

C 3144 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                | 220 mm       | Bore diameter                             |
| D                | 370 mm       | Outside diameter                          |
| B                | 120 mm       | Width                                     |
| d <sub>2</sub>   | ≈ 268 mm     | Shoulder diameter of inner ring           |
| D <sub>1</sub>   | ≈ 333 mm     | Shoulder or recess diameter of outer ring |
| s <sub>1</sub>   | max. 22.3 mm | Permissible axial displacement            |
| r <sub>1,2</sub> | min. 4 mm    | Chamfer dimension                         |



| Abutment dimensions |             |                                            |
|---------------------|-------------|--------------------------------------------|
| D <sub>a</sub>      | min. 315 mm | Diameter of housing abutment               |
| D <sub>a</sub>      | max. 353 mm | Abutment diameter housing                  |
| C <sub>a</sub>      | min. 3.5 mm | Minimum width of space required in housing |
| r <sub>a</sub>      | max. 3 mm   | Radius of fillet                           |

A negative value for  $C_a$  is theoretical.

## Calculation data

| AGA performance class     |       | AGA Explorer |
|---------------------------|-------|--------------|
| Basic dynamic load rating | C     | 1 900 kN     |
| Basic static load rating  | $C_0$ | 2 900 kN     |
| Fatigue load limit        | $P_u$ | 245 kN       |
| Reference speed           |       | 1 400 r/min  |
| Limiting speed            |       | 1 800 r/min  |
| Misalignment factor       | $k_1$ | 0.114        |
| 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