

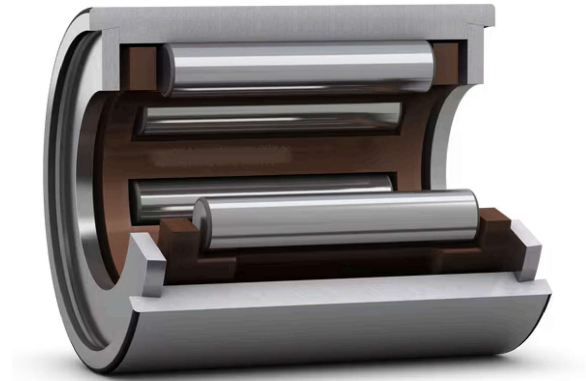


Image may differ from product. See technical specification for details.

NK 8/12 TN

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 non-separable closure rings that act as flanges to guide the bearing axially.

- 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	8 mm
Outside diameter	15 mm
Width	12 mm

Performance

Basic dynamic load rating	3.8 kN
Basic static load rating	4.25 kN
Reference speed	32 000 r/min
Limiting speed	36 000 r/min

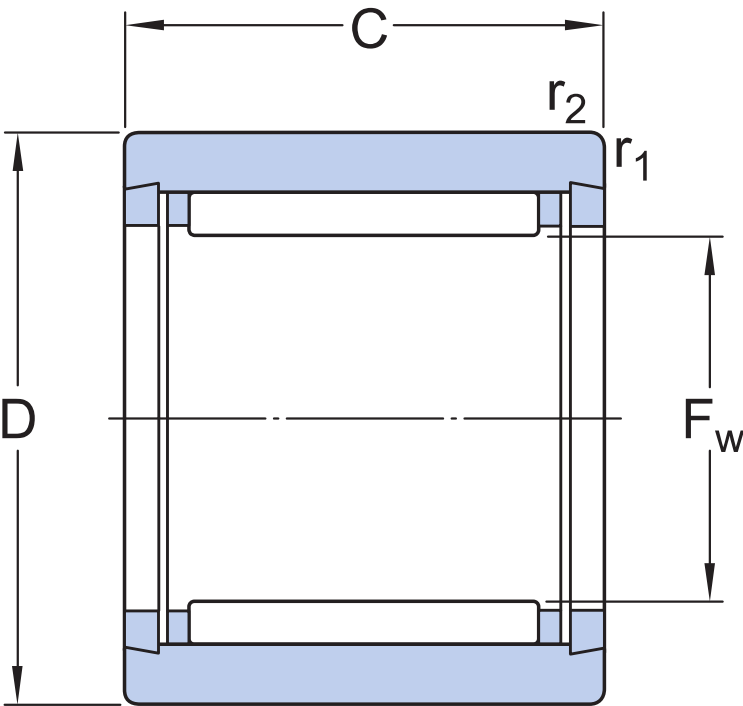
Properties

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	Without

Logistics

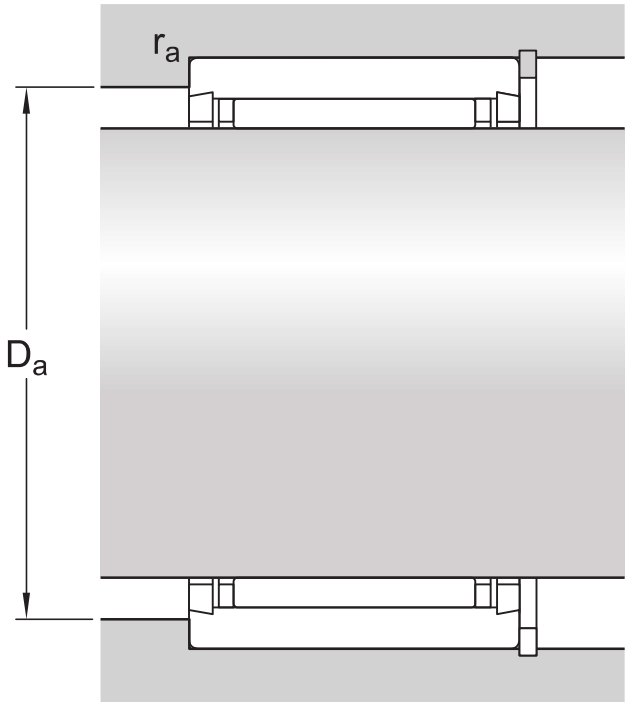
Product net weight	0.009 kg
eClass code	23-05-09-03
UNSPSC code	31171512

Technical specification



Dimensions

F _w	8 mm	Diameter under rollers
D	15 mm	Outside diameter
C	12 mm	Width
r _{1,2}	min. 0.3 mm	Chamfer dimension outer ring

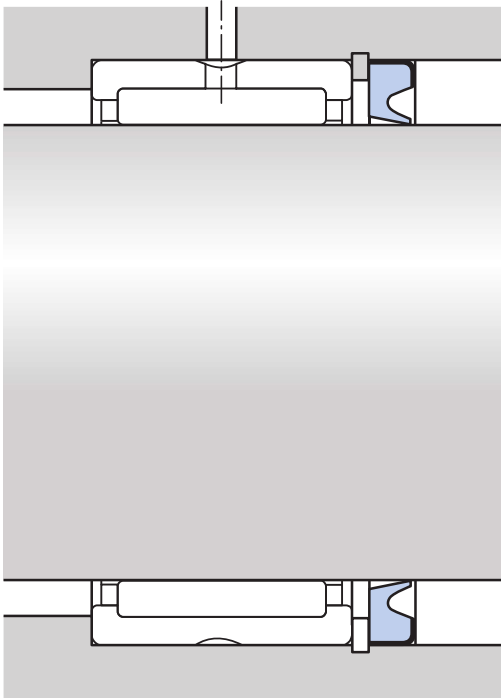


Abutment dimensions

D_a	max. 13 mm	Diameter of housing abutment
r_a	max. 0.3 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	3.8 kN
Basic static load rating	C_0	4.25 kN
Fatigue load limit	P_u	0.465 kN
Reference speed		32 000 r/min
Limiting speed		36 000 r/min



Associated seals

G 8x15x3	Radial shaft seal with a low cross-sectional height, single lip
SD 8x15x3	Radial shaft seal with a low cross-sectional height, double lip

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: [Normal, P6, P5, ISO - F6 \(F_w\)](#)
- [Radial internal clearance: table](#)

DESIGN CONSIDERATIONS

- [Housing tolerances: table](#)
- [Shaft tolerances: Operating clearance](#)

Compatible products

Recommended product

Radial shaft seal with low cross-sectional height for needle roller bearings, G design

[G 8X15X3](#)

More Information

 Product details Designs and variants General bearing specifications Loads Temperature limits Permissible speed Design considerations Designation system	 Engineering information Principles of rolling bearing selection General bearing knowledge Bearing selection process Bearing failure and how to prevent it	 Tools SimPro Quick Bearing Select Engineering Calculator LubeSelect for SKF greases Heater Selection Tool skf.com/mount
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