

C 2316 K

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 NR 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

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		
Da	min. 133 mm	Diameter of housing abutment
Da	max. 158 mm	Abutment diameter housing
Ca	min. 2.4 mm	Minimum width of space required in housing
ra	max. 2 mm	Radius of fillet

A negative value for C_a is theoretical.

Calculation data

AGA performance class		AGA Explorer
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

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P5, tapered bore 1:12, tapered bore 1:30
- Radial internal clearance: cylindrical bore, tapered bore

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit