



公司简介

龙溪股份
LONGXI CO.,LTD

Introduction

福建龙溪轴承（集团）股份有限公司是生产经营关节轴承、十字轴、圆锥滚子轴承、齿轮、变速箱、滚动功能部件、汽车零部件及针织机械设备的现代化上市集团公司，是中国机械工业核心竞争力100强企业，国家火炬计划重点高新技术企业，国家创新型试点企业，产品品种数、产销量均居全球首位，是我国关节轴承业界引领者及全球关节轴承领域的佼佼者！

长期以来，公司一直引领国内关节轴承的发展方向，创立了国内唯一的关节轴承研究所和国家级关节轴承检测实验中心，拥有国家级企业技术中心，是全国滚动轴承标准化技术委员会关节轴承分技术委员会秘书处单位，承担关节轴承国家与行业标准的制修订任务，并参与国际关节轴承的标准制定，掌握国内与国际关节轴承标准制高点。公司目前已研制开发5600多种关节轴承产品，拥有52项授权专利，其中23项发明专利。产品不仅广泛应用于国民经济各行业的各类机械设备，并为国防、科研及国家重点工程如上海磁悬浮工程、三峡工程、正负电子对撞机、神舟系列飞船、嫦娥系列卫星等航天工程、国产大飞机及建筑路桥、轨道交通、新能源设施等配套，而且大量出口欧美亚等工业发达国家和地区。

近年来，公司大力发展战略航空关节轴承，既能研制AS和EN标准航空关节轴承，又能研制各类非标航空关节轴承，可应用于各类型航空器和航空装备，其中航空自润滑关节轴承通过美国海军航空司令部（NAVAIR）实验室合格鉴定并被列入美国政府采购合格产品目录（QPL-AS81820），成为我国航空关节轴承研制的主要单位。

公司借鉴国内外卓越的管理理念，以过程管理为基础管理模式，以GB/T 15498为基础平台，综合ISO9001、ISO/TS16949和ISO14001、OHSAS18001、AS9100C等标准及内部控制体系、廉洁风险防控等管理体系标准的要求，建立集质量、环境、安全、内控等体系的一体化管理标准体系。

Fujian Longxi Bearing (Group) Corporation Limited (hereinafter referred to as "LS") is a modernized listed company that specializes in the production of spherical plain bearings (SPB), tapered roller bearings, gears, rolling functional components, gearboxes, automobile parts and knitting mechanical equipments. It is also known as one of the Top 100 Enterprises of China Machinery Industry Core Competence, Key National Torch Plan High-Tech Enterprises and National Innovative Pilot Enterprises. LS is the largest supplier and exporter of spherical plain bearings in China.

LS has the only one research institute of SPB in China and the national SPB' inspection & testing centre approved by China National Accreditation Service for Conformity Assessment (CNAS). LS was approved to establish the National Standardization Technical Committee SPB Sub-technical Committee, Provincial Technology Centre and Post Doctoral Programme. The technical center of LS is recognized as "National Certified Enterprise Technical Center". LS is responsible for drawing up and auditing national standard and industrial standard for SPB. LS has 52 granted patents. Now there are over 5600 varieties of SPB in LS. The output and varieties is at the leading position and the products have reached the advanced level of the world. The products not only are widely used in various machinery, large modern architecture, bridge, wind power, scientific research and national key project such as Shanghai Maglev Train, The Three Gorges, Electron-Positron Collider, Shenzhou Spaceship, Chang'e I and Chang'e II lunar orbiter and Static Wing Aircraft, but also sold well in industrial developed countries and regions.

LS is devoted to developing aircraft SPB ,not only can develop AS and EN standard aircraft SPB, but also can provide various kinds of non-standard products. Aircraft maintenance-free SPB are passed certification of NAVAIR, and listed in QPL-AS81820.

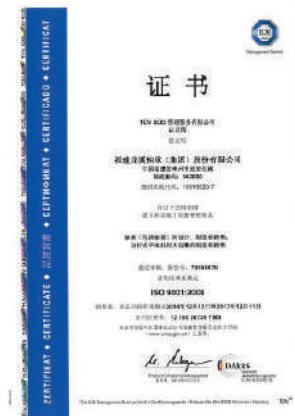
LS has established the management systems for quality, environment, occupational health & safety and Aerospace quality according to ISO9001, ISO/TS16949, ISO14001, OHSAS18001 and AS9100C, and has passed the audit of TUV SUD Management Service GmbH.

公司资质

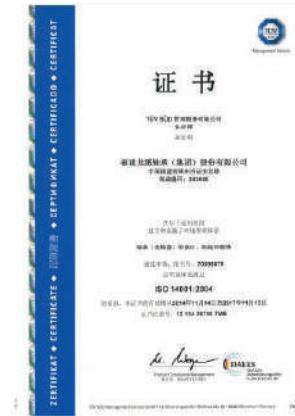
Qualification



■ AS9100C and ISO 9001 ■



■ ISO9001 ■



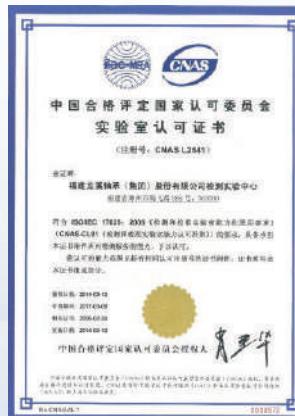
■ ISO14001 ■



■ OHSAS18001 ■



■ ISO/TS16949 ■



■ ISO17025 ■

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
润滑型向心关节轴承 Radial spherical plain bearings requiring maintenance					
	GE...E 4~12	钢/钢 Steel/Steel	-50°C ~ +150°C	外圈有一道轴向缝，内、外圈材料均为轴承钢，淬火，磷化，滑动表面涂敷二硫化钼。除型号后置代号为 E 外，其余型号内、外圈均有润滑油槽油孔，后置代号有-2RS 为外圈两端带有密封圈。	31
	GE...ES 15~300		-30°C ~ +130°C	Outer ring of carbon chromium steel, fractured, hardened and phosphated, sliding surface treated with MoS ₂ . Inner ring of carbon chromium steel, hardened and phosphated, sliding surface treated with MoS ₂ . All bearings have an annular groove and lubrication holes in each ring except those of the E design. Bearings of the 2RS design are fitted with seals at both sides.	
	GE...ES-2RS 15~300		-50°C ~ +150°C	外圈沿轴向剖分成两半，用锁圈固定，内、外圈材料均为轴承钢，淬火，磷化，滑动表面涂敷二硫化钼，后置代号有-2RS 为外圈两端带有密封圈。	
	GEC...XS 320~460		-30°C ~ +130°C	Outer ring axially split twice, held together by retaining rings. Outer and inner rings are made of carbon chromium steel and are hardened and phosphated, sliding surface treated with MoS ₂ . Bearings of the 2RS design are fitted with seals at both sides.	
	GEC...XS-2RS 320~460		-50°C ~ +150°C	外圈有一道轴向缝，内、外圈材料均为轴承钢，淬火，磷化，滑动表面涂敷二硫化钼。除型号后置代号为 E 外，其余型号内、外圈均有润滑油槽油孔，后置代号有-2RS 为外圈两端带有密封圈。	
	GEG...E 4~12		-30°C ~ +130°C	Outer ring of carbon chromium steel, fractured, hardened and phosphated, sliding surface treated with MoS ₂ . Inner ring of carbon chromium steel, hardened and phosphated, sliding surface treated with MoS ₂ . All bearings have an annular groove and lubrication n holes in each ring except those of the E design. Bearings of the 2RS design are fitted with seals at both sides.	
	GEG...ES 15~280		-50°C ~ +150°C	外圈有一道轴向缝，内、外圈材料均为轴承钢，淬火，磷化，滑动表面涂敷二硫化钼。除型号后置代号为 E 外，其余型号内、外圈均有润滑油槽油孔，后置代号有-2RS 为外圈两端带有密封圈。	
	GEG...ES-2RS 15~280		-30°C ~ +130°C	Outer ring of carbon chromium steel, fractured, hardened and phosphated, sliding surface treated with MoS ₂ . Inner ring of carbon chromium steel, hardened and phosphated, sliding surface treated with MoS ₂ . All bearings have an annular groove and lubrication n holes in each ring except those of the E design. Bearings of the 2RS design are fitted with seals at both sides.	

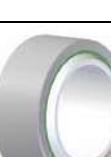
轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	GEEW...ES 12~320	钢/钢 Steel/Steel	-50°C ~ +150°C	内圈两端带伸出圆筒，外圈有一道轴向缝，内、外圈材料均为轴承钢，淬火，磷化，滑动表面涂敷二硫化钼，后置代号有-2RS 为外圈两端带有密封圈。 With cylindrical extensions at each side of inner ring. Outer ring of carbon chromium steel, fractured, hardened and phosphated, sliding surface treated with MoS ₂ . Inner ring of carbon chromium steel, hardened and phosphated, sliding surface treated with MoS ₂ . Bearings of the 2RS design are fitted with seals at both sides.	34
	GEEM...ES-2RS 20~120		-30°C ~ +130°C		35
	GEF...ES 12~150		-50°C ~ +150°C	产品特点与 GE...ES 系列相同。 As series GE...ES.	36
	GE...XS/K 12~150			产品特点与 GEC...XS 系列相同。 As series GEC...XS.	37
	GEZ...ES 12.7~152.4		-30°C ~ +130°C	产品特点与 GE...ES 系列相同，但为英制尺寸。 As series GE...ES, but with inch dimensions.	38-39
	GEZ...ES-2RS 19.05~152.4			产品特点与 GE...ES-2RS 系列相同，但为英制尺寸。 As series GE...ES-2RS, but with inch dimensions.	
	GEWZ...ES 12.7~152.4		-50°C ~ +150°C	产品特点与 GEEW...ES 系列相同，但为英制尺寸。 As series GEEW...ES, but with inch dimensions.	40
	GEWZ...ES-2RS 19.05~152.4		-30°C ~ +130°C	产品特点与 GEEM...ES-2RS 系列相同，但为英制尺寸。 As series GEEM...ES-2RS, but with inch dimensions.	
	GEGZ...ES 31.75~139.7		-50°C ~ +150°C	产品特点与 GEG...ES 系列相同，但为英制尺寸。 As series GEG...ES, but with inch dimensions.	41

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	GEGZ...ES-2RS 31.75~139.7	钢/钢 Steel/Steel	-30°C ~ +130°C	产品特点与 GEG...ES-2RS 系列相同，但为英制尺寸。 As series GEG...ES-2RS, but with inch dimensions.	41
	GEGZ...HS/K 12.7~152.4		-50°C ~ +150°C	外圈径向分成两半，中间有一隔套，内、外圈材料均为轴承钢，淬火，磷化，滑动表面涂敷二硫化钼。 Outer ring of carbon chromium steel, radially split twice, hardened and phosphated, One spacer in between, sliding surface treated with MoS ₂ . Inner ring of carbon chromium steel, hardened and phosphated, sliding surface treated with MoS ₂ .	42
	GEK...XS-2RS 25~60		-25°C ~ +120°C	外圈沿轴向剖分成两半，用锁圈固定，内、外圈材料均为轴承钢，淬火，内圈球面镀硬铬，外圈两端带有密封圈。 Outer ring axially split twice, held together by retaining rings. Outer ring of carbon chromium steel, hardened and fitted with seals at both sides. Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.	43
	GEBJ...S 5~30		-50°C ~ +150°C	外圈材料为碳钢，挤压成形；内圈材料为轴承钢，淬火，球面镀硬铬。	44
	GEFZ...S 4.83~25.4			Outer ring of carbon steel, pressed around the inner ring; Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.	45
	GEBK...S 5~30	钢/青铜 Steel/Bronze	-50°C ~ +150°C	外圈材料为碳钢，镶有青铜衬垫；内圈材料为轴承钢，淬火，球面镀硬铬。 Outer ring of carbon steel, with bronze liner; Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.	46

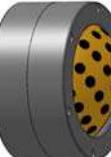
自润滑型向心关节轴承

Radial spherical plain bearings maintenance-free				
	GE...C 4~50	钢/PTFE 复合材料 Steel/PTFE composite material	-50°C ~ +150°C	外圈材料为碳钢，挤压成形，球面衬有 PTFE 复合材料；内圈材料为轴承钢，淬火，球面镀硬铬。 Outer ring of carbon steel, pressed around the inner ring, with sliding surface of PTFE composite material; Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.
	GEG...C 4~45			

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轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	GEBJ...C 5~30	钢/PTFE 复合材料 Steel/PTFE composite material	-50°C ~ +150°C	产品特点与 GE...C 系列相同。 As series GE...C.	48
	GEFZ...C 4.83~25.4	钢/PTFE 复合材料 Steel/PTFE composite material	-50°C ~ +150°C	产品特点与 GE...C 系列相同，但为英制尺寸。 As series GE...C, but with inch dimensions.	49
	GE...N 10~60	钢/PTFE 塑料 Steel/PTFE plastic	-40°C ~ +75°C	内、外圈材料均为轴承钢，淬火，球面衬有 PTFE 塑料，内圈球面镀硬铬。 Outer ring of carbon chromium steel, hardened, with sliding surface of PTFE plastic. Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.	50
	GEG...N 8~50	钢/PTFE 塑料 Steel/PTFE plastic	-40°C ~ +75°C		
	GEFZ...T 4.83~25.4	钢/PTFE 编织物 Steel/PTFE fabric	-50°C ~ +150°C	外圈材料为碳钢，球面粘贴 PTFE 编织物，挤压成形，内圈材料为轴承钢，淬火，球面镀硬铬。 Outer ring of carbon steel, with sliding surface of PTFE fabric, pressed around the inner ring. Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.	51
	GEH...HC 100~630	钢/PTFE 复合材料 Steel/PTFE composite material	-50°C ~ +150°C	外圈径向分为两半，用螺钉锁紧，材料为碳钢，磷化，球面衬有 PTFE 复合材料；内圈材料为轴承钢，淬火，球面镀硬铬，型号后置代号加 S，表示内圈有润滑油槽油孔。 Outer ring of carbon steel, phosphated, radially split twice, held together by screws, with sliding surface of PTFE composite material; Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating. Bearings of the S design have an annular groove and lubrication holes in inner ring.	52
	GEH...HCS 100~630				
	GEC...HC 320~600				
	GEC...HCS 320~600			产品特点与 GEH...HC(S) 系列相同。 As series GEH...HC(S).	

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	GE...ET-2RS 15~120	钢/PTFE 编织物 Steel/PTFE fabric	-30°C ~ +130°C	外圈有一道轴向缝，两端带有密封圈，材料为轴承钢，淬火，磷化，球面粘贴 PTFE 编织物；内圈材料为轴承钢，淬火，球面镀硬铬。型号后置代号为 XT，表示外圈沿轴向剖分成两半，用锁圈固定。 Outer ring of carbon chromium steel, fractured, hardened and phosphated, with two seals at both sides, with sliding surface of PTFE fabric; Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating. Outer ring of the XT design axially split twice, held together by retaining rings.	54
	GE...XT-2RS 140~300				
	GEG...ET-2RS 15~110		-30°C ~ +130°C	产品特点与 GE...E(X)T-2RS 系列相同。 As series GE...E(X)T-2RS.	55
	GEG...XT-2RS 120~280				
	GE...ET/X 15~60		-50°C ~ +150°C	外圈有一道轴向缝，材料为不锈钢，淬火，球面粘贴 PTFE 编织物；内圈材料为不锈钢，淬火。型号后置代号为 XT，表示外圈沿轴向剖分成两半，用锁圈固定。	56
	GE...XT/X 70~300			Outer ring of stainless steel, fractured, hardened, with sliding surface of PTFE fabric; Inner ring of stainless steel, hardened. Outer ring of the XT design axially split twice, held together by retaining rings.	
	GEZ...ET-2RS 19.05~152.4		-30°C ~ +130°C	产品特点与 GE...ET-2RS 系列相同，但为英制尺寸。 As series GE...ET-2RS, but with inch dimensions.	57
	GEC...XT 320~460		-50°C ~ +150°C	外圈沿轴向剖分成两半，用锁圈固定，外圈材料为轴承钢，淬火，球面粘贴 PTFE 编织物；内圈材料为轴承钢，淬火，球面镀硬铬，后置代号有 -2RS 为外圈两端带有密封圈。	58
	GEC...XT-2RS 320~460		-30°C ~ +130°C	Outer ring of carbon chromium steel, hardened, axially split twice, held together by retaining rings, sliding surface of PTFE fabric. Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating. Outer ring of the 2RS design fitted with seals at both sides.	

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	GEH...XT 100~420	钢/PTFE 编织物 Steel/PTFE fabric	−50°C ~ +150°C	产品特点与 GEC...XT(-2RS)系列相同。 As series GEC...XT(-2RS).	58
	GEH...XT-2RS 100~420		−30°C ~ +130°C		
	GEC...HT 320~600	−50°C ~ +150°C	外圈径向分为两半，用螺钉锁紧，材料为碳钢，磷化，球面粘贴 PTFE 编织物；内圈材料为轴承钢，淬火，球面镀硬铬。 Outer ring of carbon steel, radially split twice, held together by screws, phosphated, sliding surface of PTFE fabric. Inner ring of carbon chromium steel, hardened and sliding surface treated with hard chromium plating	59	
	GEH...HT 100~800				60
	GE...XF/Q 100~300	−50°C ~ +150°C	外圈沿轴向剖分成两半，用锁圈固定，外圈材料为轴承钢，淬火，磷化，球面镀硬铬；内圈材料为铜合金，球面镶嵌固体自润滑材料。 Outer ring of carbon chromium steel, axially split twice, held together by retaining ring, hardened and phosphated, sliding surface treated with hard chromium plating. Inner ring of copper alloy and sliding surface inserted with solid lubricant.	61	
	GEC...XF/Q 320~460				
	GEH...XF/Q 100~420				62
	GEH...HF/Q 440~800				63

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
角接触关节轴承					
Angular contact spherical plain bearings					
	GAC…S 25~200	钢/钢 Steel/Steel		内、外圈材料均为轴承钢，淬火，磷化，外圈有润滑油槽油孔，内球面有两条交叉润滑槽，滑动表面涂敷二硫化钼。 Bearing rings of carbon chromium steel, hardened and phosphated, sliding surface treated with MoS ₂ . Outer ring have groove and lubrication holes, sliding surface with two cross lubrication grooves	68
	GACZ…S 12.7~152.4		−50°C ~ +150°C	产品特点与 GAC…S 系列相同，但为英制尺寸。 As series GAC…S, but with inch dimensions.	69
	GAC…T 25~200	钢/PTFE 编织物 Steel/PTFE fabric		外圈材料为轴承钢，淬火，球面粘贴 PTFE 编织物；内圈材料为轴承钢，淬火，球面镀硬铬。 Outer rings of carbon chromium steel, hardened, with sliding surface of PTFE fabric; Inner ring of carbon chromium steel, hardened, sliding surface hard chromium plated.	70
	GAC…N 25~120	钢/PTFE 塑料 Steel/PTFE plastic	−40°C ~ +75°C	外圈材料为轴承钢，淬火，球面衬有 PTFE 塑料，内圈材料为轴承钢，淬火，球面镀硬铬。 Outer rings of carbon chromium steel, hardened, with sliding surface of PTFE plastic; Inner ring of carbon chromium steel, hardened, sliding surface treated with hard chromium plating.	71
推力关节轴承					
Thrust spherical plain bearings					
	GX…S 10~200	钢/钢 Steel/Steel		轴、座圈材料均为轴承钢，淬火，磷化，座圈有润滑油槽油孔，滑动表面涂敷二硫化钼。 Bearing housing washer of carbon chromium steel, hardened and phosphated, have groove and lubrication holes. Shaft washer of carbon chromium steel, hardened and phosphated. Sliding surfaces treated with MoS ₂ .	75
	GX…T 10~360	钢/PTFE 编织物 Steel/PTFE fabric	−50°C ~ +150°C	座圈材料为轴承钢，淬火，球面粘贴 PTFE 编织物；轴圈材料为轴承钢，淬火，球面镀硬铬。 Bearing housing washer of carbon chromium steel, hardened, with sliding surface of PTFE fabric. Shaft washer of carbon chromium steel, hardened, sliding surface hard chromium plated.	76
	GX…N 17~120	钢/PTFE 塑料 Steel/PTFE plastic	−40°C ~ +75°C	座圈材料为轴承钢，淬火，球面衬有 PTFE 塑料，轴圈材料为轴承钢，淬火，球面镀硬铬。 Bearing housing washer of carbon chromium steel, hardened, with sliding surface of PTFE plastic. Shaft washer of carbon chromium steel, hardened, sliding surface hard chromium plated.	77

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
杆端关节轴承 Rod ends					
	SI…E 5~12 SI…ES 15~80 SA…E 5~12 SA…ES 15~80	钢/钢 Steel/Steel		组装杆端关节轴承由杆端体和向心关节轴承 GE…E 或 GE…ES 组装而成, 杆端体材料是碳钢, 表面镀锌; 除型号后置代号为 E 外, 其余型号可通过油杯或杆端眼孔润滑。 Rod end with male or female thread is made up of a rod end and a radial spherical plain bearing of series GE…E or GE…ES, rod end of steel and zinc coated; Can be relubricated via a nipple or a hole in the rod end, except those of the E design.	83-84
	SIJ… 5~22 SAJ… 5~22 SIZJ… 4.83~19.05 SAZJ… 4.83~19.05	Steel/Steel	-50°C ~ +150°C	挤压杆端关节轴承杆端体材料是碳钢, 表面镀锌, 挤压成形, 内圈材料是轴承钢, 淬火, 球面镀硬铬。 Rod end of steel and zinc coated, with male or female thread press around the inner ring; inner ring of carbon chromium steel, spherical surface with chromium plating.	85-87
	SIBP…S 5~30 SABP…S 5~30 SIZP…S 4.83~25.4 SAZP…S 4.83~25.4	钢/青铜 Steel/Bronze	-50°C ~ +150°C	镶垫杆端关节轴承杆端体材料是碳钢, 表面镀锌, 滑动表面镶入青铜衬垫; 内圈材料是轴承钢, 淬火, 球面镀硬铬, 除了孔径小于 6.35 外, 其余均可通过油杯润滑。 Rod end of steel and zinc coated, with male or female thread, spherical surface with bronze liner; inner ring of carbon chromium steel, spherical surface with chromium plating; Can be relubricated via a nipple or a hole in the rod end, except hole diameter d≤6.35.	88-91
	SI…C 5~30 SA…C 5~30	钢/PTFE 复合材料 Steel/PTFE composite material		自润滑组装杆端关节轴承是由杆端体和自润滑向心关节轴承 GE…C 组装而成, 杆端体材料是碳钢, 表面镀锌; 无需润滑。 Maintenance-free rod end with male or female thread is made up of a rod end and maintenance-free radial spherical plain bearing of series GE…C, rod end of steel and zinc coated; maintenance-free.	92-93
	SI…ET-2RS 15~80 SA…ET-2RS 15~80	钢/PTFE 编织物 Steel/PTFE fabric	-30°C ~ +130°C	自润滑组装杆端关节轴承是由杆端体和自润滑向心关节轴承 GE…ET-2RS 组装而成, 杆端体材料是碳钢, 表面镀锌; 无需润滑。 Maintenance-free rod end with male or female thread is made up of a rod end and maintenance-free radial spherical plain bearing of series GE…ET-2RS, rod end of steel and zinc coated; maintenance-free.	92-93

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	SIJK…C 5~30 SAJK…C 5~30 SIK…C 5~20 SAK…C 5~20	钢/PTFE 复合材料 Steel/PTFE composite material	-50°C ~ +150°C	自润滑组装杆端关节轴承杆端体材料是碳钢，表面镀锌；外圈材料是青铜，滑动表面衬有 PTFE 复合材料，无需润滑；内圈材料是轴承钢，淬火，球面镀硬铬。 Rod end of steel and zinc coated, with male or female thread; outer ring of bronze, with sliding surface of PTFE composite material, maintenance-free; inner ring of carbon chromium steel, spherical surface with hard chromium plating.	94-96
	SIBP…N 5~20 SABP…N 5~20 SIZP…N 4.83~19.05 SAZP…N 4.83~19.05	钢/PTFE 塑料 Steel/PTFE plastic	-40°C ~ +75°C	自润滑组装杆端关节轴承是由杆端体、内圈和 PTFE 塑料组成，杆端体材料是碳钢，表面镀锌，无需润滑；内圈材料是轴承钢，淬火，球面镀硬铬。 Maintenance-free rod end with male or female thread is made up of a rod end, inner ring and PTFE plastic; Rod end of steel and zinc coated, maintenance-free; inner ring of carbon chromium steel , spherical surface with hard chromium plating.	97-99
	SK…E 10~12 SK…ES 15~80	钢/钢 Steel/Steel	-50°C ~ +150°C	焊接型杆端关节轴承由杆端体和向心关节轴承 GE…E 或 GE…ES 组装而成，杆端体材料是易焊接钢，杆端柄部装有弹性销，便于焊接时定位；可通过油杯或杆端眼孔润滑。 Rod end with welding shank is made up of a rod end and a radial spherical plain bearing of series GE…E or GE…ES, rod end of weldable steel, with dowel pin in shank bottom and 45° welding chamfer; Can be relubricated via a nipple or a hole in the rod end.	100
	SF…ES 15~120			焊接型杆端关节轴承由杆端体和向心关节轴承 GE…ES 或 GEEW…ES 组装而成，用挡圈固定，杆端体材料是易焊接钢，带有长方形焊接面；可通过油杯润滑。 Rod end with welding shank is made up of a rod end and a radial spherical plain bearing of series GE…ES or GEEW…ES, fixed in housing by snap rings, rod end of weldable steel, with rectangular welding face; Can be relubricated via a nipple .	101
	SFEW…ES 20~110			Rod end with welding shank is made up of a rod end and a radial spherical plain bearing of series GE…ES or GEEW…ES, fixed in housing by snap rings, rod end of weldable steel, with rectangular welding face; Can be relubricated via a nipple .	102

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
	SIR...ES 20~120			带锁口杆端关节轴承由杆端体和向心关节轴承GE...ES 组装而成, 用挡圈固定, $d < 60$, 杆端体材料是碳钢, $60 \leq d \leq 90$, 杆端体材料是碳钢或球墨铸铁, $d > 90$, 杆端体材料是球墨铸铁, SIR...ES 杆端体的内螺纹带有锁口, 配有螺钉紧固; SIRN...ES 杆端体无锁紧螺钉, 均可通过油杯润滑。 Rod end with locking slot is made up of a rod end and a radial spherical plain bearing of series GE...ES, fixed in housing by snap rings, rod end of carbon steel ($d < 60$); carbon steel or spheroidal graphite cast iron ($60 \leq d \leq 90$); spheroidal graphite cast iron ($d > 90$). Thread can be closed because shank is slotted, thread clamping by two hexagon socket screws of series SIR...ES; without socket screw of SIRN...ES; All can be relubricated via a nipple.	103
	SIRN...ES 20~120			Rod end with locking slot is made up of a rod end and a radial spherical plain bearing of series GE...ES, fixed in housing by snap rings, rod end of carbon steel ($d < 60$); carbon steel or spheroidal graphite cast iron ($60 \leq d \leq 90$); spheroidal graphite cast iron ($d > 90$). Thread can be closed because shank is slotted, thread clamping by two hexagon socket screws of series SIR...ES; without socket screw of SIRN...ES; All can be relubricated via a nipple.	104
	SIGEW...ES 12~200	钢/钢 Steel/Steel	-50°C ~ +150°C	带锁口杆端关节轴承由杆端体和向心关节轴承GEEW...ES 组装而成, 用挡圈固定, $d < 63$, 杆端体材料是碳钢, $63 \leq d \leq 80$, 杆端体材料是碳钢或球墨铸铁, $d > 80$, 杆端体材料是球墨铸铁, 杆端体的内螺纹带有锁口, 配有螺钉紧固; 可通过油杯润滑。 Rod end with locking slot is made up of a rod end and a radial spherical plain bearing of series GEEW...ES, fixed in housing by snap rings, rod end of carbon steel ($d < 63$); carbon steel or spheroidal graphite cast iron ($63 \leq d \leq 80$); spheroidal graphite cast iron ($d > 80$). Thread can be closed because shank is slotted, thread clamping by two hexagon socket screws; Can be relubricated via a nipple.	105
	SIQ...ES 12~100			带锁口杆端关节轴承由杆端体和向心关节轴承GE...ES 组装而成, 杆端体材料是碳钢, 杆端体的内螺纹带有锁口, 配有螺钉紧固; 可通过油杯润滑。 Rod end with locking slot is made up of a rod end and a radial spherical plain bearing of series GE...ES, rod end of carbon steel, Thread can be closed because shank is slotted, thread clamping by two hexagon socket screws; Can be relubricated via a nipple.	106
	SIA...ES 25~160			带锁口杆端关节轴承由杆端体和向心关节轴承GE...ES 组装而成, 用挡圈固定, $d \leq 50$, 杆端体材料是碳钢, $d > 50$, 杆端体材料是球墨铸铁, 杆端体的内螺纹带有锁口, 配有螺钉紧固; 可通过油杯润滑。 Rod end with locking slot is made up of a rod end and a radial spherical plain bearing of series GE...ES, fixed in housing by snap rings, rod end of carbon steel ($d \leq 50$) or spheroidal graphite cast iron ($d > 50$), Thread can be closed because shank is slotted, thread clamping by two hexagon socket screws; Can be relubricated via a nipple.	107

轴承 Bearing	系列、尺寸范围 Series and bore diameter range	滑动摩擦副 Sliding contact surfaces	使用温度范围 Permissible operating temperature range	产品特点 Design characteristics	页码 Page
球头杆端关节轴承 Ball joint rod ends					
	SQ...-RS 5~22	钢/锌基合 金 Steel/Zinc base alloy	-50℃ ~ +150℃	弯杆型球头杆端关节轴承球头座由特殊的锌基合金铸成，球头杆的材料是碳钢。 Ball joint housing is made up of zinc base alloy, ball joint shank of carbon steel.	109
	SQY...-RS 4.83~19.05			产品特点与 SQ...-RS 系列相同，但为英制螺纹。 As series SQ...-RS, but with inch screw thread.	
	SQZ...-RS 5~22			直杆型球头杆端关节轴承球头座由特殊的锌基合金铸成，球头杆的材料是碳钢。 Ball joint housing is made up of zinc base alloy, ball joint shank of carbon steel.	110
	SQD... 5~16			单杆型球头杆端关节轴承外圈由特殊的锌基合金铸成，球头杆的材料是碳钢。 Ball joint outer ring is made up of zinc base alloy, ball joint shank of carbon steel.	
	SQG... 5~14	钢/钢 Steel/Steel		弯杆型球头杆端关节轴承球头座和球头杆的材料均为碳钢。 Ball joint housing and shank are of carbon steel and zinc coated.	111

We, Fujian Longxi Bearing (Group) Corporation Limited, hereby certify that our LS bearings do not contain the hazardous substances restricted by ROHS Directive.

额定载荷

额定动载荷是用来计算关节轴承所承受的动应力。它代表在恒定大小和方向的载荷下，在一个使用寿命周期内所滑动的距离与在室温和一定的滑动速度下连续摆动的距离相当。它假定向心关节轴承、角接触关节轴承和杆端关节轴承所承受的载荷是纯径向载荷，推力关节轴承所承受的载荷是纯轴向载荷且力作用点方向处于中心。在一定载荷下的倾斜、摆动和转动运动产生了动应力，同样，在交变载荷下微小滑动（类似于振动）或高频率交变载荷下也产生了动应力。不同种类的动应力经常是联合产生的。

额定载荷的数值一般取决于具体的用途，所以不可能与其它厂商所公布的载荷值做直接比较。

额定静载荷是用来计算关节轴承所承受的静应力。当关节轴承承载时是静止的（或者偶尔的调心运动），就使用额定静载荷。当加动载的关节轴承承受大的冲击载荷时，也应考虑额定静载荷。额定静载荷代表轴承滑动表面的静接触应力达到材料的应力极限时的静止载荷。只适合于室温和假定轴承周围零件能防止轴承的变形。在较高温度下，额定静载荷必须考虑温度系数，温度系数取决于滑动摩擦副组合，额定静载荷的温度系数与额定动载荷的温度系数一样，也必须考虑不同滑动摩擦副组合所允许的使用温度范围。对于杆端关节轴承，必须考虑杆端体的强度。杆端关节轴承额定静载荷的安全系数为杆端体材料拉伸强度的 1.2 倍。

使用寿命

在混合或干摩擦条件下，向心关节轴承的使用寿命取决于轴承游隙增加或者由滑动表面逐渐磨损、滑动材料的弹性变形或滑动表面疲劳所引起的轴承摩擦系数增加。根据用途和摩擦副情况，所允许的磨损和摩擦

Load rating

Dynamic rating is used for calculations when the spherical plain bearing is subjected to dynamic stress. It represents the load, constant in magnitude and direction, under which a basic rating service life, expressed as a sliding distance, will be attained for continuous oscillating movement at a defined sliding velocity and at room temperature. It presupposes that the load acting on radial and angular spherical plain bearings and on rod ends is purely radial and that the load acting on spherical plain thrust bearings is purely axial and acts centrically. Dynamic stresses occur when tilting, oscillatory or rotational movements are made under load as well as microsliding movements under alternating loads, e.g resulting from vibration, or loads which alternate at high frequency. The various types of dynamic stress often occur in combination.

The values of load ratings are always dependent on the definition used. It is therefore not always possible to make direct comparisons with load ratings published by other manufacturers.

The static load rating is used when spherical plain bearings stand still under load(or make occasional alignment movements) and it should also be considered when dynamically loaded bearings are subjected to heavy shock loads. The static load rating represents the load which can be taken up by a spherical plain bearing when static contact stress of bearing contact surface reaches the material stress limit. It is valid at room temperature and it is presupposed that the surrounding components prevent deformation of the bearing. At higher temperature, the static load rating must be multiplied by a temperature factor, depend on the sliding contact surface combination. The temperature factor are the same as for dynamically stressed bearing. It is also necessary to take into consideration the permissible temperature range for the various sliding contact surface combinations. For rod ends, it is the strength of the rod end housing under stationary load which is considered. The rod end static load ratings give a safety factor of 1.2 times the tensile strength of the rod end housing material.

Service life

The service life of a spherical plain bearing operated under mixed or dry friction conditions is determined by the increase in bearing clearance or bearing friction caused by progressive wear of the sliding surfaces, plastic deformation of the sliding material or fatigue of the sliding surface. Depending on the application, the permissible wear or permissible increase in

系数增加是不同的。这表明在同样工况条件下，实际使用寿命可能不同。

向心关节轴承的使用寿命为轴承在游隙或摩擦系数的增加达到规定值之前的摆动总次数或工作小时数。

实际使用寿命是轴承在实际工况条件下的寿命，它取决于载荷的大小和种类，也取决于其它几种因素，比如杂质，腐蚀，高频率载荷和运转周期，冲击等等。这些因素中的个别因素可能无法确定或难以确定。

接触应力

为了获得适当的使用寿命，轴承的接触应力必须适合于工况条件。接触应力代表产生于轴承的表面应力，对评价轴承的应用起到决定性的作用。

$$p = k \cdot \frac{P}{C_d}$$

p=接触应力	N/mm ²
k=接触应力系数	N/mm ²
C _d =额定动载荷	kN
P=当量动载荷	kN

滑动摩擦副	负荷系数 C _d /P 值
钢对钢	2
钢对青铜	2
钢对 PTFE 编织物	1.75
钢对 PTFE 复合材料	2
钢对铜合金	2

滑动摩擦副	接触应力系数 k
钢对钢	100
钢对青铜	50
钢对 PTFE 编织物	150
钢对 PTFE 复合材料	100
钢对铜合金	100

friction will be different. This means that under the same operating conditions the service life which can be obtained in practice will be different.

The service life of a spherical plain bearing is the number of oscillating movements, or the number of operating hours, which the bearing will service before a defined increase in bearing clearance or a defined increase in friction is reached.

The effective service life is that life which will be attained by a given spherical plain bearing under actual operating conditions. It is determined by the magnitude and type of load, but also by several other factors, such as contamination, corrosion, high-frequency load and movement cycles, shock etc. Some of these factors are impossible to determine or can only be determined with difficulty.

Bearing contact pressure

If an adequate operating life is to be achieved, a basic requirement is that the bearing contact pressure is compatible with the operating conditions. The bearing contact pressure identifies the surface pressure occurring in the bearing and is a decisive criterion for the assessment of a spherical plain bearing in each individual application.

$$p = k \cdot \frac{P}{C_d}$$

p=contact pressure	N/mm ²
k=contact pressure parameter	N/mm ²
C _d =Dynamic load rating	kN
P=Equivalent dynamic bearing load	kN

Contact surface combination	Value of load ratio C _d /P
Steel/steel	2
Steel/bronze	2
Steel/PTFE fabric	1.75
Steel/PTFE composite material	2
Steel/copper alloy	2

Contact surface combination	Load factor k
Steel/steel	100
Steel/bronze	50
Steel/PTFE fabric	150
Steel/PTFE composite material	100
Steel/copper alloy	100

轴承游隙

轴承游隙是指在一定的测量力下,一个套圈相对于另一套圈在径向或轴向移动的总的距离。

有必要区别轴承安装前游隙和安装后工作游隙。由于套圈是通过过盈或过渡配合安装,套圈受到膨胀或压缩,轴承的初始游隙总是大于工作游隙。

如果轴承在所推荐的配合下安装和正常运转条件下,选用基本组游隙轴承的工作游隙是合适的。如果内、外圈都用过盈配合安装或者使用温度较高或较低时,可选用比正常组游隙较大或较小的游隙值。

润滑

对于钢对钢润滑型向心关节轴承,润滑的目的是为了减少磨损、降低摩擦和防止咬合。同时,润滑脂有防腐蚀作用。在工作过程中,周期性润滑明显提高了轴承使用寿命。

对于钢对 PTFE 编织物自润滑型向心关节轴承,编织物中的 PTFE 会转移到内圈球面。润滑一般会干扰这种转移,从而降低轴承的使用寿命。所以,这种轴承是不允许润滑的。

对于钢对 PTFE 复合材料向心关节轴承,通常,工作中是不需要润滑的,但在需要防腐蚀和改善密封情况下,在轴承或轴承周围空间填加锂基脂是允许的。

二硫化钼: 在跑合阶段,添加二硫化钼有助于轴承的跑合,减少磨损。二硫化钼处理可分为湿式和干式两种处理方式。湿式二硫化钼处理采用涂敷方式处理;干式二硫化钼处理采用喷涂方式处理,采用干式二硫化钼处理效果优于湿式二硫化钼处理。如果客户需采用干式二硫化钼处理,订货时与公司的销售部门联系。

Bearing internal clearance

Bearing internal clearance is defined as the total distance through which one ring can be moved radially(radial internal clearance) or axially(axial internal clearance) in relation to the other ring under a defined measuring load.

It is necessary to distinguish between the internal clearance of a bearing before it is mounted and the internal clearance of a mounted bearing when in operation(operational clearance).The initial clearance will always be greater than the operational clearance because the rings are expanded or compressed by interferences fits and as a result of the differences in thermal expansion of the bearing rings and mating components.

The bearing internal clearance referred to as basic has been selected so that when bearings are mounted generally recommended and operate under normal conditions a suitable operational clearance will be obtained. For other conditions, e.g. where both rings are mounted with an interference fit or where unusual temperatures prevail, bearings with greater or smaller internal clearance than normal may be required.

Lubrication

For spherical plain bearings requiring maintenance which are of the steel-on-steel type, the purpose of the lubrication is primarily to reduce wear, reduce friction and prevent scuffing. Also the grease serves to protect the bearings against corrosion. The frequency of relubrication of the bearing during its operation will appreciably extend the service life.

For steel-on-PTFE fabric spherical plain bearings, there is a transfer of PTFE from fabric to the opposing steel surface of the inner ring. Any lubrication of the sliding contact surfaces would disturb this transfer and shorten bearing life. Therefore, lubrication of these bearings is not advisable.

For steel-on-PTFE composite material spherical plain bearings, as a rule, it must not be lubricated. When operating conditions are such that enhanced sealing and protection against corrosion are required, it is recommended that the bearing or the space surrounding the bearing is filled with lithium base grease.

MoS₂ : The wear occurring during running-in phase proceeds all the more favourably the more MoS₂ is embedded in the porous-crystalline manganese phosphate. There are two type:wet MoS₂ and dry MoS₂. Wet MoS₂ is treated with dip coating ,Dry MoS₂ is treated with spray coating.The effect of dry MoS₂ is superior to wet MoS₂. If customer need dry MoS₂,please consult marketing department.

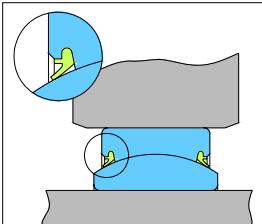
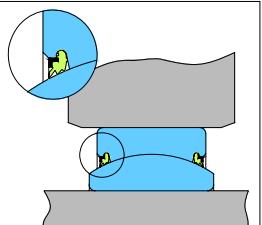
密封

大多数轴承都要装有密封圈来抵挡污物和湿气的进入。密封圈对轴承的使用寿命有决定性的影响。LS 密封圈有两种结构形式，见表 1

Sealing

Most bearing arrangements must be sealed to prevent external contamination and damp from entering the bearing. The efficiency of the sealing has a decisive influence of the service life of the bearing. LS seal has two type, see table 1.

表 1 Table 1

密封圈 Seal	简图 Illustration	产品特征 Design characteristics	适合环境 Suitability
2RS 密封圈 2RS design		聚酯弹性体密封圈 Polyurethane (-30°C ~ +130°C) 尼龙密封圈 Nylon (-30°C ~ +130°C)	<ul style="list-style-type: none">1. 结构紧凑的要求2. 空间限制3. 组合密封4. 转动的要求5. 长寿命的要求 <p>1. For compact bearing arrangement, mainly indoors 2. For cramped spaces 3. For high sealing demands when combined with and outboard seal 4. For bearings which are to rotate 5. For long service life with minimum maintenance</p>
2GS 密封圈 2GS design		带骨架的橡胶密封圈 Rubbing seal of elastomer with steel backing (-25°C ~ +120°C)	<ul style="list-style-type: none">1. 结构紧凑的要求2. 较高密封的要求3. 转动的要求4. 长寿命的要求5. 泥或沙工况的要求 <p>1. For compact bearing arrangement, mainly indoors 2. For high sealing demands 3. For bearings which are to rotate 4. For long service life with minimum maintenance 5. For difficult operating conditions in the presence of sand or mud</p>

精度

外圈的尺寸和公差为表面处理和开缝前的数值。

开缝后，外圈外径变得有点不圆，但当轴承装入轴承座以后，外径就会恢复圆形(见图 1)。

未安装的轴承外径的测量值不能做为外径原始实际值。

Accuracy

The tolerances apply to outer ring without surface treatment and splitting.

The outer rings become slightly out of round due to splitting. The roundness of the outer ring is restored once it is fitted in a housing bore produced in accordance with the specifications(Figure1).

Measurements taken of the outside diameter of the unfitted bearing cannot be used as the original actual values for the outside diameter.

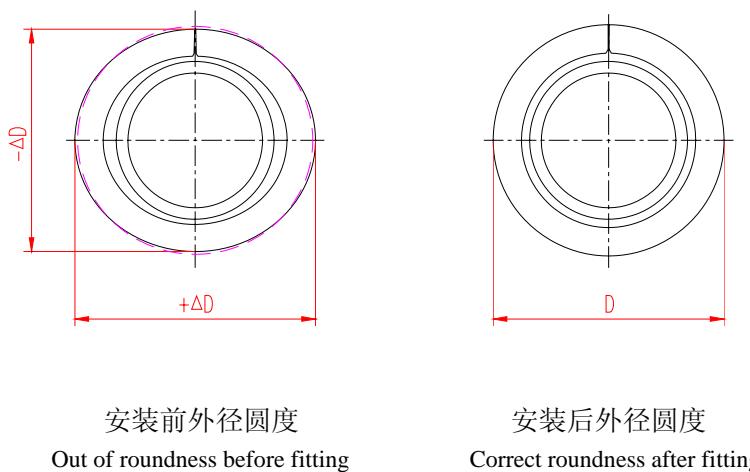


图 1 Figure1

安装

为了便于安装，轴或者座孔的端面必须有一个 $10^\circ \sim 20^\circ$ 的引导角，这样，轴承比较容易装入，且不会因为轴承的倾斜而损坏了安装表面(见图 2)。

对于外圈开缝的向心关节轴承，缝必须垂直于主要载荷方向。润滑孔必须位于承载方向，这样才能在承载区域提供较好的润滑(见图 3)。

Fitting

To facilitate mounting, the ends of pins or shafts and the edges of housing bores should have a lead chamfer of 10° to 20° . The bearings can be more easily pushed into position and there is little risk of damage to the mating surfaces being caused by skewing of the bearing(Figure2).

In radial spherical plain bearings with split outer rings, the joints are offset at 90° from the main load direction. The lubrication holes of bearings requiring maintenance are thus positioned in the load zone. This allows good lubricant distribution in the load zone area(Figure3).

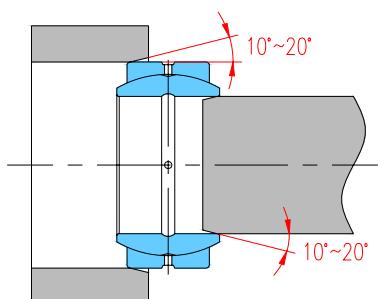


图 2 Figure2

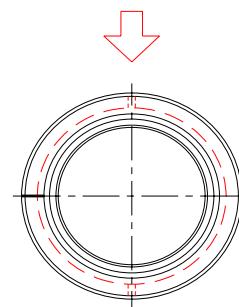


图 3 Figure3

注意事项

1. 安装面必须保持干净且没有污物。
2. 轴承不允许接触潮湿和腐蚀性溶剂。
3. 轴承必须与轴或座孔保持同心。

辅助工具

1. 不允许用锤子敲击轴承的端面。
2. 安装力必须直接和均匀地施加于所配合的套圈。如果所施加的力通过滑动球面传递，会损坏轴承(见图 4)。
3. 如果轴承同时安装进轴承座和轴，安装工具必须同时压住轴承内、外圈端面(见图 5)。
4. 较大的轴承必须用特殊的安装工具(见图 6)。

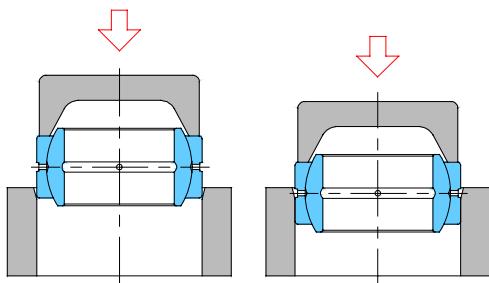


图 4 Figure4

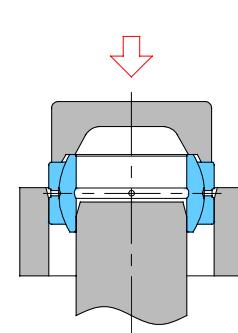


图 5 Figure5

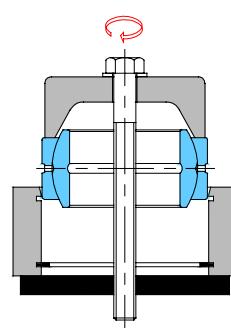


图 6 Figure6

加热辅助安装

当轴承不易安装时，可以在安装前对轴承或轴承座进行加热，但应注意：

1. 关节轴承不允许加热超过 130°C，较高温度会破坏密封圈。
2. 关节轴承不允许采用油浴加热安装，否则：
 - ① 对于自润滑轴承，油浴加热削弱了自润滑系统。
 - ② 对于钢对钢关节轴承，稀释了球面上的二硫化钼。
3. 关节轴承不允许用明火加热，否则：
 - ① 材料承受过多的局部热量，它的硬度会降低。此外轴承的应力会降低。
 - ② 密封圈熔化。
 - ③ 自润滑层破坏。

Rules and guidelines

1. The assembly area must be kept clean and free from dust.
2. The bearings must be protected from.
3. The bearings must always be located concentrically.

Mechanical and thermal assistance

1. Direct blows using a hammer and drift on the end faces of the bearing rings must be avoided.
2. Fitting forces must always be applied to the inner ring. If these forces are directed through the sliding surfaces, the bearings may jam during fitting(Figure4).
3. If bearings are fitted on the shaft and in a housing at the same time, fitting tools must be used which act simultaneously on the end faces of the inner and outer ring(Figure5).
4. Larger bearings must be fitted using special fitting equipment(Figure6).

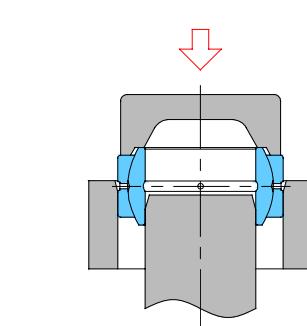


图 5 Figure5

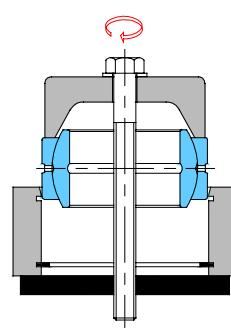


图 6 Figure6

Thermal assistance

When bearing is difficultly mounted,bearing heating and bearing housing heating can be done before mounting,but took notice that.

- 1.Spherical plain bearings must not be heated above +130 °C,higher temperatures damage the seals.
- 2.Spherical plain bearings must not be heated in an oil bath,unless:
 - ① This impairs the triological system of maintenance-free bearings.
 - ② It changes the molybdenum disulphide concentration on the surfaces in bearing with a steel/steel sliding contact surface.
- 3.Bearings must not be heated using a naked flame,unless:
 - ① The material undergoes excessive localized heating and its hardness is reduced. Furthermore ,stresses are induced in the bearing.
 - ② The seals could melt.
 - ③ Maintenance-free sliding surfaces could be damaged.

冷却辅助安装

轴承安装也可以采用冷却方式,但应注意:

钢对钢向心关节轴承的套圈在-61 °C时,组织会产生变化,可能使体积增大。由于公差的变化,轴承可能卡死。

套圈用胶粘剂固定

如果采用推荐的配合,没有必要使用胶粘剂固定套圈。当为使轴承易于安装而采用松配合时,应考虑轴与内圈、轴承座孔与外圈之间的固定方式,可以采用胶粘剂固定方式,但应注意,对于钢对钢向心关节轴承,胶粘剂只在以下情况下使用:

1. 安装表面必须清洁且没有油脂。
2. 必须确保润滑槽、孔不会被胶堵住。

Fitting by refrigeration

The cooling also can be used for bearing mounting, but took notice that.

The inner rings of spherical plain bearings with a steel/steel sliding contact surface undergo structural change at temperatures below -61 °C.

Adhesive bonding of bearing rings

If the recommended fits are adhered to ,it is not necessary to use adhesive on the bearing rings.In order to make it easy,the bearing is mounted with a loose fit,then the adhesive bonding is considered to be used for bonding shaft and inner ring,or bonding bearing housing and outer ring,but took notice that,adhesives may only be used on spherical plain bearings with steel/steel sliding contact surfaces under the following conditions:

1. The surfaces to be bonded must be clean and free from grease.
2. It must be insured that the lubricant ducts and lubricant holes are not blocked by adhesive.

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、倾斜或回转运动的机械机构中。LS 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。

LS 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。

LS 自润滑向心关节轴承滑动摩擦副有四种：钢对 PTFE 复合材料、钢对 PTFE 编织物、钢对铜合金和钢对 PTFE 塑料。钢对 PTFE 编织物自润滑向心关节轴承的动载荷承载能力比钢对 PTFE 复合材料自润滑向心关节轴承高。这类轴承具有较低的摩擦系数，工作中不需维护。它们应用于需要较长使用寿命或工作中无法润滑的机械机构中。

Radial spherical plain bearings have an inner ring with a spherically convex outside surface and an outer ring with a correspondingly spherically concave inside surface. Their design makes them particularly suitable for bearing arrangements where alignment movements between shaft and housing have to be accommodated, or where oscillating or recurrent tilting or slewing movements must be permitted at relatively slow sliding speeds. LS radial spherical plain bearings are available with different sliding contact surface combinations, i.e. the sliding surfaces of inner and outer rings are made from different materials. There are two main groups: spherical plain bearings requiring maintenance(steel-on-steel) and maintenance-free spherical plain bearings.

LS radial spherical plain bearings requiring maintenance(steel-on-steel) generally have hardened sliding contact surface on both rings. The surfaces are treated with molybdenum disulphide and phosphated. It has characteristics of wear-resistance and wear-corrosion. Bearings with this sliding contact surface combination require regular relubrication. The high strength of the sliding contact surfaces makes these bearings especially suitable for bearing arrangements where heavy loads of alternating direction, shock loads or heavy static loads have to be accommodated.

LS maintenance-free spherical plain bearings sliding contact surfaces have four groups: steel-on-PTFE composite material ,steel-on-PTFE fabric , steel-on-copper alloy and steel-on-PTFE plastic. Dynamic load support capability of steel-on-PTFE fabric spherical plain bearings is higher than that of steel-on-PTFE composite material. They have very low friction and can be operated without maintenance. They are used for applications where long bearing lives are required without maintenance, or where operating conditions, such as inadequate lubrication or the absence of lubrication make the use of steel-on-steel bearing inadvisable.

向心关节轴承公差

Tolerances for radial spherical plain bearings

向心关节轴承公差(除 GEBK…S, GEBJ…S, GEBJ…C, GEFZ…S, GEFZ…C, GEFZ…T, GEK…XS-2RS 外)

Tolerances for radial spherical plain bearings(except for series GEBK…S, GEBJ…S, GEBJ…C, GEFZ…S, GEFZ…C, GEFZ…T, GEK…XS-2RS)

内圈 Inner ring

d mm		Δd_{mp}		Δd_{mp}^*		Vdp	Vdmp	Vdp*	Vdmp*	ΔBs		ΔBs^*	
超过 over	到 incl.	max	min	max	min	max	max	max	max	max	min	max	min
—	18	0	-8	+18	0	8	6	18	14	0	-120	0	-180
18	30	0	-10	+21	0	10	8	21	16	0	-120	0	-210
30	50	0	-12	+25	0	12	9	25	19	0	-120	0	-250
50	80	0	-15	+30	0	15	11	30	22	0	-150	0	-300
80	120	0	-20	+35	0	20	15	35	26	0	-200	0	-350
120	180	0	-25	+40	0	25	19	40	30	0	-250	0	-400
180	250	0	-30	+46	0	30	23	46	35	0	-300	0	-460
250	315	0	-35	+52	0	35	26	52	39	0	-350	0	-520
315	400	0	-40	+57	0	40	30	57	43	0	-400	0	-570
400	500	0	-45	—	—	45	34	—	—	0	-450	—	—
500	630	0	-50	—	—	50	38	—	—	0	-500	—	—
630	800	0	-75	—	—	75	56	—	—	0	-750	—	—

带*号为 GEEW…ES 的公差 The deviations in the columns with symbol * apply to spherical plain bearings of series GEEW…ES.

外圈 Outer ring

D mm		ΔD_{mp} um		Vdp um	VDmp um	ΔCs um	
超过 over	到 incl.	max	min	max	max	max	min
—	18	0	-8	10	6	0	-240
18	30	0	-9	12	7	0	-240
30	50	0	-11	15	8	0	-240
50	80	0	-13	17	10	0	-300
80	120	0	-15	20	11	0	-400
120	150	0	-18	24	14	0	-500
150	180	0	-25	33	19	0	-500
180	250	0	-30	40	23	0	-600
250	315	0	-35	47	26	0	-700
315	400	0	-40	53	30	0	-800
400	500	0	-45	60	34	0	-900
500	630	0	-50	67	38	0	-1000
630	800	0	-75	100	56	0	-1100
800	1000	0	-100	135	75	0	-1200
1000	1250	0	-125	190	125	0	-1300

GEBK…S 公差 Tolerances for series GEBK…S

内圈 Inner ring

d mm		Δd_{mp} um		ΔBs um	
超过 over	到 incl.	max	min	max	min
—	6	+12	0	0	-100
6	10	+15	0	0	-100
10	18	+18	0	0	-100
18	30	+21	0	0	-100

外圈 Outer ring

D mm		ΔD_{mp} um		ΔCs um	
超过 over	到 incl.	max	min	max	min
10	18	0	-11	+100	-100
18	30	0	-13	+100	-100
30	50	0	-16	+100	-100
50	80	0	-19	+100	-100

GEBJ…S, GEBJ…C 公差 Tolerances for series GEBJ…S, GEBJ…C

内圈 Inner ring

d mm		Δd_{mp} um		ΔB_s um	
超过 over	到 incl.	max	min	max	min
—	6	+12	0	0	-100
6	10	+15	0	0	-100
10	18	+18	0	0	-100
18	30	+21	0	0	-100

外圈 Outer ring

D mm		ΔD_{mp} um		ΔC_s um	
超过 over	到 incl.	max	min	max	min
10	18	0	-11	0	-240
18	30	0	-13	0	-240
30	50	0	-16	0	-240
50	80	0	-19	0	-300

GEFZ…S, GEFZ…C, GEFZ…T 公差 Tolerances for series GEFZ…S, GEFZ…C, GEFZ…T

内圈 Inner ring

d mm		Δd_{mp} um		ΔB_s um	
超过 over	到 incl.	max	min	max	min
—	6	+38	-13	+130	-130
6	10	+38	-13	+130	-130
10	18	+38	-13	+130	-130
18	30	+38	-13	+130	-130

外圈 Outer ring

D mm		ΔD_{mp} um		ΔC_s um	
超过 over	到 incl.	max	min	max	min
10	18	0	-18	+130	-130
18	30	0	-18	+130	-130
30	50	0	-18	+130	-130

GEK…XS-2RS 公差 Tolerances for series GEK…XS-2RS

内圈 Inner ring

d mm		Δd_{mp} um		ΔB_s um	
超过 over	到 incl.	max	min	max	min
18	30	+33	0	+50	-110
30	50	+39	0	+50	-110
50	60	+46	0	+50	-140

外圈 Outer ring

D mm		ΔD_{mp} um		ΔC_s um	
超过 over	到 incl.	max	min	max	min
50	80	+30	+11	0	-130
80	120	+35	+13	0	-130
120	150	+40	+15	0	-130

尺寸和公差符号 The symbols of dimension and tolerance

- d: 轴承公称内径。Bearing bore diameter, nominal.
- Δd_{mp} : 单一平面平均内径偏差。Single plane mean bore diameter deviation.
- V_{dp} : 单一径向平面内径变动量。Bore diameter variation in a single radial plane.
- V_{dmp} : 平均内径变动量。Mean bore diameter variation.
- ΔB_s : 内圈单一宽度偏差。Deviation of a single width of the inner ring.
- B: 内圈公称宽度。Width of inner ring, nominal.
- D: 轴承公称外径。Bearing outside diameter, nominal.
- ΔD_{mp} : 单一平面平均外径偏差。Single plane mean outside diameter deviation.
- V_{Dp} : 单一径向平面外径变动量。Outside diameter variation in a single radial plane.
- V_{Dmp} : 平均外径变动量。Mean outside diameter variation.
- ΔC_s : 外圈单一宽度偏差。Deviation of a single width of the outer ring.
- C: 外圈公称宽度。Width of outer ring, nominal.
- ΔT_s : 角接触关节轴承实际宽度偏差。Actual deviation of width of the angular contact spherical plain bearing.
- ΔH_s : 推力关节轴承实际高度偏差。Actual deviation of height of the spherical plain thrust bearing.
- $\Delta h_s, \Delta h_{is}$: 杆端关节轴承或球头杆端关节轴承中心高偏差。Center height deviation of rod ends or ball joint rod ends.

向心关节轴承径向游隙

Radial internal clearance of radial spherical plain bearings

钢对钢向心关节轴承径向游隙 Radial internal clearance of steel-on-steel radial spherical plain bearings

GE…E, GE…ES, GE…ES-2RS, GEEW…ES, GEEM…ES-2RS 系列

Series GE…E, GE…ES, GE…ES-2RS, GEEW…ES, GEEM…ES-2RS

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
—	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 系列

Series GEG…E, GEG…ES, GEG…ES-2RS

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
—	10	8	32	32	68	68	104
10	17	10	40	40	82	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	160	18	100	100	192	192	284
160	220	18	100	100	192	192	284
220	280	18	110	110	214	214	318

GEF…ES 系列 Series GEF…ES

d mm		基本组 Group normal um	
超过 over	到 incl.	min	max
—	12	32	68
12	20	40	82
20	35	50	100
35	55	60	120
55	80	72	142
80	120	85	165
120	150	100	192

GEBJ…S, GEFZ…S 系列 Series GEBJ…S, GEFZ…S

d mm		基本组 Group normal um	
超过 over	到 incl.	min	max
—	8	20	60
8	14	40	90
14	20	50	110
20	35	60	120

GE…XS/K 系列 Series GE…XS/K

d mm		基本组 Group normal um			
超过 over	到 incl.			min	max
—	15			70	125
15	30			75	140
30	50			85	150
50	65			90	160
65	80			95	170
80	100			100	185
100	120			110	200
120	150			120	215

GEZ…ES, GEZ…ES-2RS, GEWZ…ES, GEWZ…ES-2RS 系列 Series GEZ…ES, GEZ…ES-2RS, GEWZ…ES, GEWZ…ES-2RS

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
—	15.875	10	50	50	150	150	220
15.875	50.8	10	80	80	180	180	250
50.8	76.2	30	100	100	200	200	270
76.2	152.4	60	130	130	230	230	300
152.4	203.2	80	180	180	300	300	380
203.2	254	100	200	200	330	330	410
254	304.8	120	230	230	350	350	430

GEGZ…ES, GEGZ…ES-2RS 系列 Series GEGZ…ES, GEGZ…ES-2RS

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
12.7	44.45	10	80	80	180	180	250
44.45	69.85	30	100	100	200	200	270
69.85	139.7	60	130	130	230	230	300

GEGZ…HS/K 系列 Series GEGZ…HS/K

d mm		轴向游隙 Axial clearance um			
超过 over	到 incl.			min	max
12.7	57.15			76	178
57.15	82.55			100	200
82.55	139.7			150	250

GEBK…S 系列 Series GEBK…S

d mm		基本组 Group normal um			
超过 over	到 incl.			min	max
—	30			0	35

GEC…XS, GEC…XS-2RS 系列 Series GEC…XS, GEC…XS-2RS

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
300	340	18	125	125	239	239	353
340	420	18	135	135	261	261	387
420	530	18	145	145	285	285	425

GEK…XS-2RS 系列 Series GEK…XS-2RS

d mm		基本组 Group normal um			
超过 over	到 incl.			min	max
20	35			100	200
35	60			120	250

钢对 PTFE 复合材料向心关节轴承径向游隙

Radial internal clearance of steel-on-PTFE composite material radial spherical plain bearings

GEH…HC 系列 Series GEH…HC

d mm		基本组 Group normal um	
超过 over	到 incl.	min	max
90	120	85	285
120	180	100	335
180	220	100	355
220	240	110	356
240	280	110	380
280	300	135	415
300	320	135	490
320	360	135	490
360	380	135	490
380	400	135	510
400	480	145	550
480	500	145	570
500	600	145	610
600	630	160	640

GE…C, GEG…C, GEBJ…C, GEFZ…C 系列 Series GE…C, GEG…C, GEBJ…C, GEFZ…C

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
—	12	2	20	4	28	20	55
12	20	3	25	5	35	25	60
20	30	4	30	6	44	30	75
30	50	5	35	7	53	35	80

钢对 PTFE 编织物、钢对 PTFE 塑料、钢对铜合金向心关节轴承径向游隙

Radial internal clearance of steel-on-PTFE fabric、steel-on-PTFE plastic and steel-on-copper alloy radial spherical plain bearings

GE…ET-2RS, GE…XT-2RS, GE…ET/X, GE…ET-2RS/X, GE…XT/X, GE…XT-2RS/X, GEZ…ET-2RS, GEC…XT, GEC…XT-2RS, GEC…HT, GEFZ…T, GE…N 系列,
Series GE…ET-2RS, GE…XT-2RS, GE…ET/X, GE…ET-2RS/X, GE…XT/X, GE…XT-2RS/X, GEZ…ET-2RS, GEC…XT, GEC…XT-2RS, GEC…HT, GEFZ…T, GE…N

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
—	20	0	30	0	40	30	60
20	35	0	35	0	50	35	65
35	60	0	40	0	60	40	80
60	90	0	50	0	72	50	90
90	140	0	60	50	130	95	145
140	180	0	70	50	140	110	160
180	300	0	80	80	190	160	220
300	340	18	125	125	239	239	353
340	420	18	135	135	261	261	387
420	600	18	145	145	285	285	425

GEG…ET-2RS, GEG…XT-2RS, GEG…N 系列 Series GEG…ET-2RS, GEG…XT-2RS, GEG…N

d mm		C2 组 Group C2 um		基本组 Group normal um		C3 组 Group C3 um	
超过 over	到 incl.	min	max	min	max	min	max
—	30	0	35	0	50	35	65
30	50	0	40	0	60	40	80
50	80	0	50	0	72	50	90
80	120	0	60	50	130	95	145
120	160	0	70	50	140	110	160
160	280	0	80	80	190	160	220

GEH…XT, GEH…XT-2RS, GEH…HT, GE…XF/Q, GEC…XF/Q, GEH…XF/Q, GEH…HF/Q 系列

Series GEH…XT, GEH…XT-2RS, GEH…HT, GE…XF/Q, GEC…XF/Q, GEH…XF/Q, GEH…HF/Q

d mm		基本组 Group normal um	
超过 over	到 incl.	min	max
90	120	85	165
120	180	100	192
180	240	110	214
240	300	125	239
300	380	135	261
380	480	145	285
480	600	160	320
600	750	170	350
750	800	195	405

向心关节轴承配合
Fits of radial spherical plain bearings

轴配合 Shaft fits

工作条件 Operating conditions	滑动摩擦副 Sliding contact surface combination	
	润滑型 requiring maintenance	自润滑型 maintenance-free
各种载荷, 间隙或过渡配合 Loads of all kinds, clearance or transition fit	h6 轴淬火 hardened shaft	h6, g6
各种载荷, 过盈配合 Loads of all kinds, interference fit	m6	k6

支承座配合 Housing fits

工作条件 Operating conditions	滑动摩擦副 Sliding contact surface combination	
	润滑型 requiring maintenance	自润滑型 maintenance-free
轻载 Light loads 可轴向移动 Axial displacement required	H7	H7
重载 Heavy loads	M7	K7
轻合金支承座 Light alloy housings	N7	M7

轴径公差 Shaft diameter tolerances

轴径 Shaft diameter mm	轴径公差 Shaft diameter tolerances um								
	g6		h6		k6		m6		
超过 over	到 incl.	high	low	high	low	high	low	high	low
3	6	-4	-12	0	-8	+9	+1	+12	+4
6	10	-5	-14	0	-9	+10	+1	+15	+6
10	18	-6	-17	0	-11	+12	+1	+18	+7
18	30	-7	-20	0	-13	+15	+2	+21	+8
30	50	-9	-25	0	-16	+18	+2	+25	+9
50	80	-10	-29	0	-19	+21	+2	+30	+11
80	120	-12	-34	0	-22	+25	+3	+35	+13
120	180	-14	-39	0	-25	+28	+3	+40	+15
180	250	-15	-44	0	-29	+33	+4	+46	+17
250	315	-17	-49	0	-32	+36	+4	+52	+20
315	400	-18	-54	0	-36	+40	+4	+57	+21
400	500	-20	-60	0	-40	+45	+5	+63	+23
500	630	-22	-66	0	-44	+44	0	+70	+26
630	800	-24	-74	0	-50	+50	0	+80	+30

支承座孔公差 Housing bore tolerances

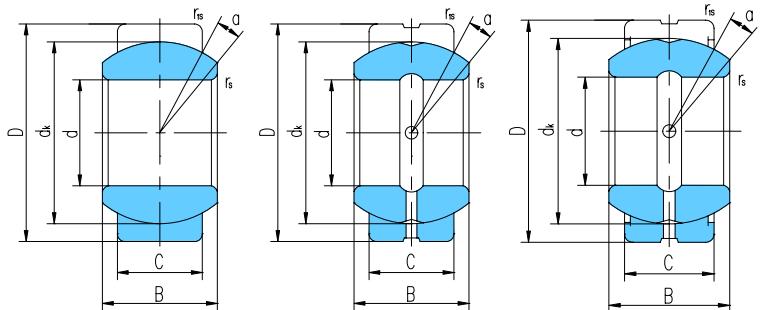
支承座孔径 Housing bore diameter mm	支承座孔公差 Housing bore tolerances um								
	H7		K7		M7		N7		
超过 over	到 incl.	low	high	low	high	low	high	low	high
10	18	0	+18	-12	+6	-18	0	-23	-5
18	30	0	+21	-15	+6	-21	0	-28	-7
30	50	0	+25	-18	+7	-25	0	-33	-8
50	80	0	+30	-21	+9	-30	0	-39	-9
80	120	0	+35	-25	+10	-35	0	-45	-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	-96	-26	-114	-44
630	800	0	+80	-80	0	-110	-30	-130	-50
800	1000	0	+90	-90	0	-124	-34	-146	-56
1000	1250	0	+105	-105	0	-145	-40	-171	-66

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢
Sliding contact surfaces: Steel / Steel



轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm								额 定 载 荷 Load ratings kN		重 量 Weight ≈kg	
	d	D	B	C	dk	r _s min	r _{ls} 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	0.017	
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	0.040
GE20ES	GE20ES-2RS	20	35	16	12	29	0.3	0.3	9	30	146	0.064
GE25ES	GE25ES-2RS	25	42	20	16	35.5	0.6	0.6	7	48	240	0.115
GE30ES	GE30ES-2RS	30	47	22	18	40.7	0.6	0.6	6	62	310	0.149
GE35ES	GE35ES-2RS	35	55	25	20	47	0.6	1	6	79	399	0.228
GE40ES	GE40ES-2RS	40	62	28	22	53	0.6	1	7	99	495	0.318
GE45ES	GE45ES-2RS	45	68	32	25	60	0.6	1	7	127	637	0.421
GE50ES	GE50ES-2RS	50	75	35	28	66	0.6	1	6	156	780	0.562
GE55ES	GE55ES-2RS	55	85	40	32	74	0.6	1	7	200	1000	0.864
GE60ES	GE60ES-2RS	60	90	44	36	80	1	1	6	245	1220	1.03
GE70ES	GE70ES-2RS	70	105	49	40	92	1	1	6	313	1560	1.57
GE80ES	GE80ES-2RS	80	120	55	45	105	1	1	6	400	2000	2.32
GE90ES	GE90ES-2RS	90	130	60	50	115	1	1	5	488	2440	2.79
GE100ES	GE100ES-2RS	100	150	70	55	130	1	1	7	607	3030	4.44
GE110ES	GE110ES-2RS	110	160	70	55	140	1	1	6	654	3270	4.83
GE120ES	GE120ES-2RS	120	180	85	70	160	1	1	6	950	4750	8.11
GE140ES	GE140ES-2RS	140	210	90	70	180	1	1	7	1070	5350	11.2
GE160ES	GE160ES-2RS	160	230	105	80	200	1	1	8	1360	6800	14.1
GE180ES	GE180ES-2RS	180	260	105	80	225	1.1	1.1	6	1530	7650	18.5
GE200ES	GE200ES-2RS	200	290	130	100	250	1.1	1.1	7	2120	10600	28.4
GE220ES	GE220ES-2RS	220	320	135	100	275	1.1	1.1	8	2320	11600	35.7
GE240ES	GE240ES-2RS	240	340	140	100	300	1.1	1.1	8	2550	12700	39.7
GE260ES	GE260ES-2RS	260	370	150	110	325	1.1	1.1	7	3030	15190	51.5
GE280ES	GE280ES-2RS	280	400	155	120	350	1.1	1.1	6	3570	17850	64.9
GE300ES	GE300ES-2RS	300	430	165	120	375	1.1	1.1	7	3800	19100	77.6

内径 $\Phi 50 \leq d \leq \Phi 200\text{mm}$ 外圈内球面可设计交叉润滑槽, 图示见 P112 图 1, 轴承型号需加 “/J”, 例如:

GE80ES/J

$\Phi 50 \leq d \leq \Phi 200\text{mm}$, the sliding surface of outer ring can be designed crossed grooves, sketch map see page P112 figure1, suffix “/J” is added to bearing number, e.g. GE80ES/J

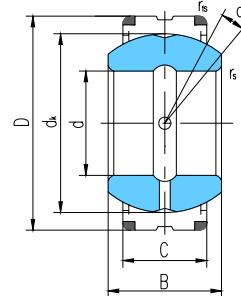
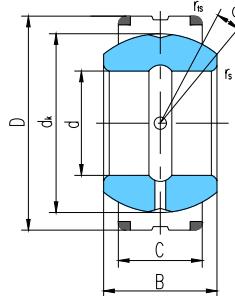
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel



GEC...XS

GEC...XS-2RS

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	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static		
GEC320XS	GEC320XS-2RS	320	440	160	135	380	1.1	3	4	4400	22000	78
GEC340XS	GEC340XS-2RS	340	460	160	135	400	1.1	3	3	4650	23200	83
GEC360XS	GEC360XS-2RS	360	480	160	135	420	1.1	3	3	4800	24000	87
GEC380XS	GEC380XS-2RS	380	520	190	160	450	1.5	4	4	6300	31500	129
GEC400XS	GEC400XS-2RS	400	540	190	160	470	1.5	4	3	6550	32500	135
GEC420XS	GEC420XS-2RS	420	560	190	160	490	1.5	4	3	6800	34500	141
GEC440XS	GEC440XS-2RS	440	600	218	185	520	1.5	4	3	8650	42300	196
GEC460XS	GEC460XS-2RS	460	620	218	185	540	1.5	4	3	9000	45000	204

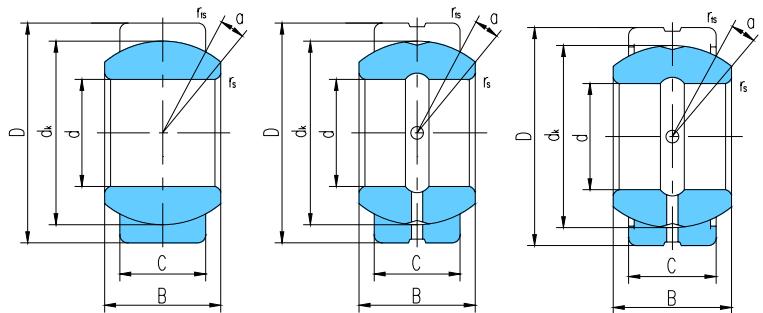
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel



GEG...E

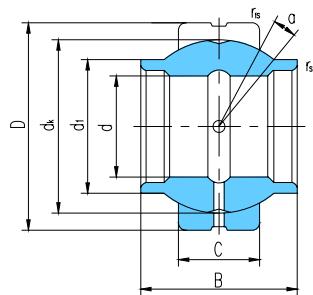
GEG...ES

GEG...ES-2RS

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	r_s min	r_{ls} 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	0.021	
GEG12E	12	26	15	9	22	0.3	0.3	18	16	84	0.036	
GEG15ES	GEG15ES-2RS	15	30	16	10	25	0.3	0.3	16	21	106	0.048
GEG17ES	GEG17ES-2RS	17	35	20	12	29	0.3	0.3	19	30	146	0.080
GEG20ES	GEG20ES-2RS	20	42	25	16	35.5	0.3	0.6	17	48	240	0.152
GEG25ES	GEG25ES-2RS	25	47	28	18	40.7	0.6	0.6	17	62	310	0.199
GEG30ES	GEG30ES-2RS	30	55	32	20	47	0.6	1	17	79	399	0.296
GEG35ES	GEG35ES-2RS	35	62	35	22	53	0.6	1	16	99	495	0.402
GEG40ES	GEG40ES-2RS	40	68	40	25	60	0.6	1	17	127	637	0.535
GEG45ES	GEG45ES-2RS	45	75	43	28	66	0.6	1	15	156	780	0.698
GEG50ES	GEG50ES-2RS	50	90	56	36	80	0.6	1	17	245	1220	1.42
GEG60ES	GEG60ES-2RS	60	105	63	40	92	1	1	17	313	1560	2.09
GEG70ES	GEG70ES-2RS	70	120	70	45	105	1	1	16	400	2000	3.01
GEG80ES	GEG80ES-2RS	80	130	75	50	115	1	1	14	488	2440	3.61
GEG90ES	GEG90ES-2RS	90	150	85	55	130	1	1	15	607	3030	5.50
GEG100ES	GEG100ES-2RS	100	160	85	55	140	1	1	14	654	3270	6.04
GEG110ES	GEG110ES-2RS	110	180	100	70	160	1	1	12	950	4750	9.74
GEG120ES	GEG120ES-2RS	120	210	115	70	180	1	1	16	1070	5350	15.1
GEG140ES	GEG140ES-2RS	140	230	130	80	200	1	1	16	1360	6800	18.9
GEG160ES	GEG160ES-2RS	160	260	135	80	225	1.1	1.1	16	1530	7650	24.8
GEG180ES	GEG180ES-2RS	180	290	155	100	250	1.1	1.1	14	2120	10600	35.9
GEG200ES	GEG200ES-2RS	200	320	165	100	275	1.1	1.1	15	2320	11600	44.9
GEG220ES	GEG220ES-2RS	220	340	175	100	300	1.1	1.1	16	2550	12700	50.9
GEG240ES	GEG240ES-2RS	240	370	190	110	325	1.1	1.1	15	3030	15190	65.3
GEG260ES	GEG260ES-2RS	260	400	205	120	350	1.1	1.1	15	3570	17850	82.0
GEG280ES	GEG280ES-2RS	280	430	210	120	375	1.1	1.1	15	3800	19100	96.6

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel

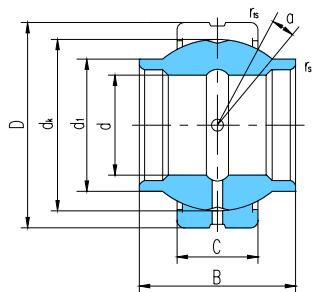
轴承型号 Bearing number	外形尺寸 Dimensions								额定载荷 Load ratings kN		重量 Weight ≈kg	
	d	D	B	C	d ₁ max	d _k	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEEW12ES*	12	22	12	7	15.5	18	0.3	0.3	4	10	53	0.017
GEEW15ES	15	26	15	9	18.5	22	0.3	0.3	5	16	84	0.028
GEEW16ES	16	28	16	9	20	23	0.3	0.3	4	17	85	0.034
GEEW17ES	17	30	17	10	21	25	0.3	0.3	7	21	106	0.043
GEEW20ES	20	35	20	12	25	29	0.3	0.3	4	30	146	0.069
GEEW25ES	25	42	25	16	30.5	35.5	0.6	0.6	4	48	240	0.124
GEEW30ES	30	47	30	18	34	40.7	0.6	0.6	4	62	310	0.159
GEEW32ES	32	52	32	18	37	43	0.6	1	4	65	328	0.207
GEEW35ES	35	55	35	20	40	47	0.6	1	4	79	399	0.248
GEEW40ES	40	62	40	22	46	53	0.6	1	4	99	495	0.349
GEEW45ES	45	68	45	25	52	60	0.6	1	4	127	637	0.468
GEEW50ES	50	75	50	28	57	66	0.6	1	4	156	780	0.62
GEEW60ES	60	90	60	36	68	80	1	1	4	245	1220	1.11
GEEW63ES	63	95	63	36	71.5	83	1	1	4	253	1260	1.27
GEEW70ES	70	105	70	40	78	92	1	1	4	313	1560	1.69
GEEW80ES	80	120	80	45	91	105	1	1	4	400	2000	2.55
GEEW90ES	90	130	90	50	99	115	1	1	4	488	2440	3.04
GEEW100ES	100	150	100	55	113	130	1	1	4	607	3030	4.87
GEEW110ES	110	160	110	55	124	140	1	1	4	654	3270	5.53
GEEW125ES	125	180	125	70	138	160	1	1	4	950	4750	8.19
GEEW160ES	160	230	160	80	177	200	1	1	4	1360	6800	15.8
GEEW200ES	200	290	200	100	221	250	1.1	1.1	4	2120	10600	31.7
GEEW250ES	250	400	250	120	317	350	1.1	1.1	4	3750	17800	101
GEEW320ES	320	520	320	160	405	450	1.1	1.1	4	6200	30500	225

*仅外圈有润滑槽孔。A lubrication groove and holes in the outer ring only.

内径 $d \geq \phi 15\text{mm}$, 可提供带密封圈的向心关节轴承。Can supply spherical plain bearing with two seals for bore diameter $d \geq \phi 15\text{mm}$.

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢
Sliding contact surfaces: Steel / Steel

轴承型号 Bearing number	外形尺寸 Dimensions mm									额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d ₁ max	d _k	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEEM20ES-2RS	20	35	24	12	24	29	0.3	0.3	6	30	146	0.072
GEEM25ES-2RS	25	42	29	16	29	35.5	0.3	0.6	4	48	240	0.13
GEEM30ES-2RS	30	47	30	18	34	40.7	0.3	0.6	4	62	310	0.16
GEEM35ES-2RS	35	55	35	20	40	47	0.6	1	4	79	399	0.25
GEEM40ES-2RS	40	62	38	22	45	53	0.6	1	4	99	495	0.34
GEEM45ES-2RS	45	68	40	25	52	60	0.6	1	4	127	637	0.45
GEEM50ES-2RS	50	75	43	28	57	66	0.6	1	4	156	780	0.59
GEEM60ES-2RS	60	90	54	36	68	80	0.6	1	3	245	1220	1.06
GEEM70ES-2RS	70	105	65	40	78	92	0.6	1	4	313	1560	1.66
GEEM80ES-2RS	80	120	74	45	90	105	0.6	1	4	400	2000	2.47
GEEM90ES-2RS	90	130	80	50	99	115	1	1	4	488	2440	2.88
GEEM100ES-2RS	100	150	90	55	113	130	1	1	4	607	3030	4.65
GEEM120ES-2RS	120	180	108	70	133	160	1	1	4	950	4750	8.44

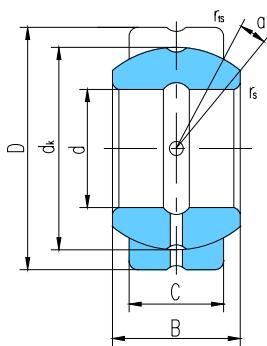
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

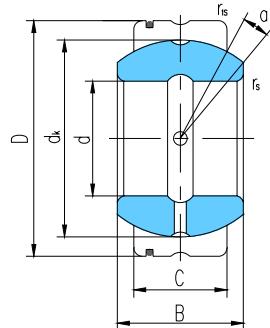
Sliding contact surfaces: Steel / Steel



轴承 型号 Bearing number	外形尺寸 Dimensions								额定载荷 Load ratings		重量 Weight ≈kg
	d	D	B	C	d _k	r _s min	r _{ls} 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	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

向心关节轴承

Radial Spherical Plain Bearings



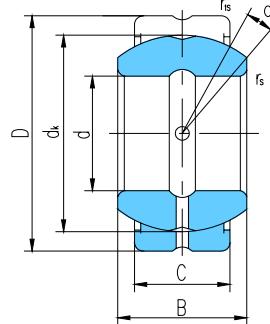
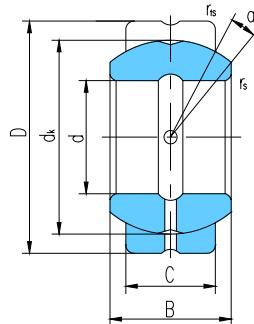
滑动摩擦副: 钢 / 钢

Sliding contact surfaces: 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	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE12XS/K	12	22	11	9	18	0.5	0.5	7	13	68	0.019
GE15XS/K	15	26	13	11	22	0.5	0.5	6	20	102	0.031
GE20XS/K	20	32	16	14	28	0.5	0.5	4	33	166	0.054
GE22XS/K	22	37	19	16	32	0.5	0.5	6	43	217	0.088
GE25XS/K	25	42	21	18	36	0.5	0.5	5	55	275	0.128
GE30XS/K	30	50	27	23	45	1	1	6	87	439	0.232
GE35XS/K	35	55	30	26	50	1	1	5	110	552	0.291
GE40XS/K	40	62	33	28	55	1	1	6	130	654	0.392
GE45XS/K	45	72	36	31	62	1	1	5	163	816	0.609
GE50XS/K	50	80	42	36	72	1	1	5	220	1100	0.885
GE55XS/K	55	90	47	40	80	1	1	6	272	1360	1.29
GE60XS/K	60	100	53	45	90	1	1	6	344	1720	1.84
GE65XS/K	65	105	55	47	94	1	1	5	375	1870	2.03
GE70XS/K	70	110	58	50	100	1	1	5	425	2125	2.28
GE75XS/K	75	120	64	55	110	1	1	5	510	2570	3.08
GE80XS/K	80	130	70	60	120	1	1	5	610	3060	4.04
GE85XS/K	85	135	74	63	125	1	1	6	669	3340	4.44
GE90XS/K	90	140	76	65	130	1	1	5	718	3590	4.79
GE95XS/K	95	150	82	70	140	1	1	5	833	4165	6.07
GE100XS/K	100	160	88	75	150	1.5	1.5	5	956	4780	7.56
GE110XS/K	110	170	93	80	160	1.5	1.5	5	1080	5440	8.63
GE115XS/K	115	180	98	85	165	1.5	1.5	5	1190	5960	10.4
GE120XS/K	120	190	105	90	175	1.5	1.5	6	1330	6690	12.5
GE130XS/K	130	200	110	95	185	1.5	1.5	5	1490	7460	14.0
GE150XS/K	150	220	120	105	205	1.5	1.5	5	1820	9140	17.2

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel

GEZ...ES

GEZ...ES-2RS

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	f _s min	f _{ls} min	α° ≈	动载荷 Dynamic		
GEZ12ES	12.7	22.225	11.1	9.525	18	0.15	0.6	6	13	41	0.022
	0.5	0.875	0.437	0.375	0.709	0.006	0.024				
GEZ15ES	15.875	26.988	13.894	11.913	23	0.15	0.6	6	22	65	0.036
	0.625	1.0625	0.547	0.469	0.906	0.006	0.024				
GEZ19ES	19.05	31.75	16.662	14.275	27.5	0.3	0.6	6	31	95	0.053
	0.75	1.25	0.656	0.562	1.083	0.012	0.024				
GEZ22ES	22.225	36.513	19.431	16.662	32	0.3	0.6	6	42	127	0.085
	0.875	1.4375	0.756	0.656	1.26	0.012	0.024				
GEZ25ES	25.4	41.275	22.225	19.05	36.5	0.3	0.6	6	56	166	0.121
	1	1.625	0.875	0.75	1.437	0.012	0.024				
GEZ31ES	31.75	50.8	27.762	23.8	45.5	0.6	0.6	6	86	260	0.23
	1.25	2	1.093	0.937	1.791	0.024	0.024				
GEZ34ES	34.925	55.563	30.15	26.187	49	0.6	1	5	102	310	0.35
	1.375	2.1875	1.187	1.031	1.929	0.024	0.04				
GEZ38ES	38.1	61.913	33.325	28.575	54.7	0.6	1	6	125	375	0.42
	1.5	2.4375	1.312	1.125	2.154	0.024	0.04				
GEZ44ES	44.45	71.438	38.887	33.325	63.9	0.6	1	6	170	510	0.64
	1.75	2.8125	1.531	1.312	2.516	0.024	0.04				
GEZ50ES	50.8	80.963	44.45	38.1	73	0.6	1	6	224	670	0.93
	2	3.1875	1.75	1.5	2.874	0.024	0.04				
GEZ57ES	57.15	90.488	50.013	42.85	82	0.6	1	6	280	850	1.3
	2.25	3.5625	1.969	1.687	3.228	0.024	0.04				
GEZ63ES	63.5	100.013	55.55	47.625	92	1	1	6	355	1060	1.85
	2.5	3.9375	2.187	1.875	3.622	0.04	0.04				
GEZ69ES	69.85	111.125	61.112	52.375	100	1	1	6	415	1250	2.4
	2.75	4.375	2.406	2.062	3.937	0.04	0.04				
GEZ76ES	76.2	120.65	66.675	57.15	109.5	1	1	6	500	1500	3.1
	3	4.75	2.625	2.25	4.311	0.04	0.04				
GEZ82ES	82.55	130.175	72.238	61.9	119	1	1	6	585	1760	3.8
	3.25	5.125	2.844	2.437	4.685	0.04	0.04				
GEZ88ES	88.9	139.7	77.775	66.675	128	1	1	6	680	2040	4.8
	3.5	5.5	3.062	2.625	5.039	0.04	0.04				
GEZ95ES	95.25	149.225	83.337	71.425	137	1	1	6	780	2360	5.8
	3.75	5.875	3.281	2.812	5.394	0.04	0.04				
GEZ101ES	101.6	158.75	88.9	76.2	146	1	1	6	900	2650	7
	4	6.25	3.5	3	5.748	0.04	0.04				
GEZ107ES	107.95	168.275	94.463	80.95	155	1	1	6	1000	3000	8.4
	4.25	6.625	3.719	3.187	6.102	0.04	0.04				

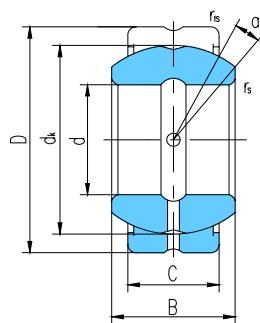
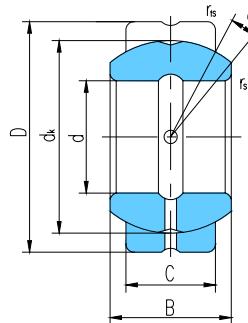
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel



GEZ...ES

GEZ...ES-2RS

轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm/inch								额定载荷 Load ratings kN		重 量 Weight ≈kg	
	d	D	B	C	d _k	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static		
GEZ114ES	GEZ114ES-2RS	114.3	177.8	100.013	85.725	164.5	1	1	6	1120	3400	9.8
		4.5	7	3.937	3.375	6.476	0.04	0.04				
GEZ120ES	GEZ120ES-2RS	120.65	187.325	105.562	90.475	173.5	1	1	6	1250	3750	11.5
		4.75	7.375	4.156	3.562	6.831	0.04	0.04				
GEZ127ES	GEZ127ES-2RS	127	196.85	111.125	95.25	183	1	1	6	1400	4150	13.5
		5	7.75	4.375	3.75	7.205	0.04	0.04				
GEZ152ES	GEZ152ES-2RS	152.4	222.25	120.65	104.775	207	1	1	5	1730	5200	17.5
		6	8.75	4.75	4.125	8.15	0.04	0.04				
GEZ165ES	GEZ165ES-2RS	165.1	247.65	123.825	103.175	223	1.1	1.1	7	1830	5500	22.9
		6.5	9.75	4.875	4.062	8.78	0.043	0.043				
GEZ177ES	GEZ177ES-2RS	177.8	266.7	133.35	111.125	240	1.1	1.1	7	2120	6390	28.6
		7	10.5	5.25	4.375	9.449	0.043	0.043				
GEZ190ES	GEZ190ES-2RS	190.5	285.75	142.875	119.05	257	1.1	1.1	7	2440	7340	35.1
		7.5	11.25	5.625	4.687	10.118	0.043	0.043				
GEZ203ES	GEZ203ES-2RS	203.2	304.8	152.4	127	275	1.1	1.1	7	2770	8350	42.6
		8	12	6	5	10.827	0.043	0.043				
GEZ215ES	GEZ215ES-2RS	215.9	323.85	161.925	134.925	292	1.1	1.1	7	3130	9420	51.1
		8.5	12.75	6.375	5.312	11.496	0.043	0.043				
GEZ228ES	GEZ228ES-2RS	228.6	342.9	171.45	142.875	309	1.1	1.1	7	3510	10500	60.7
		9	13.5	6.75	5.625	12.165	0.043	0.043				
GEZ241ES	GEZ241ES-2RS	241.3	361.95	180.975	150.8	326	1.1	1.1	7	3910	11700	71.4
		9.5	14.25	7.125	5.937	12.835	0.043	0.043				
GEZ254ES	GEZ254ES-2RS	254	381	190.5	158.75	343	1.1	1.1	7	4340	13050	83.3
		10	15	7.5	6.25	13.504	0.043	0.043				
GEZ266ES	GEZ266ES-2RS	266.7	400.05	200.025	166.675	360	1.1	1.1	7	4780	14300	96.4
		10.5	15.75	7.875	6.562	14.173	0.043	0.043				
GEZ279ES	GEZ279ES-2RS	279.4	419.1	209.55	174.625	377	1.1	1.1	7	5250	15700	110.8
		11	16.5	8.25	6.875	14.843	0.043	0.043				
GEZ292ES	GEZ292ES-2RS	292.1	438.15	219.075	182.55	395	1.1	1.1	7	5740	17200	126.7
		11.5	17.25	8.625	7.187	15.551	0.043	0.043				
GEZ304ES	GEZ304ES-2RS	304.8	457.2	228.6	190.5	412	1.1	1.1	7	6250	18700	143.9
		12	18	9	7.5	16.22	0.043	0.043				

内径 $d \leq \phi 152.4\text{mm}$ 内圈外球面可设计交叉润滑槽, 图示见 P112 图 2, 轴承型号需加“J”, 例如:

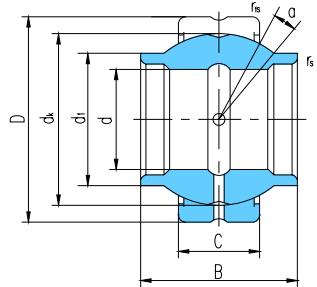
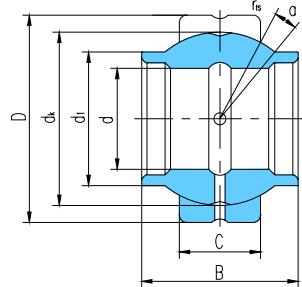
GEZ57ES/J

$d \leq \phi 152.4\text{mm}$, the sliding surface of inner ring can be designed crossed grooves, sketch map see page P112

figure2, suffix “J” is added to bearing number, e.g. GEZ57ES/J

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢
Sliding contact surfaces: Steel / Steel

GEWZ...ES

GEWZ...ES-2RS

轴承型号 Bearing number	外形尺寸 Dimensions								额定载荷 Load ratings		重量 Weight ≈kg	
	d	D	B	C	d ₁ max	d _k	r _s min	r _{is} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEWZ12ES	12.700	22.225	19.050	9.525	15.875	18	0.15	0.6	5	13	41	0.024
	0.5	0.875	0.75	0.375	0.625	0.709	0.006	0.024				
GEWZ15ES	15.875	26.988	23.800	11.913	19.812	23	0.15	0.6	5	22	65	0.038
	0.625	1.0625	0.937	0.469	0.78	0.906	0.006	0.024				
GEWZ19ES	19.050	31.750	28.575	14.275	23.368	27.5	0.3	0.6	5	31	95	0.064
	0.75	1.25	1.125	0.562	0.92	1.083	0.012	0.024				
GEWZ22ES	22.225	36.513	33.325	16.662	27.178	32	0.3	0.6	5	42	127	0.098
	0.875	1.4375	1.312	0.656	1.07	1.26	0.012	0.024				
GEWZ25ES	25.400	41.275	38.100	19.050	30.988	36.5	0.3	0.6	5	56	166	0.142
	1	1.625	1.5	0.75	1.22	1.437	0.012	0.024				
GEWZ31ES	31.750	50.800	47.625	23.800	38.735	45.5	0.6	0.6	5	86	260	0.271
	1.25	2	1.875	0.937	1.525	1.791	0.024	0.024				
GEWZ34ES	34.925	55.563	52.375	26.187	42.418	49	0.6	1	5	102	310	0.373
	1.375	2.1875	2.062	1.031	1.67	1.929	0.024	0.04				
GEWZ38ES	38.100	61.913	57.150	28.575	46.99	54.7	0.6	1	5	125	375	0.494
	1.5	2.4375	2.25	1.125	1.85	2.154	0.024	0.04				
GEWZ44ES	44.450	71.438	66.675	33.325	54.991	63.9	0.6	1	5	170	510	0.762
	1.75	2.8125	2.625	1.312	2.165	2.516	0.024	0.04				
GEWZ50ES	50.800	80.963	76.200	38.100	62.484	73	0.6	1	5	224	670	1.11
	2	3.1875	3	1.5	2.46	2.874	0.024	0.04				
GEWZ57ES	57.150	90.488	85.725	42.850	70.104	82	0.6	1	5	280	850	1.57
	2.25	3.5625	3.375	1.687	2.76	3.228	0.024	0.04				
GEWZ63ES	63.500	100.013	95.250	47.625	77.724	92	1	1	5	355	1060	2.15
	2.5	3.9375	3.75	1.875	3.06	3.622	0.04	0.04				
GEWZ69ES	69.850	111.125	104.775	52.375	85.852	100	1	1	5	415	1250	2.9
	2.75	4.375	4.125	2.062	3.38	3.937	0.04	0.04				
GEWZ76ES	76.200	120.650	114.300	57.150	93.345	109.5	1	1	5	500	1500	3.59
	3	4.75	4.5	2.25	3.675	4.311	0.04	0.04				
GEWZ82ES	82.550	130.175	123.825	61.900	101.219	119	1	1	5	585	1760	4.69
	3.25	5.125	4.875	2.437	3.985	4.685	0.04	0.04				
GEWZ88ES	88.900	139.700	133.350	66.675	109.22	128	1	1	5	680	2040	5.86
	3.5	5.5	5.25	2.625	4.3	5.039	0.04	0.04				
GEWZ95ES	95.250	149.225	142.875	71.425	116.586	137	1	1	5	780	2360	7.11
	3.75	5.875	5.625	2.812	4.59	5.394	0.04	0.04				
GEWZ101ES	101.600	158.750	152.400	76.200	124.587	146	1	1	5	900	2650	8.56
	4	6.25	6	3	4.905	5.748	0.04	0.04				
GEWZ114ES	114.300	177.800	171.450	85.725	140.335	164.5	1	1	5	1120	3400	12.24
	4.5	7	6.75	3.375	5.525	6.476	0.04	0.04				
GEWZ127ES	127.000	196.850	190.500	95.250	155.705	183	1	1	5	1400	4150	16.63
	5	7.75	7.5	3.75	6.13	7.205	0.04	0.04				
GEWZ152ES	152.400	222.250	209.550	104.775	178.308	207	1	1	5	1730	5200	20.7
	6	8.75	8.25	4.125	7.02	8.15	0.04	0.04				

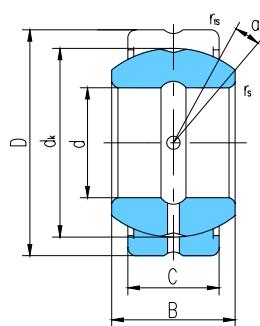
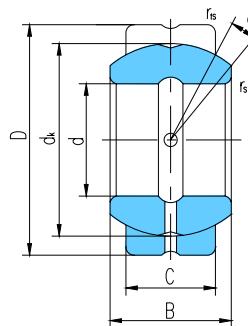
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel



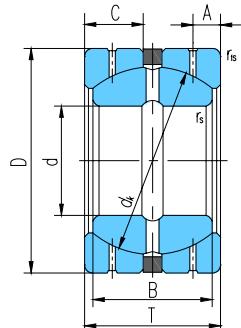
GEGZ...ES

GEGZ...ES-2RS

轴承型号 Bearing number	外形尺寸 Dimensions mm/inch								额定载荷 Load ratings kN		重量 Weight ≈kg	
	d	D	B	C	d _k	r _s min	r _{is} min	α° ≈	动载荷 Dynamic	静载荷 Static		
GEGZ31ES	GEGZ31ES-2RS	31.750	61.913	35.306	28.575	54.7	0.6	1	15	125	375	0.454
		1.25	2.4375	1.39	1.125	2.154	0.024	0.04				
GEGZ38ES	GEGZ38ES-2RS	38.100	71.438	40.132	33.325	63.9	0.6	1	14	170	510	0.726
		1.5	2.8125	1.58	1.312	2.516	0.024	0.04				
GEGZ44ES	GEGZ44ES-2RS	44.450	80.963	46.228	38.100	73	0.6	1	14	224	670	1.14
		1.75	3.1875	1.82	1.5	2.874	0.024	0.04				
GEGZ50ES	GEGZ50ES-2RS	50.800	90.488	52.578	42.850	82	0.6	1	14	280	850	1.68
		2	3.5625	2.07	1.687	3.228	0.024	0.04				
GEGZ57ES	GEGZ57ES-2RS	57.150	100.013	58.877	47.625	92	0.6	1	14	355	1060	2.01
		2.25	3.9375	2.318	1.875	3.622	0.024	0.04				
GEGZ63ES	GEGZ63ES-2RS	63.500	111.125	64.643	52.375	100	1	1	14	415	1250	2.95
		2.5	4.375	2.545	2.062	3.937	0.04	0.04				
GEGZ69ES	GEGZ69ES-2RS	69.850	120.650	70.866	57.150	109.5	1	1	14	500	1500	3.63
		2.75	4.75	2.79	2.25	4.311	0.04	0.04				
GEGZ76ES	GEGZ76ES-2RS	76.200	130.175	76.759	61.900	119	1	1	14	585	1760	4.36
		3	5.125	3.022	2.437	4.685	0.04	0.04				
GEGZ82ES	GEGZ82ES-2RS	82.550	139.700	82.931	66.675	128	1	1	14	680	2040	5.31
		3.25	5.5	3.265	2.625	5.039	0.04	0.04				
GEGZ88ES	GEGZ88ES-2RS	88.900	149.225	90.424	71.425	137	1	1	14	780	2360	6.81
		3.5	5.875	3.56	2.812	5.394	0.04	0.04				
GEGZ95ES	GEGZ95ES-2RS	95.250	158.750	94.945	76.200	146	1	1	14	900	2650	8.85
		3.75	6.25	3.738	3	5.748	0.04	0.04				
GEGZ101ES	GEGZ101ES-2RS	101.600	177.800	107.315	85.725	164.5	1	1	10	1120	3400	10.2
		4	7	4.225	3.375	6.476	0.04	0.04				
GEGZ114ES	GEGZ114ES-2RS	114.300	196.850	119.126	95.250	183	1	1	10	1400	4150	13.6
		4.5	7.75	4.69	3.75	7.205	0.04	0.04				
GEGZ139ES	GEGZ139ES-2RS	139.700	222.250	125.730	104.775	207	1	1	9	1730	5200	20.4
		5.5	8.75	4.95	4.125	8.15	0.04	0.04				

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢

Sliding contact surfaces: Steel / Steel

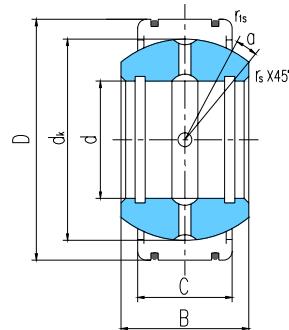
轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions								额定载荷 Load ratings kN		重 量 Weight ≈kg	
	d	D	B	C	T	A	dk	r _s min	r _{ls} min	动载荷 Dynamic	静载荷 Static	
GEGZ31HS/K	31.750	61.913	35.306	16.764	38.1	7.925	54.7	1	2.5	99	395	0.363
	1.25	2.4375	1.39	0.66	1.5	0.312	2.154	0.04	0.1			
GEGZ38HS/K	38.100	71.438	40.132	20.066	44.704	8.331	63.9	1	2.5	135	540	0.545
	1.5	2.8125	1.58	0.79	1.76	0.328	2.516	0.04	0.1			
GEGZ44HS/K	44.450	80.963	46.228	23.368	51.308	9.525	73	1.5	3.5	180	720	0.976
	1.75	3.1875	1.82	0.92	2.02	0.375	2.874	0.06	0.14			
GEGZ50HS/K	50.800	90.488	52.578	26.67	57.912	11.506	82	1.5	3.5	230	920	1.38
	2	3.5625	2.07	1.05	2.28	0.453	3.228	0.06	0.14			
GEGZ57HS/K	57.150	100.013	58.877	29.972	64.516	12.7	92	1.5	3.5	295	1180	1.90
	2.25	3.9375	2.318	1.18	2.54	0.5	3.622	0.06	0.14			
GEGZ63HS/K	63.500	111.125	64.643	32.385	71.12	13.081	100	2	4.5	345	1380	2.57
	2.5	4.375	2.545	1.275	2.8	0.515	3.937	0.08	0.18			
GEGZ69HS/K	69.850	120.650	70.866	35.687	77.724	14.681	109.5	2	4.5	420	1680	3.43
	2.75	4.75	2.79	1.405	3.06	0.578	4.311	0.08	0.18			
GEGZ76HS/K	76.200	130.175	76.759	39.243	84.836	16.662	119	2	4.5	500	2000	4.41
	3	5.125	3.022	1.545	3.34	0.656	4.685	0.08	0.18			
GEGZ82HS/K	82.550	139.700	82.931	42.545	91.44	17.856	128	2	4.5	585	2340	5.56
	3.25	5.5	3.265	1.675	3.6	0.703	5.039	0.08	0.18			
GEGZ88HS/K	88.900	149.225	90.424	45.847	98.044	19.431	137	2	4.5	675	2700	6.86
	3.5	5.875	3.56	1.805	3.86	0.765	5.394	0.08	0.18			
GEGZ95HS/K	95.250	158.750	94.945	49.149	104.648	19.837	146	2	4.5	775	3100	8.36
	3.75	6.25	3.738	1.935	4.12	0.781	5.748	0.08	0.18			
GEGZ101HS/K	101.600	177.800	107.315	55.753	117.856	22.225	164.5	2	4.5	1000	4000	10
	4	7	4.225	2.195	4.64	0.875	6.476	0.08	0.18			
GEGZ114HS/K	114.300	196.850	119.126	62.357	131.064	25.4	183	2	4.5	1230	4920	14.88
	4.5	7.75	4.69	2.455	5.16	1	7.205	0.08	0.18			
GEGZ139HS/K	139.700	222.250	125.730	66.421	139.192	34.798	207	2	4.5	1480	5920	21.79
	5.5	8.75	4.95	2.615	5.48	1.37	8.15	0.08	0.18			

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 钢
Sliding contact surfaces: Steel / Steel



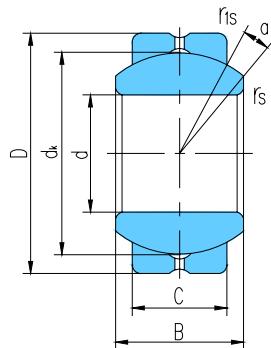
轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions								额定载荷 Load ratings kN		重 量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_ts min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEK25XS-2RS	25	68	40	28	50	0.6	1	19	117	590	0.707
GEK30XS-2RS	30	70	47	32	60	0.6	1	19	163	813	0.814
GEK35XS-2RS	35	80	54	38	70	0.6	1	17	226	1130	1.23
GEK40XS-2RS	40	90	64	44	80	0.6	1	19	298	1490	2
GEK45XS-2RS	45	100	72	52	90	0.6	1	17	398	1990	2.84
GEK50XS-2RS	50	110	80	58	100	1	1	17	493	2450	3.81
GEK55XS-2RS	55	125	90	64	110	1	1	19	598	2990	5.49
GEK60XS-2RS	60	135	98	72	120	1	1	17	732	3660	6.93

向心关节轴承

Radial Spherical Plain Bearings



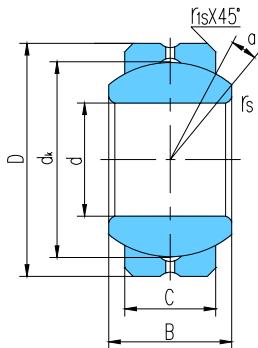
滑动摩擦副: 钢 / 钢
Sliding contact surfaces: Steel / Steel



轴承型号 Bearing number	外形尺寸 Dimensions mm								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	r _s min	r _{ls} 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	13	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	15	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	15	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	15	61	178	0.378

向心关节轴承

Radial Spherical Plain Bearings



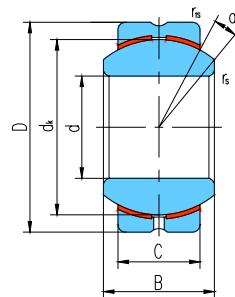
滑动摩擦副: 钢 / 钢

Sliding contact surfaces: 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	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	
GEFZ4S	4.83	14.29	7.14	5.54	10.31	0.3	0.38	11	3	0.006
	0.19	0.5625	0.281	0.218	0.406	0.012	0.015			
GEFZ6S	6.35	16.67	8.71	6.35	12.70	0.3	0.56	13.5	4.4	0.010
	0.25	0.6562	0.343	0.25	0.5	0.012	0.022			
GEFZ7S	7.94	19.05	9.53	7.14	14.27	0.3	0.81	12	6	0.014
	0.3125	0.75	0.375	0.281	0.562	0.012	0.032			
GEFZ9S	9.53	20.64	10.31	7.92	16.66	0.3	0.81	10	7.4	0.018
	0.375	0.8125	0.406	0.312	0.656	0.012	0.032			
GEFZ11S	11.11	23.02	11.10	8.71	17.45	0.3	0.81	8	8.4	0.021
	0.4375	0.9062	0.437	0.343	0.687	0.012	0.032			
GEFZ12S	12.70	25.40	12.70	9.91	20.65	0.3	0.81	9.5	12	0.029
	0.5	1	0.5	0.39	0.813	0.012	0.032			
GEFZ14S	14.29	27.78	14.27	11.10	23.01	0.3	0.81	9.5	15	0.042
	0.5625	1.0937	0.562	0.437	0.906	0.012	0.032			
GEFZ15S	15.88	30.16	15.88	12.70	25.40	0.3	0.81	9.5	19	0.053
	0.625	1.1875	0.625	0.5	1	0.012	0.032			
GEFZ19S	19.05	36.51	19.05	15.06	30.15	0.3	1.12	9	28	0.094
	0.75	1.4375	0.75	0.593	1.187	0.012	0.044			
GEFZ22S	22.23	39.69	22.23	17.86	33.32	0.6	1.12	9.5	37	0.119
	0.875	1.5625	0.875	0.703	1.312	0.024	0.044			
GEFZ25S	25.40	44.45	25.40	20.24	38.10	0.6	1.12	10	49	0.173
	1	1.75	1	0.797	1.5	0.024	0.044			

向心关节轴承

Radial Spherical Plain Bearings



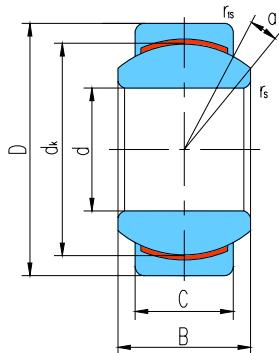
滑动摩擦副: 钢 / 青铜

Sliding contact surfaces: Steel / Bronze

轴承型号 Bearing number	外形尺寸 Dimensions mm								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_ls 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	0.118
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

向心关节轴承

Radial Spherical Plain Bearings



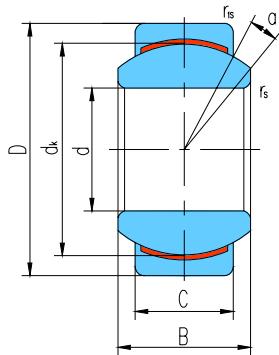
滑动摩擦副：钢 / PTFE 复合材料

Sliding contact surfaces: Steel / PTFE composite material

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	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	
GE4C	4	12	5	3	8	0.3	0.3	16	2.1	5.4
GE5C	5	14	6	4	10	0.3	0.3	13	3.6	9.1
GE6C	6	14	6	4	10	0.3	0.3	13	3.6	9.1
GE8C	8	16	8	5	13	0.3	0.3	15	5.8	14
GE10C	10	19	9	6	16	0.3	0.3	12	8.6	21
GE12C	12	22	10	7	18	0.3	0.3	10	11	28
GE15C	15	26	12	9	22	0.3	0.3	8	18	45
GE17C	17	30	14	10	25	0.3	0.3	10	22	56
GE20C	20	35	16	12	29	0.3	0.3	9	31	78
GE25C	25	42	20	16	35.5	0.6	0.6	7	51	127
GE30C	30	47	22	18	40.7	0.6	0.6	6	65	166
GE35C	35	55	25	20	47	0.6	1	6	84	211
GE40C	40	62	28	22	53	0.6	1	7	104	262
GE45C	45	68	32	25	60	0.6	1	7	135	337
GE50C	50	75	35	28	66	0.6	1	6	166	415
<hr/>										
GEG4C	4	14	7	4	10	0.3	0.3	20	3.6	9.1
GEG5C	5	16	9	5	13	0.3	0.3	21	5.8	14
GEG6C	6	16	9	5	13	0.3	0.3	21	5.8	14
GEG8C	8	19	11	6	16	0.3	0.3	21	8.6	21
GEG10C	10	22	12	7	18	0.3	0.3	18	11	28
GEG12C	12	26	15	9	22	0.3	0.3	18	18	45
GEG15C	15	30	16	10	25	0.3	0.3	16	22	56
GEG17C	17	35	20	12	29	0.3	0.3	19	31	78
GEG20C	20	42	25	16	35.5	0.3	0.3	17	51	127
GEG25C	25	47	28	18	40.7	0.6	0.6	17	65	166
GEG30C	30	55	32	20	47	0.6	0.6	17	84	211
GEG35C	35	62	35	22	53	0.6	1	16	104	262
GEG40C	40	68	40	25	60	0.6	1	17	135	337
GEG45C	45	75	43	28	66	0.6	1	15	166	415

向心关节轴承

Radial Spherical Plain Bearings



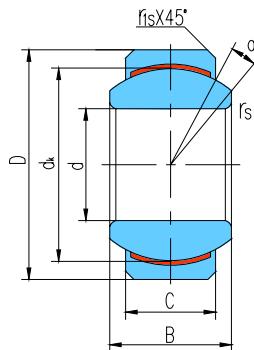
滑动摩擦副: 钢 / PTFE 复合材料

Sliding contact surfaces: Steel / PTFE composite material

轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm								额定载荷 Load ratings kN		重 量 Weight ≈kg
	d	D	B	C	d _k	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEBJ5C	5	13	8	6	11.112	0.3	0.3	13	6	15	0.006
GEBJ6C	6	16	9	6.75	12.7	0.3	0.3	13	7.7	19	0.010
GEBJ8C	8	19	12	9	15.88	0.3	0.3	13	13	32	0.018
GEBJ10C	10	22	14	10.5	19.05	0.3	0.6	13	18	45	0.027
GEBJ12C	12	26	16	12	22.23	0.3	0.6	13	24	60	0.043
GEBJ14C	14	28	19	13.5	25.4	0.3	0.6	15	31	77	0.055
GEBJ16C	16	32	21	15	28.58	0.3	0.6	15	38	96	0.081
GEBJ18C	18	35	23	16.5	31.75	0.6	0.6	15	47	117	0.103
GEBJ20C	20	40	25	18	34.93	0.6	0.6	15	56	141	0.149
GEBJ22C	22	42	28	20	38.1	0.6	0.6	15	68	171	0.176
GEBJ25C	25	47	31	22	42.86	0.6	0.6	15	84	212	0.242
GEBJ30C	30	55	37	25	50.8	0.6	0.6	15	113	283	0.378

向心关节轴承

Radial Spherical Plain Bearings



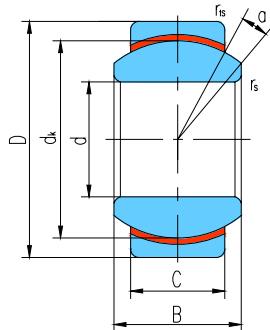
滑动摩擦副: 钢 / PTFE 复合材料

Sliding contact surfaces: Steel / PTFE composite material

轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm/inch								额定载荷 Load ratings kN		重 量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEFZ4C	4.83	14.29	7.14	5.54	10.31	0.3	0.38	11	5.1	12.8	0.006
	0.19	0.5625	0.281	0.218	0.406	0.012	0.015				
GEFZ6C	6.35	16.67	8.71	6.35	12.70	0.3	0.56	13.5	7.2	18.4	0.010
	0.25	0.6562	0.343	0.25	0.5	0.012	0.022				
GEFZ7C	7.94	19.05	9.53	7.14	14.27	0.3	0.81	12	9.1	22.9	0.014
	0.3125	0.75	0.375	0.281	0.562	0.012	0.032				
GEFZ9C	9.53	20.64	10.31	7.92	16.66	0.3	0.81	10	11.8	29.6	0.018
	0.375	0.8125	0.406	0.312	0.656	0.012	0.032				
GEFZ11C	11.11	23.02	11.10	8.71	17.45	0.3	0.81	8	13.6	34.1	0.021
	0.4375	0.9062	0.437	0.343	0.687	0.012	0.032				
GEFZ12C	12.70	25.40	12.70	9.91	20.65	0.3	0.81	9.5	18.4	46	0.029
	0.5	1	0.5	0.39	0.813	0.012	0.032				
GEFZ14C	14.29	27.78	14.27	11.10	23.01	0.3	0.81	9.5	23	57.4	0.042
	0.5625	1.0937	0.562	0.437	0.906	0.012	0.032				
GEFZ15C	15.88	30.16	15.88	12.70	25.40	0.3	0.81	9.5	29	72.5	0.053
	0.625	1.1875	0.625	0.5	1	0.012	0.032				
GEFZ19C	19.05	36.51	19.05	15.06	30.15	0.3	1.12	9	40.8	102.1	0.094
	0.75	1.4375	0.75	0.593	1.187	0.012	0.044				
GEFZ22C	22.23	39.69	22.23	17.86	33.32	0.6	1.12	9.5	53.5	133.8	0.119
	0.875	1.5625	0.875	0.703	1.312	0.024	0.044				
GEFZ25C	25.40	44.45	25.40	20.24	38.10	0.6	1.12	10	69.4	173.5	0.173
	1	1.75	1	0.797	1.5	0.024	0.044				

向心关节轴承

Radial Spherical Plain Bearings



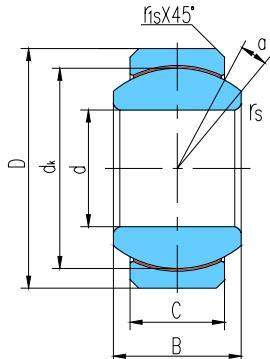
滑动摩擦副: 钢 / PTFE 塑料

Sliding contact surfaces: Stainless steel / PTFE plastic

轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm								额定载荷 Load ratings kN		重 量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE10N	10	19	9	6	16	0.3	0.3	12	5.7	8.6	0.011
GE12N	12	22	10	7	18	0.3	0.3	10	7.5	11	0.017
GE15N	15	26	12	9	22	0.3	0.3	8	11	17	0.026
GE17N	17	30	14	10	25	0.3	0.3	10	15	22	0.040
GE20N	20	35	16	12	29	0.3	0.3	9	20	31	0.064
GE25N	25	42	20	16	35.5	0.6	0.6	7	34	51	0.115
GE30N	30	47	22	18	40.7	0.6	0.6	6	43	65	0.149
GE35N	35	55	25	20	47	0.6	1	6	56	84	0.228
GE40N	40	62	28	22	53	0.6	1	7	69	104	0.318
GE45N	45	68	32	25	60	0.6	1	7	90	135	0.421
GE50N	50	75	35	28	66	0.6	1	6	110	166	0.562
GE60N	60	90	44	36	80	1	1	6	172	259	1.03
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GEG8N	8	19	11	6	16	0.3	0.3	21	5.7	8.6	0.014
GEG10N	10	22	12	7	18	0.3	0.3	18	7.5	11	0.021
GEG12N	12	26	15	9	22	0.3	0.3	18	11	17	0.033
GEG15N	15	30	16	10	25	0.3	0.3	16	15	22	0.049
GEG17N	17	35	20	12	29	0.3	0.3	19	20	31	0.083
GEG20N	20	42	25	16	35.5	0.3	0.6	17	34	51	0.153
GEG25N	25	47	28	18	40.7	0.6	0.6	17	43	65	0.203
GEG30N	30	55	32	20	47	0.6	1	17	56	84	0.304
GEG35N	35	62	35	22	53	0.6	1	16	69	104	0.408
GEG40N	40	68	40	25	60	0.6	1	17	90	135	0.542
GEG45N	45	75	43	28	66	0.6	1	15	110	166	0.713
GEG50N	50	90	56	36	80	0.6	1	17	172	259	1.14

向心关节轴承

Radial Spherical Plain Bearings



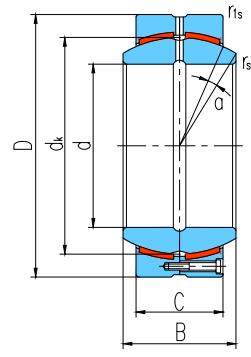
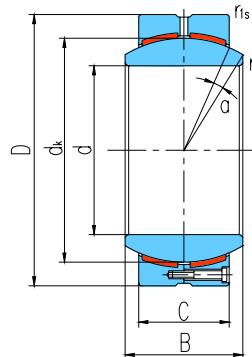
滑动摩擦副：钢 / PTFE 编织物

Sliding contact surfaces: Steel / PTFE fabric

轴承型号 Bearing number	外形尺寸 Dimensions mm/inch								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEFZ4T	4.83	14.29	7.14	5.54	10.31	0.3	0.38	11	7.4	11	0.006
	0.19	0.5625	0.281	0.218	0.406	0.012	0.015				
GEFZ6T	6.35	16.67	8.71	6.35	12.70	0.3	0.56	13.5	10	15	0.010
	0.25	0.6562	0.343	0.25	0.5	0.012	0.022				
GEFZ7T	7.94	19.05	9.53	7.14	14.27	0.3	0.81	12	13	19	0.014
	0.3125	0.75	0.375	0.281	0.562	0.012	0.032				
GEFZ9T	9.53	20.64	10.31	7.92	16.66	0.3	0.81	10	17	25	0.018
	0.375	0.8125	0.406	0.312	0.656	0.012	0.032				
GEFZ11T	11.11	23.02	11.10	8.71	17.45	0.3	0.81	8	19	28	0.021
	0.4375	0.9062	0.437	0.343	0.687	0.012	0.032				
GEFZ12T	12.70	25.40	12.70	9.91	20.65	0.3	0.81	9.5	26	39	0.029
	0.5	1	0.5	0.39	0.813	0.012	0.032				
GEFZ14T	14.29	27.78	14.27	11.10	23.01	0.3	0.81	9.5	33	49	0.042
	0.5625	1.0937	0.562	0.437	0.906	0.012	0.032				
GEFZ15T	15.88	30.16	15.88	12.70	25.40	0.3	0.81	9.5	41	61	0.053
	0.625	1.1875	0.625	0.5	1	0.012	0.032				
GEFZ19T	19.05	36.51	19.05	15.06	30.15	0.3	1.12	9	59	88	0.094
	0.75	1.4375	0.75	0.593	1.187	0.012	0.044				
GEFZ22T	22.23	39.69	22.23	17.86	33.32	0.6	1.12	9.5	89	133	0.119
	0.875	1.5625	0.875	0.703	1.312	0.024	0.044				
GEFZ25T	25.40	44.45	25.40	20.24	38.10	0.6	1.12	10	115	172	0.173
	1	1.75	1	0.797	1.5	0.024	0.044				

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 复合材料

Sliding contact surfaces: Steel / PTFE composite material

GEH...HC

GEH...HCS

轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm								额定载荷 Load ratings kN		重 量 Weight ≈kg	
	d	D	B	C	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static		
GEH100HC	GEH100HCS	100	150	71	67	135	1	1	2	900	1800	5.07
GEH110HC	GEH110HCS	110	160	78	74	145	1	1	2	1070	2140	6.21
GEH120HC	GEH120HCS	120	180	85	80	160	1	1	2	1280	2560	8.87
GEH140HC	GEH140HCS	140	210	100	95	185	1	1	2	1750	3500	14.6
GEH160HC	GEH160HCS	160	230	115	109	210	1	1	2	2280	4560	18.6
GEH180HC	GEH180HCS	180	260	128	122	240	1.1	1.1	2	2920	5840	26.7
GEH200HC	GEH200HCS	200	290	140	134	260	1.1	1.1	2	3480	6960	37.1
GEH220HC	GEH220HCS	220	320	155	148	290	1.1	1.1	2	4290	8580	49.4
GEH240HC	GEH240HCS	240	340	170	162	310	1.1	1.1	2	5020	10040	57.9
GEH260HC	GEH260HCS	260	370	185	175	340	1.1	1.1	2	5950	11900	75.2
GEH280HC	GEH280HCS	280	400	200	190	370	1.1	1.1	2	7030	14060	96
GEH300HC	GEH300HCS	300	430	212	200	390	1.1	1.1	2	7800	15600	117
GEH320HC	GEH320HCS	320	460	230	218	414	1.1	3	2	9020	18040	148
GEH340HC	GEH340HCS	340	480	243	230	434	1.1	3	2	9980	19960	163
GEH360HC	GEH360HCS	360	520	258	243	474	1.1	4	2	11510	23020	213
GEH380HC	GEH380HCS	380	540	272	258	494	1.5	4	2	12740	25480	236
GEH400HC	GEH400HCS	400	580	280	265	514	1.5	4	2	13620	27240	290
GEH420HC	GEH420HCS	420	600	300	280	534	1.5	4	2	14950	29900	319
GEH440HC	GEH440HCS	440	630	315	300	574	1.5	4	2	17220	34440	379
GEH460HC	GEH460HCS	460	650	325	308	593	1.5	4	2	18260	36520	404
GEH480HC	GEH480HCS	480	680	340	320	623	2	5	2	19930	39860	463
GEH500HC	GEH500HCS	500	710	355	335	643	2	5	2	21540	43080	529
GEH530HC	GEH530HCS	530	750	375	355	673	2	5	2	23890	47780	620
GEH560HC	GEH560HCS	560	800	400	380	723	2	5	2	27470	54940	770
GEH600HC	GEH600HCS	600	850	425	400	773	2	6	2	30920	61840	903
GEH630HC	GEH630HCS	630	900	450	425	813	3	6	2	34550	69100	1092

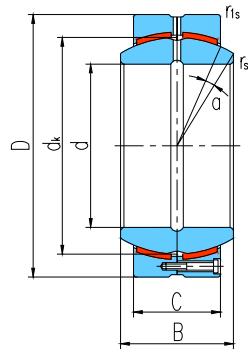
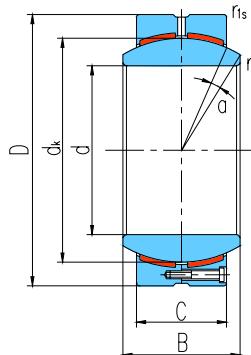
可提供滑动摩擦副为钢 / 双金属或钢 / 聚甲醛的向心关节轴承。Can supply other spherical bearings with Sliding contact surfaces Steel / Double metal or Steel / Polyformaldehyde.

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 复合材料
Sliding contact surfaces: Steel / PTFE composite material



GEC...HC

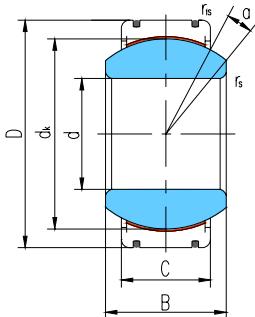
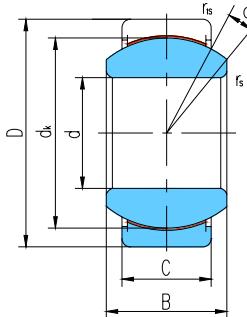
GEC...HCS

轴承型号 Bearing number	外形尺寸 Dimensions mm								额定载荷 Load ratings kN		重量 Weight ≈kg	
	d	D	B	C	dk	r _s min	r _{is} min	α° ≈	动载荷 Dynamic	静载荷 Static		
GEC320HC	GEC320HCS	320	440	160	135	380	1.1	3	4	5130	10260	78
GEC340HC	GEC340HCS	340	460	160	135	400	1.1	3	3	5400	10800	83
GEC360HC	GEC360HCS	360	480	160	135	420	1.1	3	3	5670	11340	87
GEC380HC	GEC380HCS	380	520	190	160	450	1.5	4	4	7200	14400	129
GEC400HC	GEC400HCS	400	540	190	160	470	1.5	4	3	7520	15040	135
GEC420HC	GEC420HCS	420	560	190	160	490	1.5	4	3	7840	15680	141
GEC440HC	GEC440HCS	440	600	218	185	520	1.5	4	3	9620	19240	196
GEC460HC	GEC460HCS	460	620	218	185	540	1.5	4	3	9990	19980	204
GEC480HC	GEC480HCS	480	650	230	195	565	2	5	3	11000	22000	239
GEC500HC	GEC500HCS	500	670	230	195	585	2	5	3	11400	22800	248
GEC530HC	GEC530HCS	530	710	243	205	620	2	5	3	12710	25420	294
GEC560HC	GEC560HCS	560	750	258	215	655	2	5	4	14080	28160	345
GEC600HC	GEC600HCS	600	800	272	230	700	2	5	3	16100	32200	413

可提供滑动摩擦副为钢 / 双金属或钢 / 聚甲醛的向心关节轴承。Can supply other spherical bearings with Sliding contact surfaces Steel / Double metal or Steel / Polyformaldehyde.

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 编织物

Sliding contact surfaces: Steel / PTFE fabric

GE...ET-2RS

GE...XT-2RS

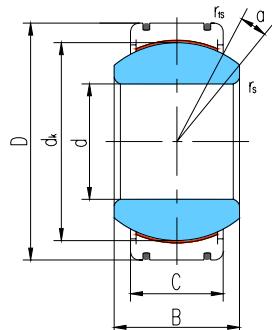
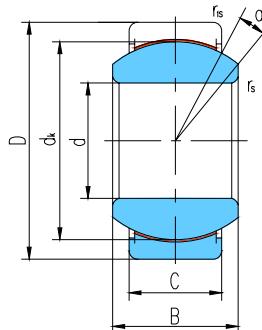
轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions								额定载荷 Load ratings kN		重 量 Weight ≈kg
	d	D	B	C	d _k	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE15ET-2RS	15	26	12	9	22	0.3	0.3	8	25	59	0.026
GE17ET-2RS	17	30	14	10	25	0.3	0.3	10	32	75	0.040
GE20ET-2RS	20	35	16	12	29	0.3	0.3	9	45	104	0.064
GE25ET-2RS	25	42	20	16	35.5	0.6	0.6	7	85	204	0.115
GE30ET-2RS	30	47	22	18	40.7	0.6	0.6	6	110	263	0.149
GE35ET-2RS	35	55	25	20	47	0.6	1	6	140	338	0.228
GE40ET-2RS	40	62	28	22	53	0.6	1	7	175	419	0.318
GE45ET-2RS	45	68	32	25	60	0.6	1	7	225	540	0.421
GE50ET-2RS	50	75	35	28	66	0.6	1	6	275	665	0.562
GE55ET-2RS	55	85	40	32	74	0.6	1	7	355	852	0.864
GE60ET-2RS	60	90	44	36	80	1	1	6	430	1030	1.03
GE70ET-2RS	70	105	49	40	92	1	1	6	550	1320	1.57
GE80ET-2RS	80	120	55	45	105	1	1	6	705	1700	2.32
GE90ET-2RS	90	130	60	50	115	1	1	5	860	2070	2.79
GE100ET-2RS	100	150	70	55	130	1	1	7	1070	2570	4.44
GE110ET-2RS	110	160	70	55	140	1	1	6	1150	2770	4.83
GE120ET-2RS	120	180	85	70	160	1	1	6	1680	4030	8.11
GE140XT-2RS	140	210	90	70	180	1	1	7	1890	4530	11.2
GE160XT-2RS	160	230	105	80	200	1	1	8	2400	5760	14.1
GE180XT-2RS	180	260	105	80	225	1.1	1.1	6	2700	6480	18.5
GE200XT-2RS	200	290	130	100	250	1.1	1.1	7	3750	9000	28.4
GE220XT-2RS	220	320	135	100	275	1.1	1.1	8	4120	9900	35.7
GE240XT-2RS	240	340	140	100	300	1.1	1.1	8	4500	10800	39.7
GE260XT-2RS	260	370	150	110	325	1.1	1.1	7	5360	12870	51.5
GE280XT-2RS	280	400	155	120	350	1.1	1.1	6	6300	15120	64.9
GE300XT-2RS	300	430	165	120	375	1.1	1.1	7	6750	16200	77.6

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 编织物
Sliding contact surfaces: Steel / 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	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEG15ET-2RS	15	30	16	10	25	0.3	0.3	16	32	75	0.048
GEG17ET-2RS	17	35	20	12	29	0.3	0.3	19	45	104	0.080
GEG20ET-2RS	20	42	25	16	35.5	0.3	0.6	17	85	204	0.152
GEG25ET-2RS	25	47	28	18	40.7	0.6	0.6	17	110	263	0.199
GEG30ET-2RS	30	55	32	20	47	0.6	1	17	140	338	0.296
GEG35ET-2RS	35	62	35	22	53	0.6	1	16	175	419	0.402
GEG40ET-2RS	40	68	40	25	60	0.6	1	17	225	540	0.535
GEG45ET-2RS	45	75	43	28	66	0.6	1	15	275	665	0.698
GEG50ET-2RS	50	90	56	36	80	0.6	1	17	430	1030	1.42
GEG60ET-2RS	60	105	63	40	92	1	1	17	550	1320	2.09
GEG70ET-2RS	70	120	70	45	105	1	1	16	705	1700	3.01
GEG80ET-2RS	80	130	75	50	115	1	1	14	860	2070	3.61
GEG90ET-2RS	90	150	85	55	130	1	1	15	1070	2570	5.50
GEG100ET-2RS	100	160	85	55	140	1	1	14	1150	2770	6.04
GEG110ET-2RS	110	180	100	70	160	1	1	12	1680	4030	9.74
GEG120XT-2RS	120	210	115	70	180	1	1	16	1890	4530	15.1
GEG140XT-2RS	140	230	130	80	200	1	1	16	2400	5760	18.9
GEG160XT-2RS	160	260	135	80	225	1.1	1.1	16	2700	6480	24.8
GEG180XT-2RS	180	290	155	100	250	1.1	1.1	14	3750	9000	35.9
GEG200XT-2RS	200	320	165	100	275	1.1	1.1	15	4120	9900	44.9
GEG220XT-2RS	220	340	175	100	300	1.1	1.1	16	4500	10800	50.9
GEG240XT-2RS	240	370	190	110	325	1.1	1.1	15	5360	12870	65.3
GEG260XT-2RS	260	400	205	120	350	1.1	1.1	15	6300	15120	82.0
GEG280XT-2RS	280	430	210	120	375	1.1	1.1	15	6750	16200	96.6

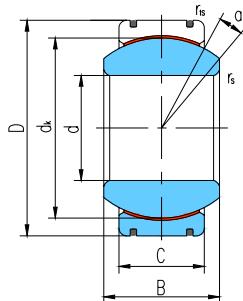
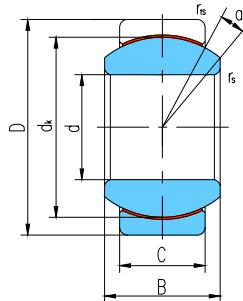
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 不锈钢 / PTFE 编织物

Sliding contact surfaces: Stainless steel / PTFE fabric



GE...ET/X

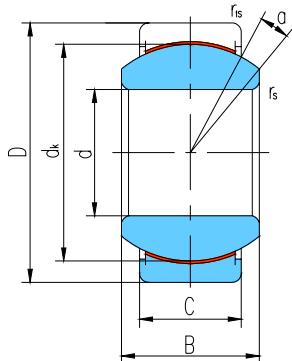
GE...XT/X

轴承型号 Bearing number	外形尺寸 Dimensions								额定载荷 Load ratings		重量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GE15ET/X	15	26	12	9	22	0.3	0.3	8	25	59	0.026
GE17ET/X	17	30	14	10	25	0.3	0.3	10	32	75	0.040
GE20ET/X	20	35	16	12	29	0.3	0.3	9	45	104	0.064
GE25ET/X	25	42	20	16	35.5	0.6	0.6	7	85	204	0.115
GE30ET/X	30	47	22	18	40.7	0.6	0.6	6	110	263	0.149
GE35ET/X	35	55	25	20	47	0.6	1	6	140	338	0.228
GE40ET/X	40	62	28	22	53	0.6	1	7	175	419	0.318
GE45ET/X	45	68	32	25	60	0.6	1	7	225	540	0.421
GE50ET/X	50	75	35	28	66	0.6	1	6	275	665	0.562
GE55ET/X	55	85	40	32	74	0.6	1	7	355	852	0.864
GE60ET/X	60	90	44	36	80	1	1	6	430	1030	1.03
GE70XT/X	70	105	49	40	92	1	1	6	550	1320	1.57
GE80XT/X	80	120	55	45	105	1	1	6	705	1700	2.32
GE90XT/X	90	130	60	50	115	1	1	5	860	2070	2.79
GE100XT/X	100	150	70	55	130	1	1	7	1070	2570	4.44
GE110XT/X	110	160	70	55	140	1	1	6	1150	2770	4.83
GE120XT/X	120	180	85	70	160	1	1	6	1680	4030	8.11
GE140XT/X	140	210	90	70	180	1	1	7	1890	4530	11.2
GE160XT/X	160	230	105	80	200	1	1	8	2400	5760	14.1
GE180XT/X	180	260	105	80	225	1.1	1.1	6	2700	6480	18.5
GE200XT/X	200	290	130	100	250	1.1	1.1	7	3750	9000	28.4
GE220XT/X	220	320	135	100	275	1.1	1.1	8	4120	9900	35.7
GE240XT/X	240	340	140	100	300	1.1	1.1	8	4500	10800	39.7
GE260XT/X	260	370	150	110	325	1.1	1.1	7	5360	12870	51.5
GE280XT/X	280	400	155	120	350	1.1	1.1	6	6300	15120	64.9
GE300XT/X	300	430	165	120	375	1.1	1.1	7	6750	16200	77.6

可提供带密封圈的向心关节轴承。 Can supply spherical plain bearing with two seals.

向心关节轴承

Radial Spherical Plain Bearings



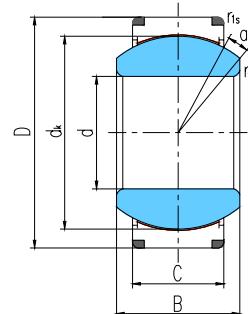
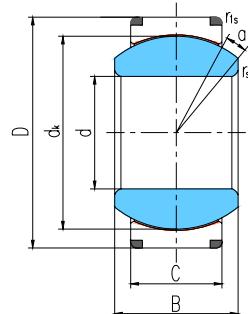
滑动摩擦副: 钢 / PTFE 编织物

Sliding contact surfaces: Steel / PTFE fabric

轴承型号 Bearing number	外形尺寸 Dimensions mm/inch								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_ls 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				

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 编织物

Sliding contact surfaces: Steel / PTFE fabric

GEC(H)…XT

GEC(H)…XT-2RS

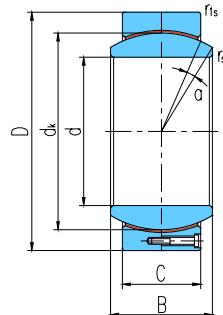
轴承型号 Bearing number	外形尺寸 Dimensions mm								额定载荷 Load ratings kN		重量 Weight ≈kg
	d	D	B	C	d _k	r _s min	r _{is} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEC320XT	GEC320XT-2RS	320	440	160	135	380	1.1	3	4	9230	18460
GEC340XT	GEC340XT-2RS	340	460	160	135	400	1.1	3	3	9720	19440
GEC360XT	GEC360XT-2RS	360	480	160	135	420	1.1	3	3	10200	20400
GEC380XT	GEC380XT-2RS	380	520	190	160	450	1.5	4	4	12960	25920
GEC400XT	GEC400XT-2RS	400	540	190	160	470	1.5	4	3	13530	27060
GEC420XT	GEC420XT-2RS	420	560	190	160	490	1.5	4	3	14110	28220
GEC440XT	GEC440XT-2RS	440	600	218	185	520	1.5	4	3	17310	34620
GEC460XT	GEC460XT-2RS	460	620	218	185	540	1.5	4	3	17980	35960
GEC480XT	GEC480XT-2RS	480	640	218	185	560	1.5	4	3	18650	37920
GEH100XT	GEH100XT-2RS	100	150	71	67	135	1	1	2	1350	3250
GEH110XT	GEH110XT-2RS	110	160	78	74	145	1	1	2	1600	3860
GEH120XT	GEH120XT-2RS	120	180	85	80	160	1	1	2	1920	4600
GEH140XT	GEH140XT-2RS	140	210	100	95	185	1	1	2	2630	6320
GEH160XT	GEH160XT-2RS	160	230	115	109	210	1	1	2	3430	8240
GEH180XT	GEH180XT-2RS	180	260	128	122	240	1.1	1.1	2	4390	10540
GEH200XT	GEH200XT-2RS	200	290	140	134	260	1.1	1.1	2	5220	12540
GEH220XT	GEH220XT-2RS	220	320	155	148	290	1.1	1.1	2	6430	15450
GEH240XT	GEH240XT-2RS	240	340	170	162	310	1.1	1.1	2	7530	18070
GEH260XT	GEH260XT-2RS	260	370	185	175	340	1.1	1.1	2	8920	21420
GEH280XT	GEH280XT-2RS	280	400	200	190	370	1.1	1.1	2	10540	25300
GEH300XT	GEH300XT-2RS	300	430	212	200	390	1.1	1.1	2	11700	28080
GEH320XT	GEH320XT-2RS	320	460	230	218	414	1.1	3	2	16240	32480
GEH340XT	GEH340XT-2RS	340	480	243	230	434	1.1	3	2	17960	35920
GEH360XT	GEH360XT-2RS	360	520	258	243	474	1.1	4	2	20730	41460
GEH380XT	GEH380XT-2RS	380	540	272	258	494	1.5	4	2	22940	45880
GEH400XT	GEH400XT-2RS	400	580	280	265	514	1.5	4	2	24510	49020
GEH420XT	GEH420XT-2RS	420	600	300	280	534	1.5	4	2	26910	53920
GEH440XT	GEH440XT-2RS	440	620	318	285	554	1.5	4	2	28580	57920

向心关节轴承

Radial Spherical Plain Bearings



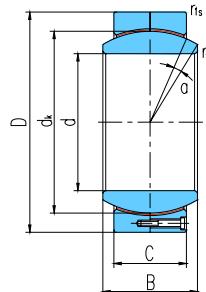
滑动摩擦副: 钢 / PTFE 编织物
Sliding contact surfaces: Steel / PTFE fabric



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	d_k	r_s min	r_ls min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEC320HT	320	440	160	135	380	1.1	3	4	9230	18460	78
GEC340HT	340	460	160	135	400	1.1	3	3	9720	19440	83
GEC360HT	360	480	160	135	420	1.1	3	3	10200	20400	87
GEC380HT	380	520	190	160	450	1.5	4	4	12960	25920	129
GEC400HT	400	540	190	160	470	1.5	4	3	13530	27060	135
GEC420HT	420	560	190	160	490	1.5	4	3	14110	28220	141
GEC440HT	440	600	218	185	520	1.5	4	3	17310	34620	196
GEC460HT	460	620	218	185	540	1.5	4	3	17980	35960	204
GEC480HT	480	650	230	195	565	2	5	3	19830	39660	239
GEC500HT	500	670	230	195	585	2	5	3	20530	41060	248
GEC530HT	530	710	243	205	620	2	5	3	22870	45740	294
GEC560HT	560	750	258	215	655	2	5	4	25340	50680	345
GEC600HT	600	800	272	230	700	2	5	3	28980	57960	413

向心关节轴承

Radial Spherical Plain Bearings

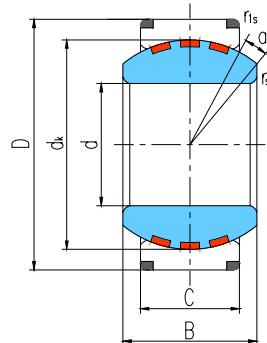


滑动摩擦副: 钢 / PTFE 编织物
Sliding contact surfaces: Steel / PTFE fabric

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	d _k	r _s min	r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GEH100HT	100	150	71	67	135	1	1	2	1350	3250	5.07
GEH110HT	110	160	78	74	145	1	1	2	1600	3860	6.21
GEH120HT	120	180	85	80	160	1	1	2	1920	4600	8.87
GEH140HT	140	210	100	95	185	1	1	2	2630	6320	14.6
GEH160HT	160	230	115	109	210	1	1	2	3430	8240	18.6
GEH180HT	180	260	128	122	240	1.1	1.1	2	4390	10540	26.7
GEH200HT	200	290	140	134	260	1.1	1.1	2	5220	12540	37.1
GEH220HT	220	320	155	148	290	1.1	1.1	2	6430	15450	49.4
GEH240HT	240	340	170	162	310	1.1	1.1	2	7530	18070	57.9
GEH260HT	260	370	185	175	340	1.1	1.1	2	8920	21420	75.2
GEH280HT	280	400	200	190	370	1.1	1.1	2	10540	25300	96
GEH300HT	300	430	212	200	390	1.1	1.1	2	11700	28080	117
GEH320HT	320	460	230	218	414	1.1	3	2	16240	32480	148
GEH340HT	340	480	243	230	434	1.1	3	2	17960	35920	163
GEH360HT	360	520	258	243	474	1.1	4	2	20730	41460	213
GEH380HT	380	540	272	258	494	1.5	4	2	22940	45880	236
GEH400HT	400	580	280	265	514	1.5	4	2	24510	49020	290
GEH420HT	420	600	300	280	534	1.5	4	2	26910	53920	319
GEH440HT	440	630	315	300	574	1.5	4	2	30990	61980	379
GEH460HT	460	650	325	308	593	1.5	4	2	32870	65740	404
GEH480HT	480	680	340	320	623	2	5	2	35880	71760	463
GEH500HT	500	710	355	335	643	2	5	2	38770	77540	529
GEH530HT	530	750	375	355	673	2	5	2	43000	86000	620
GEH560HT	560	800	400	380	723	2	5	2	49450	98900	770
GEH600HT	600	850	425	400	773	2	6	2	55650	111300	903
GEH630HT	630	900	450	425	813	3	6	2	62190	124380	1092
GEH670HT	670	950	475	450	862	3	6	2	69820	139640	1270
GEH710HT	710	1000	500	475	912	3	6	2	77970	155940	1465
GEH750HT	750	1060	530	500	972	3	6	2	87480	174960	1750
GEH800HT	800	1120	565	530	1022	3	6	2	97490	194980	2029

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 铜合金

Sliding contact surfaces: 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	d_k	r_s min	r_{ls} min	α° ≈	动载荷 Dynamic		
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
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

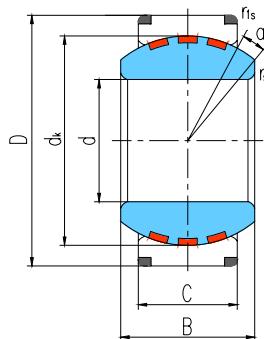
向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 铜合金

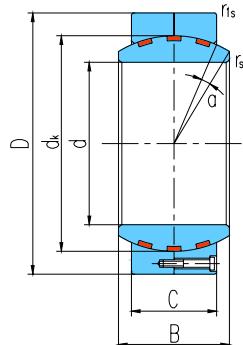
Sliding contact surfaces: Steel / Copper alloy



轴 承 型 号 Bearing number	外 形 尺 寸 Dimensions mm								额定载荷 Load ratings kN		重 量 Weight ≈kg
	d	D	B	C	d_k	r_s min	r_{ls} 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

向心关节轴承

Radial Spherical Plain Bearings



滑动摩擦副: 钢 / 铜合金

Sliding contact surfaces: 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	d _k	r _s min	r _{ls} 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
GEH670HF/Q	670	950	475	450	862	3	6	2	38790	77580	1248
GEH710HF/Q	710	1000	500	475	912	3	6	2	43320	86640	1440
GEH750HF/Q	750	1060	530	500	972	3	6	2	48600	97200	1722
GEH800HF/Q	800	1120	565	530	1022	3	6	2	54160	108320	1998

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。LS 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。

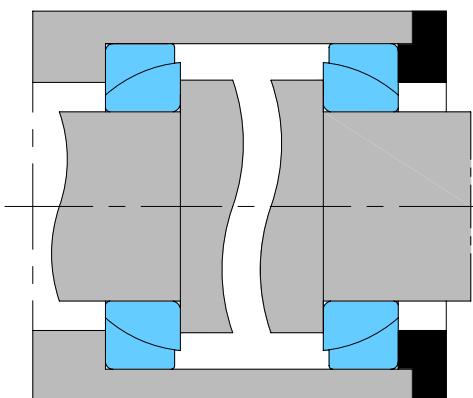
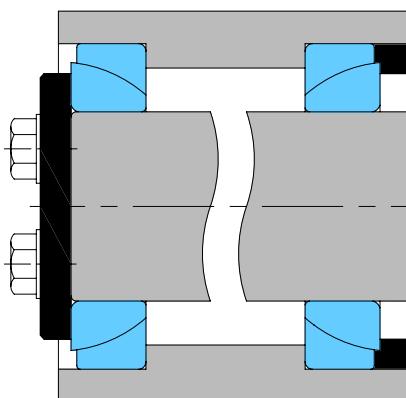
LS 钢对钢角接触关节轴承经过淬火，磷化和涂敷二硫化钼，具有耐磨损、抗腐蚀的特点。在正常情况下，周期性润滑是必须的。为了确保有效的润滑，外圈有润滑油槽油孔。由于滑动表面具有很高的强度，这种轴承特别适合于承受交变重载、冲击载荷和静态重载。

LS 自润滑角接触关节轴承滑动摩擦副是钢对 PTFE 编织物和钢对 PTFE 塑料，这类轴承具有较低的摩擦系数，工作中不需维护，一般情况下润滑都会降低轴承的使用寿命。它们应用于需要较长使用寿命或工作中无法润滑的机械机构中，适合于承受恒定方向重载。

The spherically sliding contact surfaces of angular contact spherical plain bearings are inclined at an angle to the bearing axis. They are therefore particularly suitable for carrying combined (radial and axial) loads. A single angular contact spherical plain bearing can only accept axial loads acting in one direction. Under radial loads, a force acting in the axial direction is produced in the bearing which must always be opposed by an equal force acting in the opposite direction. Therefore, the bearings are usually adjusted against a second bearing. When two angular contact spherical plain bearings are arranged so that their sphere centres coincide, a clearance-free radial spherical plain bearing is obtained which can accommodate heavy radial loads as well as heavy axial loads in both directions. LS angular contact spherical plain bearings are available with different sliding contact surface combinations, i.e. the sliding surfaces of inner and outer rings are made from different materials. There are two main groups: steel-on-steel angular contact spherical plain bearings and maintenance-free angular contact spherical plain bearings.

LS steel-on-steel angular contact spherical plain bearings are made of carbon chromium steel and are hardened and phosphated, it has characteristics of wear-resistance and wear-corrosion. The inner and outer rings sliding contact surface are treated with molybdenum disulphide. Bearings with this sliding contact surface combination require regular relubrication. To facilitate efficient lubrication, outer ring has an annular groove and two lubrication holes. The high strength of the sliding surfaces makes these bearings especially suitable for bearing arrangements where heavy loads of alternating direction, shock loads or heavy static loads have to be accommodated.

LS maintenance-free angular contact spherical plain bearings have sliding contact surface combinations steel-on-PTFE fabric and steel-on-PTFE plastic, they have very low friction and can be operated without maintenance, any lubrication of the sliding contact surfaces will shorten bearing life. They are used for applications where long bearing lives are required without maintenance, or where operating conditions, such as inadequate lubrication or the absence of lubrication make the use of steel-on-steel bearing inadvisable. The maintenance-free bearings are primarily intended for applications where loads are heavy and have a constant direction.



角接触关节轴承公差

Tolerances for angular contact spherical plain bearings

内圈和轴承宽度 Inner ring and width of bearing

d mm		Δd_{mp} um		Vdp um	Vdmp um	ΔBs um		ΔTs um	
超过 over	到 incl.	max	min	max	max	max	min	max	min
—	50	0	-12	12	9	0	-240	+250	-400
50	80	0	-15	15	11	0	-300	+250	-500
80	120	0	-20	20	15	0	-400	+250	-600
120	180	0	-25	25	19	0	-500	+350	-700
180	200	0	-30	30	23	0	-600	+350	-800

外圈 Outer ring

D mm		ΔD_{mp} um		Vdp um	VDmp um	ΔCs um	
超过 over	到 incl.	max	min	max	max	max	min
—	50	0	-14	14	11	0	-240
50	80	0	-16	16	12	0	-300
80	120	0	-18	18	14	0	-400
120	150	0	-20	20	15	0	-500
150	180	0	-25	25	19	0	-500
180	250	0	-30	30	23	0	-600
250	315	0	-35	35	26	0	-700

尺寸和公差符号说明详见 P25

Details of dimension and tolerance symbols see page 25

角接触关节轴承配合

Fits of angular contact spherical plain bearings

轴配合 Shaft fits

工作条件 Operating conditions	滑动摩擦副 Sliding contact surface combination	
	润滑型 requiring maintenance	自润滑型 maintenance-free
各种载荷 过盈配合 Loads of all kinds, interference fit	m6	m6

支承座配合 Housing fits

工作条件 Operating conditions	滑动摩擦副 Sliding contact surface combination	
	润滑型 requiring maintenance	自润滑型 maintenance-free
各种载荷 过盈配合 Loads of all kinds, interference fit	M7	M7
各种载荷 可轴向移动 Loads of all kinds, can generally be displaced axially	J7	J7

轴径公差 Shaft diameter tolerances

轴径 Shaft diameter	mm	轴径公差 Shaft diameter tolerances um	
		m6	
超过 over	到 incl.	high	low
—	30	+21	+8
30	50	+25	+9
50	80	+30	+11
80	120	+35	+13
120	180	+40	+15
180	250	+46	+17

支承座孔公差 Housing bore tolerances

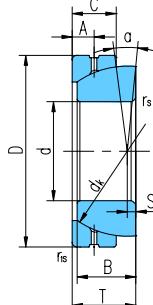
支承座孔径 Housing bore diameter mm		支承座孔公差 Housing bore tolerances um			
		J7		M7	
超过 over	到 incl.	low	high	low	high
—	50	-11	+14	-25	0
50	80	-12	+18	-30	0
80	120	-13	+22	-35	0
120	150	-14	+26	-40	0
150	180	-14	+26	-40	0
180	250	-16	+30	-46	0
250	315	-16	+36	-52	0

角接触关节轴承

Angular Contact Spherical Plain Bearings



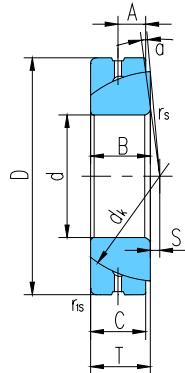
滑动摩擦副: 钢 / 钢
Sliding contact surfaces: Steel / Steel



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	d _k	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				

角接触关节轴承

Angular Contact Spherical Plain Bearings



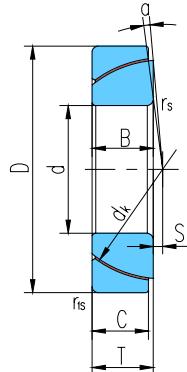
滑动摩擦副: 钢 / 钢

Sliding contact surfaces: 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	d_k	S	A	r_s, r_{ls} min	α° \approx	动载荷 Dynamic	静载荷 Static	
GAC25S	25	47	15	14	15	42	0.6	7.5	1	2.5	50	250	0.148
GAC28S	28	52	15	15	16	47	1	8	1	2	60	300	0.186
GAC30S	30	55	17	15	17	49.5	1.3	8.5	1	4.5	63	315	0.208
GAC32S	32	58	17	16	17	52	2	8.5	1	2	71	354	0.241
GAC35S	35	62	18	16	18	55.5	2.1	9	1	4	78	390	0.268
GAC40S	40	68	19	17	19	62	2.8	9.5	1	3.5	92	463	0.327
GAC45S	45	75	20	18	20	68.5	3.5	10	1	3	108	540	0.416
GAC50S	50	80	20	19	20	74	4.3	10	1	1.5	123	618	0.455
GAC55S	55	90	23	20	23	82	5	11.5	1.1	4	144	721	0.645
GAC60S	60	95	23	21	23	88.5	5.7	11.5	1.1	2.5	163	817	0.714
GAC65S	65	100	23	22	23	93.5	6.5	11.5	1.1	1	180	905	0.759
GAC70S	70	110	25	23	25	102	7.2	12.5	1.1	2	206	1030	1.04
GAC75S	75	115	25	24	25	107	7.9	12.5	1.1	1	220	1129	1.12
GAC80S	80	125	29	25.5	29	115	8.6	14.5	1.1	3.5	258	1290	1.54
GAC85S	85	130	29	26.5	29	122	9.4	14.5	1.1	2	284	1422	1.61
GAC90S	90	140	32	28	32	128.5	10.1	16	1.5	3.5	316	1580	2.09
GAC95S	95	145	32	29.5	32	135	10.8	16	1.5	2	350	1750	2.22
GAC100S	100	150	32	31	32	141	11.6	16	1.5	0.5	384	1923	2.34
GAC105S	105	160	35	32.5	35	148	12.3	17.5	2	2	423	2116	2.93
GAC110S	110	170	38	34	38	155	13	19	2	3	463	2318	3.68
GAC120S	120	180	38	37	38	168	14.5	19	2	0.5	547	2735	3.97
GAC130S	130	200	45	43	45	188	18	19	2.5	1	710	3550	5.92
GAC140S	140	210	45	43	45	198	19	19	2.5	1	740	3740	6.33
GAC150S	150	225	48	46	48	211	20	20.5	3	1	850	4270	8.01
GAC160S	160	240	51	49	51	225	20	22	3	1	970	4850	9.79
GAC170S	170	260	57	55	57	246	21	27	3	1	1190	5950	12.3
GAC180S	180	280	64	61	64	260	21	28	3	1	1395	6970	17.4
GAC190S	190	290	64	62	64	275	26	30	3	0.5	1500	7500	18.2
GAC200S	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 Bearings

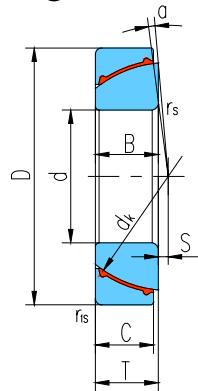


滑动摩擦副: 钢 / PTFE 编织物
Sliding contact surfaces: Steel / PTFE fabric

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	T	d_k	S	r_s, r_{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GAC25T	25	47	15	14	15	42	0.6	1	2.5	89	225	0.148
GAC28T	28	52	15	15	16	47	1	1	2	100	270	0.186
GAC30T	30	55	17	15	17	49.5	1.3	1	4.5	110	285	0.208
GAC32T	32	58	17	16	17	52	2	1	2	125	320	0.241
GAC35T	35	62	18	16	18	55.5	2.1	1	4	135	340	0.268
GAC40T	40	68	19	17	19	62	2.8	1	3.5	160	400	0.327
GAC45T	45	75	20	18	20	68.5	3.5	1	3	190	470	0.416
GAC50T	50	80	20	19	20	74	4.3	1	1.5	215	540	0.455
GAC55T	55	90	23	20	23	82	5	1.1	4	250	630	0.645
GAC60T	60	95	23	21	23	88.5	5.7	1.1	2.5	285	710	0.714
GAC65T	65	100	23	22	23	93.5	6.5	1.1	1	315	790	0.759
GAC70T	70	110	25	23	25	102	7.2	1.1	2	360	900	1.04
GAC75T	75	115	25	24	25	107	7.9	1.1	1	395	980	1.12
GAC80T	80	125	29	25.5	29	115	8.6	1.1	3.5	450	1120	1.54
GAC85T	85	130	29	26.5	29	122	9.4	1.1	2	495	1240	1.61
GAC90T	90	140	32	28	32	128.5	10.1	1.5	3.5	550	1380	2.09
GAC95T	95	145	32	29.5	32	135	10.8	1.5	2	610	1530	2.22
GAC100T	100	150	32	31	32	141	11.6	1.5	0.5	670	1680	2.34
GAC105T	105	160	35	32.5	35	148	12.3	2	2	740	1850	2.93
GAC110T	110	170	38	34	38	155	13	2	3	810	2020	3.68
GAC120T	120	180	38	37	38	168	14.5	2	0.5	955	2390	3.97
GAC130T	130	200	45	43	45	188	18	2.5	1	1240	3110	5.92
GAC140T	140	210	45	43	45	198	19	2.5	1	1310	3270	6.33
GAC150T	150	225	48	46	48	211	20	3	1	1490	3730	8.01
GAC160T	160	240	51	49	51	225	20	3	1	1690	4240	9.79
GAC170T	170	260	57	55	57	246	21	3	1	2080	5200	12.3
GAC180T	180	280	64	61	64	260	21	3	1	2440	6100	17.4
GAC190T	190	290	64	62	64	275	26	3	0.5	2620	6560	18.2
GAC200T	200	310	70	66	70	290	26	3	1.5	2940	7360	23.8

角接触关节轴承

Angular Contact Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 塑料

Sliding contact surfaces: Steel / PTFE plastic

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	d _k	S	r _s ,r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GAC25N	25	47	15	14	15	42	0.6	1	2.5	20	32	0.148
GAC30N	30	55	17	15	17	49.5	1.3	1	4.5	26	41	0.208
GAC35N	35	62	18	16	18	55.5	2.1	1	4	31	49	0.268
GAC40N	40	68	19	17	19	62	2.8	1	3.5	36	59	0.327
GAC45N	45	75	20	18	20	68.5	3.5	1	3	43	69	0.416
GAC50N	50	80	20	19	20	74	4.3	1	1.5	49	78	0.455
GAC60N	60	95	23	21	23	88.5	5.7	1.1	2.5	65	104	0.714
GAC70N	70	110	25	23	25	102	7.2	1.1	2	82	131	1.04
GAC80N	80	125	29	25.5	29	115	8.6	1.1	3.5	102	164	1.54
GAC90N	90	140	32	28	32	128.5	10.1	1.5	3.5	125	201	2.09
GAC100N	100	150	32	31	32	141	11.6	1.5	0.5	152	244	2.34
GAC110N	110	170	38	34	38	155	13	2	3	184	295	3.68
GAC120N	120	180	38	37	38	168	14.5	2	0.5	217	348	3.97

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。LS 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。

LS 钢对钢推力关节轴承轴圈和座圈经过淬火，磷化和涂敷二硫化钼，具有耐磨损、抗腐蚀的特点。在正常情况下，周期性润滑是必须的。为了确保有效的润滑，座圈有润滑油槽油孔。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。

LS 自润滑推力关节轴承滑动摩擦副是钢对 PTFE 编织物和钢对 PTFE 塑料，这类轴承具有较低的摩擦系数，工作中不需维护，一般情况下润滑都会降低轴承的使用寿命。它们应用于需要较长使用寿命或工作中无法润滑的机械机构中，适合于承受恒定重载。

Spherical plain thrust bearings have sliding contact surfaces in the shaft and housing washers which are arranged at an angle to the bearing axis. They are primarily intended for axial loads although they can accommodate combined loads to a certain extent. LS spherical plain thrust bearings are available with different sliding contact surface combinations, i.e. the sliding surfaces of shaft and housing washers are made from different materials. There are two main group: steel-on-steel spherical plain thrust bearings and maintenance-free spherical plain thrust bearings.

LS steel-on-steel spherical plain thrust bearings are made of carbon chromium steel and are hardened and phosphated, the shaft and housing washers sliding contact surface are treated with molybdenum disulphide, it has characteristics of wear-resistance and wear-corrosion. Bearings with this sliding contact surface combination require regular relubrication. To facilitate efficient lubrication, housing washer have an annular groove and a lubrication hole. The high wear resistance of the sliding surfaces makes these bearings especially suitable for bearing arrangements where heavy loads of alternating direction, shock loads or heavy static loads have to be accommodated.

LS maintenance-free spherical plain thrust bearings have sliding contact surface combinations steel-on-PTFE fabric and steel-on-PTFE plastic, they have very low friction and can be operated without maintenance, any lubrication of the sliding contact surfaces will shorten bearing life. They are used for applications where long bearing lives are required without maintenance, or where operating conditions, such as inadequate lubrication or the absence of lubrication make the use of steel-on-steel bearing inadvisable. The maintenance-free bearings are primarily intended for applications where loads are heavy and have a constant direction.

推力关节轴承公差

Tolerances for spherical plain thrust bearings

轴圈和轴承高度 Shaft washer and height of bearing

d mm		Δd_{mp} um		V _{dP} um	V _{dmp} um	ΔB_s um		ΔH_s um	
超过 over	到 incl.	max	min	max	max	max	min	max	min
—	18	0	-8	8	6	0	-240	+250	-400
18	30	0	-10	10	8	0	-240	+250	-400
30	50	0	-12	12	9	0	-240	+250	-400
50	80	0	-15	15	11	0	-300	+250	-500
80	120	0	-20	20	15	0	-400	+250	-600
120	180	0	-25	25	19	0	-500	+350	-700
180	200	0	-30	30	23	0	-600	+350	-800
200	250	0	-35	35	26	0	-700	+350	-800
250	315	0	-35	35	26	0	-700	+350	-800
315	400	0	-40	40	30	0	-800	+350	-800

座圈 Housing washer

D mm		ΔD_{mp} um		V _{Dp} um	V _{Dmp} um	ΔC_s um	
超过 over	到 incl.	max	min	max	max	max	min
—	30	0	-9	12	7	0	-240
30	50	0	-11	15	8	0	-240
50	80	0	-13	17	10	0	-300
80	120	0	-15	20	11	0	-400
120	150	0	-18	24	14	0	-500
150	180	0	-25	33	19	0	-500
180	250	0	-30	40	23	0	-600
250	315	0	-35	47	26	0	-700
315	340	0	-40	53	30	0	-800
340	400	0	-40	53	30	0	-800
400	500	0	-45	60	34	0	-800
500	630	0	-50	67	38	0	-800

尺寸和公差符号说明详见 P25

Details of dimension and tolerance symbols see page 25

推力关节轴承配合

Fits of spherical plain thrust bearings

轴配合 Shaft fits

工作条件 Operating conditions	滑动摩擦副 Sliding contact surface combination	
	润滑型 requiring maintenance	自润滑型 maintenance-free
各种载荷 过盈配合 Loads of all kinds, interference fit	m6	m6

支承座配合 Housing fits

工作条件 Operating conditions	滑动摩擦副 Sliding contact surface combination	
	润滑型 requiring maintenance	自润滑型 maintenance-free
纯轴向载荷 Purely axial loads	H11	H11
联合载荷 Combined loads	J7	J7

轴径公差 Shaft diameter tolerances

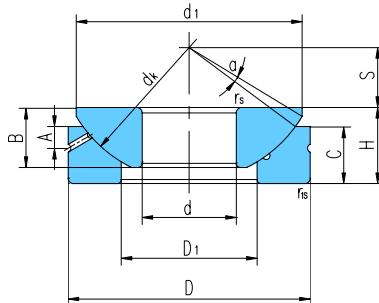
轴径 Shaft diameter	mm	轴径公差 Shaft diameter tolerances		um
		m6		
超过 over	到 incl.	high	low	
6	10	+15	+6	
10	18	+18	+7	
18	30	+21	+8	
30	50	+25	+9	
50	80	+30	+11	
80	120	+35	+13	
120	180	+40	+15	
180	250	+46	+17	
250	315	+52	+20	
315	400	+57	+21	

支承座孔公差 Housing bore tolerances

支承座孔径 Housing bore diameter	mm	支承座孔公差 Housing bore tolerances				um
		H11		J7		
超过 over	到 incl.	low	high	low	high	
18	30	0	+130	-9	+12	
30	50	0	+160	-11	+14	
50	80	0	+190	-12	+18	
80	120	0	+220	-13	+22	
120	150	0	+250	-14	+26	
150	180	0	+250	-14	+26	
180	250	0	+290	-16	+30	
250	315	0	+320	-16	+36	
315	400	0	+360	-18	+39	
400	500	0	+400	-20	+43	
500	630	0	+440	-	-	

推力关节轴承

Thrust Spherical Plain Bearings



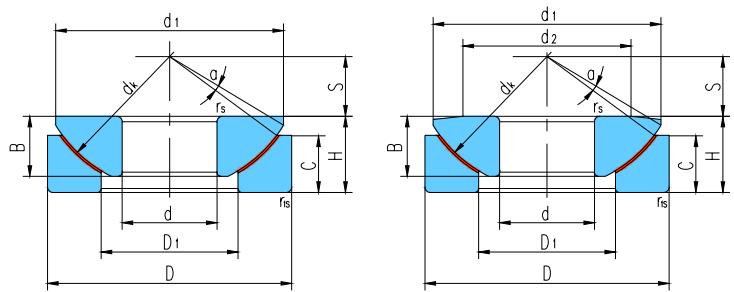
滑动摩擦副: 钢 / 钢

Sliding contact surfaces: 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	H	dk	S	d ₁ max	D ₁ min	A	r _s ,r _{1s} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GX10S	10	30	7.5	7	9.5	32	7	27.5	15.5	3	0.6	5	27	136	0.036
GX12S	12	35	9.5	9.3	13	38	8	32	18	4	0.6	5	37	188	0.072
GX15S	15	42	11	10.8	15	46	10	39	22.5	5	0.6	6	53	267	0.108
GX17S	17	47	11.8	11.2	16	52	11	43.5	27	5	0.6	4	61	311	0.137
GX20S	20	55	14.5	13.8	20	60	12.5	50	31	6	1	5	84	425	0.246
GX25S	25	62	16.5	16.7	22.5	68	14	58.5	34.5	6	1	5	134	672	0.415
GX30S	30	75	19	19	26	82	17.5	70	42	8	1	5	182	909	0.614
GX35S	35	90	22	20.7	28	98	22	84	50.5	8	1	5	266	1330	0.973
GX40S	40	105	27	21.5	32	114	24.5	97	59	9	1	6	357	1810	1.59
GX45S	45	120	31	25.5	36.5	128	27.5	110	67	11	1	6	486	2470	2.24
GX50S	50	130	33	30.5	42.5	139	30	120	70	10	1	6	554	2810	3.14
GX60S	60	150	37	34	45	160	35	140	84	12.5	1	6	748	3820	4.63
GX70S	70	160	42	36.5	50	176	35	153	94.5	13.5	1	3	902	4610	5.37
GX80S	80	180	43.5	38	50	197	42.5	172	107.5	14.5	1	4	1110	5700	6.91
GX100S	100	210	51	46	59	222	45	198	127	15	1.1	4	1300	6470	11
GX120S	120	230	53.5	50	64	250	52.5	220	145	16.5	1.1	3	1530	7580	14
GX140S	140	260	61	54	72	274	52.5	243	177	23	1.5	3	1820	9040	19.1
GX160S	160	290	66	58	77	313	65	271	200	23	1.5	2	2100	10440	25
GX180S	180	320	74	62	86	340	67.5	299	225	26	1.5	4	2430	12070	32.8
GX200S	200	340	80	66	87	365	70	320	247	27	1.5	1	3070	15280	35.4

推力关节轴承

Thrust Spherical Plain Bearings



滑动摩擦副: 钢 / PTFE 编织物

$d \leq \phi 200$

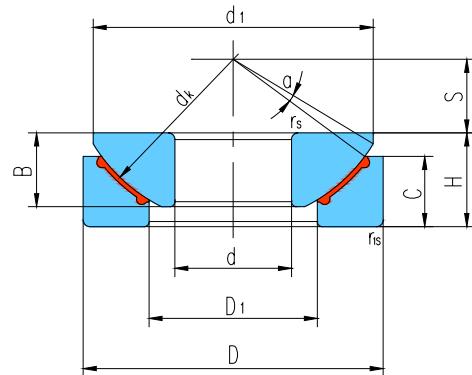
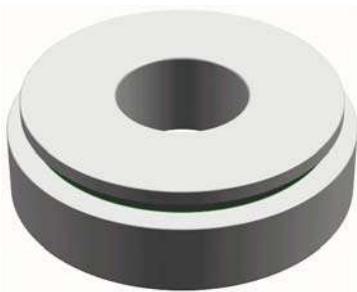
$d > \phi 220$

Sliding contact surfaces: Steel / PTFE fabric

轴承型号 Bearing number	外形尺寸 Dimensions mm											额定载荷 Load ratings kN		重量 Weight ≈kg	
	d	D	B	C	H	d _k	S	d ₁ max	d ₂	D ₁ min	r _s , r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GX10T	10	30	7.5	7	9.5	32	7	27.5		15.5	0.6	5	45	120	0.036
GX12T	12	35	9.5	9.3	13	38	8	32		18	0.6	5	65	165	0.072
GX15T	15	42	11	10.8	15	46	10	39		22.5	0.6	6	95	235	0.108
GX17T	17	47	11.8	11.2	16	52	11	43.5		27	0.6	4	110	275	0.137
GX20T	20	55	14.5	13.8	20	60	12.5	50		31	1	5	150	380	0.246
GX25T	25	62	16.5	16.7	22.5	68	14	58.5		34.5	1	5	245	600	0.415
GX30T	30	75	19	19	26	82	17.5	70		42	1	5	335	820	0.614
GX35T	35	90	22	20.7	28	98	22	84		50.5	1	5	490	1200	0.973
GX40T	40	105	27	21.5	32	114	24.5	97		59	1	6	675	1640	1.59
GX45T	45	120	31	25.5	36.5	128	27.5	110		67	1	6	915	2240	2.24
GX50T	50	130	33	30.5	42.5	139	30	120		70	1	6	1040	2550	3.14
GX60T	60	150	37	34	45	160	35	140		84	1	6	1360	3470	4.63
GX70T	70	160	42	36.5	50	176	35	153		94.5	1	3	1640	4180	5.37
GX80T	80	180	43.5	38	50	197	42.5	172		107.5	1	4	2030	5180	6.91
GX100T	100	210	51	46	59	222	45	198		127	1.1	4	2230	5940	11
GX120T	120	230	53.5	50	64	250	52.5	220		145	1.1	3	2610	6960	14
GX140T	140	260	61	54	72	274	52.5	243		177	1.5	3	3120	8300	19.1
GX160T	160	290	66	58	77	313	65	271		200	1.5	2	3380	9560	25
GX180T	180	320	74	62	86	340	67.5	299		225	1.5	4	3910	11050	32.8
GX200T	200	340	80	66	87	365	70	320		247	1.5	1	4950	13990	35.4
GX220T	220	370	82	67	97	388	75	350	289	265	1.5	7	4640	13110	44.7
GX240T	240	400	87	73	103	420	77.5	382	314	294	1.5	6	5500	15560	56.9
GX260T	260	430	95	80	115	449	82.5	409	336	317	1.5	7	6190	17510	71.3
GX280T	280	460	100	85	110	480	80	445	366	337	3	4	8280	23400	84.7
GX300T	300	480	100	90	110	490	80	460	388	356	3	3.5	9010	25480	88.9
GX320T	320	520	105	91	116	540	95	500	405	380	4	4	11360	33260	111
GX340T	340	540	105	91	116	550	95	510	432	380	4	4	11570	33880	117
GX360T	360	560	115	95	125	575	95	535	452	400	4	4	12850	37630	132

推力关节轴承

Thrust Spherical Plain Bearings



滑动摩擦副：钢 / PTFE 塑料

Sliding contact surfaces: Steel / PTFE plastic

轴承 型 号 Bearing number	外 形 尺 寸 Dimensions										额定载荷 Load ratings kN		重 量 Weigh ≈kg	
	d	D	B	C	H	dk	S	d ₁ max	D ₁ min	r _s ,r _{ls} min	α° ≈	动载荷 Dynamic	静载荷 Static	
GX17N	17	47	11.8	11.2	16	52	11	43.5	27	0.6	4	32	52	0.137
GX20N	20	55	14.5	13.8	20	60	12.5	50	31	1	5	44	71	0.246
GX25N	25	62	16.5	16.7	22.5	68	14	58.5	34.5	1	5	65	104	0.415
GX30N	30	75	19	19	26	82	17.5	70	42	1	5	88	141	0.614
GX35N	35	90	22	20.7	28	98	22	84	50.5	1	5	129	207	0.973
GX40N	40	105	27	21.5	32	114	24.5	97	59	1	6	169	270	1.59
GX45N	45	120	31	25.5	36.5	128	27.5	110	67	1	6	230	368	2.24
GX50N	50	130	33	30.5	42.5	139	30	120	70	1	6	262	420	3.14
GX60N	60	150	37	34	45	160	35	140	84	1	6	374	599	4.63
GX70N	70	160	42	36.5	50	176	35	153	94.5	1	3	451	722	5.37
GX80N	80	180	43.5	38	50	197	42.5	172	107.5	1	4	558	893	6.91
GX100N	100	210	51	46	59	222	45	198	127	1.1	4	717	1140	11
GX120N	120	230	53.5	50	64	250	52.5	220	145	1.1	3	839	1340	14

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。LS 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。

LS 钢对钢杆端关节轴承和 LS 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。

LS 自润滑杆端关节轴承滑动摩擦副有三种：钢对 PTFE 复合物、钢对 PTFE 编织物和钢对 PTFE 塑料，这种轴承具有较低的摩擦系数，工作中不需维护。它们应用于需要较长使用寿命或由于工作中无法润滑使钢对钢轴承不适合的场合中，适合于承受恒定重载。

Rod ends consist of an eye-shaped head with integral shank forming a housing and a standard spherical plain bearing, or a spherical plain bearing inner ring , or a spherical plain bearing inner ring and a sliding layer between the bore of the head and the inner ring. As a rule, rod ends are available with left or right-hand female or male threads. LS rod ends have the sliding contact surface combinations steel-on-steel 、 steel-on-bronze 、 steel-on-PTFE composite material 、 steel-on-PTFE fabric and steel-on-PTFE plastic.

LS steel-on-steel and steel-on-bronze rod ends have very wear-resistant sliding surfaces and perform well under conditions of lubricant starvation. Rod ends with this sliding contact surface combination require regular relubrication. They are particularly suited for bearing arrangements where heavy alternating loads have to be accommodated.

LS maintenance-free rod ends sliding contact surfaces have three groups : steel-on-PTFE composite material ,steel-on-PTFE fabric and steel-on-PTFE plastic. They have very low friction and can be operated without maintenance. They are used for applications where long bearing lives are required without maintenance, or where operating conditions, such as inadequate lubrication or the absence of lubrication make the use of steel-on-steel bearing inadvisable. The maintenance-free bearings are primarily intended for applications where loads are heavy and have a constant direction.

杆端关节轴承公差

Tolerances for Rod ends

内圈 Inner ring

SI…E, SI…ES, SA…E, SA…ES, SIR…ES, SIRN…ES, SIA…ES, SIQ…ES, SK…ES, SF…ES, SI…C, SA…C, SI…ET-2RS, SA…ET-2RS 的 Δ dmp, Δ Bs 同向心关节轴承 GE…E, GE…ES, GE…C, GE…ET-2RS。

The Δ dmp and Δ Bs of SI…E, SI…ES, SA…E, SA…ES, SIR…ES, SIRN…ES, SIA…ES, SIQ…ES, SK…ES, SF…ES, SI…C, SA…C, SI…ET-2RS, SA…ET-2RS are the same as radial spherical plain bearings GE…E, GE…ES, GE…C and GE…ET-2RS. SIGEW…ES, SFEW…ES 的 Δ dmp, Δ Bs 同向心关节轴承 GEEW…ES。

The Δ dmp and Δ Bs of SIGEW…ES, SFEW…ES are the same as radial spherical plain bearings GEEW…ES.

SIBP…S, SABP…S, SIZP…S, SAZP…S, SIZJ…, SAZJ… 的 Δ dmp, Δ Bs 同向心关节轴承 GEBK…S。

The Δ dmp and Δ Bs of SIBP…S, SABP…S, SIZP…S, SAZP…S, SIZJ… and SAZJ… are the same as radial spherical plain bearings GEBK…S.

SIJK…C, SAJK…C, SIK…C, SAK…C 系列 Series SIJK…C, SAJK…C, SIK…C, SAK…C

d mm		Δ dmp um		Δ Bs um	
超过 over	到 incl.	max	min	max	min
—	6	+12	0	0	-150
6	10	+15	0	0	-150
10	12	+18	0	0	-150
12	18	+18	0	0	-200
18	30	+21	0	0	-200

中心高偏差 Center height deviation

d mm		Δ hs mm		Δ h1s mm	
超过 over	到 incl.	max	min	max	min
—	6	+0.80	-1.20	+0.65	-1.05
6	20	+0.80	-1.20	+0.80	-1.20
20	30	+1.00	-1.70	+1.00	-1.70
30	45	+1.40	-2.10	+1.40	-2.10
45	60	+1.80	-2.70	+1.80	-2.70
60	80	+2.25	-3.40	+2.25	-3.40
80	125	+2.70	-3.40	+2.70	-3.40
125	200	+3.20	-4.20	+3.20	-4.20

尺寸和公差符号说明详见 P25

Details of dimension and tolerance symbols see page 25

杆端关节轴承径向游隙

Radial internal clearance of rod ends

SI…E, SI…ES, SA…E, SA…ES, SK…ES, SF…ES, SFEW…ES, SIRN…ES, SIR…ES, SIGEW…ES, SIQ…ES, SIA…ES 系列
Series SI…E, SI…ES, SA…E, SA…ES, SK…ES, SF…ES, SFEW…ES, SIRN…ES, SIR…ES, SIGEW…ES, SIQ…ES, SIA…ES

d mm		基本组 Group normal		μ m
超过 over	到 incl.	min	max	
—	12	23	68	
12	20	30	82	
20	35	37	100	
35	60	43	120	
60	90	55	142	
90	125	65	165	
125	200	65	192	