

GEM 45 ES-2RS Radial spherical plain bearing, requiring maintenance, sealed, metric sizes

Radial spherical plain bearings are designed to accommodate radial and combined radial and axial loads, and also misalignment. This specific design includes a steel/steel sliding contact surface combination, an extended inner ring and a double-lip contact seal on both sides. The bearings require maintenance and can be relubricated via lubrication holes and an annular groove in both rings.

- Designed for radial and combined radial and axial loads
- Long service life
- Minimal maintenance
- Suitable for heavy static, alternating or impact loads
- Extended inner ring can save spacer rings

Overview

Dimensions

Bore diameter	45 mm
Outside diameter	68 mm
Width, inner ring	40 mm
Width, outer ring	25 mm

Performance

Basic dynamic load rating	127 kN
Basic static load rating	640 kN

Properties

Sliding contact surface combination	Steel/steel, standard
Material, inner ring	Bearing steel
Material, outer ring	Bearing steel
Maintenance	Relubrication required
Radial internal clearance	CN
Sealing	Seal on both sides
Sealing type	Double-lip
Relubrication feature	With

Technical Specification

Maintenance	Relubrication required
Sliding contact surface combination	Steel/steel, standard
Material, inner ring	Bearing steel
Material, outer ring	Bearing steel
Sealing	Seal on both sides
Sealing type	Double-lip

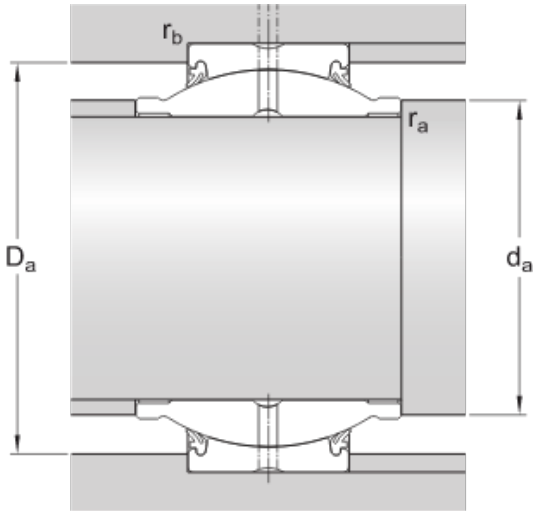


Dimensions

d	45 mm	Bore diameter
D	68 mm	Outside diameter
B	40 mm	Width
C	25 mm	Width outer ring
α	4 °	Angle of tilt
d_k	60 mm	Raceway diameter inner ring
d_1	~ 52 mm	Shoulder diameter cylindrical extension inner ring
b	4.6 mm	Width annular lubrication groove at outer ring
b_1	4.8 mm	Width annular lubrication groove at inner ring
M	3 mm	Diameter lubrication hole (outer ring)
r_1	min. 0.6 mm	Chamfer dimension bore
r_2	min. 1 mm	Chamfer dimension outer ring

Abutment dimensions

d_a	min. 49.6 mm	Abutment diameter shaft
d_a	max. 52 mm	Abutment diameter shaft



D_a min. 61 mm	Abutment diameter housing
D_a max. 63.6 mm	Abutment diameter housing
r_a max. 0.6 mm	Fillet radius shaft
r_b max. 1 mm	Fillet radius housing

Calculation data

Basic dynamic load rating	C	127 kN
Basic static load rating	C_0	640 kN
Specific dynamic load factor	K	100 N/mm ²
Specific static load factor	K_0	500 N/mm ²
Material constant	K_M	330

Mass

Mass plain bearing	0.49 kg
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