

53317

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 | 85 mm |
| Outside diameter | 150 mm |
| Radius of aligning surface | 112 mm |
| Thickness | 53.1 mm |

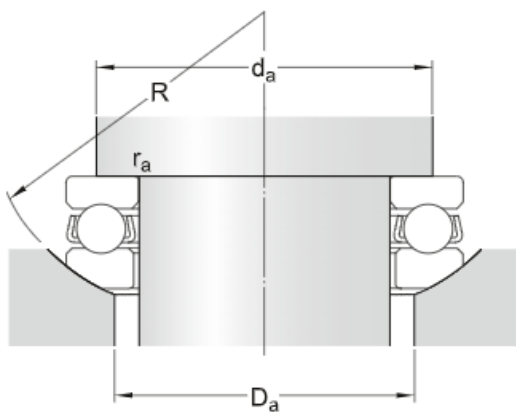
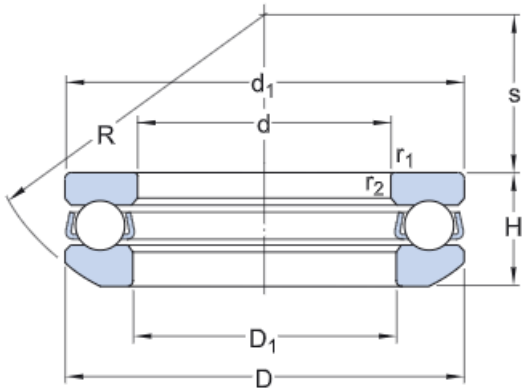
Performance

| | |
|---------------------------|-------------|
| Basic dynamic load rating | 174 kN |
| Basic static load rating | 405 kN |
| Limiting speed | 2 000 r/min |
| Reference speed | 1 500 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 | 85 mm | Bore diameter |
| D | 150 mm | Outside diameter |
| H | 53.1 mm | Height |
| H ₁ | 58 mm | Height bearing including seat washer |
| d ₁ | ≈ 150 mm | Outside diameter shaft washer |
| D ₁ | ≈ 88 mm | Inner diameter housing washer |
| D ₂ | 115 mm | Inner diameter sphered seat washer |
| D ₃ | 155 mm | Outside diameter sphered housing washer |
| C | 17.5 mm | Height sphered housing washer |
| R | 112 mm | Radius sphered housing washer |
| s | 43 mm | Centre height housing washer sphere |
| r _{1,2} | min. 1.5 mm | Chamfer dimension washer |

Abutment dimensions

| | | |
|----------------|-------------|---------------------------|
| d _a | min. 124 mm | Abutment diameter shaft |
| D _a | max. 115 mm | Abutment diameter housing |
| r _a | max. 1 mm | Fillet radius |



Calculation data

| | | |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C | 174 kN |
| Basic static load rating | C_0 | 405 kN |
| Fatigue load limit | P_u | 14 kN |
| Reference speed | | 1 500 r/min |
| Limiting speed | | 2 000 r/min |
| Minimum load factor | A | 1.1 |

Mass

| | |
|---|---------|
| Mass bearing (including seat washer where applicable) | 4.35 kg |
|---|---------|

Associated products

| | |
|-------------|-------|
| Seat washer | U 317 |
|-------------|-------|

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