

23144-2CS5K/VT143

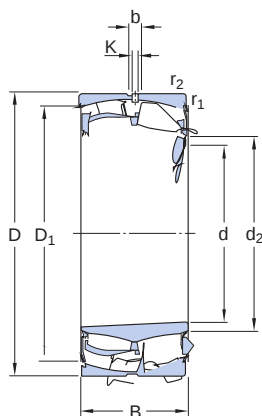


Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. Under normal operating conditions, sealed bearings are almost maintenance-free, keeping service costs and grease consumption low. The design includes features to facilitate relubrication.

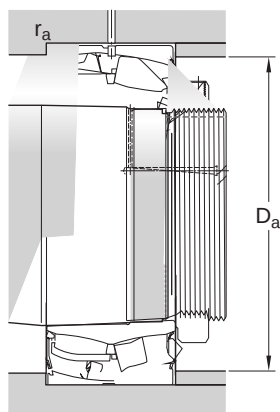
- Accommodate misalignment
- High load carrying capacity
- Sealed for increased reliability, with relubrication features
- Low friction and long service life
- Increased wear resistance

Bore type

Tapered 1:12



| Dimensions        |                |                                                |
|-------------------|----------------|------------------------------------------------|
| d                 | 220 mm         | Bore diameter                                  |
| t <sub>Δdmp</sub> | 0.0 – 0.046 mm | Deviation limits of mid-range bore diameter    |
| t <sub>ΔSL</sub>  | 0.0 – 0.046 mm | Deviation limits of tapered slope              |
| D                 | 370 mm         | Outside diameter                               |
| t <sub>ΔDmp</sub> | -0.04 – 0.0 mm | Deviation limits of mid-range outside diameter |
| B                 | 120 mm         | Width                                          |
| t <sub>ΔBs</sub>  | -0.08 – 0.0 mm | Deviation limits of ring width                 |
| d <sub>2</sub>    | ≈ 249 mm       | Shoulder diameter of inner ring                |
| D <sub>1</sub>    | ≈ 332 mm       | Shoulder/recess diameter of outer ring         |
| b                 | 16.7 mm        | Width of lubrication groove                    |
| K                 | 9 mm           | Diameter of lubrication hole                   |
| r <sub>1,2</sub>  | min. 4 mm      | Chamfer dimension                              |
| Normal            |                | ISO tolerance class for dimensions             |



### Abutment dimensions

|       |             |                              |
|-------|-------------|------------------------------|
| $d_a$ | max. 249 mm | Diameter of shaft abutment   |
| $D_a$ | max. 353 mm | Diameter of housing abutment |
| $r_a$ | max. 3 mm   | Radius of fillet             |

### Calculation data

|                           |       |              |
|---------------------------|-------|--------------|
| AGA performance class     |       | AGA Explorer |
| Basic dynamic load rating | C     | 1 891 kN     |
| Basic static load rating  | $C_0$ | 2 750 kN     |
| Fatigue load limit        | $P_u$ | 232 kN       |
| Limiting speed            |       | 380 r/min    |
| Limiting value            | e     | 0.28         |
| Calculation factor        | $Y_1$ | 2.4          |
| Calculation factor        | $Y_2$ | 3.6          |
| Calculation factor        | $Y_0$ | 2.5          |

### Tolerances of run-out

|                                                            |           |             |
|------------------------------------------------------------|-----------|-------------|
| Range of section height at inner ring of assembled bearing | $t_{Kia}$ | 10 $\mu$ m  |
| Maximum run-out of inner ring side face to the bore        | $t_{Sd}$  | 11 $\mu$ m  |
| Range of section height at outer ring of assembled bearing | $t_{Kea}$ | 20 $\mu$ m  |
| Perpendicularity of outer ring outside surface             | $t_{SD}$  | 6.5 $\mu$ m |
| ISO tolerance class for geoal tolerances                   |           | P5          |

### Radial internal clearance

|                           |        |
|---------------------------|--------|
| Minimum initial clearance | 180 µm |
| Maximum initial clearance | 250 µm |
| Tolerances of run-out     |        |

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6, 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

AGA BEARINGS