



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

TU 45 TF

Take-up cast iron unit with insert ball bearing, set screw locking and extended inner ring, ISO

Take-up ball bearing units, consisting of an insert bearing based on a sealed deep groove ball bearing mounted in a grey cast iron housing. Typically mounted in take-up frames, the unit has an inner ring extended on both sides and is locked by tightening a set screw on the inner ring, which makes it easy to mount.

- Designed for an alternating rotation
- Quick and easy to mount onto the shaft
- Accommodate static initial misalignment
- Long service life
- Reduced noise and vibration levels

Overview

Dimensions

Shaft diameter	45 mm
Housing overall width	49 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

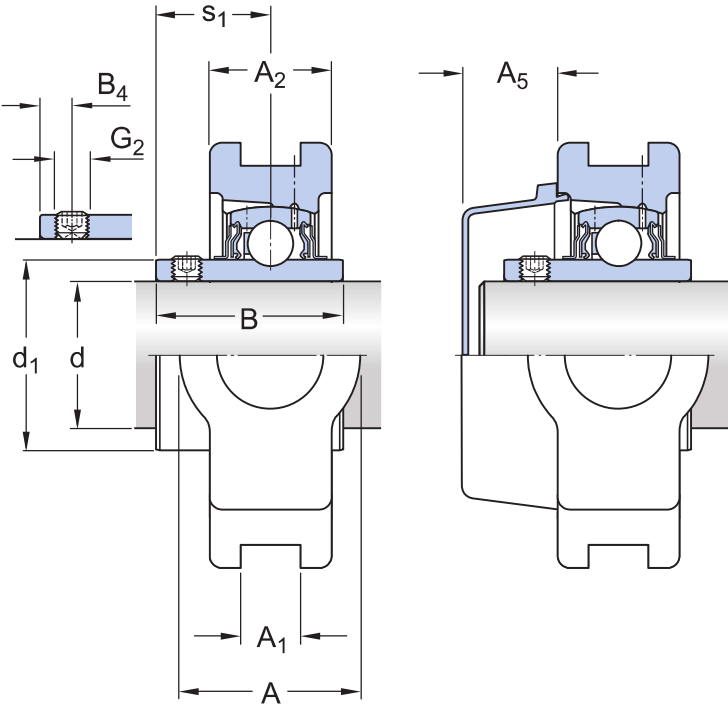
Housing type	Take-up
Retaining feature, inner ring	Set screws
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides
Sealing type	Contact, standard
Sealing, unit	Optional end cover
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

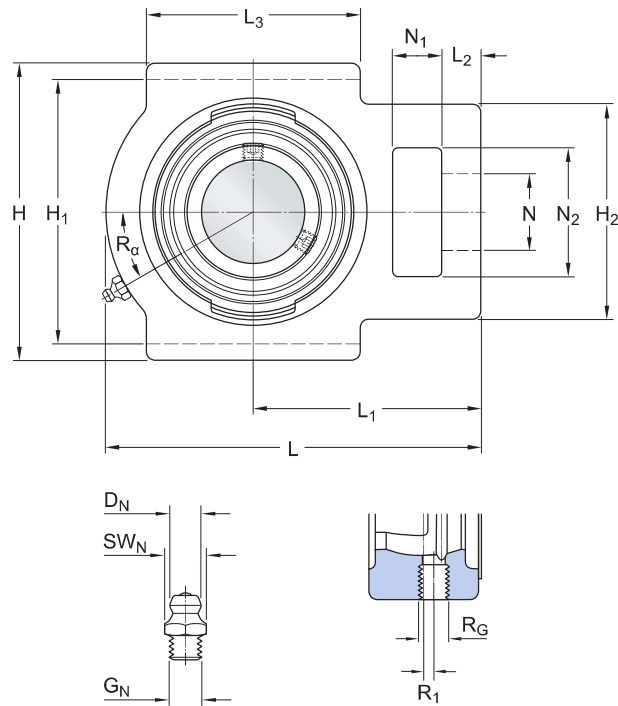
Logistics

Product net weight	2.29 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	45 mm	Bore diameter
d_1	≈ 56.8 mm	Shoulder diameter of inner ring
A	49 mm	Overall width
A_1	17.5 mm	Width of piloting groove
A_2	35 mm	Width of flange in which piloting grooves are provided
A_5	24 mm	Standout of end cover
B	49.2 mm	Width of inner ring
B_4	8 mm	Distance from locking device side face to thread centre
H	117 mm	Overall height
H_1	101 mm	Distance between bottoms of piloting grooves
H_2	83 mm	Height of attachment end
L	144 mm	Overall length
L_1	87 mm	Distance from attachment end face to centre line of spherical seat diameter
L_2	15 mm	Length attachment end
L_3	83 mm	Length of piloting groove
N	29 mm	Diameter of attachment bolt hole

N ₁	19 mm	Length of attachment slot
N ₂	49 mm	Height of attachment slot
s ₁	30.2 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	4.5 mm	Axial position of the housing thread
R _α	30 °	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

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

Mounting information

Set screw	G ₂	M8x1
Hexagonal key size for set screw		4 mm
Recommended tightening torque for set screw		6.5 N·m

Tolerances and clearances

The values depend on the included bearing:

- Bore diameter tolerance → [table 1](#)
- Radial internal clearance → [table 2](#)
- Recommended fit → [table 3](#)
- Shaft tolerance → [table 4](#)

Compatible products

Component

Take-up cast iron housing for insert bearing, ISO	TU 509 M
Insert bearing with set screw locking and extended inner ring	YAR 209-2F

Recommended product

End cover for bearing units	ECY 209
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More Information

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