

Bearing types



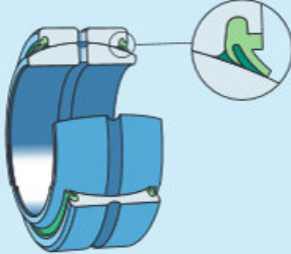
All the products listed below belong to the SKF standard assortment:

- radial spherical plain bearings requiring maintenance
- maintenance-free radial spherical plain bearings
- angular contact spherical plain bearings
- thrust spherical plain bearings
- steel/steel and steel/bronze rod ends requiring maintenance
- maintenance-free rod ends

If the standard assortment does not meet the requirements of an application, SKF can produce special bearings or rod ends, provided quantities are sufficient to enable manufacturing economy.

Radial spherical plain bearings requiring maintenance

See chapter 2 starting on page 99

Bearing design Radial spherical plain bearings requiring maintenance	Designation/ bore diameter range	Characteristics
Sliding contact surface combination: Steel/steel Suitable for heavy static or alternating loads, shock loads		
	GE .. E d = 4 – 12 mm	Open (without seals), can only be relubricated from the side
	GE .. ES d = 15 – 200 mm GEZ .. ES d = 0.5 – 6 in	Open (without seals), can be relubricated via lubrication holes and an annular groove in both rings
	GE .. ES-2RS d = 15 – 300 mm GEZ .. ES-2RS d = 0.75 – 6 in	With a double-lip seal on both sides, can be relubricated via lubrication holes and an annular groove in both rings

Bearing design

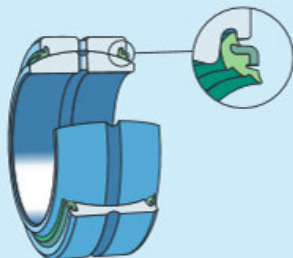
Radial spherical plain bearings requiring maintenance

Designation/

bore diameter range

Characteristics**Sliding contact surface combination: Steel/steel**

Suitable for heavy static or alternating loads, shock loads

**GE .. ES-2LS**
d = 20 – 300 mm**GEZ .. ES-2LS**
d = 1 – 6 in

With a triple-lip heavy-duty seal on both sides, can be relubricated via lubrication holes and an annular groove in both rings

**GEH .. ES**
upon request**GEZH .. ES**
d = 1.25 – 5.5 in

Open (not sealed); wider inner ring and larger outside diameter compared to GE .. ES and GEZ .. ES series, to enable higher load ratings and larger tilt angle; can be relubricated via lubrication holes and an annular groove in both rings

**GEH .. ES-2RS**
d = 20 – 120 mm**GEZH .. ES-2RS**
d = 1.25 – 5.5 in

With a double-lip seal on both sides; wider inner ring and larger outside diameter compared to GE .. ES-2RS and GEZ .. ES-2RS series, to enable higher load ratings and larger tilt angle; can be relubricated via lubrication holes and an annular groove in both rings

**GEH .. ES-2LS**
d = 20 – 120 mm**GEZH .. ES-2LS**
d = 1.25 – 5.5 in

With a triple-lip heavy-duty seal on both sides; wider inner ring and larger outside diameter compared to GE .. ES-2RS and GEZ .. ES-2RS series, to enable higher load ratings and larger tilt angle; can be relubricated via lubrication holes and an annular groove in both rings

**GEM .. ES**
upon request**GEZM .. ES**
d = 0.5 – 6 in

Open (without seals); with an extended inner ring on both sides; can be relubricated via lubrication holes and an annular groove in both rings. For bearing arrangements where a spacer sleeve is normally incorporated on both sides of the inner ring.

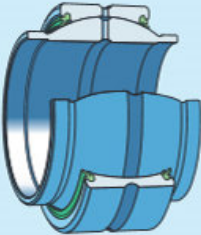
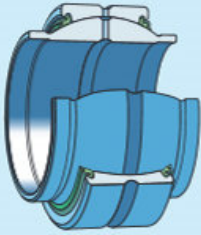
GEG .. ES
d = 16 – 200 mm

GEG series : The inner ring width equals the bore diameter

GEG 12 ESA
d = 12 mm



Can only be relubricated via the outer ring

Selection of bearing types

Bearing design Radial spherical plain bearings requiring maintenance	Designation/ bore diameter range	Characteristics
Sliding contact surface combination: Steel/steel Suitable for heavy static or alternating loads, shock loads		
	GEM .. ES-2RS d = 20 – 80 mm GEZM .. ES-2RS d = 0.75 – 6 in	With a double-lip seal and an extended inner ring on both sides, can be relubricated via lubrication holes and an annular groove in both rings
	GEM .. ES-2LS d = 20 – 80 mm GEZM .. ES-2LS d = 1 – 6 in	With a triple-lip heavy-duty seal and an extended inner ring on both sides, can be relubricated via lubrication holes and an annular groove in both rings

Maintenance-free radial spherical plain bearings

See chapter 3 starting on page 125

Bearing design Maintenance-free radial spherical plain bearings	Designation/ bore diameter range	Characteristics
Sliding contact surface combination: Steel/PTFE sintered bronze Suitable for heavy, constant direction loads, where low friction is required; limited suitability for alternating loads, shock loads.		
	GE .. C d = 4 – 30 mm GE .. CJ2 d = 35 – 60 mm	Open (without seals), self-lubricating sliding surfaces have to be externally protected from contaminants
	GEH .. C d = 10 – 25 mm	Open (without seals), self-lubricating sliding surfaces have to be externally protected from contaminants; wider inner ring and larger outside diameter compared to GE .. C series, to enable higher load ratings and larger tilt angle

Bearing design
Maintenance-free radial spherical plain bearings

**Designation/
bore diameter range**

Characteristics

Sliding contact surface combination: Steel/PTFE fabric

Suitable for very heavy, constant direction loads, where low friction is required; limited suitability for alternating loads, shock loads



GE .. TXE-2LS
d = 20 – 90 mm

High performance bearing with a triple-lip heavy-duty seal on both sides, outer ring fractured at one point, self-lubricating sliding surfaces

GEZ .. TXE-2LS
d = 1 – 3.75 in

GE .. TXG3E-2LS
d = 20 – 60 mm

GE .. TXG3E-2LS series in stainless steel execution for use in corrosive environments



GE .. TXA-2LS
d = 100 – 300 mm

High performance bearing with a triple-lip heavy-duty seal on both sides, axially split outer ring that is held together by one band, self-lubricating sliding surfaces

GEZ .. TXA-2LS
d = 4 – 6 in

GE .. TXG3A-2LS
d = 70 – 200 mm

GE .. TXG3A-2LS series with rings made of stainless steel for use in corrosive environments



GE .. TXGR
d = 12 – 17 mm

Open (without seals), stainless steel execution for use in corrosive environments, self-lubricating sliding surfaces have to be externally protected from contaminants



GEC .. TXA-2RS
d = 320 – 400 mm

High performance bearing with a double-lip seal on both sides, self-lubricating sliding surfaces, axially split outer ring that is held together by two bands



GEC .. TXA-2RS
d = 420 – 800 mm

High performance bearing with a double-lip seal on both sides, self-lubricating sliding surfaces, axially split outer ring that is bolted together

Selection of bearing types

Bearing design

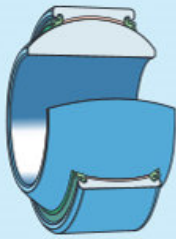
Maintenance-free radial spherical plain bearings

Designation/ bore diameter range

Characteristics

Sliding contact surface combination: Steel/PTFE fabric

Suitable for very heavy, constant direction loads, where low friction is required; limited suitability for alternating loads, shock loads



GEH ..TXE-2LS
d = 20 – 80 mm

High performance bearing with a triple-lip heavy-duty seal on both sides; self-lubricating sliding surfaces, wider inner ring and larger outside diameter compared to GE .. TXE-2LS series, to enable higher load ratings and larger tilt angle

GEH ..TXG3E-2LS
d = 20 – 50 mm

GEH .. TXG3E-2LS series with rings made of stainless steel for use in corrosive environments



GEH ..TXA-2LS
d = 90 – 120 mm

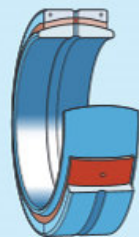
High performance bearing with a triple-lip heavy-duty seal on both sides, self-lubricating sliding surfaces, wider inner ring and larger outside diameter compared to GE .. TXE-2LS series, to enable higher load ratings and larger tilt angle; axially split outer ring that is held together by one band

GEH ..TXG3A-2LS
d = 60 – 120 mm

GEH .. TXG3A-2LS series with rings made of stainless steel for use in corrosive environments

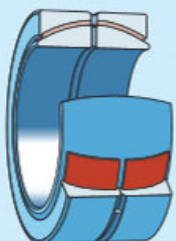
Sliding contact surface combination: Steel/PTFE FRP

Suitable for heavy, constant direction loads, where low friction is required; limited suitability for alternating loads, shock loads; relatively insensitive to contaminants



GEC .. FBAS
d = 320 – 1 000 mm

Open (without seals); axially split outer ring that is bolted together; self-lubricating capability; factory greased; lubrication holes and an annular groove in both rings; does not require relubrication, however, relubrication can extend bearing service life






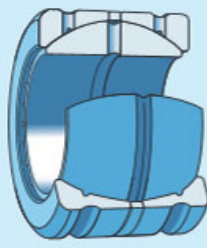
GEP .. FS
d = 100 – 1 000 mm

Open (without seals); radially split outer ring that is separable to facilitate mounting; self-lubricating capability; factory greased; lubrication holes and an annular groove in both rings; does not require relubrication, however, relubrication can extend bearing service life

Compared to GEC .. FBAS series, these bearings are wider and have a larger outside diameter for a given shaft size, resulting in a higher basic load rating. However, they have a smaller tilt angle.

Angular contact spherical plain bearings


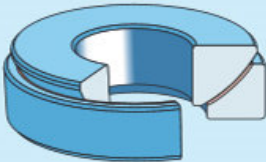
See chapter 4 starting on page 151

Bearing design Angular contact spherical plain bearings	Designation/ bore diameter range	Characteristics
<p>Sliding contact surface combination: Steel/PTFE FRP Suitable for single direction axial loads or combined axial and radial loads, low coefficient of friction, relatively insensitive to contaminants</p> 	<p>GAC .. F d = 25 – 120 mm</p>	<p>Open (without seals); self-lubricating capability; factory greased; does not require relubrication, however, relubrication can extend bearing service life</p>
<p>Sliding contact surface combination: Steel/PTFE fabric Suitable for single direction axial loads or combined axial and radial loads, very high load carrying capacity and low coefficient of friction</p> 	<p>GACD .. TX upon request</p>	<p>Open (without seals), high performance bearing with self-lubricating sliding surface</p>
<p>Sliding contact surface combination: Steel/steel Suitable for heavy single direction axial loads or heavy combined axial and radial loads, heavy alternating loads</p> 	<p>GACD .. SA upon request</p> <p>GAZ .. SA upon request</p>	<p>Open (without seals), multi-groove system, can be relubricated via lubrication holes and an annular groove in the outer ring</p>
<p>Sliding contact surface combination: Steel/steel Double direction angular contact bearing with a standard inner ring, bearing can be used instead of two angular contact bearings in a face-to-face arrangement, suitable for heavy combined radial and axial loads, heavy alternating loads</p> 	<p>GEZP(R) .. S upon request</p>	<p>Open (without seals), multi-groove system, can be relubricated via lubrication holes and an annular groove in the inner ring and the two outer rings</p>

Selection of bearing types

Thrust spherical plain bearings

See chapter 5 starting on page 159

Bearing design Thrust spherical plain bearings	Designation/ bore diameter range	Characteristics
Sliding contact surface combination: Steel/PTFE FRP Suitable for single direction axial loads or combined axial and radial loads, low coefficient of friction, relatively insensitive to contaminants	GX .. F d = 17 – 120 mm	Open (without seals); self-lubricating capability; factory greased; does not require relubrication, however, relubrication can extend bearing service life
		
Sliding contact surface combination: Steel/PTFE fabric Suitable for heavy single direction axial loads or combined axial and radial loads, very high load carrying capacity and low coefficient of friction	GXD .. TX upon request	Open (without seals), high performance bearing with self-lubricating sliding surface
		
Sliding contact surface combination: Steel/steel Suitable for heavy single direction axial loads or combined axial and radial loads, heavy alternating loads	GXD .. SA upon request	Open (without seals), multi-groove system, can be relubricated via lubrication holes and an annular groove in the housing washer
