

TU 45 FMTake-up cast iron unit with insert ball bearing, eccentric locking collar and narrow inner ring, ISO

Take-up cast iron unit with insert ball bearing, eccentric locking collar and narrow 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. This variant is intended for use in applications where the direction of rotation is constant. It has an inner ring extended on one side, with an eccentric locking collar, enabling quick and easy mounting onto the shaft.

- Designed for rotation in one direction
- 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 | 43.7 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 | Eccentric collar |
| Bore type | Cylindrical |
| Rubber seating ring | Without |
| Material, housing | Cast iron |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing, bearing | Seal on both sides |
| Sealing type | Contact, standard |
| Sealing, unit | Optional end cover |
| Lubricant | Grease |

Relubrication hole

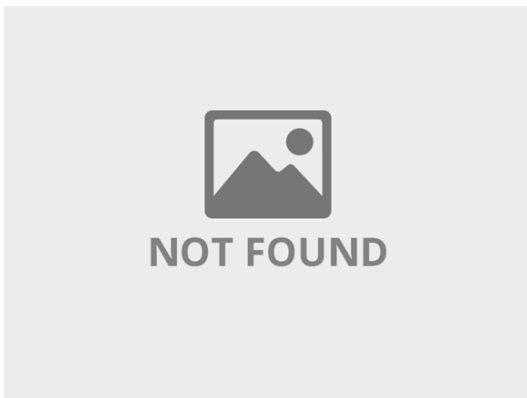
With

Grease fitting

With

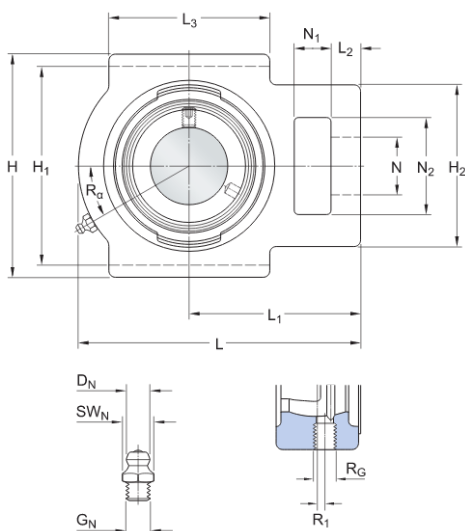
Technical Specification

| | |
|--------------------------|------------------------------------|
| Compliance with standard | ISO |
| Purpose specific | For material handling applications |
| Material, housing | Cast iron |
| Sealing, bearing | Seal 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 |
| d ₂ | 62 mm | Outside diameter of locking 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 ₁ | 43.7 mm | Overall bearing width |
| B ₄ | 6.75 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 | 32.7 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 | 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

Mass

| | |
|-------------------|--------|
| Mass bearing unit | 2.3 kg |
|-------------------|--------|

Mounting information

| | | |
|---|----------------|----------|
| Set screw | G ₂ | M10x1 |
| Hexagonal key size for set screw | | 5 mm |
| Recommended tightening torque for set screw | | 16.5 N·m |

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