

Image may differ from product. See technical specification for details.

## SY 2. 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

Attachment bolt diameter	15.875 mm
Shaft diameter	50.8 mm
Centre height (pillow block)	63.5 mm
Housing overall width	60 mm
Centre distance between bolt holes	171.5 mm
Bearing width, total	55.6 mm

Performance

Basic dynamic load rating	43.6 kN
Basic static load rating	29 kN
Limiting speed	3 600 r/min
Note	Limiting speed with shaft tolerance h6

Properties

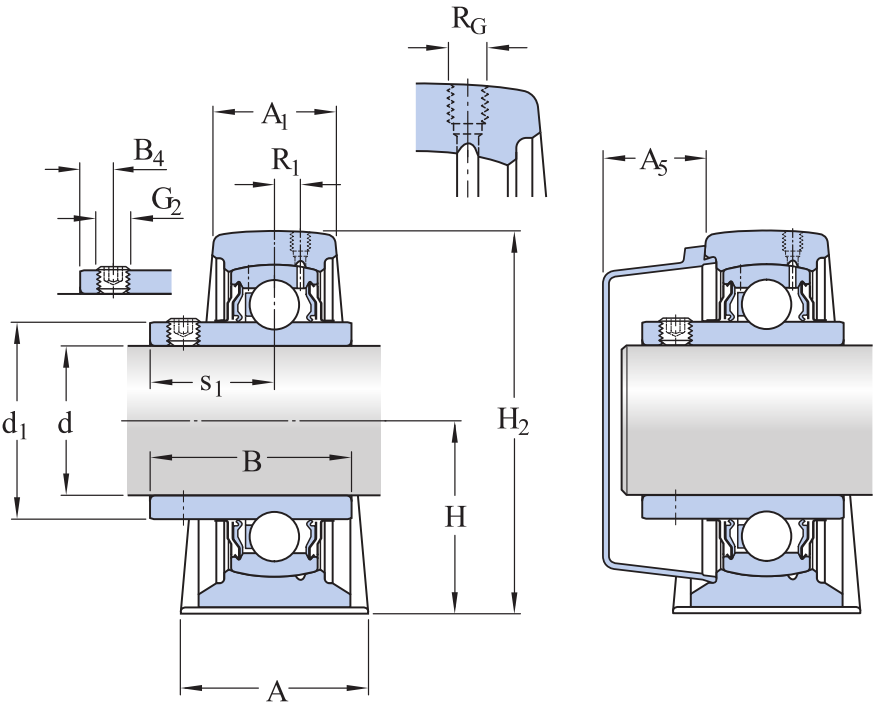
Housing type	Pillow block
Number of bolt holes for fasteners	2
Fastening bolt hole type	Plain
Retaining feature, inner ring	Set screws
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides
Sealing type	Contact, standard
Sealing, unit	Optional end cover
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

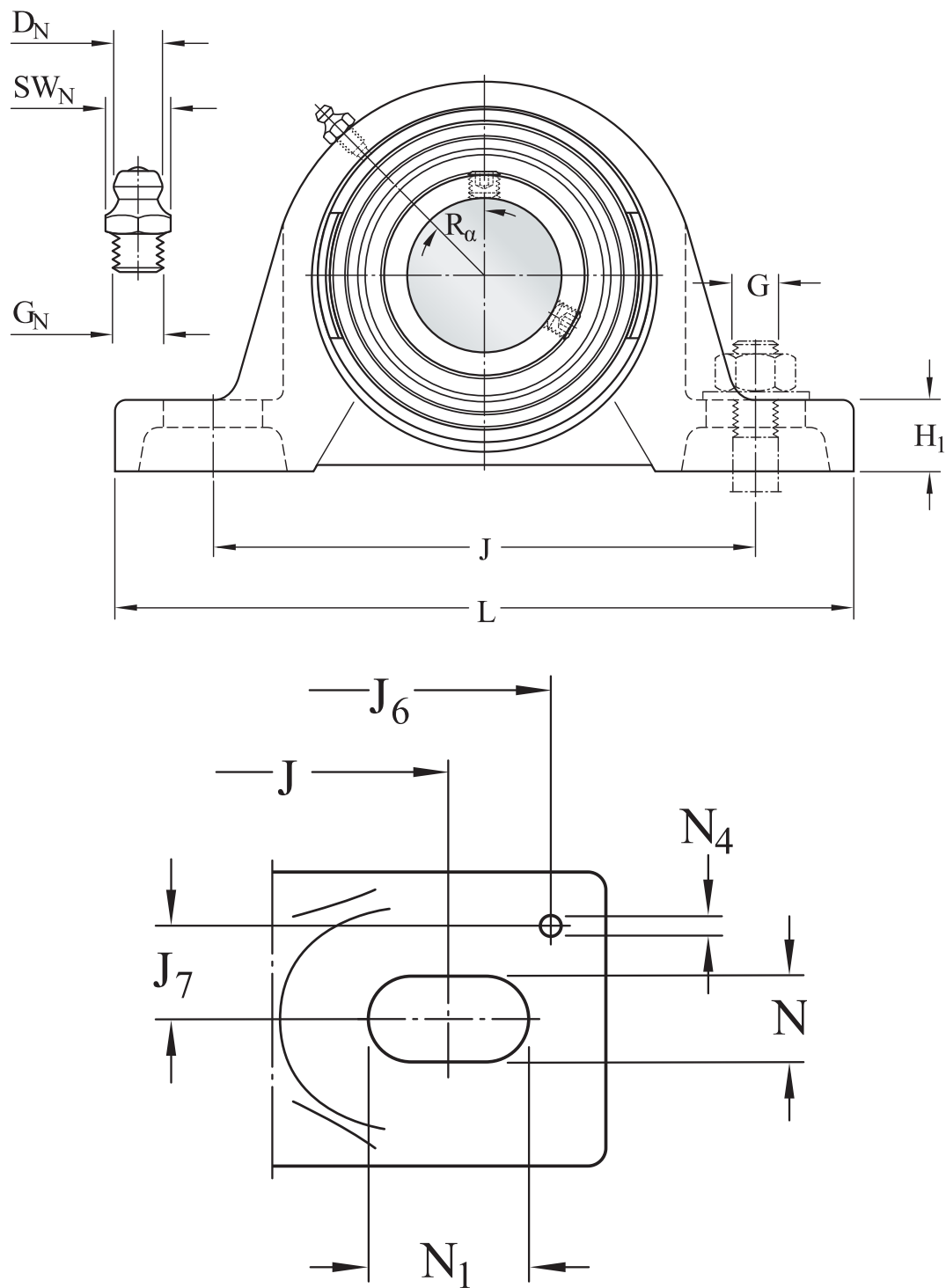
Logistics

Product net weight	3.67 kg
eClass code	23-05-08-02
UNSPSC code	31171536

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	50.8 mm	Bore diameter
d <sub>1</sub>	≈ 69.06 mm	Shoulder diameter of inner ring
A	60 mm	Base width
A <sub>1</sub>	40 mm	Top width

A <sub>5</sub>	37.5 mm	Standout of end cover
B	55.6 mm	Width of inner ring
B <sub>4</sub>	9 mm	Distance from locking device side face to thread centre
H	63.5 mm	Height of spherical seat centre
H <sub>1</sub>	24 mm	Foot height
H <sub>2</sub>	126 mm	Overall height
J	171.5 mm	Distance between attachment bolts
J	max. 181 mm	Maximum distance between attachment bolts
J	min. 162 mm	Minimum distance between attachment bolts
L	219 mm	Overall length
N	18 mm	Diameter of attachment bolt hole
N <sub>1</sub>	27.5 mm	Length of attachment bolt hole
s <sub>1</sub>	33.4 mm	Distance from locking device side face to raceway centre

## GREASE FITTING

D <sub>N</sub>	6.5 mm	Diameter of head sphere of grease fitting
SW <sub>N</sub>	7 mm	Hexagonal key size for the grease fitting
G <sub>N</sub>	1/4-28 SAE-LT	Thread of grease fitting

## DOWEL PINS

J <sub>6</sub>	201 mm	Distance of dowel pins
J <sub>7</sub>	21 mm	Axial offset of dowel pins
N <sub>4</sub>	4 mm	Recommended diameter for dowel pins

## THREADED HOLE

R <sub>G</sub>	1/4-28 UNF	Housing thread for the grease fitting
R <sub>1</sub>	4.5 mm	Axial position of the housing thread

$R_a$	45 °	Angular position of the housing thread
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## Calculation data

Basic dynamic load rating	C	43.6 kN
Basic static load rating	$C_0$	29 kN
Fatigue load limit	$P_u$	1.25 kN
Limiting speed		3 600 r/min
		Limiting speed with shaft tolerance h6

## Mounting information

Set screw	$G_2$	3/8-24 UNF
Hexagonal key size for set screw		4.763 mm
Recommended tightening torque for set screw		16.5 N·m
Recommended diameter for attachment bolts, mm	G	16 mm
Recommended diameter for attachment bolts, inch	G	0.625 in

## Tolerances and clearances

The values depend on the included bearing:

- Bore diameter tolerance → [table 1](#)
- Radial internal clearance → [table 2](#)
- Recommended fit → [table 3](#)
- Shaft tolerance → [table 4](#)



Compatible products





Component

Pillow block housing for insert bearings, cast iron, ISO standards	<a href="#">SY 511 M</a>
Insert bearing with set screw locking and extended inner ring	<a href="#">YAR 211-200-2F</a>

Recommended product

End cover for bearing units	<a href="#">ECY 211</a>
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More Information

<div> <b>Product details</b></div> <div><a href="#">Pillow block units to ISO standards</a></div> <div><a href="#">Pillow block units to North American standards</a></div> <div><a href="#">Pillow block units to Japanese Industrial Standards (JIS)</a></div> <div><a href="#">Pillow block units, not standardized (incl. SKF Food Line)</a></div> <div><a href="#">Permissible misalignment</a></div> <div><a href="#">Locating/non-locating support</a></div> <div><a href="#">Loads</a></div> <div><a href="#">Temperature limits</a></div> <div><a href="#">Permissible speed</a></div> <div><a href="#">Lubrication</a></div> <div><a href="#">Mounting and dismounting</a></div> <div><a href="#">Ordering information</a></div> <div><a href="#">Designation system</a></div>	<div> <b>Engineering information</b></div> <div><div> <a href="#">Principles of ball bearing units selection and application - Download catalogue (4.9 MB)</a></div><div><a href="#">Principles of selecting mounted bearing solutions</a></div><div><a href="#">Bearing failure and how to prevent it</a></div></div>	<div> <b>Tools</b></div> <div><a href="#">SKF Product select</a></div> <div><a href="#">Bearing Frequency Calculator</a></div>
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