

Deep Groove Ball Bearing-16003



Model	
-	
-	
-	<b>16003</b>
Basic load rating	
Dynamic	
C	
kN	17
static	
C0	
kN	35
Dimension	
-	
B	
mm	8
-	
D	
mm	6.37
-	
d	
mm	3.25
Rated Speed	
Reference speed	
r/min	
-	45 000
limit speed1	
r/min	
-	28 000
Dimension	
d1	
≈	
mm	23
D1	
≈	
mm	-
D2	
≈	
mm	31.2
r1,2	
Min	
mm	0.3
The dimensions of the shoulder and chamfer	
da	
Min	
mm	19
da	
Max	
mm	-
Da	
Max	
mm	33
ra	

Max	
mm	0.3
Computing coefficients	
-	
kr	
-	0.02
-	
f0	
-	14
Weight	
-	
-	
kg	0.031
Brand	MONTON

## Introduction:

MONTON manufacture full range of deep groove ball bearings (DGBB). Besides radial loads, DGBB can take axial loads in both directions and offer low frictional torque and high-speed components ideal for applications requiring low noise and vibration.

Deep groove ball bearings are widely use in various industry and machine. They are suitable for high and very high speeds, accommodate radial and axial loads in both directions, and require little maintenance. Because deep groove ball bearings are the most widely used bearing type, MONTON can supply many types in designs, variants and sizes.



## Types:

### ? Single row deep groove ball bearings

Single row deep groove ball bearings are available capped (with seals or shields) or open. Open bearings that are also available capped may have recesses in the ring side faces.

### ? Stainless steel deep groove ball bearings

Stainless steel deep groove ball bearings are available capped (with seals or shields) or open. Open bearings that are also available capped may have recesses in the ring side faces .

These bearings have a lower load carrying capacity than same-sized bearings made of high chromium steel.

### ? Single row deep groove ball bearings with filling slots

Single row deep groove ball bearings with filling slots have a filling slot in both the inner and outer rings to accommodate more balls than standard deep groove ball bearings.

Filling slot bearings have a higher radial load carrying capacity than bearings without

filling slots, but their axial load carrying capacity is limited They are also unable to operate at the same high speeds as bearings without filling slots.

Deep groove ball bearings with filling slots are available open or with shields on one or both sides They are also available with or without a snap ring groove Open bearings that are also available with shields may have recesses in the outer ring.

Large size deep groove ball bearings with filling slots, without cage, are available on request.

### ? Bearings with a snap ring groove

1. We can simplify the design of an arrangement

- by locating the bearing axially in the housing by a snap ring
- by saving space
- by significantly reducing mounting time

**Appropriate snap rings are shown in the product table along with their designation and dimensions.**

The following variants are available:

- open bearings with a snap ring groove only (designation suffix N)
- open bearings with a snap ring (designation suffix NR)
- bearings with a snap ring and a shield on the opposite side (designation suffix ZNR)
- bearings with a snap ring and a shield on the same side (designation suffix ZNBR)
- bearings with a snap ring and a shield on both sides (designation suffix 2ZNR)

### Bearings with flange

parts of deep groove ball bearings are also available with a flange on the outer ring (designation suffix F/R) They:

- can be supplied open or sealed
- are relatively easy to locate axially in the housing
- enable easier and more cost effective housing bore manufacture, no shoulders required

### Cages

Depending on the design, series and size, deep groove ball bearings are design with several types cages. This can meet with different application.

### Seals (designation suffix Z or ZS)

- are primarily intended for applications where the inner ring rotates
- are fitted in the outer ring and form a narrow gap with the inner ring
- are made of sheet steel, or stainless steel for stainless steel bearings
- protect from dirt and debris without friction losses
- are supplied in different designs:
  - with designation suffix **Z**: either with (a) or without (b) an extension in the shield bore or on some stainless steel bearings, the shield bore can extend into a recess in the inner ring (c)
  - with designation suffix **ZS** (stainless steel bearings only): fixed in the outer ring by a retaining ring and may extend into a recess (d)
  - available on request for stainless steel bearings only: shields made of PTFE





**Welcome contact with MONTON for more information!**