

## SYJ 70 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

#### Dimensions

Bearing width, total	2.752 in
Centre distance between bolt holes	8.268 in
Centre height (pillow block)	3.126 in
Housing overall width	2.835 in
Shaft diameter	2.756 in

#### Performance

Basic dynamic load rating	14 028 lbf
Basic static load rating	10 116 lbf
Limiting speed	2 800 r/min
Note	Limiting speed with shaft tolerance h6

#### 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

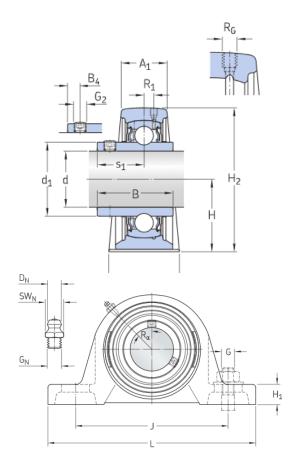


Retaining feature, inner ring	Set screws
Rubber seating ring	Without
Sealing type	Contact, standard
Sealing, bearing	Seal and flinger on both sides
Sealing, unit	Without



### Technical Specification

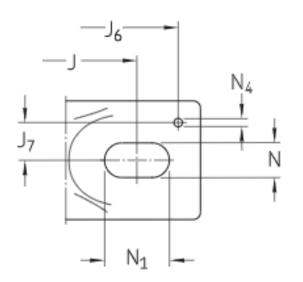
Compliance with standard	JIS
Purpose specific	For material handling applications
Material, housing	Cast iron
Sealing, bearing	Seal and flinger on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Without
Coating	Without



#### Dimensions

Bore diameter	2.756 in	d
Shoulder diameter of inner ring	≈ 3.427 in	$d_1$
Base width	2.835 in	А
Top width	1.811 in	A <sub>1</sub>
Width of inner ring	2.752 in	В
Distance from locking device side face to thread centre	0.472 in	B <sub>4</sub>
Height of spherical seat centre	3.126 in	Н
Foot height	1.063 in	$H_1$
Overall height	6.122 in	H <sub>2</sub>
Distance between attachment bolts	8.268 in	J
Distance between attachment bolts	max. 8.465 in	J
Distance between attachment bolts	min. 8.071 in	J
Overall length	10.472 in	L
Diameter of attachment bolt hole	0.984 in	Ν
Length of attachment bolt hole	1.181 in	$N_1$
Distance from locking device side face to raceway centre	1.563 in	s <sub>1</sub>





#### Threaded hole

R <sub>C</sub> 1/4-28 UNF	Housing thread for the grease fitting
R <sub>1</sub> 0.236 in	Axial position of the housing thread
R <sub>a</sub> 45 °	Angular position of the housing thread

#### Grease fitting

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

#### Dowel pins

J <sub>6</sub> 9.685 in	Distance of dowel pins
J <sub>7</sub> 1.024 in	Axial offset of dowel pins
N <sub>4</sub> 0.157 in	Recommended diameter for dowel pins

#### Calculation data

Basic dynamic load rating	С	14 028 lbf
Basic static load rating	C <sub>O</sub>	10 116 lbf
Fatigue load limit	P <sub>u</sub>	418 lbf
Limiting speed		2 800 r/min
		Limiting speed with shaft tolerance h6

#### Mass

Mass bearing unit	13.669 lb
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#### Mounting information

Set screw	G <sub>2</sub>	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 514
Bearing	YAR 214-2F



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