

NK 30/20 TN

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	30 mm
Outside diameter	40 mm
Width	20 mm

Performance

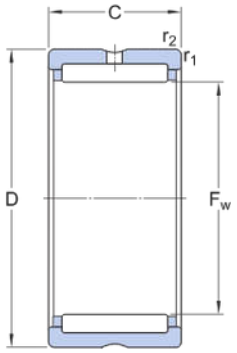
Basic dynamic load rating	25.1 kN
Basic static load rating	44 kN
Reference speed	13 000 r/min
Limiting speed	15 000 r/min

Properties

Bearing part	Bearing without inner ring
Number of rows	1
Outer ring type	Machined (solid)
Aligning feature	Without
Cage	Non-metallic
Number of flanges, outer ring	2
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	With

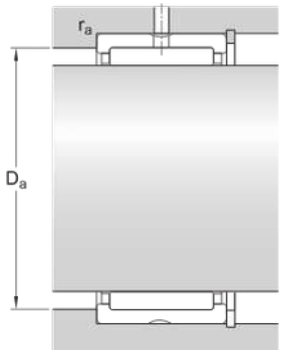
Technical Specification

Dimensions



F_w	30 mm	Diameter under rollers
D	40 mm	Outside diameter
C	20 mm	Width
$r_{1,2}$	min. 0.3 mm	Chamfer dimension outer ring

Abutment dimensions



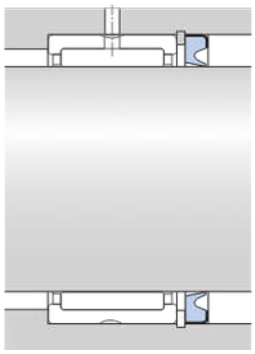
D_a	max. 38 mm	Abutment diameter housing (with flanges)
r_a	max. 0.3 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	25.1 kN
Basic static load rating	C_0	44 kN
Fatigue load limit	P_u	5.5 kN
Reference speed		13 000 r/min
Limiting speed		15 000 r/min

Mass

Mass bearing	0.061 kg



Associated seals

G 30x40x4	Radial shaft seal with a low cross-sectional height, single lip
SD 30x40x4	Radial shaft seal with a low cross-sectional height, double lip

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