



NA 4914 Single row needle roller bearing with machined rings, with flanges

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Single row needle roller bearings incorporate cylindrical rollers that are small in diameter relative to their length. Owing to their large number of rollers, the bearings have a high load carrying capacity. 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
- Separable design

Overview

Dimensions

| | |
|------------------|--------|
| Bore diameter | 70 mm |
| Outside diameter | 100 mm |
| Width | 30 mm |

Performance

| | |
|---------------------------|-------------|
| Basic dynamic load rating | 84.2 kN |
| Basic static load rating | 163 kN |
| Reference speed | 5 000 r/min |
| Limiting speed | 5 600 r/min |

Properties

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

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

Technical Specification



Dimensions

| | | |
|-----------|-------------|---|
| d | 70 mm | Bore diameter |
| D | 100 mm | Outside diameter |
| B | 30 mm | Width |
| F | 80 mm | Raceway diameter inner ring |
| $r_{1,2}$ | min. 1 mm | Chamfer dimension outer ring |
| s | max. 1.5 mm | Permissible axial displacement from the normal position of one bearing ring relative to the other |

Abutment dimensions

| | | |
|-------|------------|---|
| d_a | min. 75 mm | Smallest permissible abutment diameter shaft, bearings with flanges |
| D_a | max. 95 mm | Abutment diameter housing (with flanges) |
| r_a | max. 1 mm | Fillet radius |



Calculation data

| | | |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C | 84.2 kN |
| Basic static load rating | C_0 | 163 kN |
| Fatigue load limit | P_u | 20.8 kN |
| Reference speed | | 5 000 r/min |
| Limiting speed | | 5 600 r/min |

Mass

Mass bearing

0.73 kg

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