

NK 37/20Single row needle roller bearing with machined rings, with flanges, without inner ring

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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	37 mm
Outside diameter	47 mm
Width	20 mm

Performance

Basic dynamic load rating	25.1 kN
Basic static load rating	46.5 kN
Reference speed	11 000 r/min
Limiting speed	12 000 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

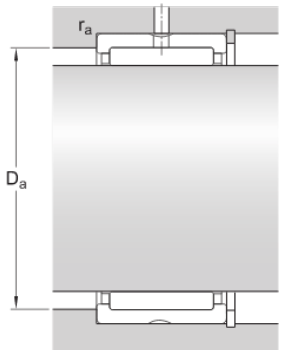
Lubricant	None
Relubrication feature	With

Technical Specification

NOT FOUND

Dimensions

F_w	37 mm	Diameter under rollers
D	47 mm	Outside diameter
C	20 mm	Width
$r_{1,2}$	min. 0.3 mm	Chamfer dimension outer ring



Abutment dimensions

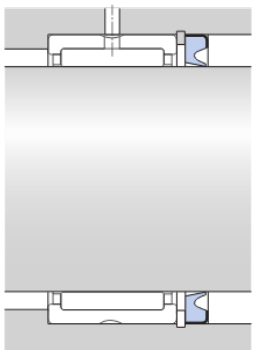
D_a	max. 45 mm	Abutment diameter housing (with flanges)
r_a	max. 0.3 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	25.1 kN
Basic static load rating	C_0	46.5 kN
Fatigue load limit	P_u	5.85 kN
Reference speed		11 000 r/min
Limiting speed		12 000 r/min

Mass

Mass bearing	0.077 kg



Associated seals

G 37x47x4	Radial shaft seal with a low cross-sectional height, single lip
SD 37x47x4	Radial shaft seal with a low cross-sectional height, double lip

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