

SY 25 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	0.984 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

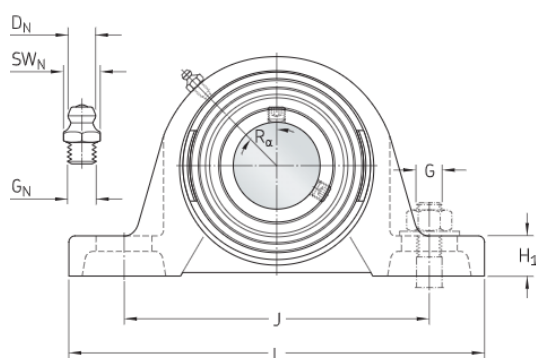
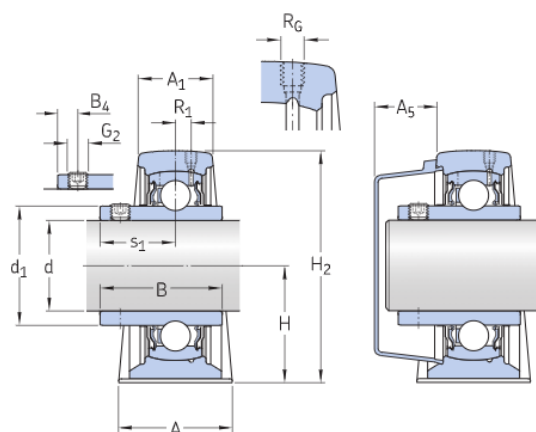
Properties

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

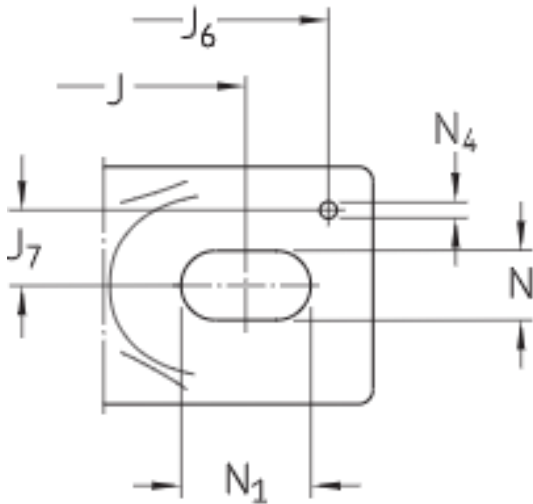
Technical Specification

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

d	0.984 in	Bore diameter
d ₁	≈ 1.328 in	Shoulder diameter of inner ring
A	1.417 in	Base width
A ₁	0.866 in	Top width
A ₅	0.807 in	Standout of end cover
B	1.343 in	Width of inner ring
B ₄	0.197 in	Distance from locking device side face to thread centre
H	1.437 in	Height of spherical seat centre
H ₁	0.63 in	Foot height
H ₂	2.756 in	Overall height
J	4.016 in	Distance between attachment bolts
J	max. 4.331 in	Distance between attachment bolts
J	min. 3.701 in	Distance between attachment bolts
L	5.118 in	Overall length
N	0.453 in	Diameter of attachment bolt hole
N ₁	0.768 in	Length of attachment bolt hole
s ₁	0.78 in	Distance from locking device side face to raceway centre



Threaded hole

R_C 1/4-28 UNF	Housing thread for the grease fitting
R_1 0.079 in	Axial position of the housing thread
R_0 45 °	Angular position of the housing thread

Grease fitting

D_1 0.256 in	Diameter of head sphere of grease fitting
S_1 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 4.724 in	Distance of dowel pins
J_7 0.512 in	Axial offset of dowel pins
N_4 0.157 in	Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	C	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	1.609 lb
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Mounting information

Set screw	G_2	M6x0.75
Hexagonal key size for set screw		0.118 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 205-2F

Associated products

End cover		ECY 205
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