

BS2-2220-2RS5K/VT143

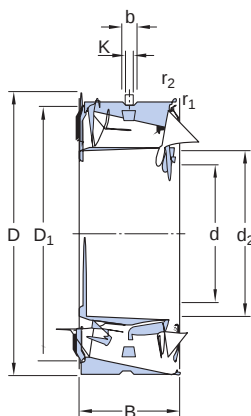
Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. Under normal operating conditions, sealed bearings are almost maintenance-free, keeping service costs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



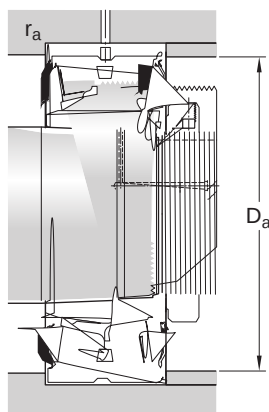
- Accommodate misalignment
- High load carrying capacity
- Sealed for increased reliability, with relubrication features
- Low friction and long service life
- Increased wear resistance

Bore type

Tapered 1:12



Dimensions		
d	100 mm	Bore diameter
t _{Δdmp}	0.0 – 0.035 mm	Deviation limits of mid-range bore diameter
t _{ΔSL}	0.0 – 0.035 mm	Deviation limits of tapered slope
D	180 mm	Outside diameter
t _{ΔDmp}	-0.025 – 0.0 mm	Deviation limits of mid-range outside diameter
B	55 mm	Width
t _{ΔBs}	-0.08 – 0.0 mm	Deviation limits of ring width
d ₂	≈ 114 mm	Shoulder diameter of inner ring
D ₁	≈ 163 mm	Shoulder/recess diameter of outer ring
b	8.3 mm	Width of lubrication groove
K	4.5 mm	Diameter of lubrication hole
r _{1,2}	min. 2.1 mm	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

d_a	max. 114 mm	Diameter of shaft abutment
D_a	max. 168 mm	Diameter of housing abutment
r_a	max. 2 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	433 kN
Basic static load rating	C_0	490 kN
Fatigue load limit	P_u	49 kN
Limiting speed		1 600 r/min
Limiting value	e	0.24
Calculation factor	Y_1	2.8
Calculation factor	Y_2	4.2
Calculation factor	Y_0	2.8

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	6 μ m
Maximum run-out of inner ring side face to the bore	t_{Sd}	9 μ m
Range of section height at outer ring of assembled bearing	t_{Kea}	13 μ m
Perpendicularity of outer ring outside surface	t_{SD}	5 μ m
ISO tolerance class for geoal tolerances		P5

Radial internal clearance

Minimum initial clearance	80 μm
Maximum initial clearance	110 μm
Mounting information	
Recommended tightening angle for lock nut	α 150 °
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