

53318

Single direction thrust ball bearing with sphered housing washer



Single direction thrust ball bearings, with sphered housing washer, can accommodate axial loads in one direction. They must not be subjected to any radial load. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit. The sphered housing washers can accommodate initial misalignment when configured correctly with a sphered seat washer or a machine component with a sphered surface.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enables interference fit
- Sphered housing washers can accommodate initial misalignment

Overview

Dimensions

Bore diameter	90 mm
Outside diameter	155 mm
Radius of aligning surface	112 mm
Thickness	54.6 mm

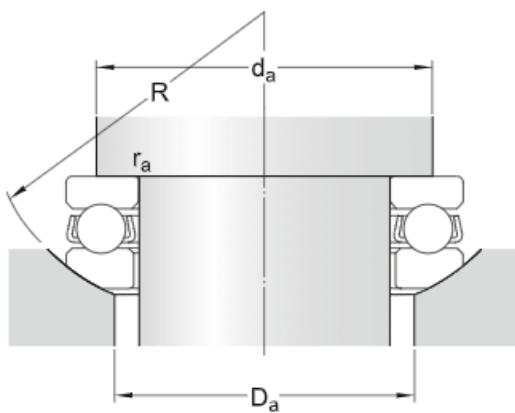
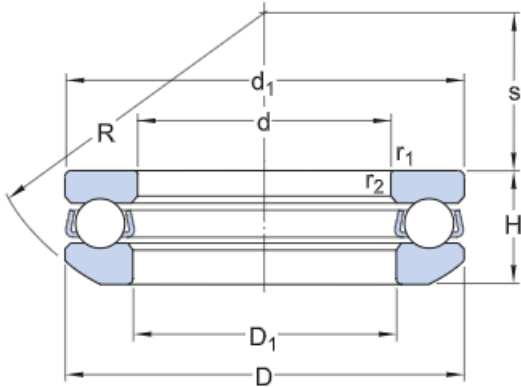
Performance

Basic dynamic load rating	182 kN
Basic static load rating	440 kN
Limiting speed	2 000 r/min
Reference speed	1 400 r/min

Properties

Axial load capability	Single-direction
Cage	Sheet metal
Coating	Without
Housing washer type	Sphered
Material, bearing	Bearing steel
Number of rows	1
Tolerance class	Normal

Technical Specification



Dimensions

d	90 mm	Bore diameter
D	155 mm	Outside diameter
H	54.6 mm	Height
H_1	59 mm	Height bearing including seat washer
d_1	≈ 155 mm	Outside diameter shaft washer
D_1	≈ 93 mm	Inner diameter housing washer
D_2	120 mm	Inner diameter sphered seat washer
D_3	160 mm	Outside diameter sphered housing washer
C	18 mm	Height sphered housing washer
R	112 mm	Radius sphered housing washer
s	40 mm	Centre height housing washer sphere
$r_{1,2}$	min. 1.5 mm	Chamfer dimension washer

Abutment dimensions

d_a	min. 129 mm	Abutment diameter shaft
D_a	max. 120 mm	Abutment diameter housing
r_a	max. 1 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	182 kN
Basic static load rating	C ₀	440 kN
Fatigue load limit	P _u	14.6 kN
Reference speed		1 400 r/min
Limiting speed		2 000 r/min
Minimum load factor	A	1.3

Mass

Mass bearing (including seat washer where applicable)	4.7 kg
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Associated products

Seat washer	U 318
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