



**CYLINDRICAL JOURNAL, THRUST &  
COMBINATION BEARINGS**

**LOBE PROFILED, OFFSET AND OIL  
DAM BEARINGS**

**PISTONS AND CROSS HEADS**

**GENERATOR & PEDESTAL BEARINGS**

**LARGE CUSTOMIZED BEARINGS**

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# INTRODUCTION

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KMP Technologies Pvt. Ltd. is a pioneering Indian company specializing in designing and manufacturing all kinds, and sizes of Tilting Pad Bearing Assemblies, and other babbitt-lined bi-metal and tri-metal bearings. Our products are extensively used as original fitment and spares in Gas, Steam and Hydro Turbines, Gear Boxes, Pumps, Compressors, and other critical rotating equipment.

Established in 1968, KMP's services and products are sought with confidence by our global customer base, including reputed manufacturers and end-users, for their requirements of different kinds of bearings. The company highly values its prestigious customer profile and is committed to extending its constant and consistent services, and high quality products, to all the existing and potentially new clients in India and abroad.

# CYLINDRICAL BEARINGS

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We offer Fixed Cylindrical Bearings in sizes ranging from 25mm to 500mm Shaft Diameter, with 0.5, 0.7 and 1.0 L/D ratios. Other sizes can also be custom designed and manufactured on requisition.

## PLAIN JOURNAL BEARINGS

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Sleeve Bearings

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Split Bearings for Low Speed Machines

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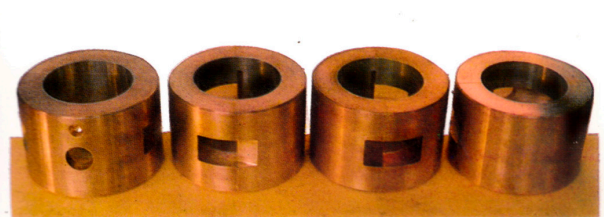
Morgoil Bearings

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Oil Ring Lubricated Bearings

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## PLAIN THRUST BEARINGS

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### Plain & Taper Land Thrust Bearings

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## COMBINATION BEARINGS

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# NON-CYLINDRICAL BEARINGS

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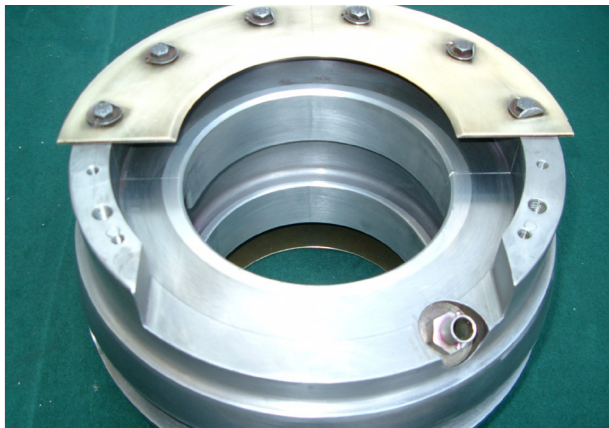
## LOBE PROFILED BEARINGS

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We offer 2, 3 and 4 Lobe-Profiled Bearings, which are widely used in Turbo Gearboxes, and other critical load and speed applications.

### 2 Lobe Bearings

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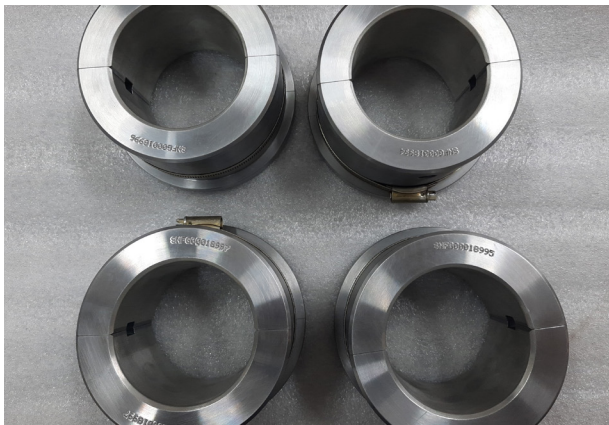
### 4 Lobe Bearings

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## OFFSET SPLIT BEARINGS

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## OIL DAM BEARINGS

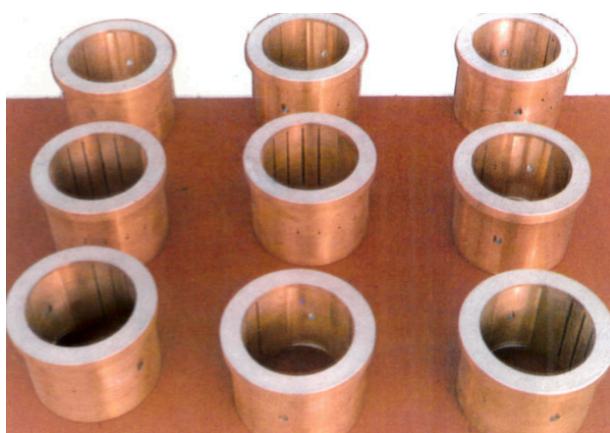
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## PISTONS & CROSS HEADS

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Cross Head Bushings and Pistons with Babbitt Lining on the Outer Diameter are widely used in Ammonia Feed Pumps, Reciprocating Compressors and other heavy rotating machines in Fertilizer Plants.



# SPHERICALLY PROFILED BEARINGS

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These bearings have a spherically profiled outer diameter, which facilitates their self-aligning ability. These bearings are typically used in generators and other electrical machines, and also for rotor balancing applications.

## LARGE PEDESTAL BEARINGS

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## SPHERICAL GENERATOR AND ROTOR BALANCING BEARINGS

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# LARGE BEARINGS

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Apart from the aforementioned products, we also offer a variety of custom designed large bearings which find application in a variety of heavy machinery.

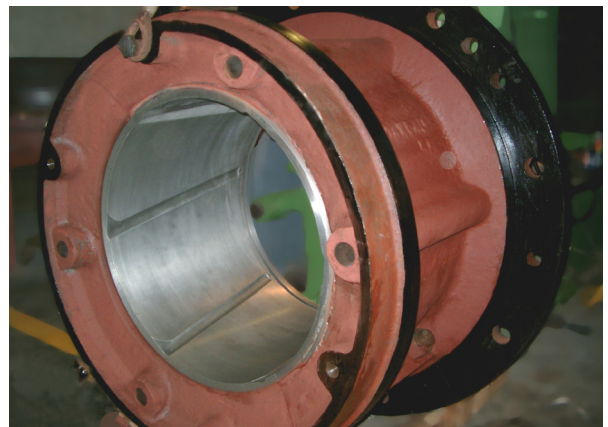
## TRUNNION BEARINGS

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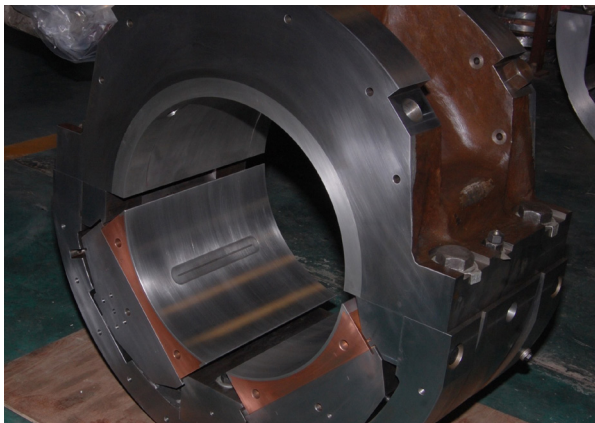
## LARGE FABRICATED BEARINGS

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## LARGE STEAM TURBINE BEARINGS

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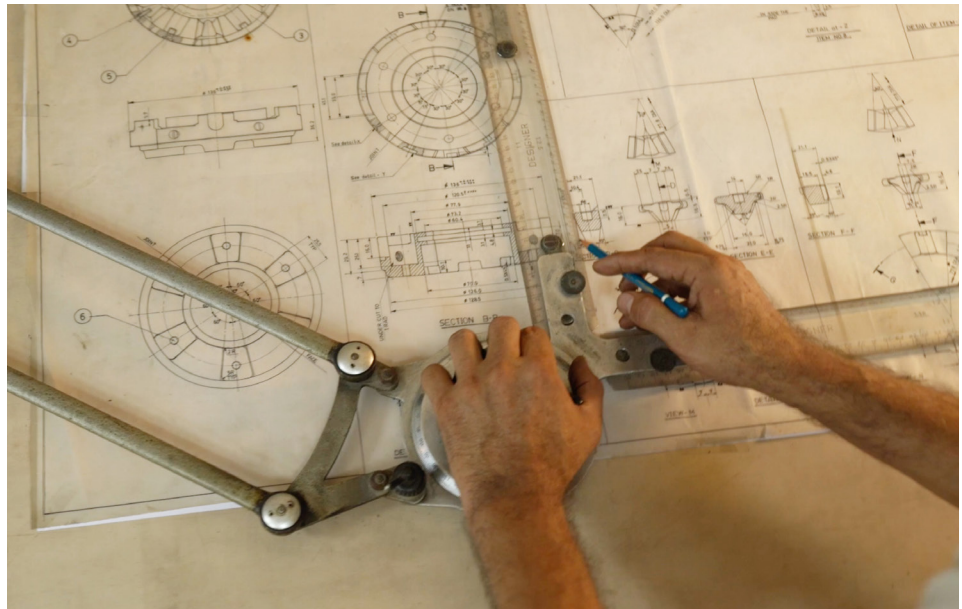


We also offer Large Steam turbine (LST) Bearings, whose details can be found on our website [www.kmpbearings.com](http://www.kmpbearings.com).

# CUSTOM BEARING DESIGN & MANUFACTURING

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We carefully design and manufacture customised bearings for a wide range of applications and sizes, including large steam and hydro turbine bearings (both journal and thrust), with the option of alternative materials, high performance features, and ingenious sealing solutions.



Each KMP Bearing is provided with the following performance characteristics to facilitate Rotor Dynamic Analysis:

- Details of Lubricating Oil with Flow Requirement
- Radial/Axial Clearances
- Power Loss at Rated Speeds and Loads
- Stiffness and Damping Coefficients, Min. Oil Film Thickness, Pad and Film Temperature etc.

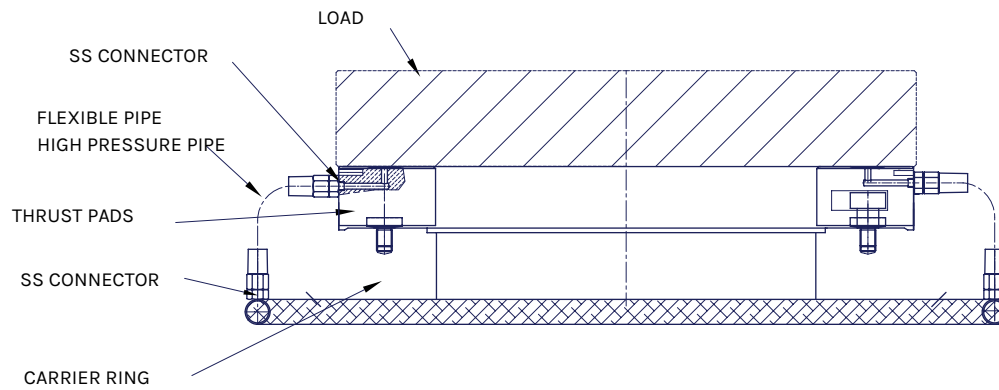
# OPTIONAL FEATURES

As required, KMP bearings can also be designed with additional features, as illustrated below:

## Hydrostatic Jacking

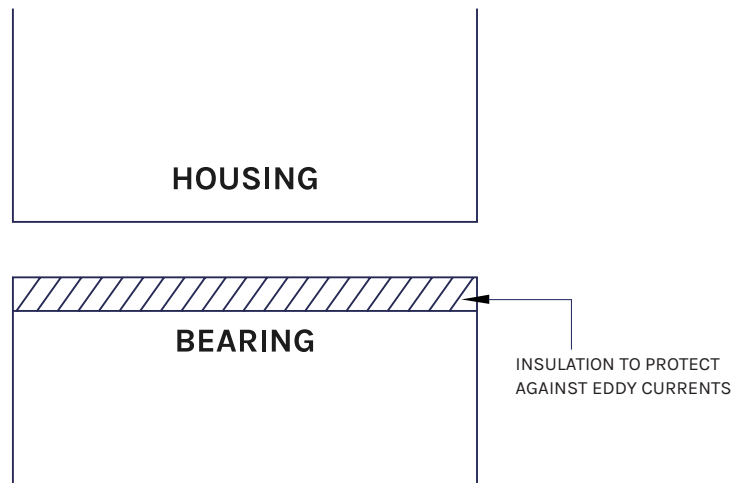
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The Bearings can also be provided with Hydrostatic Jacking, suitably designed for the given starting load conditions.



## Electric Insulation

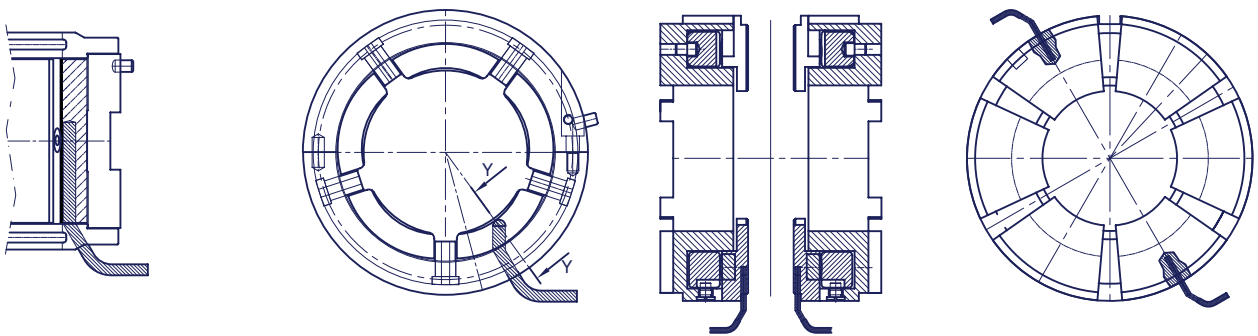
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# INSTRUMENTATION

KMP Tilting Pad Bearings can be provided with the following instrumentation, on request of the Customer

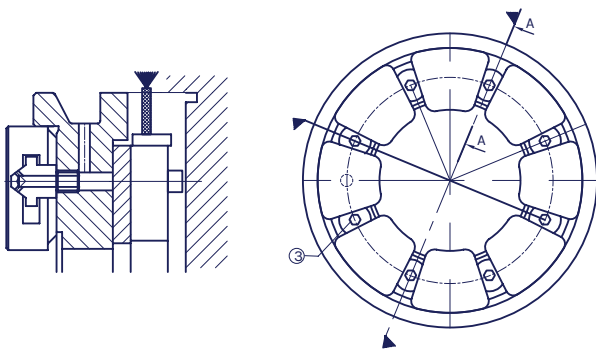
## Temperature Sensors: Miniature RTD's or Thermocouples for temperature measurement



RTD Fitment in Journal Bearing Segments

RTD Fitment in Thrust Bearings Segments

## Load Cells: For dynamic Thrust measurements



4 Load Cells, fitted in Thrust Bearing Segment

## Vibration Probes: At specific locations, to test damping provided by the bearing

# MATERIALS

Part Description	Material
Backing Sheel	C10-C15, 16MnCr5, Cu-Cr Alloys etc.
Babbitt Lining	Tegostar, ASTM B23 Gr. 2, HOYT Alloys etc.
Mounting Blocks	Specially hardenend, wear resistant Steel Alloys

# SERVICES

In addition to our customized solutions, we are also happy to extend our specialized services to our customers, including:

## TECHNICAL SERVICES

1. Selection and design of Fluid Film Bearings for Critical Applications
2. Modification and up-gradation of old generation Bearings
3. Import-substitution and indigenization of Bearings
4. Troubleshooting and failure analysis

## CONSULTANCY

1. Selection of Bearing Alloys and Backing Material for specific applications
2. Optimization of performance and life of Bearings
3. Tribology and lubrication of Bearings
4. Fitment, assembly and commissioning of Bearings
5. Preventive maintenance

**KANPUR METAL PRODUCTS**

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Kanpur - 208 022, India

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