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## SKF 6002

# SKF 6002 Radial Deep Groove Ball Bearing User Manual

Model: **6002** | Brand: **SKF**

## 1. PRODUCT OVERVIEW

The SKF 6002 Radial Deep Groove Ball Bearing is a versatile component designed for various industrial and automotive applications. These bearings are engineered to handle both radial and axial loads in both directions, making them suitable for a wide range of operating conditions. Their design allows for high and very high rotational speeds, while requiring minimal maintenance, contributing to their widespread use across different industries.



Figure 1: SKF 6002 Radial Deep Groove Ball Bearing. This image shows the metallic bearing with the SKF logo and model number "6002-2Z" visible on its outer ring, indicating its deep groove design and sealed nature.

## 2. SPECIFICATIONS

Below are the key technical specifications for the SKF 6002 Radial Deep Groove Ball Bearing:

| Attribute                   | Value                     |
|-----------------------------|---------------------------|
| Brand                       | SKF                       |
| Model                       | 6002                      |
| Material                    | Alloy Steel               |
| Item Dimensions (L x W x H) | 1.57 x 0.39 x 1.57 inches |

| Attribute            | Value          |
|----------------------|----------------|
| Bearing Number       | 6002           |
| Bearing Type         | Ball Bearing   |
| Compatible Lubricant | Grease         |
| Item Weight          | 0.64 ounces    |
| Date First Available | April 12, 2010 |

### 3. SETUP AND INSTALLATION

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Proper installation is crucial for the longevity and performance of your SKF 6002 bearing. Follow these general guidelines:

- Preparation:** Ensure the shaft and housing seats are clean, free from burrs, and within specified tolerances.
- Lubrication:** Apply a thin layer of compatible grease to the bearing seats before mounting. The SKF 6002 bearing is typically pre-lubricated, but additional lubrication may be required depending on the application.
- Mounting:**
  - For press fit applications, use a bearing heater or induction heater to expand the inner ring, making installation easier and preventing damage.
  - Apply mounting force only to the ring that is being fitted (e.g., inner ring for shaft fit, outer ring for housing fit). Never apply force through the rolling elements.
  - Use appropriate mounting tools (e.g., bearing fitting tools, hydraulic presses) to ensure even pressure and prevent misalignment.
- Inspection:** After mounting, rotate the shaft or housing to ensure smooth operation and no binding.

*Note: For specific application requirements, consult detailed engineering guidelines or an SKF representative.*

### 4. OPERATING CONSIDERATIONS

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To maximize the lifespan and efficiency of your SKF 6002 bearing, consider the following during operation:

- Load Capacity:** Ensure that the applied radial and axial loads do not exceed the bearing's dynamic and static load ratings. Overloading can lead to premature failure.
- Speed Limits:** Operate the bearing within its specified speed limits. Exceeding these limits can cause excessive heat generation and damage.
- Temperature:** Monitor operating temperature. Excessive heat can degrade lubricant and bearing material. Ensure proper heat dissipation.
- Vibration and Noise:** Unusual vibration or noise during operation may indicate an issue. Investigate immediately.
- Contamination:** Protect the bearing from contaminants such as dust, dirt, and moisture, which can cause wear and corrosion.

### 5. MAINTENANCE

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Regular maintenance helps ensure optimal performance and extends the service life of your SKF 6002 bearing:

- **Lubrication:** While deep groove ball bearings are often sealed and pre-lubricated for life, open or shielded versions may require periodic re-lubrication with a compatible grease. Follow manufacturer's recommendations for re-lubrication intervals and grease type.
- **Cleaning:** Keep the area around the bearing clean to prevent ingress of contaminants.
- **Inspection:** Periodically inspect the bearing for signs of wear, corrosion, or damage. Check for unusual noise, vibration, or excessive heat.
- **Storage:** Store spare bearings in their original packaging in a cool, dry, and vibration-free environment to prevent damage and corrosion.

## 6. TROUBLESHOOTING

This section provides guidance on common issues that may arise with ball bearings:

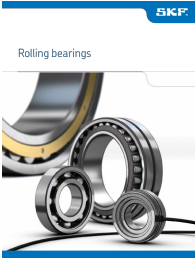
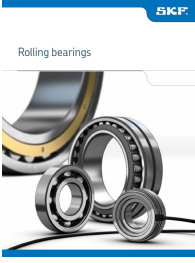
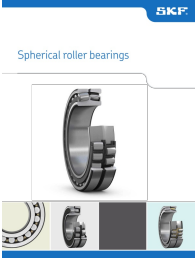


| Problem                   | Possible Cause(s)  | Solution(s)   |
|---------------------------|--|---|
| Excessive Noise/Vibration | Lack of lubrication, contamination, misalignment, damage to bearing components, improper fit.      | Check lubrication, clean bearing area, inspect for damage/misalignment, ensure correct fit. Replace if damaged. |
| Overheating               | Excessive speed, insufficient lubrication, overloading, improper internal clearance, misalignment. | Reduce speed/load, check lubrication, verify alignment, ensure proper bearing selection for application.        |
| Premature Failure         | Contamination, improper installation, overloading, inadequate lubrication, corrosion.              | Review installation procedures, ensure proper sealing, maintain lubrication, verify load calculations.          |

## 7. WARRANTY AND SUPPORT

SKF products are manufactured to high quality standards. For specific warranty information, please refer to the official SKF warranty policy available on their website or contact your authorized SKF distributor.

For technical support, product inquiries, or assistance with specific applications, please visit the official SKF website or contact their customer service department. You can find more information at the [SKF Store on Amazon](#) or the main SKF corporate website.



|  |   |
|--|---|
|  <p>Rolling bearings</p>   | <p><a href="#"><u>SKF Rolling Bearings Catalog: Selection Guide and Technical Data</u></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="#"><u>SKF Rolling Bearings Catalogue and Selection Guide</u></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="#"><u>SKF Spherical Roller Bearings: Comprehensive Catalog and Technical Guide</u></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="#"><u>SKF Изделия для Технического Обслуживания и Смазочные Материалы</u></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="#"><u>SKF Bearings and Mounted Products: Comprehensive Catalog</u></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> |



### [SKF Automatic Lubricators: LAGD, TLSD, TLMR, TLMP Series - Product Guide](#)

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.