

53420 M

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	100 mm
Outside diameter	210 mm
Radius of aligning surface	160 mm
Thickness	90 mm

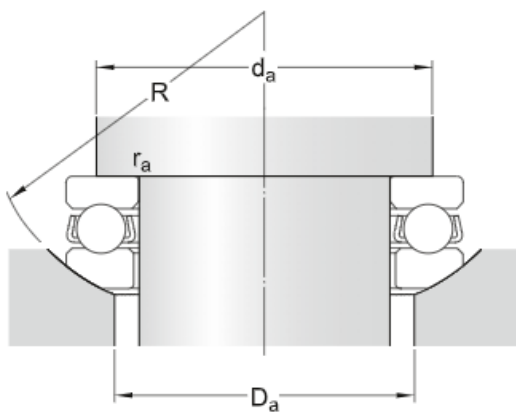
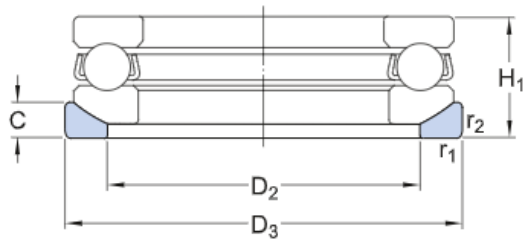
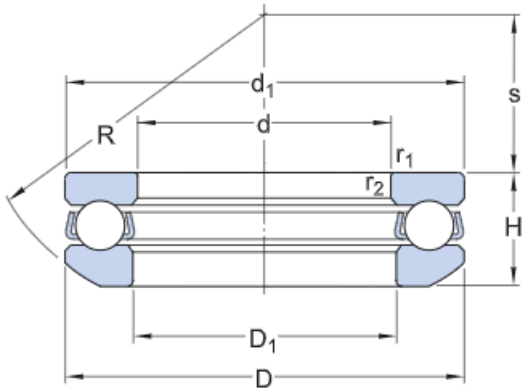
Performance

Basic dynamic load rating	371 kN
Basic static load rating	1 060 kN
Limiting speed	1 300 r/min
Reference speed	950 r/min

Properties

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

Technical Specification



Dimensions

d	100 mm	Bore diameter
D	210 mm	Outside diameter
H	90 mm	Height
H_1	98 mm	Height bearing including seat washer
d_1	≈ 205 mm	Outside diameter shaft washer
D_1	≈ 103 mm	Inner diameter housing washer
D_2	155 mm	Inner diameter sphered seat washer
D_3	220 mm	Outside diameter sphered housing washer
C	27 mm	Height sphered housing washer
R	160 mm	Radius sphered housing washer
s	50 mm	Centre height housing washer sphere
$r_{1,2}$	min. 3 mm	Chamfer dimension washer

Abutment dimensions

d_a	min. 165 mm	Abutment diameter shaft
D_a	max. 155 mm	Abutment diameter housing
r_a	max. 2 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	371 kN
Basic static load rating	C_0	1 060 kN
Fatigue load limit	P_u	31.5 kN
Reference speed		950 r/min
Limiting speed		1 300 r/min
Minimum load factor	A	5.8

Mass

Mass bearing (including seat washer where applicable)	18 kg
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Associated products

Seat washer	U 420
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