

F4BRP 315-SRB-SRH



Round piloted flanged roller bearing unit, four-bolt, set screw locking

Four-bolt round piloted flange roller bearing units consist of a spherical roller bearing mounted in a cast iron housing that have a machined extension on one side to fit into a precise bulk head opening. The units are shaft-ready, pre-assembled and pre-greased, for installation right out of the box. Locating and non-locating variants can be specified while the standard set screw mounting accommodates rotation in both directions. End covers are optional.

- Ready to mount
- Enables precise locating
- Factory lubricated and sealed
- Long service life
- Minimal maintenance

Overview

Dimensions

Attachment bolt diameter	19.05 mm
Bearing width, total	116.681 mm
Housing overall width	92.075 mm
Overall width, total	121.444 mm
Pitch diameter of bolt holes of round and triangle flange type housing	238.125 mm
Shaft diameter	100.013 mm

Performance

Basic dynamic load rating	311 kN
Basic static load rating	415 kN
Limiting speed	2 100 r/min

Properties

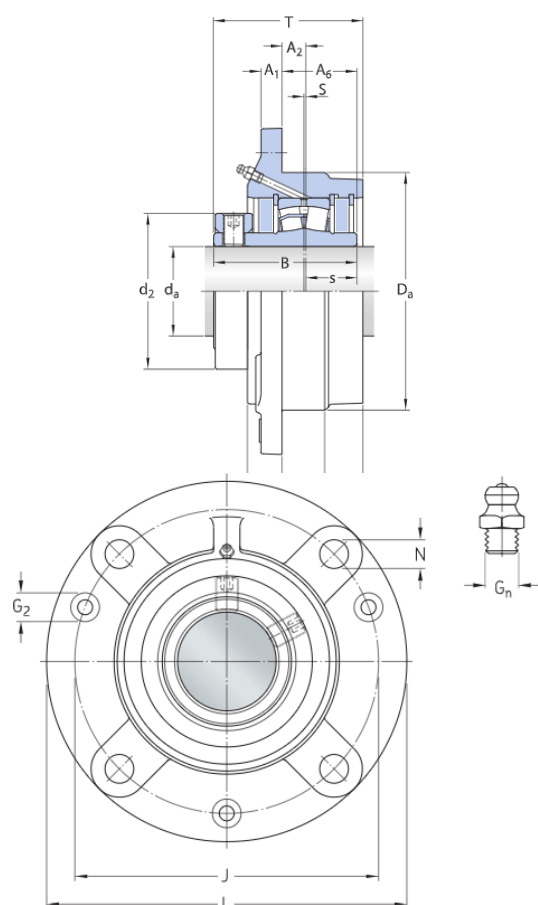
Bearing housing seal type	Radial lip seal
Bearing insert	Spherical roller bearing
Bearing position	Locating
Bore type	Cylindrical
Coating	Without
Flanged housing type	Round
Grease fitting	With
Housing type	Flanged, piloted
Lubricant	Grease

Material, bearing	Bearing steel
Material, housing	Cast iron
Number of bolt holes for fasteners	4
Relubrication hole	With
Retaining feature, inner ring	Set screws
Sealing, unit	Without

Technical Specification

Metric/inch series	Inch
Bearing insert	Spherical roller bearing
Bearing position	Locating
Locking method	Set screws
Bearing housing seal type	Radial lip seal

Dimensions



d_a	100.013 mm	Shaft diameter
d_2	152.4 mm	Collar outside diameter
D_a	206.375 mm	Hub diameter
A	92.075 mm	Housing height
A_1	22.225 mm	Housing flange height
A_2	20.638 mm	Centre line of free bearing
A_3	50.8 mm	Hub height
A_4	25.4 mm	Housing flange to machined flange face
A_6	61.119 mm	Flange face to inner ring face
B	116.681 mm	Inner ring width
J	238.125 mm	Bolt pitch diameter
L	276.225 mm	Housing outside diameter
N	20.638 mm	Bolt hole diameter
s	41.275 mm	Centre line unit to side face of inner ring
S	0.794 mm	Centre line of "fixed" bearing
T	121.444 mm	Overall unit width

Grease fitting

G_N	1/4-28 UNF	Thread of grease fitting
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Calculation data

Basic dynamic load rating	C	311 kN
Basic static load rating	C ₀	415 kN
Fatigue load limit	P _u	52.9 kN
Limiting speed		2 100 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
Bearing mean diameter	d _m	139.954 mm
Axial holding force of the locking mechanism	P _a	5.34 kN

Mass

Mass bearing unit	18.1 kg
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Mounting information

Attachment bolt diameter	G	19.05 mm
Set screws		5/8"-18 UNF-2A x 1"
Tightening torque for set screws		149.705 Nm
Grease quantity for relubrication		13 g
Tapped hole for push-out bolt	G ₂	3/4-10 UNC

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