Mounting procedure

Designation: SNL 522-619

Seals: Felt seals

Mounting preparations

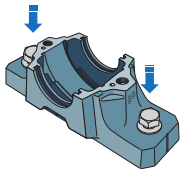
- Carefully read all of the instructions before starting work. The instructions may contain alternative tools and measuring methods. Illustrations are not always proportional and do not always show the exact design.
- The mounting and dismounting of housings involve the handling of sometimes heavy weights, the use of tools and other devices, and in some cases the use of high pressure oil. In order to avoid accidents, injuries or damage to property please follow carefully the prescribed methods.
- Make sure that the work environment and mounting surface is clean.
- Check the dimensional and form accuracy of the shaft seat.
- The shaft should be machined to a h9/IT5 tolerance for adapter sleeve mounting.
- If shims are used, the whole surface must be covered by shims. The mounting surface (frame) must be designed to accommodate actual load, vibrations and settings.

The housings must be mounted properly using the appropriate tools and state-of-the-art mechanical mounting methods.

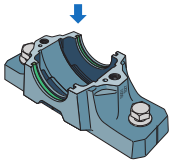
- For information about specifications for shaft and housing support surface, refer to the catalogue SKF bearing housings and roller bearing units .
- Other relevant values are listed in the technical specifications for each bearing housing (data tables).
- Mount any components that are on the shaft between the two SNL housings.
- If the bearing is mounted on an adapter sleeve, determine its position relative to the housing.
- For spherical roller bearings with a lubrication groove and three holes in the outer ring, SKF recommends using the relubrication hole in the centre of the housing.
- When relubrication from the side of the bearing is required such as for CARB toroidal roller bearings or self-aligning ball bearings, the housing must be positioned so that the grease fitting is on the opposite side of the lock nut. When a housing is located at the end of a shaft, grease should be applied at the end cover side.

Mounting procedure

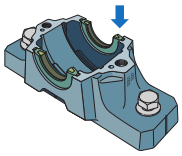
1. Position the housing on the support surface. Fit the attachment bolts, but do not tighten them.



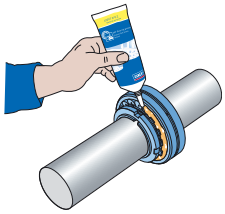
2. Insert the rubber O-section cords in the grooves in the housing base. If the housing is to be used at the end of a shaft, insert an end cover instead of one O-section cord.



3. Place one felt ring seal half (in light alloy ring) over the O-section cord in each sealing groove in the housing base. (If a stepped shaft is used, first mount the distance ring).

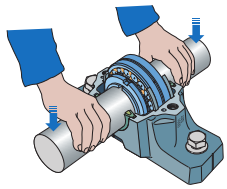


4. Mount the bearing on the shaft, either directly on a stepped shaft or using an adapter sleeve. Completely fill the bearing with grease. The remainder of the recommended grease should be put in the housing base at the sides.

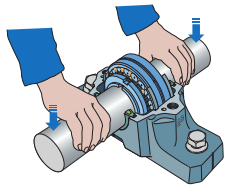


5. Mount the second bearing and housing.

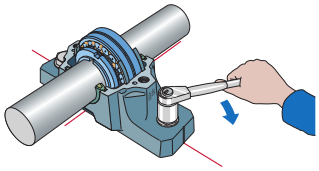
6. Lay the shaft with the two bearings in the two housing bases.



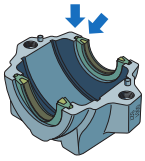
7. For locating bearing arrangements and arrangements with CARB toroidal roller bearings, put in one locating ring on each side of the bearing.



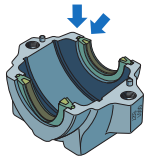
8. Carefully align the two housing bases. Vertical markings at the middle of the side faces and ends of the housing bases can facilitate this. Then, lightly tighten the attachment bolts on both housings.



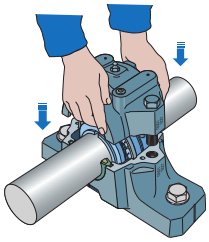
9. Put the O-ring cord into the sealing grooves in the two housing caps.



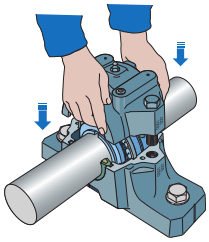
10. The remaining seal halves should be inserted in the seal grooves in the two housing caps over the O-ring cords.



11. Place the two housing caps over each base and tighten the cap bolts (to join cap and base) to the torque. The cap and base of one housing are not interchangeable with those of other housings. The cap and base of each housing should be checked to see that they bear the same serial number.



12. Check the alignment of the two housings to minimize misalignment and fully tighten the attachment bolts in the two housing bases.



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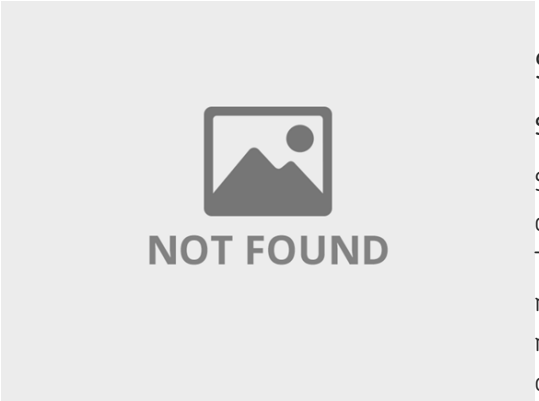


Split plummer (pillow) block housing, SNL 2, 3, 5 and 6 series

SNL plummer (pillow) block housings are the most popular SKF bearing housings on the market, developed to be the first choice for design, quality and economy. They enable the incorporated bearings to achieve maximum service life with less need for maintenance. Different housing variants and seal designs are available, making the use of tailored housings virtually unnecessary and enabling cost-effective bearing arrangements to be made.

- Easy to install
- Cost-effective bearing arrangement
- Reduce maintenance
- Minimize lubricant leakage

Overview

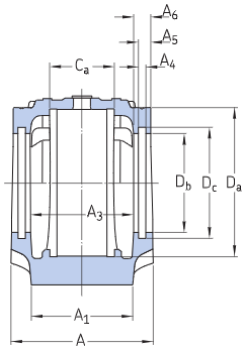
Dimensions

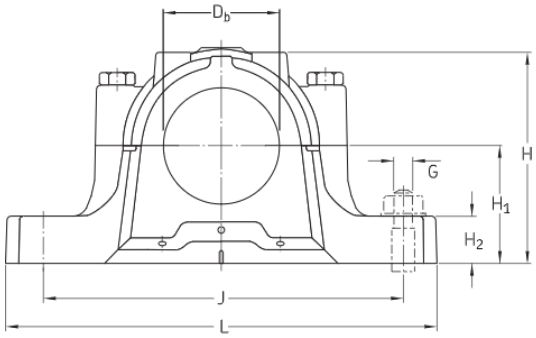
Diameter of bearing seat	200 mm
Width of bearing seat	80 mm
Centre height (pillow block)	125 mm
Centre distance between bolt holes	350 mm
Attachment bolt diameter	24 mm

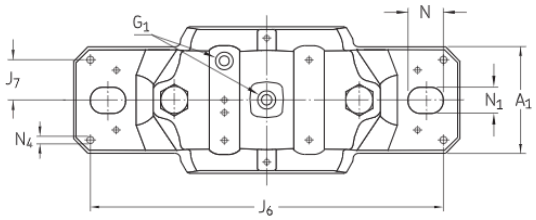
Properties

Housing type	Plummer/pillow block
Housing configuration	Two-piece
Mounting arrangement	Through shaft/Shaft end
Number of bolt holes for fasteners	2
Material, housing	Cast iron
Bearing housing seal type	Without
Housing lubrication feature/possibility	Grease

Technical Specification







Dimensions

Bearing seat

D_a	200 mm	Diameter of bearing seat
	G7	Tolerance class of bearing seat diameter
C_a	80 mm	Width of bearing seat
H_1	125 mm	Centre height of bearing seat

Outside dimensions

D_b	147.5 mm	Bore diameter
A	175 mm	Overall width
A_1	120 mm	Foot width
G_1	1/8-27 NPSF	Thread of relubrication holes
H	240 mm	Overall height
H_2	45 mm	Foot height
L	410 mm	Overall length
J	350 mm	Distance between attachment bolts
N	32 mm	Length of attachment bolt hole
N_1	26 mm	Width of attachment bolt hole

Seal grooves

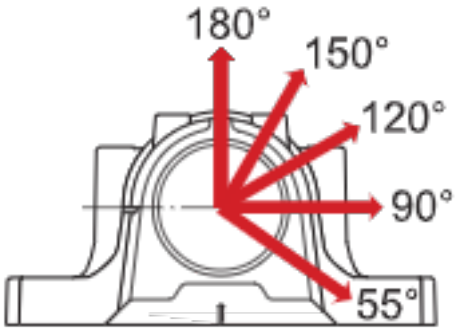
A_3	143 mm	Inside width between seal grooves
A_4	6 mm	Width of seal groove
A_5	10 mm	Distance to seal groove back face
A_6	14 mm	Width at bore diameter
D_c	157.5 mm	Diameter of seal groove

Dowel pins

J_6	378 mm	Distance between dowel pins
J_7	44 mm	Axial offset of dowel pins

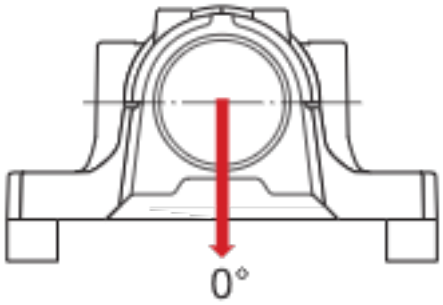
N_4	max. 8 mm	Diameter of dowel pins

Calculation data



Breaking loads

$P_{0°}$	600 kN	Breaking load at 0° load angle
$P_{55°}$	680 kN	Breaking load at 55° load angle
$P_{90°}$	410 kN	Breaking load at 90° load angle
$P_{120°}$	310 kN	Breaking load at 120° load angle
$P_{150°}$	275 kN	Breaking load at 150° load angle
$P_{180°}$	340 kN	Breaking load at 180° load angle
P_a	220 kN	Breaking load, axial



Yield points of cap bolts

$Q_{120°}$	620 kN	Load to reach yield point at 120° load angle
$Q_{150°}$	360 kN	Load to reach yield point at 150° load angle
$Q_{180°}$	310 kN	Load to reach yield point at 180° load angle

Materials

Housing material	Cast iron
Corrosion protection	Paint - in accordance with ISO 12944-2, corrosivity category C2

Mass

Mass housing	23.8 kg

Mounting information

Recommended diameter of attachment bolts	G	24 mm
Recommended tightening torque for attachment bolts		665 N·m
Size of cap bolts		M20x110
Tightening torque for cap bolts		200 N·m
Initial grease fill, 20%		530 g
Initial grease fill, 40%		850 g

Included products

Grease fitting	AH 1/8-27 PTF

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SNL 528

Split plummer (pillow) block housing, SNL 2, 3, 5 and 6 series

SNL plummer (pillow) block housings are the most popular SKF bearing housings on the market, developed to be the first choice for design, quality and economy. They enable the incorporated bearings to achieve maximum service life with less need for maintenance. Different housing variants and seal designs are available, making the use of tailored housings virtually unnecessary and enabling cost-effective bearing arrangements to be made.

- Easy to install
- Cost-effective bearing arrangement
- Reduce maintenance
- Minimize lubricant leakage

Overview

Dimensions

Diameter of bearing seat	9.8425 in
Width of bearing seat	3.8583 in
Centre height (pillow block)	5.9055 in
Centre distance between bolt holes	16.5354 in
Attachment bolt diameter	1.1811 in

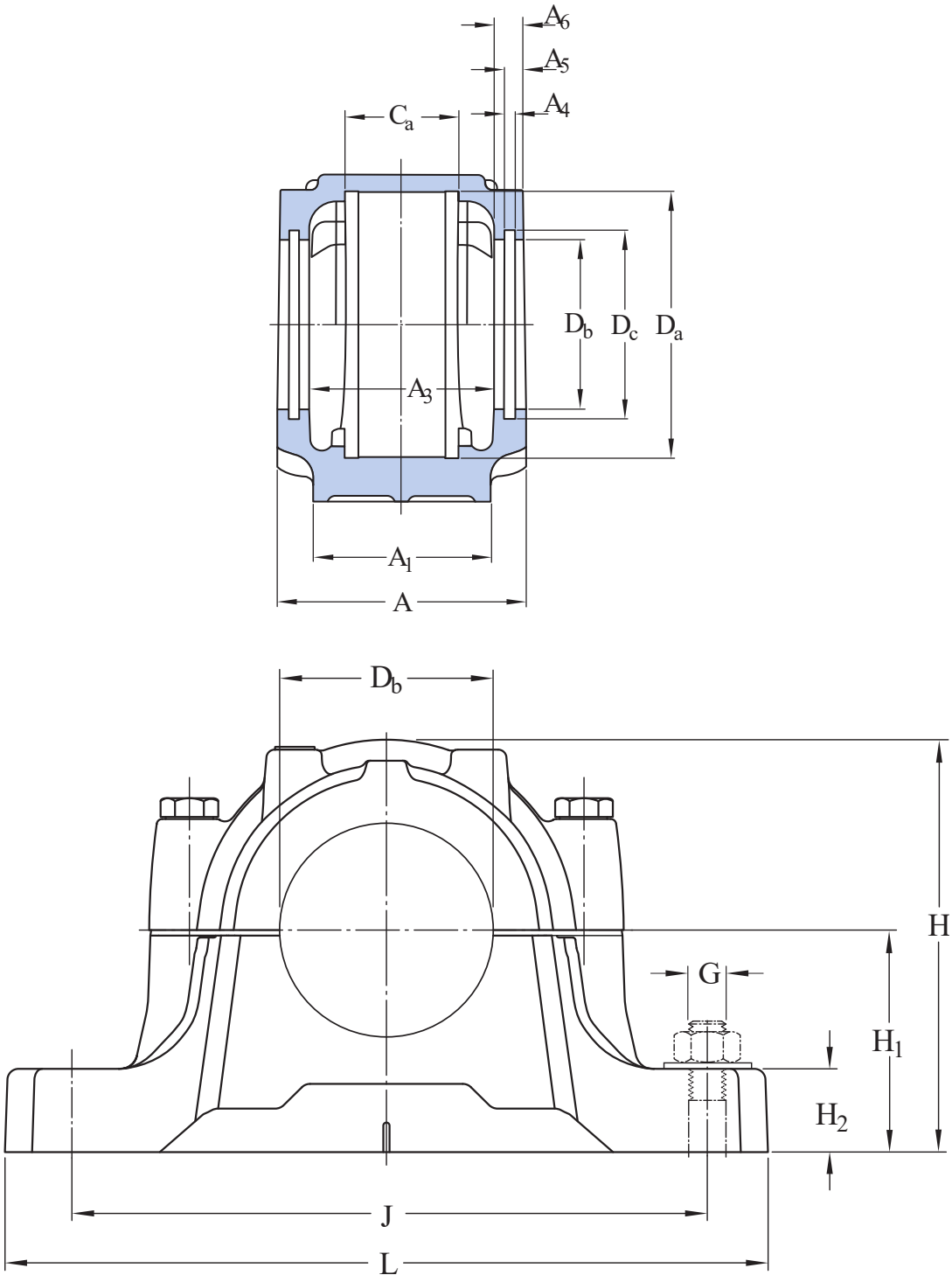
Properties

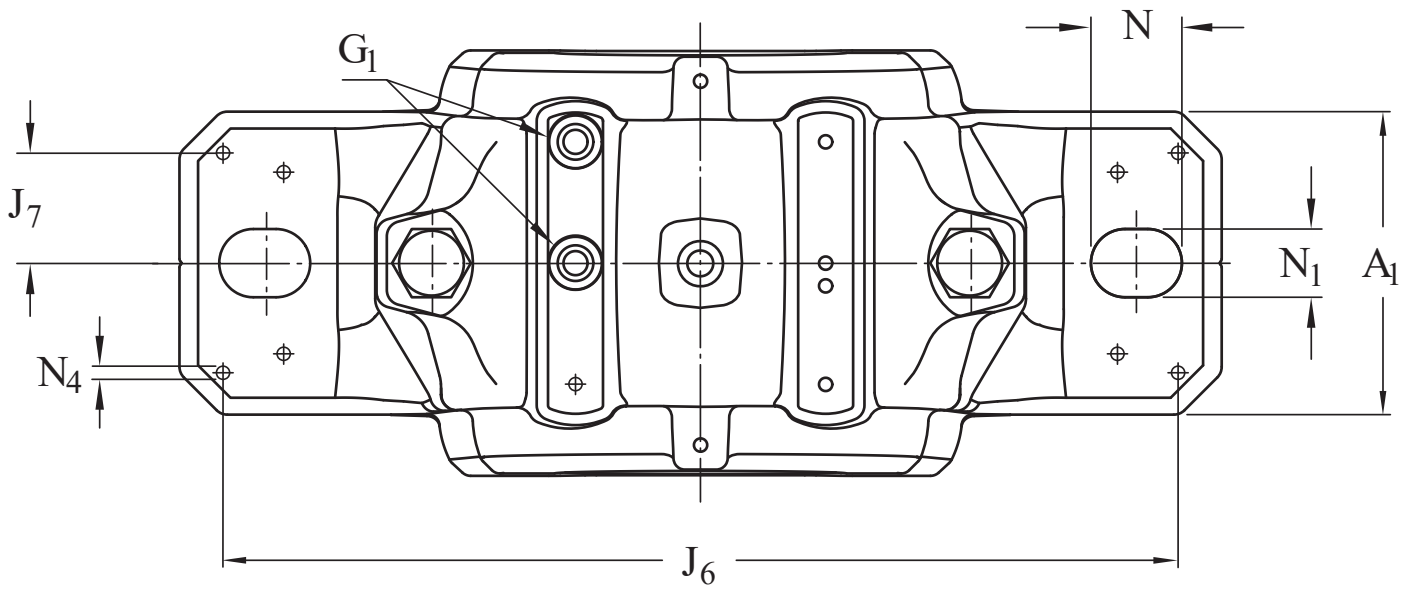
Housing type	Plummer/pillow block
Housing configuration	Two-piece
Mounting arrangement	Through shaft/Shaft end
Number of bolt holes for fasteners	2
Material, housing	Cast iron
Bearing housing seal type	Without
Housing lubrication feature/possibility	Grease

Logistics

Product net weight	91.5 lb
eClass code	23-05-17-01
UNSPSC code	31171519

Technical specification





Dimensions

BEARING SEAT

D_a	9.8425 in	Diameter of bearing seat
	G7	Tolerance class of bearing seat diameter
C_a	3.8583 in	Width of bearing seat
H_1	5.9055 in	Centre height of bearing seat

OUTSIDE DIMENSIONS

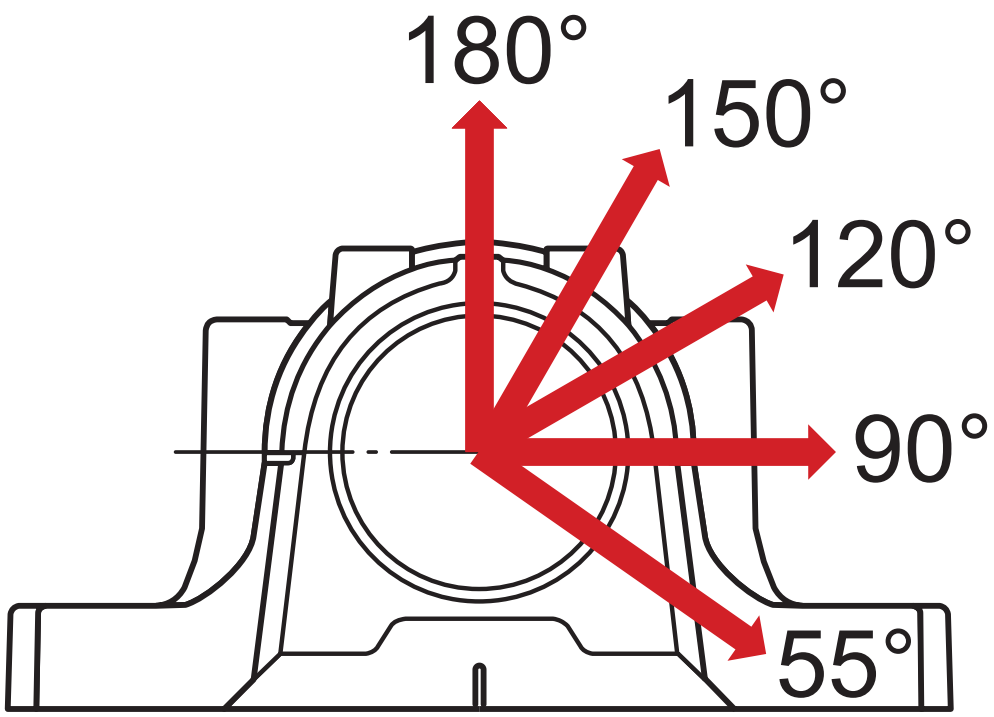
D_b	6.9882 in	Bore diameter
A	8.0709 in	Overall width
A_1	5.9055 in	Foot width
G_1	1/8-27 NPSF	Thread of relubrication holes
H	11.8898 in	Overall height
H_2	1.9685 in	Foot height
L	19.685 in	Overall length
J	16.5354 in	Distance between attachment bolts
N	1.6535 in	Length of attachment bolt hole
N_1	1.378 in	Width of attachment bolt hole

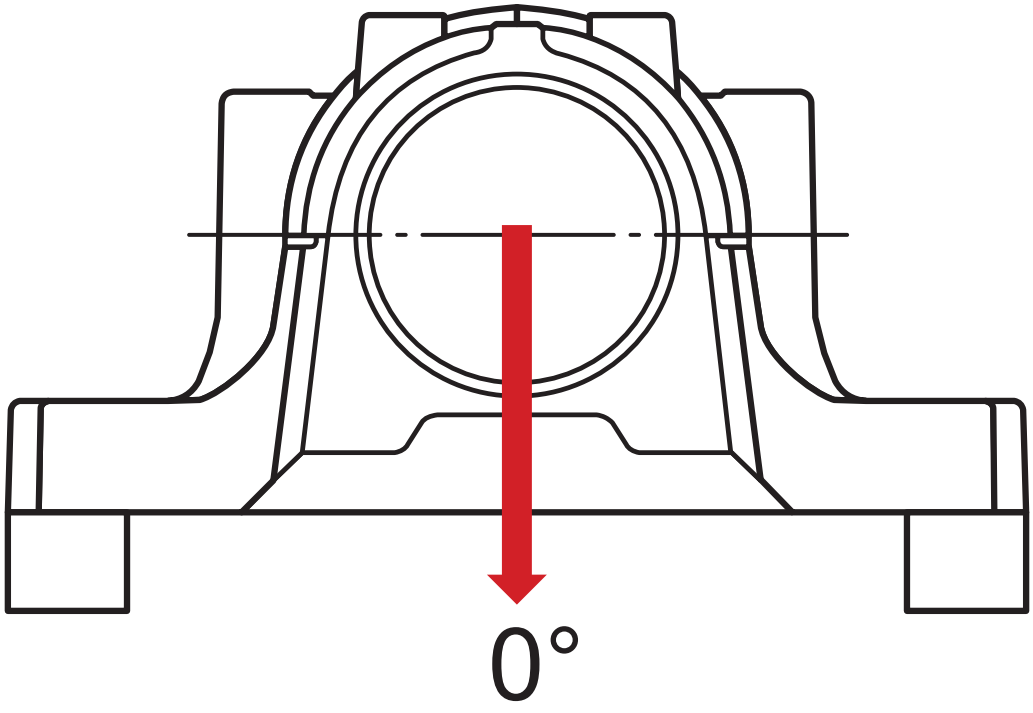
SEAL GROOVES

A_3	6.7323 in	Inside width between seal grooves
A_4	0.2362 in	Width of seal groove
A_5	0.4331 in	Distance to seal groove back face
A_6	0.5906 in	Width at bore diameter
D_c	7.3819 in	Diameter of seal groove

DOWEL PINS

J_6	18.0315 in	Distance between dowel pins
J_7	2.126 in	Axial offset of dowel pins
N_4	max. 0.4724 in	Diameter of dowel pins





Calculation data

BREAKING LOADS

$P_{0°}$	224 809 lbf	Breaking load at 0° load angle (if the housing is not supported over its entire base)
$P_{55°}$	236 049 lbf	Breaking load at 55° load angle
$P_{90°}$	141 630 lbf	Breaking load at 90° load angle
$P_{120°}$	105 660 lbf	Breaking load at 120° load angle
$P_{150°}$	96 668 lbf	Breaking load at 150° load angle
$P_{180°}$	119 149 lbf	Breaking load at 180° load angle
P_a	77 559 lbf	Breaking load, axial

YIELD POINTS OF CAP BOLTS

$Q_{120°}$	202 328 lbf	Load to reach yield point at 120° load angle
$Q_{150°}$	116 901 lbf	Load to reach yield point at 150° load angle
$Q_{180°}$	101 164 lbf	Load to reach yield point at 180° load angle

Materials

Housing material	Cast iron

Corrosion protection	Paint - in accordance with ISO 12944-2, corrosivity category C2

Mounting information

Recommended diameter of attachment bolts	G	30 mm
Recommended tightening torque for attachment bolts		966 lbf·ft
Size of cap bolts		M24x140
Tightening torque for cap bolts		258 lbf·ft
Size of eye bolt		M12
Initial grease fill, 20%		31.7 oz
Initial grease fill, 40%		49.4 oz

Included products

Grease fitting	AH 1/8-27 PTF

More Information

Designs and variants

- Standard housing design
- Housing variants
- Sealing solutions

Product details

- Permissible misalignment
- Typical shaft-bearing combinations
- Locating/non-locating support
- Loads
- Temperature limits
- Permissible speed
- Lubrication
- Mounting
- Condition monitoring
- Associated products
- Ordering information
- Designation system

Tools

- SKF Product select
- SKF SimPro Quick
- SKF Tool and Accessory Selector for sleeves and shafts
- LubeSelect for SKF greases
- SKF Drive-up Method Program
- Heater selection tool
- SKF Oil Injection Method Program

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