

New! SoCare® Spherical Roller Bearings



A spherical roller bearing is a rolling-element bearing designed to handle heavy radial loads and moderate axial (thrust) loads in both directions. Its most distinctive feature is its self-aligning capability, which allows it to operate efficiently even when there are misalignments between the shaft and the housing.

Advantages

- **High Load Capacity:** Excellent at handling very heavy radial loads and moderate axial loads due to the large number of rollers and their optimized line contact with the raceways.
- **Self-Aligning:** Compensates for misalignment, protecting the bearing and the machinery from excessive wear and premature failure.
- **Robust and Durable:** Designed for tough industrial environments.
- **Low Friction:** Often designed with optimized roller profiles and high-quality cage designs to reduce friction and operating temperature.
- **Long Service Life:** When selected and maintained correctly, they offer a very long operational life even under demanding conditions.

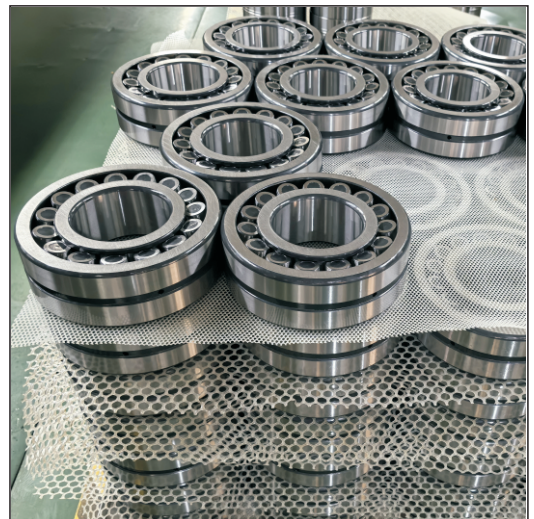
Common Applications

Spherical roller bearings are workhorses in heavy industries wherever there are heavy loads, shock loads, and potential shaft misalignment.

- **Material Handling:** Gearboxes, conveyor systems, pulleys.
- **Mining and Construction:** Crushers, vibrating screens, excavators, draglines.
- **Agriculture:** Heavy-duty tractors, combines, balers.
- **Pulp and Paper:** Large drying drums (paper machines).
- **Wind Energy:** Main shaft and gearbox applications in wind turbines.
- **Pumps and Compressors.**
- **Marine and Offshore:** Propulsion systems, cranes on ships.

Design Variations

- **Open vs. Sealed:** Standard bearings are open for relubrication. Many come with integral seals or shields for contaminated environments where maintenance is difficult.
- **Tapered Bore:** Some have a tapered inner bore that can be mounted on an adapter sleeve for easier installation and removal on shafts without shoulder abutments.
- **Cage Types:** Different cage designs (e.g., pressed steel, machined brass, or polyamide) are used to optimize performance for speed, temperature, or load.



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