# LARGE BORE Spherical thrust bearing



### HIGH PERFORMANCE PRODUCTS, ADVANCED SYSTEMS AND PREMIUM CUSTOMER SERVICE

With decades of experience, Timken builds trust by delivering high quality, high performance products backed by premium customer service and world class engineering and field support. We bring a new expanded line of Timken<sup>®</sup> large bore spherical thrust bearings with the same quality and integrity you know from Timken. Starting at 320mm and ranging up to 1000mm bore, the offering includes a new high capacity (EM) design engineered for maximum performance. Timken spherical thrust bearings follow the standard ISO plan for boundary dimensions, although our latest design offers advantages with unique internal geometry and cage design developed by Timken engineers and application specialists.

## **NOW FEATURING:**

- Single row of rollers, arranged in a steep angular position, to accommodate high thrust loads and moderate radial loads
- Optimized cage pocket design to minimize lubrication starvation or wiping
- Large end guided cage for enhanced lubrication flow
- Positive roller guidance against the flange without excessive torque or heat generation
- Maximized roller length to provide high thrust-load capacity within the envelope
- High static and dynamic misalignment capability
- Optimized roller conformity to balance load carrying and misalignment capabilities
- Roller-cage assemblies unitized to the inner race for easier handling



## HIGH VALUE TO MARKET

 $\mathsf{Timken}^{\circledast}$  spherical thrust bearings offer a wide variety of value to both OEMs and end-users.

#### **INNOVATIVE DESIGN**

While the envelope dimensions conform to the ISO boundary plan, spherical thrust bearings include an internal geometry unique to Timken. Our spherical thrust bearings provide balance between load-carrying capability, misalignment capability and operating characteristics like lubrication flow, torque and temperature.

#### HIGH CAPACITY (EM) DESIGN

Timken optimized the roller size and cage design to maximize bearing load ratings. We base our ratings on industry accepted formulas and the pure bearing geometry.

#### INTERCHANGEABILITY

The Timken<sup>®</sup> spherical thrust bearings are interchangeable with nearly any product currently on the market. Our knowledgeable application engineers can help you with any unique interchange or mounting needs. We can supply additional components for special mounting situations.

#### WIDE RANGE OF APPLICABILITY

Our spherical thrust bearings feature balanced designs made to handle heavy loads, high degrees of misalignment and other challenging operation conditions. This makes the bearing suitable for a wide range of applications.

#### **CUSTOMIZED SOLUTIONS**

We can customize bearings with special materials, innovative design features and unique mounting accessories to ensure the best fit for every application.

#### FULL RANGE OF SOLUTIONS

We feature a full line of bearings and related power transmission solutions for nearly all industries.

#### THE TIMKEN DIFFERENCE

Timken<sup>®</sup> spherical thrust bearings live up to our customer's expectations by combining premium materials with advanced manufacturing techniques and a world-class quality-assurance program. This is backed by industryleading technical support with decades of engineering experience.

## **CUSTOMER BENEFITS**

- Potential for reduced maintenance costs via longer calculated bearing life
- Reliability and minimization of unplanned downtime based on a high-quality product made to consistent, quality standards
- Flexible bearings that can be used in a wide range of applications, even those operating at high speed, load or misalignment levels

- Confidence in a premium product
- Availability and customer service through our broad global distribution network
- Expert support before, during and after the sale
- Single-source for your bearing and related product needs

## A BROAD PRODUCT RANGE OFFERING

As shown in the table below, Timken currently offers the most commonly used sizes in industry, ranging from 320 to 1000mm bore. Timken is capable of producing spherical thrust bearings in any of the popular series (292, 293, 294 or 295) up to a 2000mm OD. Special designs and bearing features are also available upon request.

| PN         | Bore<br>(mm) | OD<br>(mm) | Width<br>(mm) | Dynamic<br>Load Rating (kN) |
|------------|--------------|------------|---------------|-----------------------------|
| 29464EM    | 320          | 580        | 155           | 5150                        |
| 29468EM    | 340          | 620        | 170           | 5920                        |
| 29372EM    | 360          | 560        | 122           | 3580                        |
| 29376EM    | 380          | 600        | 132           | 4230                        |
| 29476EM    | 380          | 670        | 175           | 6490                        |
| 29480EM    | 400          | 710        | 185           | 7330                        |
| 29284EM    | 420          | 580        | 95            | 2660                        |
| 29388EM    | 440          | 680        | 145           | 5040                        |
| 29488EM    | 440          | 780        | 206           | 8610                        |
| 294/500EM  | 500          | 870        | 224           | 10360                       |
| 294/530EM  | 530          | 920        | 236           | 11440                       |
| 294/560EM  | 560          | 980        | 250           | 13010                       |
| 292/600EM  | 600          | 800        | 122           | 4370                        |
| 294/600EM  | 600          | 1030       | 258           | 13840                       |
| 294/630EM  | 630          | 1090       | 280           | 15640                       |
| 292/670EM  | 670          | 900        | 140           | 5640                        |
| 294/670EM  | 670          | 1150       | 290           | 17030                       |
| 294/710EM  | 710          | 1220       | 308           | 19060                       |
| 293/750EM  | 750          | 1120       | 224           | 11770                       |
| 294/750EM  | 750          | 1280       | 315           | 20560                       |
| 294/800EM  | 800          | 1360       | 335           | 22700                       |
| 294/850EM  | 850          | 1440       | 354           | 24200                       |
| 292/1000EM | 1000         | 1320       | 190           | 10580                       |
| 294/1000EM | 1000         | 1670       | 402           | 31850                       |
|            |              |            |               |                             |

## **CHOOSE TIMKEN FOR ALL YOUR NEEDS**

Timken offers expertise in bearings and mechanical power transmission. To learn more, visit **www.timken.com** 



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.