI25ES	25	20	35.5	18	64	M24×2	94	48	126	12	36	35	42	0.6	7	48	83	0.665
SI30ES	30	22	40.7	20	73	M30X2	110	56	146.5	15	46	42	50	0.6	6	62	110	1.05
SI35ES	35	25	47	22	82	M36X3	125	60	166	15	55	48	58	0.6	6	79	146	1.50
SI40ES	40	28	53	24	92	M39X3	142	65	188	18	60	52	65	0.6	7	99	180	2.05
SIS40ES	40	28	53	24	92	M42X3	142	65	188	18	55	52	65	0.6	7	99	180	1.94
SI45ES	45	32	60	28	102	M42X3	145	65	196	20	65	58	70	0.6	7	127	240	2.72
SIS45ES	45	32	60	27	102	M45×3	145	65	196	20	60	58	70	0.6	7	127	240	2.61
SI50ES	50	35	66	31	112	M45×3	160	68	216	20	70	62	75	0.6	6	156	290	3.48
SIS50ES	50	35	66	31	112	M52×3	160	69	216	20	65	62	75	0.6	6	156	260	3.24
SI60ES	60	44	80	39	135	M52×3	175	70	242.5	20	80	70	88	1	6	245	450	5.55
SIS60ES	60	44	80	39	135	M60X4	175	73	242.5	20	75	70	88	1	6	245	300	4.99
SI70ES	70	49	92	43	160	M56×4	200	80	280	20	85	80	98	1	6	313	610	8.72
SIS70ES	70	49	92	42	160	M72X4	200	80	280	20	80	85	98	1	6	313	470	8.33
SI80ES	80	55	105	48	180	M64×4	230	85	320	25	95	95	110	1	6	400	750	12.9
SIS80ES	80	55	105	47	180	M80X4	230	85	320	25	100	95	110	1	6	400	600	11.7

杆端关节轴承 ROD ENDS BEARING
SA...ES(2RS) SAS...ES(2RS)

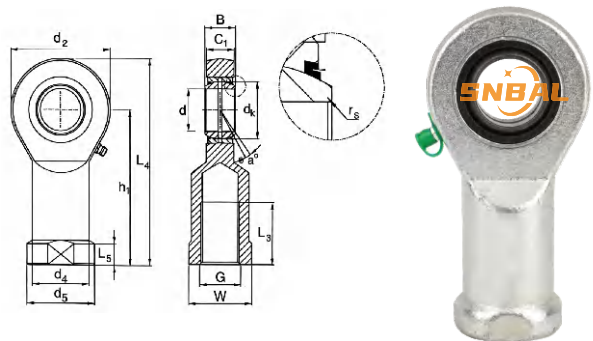


油润滑组合型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
镀锌Zinc plated	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions											额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	dk	C ₁ max	d ₂ max	G _{6g}	h	L ₁ min	L ₂ max	r _{1s} min	α° ≈	动 Dynamic	静 Static	
SA5E	5	6	10	4.5	21	M5	36	16	46.5	0.3	13	3.4	3.9	0.015
SA6E	6	6	10	4.5	21	M6	36	16	46.5	0.3	13	3.4	5.5	0.016
SA8E	8	8	13	6.5	24	M8	42	21	54	0.3	15	5.5	10	0.026
SA10E	10	9	16	7.5	29	M10	48	26	62.5	0.3	12	8.1	16	0.050
SA12E1	12	10	18	8.5	34	M12	54	28	71	0.3	10	10	23	0.068
SA15ES	15	12	22	10.5	40	M14	63	34	83	0.3	8	16	32	0.120
SA17ES	17	14	25	11.5	46	M16	69	36	92	0.3	10	21	44	0.190
SA20ES	20	16	29	13.5	53	M20X1.5	78	43	104.5	0.3	9	30	60	0.300
SA25ES	25	20	35.5	18	64	M24×2	94	53	126	0.6	7	48	83	0.555
SA30ES	30	22	40.7	20	73	M30×2	110	65	146.5	0.6	6	62	110	0.875
SA35ES	35	25	47	22	82	M36×3	140	82	181	0.6	6	79	146	1.42
SA40ES	40	28	53	24	92	M39X3	150	86	196	0.6	7	99	180	1.85
SAS40ES	40	28	53	23	92	M42×3	145	86	191	0.6	7	99	180	2.04
SA45ES	45	32	60	28	102	M42×3	163	92	214	0.6	7	127	240	2.49
SAS45ES	45	32	60	27	102	M45×3	165	95	216	0.6	7	127	240	2.74
SA50ES	50	35	66	31	112	M45×3	185	104	241	0.6	6	156	290	3.58
SAS50ES	50	35	66	30	112	M52X3	195	110	251	0.6	6	156	290	4.07
SA60ES	60	44	80	39	135	M52X3	210	115	277.5	1.0	6	245	450	5.89
SAS60ES	60	44	80	38	135	M60X4	225	120	292.5	1.0	6	245	450	6.79
SA70ES	70	49	92	43	160	M56×4	235	125	315	1.0	6	313	610	8.51
SAS70ES	70	59	92	42	160	M72X4	265	132	345	1.0	6	313	610	11.2
SA80ES	80	55	105	48	180	M64×4	270	140	360	1.0	6	400	750	12.3
SAS80ES	80	55	105	47	180	M80×4	295	147	385	1.0	6	400	750	15.3

杆端关节轴承 ROD ENDS BEARING
SIG...ES(2RS)

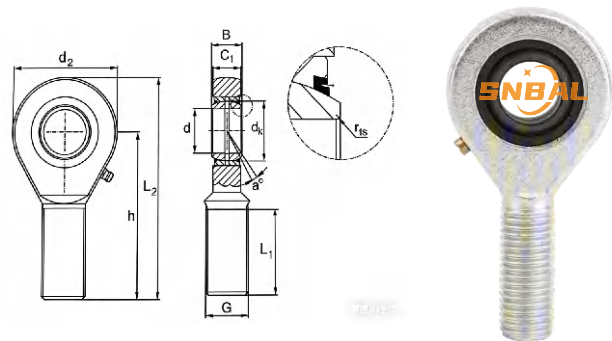


油润滑组合型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
镀锌Zinc plated	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions															额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	dk	C1 max	d2 max	G 6H	h1	L3 min	L4 max	L5	W	d4	d5	r1s min	α° ≈	动 Dynamic	静 Static	
SIG4E	4	7	10	4.5	21	M5×0.8	30	11	40.5	5	10	10	13	0.3	20	3.4	8.1	0.016
SIG5E	5	9	13	4.5	21	M6×1	30	11	40.5	5	11	11	13	0.3	21	5.5	8.1	0.021
SIG6E	6	9	13	6.5	24	M8×1.25	36	15	48	5	13	13	16	0.3	21	5.5	12.9	0.033
SIG8E	8	11	16	7.5	29	M10×1.5	43	15	57.5	6.5	16	16	19	0.3	21	8.1	17.6	0.064
SIG10E	10	12	18	8.5	34	M12×1.75	50	18	67	7	18	19	22	0.3	18	10	24.5	0.102
SIG12ES	12	15	22	10.5	40	M14×2	61	21	81	8	21	21	26	0.3	18	16	36.0	0.168
SIG15ES	15	16	25	11.5	46	M16×2	67	24	90	10	27	25	29	0.3	16	21	45.0	0.240
SIG17ES	17	20	29	13.5	53	M20×1.5	77	30	103.5	10	30	28	34	0.3	19	30	60.0	0.347
SIG20ES	20	25	35.5	18	64	M24×2	94	36	126	12	36	35	42	0.6	17	48	83	0.659
SIG25ES	25	28	40.7	20	73	M30×2	110	45	146.5	15	46	42	50	0.6	17	62	110	1.025
SIG30ES	30	32	47	22	82	M36×3	125	60	166	15	55	48	58	0.6	17	79	146	1.590
SIG35ES	35	35	53	24	92	M39×3	142	65	188	18	60	52	65	0.6	16	99	180	2.160
SIG40ES	40	40	60	28	102	M42×3	145	65	196	20	65	58	70	0.6	17	127	240	2.840
SIG45ES	45	43	66	31	112	M45×3	160	68	216	20	70	62	75	0.6	15	156	290	3.740
SIG50ES	50	56	80	39	135	M52×3	175	70	242.5	20	80	70	88	1	17	245	450	5.730
SIG60ES	60	63	92	43	160	M56×4	200	80	280	20	85	80	98	1	17	313	610	8.830
SIG70ES	70	70	105	48	180	M64×4	230	85	320	25	95	95	110	1	16	400	750	14.500

杆端关节轴承 ROD ENDS BEARING
SAG...ES(2RS)

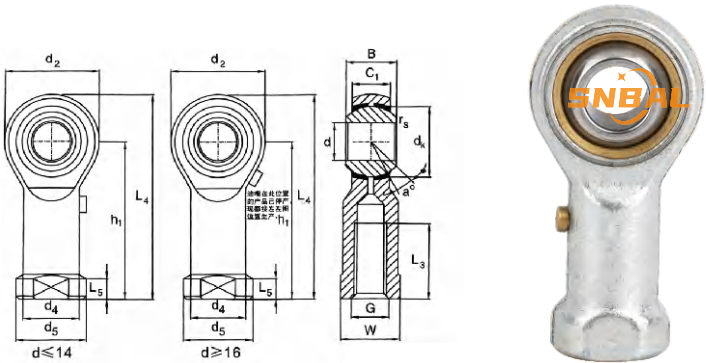


油润滑组合型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	轴承钢Bearing steel
镀锌Zinc plated	热处理Heat treated:HRC58-64	热处理Heat treated:HRC54-60
	磷化Phosphating	磷化Phosphating
摩擦副Sliding contact surfaces:		钢/钢Steel/Steel

轴承型号 Bearing Number	外形尺寸 Dimensions											额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	d _k	C ₁ max	d ₂ max	G _{6g}	h	L ₁ min	L ₂ max	r _{1s} min	α° ≈	动 Dynamic	静 Static	
SAG4E	4	7	10	4.5	21	M5×0.8	36	16	46.5	0.3	20	3.4	8.1	0.011
SAG5E	5	9	13	4.5	21	M6×1	36	16	46.5	0.3	21	5.5	8.1	0.017
SAG6E	6	9	13	6.5	24	M8×1.25	42	21	54	0.3	21	5.5	12.9	0.024
SAGBE	8	11	16	7.5	29	M10×1.5	48	26	62.5	0.3	21	8.1	17.6	0.047
SAG10E	10	12	18	8.5	34	M12×1.75	54	28	71	0.3	18	10	24.5	0.072
SAG12ES	12	15	22	10.5	40	M14×2	63	34	83	0.3	18	16	36	0.127
SAG15ES	15	16	25	11.5	46	M16×2	69	36	92	0.3	16	21	45	0.179
SAG17ES	17	20	29	13.5	53	M20×1.5	78	43	104.5	0.3	19	30	60	0.306
SAG20ES	20	25	35.5	18	64	M24×2	94	53	126	0.6	17	48	83	0.538
SAG25ES	25	28	40.7	20	73	M30×2	110	65	146.5	0.6	17	62	110	0.885
SAG30ES	30	32	47	22	82	M36×3	140	82	181	0.6	17	79	146	1.480
SAG35ES	35	35	53	24	92	M39×3	150	86	196	0.6	16	99	180	1.960
SAG40ES	40	40	60	28	102	M42×3	163	92	214	0.6	17	127	240	2.690
SAG45ES	45	43	66	31	112	M45×3	185	104	241	0.6	15	156	290	3.750
SAG50ES	50	56	80	39	135	M52×3	210	115	277.5	1	17	245	450	5.830
SAG60ES	60	63	92	43	160	M56×4	235	125	315	1	17	313	610	8.440
SAG70ES	70	70	105	48	180	M64×4	270	140	360	1	16	400	750	13.52

杆端关节轴承 ROD ENDS BEARING
PHS

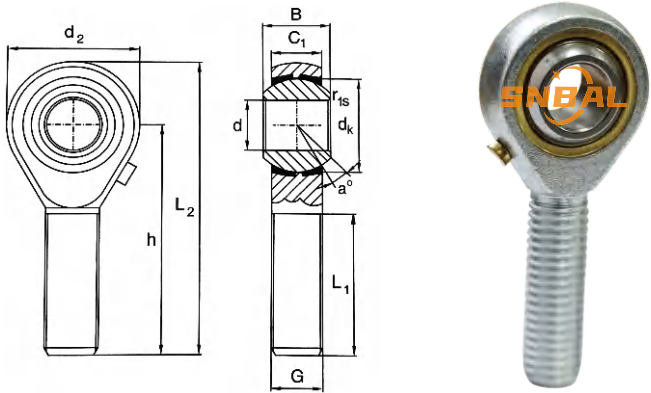


油润滑镶垫型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	黄铜Brass
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces:		钢/铜Steel/Brass

轴承型号 Bearing Number	外形尺寸 Dimensions															额定载荷 Load ratings kN		径向 游隙 Radial clearance	重量 Weight ≈kg
	d	B	dk	C ₁ max	d ₂ max	G _{6H}	h ₁	L ₃ min	L ₄ max	L ₅	W	d ₄	d ₅	r _s min	α° ≈	动 Dynamic	静 Static		
PHS3	3	6	7.938	4.5	12	M3×0.5	21	10	27	3	5.3	5	6.5	0.2	13	1.75	3.67	0~0.035	
PHS4	4	7	9.525	5.3	14	M4×0.7	24	12	31	4	8	8	9.5	0.2	13	2.48	4.68	0~0.035	
PHS5	5	8	11.112	6	16	M5×0.8	27	10	35	4	9	8.5	11	0.3	13	3.3	4.1	0~0.035	0.016
PHS5-1	5	8	11.112	6	16	M4×0.7	27	10	35	4	9	8.5	11	0.3	16	3.3	4.1	0~0.035	0.016
PHS6	6	9	12.7	6.75	18	M6×1	30	12	39	5	11	10	13	0.3	13	4.4	5.3	0~0.035	0.022
PHS8	8	12	15.88	9	22	M8×1.25	36	16	47	5	14	12.5	16	0.3	14	6.8	8.5	0~0.035	0.044
PHS10	10	14	19.05	10.5	26	M10×1.5	43	20	56	6.5	17	15	19	0.6	14	10	11	0~0.035	0.072
PHS10-1	10	14	19.05	10.5	26	M10×1.25	43	20	56	6.5	17	15	19	0.6	14	10	11	0~0.035	0.072
PHS12	12	16	22.23	12	30	M12×1.75	50	22	65	6.5	19	17.5	22	0.6	13	13	14	0~0.035	0.108
PHS12-1	12	16	22.23	12	30	M12×1.25	50	22	65	6.5	19	17.5	22	0.6	13	13	14	0~0.035	0.108
PHS14	14	19	25.4	13.5	34	M14×2	57	25	74	8	22	20	25	0.6	16	17	20	0~0.035	0.161
PHS14-1	14	19	25.4	13.5	34	M14×1.5	57	25	74	8	22	20	25	0.6	16	17	20	0~0.035	0.161
PHS16	16	21	28.58	15	38	M16×2	64	28	83	8	22	22	27	0.6	15	21	25	0~0.035	0.225
PHS16-1	16	21	28.58	15	38	M16×1.5	64	28	83	8	22	22	27	0.6	15	21	25	0~0.035	0.225
PHS18	18	23	31.75	16.5	42	M18×1.5	71	32	92	10	27	25	31	0.6	15	26	30	0~0.035	0.295
PHS20	20	25	34.93	18	46	M20×1.5	77	33	100	10	30	27.5	34	0.6	15	31	35	0~0.035	0.382
PHS22	22	28	38.1	20	50	M22×1.5	84	37	109	12	32	30	38	0.6	15	38	43	0~0.035	0.488
PHS25	25	31	42.86	22	60	M24×2	94	42	124	12	36	33.5	42	0.6	15	47	65	0~0.035	0.749
PHS28	28	35	47.63	25	66	M27×2	103	48	136	12	41	37	46	0.6	15	59	77	0~0.035	0.949
PHS30	30	37	50.8	25	70	M30×2	110	51	145	15	41	40	50	0.6	17	63	86	0~0.035	1.13
PHS30-1	30	37	50.8	25	70	M27×2	110	51	145	15	41	40	50	0.6	17	63	86	0~0.035	1.13

杆端关节轴承 ROD ENDS BEARING
POS

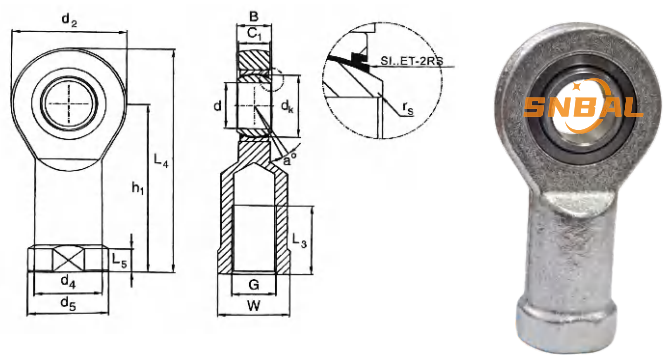


油润滑镶垫型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	黄铜Brass
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces:		钢/铜Steel/Brass

轴承型号 Bearing Number	外形尺寸 Dimensions											额定载荷 Load ratings kN		径向 游隙 Radial clearance	重量 Weight ≈kg
	d	B	d _k	C ₁ max	d ₂ max	G _{6g}	h	L ₁ min	L ₂ max	r _{1s} min	α° ≈	动 Dynamic	静 Static		
POS3	3	6	7.938	4.5	12	M3×0.5	27	15	33	0.2	13	1.75	3.67	0~0.035	0.05
POS4	4	7	9.525	5.3	14	M4×0.7	30	17	37	0.2	13	2.48	4.68	0~0.035	0.081
POS5	5	8	11.112	6	16	M5×0.8	33	20	41	0.3	13	3.3	3.9	0~0.035	0.016
POS6	6	9	12.7	6.75	18	M6×1	36	22	45	0.3	13	4.3	5.3	0~0.035	0.026
POS8	8	12	15.88	9	22	M8×1.25	42	25	53	0.3	14	6.8	8.5	0~0.035	0.044
POS10	10	14	19.05	10.5	26	M10×1.5	48	29	61	0.6	14	10	11	0~0.035	0.072
POS12	12	16	22.23	12	30	M12×1.75	54	33	69	0.6	13	13	14	0~0.035	0.108
POS14	14	19	25.4	13.5	34	M14×2	60	36	77	0.6	16	17	20	0~0.035	0.161
POS16	16	21	28.58	15	38	M16×2	66	40	85	0.6	15	21	25	0~0.035	0.225
POS18	18	23	31.75	16.5	42	M18×1.5	72	44	93	0.6	15	26	30	0~0.035	0.295
POS20	20	25	34.93	18	46	M20×1.5	78	47	101	0.6	15	31	35	0~0.035	0.382
POS22	22	28	38.1	20	50	M22×1.5	84	51	109	0.6	15	38	43	0~0.035	0.488
POS25	25	31	42.86	22	60	M24×2	94	57	124	0.6	15	47	65	0~0.035	0.749
POS28	28	35	47.63	25	66	M27×2	103	62	136	0.6	15	59	77	0~0.035	0.949
POS30	30	37	50.8	25	70	M30×2	110	66	145	0.6	17	63	86	0~0.035	1.13

杆端关节轴承 ROD ENDS BEARING
SI...C SI...ETL(2RS)

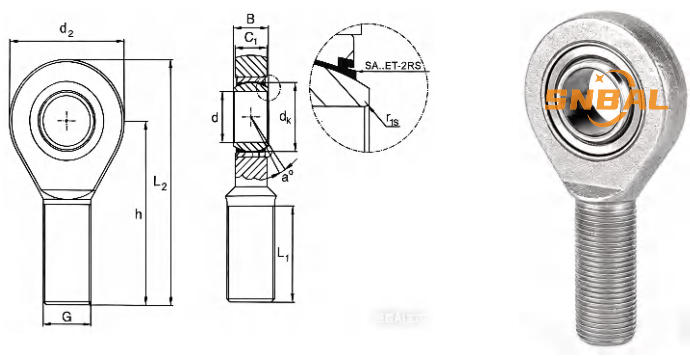


自润滑组装型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	碳钢Carbon steel
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces: 钢/复合材料(d≤30)钢/PTFE织物(d≥15)		

轴承型号 Bearing Number	外形尺寸 Dimensions															额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	dk	C ₁ max	d ₂ max	G 6H	h ₁	L ₃ min	L ₄ max	L ₅	W	d ₄	d ₅	r _s min	α° ≈	动 Dynamic	静 Static	
SI5C	5	6	10	4.5	21	M5	30	11	40.5	5	10	10	13	0.3	13	3.6	8.1	0.023
SI6C	6	6	10	4.5	21	M6	30	11	40.5	5	11	11	13	0.3	13	3.6	8.1	0.023
SI8C	8	8	13	6.5	24	M8	36	15	48	5	13	13	16	0.3	15	5.8	12.9	0.040
SI10C	10	9	16	7.5	29	M10	43	20	57.5	6.5	16	16	19	0.3	12	8.6	17.6	0.065
SI12C	12	10	18	8.5	34	M12	50	23	67	7	18	19	22	0.3	10	11	24.5	0.108
SI15C	15	12	22	10.5	40	M14	61	30	81	8	21	21	26	0.3	8	18	36	0.169
SI15ETL-2RS	15	12	22	10.5	40	M14	61	30	81	8	21	21	26	0.3	8	25	36	0.169
SI17C	17	14	25	11.5	46	M16	67	34	90	10	27	25	29	0.3	10	22	45	0.235
SI17ETL-2RS	17	14	25	11.5	46	M16	67	34	90	10	27	25	29	0.3	10	32	45	0.235
SI20C	20	16	29	13.5	53	M20X1.5	77	40	103.5	10	30	28	34	0.3	9	31	60	0.335
SI20ETL-2RS	20	16	29	13.5	53	M20X1.5	77	40	103.5	10	30	28	34	0.3	9	45	60	0.335
SI25C	25	20	35.5	18	64	M24×2	94	48	126	12	36	35	42	0.6	7	51	85	0.665
SI25ETL-2RS	25	20	35.5	18	64	M24×2	94	48	126	12	36	35	42	0.6	7	85	85	0.665
SI30C	30	22	40.7	20	73	M30X2	110	56	146.5	15	46	42	50	0.6	6	65	110	1.05
SI30ETL-2RS	30	22	40.7	20	73	M30X2	110	56	146.5	15	46	42	50	0.6	6	110	110	1.05
SI35ETL-2RS	35	25	47	22	82	M36X3	125	60	166	15	55	48	58	0.6	6	140	146	1.50
SI40ETL-2RS	40	28	53	24	92	M39X3	142	65	188	18	60	52	65	0.6	7	175	180	2.05
SIS40ETL-2RS	40	28	53	24	92	M42X3	142	65	188	18	55	52	65	0.6	7	99	180	1.94
SI45ETL-2RS	45	32	60	28	102	M42X3	145	65	196	20	65	58	70	0.6	7	225	240	2.72
SIS45ETL-2RS	45	32	60	27	102	M45×3	145	65	196	20	60	58	70	0.6	7	127	240	2.61
SI50ETL-2RS	50	35	66	31	112	M45X3	160	68	216	20	70	62	75	0.6	6	275	290	3.48
SIS50ETL-2RS	50	35	66	31	112	M52X3	160	69	216	20	65	62	75	0.6	6	156	260	3.24
SI60ETL-2RS	60	44	80	39	135	M52X3	175	70	242.5	20	80	70	88	1	6	430	450	5.55
SIS60ETL-2RS	60	44	80	39	135	M60X4	175	73	242.5	20	75	70	88	1	6	245	300	4.99
SI70ETL-2RS	70	49	92	43	160	M56X4	200	80	280	20	85	80	98	1	6	550	610	8.72
SIS70ETL-2RS	70	49	92	42	160	M72X4	200	80	280	20	80	85	98	1	6	313	470	8.33
SI80ETL-2RS	80	55	105	48	180	M64X4	230	85	320	25	95	95	110	1	6	705	750	12.9
SIS80ETL-2RS	80	55	105	47	180	M80X4	230	85	320	25	100	95	110	1	6	400	600	11.7

杆端关节轴承 ROD ENDS BEARING
SA...C SA...ETL(2RS)



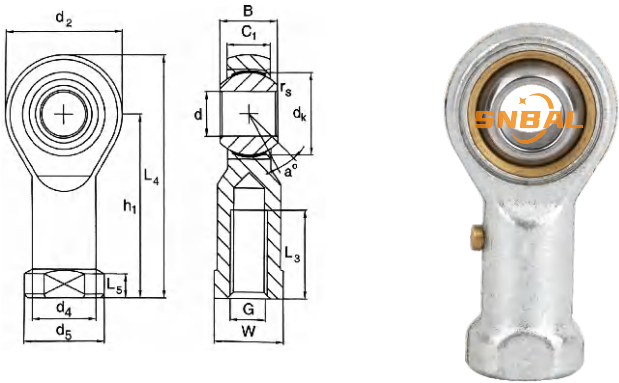
自润滑组装型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	碳钢Carbon steel
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces: 钢/复合材料(d≤30)钢/PTFE织物(d≥15)		

轴承型号 Bearing Number	外形尺寸 Dimensions											额定载荷 Load ratings kN		重量 Weight ≈kg
	d	B	d _k	C ₁ max	d ₂ max	G 6g	h	L ₁ min	L ₂ max	r _{1s} min	α° ≈	动 Dynamic	静 Static	
SA5C	5	6	10	4.5	21	M5	36	16	46.5	0.3	13	3.6	3.9	0.015
SA6C	6	6	10	4.5	21	M6	36	16	46.5	0.3	13	3.6	5.5	0.016
SA8C	8	8	13	6.5	24	M8	42	21	54	0.3	15	5.8	10	0.026
SA10C	10	9	16	7.5	29	M10	48	26	62.5	0.3	12	8.6	16	0.050
SA12C	12	10	18	8.5	34	M12	54	28	71	0.3	10	11	23	0.068
SA15C	15	12	22	10.5	40	M14	63	34	83	0.3	8	18	32	0.120
SA15ETL-2RS	15	12	22	10.5	40	M14	63	34	83	0.3	8	25	32	0.120
SA17C	17	14	25	11.5	46	M16	69	36	92	0.3	10	22	44	0.190
SA17ETL-2RS	17	14	25	11.5	46	M16	69	36	92	0.3	10	32	44	0.190
SA20C	20	16	29	13.5	53	M20X1.5	78	43	104.5	0.3	9	31	60	0.300
SA20ETL-2RS	20	16	29	13.5	53	M20X1.5	78	43	104.5	0.3	9	45	60	0.300
SA25C	25	20	35.5	18	64	M24×2	94	53	126	0.6	7	51	85	0.555
SA25ETL-2RS	25	20	35.5	18	64	M24×2	94	53	126	0.6	7	85	85	0.555
SA30C	30	22	40.7	20	73	M30X2	110	65	146.5	0.6	6	65	110	0.875
SA30ETL-2RS	30	22	40.7	20	73	M30X2	110	65	146.5	0.6	6	110	110	0.875
SA35ETL-2RS	35	25	47	22	82	M36X3	140	82	181	0.6	6	140	146	1.42
SA40ETL-2RS	40	28	53	24	92	M39X3	150	86	196	0.6	7	175	180	1.85
SAS40ETL-2RS	40	28	53	23	92	M42X3	145	86	191	0.6	7	99	180	2.04
SA45ETL-2RS	45	32	60	28	102	M42X3	163	92	214	0.6	7	225	240	2.49
SAS45ETL-2RS	45	32	60	27	102	M45X3	165	95	216	0.6	7	127	240	2.74
SA50ETL-2RS	50	35	66	31	112	M45X3	185	104	241	0.6	6	275	290	3.58
SAS50ETL-2RS	50	35	66	30	112	M52X3	195	110	251	0.6	6	156	290	4.07
SA60ETL-2RS	60	44	80	39	135	M52X3	210	115	277.5	1.0	6	430	450	5.89
SAS60ETL-2RS	60	44	80	38	135	M60X4	225	120	292.5	1.0	6	245	450	6.79
SA70ETL-2RS	70	49	92	43	160	M56X4	235	125	315	1.0	6	550	610	8.51
SAS70ETL-2RS	70	59	92	42	160	M72X4	265	132	345	1.0	6	313	610	11.2
SA80ETL-2RS	80	55	105	48	180	M64X4	270	140	360	1.0	6	705	750	12.3
SAS80ETL-2RS	80	55	105	47	180	M80×4	295	147	385	1.0	6	400	750	15.3

杆端关节轴承 ROD ENDS BEARING

SI...T/K



自润滑组装型杆端关节轴承

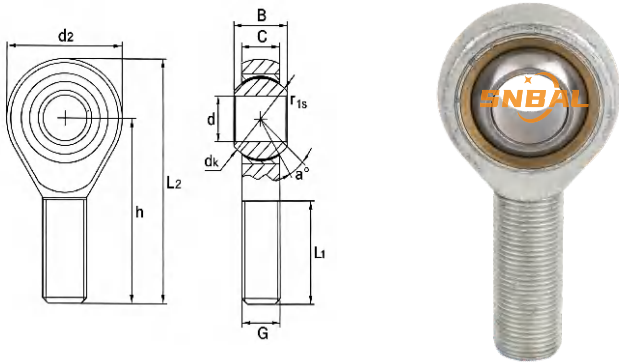
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	黄铜Brass
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces:		钢/PTFE织物

轴承型号 Bearing Number	外形尺寸 Dimensions															转动 扭力 Rotational torque Nm max	额定载荷 Load ratings kN		径向 游隙 Radial clearance	重量 Weight ≈kg
	d	B	dk	C _{max}	d _{max}	G _{6H}	h ₁	L _{3 min}	L _{4 max}	L ₅	W	d ₄	d ₅	r _{s min}	α°		动 Dynamic	静 Static		
SI5T/K	5	8	11.112	6	8	M5	27	10	36	4	9	9	12	0.3	13	0.2	5.7	6	0~0.032	0.016
SI5T/K-1	5	8	11.112	6	8	M4	27	10	36	4	9	9	12	0.3	13	0.2	5.7	6	0~0.032	0.016
SI6T/K	6	9	12.7	6.75	9	M6	30	12	40	5	11	10	13	0.3	13	0.25	7.2	7.65	0~0.032	0.022
SI8T/K	8	12	15.88	9	12	M8	36	16	48	5	14	12.5	16	0.3	14	0.3	11.6	12.9	0~0.032	0.047
SI10T/K	10	14	19.05	10.5	14	M10	43	20	57	6.5	17	15	19	0.6	13	0.4	14.5	18	0~0.032	0.077
SI10T/K-1	10	14	19.05	10.5	14	M10×1.25	43	20	57	6.5	17	15	19	0.6	13	0.4	14.5	18	0~0.032	0.077
SI12T/K	12	16	22.23	12	16	M12	50	22	66	6.5	19	17.5	22	0.6	13	0.5	17	24	0~0.032	0.100
SI12T/K-1	12	16	22.23	12	16	M12×1.25	50	22	66	6.5	19	17.5	22	0.6	13	0.5	17	24	0~0.04	0.100
SI14T/K	14	19	25.4	13.5	19	M14	57	25	75	8	22	20	25	0.6	16	0.6	24	31	0~0.04	0.160
SI14T/K-1	14	19	25.4	13.5	19	M14×1.5	57	25	75	8	22	20	25	0.6	16	0.6	24	31	0~0.04	0.160
SI16T/K	16	21	28.58	15	21	M16	64	28	85	8	24	22	27	0.6	15	0.7	28.5	39	0~0.04	0.220
SI16T/K-1	16	21	28.58	15	21	M16×1.5	64	28	85	8	24	22	27	0.6	15	0.7	28.5	39	0~0.04	0.220
SI18T/K	18	23	31.75	16.5	23	M18×1.5	71	32	93	10	27	25	31	0.6	15	0.8	42.5	47.5	0~0.04	0.320
SI20T/K	20	25	34.93	18	25	M20×1.5	77	33	102	10	30	27.5	34	0.6	14	1.0	42.5	57	0~0.04	0.420
SI22T/K	22	28	38.1	20	28	M22×1.5	84	37	111	12	32	30	37	0.6	15	1.2	57	68	0~0.05	0.540
SI25T/K	25	31	42.86	22	31	M24×2	94	42	124	12	36	33.5	42	0.6	15	1.2	68	85	0~0.05	0.720
SI28T/K	28	35	47.63	24	35	M27×2	103	48	136	12	41	37	46	0.6	15	1.2	86	107	0~0.05	0.820
SI30T/K	30	37	50.8	25	37	M30×2	110	51	145	14	41	40	50	0.6	17	1.2	88	114	0~0.05	1.100
SI30T/K-1	30	37	50.8	25	37	M27×2	110	51	145	14	41	40	50	0.6	17	1.2	88	114	0~0.05	1.100
SI35T/K	35	43	57.1	28	43	M36×2	125	56	165.5	17	50	46	58	0.6	16	1.2	101	206	0~0.05	1.600
SI40T/K	40	49	66.6	33	49	M42×2	142	60	187.5	19	55	53	65	1	17	1.2	124	286	0~0.05	2.400
SI50T/K	50	60	82.5	45	60	M48×2	160	65	218.5	23	65	65	75	1	12	1.2	308	485	0~0.05	5.000

杆端关节轴承 ROD ENDS BEARING

SA...T/K



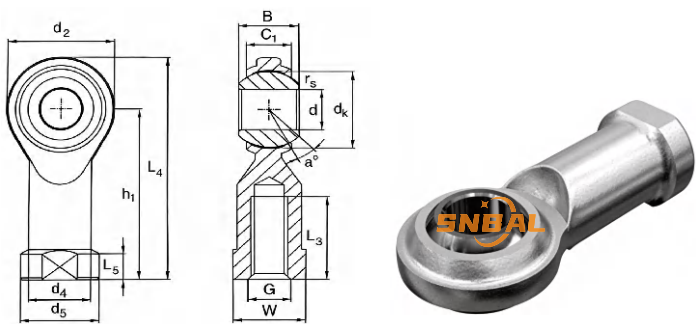
自润滑组装型杆端关节轴承

Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	黄铜Brass
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces:		钢/PTFE织物

轴承型号 Bearing Number	外形尺寸 Dimensions											转动 扭力 Rotational torque Nm max	额定载荷 Load ratings kN		径向 游隙 Radial clearance	重量 Weight ≈kg
	d	B	d _k	C ₁ max	d ₂ max	G 6g	h	L ₁ min	L ₂ max	r _{1s} min	α° ≈		动 Dynamic	静 Static		
SA5T/K	5	8	11.112	6	18	M5	33	19	42	0.3	13	0.2	5.7	6.0	0~0.032	0.013
SA6T/K	6	9	12.7	6.75	20	M6	36	21	46	0.3	13	0.25	7.2	7.65	0~0.032	0.015
SA8T/K	8	12	15.88	9	24	M8	42	25	54	0.3	14	0.3	11.6	12.9	0~0.032	0.034
SA10T/K	10	14	19.05	10.5	28	M10	48	28	62	0.6	13	0.4	14.5	18	0~0.032	0.071
SA12T/K	12	16	22.23	12	32	M12	54	32	70	0.6	13	0.5	17	24	0~0.032	0.110
SA14T/K	14	19	25.4	13.5	36	M14	60	36	78	0.6	16	0.6	24	31	0~0.04	0.130
SA16T/K	16	21	28.58	15	42	M16	66	37	87	0.6	15	0.7	28.5	39	0~0.04	0.220
SA18T/K	18	23	31.75	16.5	44	M18×1.5	72	41	94	0.6	15	0.8	42.5	47.5	0~0.04	0.290
SA20T/K	20	25	34.93	18	50	M20×1.5	78	45	103	0.6	14	1.0	42.5	57	0~0.04	0.360
SA22T/K	22	28	38.1	20	54	M22×1.5	84	48	111	0.6	15	1.2	57	68	0~0.05	0.490
SA25T/K	25	31	42.86	22	60	M24×2	94	55	124	0.6	15	1.2	68	85	0~0.05	0.650
SA28T/K	28	35	47.63	24	66	M27×2	103	62	136	0.6	15	1.2	86	107	0~0.05	0.870
SA30T/K	30	37	50.8	25	70	M30×2	110	66	145	0.6	17	1.2	88	114	0~0.05	1.100
SA35T/K	35	43	57.1	28	81	M36×2	140	85	180.5	0.6	16	1.2	101	206	0~0.05	1.640
SA40T/K	40	49	66.6	33	91	M42×2	150	90	195.5	0.6	17	1.2	124	286	0~0.05	2.400
SA50T/K	50	60	82.5	45	117	M48×2	185	105	243.5	0.6	12	1.2	308	485	0~0.05	4.800

杆端关节轴承 ROD ENDS BEARING
NH...T

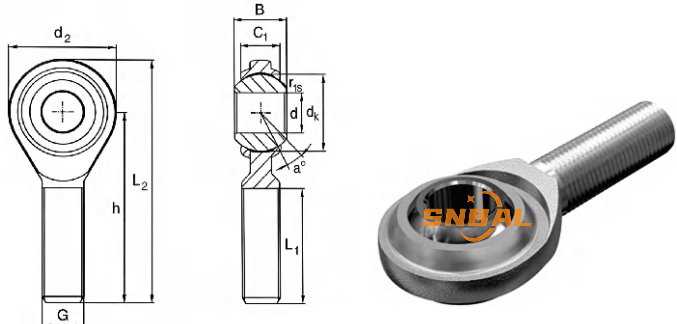


自润滑挤压型杆端关节轴承
Rod ends bearing

壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	黄铜Brass
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces:		钢/铜Steel/Brass

轴承型号 Bearing Number	外形尺寸 Dimensions															转动 扭力 Rotational torque Nm max	额定载荷 Load ratings kN		径向 游隙 Radial clearance	重量 Weight ≈kg
	d	B	d ₁	C ₁ max	d ₂ max	G 6H	h ₁	L ₃ min	L ₄ max	L ₅	W	d ₄	d ₅	r _s min	α° ≈		动 Dynamic	静 Static		
NHS3T	3	6	6.8	4.5	12	M3×0.5	21	10	27	3	5.5	5	8	0.2	11	0.2~3.5	2480	3500	0-0.032	10
NHS4T	4	7	7.6	5.25	14	M4×0.7	24	12	31	4	8	8	9.5	0.2	12	0.2~3.5	3260	4950	0-0.032	12
NHS5T	5	8	7.7	6	16	M5×0.8	27	12.5	35	4	9	9	12	0.2	12	0.2~3.5	4010	6540	0-0.032	16
NHS6T	6	9	9	6.75	18	M6×1	30	13.5	39	5	11	10	13	0.2	10	0.2~3.5	4940	8410	0-0.032	25
NHS8T	8	12	10.4	9	22	M8×1.25	36	16	47	5	14	12.5	16	0.2	12	0.2~3.5	7760	14000	0-0.032	43
NHS10T	10	14	12.9	10.5	26	M10×1.5	43	19.5	56	6.5	17	15	19	0.2	12	0.2~3.5	10500	19600	0-0.032	72
NHS12T	12	16	15.4	12	30	M12×1.75	50	24	65	6.5	19	17.5	22	0.2	12	0.2~3.5	13700	26200	0-0.032	107
NHS14T	14	19	16.9	13.5	34	M14×2	57	27	74	8	22	20	25	0.2	14	0.2~3.5	17200	33600	0-0.04	160
NHS16T	16	21	19.4	15	38	M16×2	64	33	83	8	22	22	27	0.2	13	0.2~3.5	21100	42000	0-0.04	210
NHS18T	18	23	21.9	17	42	M18×1.5	71	36	92	10	27	25	31	0.2	14	0.2~3.5	25100	51400	0-0.04	295
NHS20T	20	25	24.4	18	46	M20×1.5	77	40	100	10	30	27.5	34	0.2	12	0.2~3.5	30000	61600	0-0.04	380
NHS22T	22	28	25.8	20	50	M22×1.5	84	41	109	12	32	30	37	0.2	13	0.2~3.5	36400	74700	0-0.05	490
NHS25T	25	31	29.6	22	56	M24×2	94	48	122	12	36	33.5	42	0.2	14	0.2~3.5	37000	77000	0-0.05	870
NHS28T	28	35	32.3	24	66	M27×2	103	56	143	15	41	40	40	0.2	15	0.2~3.5	43000	85000	0-0.05	1180
NHS30T	30	37	34.8	25	70	M30×2	110	56	145	15	41	40	50	0.2	16	0.2~3.5	55000	101000	0-0.05	1450

杆端关节轴承 ROD ENDS BEARING
NOS...T



自润滑挤压型杆端关节轴承
Rod ends bearing

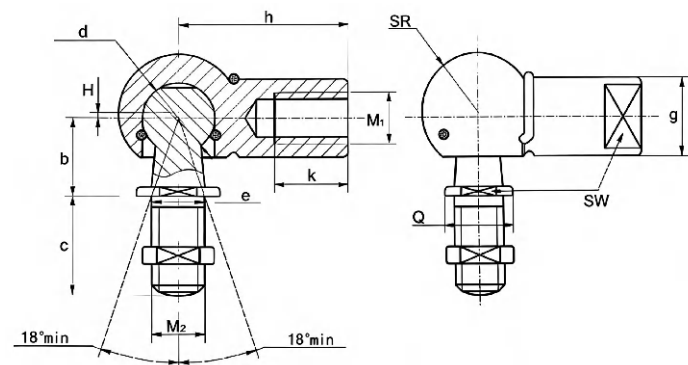
壳体 Housing	内圈 Inner ring	外圈 Outer ring
碳钢Carbon steel	轴承钢Bearing steel	黄铜Brass
镀锌Zinc plated	热处理Heat treated:HRC58-62	
摩擦副Sliding contact surfaces:		钢/铜Steel/Brass

轴承型号 Bearing Number	外形尺寸 Dimensions											转动 扭力 Rotational torque Nm max	额定载荷 Load ratings kN		径向 游隙 Radial clearance	重量 Weight ≈kg
	d	B	d ₁	C ₁ max	d ₂ max	G 6g	h	L ₁ min	L ₂ max	r _{1s} min	α° ≈		动 Dynamic	静 Static		
NOS3T	3	6	6.8	4.5	12	M3×0.5	27	15	33	0.2	11	02~35	1220	3500	0~0.032	5.0
NOS4T	4	7	7.6	5.25	14	M4×0.7	30	17	37	0.2	12	02~35	2060	4950	0~0.032	8.1
NOS5T	5	8	7.7	6	16	M5×0.8	33	20	41	0.2	12	02~35	3340	6540	0~0.032	12.5
NOS6T	6	9	9	6.75	18	M6×1	36	22	45	0.2	10	02~35	4730	8410	0~0.032	19
NOS8T	8	12	10.4	9	22	M8×1.25	42	25	53	0.2	12	02~35	7760	14000	0~0.032	32
NOS10T	10	14	12.9	10.5	26	M10×1.5	48	29	61	0.2	12	02~35	10500	19600	0~0.032	54
NOS12T	12	16	15.4	12	30	M12×1.75	54	33	69	0.2	12	02~35	13700	26200	0~0.032	85
NOS14T	14	19	16.9	13.5	34	M14×2	60	36	74	0.2	14	02~35	17200	33600	0~0.04	126
NOS16T	16	21	19.4	15	38	M16×2	66	40	85	0.2	13	02~35	21100	42000	0~0.04	185
NOS18T	18	23	21.9	17	42	M18×1.5	72	44	93	0.2	14	02~35	25100	51400	0~0.04	260
NOS20T	20	25	24.4	18	46	M20×1.5	78	47	101	0.2	12	02~35	30000	61600	0~0.04	340
NOS22T	22	28	25.8	20	50	M22×1.5	84	51	109	0.2	13	02~35	36400	74700	0~0.05	435
NOS25T	25	31	29.6	22	56	M24×2	94	57	122	0.2	14	02~35	37000	77000	0~0.05	730
NOS28T	28	35	32.3	24	66	M27×2	103	62	136	0.2	16	02~35	43000	85000	0~0.05	1000
NOS30T	30	37	34.8	26	70	M30×2	110	66	145	0.2	16	02~35	55000	101000	0~0.05	1320

[illegible]

壳体 Housing	伸出杆 Stud
锌基合金Zinc base alloy	碳钢Carbon steel
	发黑Black oxidized
摩擦副Sliding contact surfaces:	合金/钢 Alloy/Stell

轴承型号 Bearing Number	外形尺寸 Dimensions								螺 纹 Screw Thread M	摆 角 Angle
	L	L1	L2	I2	I3	W	D1	h		
LHSA5-RS	38.5	30	16	12	10	10	10	5	M5x0.75	17
LHSA6-RS	38.5	30	16	12	10	10	10	5	M6x1.0	17
LHSA8-RS	48	36	19	14.5	12.5	14	13	5	M8x1.25	18
LHSA10-RS	57	43	23	16	17	17	15	6.5	M10x1.25	19
LHSA12-RS	67	50	27	20	20	19	17.5	6.5	M12x1.75	20
LHSA14-RS	76	57	30	22.5	22	22	20	8	M14x2.0	20
LHSA16-RS	84	64	32	36.5	23	22	22	8	M16	20
LHSA18-RS	93	71	34	41.5	25	27	25	10	M18	20
LHSA20-RS	99	77	35	41	25	30	28	10	M20	20
LHSA22-RS	109	84	41	42	26	32	30	12	M22	20



壳体 Housing	伸出杆 Stud
锌基合金Zinc base alloy	碳钢Carbon steel
	发黑Black oxidized
摩擦副Sliding contact surfaces:	合金/钢 Alloy/Stell

轴承型号 Bearing Number	外形尺寸 Dimensions													负荷 kN Static Load ratings kN/	重量 Weight ≈kg
	h ±0.3	g ±0.5	M1 6H	M1 6g	Sd	b ±0.3	SW h14	Q h14	c ±0.3	e	H ±0.5	k min	SR ±0.5		
CS8	22	8	M5×0.8	M5×0.8	8	9	7	8	10	5	0.7	10.2	6.4	15.2	0.014
CS10	25	10	M6×1.0	M6×1.0	10	11	8	10	12.5	6	0.7	11.5	7.4	25.2	0.024
CS13	30	13	M8×1.25	M8×1.25	13	13	11	13	16.5	8	1.16	14	9.65	53.1	0.053
CS16	35	16	M10X1.5	M10X1.5	16	16	13	16	20	10	1.16	15.5	12	103.8	0.097
CS16-1	35	16	M12×1.75	M12×1.75	16	16	13	16	20	12	1.16	15.5	12	103.8	0.097
CS19	45	22	M14×2	M14×2	19	20	17	22	27	14	1.5	21.5	15	220.9	0.218
CS19-1	45	22	M14X1.5	M14X1.5	19	20	17	22	27	14	1.5	21.5	15	220.9	0.218

Technical drawing of a ball valve showing three views: side, front, and top. The side view (left) shows the handle with dimensions L_1 , L_2 , L_3 , L , D_2 , D_1 , d_1 , and d . The front view (middle) shows the ball with dimensions d_1 , d_2 , l_1 , l_2 , l_3 , and l . The top view (right) shows the handle with dimensions S_1 , S_2 , D_3 , and d_3 . The angle α° is indicated between the handle and the ball.

壳体 Housing	伸出杆 Stud
锌基合金Zinc base alloy	碳钢Carbon steel
	发黑Black oxidized
摩擦副Sliding contact surfaces:	钢/锌基合金 Steel/zinc-based Alloy

轴承型号 Bearing Number	外形尺寸 Dimensions																		负荷 kN Static Load ratings kN/	重量 Weight ≈kg
	d	d ₁	d ₂ min	d ₃ max	l max	l ₁ min	l ₂	l ₃ max	s ₁	L max	L ₁	L ₂ max	L ₃ max	D ₁ max	D ₂ max	D ₃ max	S ₂	a° ≈		
SQ5-RS	5	M5	9	19	29	8	10	21	7	35	27	4	14	9	11	16	9	25	2.2	0.026
SQ6-RS	6	M6	10	20	35.5	11	11	26	8	40	30	5	14	10	13	19	11	25	3.5	0.039
SQ8-RS	8	M8	12	24	42.5	12	14	31	10	48	36	5	17	12.5	16	23	14	25	6.6	0.068
SO10-RS	10	M10x1.25	14	30	50.5	15	17	37	11	57	43	6.5	21	15	19	27	17	25	10	0.112
SQ10-RS-1	10	M10×1.5	14	30	56.5	21	17	43	11	57	43	6.5	21	15	19	27	17	25	10	0.112
SQ12-RS	12	M12x1.25	17	32	57.5	17	19	42	15	66	50	6.5	25	17.5	22	31	19	25	16	0.164
SQ12-RS-1	12	M12x1.75	17	32	64.5	24	19	49	15	66	50	6.5	25	17.5	22	31	19	25	16	0.164
SQ14-RS	14	M14x1.5	19	38	73.5	22	21.5	56	17	75	57	8	26	17.5	25	35	22	25	19	0.254
SQ14-RS-1	14	M14x2	19	38	79.5	28	21.5	62	17	75	57	8	26	20	25	35	22	25	19	0.254
SQ16-RS	16	M16x1.5	22	44	79.5	23	23.5	60	19	84	64	8	32	20	27	39	22	20	26	0.336
SQ16-RS-1	16	M16×2	22	44	85.5	29	23.5	66	19	84	64	8	32	22	27	39	22	20	26	0.336
SQ18-RS	18	M18×1.5	23	45	90	25	26.5	68	20	93	71	10	34	25	31	44	27	20	33	0.464
SQ20-RS	20	M20x1.5	27	50	90	25	27	68	24	99	77	10	35	27.5	34	44	30	20	45	0.538
SQ22-RS	22	M22x1.5	27	52	95	26	28	70	24	109	84	12	41	30	37	50	32	16	48	0.713



小松配套专用关节轴承 PART NO.		
07137-04006	581-50-21450	805-417-30110
07137-04507	707-46-14010	7074611010
07137-05008	707-46-16030	56859111160
07137-05509	707-46-13010	F7D2G48330
07137-06010	369-823-40600	F8D2G78900
134-50-62150	369-823-48200	66A12-04500
17A-50-12310	180-262-13000	707-46-11520
17M-50-41161	21T-72-15850	18118221000
195-50-41161	707-46-14050	7074611510
195-71-51263	165-162-18001	581402315001
419-46-11281	581502145001	561-50-82310
566-50-11461	581-50-21450	707-76-12180
566-52-41920	561-40-61260	

卡特彼勒配套专用关节轴承 PART NO.			
1069036	2993203	4V2057	8G0890
1078126	3016946	5J1446	8G4189
1168052	3173911	5J6424	8G4259
1173006	3321648	5J9451	8G4371
1173006	3410966	5K2294	8J3783
1174013	3648483	5P7212	8J4382
1183134	3648484	5P7802	8J4411
1342733	380-7673	5P9962	8J4585
1346261	3807675	6I8531	8J6861
1362940	3807677	6J1144	8J7978
1388175	4803493	6J5383	8J8906
1401185	4450280	6S3976	8T0333
1485563	0357869	6V0444	9C3848
1527554	0058639	6V3249	9D2319
1553537	0665815	6V3340	9J3206
1587749	1U2729	6V5002	9J7964
1600305	1U3988	6V5003	9M1328
1649309	2D8652	6V8105	9M3914
1724311	3G3320	6Y2745	9U8693
188-8697	3G3521	6Y4457	9U9558
1975943	3G5337	6Y9379	9W9400
1976439	3S4646	6Y9380	2115383
1976440	3T1378	7J1309	2493505
2159572	3W8357	7J3297	2749256
2368152	3W8570	7T9147	3T1377
2374156	4D0298	7U9291	7D3182
2374860	4D2619	8F3225	9J6070
2945579	4D4431	8E2058	9J6070
2964292	4T1684		

向心关节轴承型号对照表

CENTRIPETAL JOINT BEARING MODEL COMPARISON TABLE

中国 CHINA	瑞典 SWEDEN	德国 GERMANY	德国 GERMANY	德国 GERMANY	日本 JAPAN	日本 JAPAN	日本 JAPAN	美国 AMERICA	美国 AMERICA
SNBAL	SKF	FAG	ELGES	ASK	IKO	NTN	NMB	RBC	PAVARINI
GE...E	GE...E	QE...E	GE...DO	GE...	GE...E	SAI-...B	SBH...NS		
GE...ES	GE...GE	GE...DE	GE...DO	GE...	GE...ES	SAI-...B	SBH...S	MB...	SR...
GE...ES 2RS	GE...ES 2RS	GE...ES 2RS	GE...DO 2RS	GE...2RS	GE...ES 2RS	SA1-...BBS		MB...-SS	SR...2RS
GEG...E	GEH...E	GEH...E	GE...FO		GE...G				
GEG...ES	GEH...ES	GEG...ES	GE...FO		GE...GS				SRL...
GEG...ES 2RS	GEH...ES 2RS	GEH...ES 2RS	GE...FO 2RS		GE...GS 2RS				SRL...2RS
GEEW...ES	GEG...ES		GE...LO						SRC...
GEEM...ES 2RS	GEM...ES 2RS		GE...HO 2RS		GEEM...ES 2RS				SRC...2RS
GE...C	GE...C	GE...C	GE...UK	GE...-D	GE...GC	SARI...			SRB...
GE...ET 2RS	GE...TE 2RS	GE...UA 2RS	GE...UK 2RS	GE...D 2RS	GE...ET 2RS				SRT...2RS
GEG...C	GEH...C	GEH...C	GE...FW						SRLB...
GEG...ET 2RS	GEH...TE 2RS		GE...FW 2RS						SRLE...2RS
GEBK...S					PB...				
GEBJ...S		GE...PB							
SGE...C	GE...TGR								
SGEG...C	GEH...TGR								
GEF...ES/GE...ES/K,前者单缝开..后者双缝开，尺寸相同					SB..				
COM.../COM...T=GEFZ...ES/GEFZ...C									
GAC...S			CE...SX						
GEC...T			GE...SW						
GX...S			GE...AX						
GX...T			GE...AW						
GEZ12ES	GEZ1SES	GEZ19ES	GEZ22ES	GEZ25ES	GEZ31ES	GEZ34ES	GEZ38ES	GEZ44ES	
B8-L	B10-L	B12-L	B14-L	R16-L	B20-L	B22-L	B24-L	B28-L	
SBB8	SBB10	SBB12	SBB14	SBB16	SBB20	SBB22	SBB24	SBB28	
GEZ50ES	GEZ57ES	GEZ63ES	GEZ69ES	GEZ76ES	GEZ82ES	GEZ88ES	GEZ95ES	GEZ101ES	
B32-1	B36-L	B40-L	B44-L	B48-L	B52-L	B56-L	B60-L	B64-L	
SBB32	SBB36	SBB40	SBB44	SBB48	SBB52	SBB56	SBB60	SBB64	
GEZ107ES	GEZ114ES	GEZ120ES	GEZ127ES	GEZ152ES	GEZ165ES	GEZ177ES	GEZ190ES	GEZ203ES	
	B72-L		B80-L	B96-L	B104-L	B112-L	B120-L	B128-L	
SBB68	SBB72	SBB76	SBB80	SBB96	SBB104	SBB112	SBB120	SBB128	

杆端关节轴承型号对照表

ROD END JOINT BEARING MODEL COMPARISON TABLE



中国 CHINA	瑞典 SWEDEN	德国 GERMANY	德国 GERMANY	德国 GERMANY	日本 JAPAN	日本 JAPAN	德国 GERMANY	意大利 ITALA	韩国 KOREA
JJ	SKF	FAG	ELGES	ASK	IKO	THK	PAVARINI	LSK	JMC
SI...E	SI...E	FAG	ELGES	EJ...			TFI...FK	GIR...DO	
SI...ES 2RS	SIA...ES 2RS	SI...E	GIR...DO	EJ...2RS			TFI...FK 2RS	GIR...DO 2RS	
SA...ES	SAA...ES	SI...ES 2RS	GIR...DO 2RS	EA...			TFE...MK	GAR...DO	
SA...ES 2RS	SAA...ES 2RS	SA...ES	GAR...DO	EA...2RS			TFE...MK 2RS	GAR...DO 2RS	
		SA...ES 2RS	GAR...DO 2RS						
SI...C	SI...C			EJ...D			TFI...FKB	GIR...UK	
SI...ET 2RS	SIA...TE 2RS	SI...C	GIR...UK	EJ...D 2RS			TFI...FKB 2RS	GIR...UK 2RS	
SA...C	SA...C	SI...TE 2RS	GIR...UK 2RS	EA...D			TFE...MKB	GAR...UK	
SA...ET 2RS	SAA...TE 2RS	SA...C	GAR...UK	EA...D 2RS			TFE...MKB 2RS	GAR...UK 2RS	
		SA...TE 2RS	GAR...UK 2RS				日本MTR		中国LS
SI...T/K	SIKB...F			KI...-D			DF...	TSF...C	SIJK...C
SI...T/K...1			GIKR... PW						
S...T/K	SAKB... F		GIKPR...PW	KA...-D			DM...	TSM...C	SAJK... C
			GAKR...PW						韩国JMC
NHS...T			特种铜系列未列入	KI...-BD	PHS...EC	NHS...T			JFT
NOS...T				KA...-BD	POS...EC	NOS...T			JMT
PHS...	SIKA...CM			KI...-NIRO	PHS...	PHS...	BNF...	TSF...	SIBP...S
PHS...	SIKAC_M/VZ019		GIKR...PB						
POS...	SKCAC...M			KA...-NIRO	POS...	POS...	BNM...	TSM...	SABP...S
SQ...RS			GAKR...PB		LHSA...RS	RBL...			
SQ...PS-1						RBL...B			
SQD...						ABS...			
SQD...-1						ABS...B			
SQZ...RS						RBI...			
SQZ...RS-1				老型号	夜压行业	RBI...B			
							PAVARINI	WSW	
GIHR...DO	SIRD...ES			GK...NK	GAK...(对螺纹)		TAPR...N	WAPR...N	
GIHRK...DO	SIR... ES		GIHR...DO	GK...CK			TAPR...U	WAPR...U	SIR...ES
GIHNK...LO	SIQG...ES		GIHRK...DO		GAS...(对孔径)		TAPR...CE	WAPR...CE	SIGEW...ES
GK...SK			QIHNK...LO					WGAS...	
GIHOK...DO	SIJ...ES						TAPR...S	WAPR...S	
OK...DO	SC...ES						TS...CE-N	WS...C	SK...ES
GF...DO	SCF...ES						TS...N	WS...N	SF...ES
GF...LO							TS...CE-N	WS...CE-N	