

C 3120 V



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. This full complement bearing, which has a lower speed rating, uses as many rollers as possible, giving it the highest possible load rating.

- Accommodate misalignment and axial displacement within the bearing
- Very high radial load carrying capacity
- Provide frictionless axial movement
- Long bearing system life

Bore type		Cylindrical																											
		<table><tr><th colspan="3">Dimensions</th></tr><tr><td>d</td><td>100 mm</td><td>Bore diameter</td></tr><tr><td>D</td><td>165 mm</td><td>Outside diameter</td></tr><tr><td>B</td><td>52 mm</td><td>Width</td></tr><tr><td>d₂</td><td>≈ 119 mm</td><td>Shoulder diameter of inner ring</td></tr><tr><td>D₁</td><td>≈ 150 mm</td><td>Shoulder or recess diameter of outer ring</td></tr><tr><td>s₁</td><td>max. 10.1 mm</td><td>Permissible axial displacement</td></tr><tr><td>s₂</td><td>max. 4.7 mm</td><td>Permissible axial displacement</td></tr><tr><td>r_{1,2}</td><td>min. 2 mm</td><td>Chamfer dimension</td></tr></table>	Dimensions			d	100 mm	Bore diameter	D	165 mm	Outside diameter	B	52 mm	Width	d ₂	≈ 119 mm	Shoulder diameter of inner ring	D ₁	≈ 150 mm	Shoulder or recess diameter of outer ring	s ₁	max. 10.1 mm	Permissible axial displacement	s ₂	max. 4.7 mm	Permissible axial displacement	r _{1,2}	min. 2 mm	Chamfer dimension
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Technical drawing of a shaft abutment. The drawing shows a cross-section of a shaft with a central hole. The shaft has a diameter d_a and a fillet radius r_a at the top and bottom edges. The housing has an outer diameter D_a . The drawing includes dimension lines and arrows indicating the measurements.

Abutment dimensions

d_a min. 111 mm Diameter of shaft abutment

d_a max. 136 mm Diameter of shaft abutment

D_a max. 154 mm Abutment diameter housing

r_a max. 2 mm Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	475 kN
Basic static load rating	C ₀	655 kN
Fatigue load limit	P _u	71 kN
Limiting speed		1 300 r/min
Misalignment factor	k ₁	0.112
Internal clearance factor	k ₂	0.1

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