

SY 20 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

Shaft diameter	20 mm
Centre height (pillow block)	33.3 mm
Housing overall width	32 mm
Centre distance between bolt holes	97 mm
Bearing width, total	31 mm

Performance

Basic dynamic load rating	12.7 kN
Basic static load rating	6.55 kN
Limiting speed	8 500 r/min
Note	Limiting speed with shaft tolerance h6

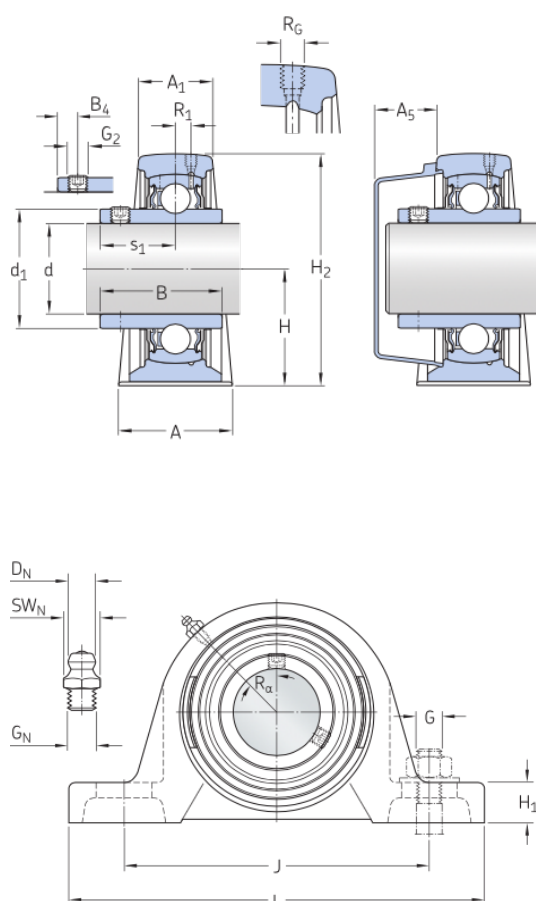
Properties

Housing type	Pillow block
Number of bolt holes for fasteners	2
Fastening bolt hole type	Plain
Retaining feature, inner ring	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 mm

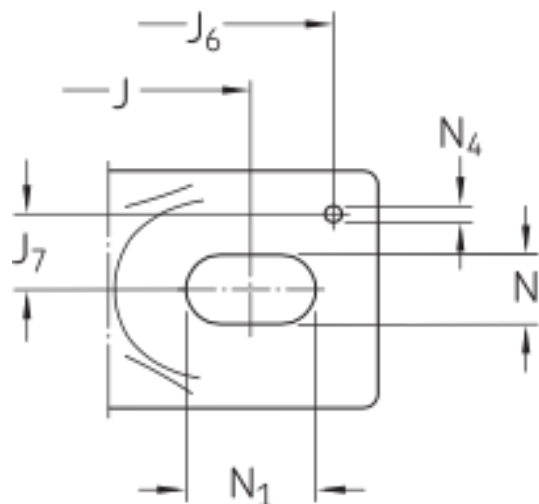
Technical Specification

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	20 mm	Bore diameter
d ₁	≈ 28.2 mm	Shoulder diameter of inner ring
A	32 mm	Base width
A ₁	21 mm	Top width
A ₅	20.5 mm	Standout of end cover
B	31 mm	Width of inner ring
B ₁	31 mm	Overall bearing width
B ₄	4.5 mm	Distance from locking device side face to thread centre
H	33.3 mm	Height of spherical seat centre
H ₁	14 mm	Foot height
H ₂	64.5 mm	Overall height
J	97 mm	Distance between attachment bolts
J	max. 106 mm	Distance between attachment bolts
J	min. 88 mm	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 18.3 mm Distance from locking device side face to raceway centre

Threaded hole

R_G 1/4-28 UNF Housing thread for the grease fitting

R_1 2 mm Axial position of the housing thread

R_0 45 ° Angular position of the housing thread

Grease fitting

D_f 6.5 mm Diameter of head sphere of grease fitting

S_f 7 mm Hexagonal key size for the grease fitting

G_f 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_d 2 mm Recommended diameter for dowel pins

Calculation data

Basic dynamic load rating	C	12.7 kN
Basic static load rating	C_0	6.55 kN
Fatigue load limit	P_u	0.28 kN
Limiting speed		8 500 r/min
		Limiting speed with shaft tolerance h6

Mass

Mass bearing unit	0.56 kg
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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

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