



# C 3044

## CARB toroidal roller bearing

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	8.661 in
Outside diameter	13.386 in
Width	3.543 in

### Performance

Basic dynamic load rating	296 748 lbf
Basic static load rating	458 610 lbf
Limiting speed	2 200 r/min
Reference speed	1 600 r/min
SKF performance class	SKF Explorer

### Properties

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

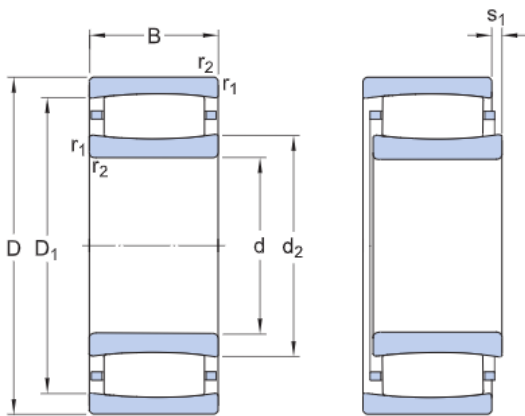
# Technical Specification

SKF performance class

SKF Explorer

Bore type

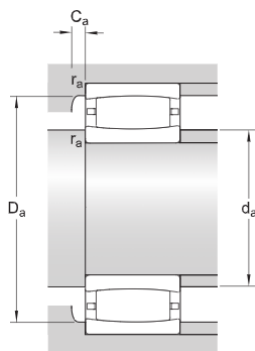
Cylindrical



## Dimensions

d	8.661 in	Bore diameter
D	13.386 in	Outside diameter
B	3.543 in	Width
d <sub>2</sub>	≈ 10.118 in	Shoulder diameter of inner ring
D <sub>1</sub>	≈ 12.205 in	Shoulder or recess diameter of outer ring
s <sub>1</sub>	max. 0.6772 in	Permissible axial displacement
r <sub>1,2</sub>	min. 0.118 in	Chamfer dimension

## Abutment dimensions



d <sub>a</sub>	min. 9.173 in	Diameter of shaft abutment
d <sub>e</sub>	max. 10.787 in	Diameter of shaft abutment
D <sub>i</sub>	min. 11.614 in	Diameter of housing abutment
D <sub>o</sub>	max. 12.874 in	Abutment diameter housing
C <sub>e</sub>	min. 0.122 in	Minimum width of space required in housing
r <sub>a</sub>	max. 0.098 in	Radius of fillet
A negative value for C <sub>a</sub>		

## Calculation data

Basic dynamic load rating

C

296 748 lbf

Basic static load rating	$C_0$	458 610 lbf
Fatigue load limit	$P_u$	39 566 lbf
Reference speed		1 600 r/min
Limiting speed		2 200 r/min
Misalignment factor	$k_1$	0.114
Internal clearance factor	$k_2$	0.104

## Mass

Mass		65.036 lb
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