



# FYJ 45 TFSquare flanged ball bearing unit with set screw locking, cast iron housing, JIS

Square flanged ball bearing unit with set screw locking, cast iron housing, JIS

These square flanged ball bearing units are compliant with Japanese Industrial Standards (JIS). They consist of an insert bearing, with an extended inner ring and set screw locking, and are suitable for applications where the direction of rotation is constant or alternating. The bearing is mounted in a cast iron housing, which can be bolted to a machine wall or frame. Ball bearing units can accommodate moderate initial misalignment, but normally do not permit axial displacement.

- Resist high levels of contamination
- Designed for high temperatures and speeds
- Accommodate relatively heavy loads
- Cost-effective

## Overview

## Dimensions

Shaft diameter	45 mm
Housing overall width	38 mm
Width, total	52.2 mm
Centre distance between bolt holes	105 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	Flanged
Flanged housing type	Square
Number of bolt holes for fasteners	4
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	Outer diameter of inner ring
A	38 mm	Overall width
$A_1$	16 mm	Flange width
$A_3$	3.2 mm	Depth of centring recess
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
$D_{b1}$	107 mm	Top external diameter
$D_{b2}$	108 mm	Base external diameter
$D_c$	119.1 mm	Diameter of housing centering recess
J	105 mm	Distance between attachment bolts
L	137 mm	Overall length
N	16 mm	Diameter of attachment bolt hole



$s_1$	30.2 mm	Distance from locking device side face to raceway centre
T	52.2 mm	Overall unit width

#### Threaded hole

$R_G$	1/4-28 UNF	Housing thread for grease fitting
$R_1$	22 mm	Axial position of the housing thread

#### Grease fitting

$D_N$	6.5 mm	Diameter of head sphere of grease fitting
SW	7 mm	Hexagonal key size for the grease fitting
$G_N$	1/4-28 SAE-LT	Thread of grease fitting

#### Dowel pins

$J_6$	123 mm	Distance of dowel pins
$J_7$	33.5 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	2.1 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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