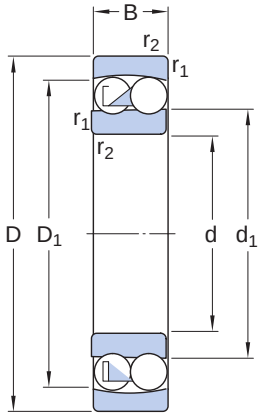
2219 M

Self-aligning ball bearings have two rows of balls, a common sphered raceway in the outer ring and two deep uninterrupted raceway grooves in the inner ring. They are insensitive to angular misalignment of the shaft relative to the housing, which can be caused, for example, by shaft deflection.

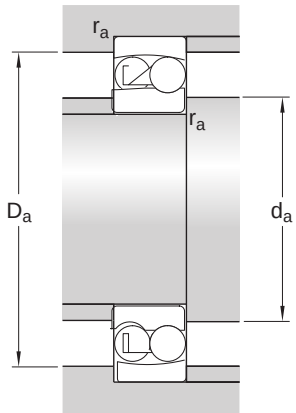
- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction

Bore type	Cylindrical



Dimensions

d	95 mm	Bore diameter
D	170 mm	Outside diameter
B	43 mm	Width
d_1	≈ 119.15 mm	Shoulder diameter inner ring
D_1	≈ 148.7 mm	Shoulder diameter outer ring
$r_{1,2}$	min. 2.1 mm	Chamfer dimension



Abutment dimensions

d_a	min. 107 mm	Abutment diameter shaft
D_a	max. 158 mm	Abutment diameter housing
r_a	max. 2 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	83.2 kN
Basic static load rating	C_0	34.5 kN
Fatigue load limit	P_u	1.53 kN
Reference speed		7 000 r/min
Limiting speed		5 000 r/min
Permissible angular misalignment	α	2.5 °
Calculation factor	k_r	0.04
Limiting value	e	0.27
Calculation factor	Y_0	2.5
Calculation factor	Y_1	2.3
Calculation factor	Y_2	3.6

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, JS7
- Radial internal clearance: table

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits