

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

NKS 70

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	70 mm
Outside diameter	90 mm
Width	28 mm

Performance

Basic dynamic load rating	78 kN
Basic static load rating	120 kN
Reference speed	5 600 r/min
Limiting speed	6 300 r/min
SKF performance class	SKF Explorer

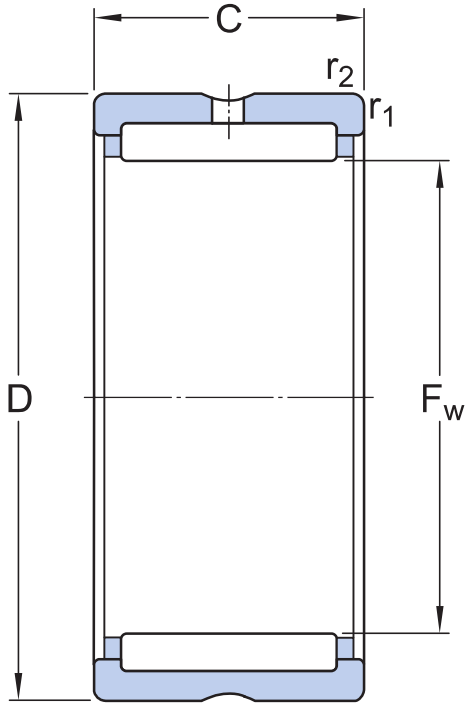
Properties

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
Indicative carbon footprint for new product	1.4 kg CO_2e

Logistics

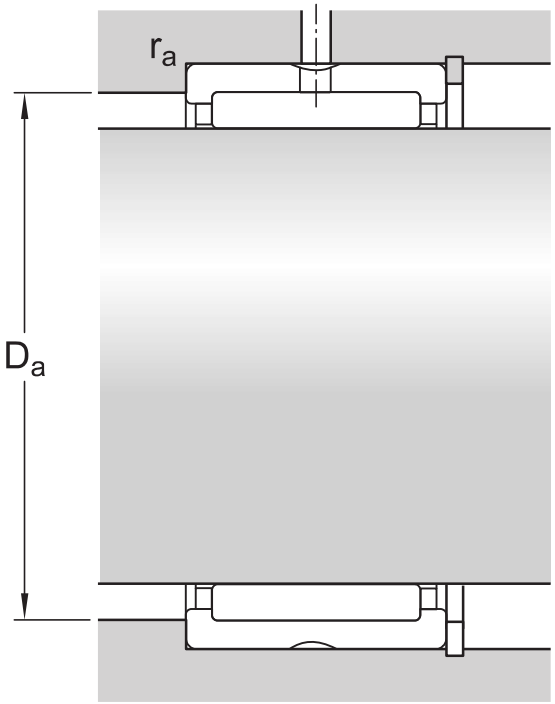
Product net weight	0.38 kg
eClass code	23-05-09-03
UNSPSC code	31171512

Technical specification



Dimensions

F_w	70 mm	Diameter under rollers
D	90 mm	Outside diameter
C	28 mm	Width
$r_{1,2}$	min. 1.1 mm	Chamfer dimension outer ring

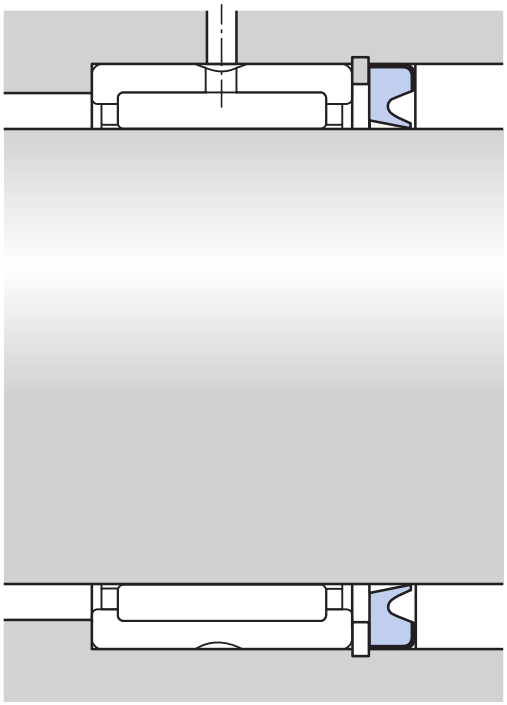


Abutment dimensions

D_a	max. 83.5 mm	Diameter of housing abutment
r_a	max. 1 mm	Fillet radius

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	78 kN
Basic static load rating	C_0	120 kN
Fatigue load limit	P_u	15.3 kN
Reference speed		5 600 r/min
Limiting speed		6 300 r/min



Associated seals

70x90x10 HMS5 RG	Radial shaft seal

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 rubber outside diameter and single sealing lip, for oil or grease	70X90X10 HMS5 RG

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