

C 3176 KMB/C3

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	380 mm	Bore diameter
D	620 mm	Outside diameter
B	194 mm	Width
d ₂	≈ 446 mm	Shoulder diameter of inner ring
D ₁	≈ 551 mm	Shoulder or recess diameter of outer ring
s ₁	max. 25.4 mm	Permissible axial displacement
r _{1,2}	min. 5 mm	Chamfer dimension



Abutment dimensions		
da	min. 400 mm	Diameter of shaft abutment
da	max. 445 mm	Diameter of shaft abutment
Da	min. 526 mm	Diameter of housing abutment
Da	max. 600 mm	Abutment diameter housing

C_a	min. 7.3 mm	Minimum width of space required in housing
r_a	max. 4 mm	Radius of fillet
A negative value for C_a is theoretical.		

Calculation data

AGA performance class	AGA Explorer	
Basic dynamic load rating	C	4 400 kN
Basic static load rating	C_0	7 200 kN
Fatigue load limit	P_u	520 kN
Reference speed		750 r/min
Limiting speed		1 000 r/min
Misalignment factor	k_1	0
Internal clearance factor	k_2	0.106

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