

C 2316 K



CARB toroidal roller bearing with tapered bore (1:12)

CARB toroidal roller bearings are unique: as well as accommodating misalignment without increased stress levels, they also provide frictionless axial movement within the bearing in the non-locating position in self-aligning bearing arrangements. Being SKF Explorer bearings, they can accommodate higher load levels and provide significantly extended service life.

- Accommodate misalignment and axial displacement within the bearing
- High radial load carrying capacity
- Provide frictionless axial movement
- Long bearing system life
- Reduce noise and vibration levels

Overview

Dimensions

Bore diameter	80 mm
Outside diameter	170 mm
Width	58 mm

Performance

Basic dynamic load rating	510 kN
Basic static load rating	550 kN
Reference speed	3 400 r/min
Limiting speed	4 500 r/min
SKF performance class	SKF Explorer

Properties

Number of rows	1
Locating feature, bearing outer ring	Without
Bore type	Tapered 1:12
Cage	Sheet metal
Radial internal clearance	CN
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification

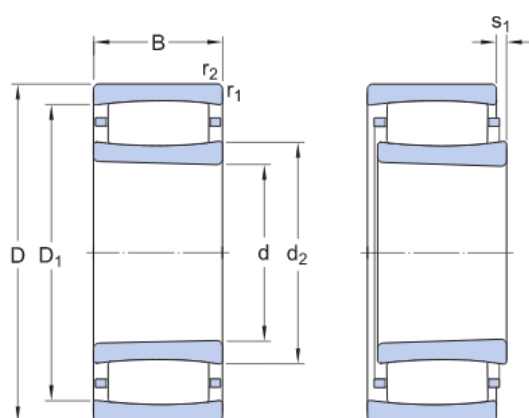
SKF performance class

SKF Explorer

Bore type

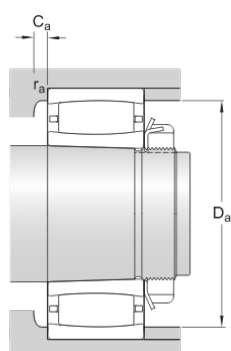
Tapered 1:12

Dimensions



d	80 mm	Bore diameter
D	170 mm	Outside diameter
B	58 mm	Width
d ₂	≈ 102 mm	Shoulder diameter of inner ring
D ₁	≈ 146 mm	Shoulder or recess diameter of outer ring
s ₁	max. 10.1 mm	Permissible axial displacement
r _{1,2}	min. 2.1 mm	Chamfer dimension

Abutment dimensions



D _ε	min. 133 mm	Diameter of housing abutment
D _ε	max. 158 mm	Abutment diameter housing
C _ε	min. 2.4 mm	Minimum width of space required in housing
r _a	max. 2 mm	Radius of fillet
A negative value for C _a		

Calculation data

Basic dynamic load rating	C	510 kN
Basic static load rating	C ₀	550 kN
Fatigue load limit	P _u	60 kN

Reference speed		3 400 r/min
Limiting speed		4 500 r/min
Misalignment factor	k_1	0.107
Internal clearance factor	k_2	0.101

Mass

Mass		6.15 kg
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