



# 308-ZNR Deep groove ball bearing with filling slots and integral sealing

## Deep groove ball bearing with filling slots and integral sealing

Single row deep groove ball bearings with filling slots, a snap ring, and shields on one or both sides, accommodate more balls than standard deep groove ball bearings. They are of a simple, yet versatile, design and are robust in operation, requiring little maintenance. They can accommodate radial and axial loads in both directions. They have a higher radial load carrying capacity than the corresponding bearings without filling slots but have a limited axial load carrying capacity due to the filling slots. The snap ring, fitted in an annular groove in the outer ring, facilitates axial location of the bearings within their housings. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Snap ring facilitates axial location within housing
- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Accommodate higher radial loads than corresponding bearings without filling slots, with limited axial loads in both directions
- Require little maintenance

## Overview

### Dimensions

Bore diameter	40 mm
Outside diameter	90 mm
Width	23 mm

### Performance

Basic dynamic load rating	45.7 kN
Basic static load rating	36 kN
Reference speed	14 000 r/min
Limiting speed	8 500 r/min

### Properties

Filling slots	With
Number of rows	1
Locating feature, bearing outer ring	Snap ring (fitted) mm
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Normal

Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on one side
Sealing type	Non-contact
Lubricant	None
Relubrication feature	Without

# Technical Specification

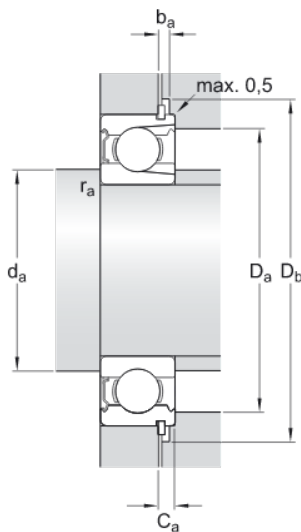


## Dimensions

d	40 mm	Bore diameter
D	90 mm	Outside diameter
B	23 mm	Width
d <sub>1</sub>	≈ 56.11 mm	Shoulder diameter
D <sub>2</sub>	≈ 77.7 mm	Recess diameter
D <sub>3</sub>	86.79 mm	Diameter of snap ring groove
D <sub>4</sub>	96.5 mm	Outside diameter of snap ring
b	2.7 mm	Width of snap ring groove
C	3.28 mm	Distance from outer ring side face to snap ring groove
f	2.46 mm	Width of snap ring
r <sub>0</sub>	max. 0.6 mm	Bottom radius of snap ring groove
r <sub>1,2</sub>	min. 1.5 mm	Chamfer dimension

## Abutment dimensions

d <sub>a</sub>	min. 49 mm	Diameter of shaft abutment
d <sub>a</sub>	max. 56 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 81 mm	Diameter of housing abutment
D <sub>b</sub>	min. 98 mm	Diameter of snap ring recess in the housing
b <sub>a</sub>	min. 3 mm	Width of snap ring recess in the housing
C <sub>a</sub>	max. 5.74 mm	Distance from outer ring side face to snap ring back face
r <sub>a</sub>	max. 1.5 mm	Radius of shaft or housing fillet



## Calculation data

Basic dynamic load rating	C	45.7 kN
Basic static load rating	$C_0$	36 kN
Fatigue load limit	$P_u$	1.53 kN
Reference speed		14 000 r/min
Limiting speed		8 500 r/min
Minimum load factor	$k_r$	0.05

## Mass

Mass bearing	0.64 kg
--------------	---------

## Included products

Snap ring	SP 90
-----------	-------

## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

# Terms and conditions

By accessing and using this website / app owned and published by AB SKF (publ.) (556007-3495 · Gothenburg) ("SKF"), you agree to the following terms and conditions:

## Warranty Disclaimer and Limitation of Liability

Although every care has been taken to assure the accuracy of the information on this website / app, SKF provides this information "AS IS" and DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. You acknowledge that your use of this website / app is at your sole risk, that you assume full responsibility for all costs associated with use of this website / app, and that SKF shall not be liable for any direct, incidental, consequential, or indirect damages of any kind arising out of your access to, or use of the information or software made available on this website / app. Any warranties and representations in this website / app for SKF products or services that you purchase or use will be subject to the agreed upon terms and conditions in the contract for such product or service. Further, for non-SKF websites / apps that are referenced in our website / app or where a hyperlink appears, SKF makes no warranties concerning the accuracy or reliability of the information in these websites / apps and assumes no responsibility for material created or published by third parties contained therein. In addition, SKF does not warrant that this website / app or these other linked websites / apps are free from viruses or other harmful elements.

## Third Party Services

When viewing YouTube content via the SKF website(s) (i.e. using YouTube API Services), you agree to be bound by the YouTube Terms of Service.

## Copyright

Copyright in this website / app copyright of the information and software made available on this website / app rest with SKF or its licensors. All rights are reserved. All licensed material will reference the licensor that has granted SKF the right to use the material. The information and software made available on this website / app may not be reproduced, duplicated, copied, transferred, distributed, stored, modified, downloaded or otherwise exploited for any commercial use without the prior written approval of SKF. However, it may be reproduced, stored and downloaded for use by individuals without prior written approval of SKF. Under no circumstances may this information or software be supplied to third parties.

This website /app includes certain images used under license from Shutterstock, Inc.

## Trademarks and Patents

All trademarks, brand names, and corporate logos displayed on the website / app are the property of SKF or its licensors, and may not be used in any way without prior written approval by SKF. All licensed trademarks published on this website / app reference the licensor that has granted SKF the right to use the trademark. Access to this website / app does not grant to the user any license under any patents owned by or licensed to SKF.

## Changes

SKF reserves the right to make changes or additions to this website / app at any time.