

# TU 20 TFT Take-up cast iron unit with insert ball bearing, set screw locking and extended inner ring, ISO

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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	20 mm
Housing overall width	34 mm
Bearing width, total	31 mm

### Performance

Basic dynamic load rating	12.7 kN
Basic static load rating	6.55 kN
Limiting speed	8 500 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

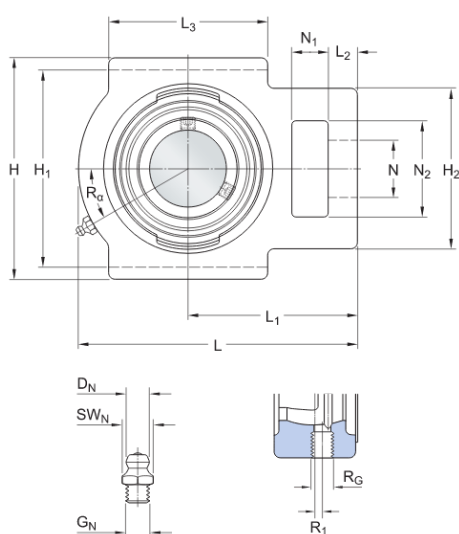
# Technical Specification

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	20 mm	Bore diameter
d <sub>1</sub>	≈ 28.2 mm	Shoulder diameter of inner ring
A	34 mm	Overall width
A <sub>1</sub>	13.5 mm	Width of piloting groove
A <sub>2</sub>	25 mm	Width of flange in which piloting grooves are provided
A <sub>5</sub>	18.5 mm	Standout of end cover
B	31 mm	Width of inner ring
B <sub>4</sub>	4.5 mm	Distance from locking device side face to thread centre
H	92 mm	Overall height
H <sub>1</sub>	76 mm	Distance between bottoms of piloting grooves
H <sub>2</sub>	54 mm	Height of attachment end
L	97 mm	Overall length



$L_1$	62 mm	Distance from attachment end face to centre line of spherical seat diameter
$L_2$	10 mm	Length attachment end
$L_3$	54 mm	Length of piloting groove
$N$	19 mm	Diameter of attachment bolt hole
$N_1$	16 mm	Length of attachment slot
$N_2$	32 mm	Height of attachment slot
$s_1$	18.3 mm	Distance from locking device side face to raceway centre

#### Threaded hole

$R_G$	1/4-28 UNF	Housing thread for the grease fitting
$R_1$	2.5 mm	Axial position of the housing thread
$R_\alpha$	30 °	Angular 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

## Calculation data

Basic dynamic load rating	$C$	12.7 kN
Basic static load rating	$C_0$	6.55 kN
Fatigue load limit	$P_u$	0.28 kN
Limiting speed		8 500 r/min
		Limiting speed with shaft tolerance h6

## Mass

Mass bearing unit	0.89 kg
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## Mounting information

Set screw	G <sub>2</sub>	M6x0.75
Hexagonal key size for set screw		3 mm
Recommended tightening torque for set screw		4 N·m

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