

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

SY 15 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

Attachment bolt diameter	10 mm
Shaft diameter	15 mm
Centre height (pillow block)	30.2 mm
Housing overall width	32 mm
Centre distance between bolt holes	97 mm
Bearing width, total	28.6 mm

Performance

Basic dynamic load rating	9.56 kN
Basic static load rating	4.75 kN
Limiting speed	9 500 r/min
Note	Limiting speed with shaft tolerance h6

Properties

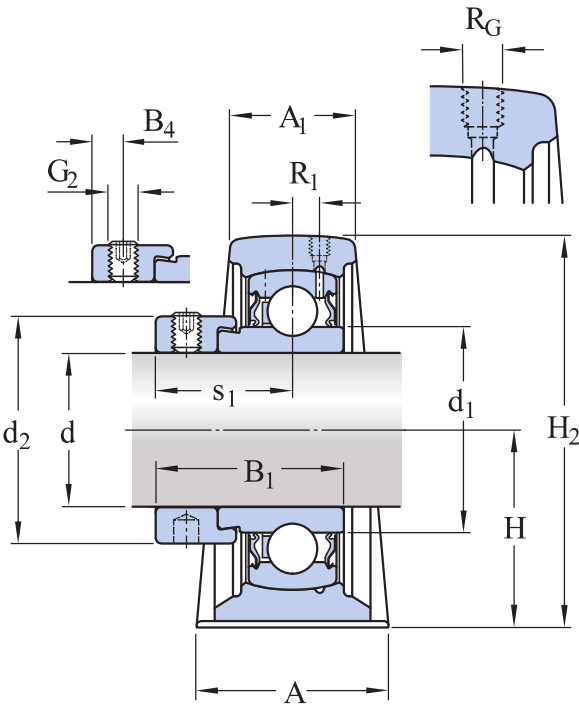
Housing type	Pillow block
Number of bolt holes for fasteners	2
Fastening bolt hole type	Plain
Retaining feature, inner ring	Eccentric collar
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal on both sides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

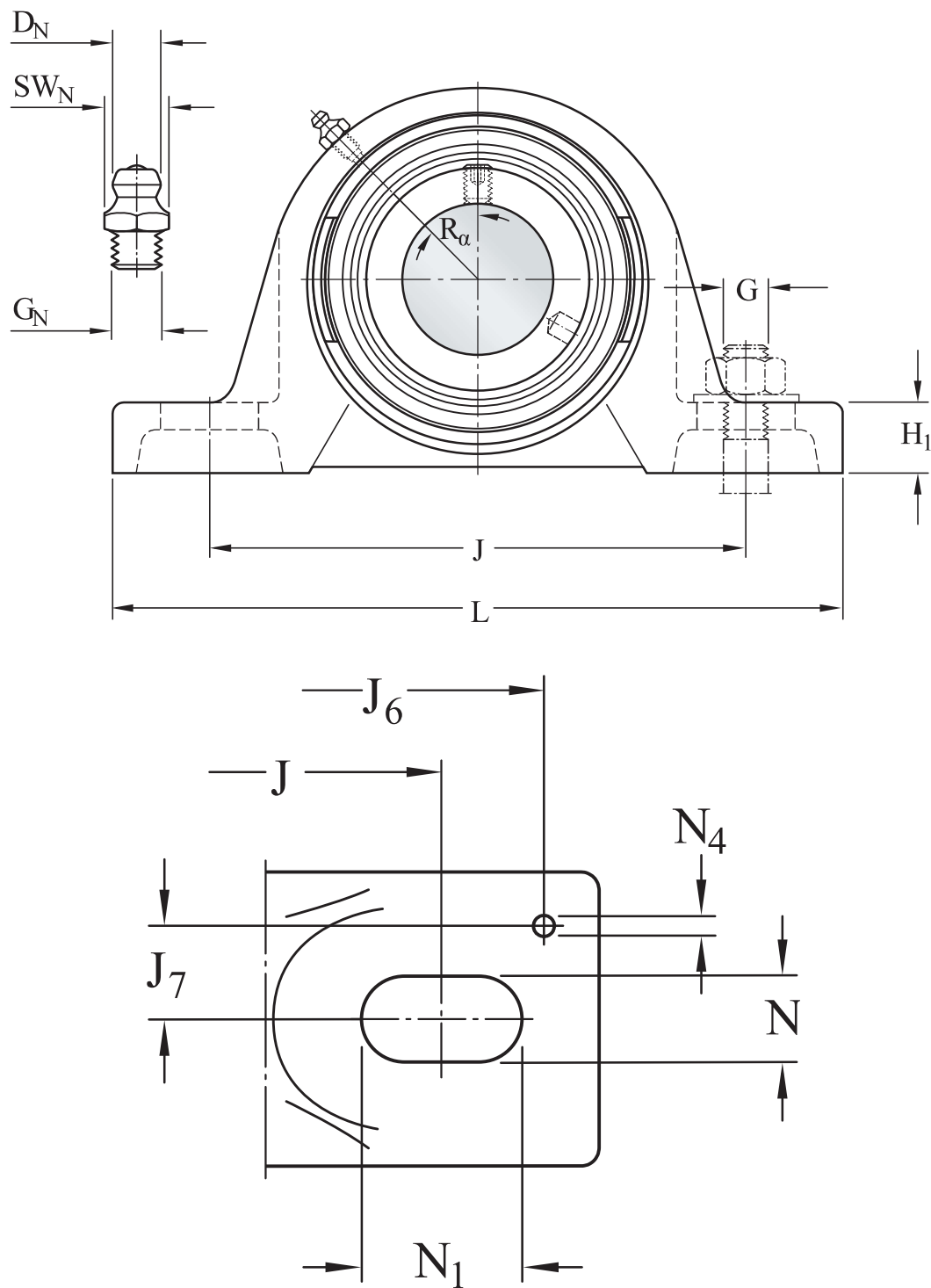
Logistics

Product net weight	0.495 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 on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Without
Coating	Without





Dimensions

d	15 mm	Bore diameter
d ₁	≈ 24.2 mm	Shoulder diameter of inner ring
d ₂	27.2 mm	Outside diameter of locking ring
A	32 mm	Base width

A ₁	18 mm	Top width
B	19.1 mm	Width of inner ring
B ₁	28.6 mm	Overall bearing width
B ₄	4.75 mm	Distance from locking device side face to thread centre
H	30.2 mm	Height of spherical seat centre
H ₁	14 mm	Foot height
H ₂	57 mm	Overall height
J	97 mm	Distance between attachment bolts
J	max. 106 mm	Maximum distance between attachment bolts
J	min. 88 mm	Minimum distance between attachment bolts
L	127 mm	Overall length
N	11.5 mm	Diameter of attachment bolt hole
N ₁	20.5 mm	Length of attachment bolt hole
s ₁	22.1 mm	Distance from locking device side face to raceway centre

GREASE FITTING

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

DOWEL PINS

J ₆	118 mm	Distance of dowel pins
J ₇	11.5 mm	Axial offset of dowel pins
N ₄	2 mm	Recommended diameter for dowel pins

THREADED HOLE

R _G	1/4-28 UNF	Housing thread for the grease fitting
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R_1	1 mm	Axial position of the housing thread
R_a	45 °	Angular position of the housing thread

Calculation data

Basic dynamic load rating	C	9.56 kN
Basic static load rating	C_0	4.75 kN
Fatigue load limit	P_u	0.2 kN
Limiting speed		9 500 r/min
		Limiting speed with shaft tolerance h6

Mounting information

Set screw	G_2	M6x0.75
Hexagonal key size for set screw		3 mm
Recommended tightening torque for set screw		4 N·m
Recommended diameter for attachment bolts, mm	G	10 mm
Recommended diameter for attachment bolts, inch	G	0.375 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	SY 503 M
Insert bearing with an eccentric locking collar and narrow inner ring	YET 203/15

More Information

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