

C 31/530 KM

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	530 mm	Bore diameter
D	870 mm	Outside diameter
B	272 mm	Width
d ₂	≈ 635 mm	Shoulder diameter of inner ring
D ₁	≈ 781 mm	Shoulder or recess diameter of outer ring
s ₁	max. 44.4 mm	Permissible axial displacement
r _{1,2}	min. 7.5 mm	Chamfer dimension



Abutment dimensions		
D _a	min. 745 mm	Diameter of housing abutment
D _a	max. 838 mm	Abutment diameter housing
C _a	min. 5.4 mm	Minimum width of space required in housing
r _a	max. 6 mm	Radius of fillet

A negative value for C_a is theoretical.

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	8 800 kN
Basic static load rating	C_0	15 600 kN
Fatigue load limit	P_u	1 020 kN
Reference speed		500 r/min
Limiting speed		670 r/min
Misalignment factor	k_1	0.115
Internal clearance factor	k_2	0.097

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