



# FY 50 TRSquare flanged ball bearing unit with set screw locking, cast iron housing, ISO

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

These square flanged ball bearing units are compliant with ISO standards. 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	50 mm
Housing overall width	43 mm
Width, total	60.6 mm
Centre distance between bolt holes	111 mm
Bearing width, total	51.6 mm

## Performance

Basic dynamic load rating	35.1 kN
Basic static load rating	23.2 kN
Limiting speed	2 200 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, multiple
Sealing, unit	Optional end cover
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

# 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, multiple
Sealing, unit	Optional end cover
Coating	Without

## Dimensions

d	50 mm	Bore diameter
$d_1$	$\approx 62.51$ mm	Outer diameter of inner ring
A	43 mm	Overall width
$A_1$	15 mm	Flange width
$A_3$	3.2 mm	Depth of centring recess
$A_5$	33 mm	Standout of end cover
B	51.6 mm	Width of inner ring
$B_1$	51.6 mm	Overall bearing width
$B_4$	9 mm	Distance from locking device side face to thread centre
$D_{b1}$	107 mm	Top external diameter
$D_{b2}$	118 mm	Base external diameter
$D_c$	125.4 mm	Diameter of housing centering recess
J	111 mm	Distance between attachment bolts
L	143 mm	Overall length
N	18 mm	Diameter of attachment bolt hole



$s_1$	32.6 mm	Distance from locking device side face to raceway centre
T	60.6 mm	Overall unit width

#### Threaded hole

$R_G$	1/4-28 UNF	Housing thread for grease fitting
$R_1$	28.5 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

$J_6$	129 mm	Distance of dowel pins
$J_7$	35.5 mm	Axial offset of dowel pins
$N_4$	4 mm	Recommended diameter for dowel pins

## Calculation data

Basic dynamic load rating	C	35.1 kN
Basic static load rating	$C_0$	23.2 kN
Fatigue load limit	$P_u$	0.98 kN
Limiting speed		2 200 r/min
		Limiting speed with shaft tolerance h6

## Mass

Mass bearing unit	2.3 kg
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## Mounting information

Set screw	G <sub>2</sub>	M10x1
Hexagonal key size for set screw		5 mm
Recommended tightening torque for set screw		16.5 N·m
Recommended diameter for attachment bolts, mm	G	16 mm
Recommended diameter for attachment bolts, inch	G	0.625 in

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