



### SYNT 50 F

# Pillow block roller bearing unit, two-bolt, SKF ConCentra locking

Pillow (plummer) block roller bearing units and take-up roller bearing units consist of a spherical or tapered roller bearing mounted in a non-split housing that can be bolted to a support surface. This variant has a spherical roller bearing, a two-bolt base and SKF ConCentra locking, creating a true concentric tight fit, and setting the correct internal clearance within the bearing. The units are sealed and lubricated and ready to use. This bearing unit covers a wide range of requirements, in metric dimensions.

- Ready to mount
- Robust
- Factory lubricated and sealed
- Quick mounting
- Long service life

### Overview

#### **Dimensions**

Attachment bolt diameter	0.63 in
Bearing width, total	2.559 in
Centre distance between bolt holes	8.268 in
Centre height (pillow block)	2.756 in
Housing overall width	2.756 in
Shaft diameter	1.969 in

#### Performance

Basic dynamic load rating	23 380 lbf
Basic static load rating	24 279 lbf
Limiting speed	3 300 r/min

#### **Properties**

Bearing housing seal type	Radial lip seal
Bearing insert	Spherical roller bearing
Bearing position	Locating
Bore type	Cylindrical
Coating	Without
Grease fitting	With
Housing type	Pillow block
Lubricant	Grease
Material, bearing	Bearing steel

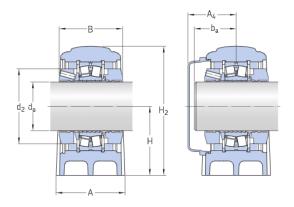


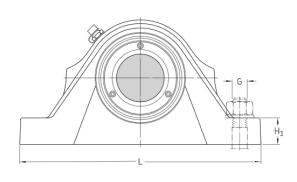
Material, housing	Cast iron
Number of bolt holes for fasteners	2
Relubrication hole	With
Retaining feature, inner ring	SKF ConCentra
Sealing, unit	Optional end cover



## Technical Specification

Metric/inch series	Metric
Bearing insert	Spherical roller bearing
Bearing position	Locating
Locking method	SKF ConCentra
Bearing housing seal type	Radial lip seal





### Dimensions

da	1.969 in	Shaft diameter
$d_2$	2.992 in	Collar outer diameter
Α	2.756 in	Housing foot width
В	2.559 in	Inner ring width
Н	2.756 in	Height base to center
$H_1$	1.102 in	Housing foot height
H <sub>2</sub>	5.157 in	Housing height
J	8.268 in	Distance of attachment bolts
L	10.039 in	Housing length
Ν	0.709 in	Width foot slot width
$N_1$	0.945 in	Length of attachment bolt hole

#### Shaft end

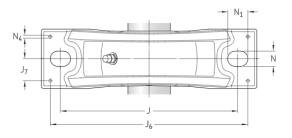
A <sub>2</sub> 2.441 in	Distance bearing centre line to end cover
b <sub>a</sub> max. 2.165 in	Distance bearing centre line to shaft end
b <sub>a</sub> min. 1.339 in	Distance bearing centre line to shaft end

### Dowel pins

J <sub>6</sub>	9.213 in	Distance dowel pins
l_	1 024 in	Distance dowel nins

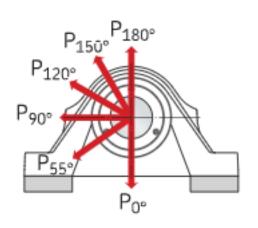


N<sub>4</sub> 0.315 in Pin hole diameter



### Calculation data

Basic dynamic load rating	С	23 380 lbf
Basic static load rating	$C_0$	24 279 lbf
Fatigue load limit	$P_{u}$	2 653 lbf
Limiting speed		3 300 r/min
Limiting value	е	0.24
Calculation factor	$Y_1$	2.8
Calculation factor	Y <sub>2</sub>	4.2
Calculation factor	Y <sub>0</sub>	2.8
Bearing mean diameter	$d_{m}$	2.756 in
Included bearing		22210 EKS
Axial holding force of the locking mechanism	$P_a$	3 372 lbf



### Breaking loads

P <sub>0°</sub>	42 714	lbf	Breaking load
P <sub>55°</sub>	74 187	lbf	Breaking load
P <sub>90°</sub>	44 962	lbf	Breaking load
P <sub>120</sub>	29 225	lbf	Breaking load
P <sub>150</sub>	25 853	lbf	Breaking load
P <sub>180</sub>	31 473	lbf	Breaking load



### Mass

Mass bearing unit	12.787 lb
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### Mounting information

Attachment bolt diameter	G 16.002 mm
Tightening torque for attachment bolts	1 770.149 lbf-in
Set screws	3 x M6
Tightening torque for set screws	70.806 lbf-in
Grease quantity for relubrication	0.1411 oz

### Associated products

End cover	ECY 210
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