A SPHERICAL REVOLUTION

TIMKEN
Timken is pioneering a spherical revolution with a full bearing portfolio, global manufacturing consistency, local availability and a better design perfected over half a century.

More **Strength.** More **Selection.** More **Savings.**
A LOT GOES INTO A TIMKEN® SPHERICAL ROLLER BEARING. A LOT COMES OUT OF IT.

Less Friction - Increase your bearing and lubrication life with lower operating temperatures—and reduce your stress level at work, too—with the widest selection of assembled bearings, components and accessories

Greater Efficiency - Increase uptime and help reach higher levels of productivity and profitability, thanks to industry-leading load capacity and thermal speed ratings

Global Reach - Find us anywhere, with 89 sales offices and 62 plants and service centers on 6 continents ready to serve you

Regional Availability - Get fast deliveries right to your doorstep with the backing of 23 distribution/shipping centers and more than 1,500 authorized distributors operating from 5,000 branch locations

Moving Markets - Every Timken engineer is connected by our global design system so we can share common standards when solving uncommon problems, from Gaffney, South Carolina to Chennai, India

Staying True - Global quality standards applied to every plant, without exception, ensure every bearing is made to the exact same level of accuracy and consistency
ALL-AROUND POWER

Stronger operations and results come from big product improvements. And big product improvements come from a collection of small innovations.

These features contribute to significantly longer bearing life:

- **Better Load Distribution**
  Improved profiles reduce internal stresses and optimize load distribution to minimize wear.

- **More Surface Area**
  Longer rollers give you more surface area to carry the load, allowing you to do more and operate with higher loads.

- **Reduced Friction**
  Enhanced surface finishes result in improved lube film, which avoids metal-to-metal contact to keep things running cooler.

- **Stronger Cages**
  Hardened steel cages deliver greater fatigue strength, increased wear resistance and tougher protection against shock and acceleration.

*Only Timken offers these features as standard on its entire spherical roller bearing line.*
**Optimized Efficiency** - Eliminating the center guide ring also reduces running torque up to 4%. Without a guide ring, less friction is created, meaning less energy is needed to move the bearing and keep it moving. This leads to improved efficiency.

These features combine to greatly **EXTEND LUBRICANT LIFE:**

**Lower Operating Temperatures**
Rollers are guided by cage pockets—not a center guide ring—which eliminates a friction point and can lead to operating temperatures 5°C cooler, on average, than the competition.

**Better Contaminant Purging**
Unique slots in the cage face improve oil flow and purge more contaminants from the bearing to help optimize equipment uptime.

Brass cages also are available in all sizes

**When to use brass?**
These bearings can deliver extra strength and durability in the most unrelenting conditions:
- Extreme shock/vibration
- High gravitational forces
- Minimal lubrication

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**Who: Pellet Mill in Belgium**

**Focus: Less Friction**

Softwood and pellet producer Belgian Industrie du Bois Vielsalm (IBV) replaced bearings in its roller shell position every 500 hours due to heavy loads, impacts and vibration. After installing Timken® spherical roller bearings, IBV reports a fivefold bearing life increase and operating temperatures that are 5°C–8°C cooler than the competition.

**The Result:** IBV experiences fewer maintenance cycles and greater uptime in four of its pellet mills while reducing operating costs and increasing productivity.
ALL-AROUND SOLUTIONS

Manage your spherical roller bearing needs more simply with an **unmatched range of choices** from one source. From **25mm to 1250mm bore**, Timken offers a comprehensive range of spherical roller bearing sizes in both **steel and brass cages** to meet the demanding requirements of the heavy-equipment industry.

**Our full line of spherical roller bearings includes coverage of all common sizes:**

- **Small bore**
  bore diameter 25mm to 240mm; <400mm outer ring diameter

- **Mid-size bore**
  bore diameter 240mm to 440mm; 400mm to 600mm outer ring diameter

- **Large bore**
  bore diameter >440mm; >600mm outer ring diameter

Find the right part faster and perfect your spec with **30,000+ available modifications.**

Source from regional warehouses across the world with **many parts stocked for immediate delivery.**

See the full lineup of spherical roller bearing solutions and accessories in our catalog.

www.timken.com/spherical
**ALL-AROUND LONGER LIFE**

**Geared Up for Savings.** What can 20 added months of bearing life equal?

Take an industrial gearbox for example. It means up to 10 fewer oil changes, 1 less rebuild and 33% longer bearing life, saving about $56,000.

Longer Bearing Life + Extended Lubricant Life = **MORE PRODUCTIVITY**

More Productivity + Lower Cost of Ownership = **BIGGER BOTTOM LINE**

**Runs Cooler. Runs Longer.**

<table>
<thead>
<tr>
<th>Average Bearing O.D. Temperature</th>
<th>Competitor C 94°C (201.2°F)</th>
<th>Competitor A 91°C (195.8°F)</th>
<th>Competitor B 89°C (192.2°F)</th>
<th>Timken 86°C (186.8°F)</th>
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<tbody>
<tr>
<td>100°C 212°F</td>
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<tr>
<td>95°C 203°F</td>
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<td>80°C 176°F</td>
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Life Ratio

Target L10 Calculated Life

Tested 22212 at 2700 rpm with a load ~25% of the dynamic capacity.

**Timken spherical roller bearings can run 5°C cooler, on average, than the competition. That increases lubricant life and can mean 9% more bearing life.**

*Over the life of the gearbox. Helical industrial gearbox w/100,000 Nm output torque; mixing unit: 17,500 lbs., 48” wide x 36” high x 100” long using either splash or pressure lubrication. Reference equipment manufacturer guidelines for recommended maintenance.
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