

SYJ 90 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	3.504 in
Centre distance between bolt holes	10.315 in
Centre height (pillow block)	4 in
Housing overall width	3.465 in
Shaft diameter	3.543 in

Performance

Basic dynamic load rating	21 492 lbf
Basic static load rating	16 186 lbf
Limiting speed	2 000 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

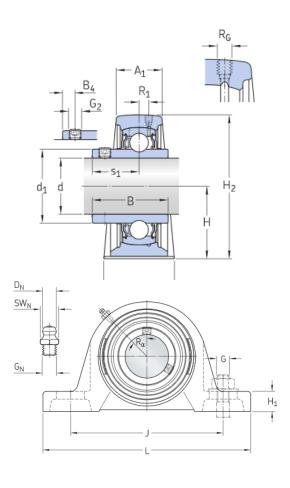


Retaining feature, inner ring	Set screws
Rubber seating ring	Without
Sealing type	Contact, standard
Sealing, bearing	Seal and flinger on both sides
Sealing, unit	Without



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

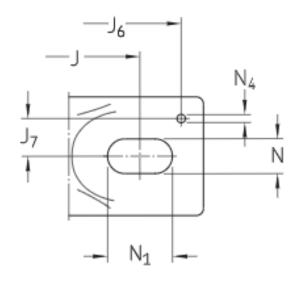


Dimensions

Bore diameter	3.543 in	d
Shoulder diameter of inner ring	≈ 4.429 in	d_1
Base width	3.465 in	Α
Top width	2.126 in	A_1
Width of inner ring	3.504 in	В
Distance from locking device side face to thread centre	0.472 in	B ₄
Height of spherical seat centre	4 in	Н
Foot height	1.299 in	H ₁
Overall height	7.894 in	H ₂
Distance between attachment bolts	10.315 in	J
Distance between attachment bolts	max. 10.63 in	J
Distance between attachment bolts	min. 10 in	J
Overall length	12.874 in	L
Diameter of attachment bolt hole	1.063 in	Ν
Length of attachment bolt hole	1.378 in	N_1
Distance from locking device side face to raceway centre	2.126 in	s ₁

Threaded hole





R _c 1/4-28 UNF	Housing thread for the grease fitting
R ₁ 0.335 in	Axial position of the housing thread
R _o 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 1/4-28 SAE-LT	Thread of grease fitting

Dowel pins

J ₆ 11.929 in	Distance of dowel pins
J ₇ 1.26 in	Axial offset of dowel pins
N _∠ 0.157 in	Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	С	21 492 lbf
Basic static load rating	C_0	16 186 lbf
Fatigue load limit	$P_{\rm u}$	607 lbf
Limiting speed		2 000 r/min
		Limiting speed with shaft tolerance h6

Mass

Mass bearing unit	27.778 lb
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Mounting information

Set screw	G_2	M12x1.5
Hexagonal key size for set screw		0.236 in
Recommended tightening torque for set screw		252.246 lbf-in



Recommended diameter for attachment bolts, mm	G	21.996 mm
Recommended diameter for attachment bolts, inch	G	0.875 in

Included products

Housing	SYJ 518
Bearing	YAR 218-2F



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