

51120

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	3.937 in
Height	0.984 in
Outside diameter	5.315 in

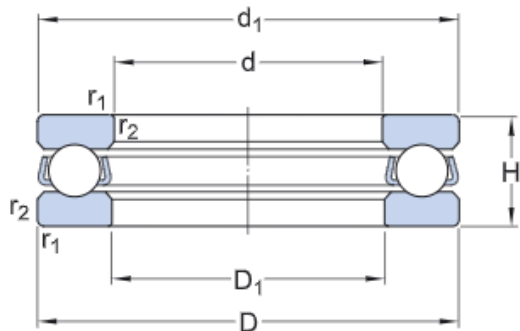
Performance

Basic dynamic load rating	18 120 lbf
Basic static load rating	59 574 lbf
Limiting speed	3 200 r/min
Reference speed	2 400 r/min

Properties

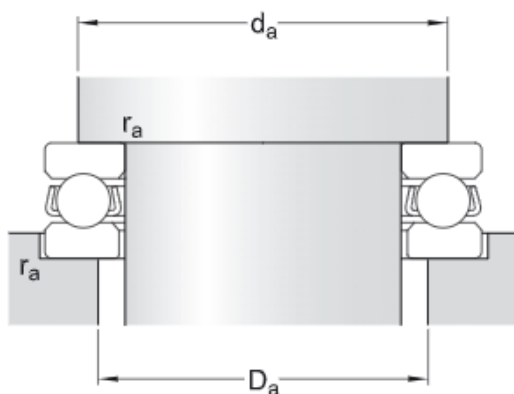
Axial load capability	Single-direction
Cage	Sheet metal
Coating	Without
Housing washer type	Flat
Material, bearing	Bearing steel
Number of rows	1
Tolerance class	Normal

Technical Specification



Dimensions

d	3.937 in	Bore diameter
D	5.315 in	Outside diameter
H	0.984 in	Height
d_1	≈ 5.315 in	Outside diameter shaft washer
D_1	≈ 4.016 in	Inner diameter housing washer
$r_{1,2}$	min. 0.039 in	Chamfer dimension washer



Abutment dimensions

d_a	min. 4.764 in	Abutment diameter shaft
D_a	max. 4.488 in	Abutment diameter housing
r_a	max. 0.039 in	Fillet radius

Calculation data

Basic dynamic load rating	C	18 120 lbf
Basic static load rating	C_0	59 574 lbf
Fatigue load limit	P_u	2 057 lbf
Reference speed		2 400 r/min
Limiting speed		3 200 r/min
Minimum load factor	A	0.44

Mass

Mass bearing (including seat washer where applicable)

2.138 lb

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