

A **SPHERICAL** REVOLUTION



TIMKEN



CREATING A SMOOTHER OPERATION FOR YOU

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

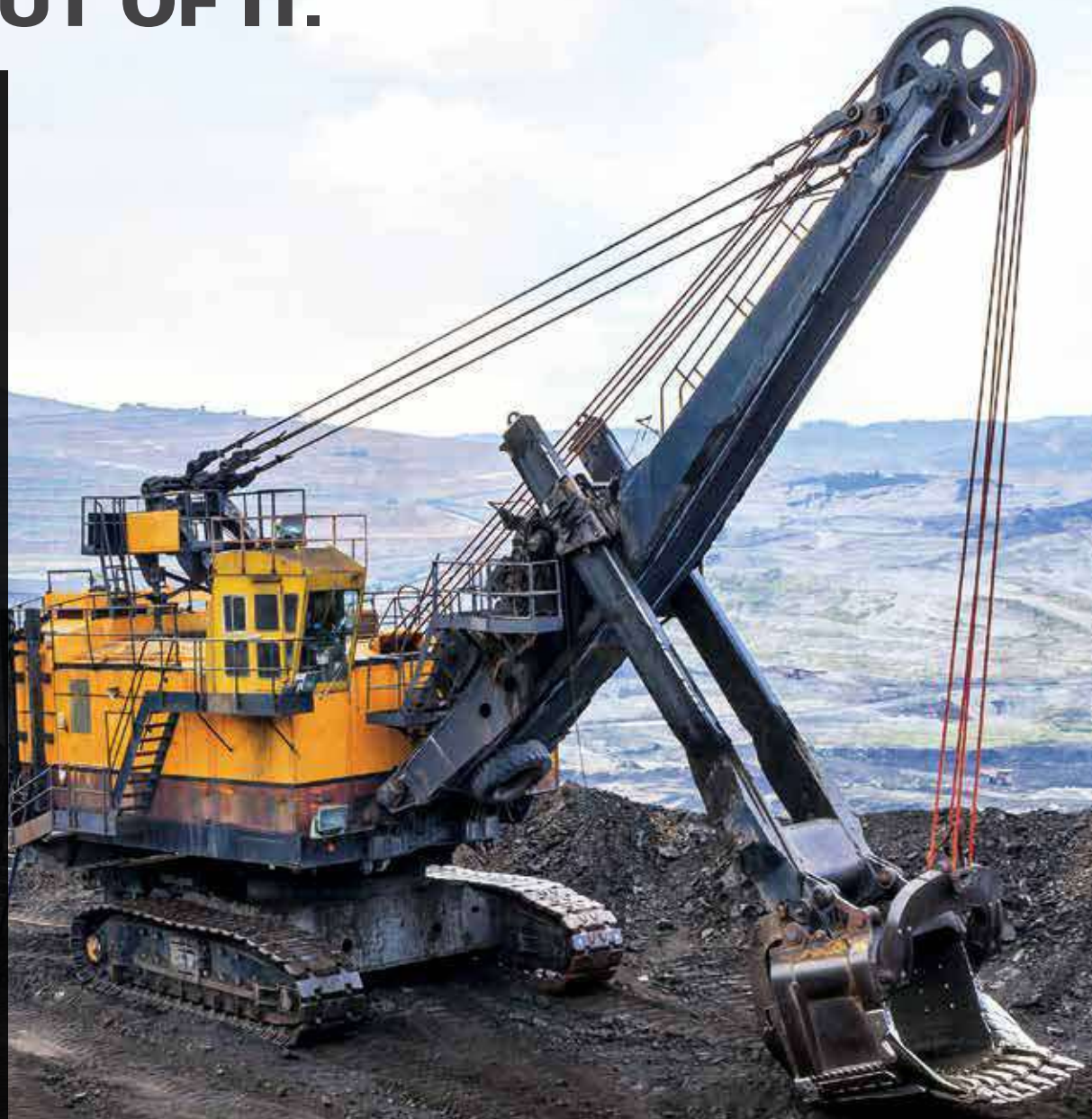
Greater Efficiency - Increase uptime and help reach higher levels of productivity and profitability, thanks to industry-leading load capacity and thermal speed ratings

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.

High-Performance Spherical Roller Bearings



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.



Real Revolutions

○ **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



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?

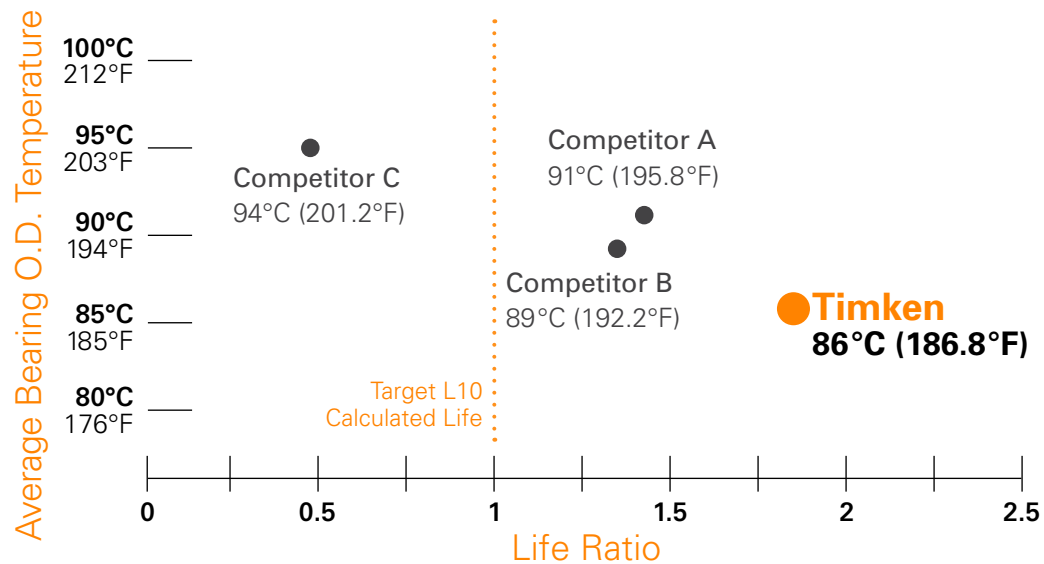
Take an industrial gearbox for example. It means up to **10 fewer oil changes**,

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.



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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Stronger. Commitment. Stronger. Value. Stronger. Worldwide. Stronger. Together. | Stronger. **By Design.**

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide.
The company designs, makes and markets high-performance mechanical components, including bearings, belts,
chain, gears and related mechanical power transmission products and services.