

# **SY 25 FM**

# Pillow block ball bearing unit with narrow inner ring and eccentric locking collar, 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 intended for use in applications where the direction of rotation is constant. It has a narrow inner ring and is locked onto the shaft by an eccentric locking collar, making it easy to mount.

- Strong
- Ready to mount
- Lubricated and sealed bearing
- Designed for rotation in one direction
- Accommodate static initial misalignment

## Overview

#### **Dimensions**

Bearing width, total	1.22 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	Eccentric collar
Rubber seating ring	Without

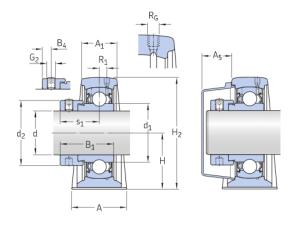


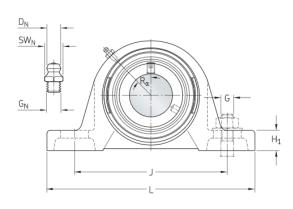
Sealing type	Contact, standard
Sealing, bearing	Seal on both sides
Sealing, unit	Optional end cover



# Technical Specification

Compliance with standard	ISO
Purpose specific	For material handling applications
Material, housing	Cast iron
Sealing, bearing	Seal on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Optional end cover
Coating	Without

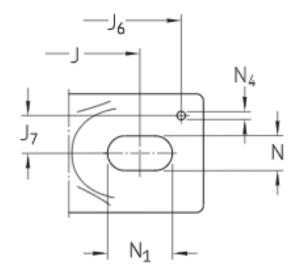




## Dimensions

d	0.984 in	Bore diameter
$d_1$	≈ 1.328 in	Shoulder diameter of inner ring
$d_2$	1.472 in	Outside diameter of locking ring
Α	1.417 in	Base width
A <sub>1</sub>	0.866 in	Top width
$A_5$	0.807 in	Standout of end cover
B <sub>1</sub>	1.22 in	Overall bearing width
B <sub>4</sub>	0.187 in	Distance from locking device side face to thread centre
Н	1.437 in	Height of spherical seat centre
$H_1$	0.63 in	Foot height
H <sub>2</sub>	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
Ν	0.453 in	Diameter of attachment bolt hole
$N_1$	0.768 in	Length of attachment bolt hole
s <sub>1</sub>	0.925 in	Distance from locking device side face to





raceway centre

#### 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>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> 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	1.609 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	YET 205

## Associated products



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