

C 31/500 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	500 mm	Bore diameter
D	830 mm	Outside diameter
B	264 mm	Width
d ₂	≈ 605 mm	Shoulder diameter of inner ring
D ₁	≈ 738 mm	Shoulder or recess diameter of outer ring
s ₁	max. 75.3 mm	Permissible axial displacement
r _{1,2}	min. 7.5 mm	Chamfer dimension



Abutment dimensions		
Da	min. 706 mm	Diameter of housing abutment
Da	max. 798 mm	Abutment diameter housing
Ca	min. -11.7 mm	Minimum width of space required in housing
ra	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	7 500 kN
Basic static load rating	C_0	12 700 kN
Fatigue load limit	P_u	850 kN
Reference speed		530 r/min
Limiting speed		750 r/min
Misalignment factor	k_1	0.099
Internal clearance factor	k_2	0.116

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