



Image may differ from product. See specification for details.

## WSTU 104-TF

Take-up ball bearing unit with composite or cast metal housing

Take-up ball bearing units consisting of an insert bearing mounted in a composite or cast metal housing. The units are typically mounted in take-up frames and adjusted by an adjustment screw. In addition to being part of a unit, some take-up housings for insert bearings are available as separate components. The SKF assortment includes take-up ball bearing units compliant with several industrial standards, as required by many industrial applications.

- Ready to mount
- Lubricated and sealed bearings
- Quick locking on the shaft
- Large variety of housing shapes, housing materials, and locking methods
- Concentric locking options for high speeds and low vibration

## Overview

### Dimensions

|                       |          |
|-----------------------|----------|
| Shaft diameter        | 31.75 mm |
| Housing overall width | 37.3 mm  |
| Bearing width, total  | 42.9 mm  |

### Performance

|                           |                                        |
|---------------------------|----------------------------------------|
| Basic dynamic load rating | 25.5 kN                                |
| Basic static load rating  | 15.3 kN                                |
| Limiting speed            | 5 300 r/min                            |
| Note                      | Limiting speed with shaft tolerance h6 |

### Properties

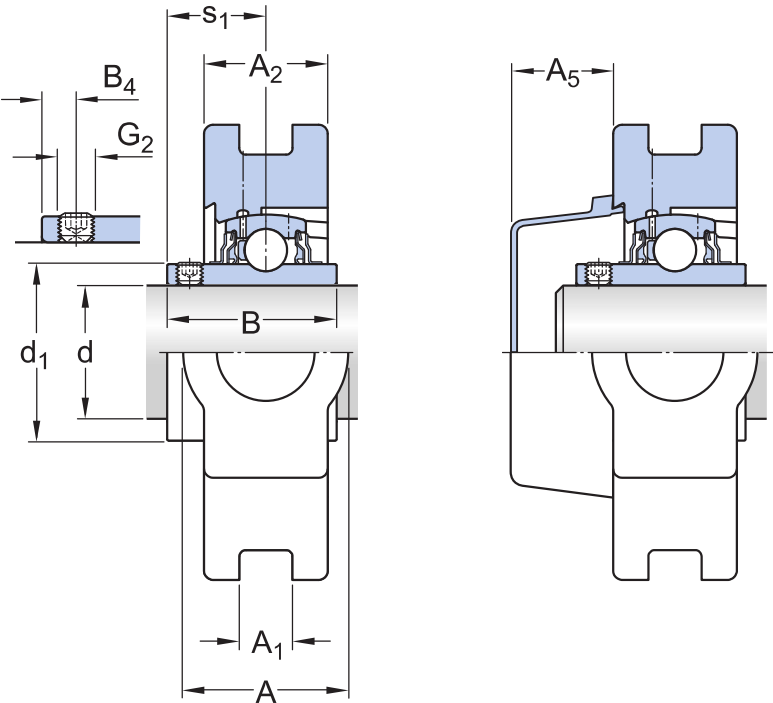
|                               |                                |
|-------------------------------|--------------------------------|
| Housing type                  | Take-up                        |
| Retaining feature, inner ring | Set screws                     |
| Bore type                     | 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                           |

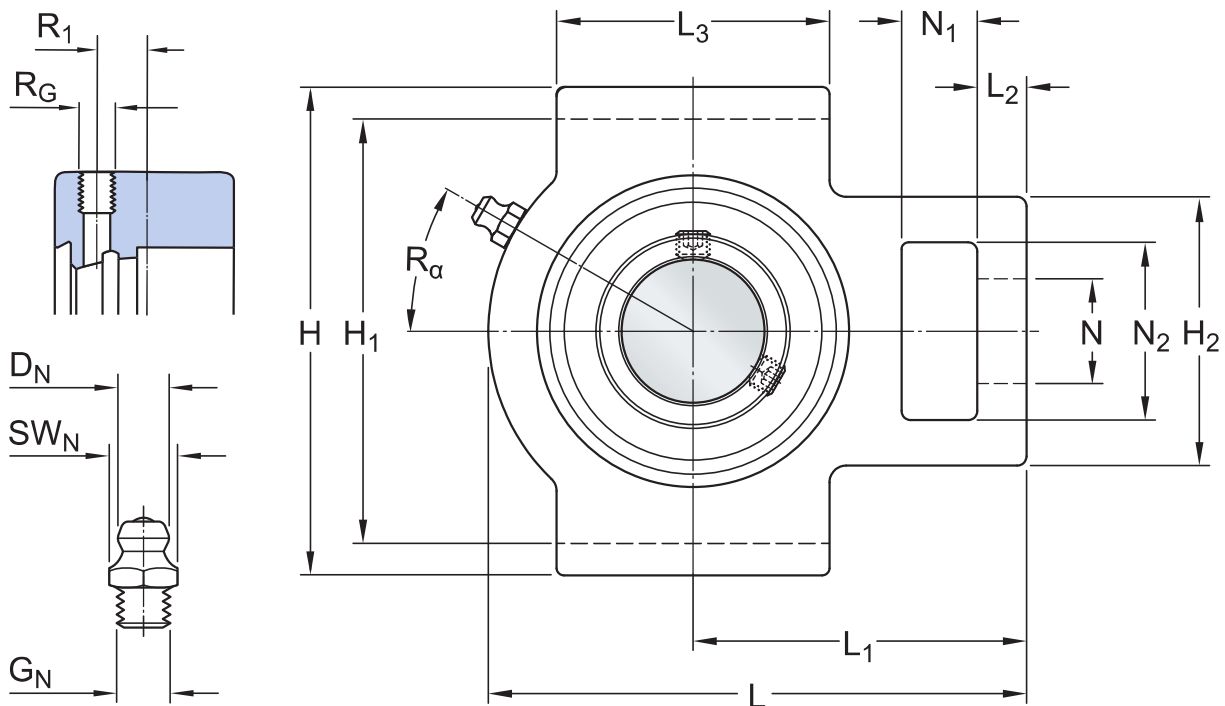
### Logistics

|                    |             |
|--------------------|-------------|
| Product net weight | 1.59 kg     |
| eClass code        | 23-05-16-01 |
| UNSPSC code        | 31171536    |

Technical specification

|                          |                                    |
|--------------------------|------------------------------------|
| Compliance with standard | North American standard            |
| 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              | 31.75 mm  | Bore diameter                                                               |
| d <sub>1</sub> | ≈ 46.1 mm | Shoulder diameter of inner ring                                             |
| A              | 37.3 mm   | Overall width                                                               |
| A <sub>1</sub> | 13.5 mm   | Width of piloting groove                                                    |
| A <sub>2</sub> | 30.2 mm   | Width of flange in which piloting grooves are provided                      |
| A <sub>5</sub> | 24.5 mm   | Standout of end cover                                                       |
| B              | 42.9 mm   | Width of inner ring                                                         |
| B <sub>4</sub> | 6 mm      | Distance from locking device side face to thread centre                     |
| H              | 102.4 mm  | Overall height                                                              |
| H <sub>1</sub> | 88.9 mm   | Distance between bottoms of piloting grooves                                |
| H <sub>2</sub> | 64.3 mm   | Height of attachment end                                                    |
| L              | 128.8 mm  | Overall length                                                              |
| L <sub>1</sub> | 77.8 mm   | Distance from attachment end face to centre line of spherical seat diameter |
| L <sub>2</sub> | 12.7 mm   | Length attachment end                                                       |
| L <sub>3</sub> | 64.3 mm   | Length of piloting groove                                                   |
| N              | 20.6 mm   | Diameter of attachment bolt hole                                            |

|                      |         |                                                          |
|----------------------|---------|----------------------------------------------------------|
| <b>N<sub>1</sub></b> | 15.9 mm | Length of attachment slot                                |
| <b>N<sub>2</sub></b> | 37.3 mm | Height of attachment slot                                |
| <b>s<sub>1</sub></b> | 25.4 mm | Distance from locking device side face to raceway centre |

## THREADED HOLE

|                      |            |                                        |
|----------------------|------------|----------------------------------------|
| <b>R<sub>G</sub></b> | 1/8-27 NPT | Housing thread for the grease fitting  |
| <b>R<sub>1</sub></b> | 1.8 mm     | Axial position of the housing thread   |
| <b>R<sub>α</sub></b> | 30 °       | Angular position of the housing thread |

## GREASE FITTING

|                       |            |                                           |
|-----------------------|------------|-------------------------------------------|
| <b>D<sub>N</sub></b>  | 6.579 mm   | Diameter of head sphere of grease fitting |
| <b>SW<sub>N</sub></b> | 11.113 mm  | Hexagonal key size for the grease fitting |
| <b>G<sub>N</sub></b>  | 1/8-27 NPT | Thread of grease fitting                  |

## Calculation data

|                           |                      |                                        |
|---------------------------|----------------------|----------------------------------------|
| Basic dynamic load rating | <b>C</b>             | 25.5 kN                                |
| Basic static load rating  | <b>C<sub>0</sub></b> | 15.3 kN                                |
| Fatigue load limit        | <b>P<sub>u</sub></b> | 0.655 kN                               |
| Limiting speed            |                      | 5 300 r/min                            |
|                           |                      | Limiting speed with shaft tolerance h6 |

## Mounting information

|                                             |                      |             |
|---------------------------------------------|----------------------|-------------|
| Set screw                                   | <b>G<sub>2</sub></b> | 5/16-24 UNF |
| Hexagonal key size for set screw            |                      | 3.969 mm    |
| Recommended tightening torque for set screw |                      | 6.5 N·m     |

## Tolerances and clearances

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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

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Insert bearing with set screw locking and extended inner ring

[YAR 207-104-2F](#)

Recommended product

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End cover for bearing units

[ECY 207](#)

More Information

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



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