

SYJ 80 TF



Pillow block ball bearing unit with extended inner ring and set screw locking, cast iron, Japanese standards

Pillow (plummer) block ball bearing units consist of an insert bearing mounted in a cast iron housing that can be bolted to a support surface. This variant is suitable for applications with both constant and alternating directions of rotation. It has an inner ring extended on both sides and is locked onto the shaft by tightening a set screw on the inner ring, making it easy to mount.

- Strong
- Ready to mount
- Designed for a constant and alternating rotation
- Lubricated and sealed bearing
- Quick locking onto the shaft
- Cost-effective

Overview

Dimensions

Bearing width, total	3.063 in
Centre distance between bolt holes	9.134 in
Centre height (pillow block)	3.5 in
Housing overall width	3.071 in
Shaft diameter	3.15 in

Performance

Basic dynamic load rating	16 366 lbf
Basic static load rating	11 915 lbf
Limiting speed	2 400 r/min
Note	Limiting speed with shaft tolerance

Properties

Bore type	Cylindrical
Coating	Without
Fastening bolt hole type	Plain
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

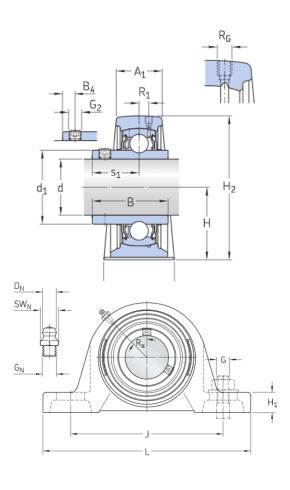


Retaining feature, inner ring	Set screws
Rubber seating ring	Without
Sealing type	Contact, standard
Sealing, bearing	Seal and flinger on both sides
Sealing, unit	Without



Technical Specification

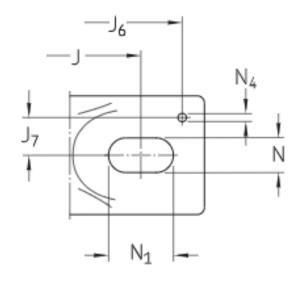
Compliance with standard	JIS
Purpose specific	For material handling applications
Material, housing	Cast iron
Sealing, bearing	Seal and flinger on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Without
Coating	Without



Dimensions

d	3.15 in	Bore diameter
d_1	≈ 3.835 in	Shoulder diameter of inner ring
Α	3.071 in	Base width
A_1	1.969 in	Top width
В	3.063 in	Width of inner ring
B ₄	0.472 in	Distance from locking device side face to thread centre
Н	3.5 in	Height of spherical seat centre
H_1	1.181 in	Foot height
H ₂	6.909 in	Overall height
J	9.134 in	Distance between attachment bolts
J	max. 9.528 in	Distance between attachment bolts
J	min. 8.74 in	Distance between attachment bolts
L	11.496 in	Overall length
Ν	0.984 in	Diameter of attachment bolt hole
N_1	1.378 in	Length of attachment bolt hole
s ₁	1.874 in	Distance from locking device side face to raceway centre





Threaded hole

R ₆ 1/4-28 UNF	Housing thread for the grease fitting
R ₁ 0.256 in	Axial position of the housing thread
R _a 45 °	Angular position of the housing thread

Grease fitting

D ₁ 0.256 in	Diameter of head sphere of grease fitting
S\ 0.276 in	Hexagonal key size for the grease fitting
G _↑ 1/4-28 SAE-LT	Thread of grease fitting

Dowel pins

J ₆ 10.63 in	Distance of dowel pins
J ₇ 1.102 in	Axial offset of dowel pins
N ₄ 0.157 in	Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	С	16 366 lbf
Basic static load rating	C_0	11 915 lbf
Fatigue load limit	$P_{\rm u}$	486 lbf
Limiting speed		2 400 r/min
		Limiting speed with shaft tolerance h6

Mass

Mass bearing unit	18.298 lb
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Mounting information

Set screw	G_2	M10x1
Hexagonal key size for set screw		0.197 in



Recommended tightening torque for set screw		146.037 lbf-in
Recommended diameter for attachment bolts, mm	G	19.99 mm
Recommended diameter for attachment bolts, inch	G	0.75 in

Included products

Housing	SYJ 516
Bearing	YAR 216-2F



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