

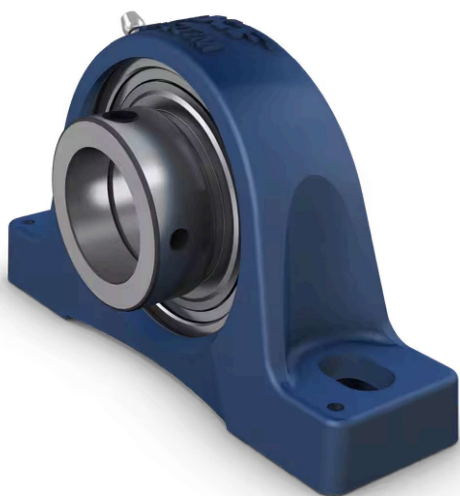


Image may differ from product. See technical specification for details.

## SY 35 WF

**Pillow block ball bearing unit with extended inner ring and eccentric locking collar, cast iron, ISO standards**

Pillow (plummer) block ball bearing units consist of an insert bearing mounted in a cast iron housing that can be bolted to a support surface. This variant is intended for use in

applications where the direction of rotation is constant. It has an extended inner ring on both sides and is locked onto the shaft by an eccentric locking collar, making it easy to mount.

- Strong
- Ready to mount
- Lubricated and sealed bearing
- Designed for rotation in one direction
- Accommodate static initial misalignment

Overview

Dimensions

|                                    |         |
|------------------------------------|---------|
| Attachment bolt diameter           | 12 mm   |
| Shaft diameter                     | 35 mm   |
| Centre height (pillow block)       | 47.6 mm |
| Housing overall width              | 45 mm   |
| Centre distance between bolt holes | 126 mm  |
| Bearing width, total               | 51.1 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

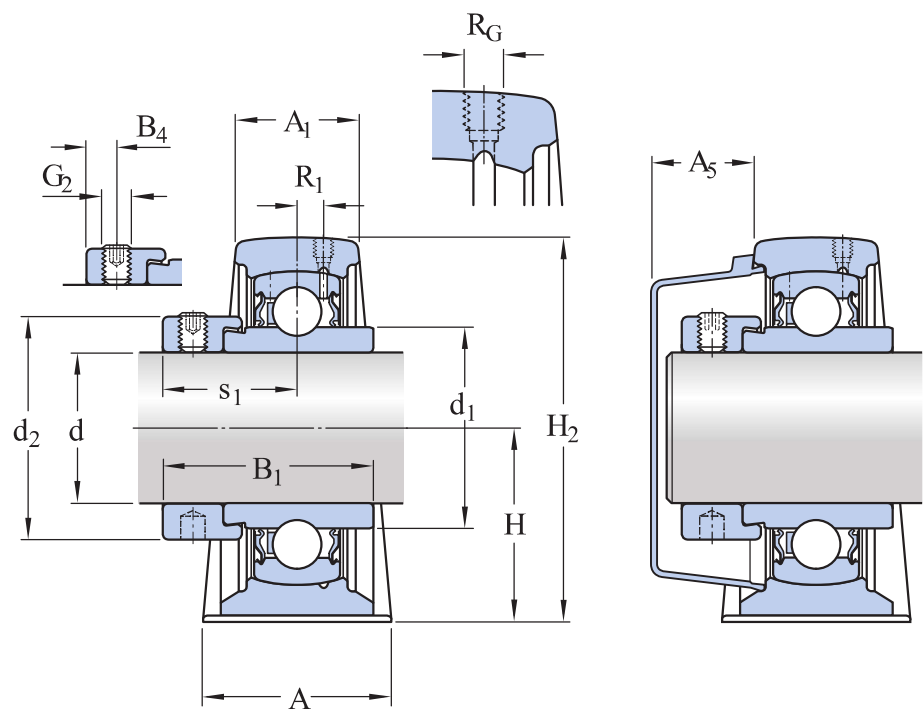
|                                    |                                |
|------------------------------------|--------------------------------|
| Housing type                       | Pillow block                   |
| Number of bolt holes for fasteners | 2                              |
| Fastening bolt hole type           | Plain                          |
| 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 and flinger on both sides |
| Sealing type                       | Contact, standard              |
| Sealing, unit                      | Optional end cover             |
| Lubricant                          | Grease                         |
| Relubrication hole                 | With                           |
| Grease fitting                     | With                           |

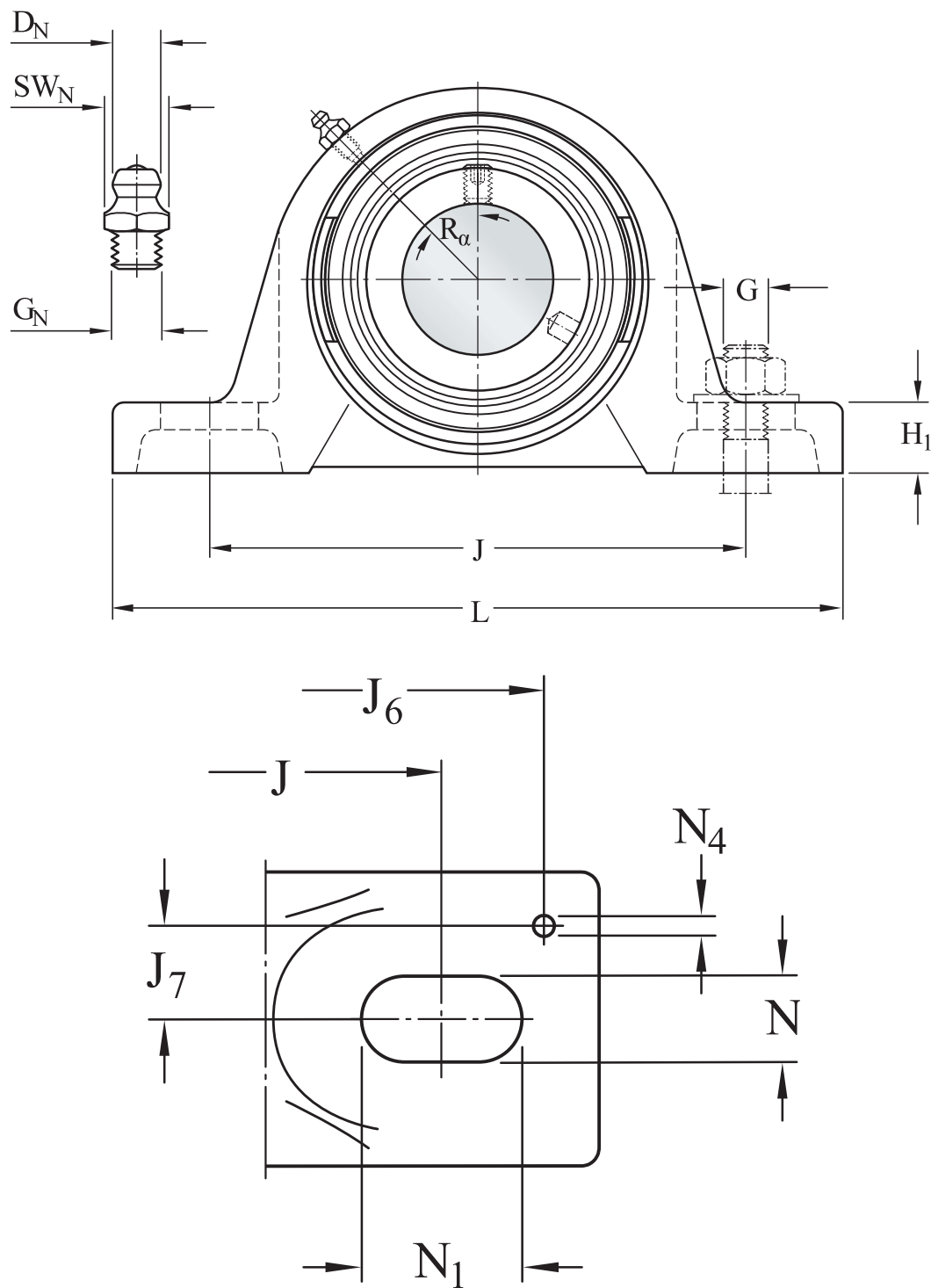
Logistics

|                    |             |
|--------------------|-------------|
| Product net weight | 1.59 kg     |
| eClass code        | 23-05-08-02 |
| UNSPSC code        | 31171536    |

Technical specification

|                          |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| Compliance with standard | ISO                                                               |
| Purpose specific         | For material handling applications; For air 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              | 35 mm     | Bore diameter                    |
| d <sub>1</sub> | ≈ 46.1 mm | Shoulder diameter of inner ring  |
| d <sub>2</sub> | 51.1 mm   | Outside diameter of locking ring |
| A              | 45 mm     | Base width                       |

|                |             |                                                          |
|----------------|-------------|----------------------------------------------------------|
| A <sub>1</sub> | 27 mm       | Top width                                                |
| A <sub>5</sub> | 24.5 mm     | Standout of end cover                                    |
| B              | 37.6 mm     | Width of inner ring                                      |
| B <sub>1</sub> | 51.1 mm     | Overall bearing width                                    |
| B <sub>4</sub> | 6.75 mm     | Distance from locking device side face to thread centre  |
| H              | 47.6 mm     | Height of spherical seat centre                          |
| H <sub>1</sub> | 19 mm       | Foot height                                              |
| H <sub>2</sub> | 93 mm       | Overall height                                           |
| J              | 126 mm      | Distance between attachment bolts                        |
| J              | max. 133 mm | Maximum distance between attachment bolts                |
| J              | min. 119 mm | Minimum distance between attachment bolts                |
| L              | 160 mm      | Overall length                                           |
| N              | 14 mm       | Diameter of attachment bolt hole                         |
| N <sub>1</sub> | 21 mm       | Length of attachment bolt hole                           |
| s <sub>1</sub> | 32.3 mm     | Distance from locking device side face to raceway centre |

## THREADED HOLE

|                |            |                                        |
|----------------|------------|----------------------------------------|
| R <sub>G</sub> | 1/4-28 UNF | Housing thread for the grease fitting  |
| R <sub>1</sub> | 3 mm       | Axial position of the housing thread   |
| R <sub>a</sub> | 45 °       | Angular position of the housing thread |

## GREASE FITTING

|                 |               |                                           |
|-----------------|---------------|-------------------------------------------|
| D <sub>N</sub>  | 6.5 mm        | Diameter of head sphere of grease fitting |
| SW <sub>N</sub> | 7 mm          | Hexagonal key size for the grease fitting |
| G <sub>N</sub>  | 1/4-28 SAE-LT | Thread of grease fitting                  |

## DOWEL PINS

|                |         |                                     |
|----------------|---------|-------------------------------------|
| J <sub>6</sub> | 146 mm  | Distance of dowel pins              |
| J <sub>7</sub> | 15.5 mm | Axial offset of dowel pins          |
| N <sub>4</sub> | 4 mm    | Recommended diameter for dowel pins |

## Calculation data

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

## Mounting information

|                                                 |                |          |
|-------------------------------------------------|----------------|----------|
| Set screw                                       | G <sub>2</sub> | M10x1    |
| Hexagonal key size for set screw                |                | 5 mm     |
| Recommended tightening torque for set screw     |                | 16.5 N·m |
| Recommended diameter for attachment bolts, mm   | G              | 12 mm    |
| Recommended diameter for attachment bolts, inch | G              | 0.5 in   |

## 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

|                                                                         |                            |
|-------------------------------------------------------------------------|----------------------------|
| Pillow block housing for insert bearings, cast iron, ISO standards      | <a href="#">SY 507 M</a>   |
| Insert bearing with an eccentric locking collar and extended inner ring | <a href="#">YEL 207-2F</a> |

Recommended product

|                             |                         |
|-----------------------------|-------------------------|
| End cover for bearing units | <a href="#">ECY 207</a> |
|-----------------------------|-------------------------|

More Information

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
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| <div> <b>Product details</b></div> <div><a href="#">Pillow block units to ISO standards</a></div> <div><a href="#">Pillow block units to North American standards</a></div> <div><a href="#">Pillow block units to Japanese Industrial Standards (JIS)</a></div> <div><a href="#">Pillow block units, not standardized (incl. 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><b>Engineering information</b></div></div> <div><div> <a href="#">Principles of ball bearing units selection and application - Download catalogue (4.9 MB)</a></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> <b>Tools</b></div><div><a href="#">SKF Product select</a></div><div><a href="#">Bearing Frequency Calculator</a></div></div> |
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