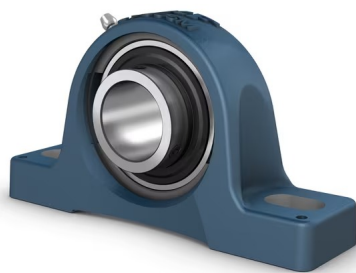


# SYJ 45 TF



Pillow block ball bearing unit with extended inner ring and set screw locking, cast iron, Japanese 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
- Designed for a constant and alternating rotation
- Lubricated and sealed bearing
- Quick locking onto the shaft
- Cost-effective

## Overview

## Dimensions

Shaft diameter	45 mm
Centre height (pillow block)	54 mm
Housing overall width	52 mm
Centre distance between bolt holes	143.5 mm
Bearing width, total	49.2 mm

## Performance

Basic dynamic load rating	33.2 kN
Basic static load rating	21.6 kN
Limiting speed	4 300 r/min
Note	Limiting speed with shaft tolerance h6

## Properties

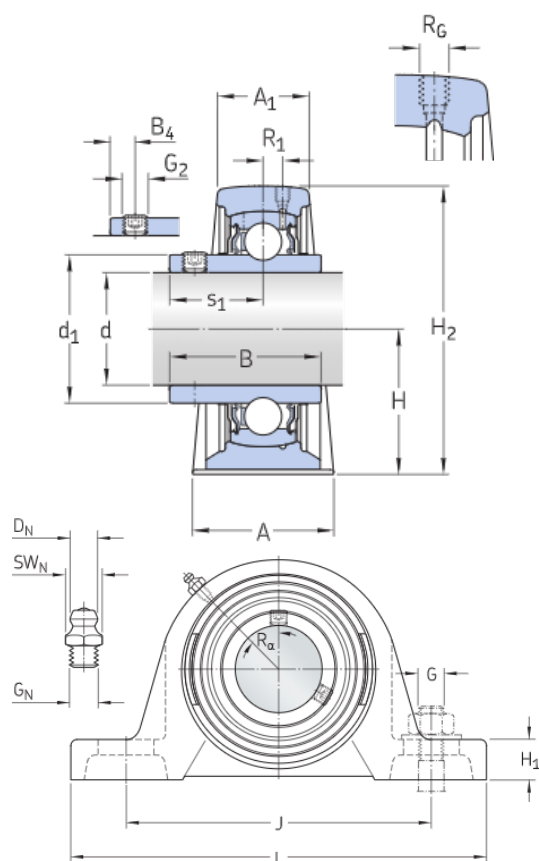
Housing type	Pillow block
Number of bolt holes for fasteners	2
Fastening bolt hole type	Plain
Retaining feature, inner ring	Set screws
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides

Sealing type	Contact, standard
Sealing, unit	Without
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

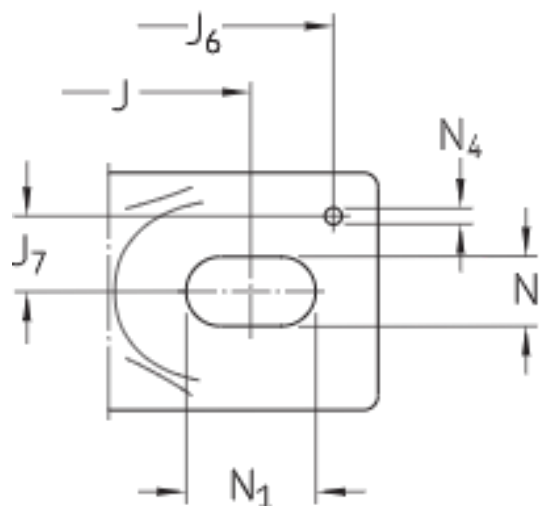
# Technical Specification

Compliance with standard	JIS
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	Without
Coating	Without

## Dimensions



$d$	45 mm	Bore diameter
$d_1$	$\approx 56.8$ mm	Shoulder diameter of inner ring
$A$	52 mm	Base width
$A_1$	36 mm	Top width
$B$	49.2 mm	Width of inner ring
$B_1$	49.2 mm	Overall bearing width
$B_4$	8 mm	Distance from locking device side face to thread centre
$H$	54 mm	Height of spherical seat centre
$H_1$	20 mm	Foot height
$H_2$	107.5 mm	Overall height
$J$	143.5 mm	Distance between attachment bolts
$J$	max. 151 mm	Distance between attachment bolts
$J$	min. 136 mm	Distance between attachment bolts
$L$	190 mm	Overall length
$N$	17 mm	Diameter of attachment bolt hole
$N_1$	24.5 mm	Length of attachment bolt hole



$s_1$	30.2 mm	Distance from locking device side face to raceway centre
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#### Threaded hole

$R_G$	1/4-28 UNF	Housing thread for the grease fitting
$R_1$	4 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

$J_6$	174 mm	Distance of dowel pins
$J_7$	18 mm	Axial offset of dowel pins
$N_4$	4 mm	Recommended diameter for dowel pins

## Calculation data

Basic dynamic load rating	C	33.2 kN
Basic static load rating	$C_0$	21.6 kN
Fatigue load limit	$P_u$	0.915 kN
Limiting speed		4 300 r/min
		Limiting speed with shaft tolerance h6

## Mass

Mass bearing unit	2.25 kg
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## Mounting information

Set screw	G <sub>2</sub>	M8x1
Hexagonal key size for set screw		4 mm
Recommended tightening torque for set screw		6.5 N·m
Recommended diameter for attachment bolts, mm	G	14 mm
Recommended diameter for attachment bolts, inch	G	0.5625 in

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