

# SY 1. TF



# Pillow block ball bearing unit with extended inner ring and set screw locking, cast iron, ISO 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
- Lubricated and sealed bearing
- Quick locking onto the shaft
- Cost-effective

# Overview

#### **Dimensions**

Bearing width, total	1.343 in
Centre distance between bolt holes	4.016 in
Centre height (pillow block)	1.437 in
Housing overall width	1.417 in
Shaft diameter	1 in

#### Performance

Basic dynamic load rating	3 147 lbf
Basic static load rating	1 754 lbf
Limiting speed	7 000 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

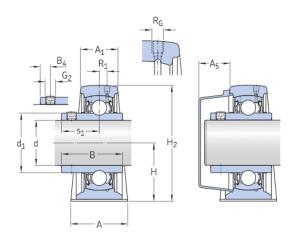


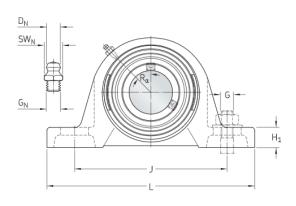
Rubber seating ring	Without
Sealing type	Contact, standard
Sealing, bearing	Seal and flinger on both sides
Sealing, unit	Optional end cover



# Technical Specification

Compliance with standard	ISO
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	Optional end cover
Coating	Without

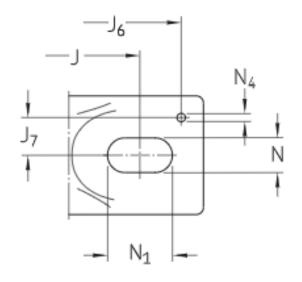




# Dimensions

1 in Bore diameter	d
≈ 1.328 in Shoulder diameter of inner ring	$d_1$
1.417 in Base width	Α
0.866 in Top width	$A_1$
0.807 in Standout of end cover	A <sub>5</sub>
1.343 in Width of inner ring	В
0.197 in Distance from locking device side face to thread centre	B <sub>4</sub>
1.437 in Height of spherical seat centre	Н
0.63 in Foot height	$H_1$
2.756 in Overall height	$H_2$
4.016 in Distance between attachment bolts	J
max. 4.331 Distance between attachment bolts in	J
min. 3.701 Distance between attachment bolts in	J
5.118 in Overall length	L
0.453 in Diameter of attachment bolt hole	Ν
0.768 in Length of attachment bolt hole	$N_1$
0.78 in Distance from locking device side face to raceway centre	s <sub>1</sub>





#### Threaded hole

R <sub>6</sub> 1/4-28 UNF	Housing thread for the grease fitting
$R_1$ 0.079 in	Axial position of the housing thread
R <sub>o</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> 4.724 in	Distance of dowel pins
J <sub>7</sub> 0.512 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	3 147 lbf
Basic static load rating	$C_0$	1 754 lbf
Fatigue load limit	$P_{u}$	75 lbf
Limiting speed		7 000 r/min
		Limiting speed with shaft tolerance h6

## Mass

Mass bearing unit	1.587 lb
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# Mounting information

Set screw	$G_2$	1/4-28 UNF
Hexagonal key size for set screw		0.125 in



Recommended tightening torque for set screw		35.403 lbf-in
Recommended diameter for attachment bolts, mm	G	10.008 mm
Recommended diameter for attachment bolts, inch	G	0.375 in

# Included products

Housing	SY 505 M
Bearing	YAR 205-100-2F

# Associated products

End cover	ECY 205	



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