

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

SYJ 70 TF

Pillow block ball bearing unit with extended inner ring and set screw locking, cast iron, Japanese 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 suitable for applications with both constant and alternating directions of rotation. It has an inner ring extended on both sides and is locked onto the shaft by tightening a set screw on the inner ring, making it easy to mount.

- Strong
- Ready to mount
- Designed for a constant and alternating rotation
- Lubricated and sealed bearing
- Quick locking onto the shaft
- Cost-effective

Overview

Dimensions

| | |
|------------------------------------|----------|
| Shaft diameter | 2.756 in |
| Centre height (pillow block) | 3.126 in |
| Housing overall width | 2.835 in |
| Centre distance between bolt holes | 8.268 in |
| Bearing width, total | 2.752 in |

Performance

| | |
|---------------------------|--|
| Basic dynamic load rating | 14 028 lbf |
| Basic static load rating | 10 116 lbf |
| Limiting speed | 2 800 r/min |
| Note | Limiting speed with shaft tolerance h6 |

Properties

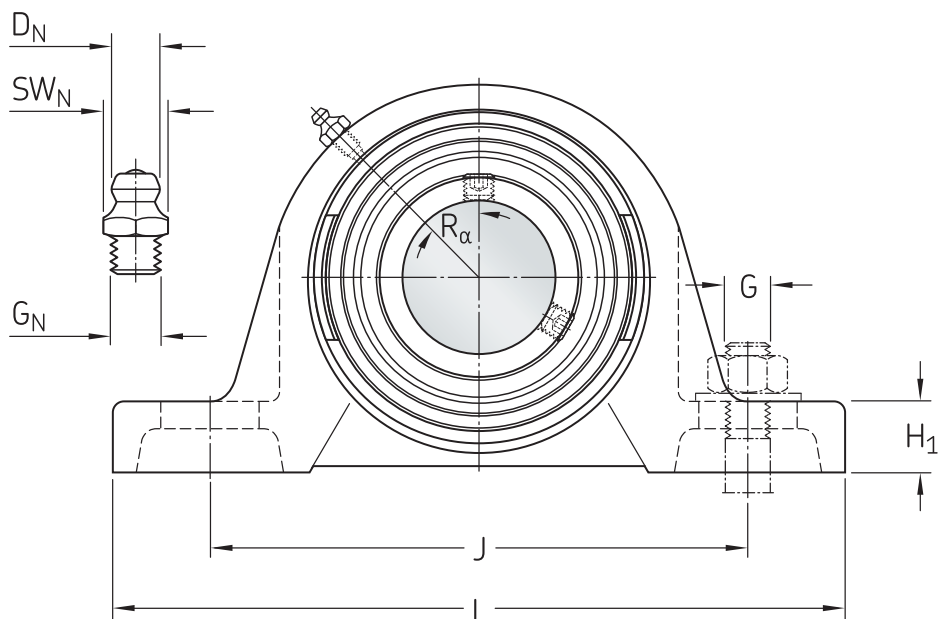
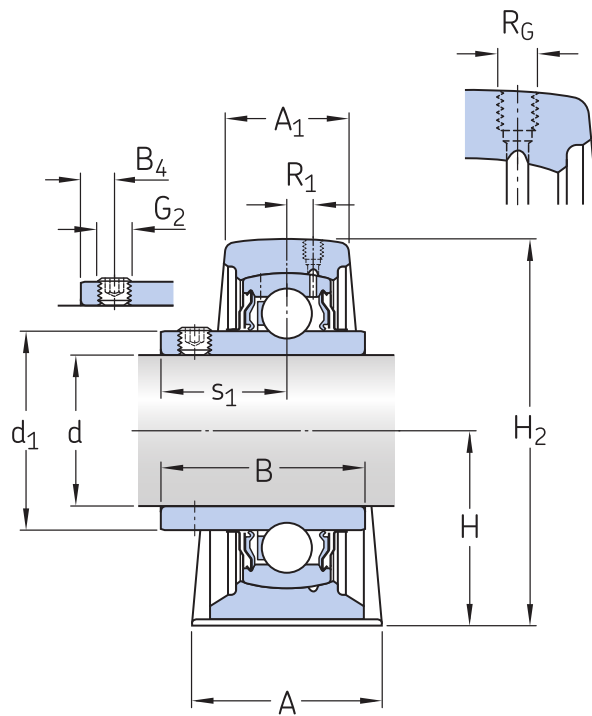
| | |
|------------------------------------|--------------------------------|
| Housing type | Pillow block |
| Number of bolt holes for fasteners | 2 |
| Fastening bolt hole type | Plain |
| Retaining feature, inner ring | Set screws |
| Bore type | Cylindrical |
| Rubber seating ring | Without |
| Material, housing | Cast iron |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing, bearing | Seal and flinger on both sides |
| Sealing type | Contact, standard |
| Sealing, unit | Without |
| Lubricant | Grease |
| Relubrication hole | With |
| Grease fitting | With |

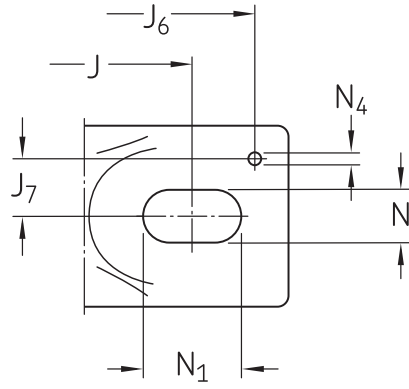
Logistics

| | |
|--------------------|-------------|
| Product net weight | 13.711 lb |
| eClass code | 23-05-16-02 |
| UNSPSC code | 31171536 |

Technical specification

| | |
|--------------------------|------------------------------------|
| Compliance with standard | JIS |
| 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 | Without |
| Coating | Without |





Dimensions

| | | |
|----------------|----------------|--|
| d | 2.756 in | Bore diameter |
| d ₁ | ≈ 3.427 in | Shoulder diameter of inner ring |
| A | 2.8346 in | Base width |
| A ₁ | 1.811 in | Top width |
| B | 2.752 in | Width of inner ring |
| B ₄ | 0.472 in | Distance from locking device side face to thread centre |
| H | 3.126 in | Height of spherical seat centre |
| H ₁ | 1.063 in | Foot height |
| H ₂ | 6.122 in | Overall height |
| J | 8.2677 in | Distance between attachment bolts |
| J | max. 8.4646 in | Distance between attachment bolts |
| J | min. 8.0709 in | Distance between attachment bolts |
| L | 10.4724 in | Overall length |
| N | 0.9843 in | Diameter of attachment bolt hole |
| N ₁ | 1.1811 in | Length of attachment bolt hole |
| s ₁ | 1.563 in | 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 | 0.2362 in | Axial position of the housing thread |
| R _α | 45 ° | Angular position of the housing thread |

GREASE FITTING

| | | |
|--------|---------------|---|
| D_N | 0.256 in | Diameter of head sphere of grease fitting |
| SW_N | 0.276 in | Hexagonal key size for the grease fitting |
| G_N | 1/4-28 SAE-LT | Thread of grease fitting |

DOWEL PINS

| | | |
|-------|----------|-------------------------------------|
| J_6 | 9.685 in | Distance of dowel pins |
| J_7 | 1.024 in | Axial offset of dowel pins |
| N_4 | 0.157 in | Recommended diameter for dowel pins |

Calculation data

| | | |
|---------------------------|-------|--|
| Basic dynamic load rating | C | 14 028 lbf |
| Basic static load rating | C_0 | 10 116 lbf |
| Fatigue load limit | P_u | 418 lbf |
| Limiting speed | | 2 800 r/min |
| | | Limiting speed with shaft tolerance h6 |

Mounting information

| | | |
|---|-------|----------------|
| Set screw | G_2 | M10x1 |
| Hexagonal key size for set screw | | 0.197 in |
| Recommended tightening torque for set screw | | 146.037 lbf-in |
| Recommended diameter for attachment bolts, mm | G | 20 mm |
| Recommended diameter for attachment bolts, inch | G | 0.75 in |

Compatible products

Component

Pillow block housing for insert bearings, cast iron, Japanese standards

[SYJ 514](#)

Insert bearing with set screw locking and extended inner ring

[YAR 214-2F](#)

More Information

Product details

[Pillow block units to ISO standards](#)

[Pillow block units to North American standards](#)

[Pillow block units to Japanese Industrial Standards \(JIS\)](#)

[Pillow block units, not standardized \(incl. SKF Food Line\)](#)

[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](#)

Terms of use

By accessing and using this website / app owned and published by AB SKF (publ.) (556007-3495 · Gothenburg) ("SKF"), you agree to the following terms and conditions:

Warranty Disclaimer and Limitation of Liability

Although every care has been taken to assure the accuracy of the information on this website / app, SKF provides this information "AS IS" and DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. You acknowledge that your use of this website / app is at your sole risk, that you assume full responsibility for all costs associated with use of this website / app, and that SKF shall not be liable for any direct, incidental, consequential, or indirect damages of any kind arising out of your access to, or use of the information or software made available on this website / app.

Any warranties and representations in this website / app for SKF products or services that you purchase or use will be subject to the agreed upon terms and conditions in the contract for such product or service.

Further, for non-SKF websites / apps that are referenced in our website / app or where a hyperlink appears, SKF makes no warranties concerning the accuracy or reliability of the information in these websites / apps and assumes no responsibility for material created or published by third parties contained therein. In addition, SKF does not warrant that this website / app or these other linked websites / apps are free from viruses or other harmful elements.

Third Party Services

When viewing YouTube content via the SKF website(s) (i.e. using [YouTube API Services](#)), you agree to be bound by the [YouTube Terms of Service](#).

Copyright

Copyright in this website / app copyright of the information and software made available on this website / app rest with SKF or its licensors. All rights are reserved. All licensed material will reference the licensor that has granted SKF the right to use the material. The information and software made available on this website / app may not be reproduced, duplicated, copied, transferred, distributed, stored, modified, downloaded or otherwise exploited for any commercial use without the prior written approval of SKF. However, it may be reproduced, stored and downloaded for use by individuals without prior written approval of SKF. Under no circumstances may this information or software be supplied to third parties.

This website /app includes certain images used under license from Shutterstock, Inc.

Trademarks and Patents

All trademarks, brand names, and corporate logos displayed on the website / app are the property of SKF or its licensors, and may not be used in any way without prior written approval by SKF. All licensed trademarks published on this website / app reference the licensor that has granted SKF the right to use the trademark. Access to this website / app does not grant to the user any license under any patents owned by or licensed to SKF.

Changes

SKF reserves the right to make changes or additions to this website / app at any time.