

# 51318 Single direction thrust ball bearing



## 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    | 90 mm  |
| Outside diameter | 155 mm |
| Height           | 50 mm  |

### Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 182 kN      |
| Basic static load rating  | 440 kN      |
| Reference speed           | 1 500 r/min |
| Limiting speed            | 2 200 r/min |

### Properties

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

# Technical Specification



## Dimensions

|           |             |                               |
|-----------|-------------|-------------------------------|
| d         | 90 mm       | Bore diameter                 |
| D         | 155 mm      | Outside diameter              |
| H         | 50 mm       | Height                        |
| $d_1$     | ≈ 155 mm    | Outside diameter shaft washer |
| $D_1$     | ≈ 93 mm     | Inner diameter housing washer |
| $r_{1,2}$ | min. 1.5 mm | Chamfer dimension washer      |

## Abutment dimensions

|       |             |                           |
|-------|-------------|---------------------------|
| $d_a$ | min. 129 mm | Abutment diameter shaft   |
| $D_a$ | max. 116 mm | Abutment diameter housing |
| $r_a$ | max. 1.5 mm | Fillet radius             |



## Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 182 kN      |
| Basic static load rating  | $C_0$ | 440 kN      |
| Fatigue load limit        | $P_u$ | 14.6 kN     |
| Reference speed           |       | 1 500 r/min |
| Limiting speed            |       | 2 200 r/min |
| Minimum load factor       | A     | 1.3         |

## Mass

Mass bearing (including seat washer where applicable)

3.8 kg

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