

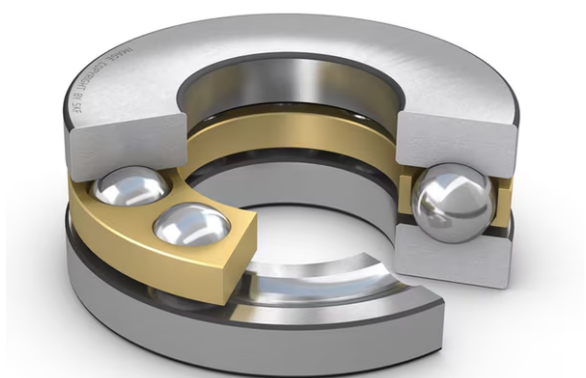


Image may differ from product. See technical specification for details.

## 51144 M

### 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    | 220 mm |
| Outside diameter | 270 mm |
| Height           | 37 mm  |

Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 178 kN      |
| Basic static load rating  | 800 kN      |
| Reference speed           | 1 300 r/min |
| Limiting speed            | 1 900 r/min |

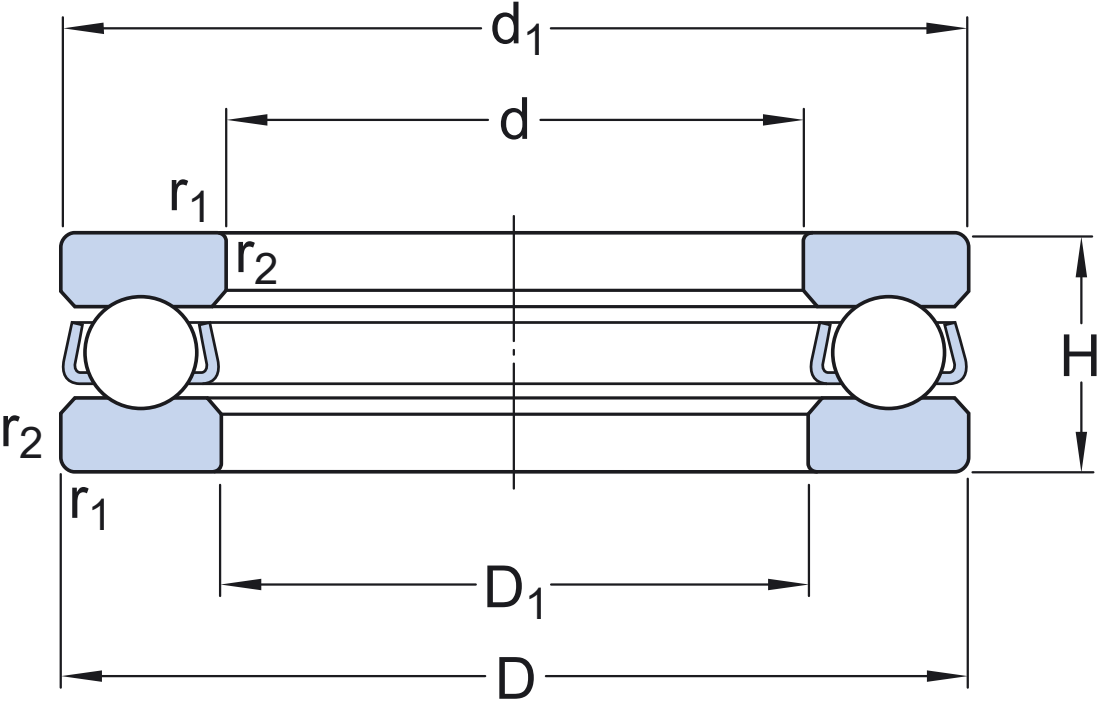
Properties

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

Logistics

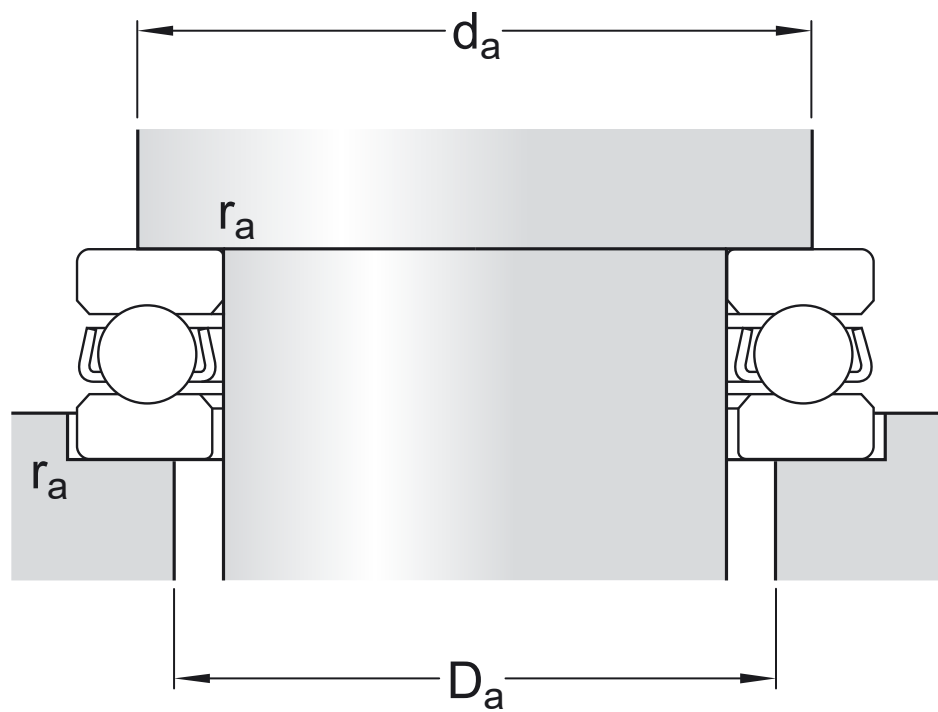
|                    |             |
|--------------------|-------------|
| Product net weight | 4.52 kg     |
| eClass code        | 23-05-10-01 |
| UNSPSC code        | 31171507    |

Technical specification



Dimensions

|           |                  |                               |
|-----------|------------------|-------------------------------|
| d         | 220 mm           | Bore diameter                 |
| D         | 270 mm           | Outside diameter              |
| H         | 37 mm            | Height                        |
| $d_1$     | $\approx 267$ mm | Outside diameter shaft washer |
| $D_1$     | $\approx 223$ mm | Inner diameter housing washer |
| $r_{1,2}$ | min. 1.1 mm      | Chamfer dimension washer      |



Abutment dimensions

|       |             |                           |
|-------|-------------|---------------------------|
| $d_a$ | min. 250 mm | Abutment diameter shaft   |
| $D_a$ | max. 240 mm | Abutment diameter housing |
| $r_a$ | max. 1 mm   | Fillet radius             |

Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 178 kN      |
| Basic static load rating  | $C_0$ | 800 kN      |
| Fatigue load limit        | $P_u$ | 19 kN       |
| Reference speed           |       | 1 300 r/min |
| Limiting speed            |       | 1 900 r/min |
| Minimum load factor       | A     | 3.3         |

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: [table 1](#)

## BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fit](#)

More Information

|                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div> <b>Product details</b></div> <div><div><a href="#">Designs and variants</a></div><div><a href="#">General bearing specifications</a></div><div><a href="#">Loads</a></div><div><a href="#">Temperature limits</a></div><div><a href="#">Permissible speed</a></div><div><a href="#">Mounting</a></div><div><a href="#">Designation system</a></div></div> | <div> <b>Engineering information</b></div> <div><div><a href="#">Principles of rolling bearing selection</a></div><div><a href="#">General bearing knowledge</a></div><div><a href="#">Bearing selection process</a></div><div><a href="#">Bearing interfaces</a></div><div><a href="#">Seat tolerances for standard conditions</a></div><div><a href="#">Lubrication</a></div><div><a href="#">External sealing, mounting and dismounting</a></div><div><a href="#">Bearing failure and how to prevent it</a></div></div> | <div> <b>Tools</b></div> <div><div><a href="#">SKF Product select</a></div><div><a href="#">Bearing Frequency Calculator</a></div><div><a href="#">SimPro Quick</a></div><div><a href="#">LubeSelect for SKF greases</a></div><div><a href="#">Heater selection tool</a></div></div> |
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