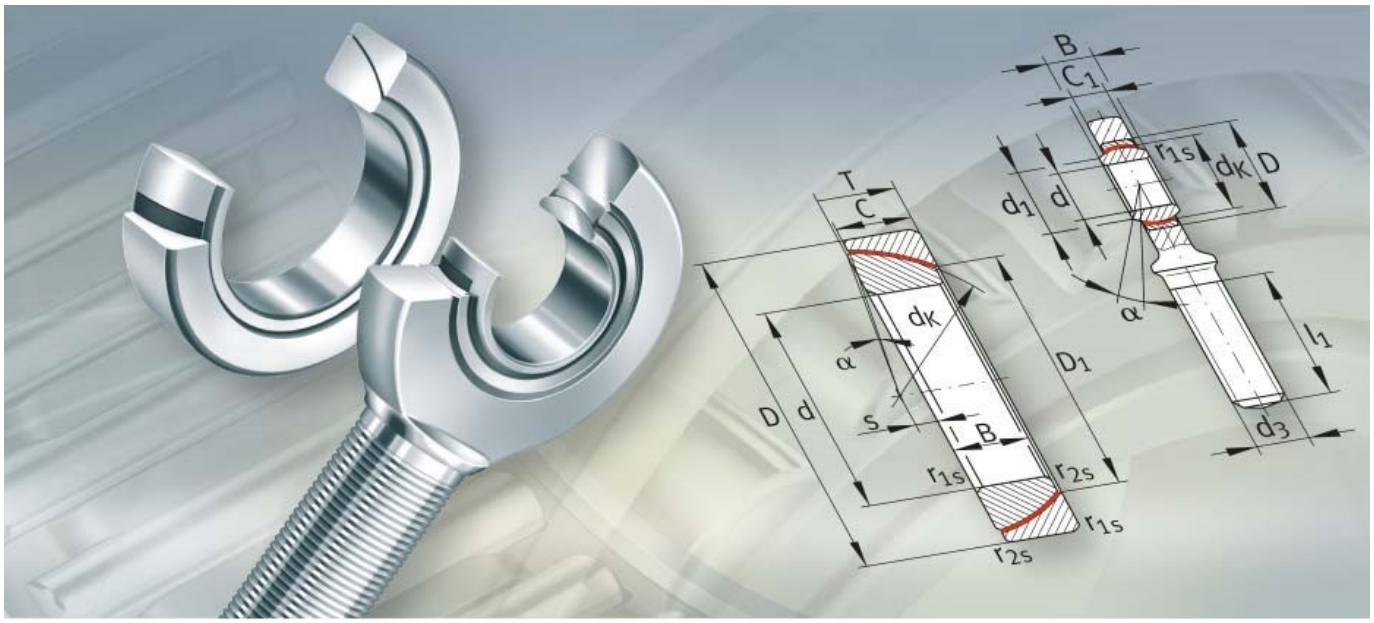
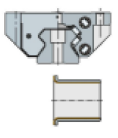


Spherical plain bearings, plain bushes, rod ends

Spherical plain bearings, plain bushes, rod ends

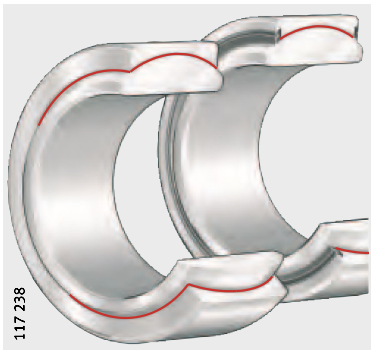


Maintenance-free spherical plain bearings, cylindrical plain bushes

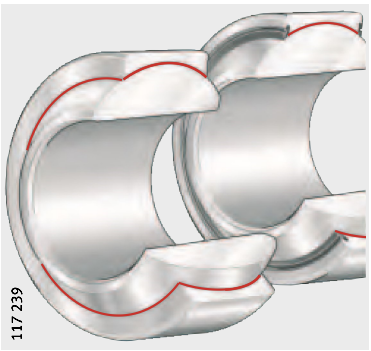
Radial spherical plain bearings

Open or with lip seals on both sides

GE..-UK, GE..-UK-2RS



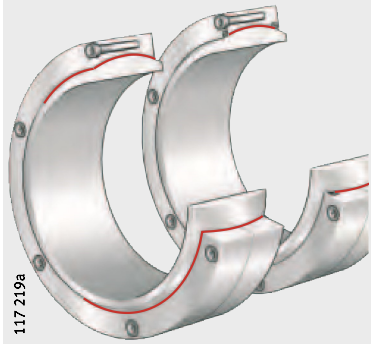
GE..-FW, GE..-FW-2RS



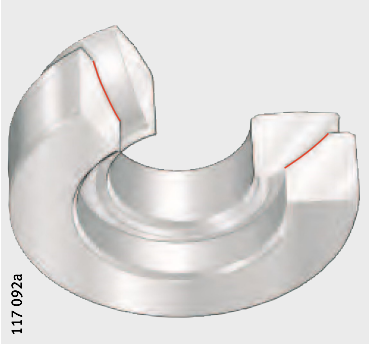
X-life radial and axial large spherical plain bearings

Open or with lip seals on both sides

GE..-DW, GE..-DW-2RS2



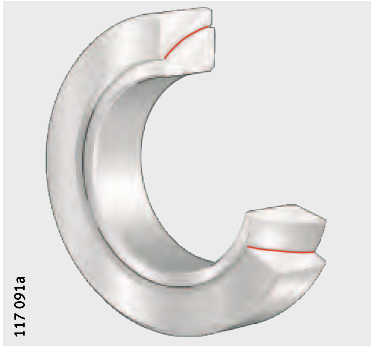
GE..-AW



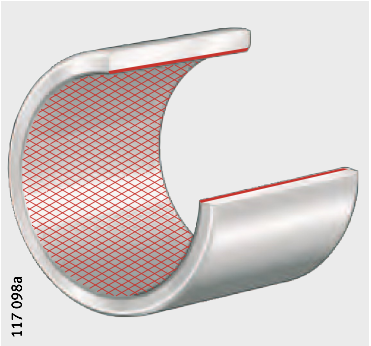
Angular contact spherical plain bearings, cylindrical plain bushes

Open

GE..-SW



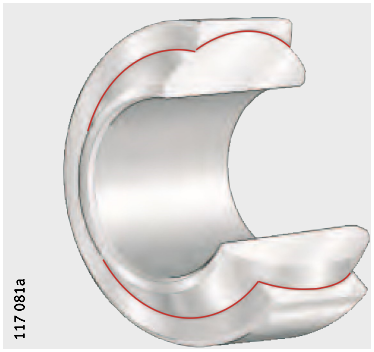
ZGB



Radial spherical plain bearings

Dimension series K, open

GE..-PW



Maintenance-free spherical plain bearings, cylindrical plain bushes

Features

Maintenance-free spherical plain bearings are used where:

- there are particular requirements on bearing life under maintenance-free operation
- for reasons of lubrication, bearings with a metallic sliding contact surface are not suitable, e.g. under unilateral load.

Spherical plain bearings allow spatial adjustment movements and, depending on the bearing type, are preferably used to support radial, combined or axial loads.

Product catalogue

The complete range is described in detail in Catalogue 238 and the online version of **medias**® *professional*.

Sliding layers

Maintenance-free spherical plain bearings have special sliding layers based on PTFE (polytetrafluorethylene).

In descending order of performance, these are:

- ELGOGLIDE® – the highest performance sliding layer, *Figure 1*
- PTFE composite, *Figure 2*, page 1566
- PTFE-bronze film, *Figure 3*, page 1566.

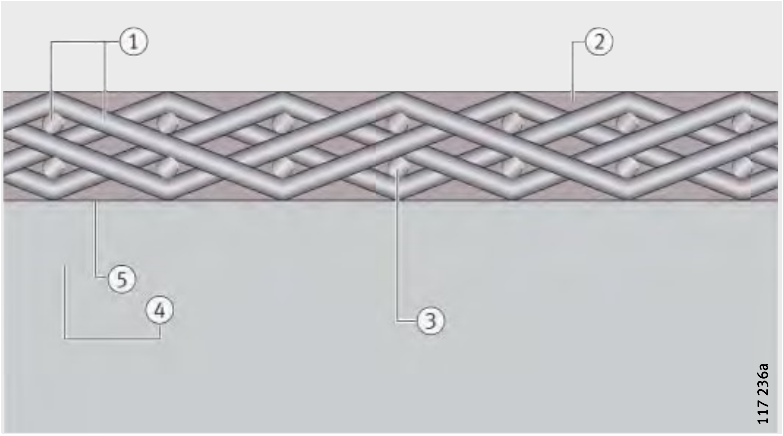
These materials form the slideway of the outer ring or the housing locating washer. They transmit the forces occurring and provide lubrication – the bearings must not be lubricated in any other way.

ELGOGLIDE®

The sliding layer comprises 0,5 mm thick ELGOGLIDE®, is embedded in synthetic resin and attached by a high strength bond to the support body, *Figure 1*.

The flow behaviour of the sliding layer is, in combination with the support body, almost negligible even under very high load.

The adhesive bond is resistant to moisture and does not undergo swelling.

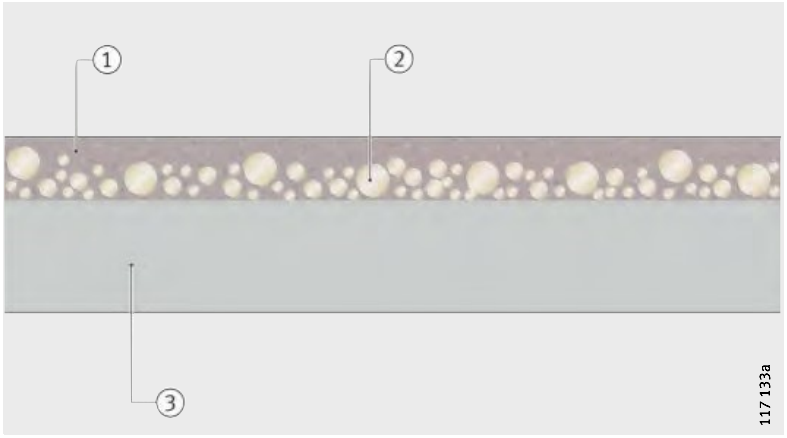


① PTFE fabric, comprising PTFE and supporting fibres
② Resin matrix
③ Supporting fibres
④ Steel substrate
⑤ Adhesive bond

Figure 1
ELGOGLIDE®, cross-section

PTFE composite

PTFE composite comprises sheet steel with bronze attached by sintering and embedded PTFE compound, *Figure 2*.

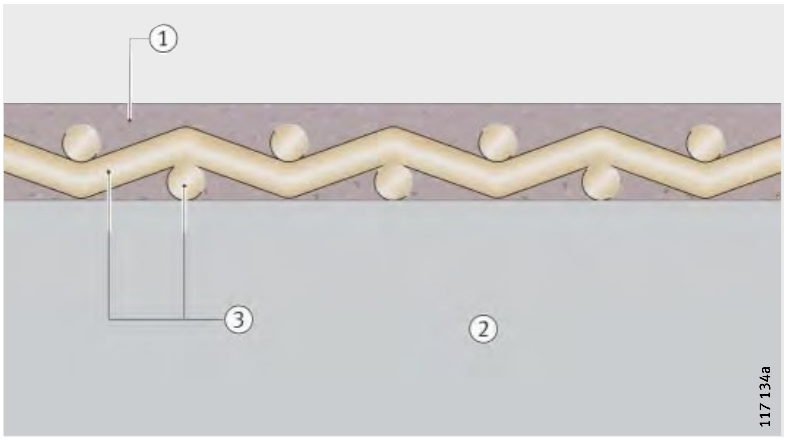


① PTFE compound
② Sintered bronze
③ Sheet steel

Figure 2
PTFE composite, cross-section

PTFE-bronze film

PTFE-bronze film (metal lattice material) is made from high strength bronze and acts as a stabiliser for the sintered PTFE compound, *Figure 3*.



① PTFE compound
② Substrate
③ Bronze

Figure 3
PTFE-bronze film, cross-section

Radial spherical plain bearings X-life radial large spherical plain bearings

Radial spherical plain bearings comprise inner and outer rings with maintenance-free sliding layers made from ELGOGLIDE®, PTFE composite or PTFE-bronze film.

Sealed spherical plain bearings are protected by lip seals against contamination and water spray.
These bearings have the suffix 2RS or 2RS2.

Radial large spherical plain bearings from d = 320 mm are X-life bearings.

Series, sliding layer, standard

Series	Sliding layer	Standard DIN ISO 12 240-1	Shaft diameter	
			from mm	to mm
GE..-UK	Composite	Dimension series E	6	30
GE..-UK-2RS	ELGOGLIDE®	Dimension series E	17	300
GE..-FW	Composite	Dimension series G	6	25
GE..-FW-2RS	ELGOGLIDE®	Dimension series G	30	280
GE..-DW	ELGOGLIDE®	Dimension series C	320	1 000
GE..-DW-2RS2	ELGOGLIDE®	Dimension series C	320	1 000
GE..-PW	PTFE-bronze film	Dimension series K	5	30

Angular contact spherical plain bearings

Angular contact spherical plain bearings comprise inner and outer rings with ELGOGLIDE®. In addition to radial forces, they can also support axial forces and are suitable for alternating dynamic loads.

Series, sliding layer, standard

Series	Sliding layer	Standard	Shaft diameter	
			from mm	to mm
GE..-SW	ELGOGLIDE®	DIN ISO 12 240-2	25	200

Axial spherical plain bearings X-life axial large spherical plain bearings

Axial spherical plain bearings comprise shaft locating and housing locating washers with ELGOGLIDE®. They are preferably used to support axial forces and are suitable as support or base bearings.

Axial large spherical plain bearings from d = 220 mm are X-life bearings.

Series, sliding layer, standard

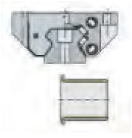
Series	Sliding layer	Standard	Shaft diameter	
			from mm	to mm
GE..-AW	ELGOGLIDE®	DIN ISO 12 240-3	10	360

Cylindrical plain bushes

Cylindrical plain bushes comprise a steel support body with ELGOGLIDE®. They allow not only swivel movements but also axial movements and can support higher forces than conventional plain bearings.

Series, sliding layer, standard

Series	Sliding layer	Standard	Shaft diameter	
			from mm	to mm
ZGB	ELGOGLIDE®	DIN ISO 4 379[1)]	30	200



1) Main dimensions only.

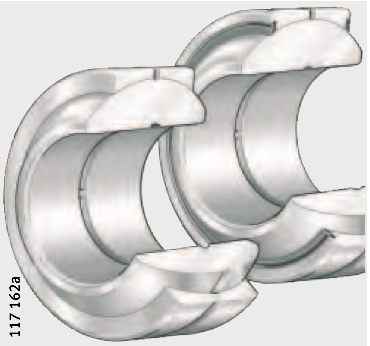
Spherical plain bearings requiring maintenance

Radial spherical plain bearings

Open or with lip seals on both sides

GE..-DO, GE..-DO-2RS

GE..-FO, GE..-FO-2RS



GE..-LO

GE..-HO-2RS

Open, inch dimensions or dimension series K

GE..-ZO

GE..-PB

Angular contact spherical plain bearings, axial spherical plain bearings

Open

GE..-SX

GE..-AX

Spherical plain bearings requiring maintenance

Features

Radial spherical plain bearings

Radial spherical plain bearings comprise inner and outer rings with steel/steel or steel/bronze sliding contact surfaces and are lubricated via the inner and outer ring. They can support radial forces, transmit motion and loads with low moment levels and thus keep bending stresses away from the adjacent structure.

The bearings are particularly suitable for alternating loads with impact and shock type stresses and support axial loads in both directions.

Sealed spherical plain bearings are protected against contamination and water spray by lip seals and have the suffix 2RS.

Series, sliding contact surface, standard

Series	Sliding contact surface	Standard DIN ISO 12 240-1	Shaft diameter	
			from mm	to mm
GE..-DO	Steel/steel	Dimension series E	6	200
GE..-DO-2RS	Steel/steel	Dimension series E	17	300
GE..-DO	Steel/steel	Dimension series C	320	1 000
GE..-FO	Steel/steel	Dimension series G	6	12
GE..-FO-2RS	Steel/steel	Dimension series G	15	280
GE..-LO	Steel/steel	Dimension series W	12	320
GE..-HO-2RS	Steel/steel	–	20	80
GE..-ZO	Steel/steel	–	19,05	76,2
GE..-PB	Steel/bronze	Dimension series K	5	30

Angular contact spherical plain bearings

Angular contact spherical plain bearings GE..-SX correspond to DIN ISO 12 240-2 and comprise inner and outer rings with steel/steel sliding contact surfaces.

In addition to radial forces, they can also support axial forces, are suitable for alternating dynamic loads and are used, for example, as an alternative to tapered roller bearings 320X to DIN 720 where loads in conjunction with small swivel angles would damage rolling bearings.

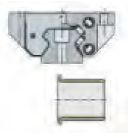
Angular contact spherical plain bearings transmit motion and loads with low moment levels and thus keep bending stresses away from the adjacent structure.

Axial spherical plain bearings

Axial spherical plain bearings GE..-AX correspond to DIN ISO 12 240-3 and comprise shaft and housing locating washers with steel/steel sliding contact surfaces.

They can support axial forces and transmit support forces with low moment levels into the adjacent construction; in order to support radial forces, they can be combined with radial spherical plain bearings of dimension series E to DIN ISO 12 240-1.

The bearings are lubricated via the housing locating washer.



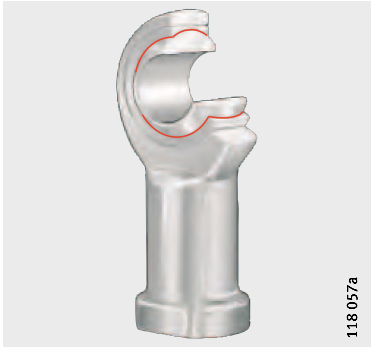
With internal thread

Open or
with lip seals on both sides

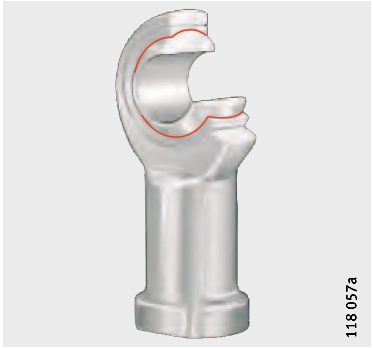
GIR..-UK, GIR..-UK-2RS

GIL..-UK, GIL..-UK-2RS

GIKR..-PW, GIKPR..-PW



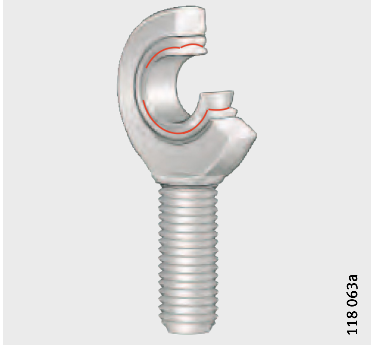
GIKL..-PW



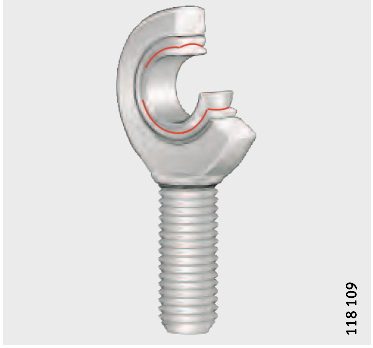
With external thread

Open or
with lip seals on both sides

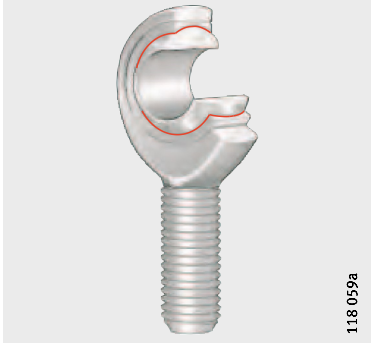
GAR..-UK, GAR..-UK-2RS



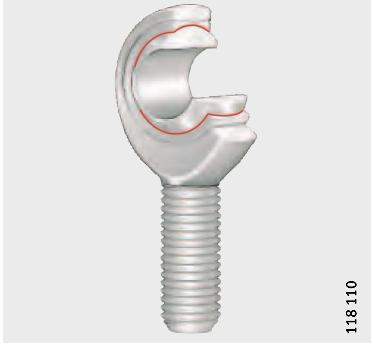
GAL..-UK, GAL..-UK-2RS



GAKR..-PW



GAKL..-PW



Maintenance-free rod ends

Features

Maintenance-free rod ends comprise a housing with integral shank and a maintenance-free spherical plain bearing. The integral shank has an internal or external thread. The spherical plain bearing is firmly seated and located in the housing. The housings and shanks are protected against corrosion by zinc plating.

The rod ends can support radial loads in a tensile or compressive direction. They are suitable for slow movements with small to moderate swivel angles, for unilateral load and under certain conditions for alternating loads (suitable for alternating loads with GE..-UK-2RS).

Sealed rod ends have lip seals on both sides and are thus protected against contamination and water spray.
This variant has the suffix 2RS.

Rod ends to DIN ISO 12 240-4, dimension series E contain radial spherical plain bearings GE..-UK or GE..-UK-2RS with sliding contact surfaces comprising hard chromium/PTFE composite or hard chromium/ELGOGLIDE® and a right hand or left hand internal or external thread. The thin-walled design of the eye housing allows compact adjacent constructions.

Rod ends to DIN ISO 12 240-4, dimension series K contain radial spherical plain bearings GE..-PW with sliding contact surfaces comprising steel/PTFE-bronze film and a right hand or left hand internal or external thread.

Rod ends with internal thread

Rod ends with an internal thread, see table.

Series, thread type, standard

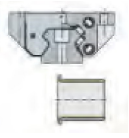
Series	Thread type	Standard DIN ISO 12 240-4	Shaft diameter	
			from mm	to mm
GIR..-UK	Right hand thread	Dimension series E, type F	6	30
GIL..-UK	Left hand thread	Dimension series E, type F	6	30
GIR..-UK-2RS	Right hand thread	Dimension series E, type F	35	80
GIL..-UK-2RS	Left hand thread	Dimension series E, type F	35	80
GIKR..-PW	Right hand thread	Dimension series K, type F	5	30
GIKL..-PW	Left hand thread	Dimension series K, type F	5	30
GIKPR..-PW	Right hand thread	Dimension series K, type F	5	30

Rod ends with external thread

Rod ends with an external thread, see table.

Series, thread type, standard

Series	Thread type	Standard DIN ISO 12 240-4	Shaft diameter	
			from mm	to mm
GAR..-UK	Right hand thread	Dimension series E, type M	6	30
GAL..-UK	Left hand thread	Dimension series E, type M	6	30
GAR..-UK-2RS	Right hand thread	Dimension series E, type M	35	80
GAL..-UK-2RS	Left hand thread	Dimension series E, type M	35	80
GAKR..-PW	Right hand thread	Dimension series K, type M	5	30
GAKL..-PW	Left hand thread	Dimension series K, type M	5	30



With internal thread

Open or
lip seals on both sides

GIR..-DO, GIR..-DO-2RS

GIL..-DO, GIL..-DO-2RS

GIKR..-PB

GIKL..-PB

With external thread

Open or
lip seals on both sides

GAR..-DO, GAR..-DO-2RS

GAL..-DO, GAL..-DO-2RS

GAKR..-PB

GAKL..-PB

Rod ends requiring maintenance

Features

These rod ends comprise a housing with integral shank and a spherical plain bearing requiring maintenance. The shank has an internal or external thread, the spherical plain bearing is firmly seated and located in the housing.

The rod ends can support radial forces in a tensile or compressive direction, transmit movements and forces at low moment levels and are suitable for alternating loads and, under certain conditions, unilateral loads.

Protection against corrosion is provided by zinc plating, the thin-walled design of the eye housing allows compact adjacent constructions.

Sealed rod ends are protected against contamination and water spray by lip seals. These bearings have the suffix 2RS.

Rod ends to DIN ISO 12 240-4, dimension series E contain radial spherical plain bearings GE..-DO or GE..-DO-2RS with steel/steel sliding contact surfaces, a right or left hand internal or external thread and tapered lubrication nipples to DIN 71 412. They can be relubricated via the lubrication nipple or the housing bore.

Rod ends to DIN ISO 12 240-4-dimension series K have a right or left hand internal or external thread and funnel type lubrication nipples to DIN 3 405 on the rod end eye housing.

Rod ends with internal thread

Dimension series E, type F has a steel/steel sliding contact surface, while dimension series K, type F has a steel/bronze sliding contact surface.

Series, thread type, standard

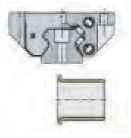
Series	Thread type	Standard DIN ISO 12 240-4	Shaft diameter	
			from mm	to mm
GIR..-DO	Right hand thread	Dimension series E, type F	6	30
GIL..-DO	Left hand thread	Dimension series E, type F	6	30
GIR..-DO-2RS	Right hand thread	Dimension series E, type F	35	80
GIL..-DO-2RS	Left hand thread	Dimension series E, type F	35	80
GIKR..-PB	Right hand thread	Dimension series K, type F	5	30
GIKL..-PB	Left hand thread	Dimension series K, type F	5	30

Rod ends with external thread

Dimension series E, type M has a steel/steel sliding contact surface, while dimension series K, type M has a steel/bronze sliding contact surface.

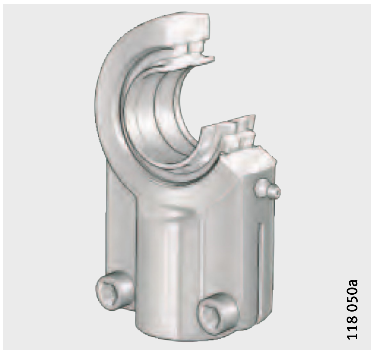
Series, thread type, standard

Series	Thread type	Standard DIN ISO 12 240-4	Shaft diameter	
			from mm	to mm
GAR..-DO	Right hand thread	Dimension series E, type M	6	30
GAL..-DO	Left hand thread	Dimension series E, type M	6	30
GAR..-DO-2RS	Right hand thread	Dimension series E, type M	35	80
GAL..-DO-2RS	Left hand thread	Dimension series E, type M	35	80
GAKR..-PB	Right hand thread	Dimension series K, type M	5	30
GAKL..-PB	Left hand thread	Dimension series K, type M	5	30

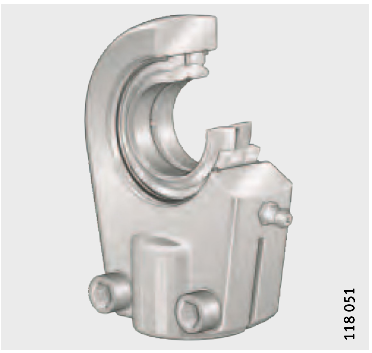


Hydraulic rod ends

GIHNRK..-LO



GIHRK..-DO



GK..-DO

GF..-DO