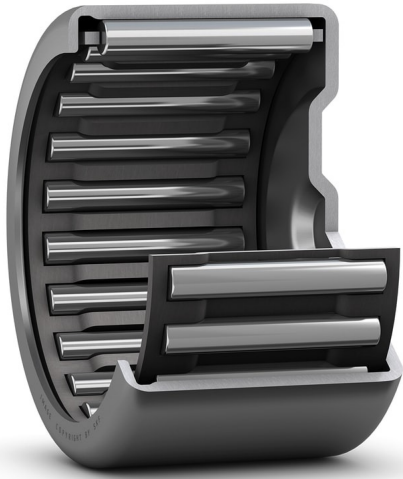


BK 0509 Drawn cup needle roller bearing with a closed end



Drawn cup needle roller bearing with a closed end

Drawn cup needle roller bearings are typically used in applications where the housing bore cannot be used as a raceway for a needle roller and cage assembly, but where a very compact and economical bearing arrangement is required. Owing to the large number of rollers, the bearings have a high load carrying capacity and stiffness. The closed end makes them suitable for bearing arrangements where they are situated at the end of a shaft.

- High radial load carrying capacity
- Accommodate small axial guidance forces
- High stiffness
- Very low cross-sectional height

Overview

Dimensions

Bore diameter of needle roller complement	5 mm
Outside diameter	9 mm
Width	9 mm

Performance

Basic dynamic load rating	2.38 kN
Basic static load rating	2.08 kN
Reference speed	22 000 r/min
Limiting speed	24 000 r/min

Properties

Bearing part	Bearing without inner ring
Number of rows	1
Outer ring type	Drawn cup with one closed end
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	Without

Technical Specification



Dimensions

F_w	5 mm	Diameter under rollers
D	9 mm	Outside diameter
C	9 mm	Width
C_1	min. 7.4 mm	Depth of the drawn cup BK
r	min. 0.4 mm	Chamfer dimension drawn cup (outer ring)

Calculation data

Basic dynamic load rating	C	2.38 kN
Basic static load rating	C_0	2.08 kN
Fatigue load limit	P_u	0.22 kN
Reference speed		22 000 r/min
Limiting speed		24 000 r/min

Mass

Mass bearing	0.0021 kg
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Associated products

Radial shaft seal with a low cross-sectional height, single lip	G 5x9x2 S
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