

Engineered Surface Finishes Extend Bearing Life in Paper Machines

Enhance Paper Machine Performance with Spherical Roller Bearings featuring Engineered Surfaces

The Timken® line of spherical roller bearings has long delivered paper mill operators with reliable and dependable performance. Now, for the harshest of paper machine environments like suction rolls, large press rolls, dryer cans and calendar stacks, an enhanced bearing is available. By applying a specially engineered surface finish to the rollers of a spherical bearing, Timken can extend the life in low-speed conditions and deter bearing failure in low-lubrication environments. The resulting bearing design helps withstand the skidding, sliding and wear damage commonly found in these paper machine applications, while extending fatigue life up to two times that of a standard bearing.

Designed for complicated environments

This modified spherical bearing is specifically engineered for the unique challenges posed by paper machines. Large bearings often operate below the bearing's critical speed, either in standard operation or during boil-out or crawl. At slow speeds, the roller rotation in the bearing can cease causing the cage to push a non-rotating roller across the raceways.

Without roller rotation, the lubrication film breaks down allowing metal-on-metal contact and skidding and smearing damage in the bearing.

Available in sizes you need

The enhanced surface finish can be applied to the rollers of any of our spherical roller bearings. To order, consult you Timken sales representative. The new bearing will be designated by adding W6R to the standard spherical roller bearing part number. For example, 23056YMBW33W6RC3.

Adding value to your operation

Through sophisticated computer modeling and system analysis, Timken application engineers help identify the most appropriate bearings and settings within your equipment. Timken service engineers are available to assist in bearing installation, on-site application design and routine maintenance.

Adhesive wear and smearing damage leading to coarse grain fatigue spalling. Typically caused by roller skidding under slow speed and thin film lubrication.

TIMKEN

Where You Turn



Surface enhancement for bearings in:

- Suction Rolls
- Large Press Rolls
- Dryer Cans
- Calendar Stacks



Hands-on training

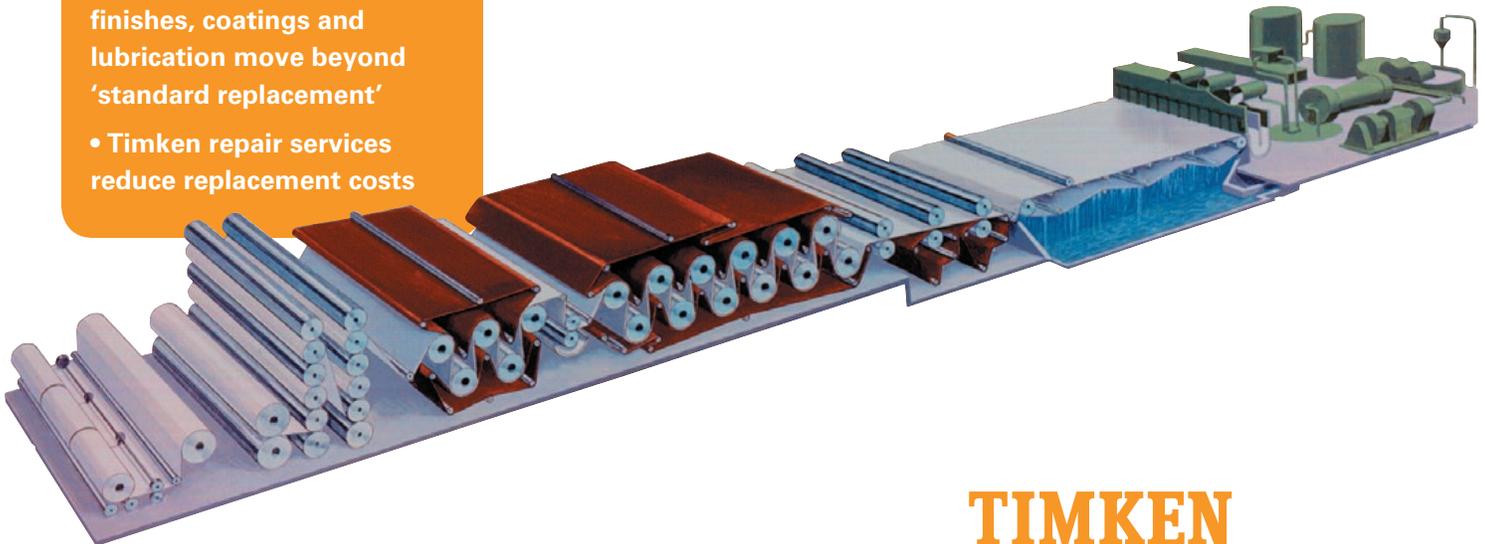
In addition to high-quality products, you have access to a bearing training program that teaches operators proper installation and handling techniques. Timken engineers routinely teach bearing design, metallurgy and effective maintenance procedures, then test and certify your team members through the Timken Bearing Certified Program. Training can be completed either at your facility or at a Timken location.

- Enhanced surface finishes can be applied to any spherical roller bearing
- Wide range of spherical sizes available for several paper-making processes, up to 84 inches (2,130 mm) on the outside diameter
- Tailored solutions such as optimized internal geometry, finishes, coatings and lubrication move beyond 'standard replacement'
- Timken repair services reduce replacement costs

About Timken® Engineered Surface Technologies

Timken's surface enhancement technology features a surface hardness two times greater than steel, yet performs with the elasticity of bearing steel. Bearing components are protected from skidding and sliding damage when the finish is applied to the rollers of a bearing. An added benefit of this custom-engineered surface is that bearings can withstand small particle contamination. This surface can extend the life by up to three times that of standard designs in a debris-filled environment.

For more information contact your local Timken sales engineer or locate an authorized distributor online at www.timken.com.



TIMKEN
Where You Turn

Bearings • Steel •
Precision Components • Lubrication •
Seals • Remanufacture and Repair •
Industrial Services

www.timken.com

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