

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

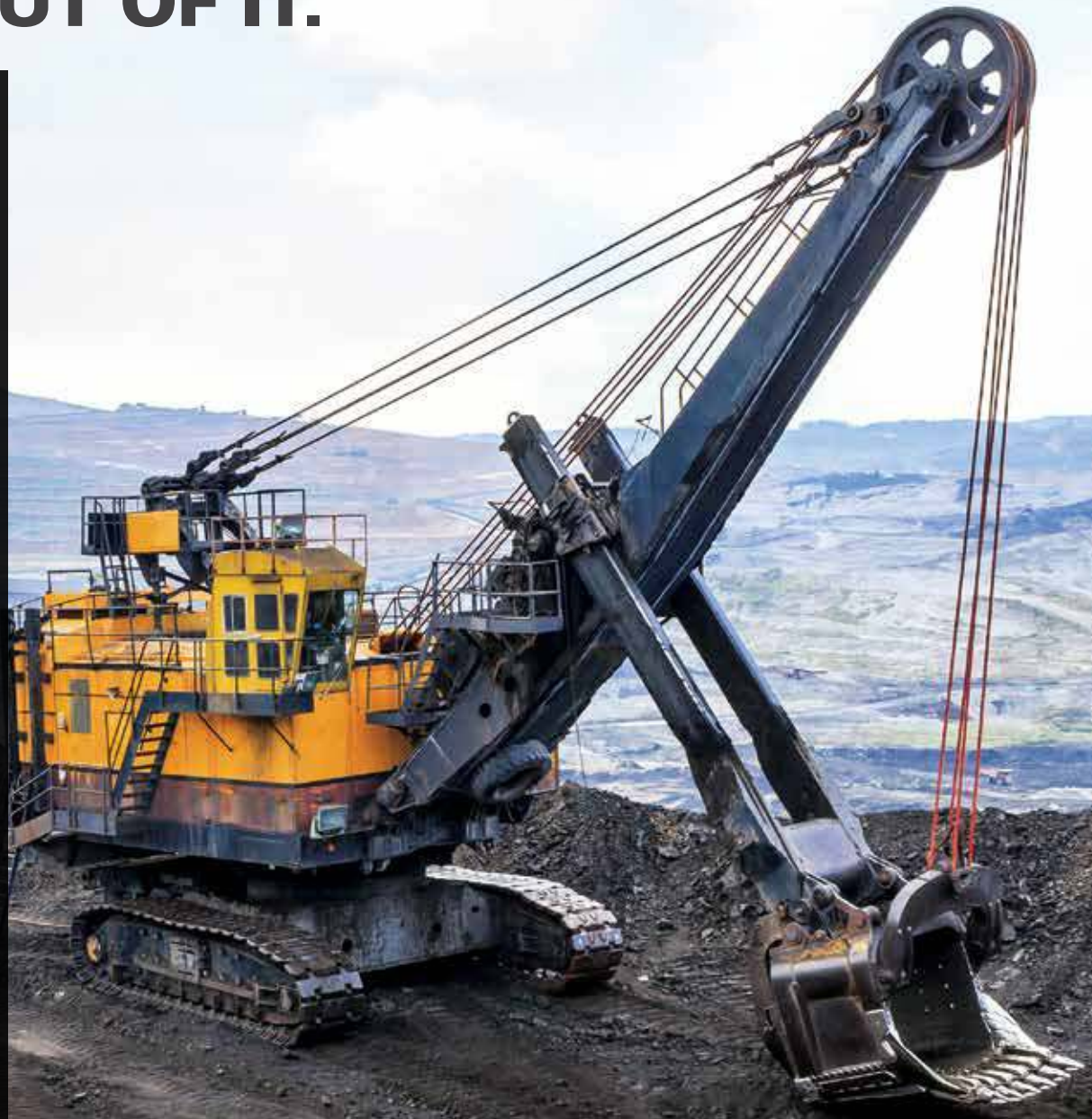
**Greater Efficiency** - Increase uptime and help reach higher levels of productivity and profitability, thanks to industry-leading load capacity and thermal speed ratings

**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](http://www.timken.com/spherical)



# ALL-AROUND **LONGER LIFE**

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

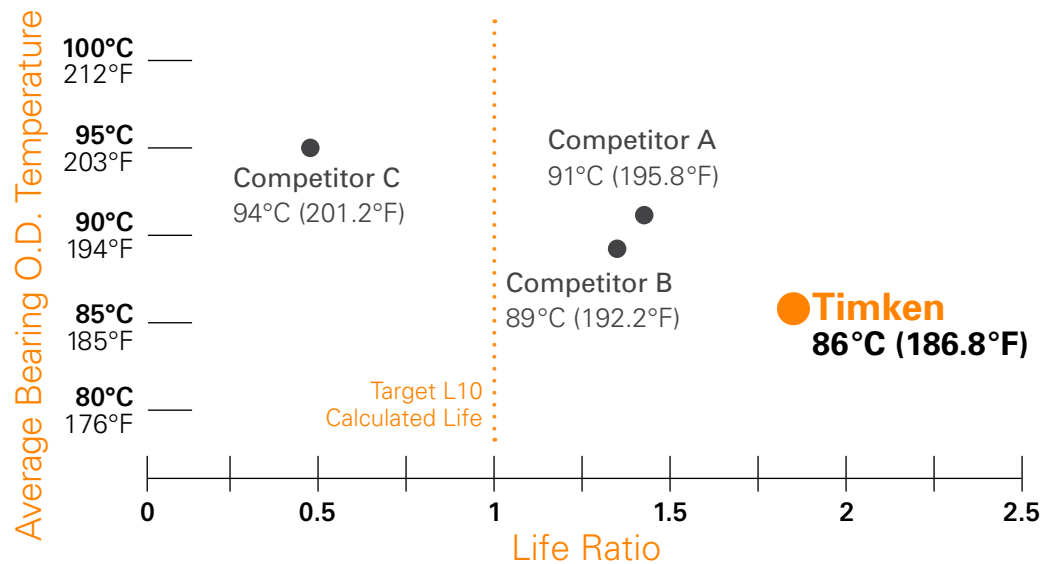
Take an industrial gearbox for example. It means up to **10 fewer oil changes**,

**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.