51316



Single direction thrust ball bearing

Single direction thrust ball bearings can accommodate axial loads in one direction. They must not be subjected to any radial load. Their separable components facilitate mounting/dismounting and maintenance inspections. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enable interference fit

Overview

Dimensions

Bore diameter	80 mm
Outside diameter	140 mm
Thickness	44 mm

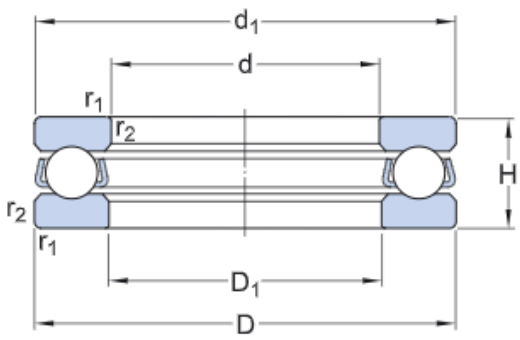
Performance

Basic dynamic load rating	159 kN
Basic static load rating	390 kN
Limiting speed	2 400 r/min
Reference speed	1 700 r/min

Properties

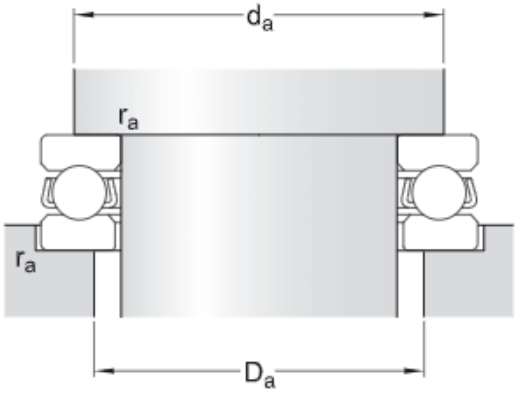
Axial load capability	Single-direction
Cage	Sheet metal
Coating	Without
Housing washer type	Flat
Material, bearing	Bearing steel
Number of rows	1
Tolerance class	Normal

Technical Specification



Dimensions

d	80 mm	Bore diameter
D	140 mm	Outside diameter
H	44 mm	Height
d_1	≈ 140 mm	Outside diameter shaft washer
D_1	≈ 82 mm	Inner diameter housing washer
$r_{1,2}$	min. 1.5 mm	Chamfer dimension washer



Abutment dimensions

d_a	min. 116 mm	Abutment diameter shaft
D_a	max. 104 mm	Abutment diameter housing
r_a	max. 1.5 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	159 kN
Basic static load rating	C_0	390 kN
Fatigue load limit	P_u	13.7 kN
Reference speed		1 700 r/min
Limiting speed		2 400 r/min
Minimum load factor	A	0.79

Mass

Mass bearing (including seat washer where applicable)	2.7 kg

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