

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

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

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

Performance

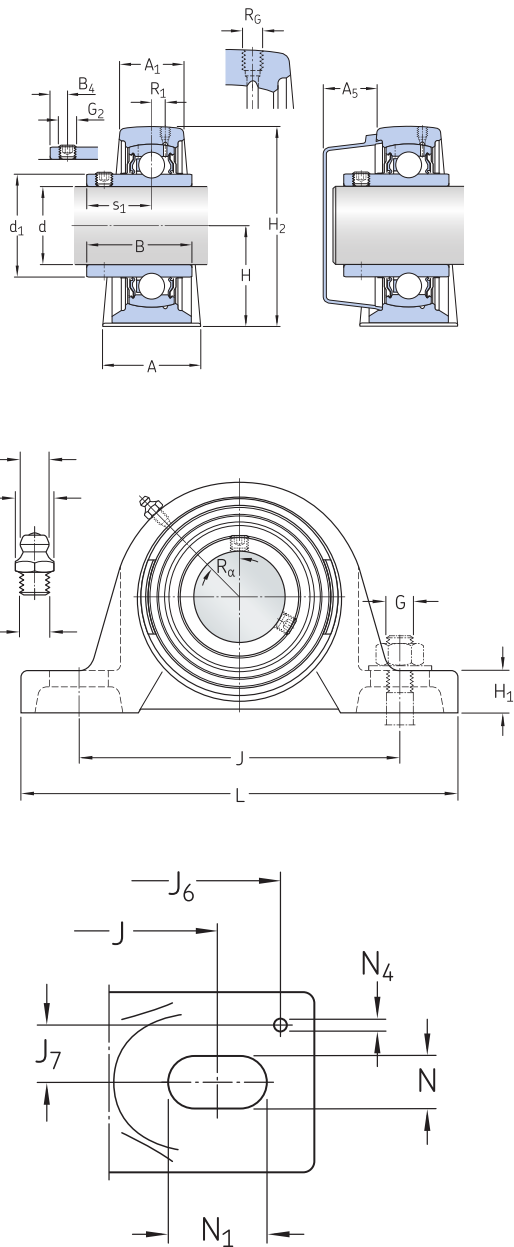
Basic dynamic load rating	12.7 kN
Basic static load rating	6.55 kN
Limiting speed	8 500 r/min
Note	Limiting speed with shaft tolerance h6

Logistics

Product net weight	0.588 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	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 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 _α	45 °	Angular position of the housing thread

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

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

Compatible products

Component

Pillow block housing for insert bearings, cast iron, ISO standards	SY 504 M
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Insert bearing with set screw locking and extended inner ring	YAR 204-2F
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Recommended product

End cover for bearing units	ECY 204
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