# RNA 4916Single row needle roller bearing with machined rings, with flanges, without inner ring

## Single row needle roller bearing with machined rings, with flanges, without inner ring

Single row needle roller bearings without an inner ring consist of an outer ring with a needle roller and cage assembly. They are an excellent choice for compact bearing arrangements in applications where hardened and ground raceways can be provided on the shaft. The outer ring includes two integral flanges to guide the bearing axially and an annular groove with one or more lubrication holes to facilitate relubrication.

- High radial load carrying capacity
- High stiffness
- Low cross-sectional height
- Accommodate axial displacement in both directions

## Overview

### Dimensions

| | |
|---|---|
| Bore diameter of needle roller complement | 90 mm |
| Outside diameter | 110 mm |
| Width | 30 mm |

### Performance

| | |
|---|---|
| Basic dynamic load rating | 88 kN |
| Basic static load rating | 183 kN |
| Reference speed | 4 500 r/min |
| Limiting speed | 5 000 r/min |

### Properties

| | |
|---|---|
| Bearing part | Bearing without inner ring |
| Number of rows | 1 |
| Outer ring type | Machined (solid) |
| Aligning feature | Without |
| Cage | Sheet steel |
| Number of flanges, outer ring | 2 |
| Tolerance class | Normal |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing | Without |

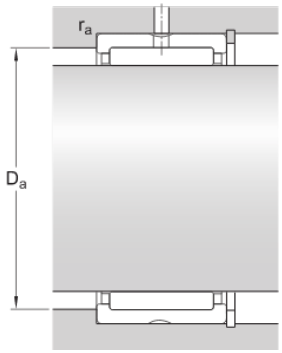
| | |
|---|---|
| Lubricant | None |
| Relubrication feature | With |

# Technical Specification

NOT FOUND

## Dimensions

| | | |
|---|---|---|
| $F_w$ | 90 mm | Diameter under rollers |
| D | 110 mm | Outside diameter |
| C | 30 mm | Width |
| $r_{1,2}$ | min. 1 mm | Chamfer dimension outer ring |




## Abutment dimensions

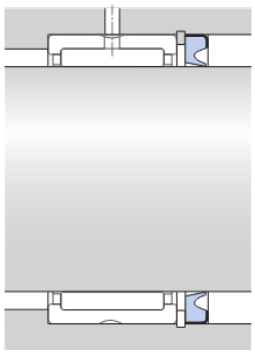
| | | |
|---|---|---|
| $D_a$ | max. 105 mm | Abutment diameter housing (with flanges) |
| $r_a$ | max. 1 mm | Fillet radius |

## Calculation data

| | | |
|---|---|---|
| Basic dynamic load rating | C | 88 kN |
| Basic static load rating | $C_0$ | 183 kN |
| Fatigue load limit | $P_u$ | 23.2 kN |
| Reference speed | | 4 500 r/min |
| Limiting speed | | 5 000 r/min |

## Mass

| | |
|---|---|
| Mass bearing | 0.52 kg |



## Associated seals

| | |
|---|---|
| 90x110x10 HMS5 RG | Radial shaft seal |

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