



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

## FYJ 45 KF

**Square flanged ball bearing unit with adapter sleeve locking, cast iron housing, JIS**

These square flanged ball bearing units are compliant with Japanese Industrial Standards (JIS). They consist of an insert bearing, locked to the shaft with an adapter sleeve, which enables the bearings to operate at higher speeds and run more smoothly in 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. The adapter sleeve is not included in the unit and should be ordered separately.

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

Overview

Dimensions

Shaft diameter	40 mm
Housing overall width	38 mm
Width, total	50.75 mm
Centre distance between bolt holes	105 mm
Bearing width, total	34.9 mm

Performance

Basic dynamic load rating	33.2 kN
Basic static load rating	21.6 kN
Limiting speed	4 300 r/min

Properties

Housing type	Flanged
Flanged housing type	Square
Number of bolt holes for fasteners	4
Fastening bolt hole type	Plain
Retaining feature, inner ring	Adapter sleeve
Bore type	Tapered
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

Logistics

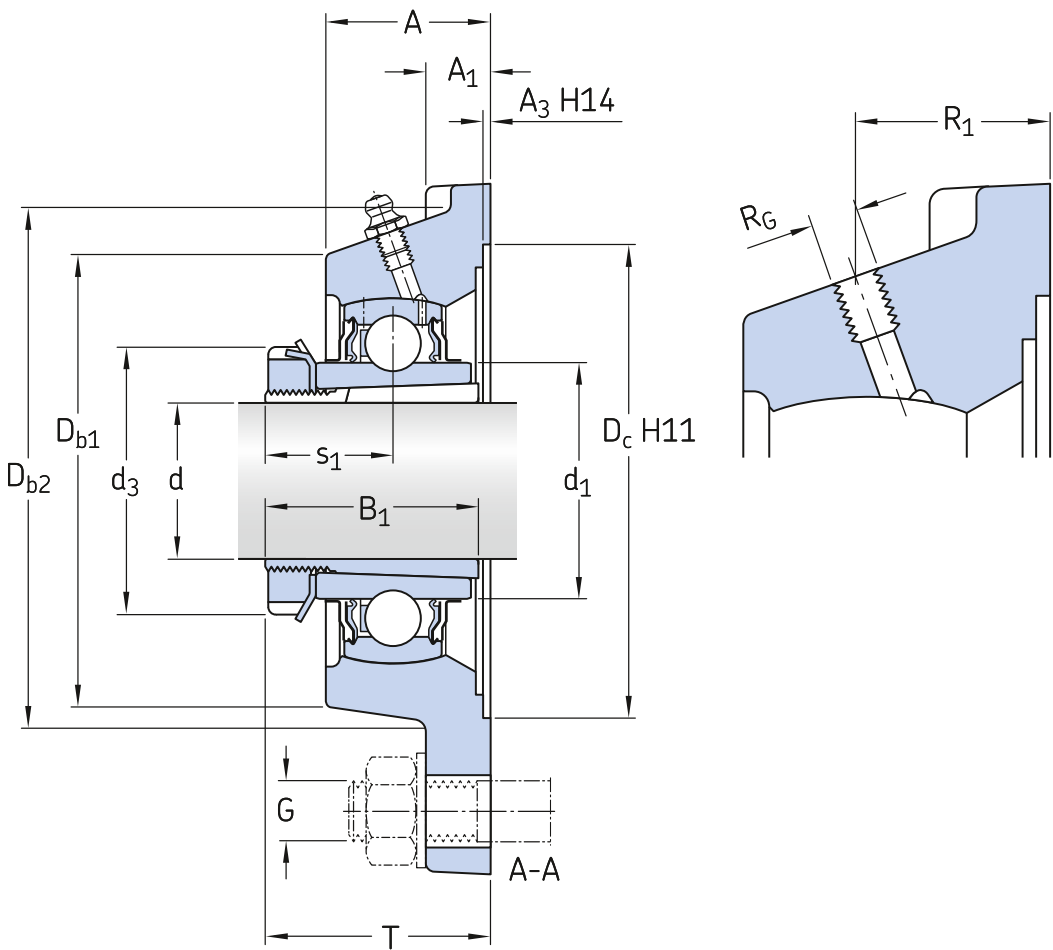
Product net weight	2 kg
eClass code	23-05-16-02
UNSPSC code	31171536

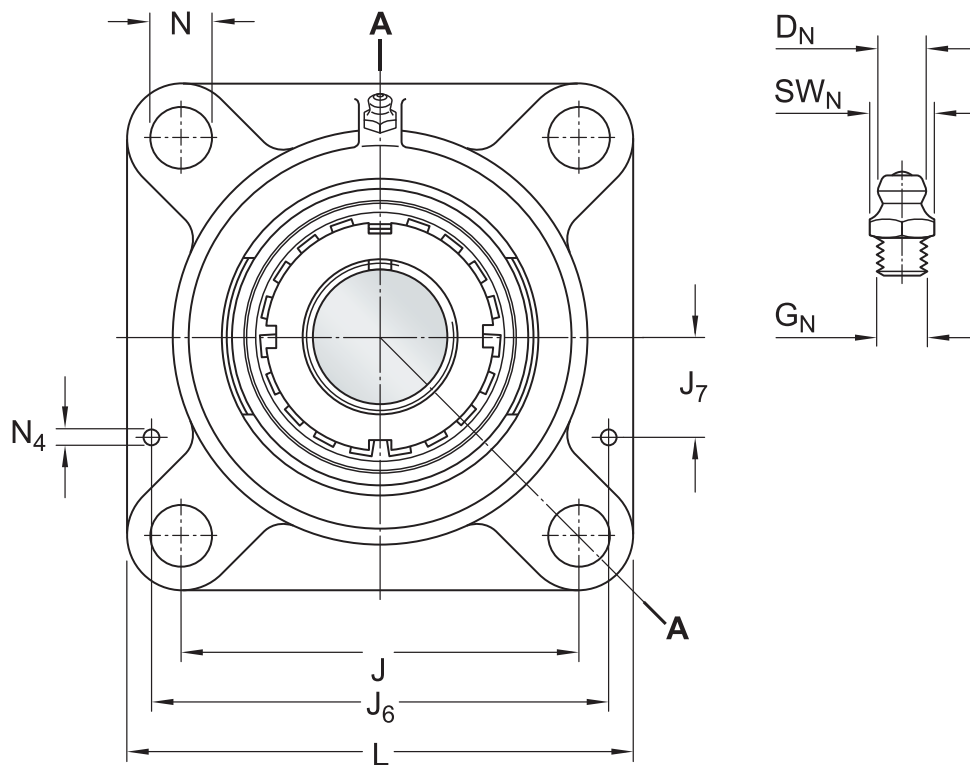


Technical specification

- Order adapter sleeve separately

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	40 mm	Bore diameter
d <sub>1</sub>	≈ 56.8 mm	Outer diameter of inner ring
d <sub>3</sub>	65 mm	Outside diameter of lock nut
A	38 mm	Width of housing
A <sub>1</sub>	16 mm	Flange width
A <sub>3</sub>	3.2 mm	Depth of centring recess
B	35 mm	Width of inner ring
B <sub>1</sub>	34.9 mm	Overall bearing width
B <sub>1</sub>	50 mm	Width of sleeve
D <sub>b1</sub>	107 mm	Top external diameter
D <sub>b2</sub>	108 mm	Base external diameter
D <sub>c</sub>	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 <sub>1</sub>	28.75 mm	Distance from locking device side face to raceway centre
T	50.75 mm	Overall width

Value specified for s<sub>1</sub> is approximate and before the sleeve is driven into the bearing bore (sleeve and inner ring bore at starting position).

## 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
$SW_N$	7 mm	Hexagonal key size for the grease fitting
$G_N$	1/4-28 SAE-LT	Thread of grease fitting

## DOWEL PINS

$J_6$	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

## Mounting information

Associated spanner		HN 9
Recommended lock nut tightening angle	$\alpha$	110 °
Recommended diameter for attachment bolts, mm	G	14 mm
Recommended diameter for attachment bolts, inch	G	0.5625 in

## Compatible products





Component

Square flanged housing for insert bearings, cast iron, JIS	<a href="#">FYJ 509</a>
Insert bearing with tapered bore and adapter sleeve locking	<a href="#">YSA 209-2FK</a>

Recommended product

Adapter sleeve with KM lock nut and MB lock washer, metric dimensions	<a href="#">H 2309</a>
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More Information

<div> Product details</div> <div><a href="#">Flanged units to ISO standards</a></div> <div><a href="#">Flanged units to North American standards</a></div> <div><a href="#">Flanged units to Japanese Industrial Standards (JIS)</a></div> <div><a href="#">Flanged units, not standardized (SKF Food Line)</a></div> <div><a href="#">Permissible misalignment</a></div> <div><a href="#">Locating/non-locating support</a></div> <div><a href="#">Loads</a></div> <div><a href="#">Temperature limits</a></div> <div><a href="#">Permissible speed</a></div> <div><a href="#">Lubrication</a></div> <div><a href="#">Mounting and dismounting</a></div> <div><a href="#">Ordering information</a></div> <div><a href="#">Designation system</a></div>	<div><div></div><div>Engineering information</div></div> <div><div></div><div><a href="#">Principles of ball bearing units selection and application - Download catalogue (4.9 MB)</a></div></div> <div><a href="#">Principles of selecting mounted bearing solutions</a></div> <div><a href="#">Bearing failure and how to prevent it</a></div>	<div><div></div><div>Tools</div></div> <div><a href="#">SKF Product select</a></div> <div><a href="#">Bearing Frequency Calculator</a></div>
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