

## SKF 6202-2Z

# SKF 6202-2Z Radial Deep Groove Ball Bearing User Manual

Model: 6202-2Z | Brand: SKF

## 1. INTRODUCTION

This manual provides essential information for the proper handling, installation, operation, and maintenance of the SKF 6202-2Z Radial Deep Groove Ball Bearing. Adhering to these instructions will help ensure optimal performance and extend the service life of the bearing. Please read this manual thoroughly before installation and use.

## 2. PRODUCT OVERVIEW

The SKF 6202-2Z is a versatile radial deep groove ball bearing designed for high and very high speeds. It is capable of accommodating both radial and axial loads in both directions, requiring minimal maintenance. This bearing type is widely used across various applications due to its robust design and reliable performance.

- **Bearing Type:** Deep Groove Ball Bearing
- **Material:** Alloy Steel
- **Key Features:** Suitable for high speeds, accommodates radial and axial loads, low maintenance.



An image showing several SKF 6202-2Z radial deep groove ball bearings, highlighting their design and construction. These bearings feature a metallic shield on both sides (2Z designation) to protect against contaminants and retain lubricant.

## 3. INSTALLATION

---

Proper installation is crucial for the longevity and performance of the bearing. It is recommended that installation be performed by qualified personnel using appropriate tools and techniques.

### 3.1. Preparation

- Ensure the housing and shaft seats are clean, free from burrs, and within specified tolerances.
- Check that all components are correctly sized and compatible with the bearing.

- Keep the bearing in its original packaging until immediately before installation to prevent contamination.

### 3.2. Mounting Methods

The choice of mounting method depends on the bearing size and the type of fit. Common methods include:

1. **Cold Mounting:** For small bearings, press fitting can be used. Apply force only to the ring that is being fitted (e.g., inner ring if fitting onto a shaft, outer ring if fitting into a housing). Never apply force through the rolling elements.
2. **Hot Mounting (Induction Heating):** For larger bearings or those with tight interference fits, heating the bearing can expand the inner ring, allowing it to slide onto the shaft. Ensure the temperature does not exceed 120°C (248°F) to avoid damage to seals or lubricant.

### 3.3. Post-Installation Check

- Rotate the shaft by hand to ensure smooth, unrestricted movement.
- Verify that the bearing is correctly seated and there is no axial play beyond specifications.

## 4. OPERATION

---

Once properly installed, the SKF 6202-2Z bearing is designed for reliable operation under specified load and speed conditions. Key considerations for optimal operation include:

- **Load Management:** Operate within the bearing's specified dynamic and static load ratings to prevent premature fatigue.
- **Speed Limits:** Adhere to the maximum permissible operating speeds to avoid excessive heat generation and potential damage.
- **Temperature Control:** Monitor operating temperature. Excessive heat can degrade lubricant and bearing materials.
- **Vibration and Noise:** Unusual vibration or noise during operation may indicate a problem and should be investigated promptly.

## 5. MAINTENANCE

---

The SKF 6202-2Z bearing is designed for low maintenance, primarily due to its sealed (2Z) design which retains grease and protects against contaminants. However, periodic inspection is still recommended.

- **Inspection:** Regularly inspect the bearing environment for signs of contamination, seal damage, or unusual wear patterns on adjacent components.
- **Lubrication:** The 2Z designation indicates that the bearing is supplied pre-lubricated with grease and sealed for life under normal operating conditions. Re-lubrication is generally not required. If the application demands it, consult SKF technical documentation for appropriate grease types and re-lubrication intervals.
- **Cleaning:** Keep the external areas around the bearing clean to prevent contaminants from entering if seals are compromised.

## 6. TROUBLESHOOTING

---

While SKF bearings are highly reliable, issues can arise. Here are common symptoms and potential causes:

Symptom	Possible Cause	Action
---------	----------------	--------

Symptom	Possible Cause	Action
Excessive Noise/Vibration	Improper installation, contamination, insufficient lubrication, bearing damage, misalignment.	Inspect mounting, check for debris, verify lubrication (if applicable), replace damaged bearing.
Overheating	Excessive speed, over-lubrication, insufficient internal clearance, heavy load, misalignment.	Check operating parameters, ensure correct lubricant fill, verify clearances, reduce load if possible.
Premature Failure	Contamination, improper installation, overloading, corrosion, material fatigue.	Review installation procedures, ensure proper sealing, operate within load limits, store bearings correctly.

If troubleshooting steps do not resolve the issue, contact SKF technical support for further assistance.

## 7. SPECIFICATIONS

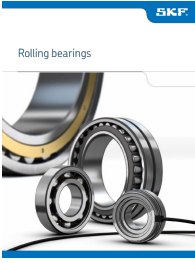
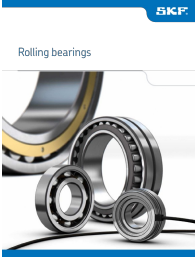
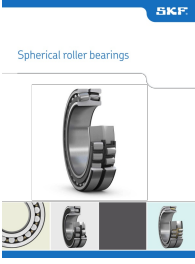



The following are key specifications for the SKF 6202-2Z Radial Deep Groove Ball Bearing:

- **Brand:** SKF
- **Model Number:** 6202-2Z
- **Material:** Alloy Steel
- **Item Dimensions (L x W x H):** 2.36 x 1.18 x 2.36 inches
- **Item Weight:** 0.05 Kilograms (1.76 ounces)
- **Bearing Number:** 6202 2Z
- **Specification Met:** DIN 617
- **Bearing Type:** Ball Bearing
- **Compatible Lubricant:** Grease (pre-lubricated and sealed)
- **Manufacturer Part Number:** 10085886
- **ASIN:** B002LDB41I

## 8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or service, please refer to the official SKF website or contact your authorized SKF distributor. Ensure you have your product model number (6202-2Z) and purchase details available when seeking support.

**SKF Official Website:** [www.skf.com](http://www.skf.com)

 <p>Rolling bearings</p>	<p><a href="#">SKF Rolling Bearings Catalog: Selection Guide and Technical Data</a></p> <p>Comprehensive catalog from SKF detailing rolling bearings for industrial applications. Covers bearing selection processes, types, technical specifications, and performance data to help engineers and designers choose the optimal bearing solution.</p>
 <p>Rolling bearings</p>	<p><a href="#">SKF Rolling Bearings Catalogue and Selection Guide</a></p> <p>Comprehensive guide from SKF detailing rolling bearings, their selection process, technical specifications, and applications. Covers various bearing types, lubrication, mounting, and performance data.</p>
 <p>Spherical roller bearings</p>	<p><a href="#">SKF Spherical Roller Bearings: Comprehensive Catalog and Technical Guide</a></p> <p>Explore the SKF range of spherical roller bearings, detailing designs (CC, CA, E), sealed variants, technical specifications, load capacities, misalignment accommodation, and product tables for demanding industrial applications.</p>
 <p>Изделия SKF для технического обслуживания и смазочные материалы</p>	<p><a href="#">SKF Изделия для Технического Обслуживания и Смазочные Материалы</a></p> <p>Каталог SKF, посвященный изделиям и материалам для технического обслуживания подшипников. Охватывает монтаж, демонтаж, смазывание, выверку и мониторинг состояния для продления срока службы подшипников.</p>
 <p>SKF bearings and mounted products</p>	<p><a href="#">SKF Bearings and Mounted Products: Comprehensive Catalog</a></p> <p>This comprehensive catalog from SKF provides detailed information on a wide range of high-performance bearings and mounted products. Engineered for durability and reliability in demanding applications, it covers various bearing types, technical specifications, and selection guidance for industrial needs.</p>
 <p>SKF Automatic Lubricators</p>	<p><a href="#">SKF Automatic Lubricators: LAGD, TLSD, TLMR, TLMP Series - Product Guide</a></p> <p>Comprehensive guide to SKF Automatic Lubricators, including LAGD, TLSD, TLMR, and TLMP series. Learn about features, benefits, applications, technical specifications, and accessories for improved safety, reliability, and maintenance.</p>