

NKI 80/25

Single row needle roller bearing with machined rings, with flanges



Single row needle roller bearings incorporate cylindrical rollers that are small in diameter relative to their length. Owing to their large number of rollers, the bearings have a high load carrying capacity. 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
- Separable design

Overview

Dimensions

Bore diameter	3.15 in
Outside diameter	4.331 in
Width	0.984 in

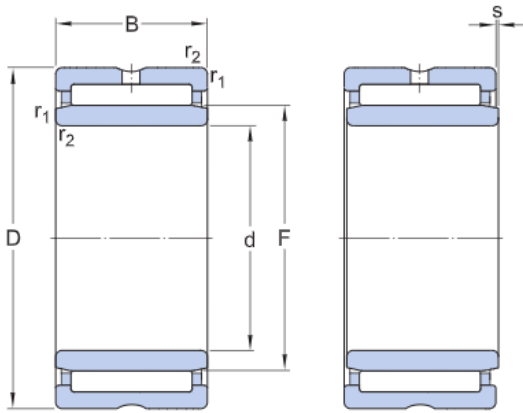
Performance

Basic dynamic load rating	16 209 lbf
Basic static load rating	31 473 lbf
Limiting speed	5 000 r/min
Reference speed	4 500 r/min

Properties

Aligning feature	Without
Bearing part	Complete bearing
Cage	Sheet metal
Coating	Without
Lubricant	None
Material, bearing	Bearing steel
Number of flanges, outer ring	2
Number of rows	1
Outer ring type	Machined (solid)
Radial internal clearance	CN
Relubrication feature	With
Sealing	Without
Tolerance class	Normal

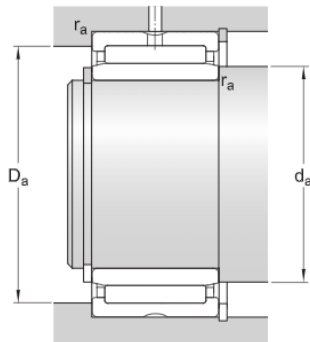
Technical Specification



Dimensions

d	3.15 in	Bore diameter
D	4.331 in	Outside diameter
B	0.984 in	Width
F	3.543 in	Raceway diameter inner ring
$r_{1,2}$	min. 0.039 in	Chamfer dimension outer ring
s	max. 0.0394 in	Permissible axial displacement from the normal position of one bearing ring relative to the other

Abutment dimensions



d_a	min. 3.346 in	Smallest permissible abutment diameter shaft, bearings with flanges
D_c	max. 4.134 in	Abutment diameter housing (with flanges)
r_a	max. 0.039 in	Fillet radius

Calculation data

Basic dynamic load rating	C	16 209 lbf
Basic static load rating	C_0	31 473 lbf
Fatigue load limit	P_u	4 047 lbf
Reference speed		4 500 r/min
Limiting speed		5 000 r/min

Mass

Mass bearing

1.497 lb

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