TIMKEN® CYLINDRICAL ROLLER BEARINGS

PREMIUM BRASS CAGE, STEEL CAGE AND FULL-COMPLEMENT DESIGNS FOR PROVEN, RELIABLE PERFORMANCE.

For more than a century, original equipment manufacturers have trusted Timken to design roller bearings for long-lasting performance in harsh industrial applications. That same innovation and engineering expertise has been applied to our expanded line of cylindrical roller bearings.

Timken offers standard and specially designed cylindrical roller bearings in a wide range of configurations and series for your application requirements. This product offering includes single-, double- and four-row cylindrical roller bearings, as well as special configurations, in bore sizes ranging from 65 mm to 1200 mm.

Timken cylindrical roller bearings can meet the challenges of applications with high radial loads, including:

**KEY APPLICATIONS**
- Gear drives
- Helical industrial gearboxes
- Planetary gearboxes
- Geared motors
- Pumps
- Compressors
- Electric motors
- Centrifuges

EJ SERIES
Timken continues to expand its cylindrical roller bearing product offering with our new EJ series steel cage bearings, available in 65-150 mm bore sizes. Complementing our existing brass cage and full-complement cylindrical roller bearings, the new steel cage product line is available in configurations NJ and NU, and series 22, 23, 2 and 3.

EMA SERIES
Timken EMA series bearings offer a unique brass cage design, proprietary internal geometries and special surface textures that help optimize performance – making them an excellent choice for more demanding applications.

NCF SERIES
Timken’s full-complement cylindrical roller bearings offer increased power density and radial load carrying capacity by maximizing the number of rollers in a given envelope. The optimized design of our NCF series bearings helps to provide a greater design life and reduce heat generation – an essential benefit in full-complement designs.

THE TIMKEN DIFFERENCE
As a Timken customer you are connected to a global team of design, application and service engineers that will work with you from the start to find or design a bearing that will meet your demands. We’ll stand by you for the life of the equipment to ensure expectations are met. We strive to not only deliver but excel in the moments that build your trust and confidence.

With Timken, you gain:

**Real-World Experience**
Our global engineering teams collect performance requirements from around the world and design bearings to meet the specifications your applications demand.

**Global Quality**
Timken worldwide quality standards are implemented in every manufacturing facility. Our products are held to the same quality and engineering standards - no matter where in the world they are manufactured.

**Engineering Expertise**
Every Timken bearing comes with access to our team of experts, providing you with the industry’s best design, application and field-engineering support.
**CYLINDRICAL ROLLER BEARING SERIES**

<table>
<thead>
<tr>
<th>Cage Type</th>
<th>Dimension Series</th>
<th>Design</th>
<th>Size Range</th>
<th>Cage Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>EJ</td>
<td>2, 3, 22, 23</td>
<td>NU, NJ</td>
<td>65 mm to 150 mm bore</td>
<td>Stamped steel</td>
</tr>
<tr>
<td>EMA</td>
<td>2, 3, 22, 23</td>
<td>N, NU, NJ, NUP</td>
<td>65 mm to 400 mm bore</td>
<td>Machined brass</td>
</tr>
<tr>
<td>NCF</td>
<td>29</td>
<td>NCF</td>
<td>65 mm to 800 mm bore</td>
<td>Full complement</td>
</tr>
<tr>
<td>NCF</td>
<td>18</td>
<td>NCF</td>
<td>150 mm to 1060 mm bore</td>
<td>Full complement</td>
</tr>
</tbody>
</table>

**CYLINDRICAL BEARING NOMENCLATURE**

Our bearing nomenclature is based on the standard ISO designations.

**Dimension Series:**
- **Width Series + Diameter Series**
  - 10 = width series 1; diameter series 0 (dimension series 10)
  - 2 = width series 0; diameter series 2 (dimension series 02)
  - 22 = width series 2; diameter series 2 (dimension series 22)
  - 3 = width series 0; diameter series 3 (dimension series 03)
  - 23 = width series 2; diameter series 3 (dimension series 23)

**Cage Type:**
- J = Roller guided, stamped-steel cage
- MA = Single piece, outer ring land riding, brass cage
- MB = Single piece, inner ring land riding, brass cage
- M = Single piece, roller guided, brass cage

**Enhanced Geometry**

**Inner Ring Bore Diameter:**
- 02 = 15 mm
- 03 = 17 mm

(for inner ring bore ≥ 20 mm):
- bore code x 5 = bore diameter
- 04 = 4 x 5 = 20 mm

**Radial Internal Clearance (RIC)**

*See Standard Styles, fig. 2 below. For two-row bearings, use NNU.*

**FOCUS ON THE FUTURE**

At Timken, we continuously expand our product lines to meet the size and configuration demands of our customers. Our heritage in roller bearings has given us the know-how to optimize and innovate across our lines of cylindrical, spherical and tapered roller bearings. To learn more about our expanded line of cylindrical roller bearings, contact your Timken sales representative.

**TIMKEN**

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 bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

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