

# **VERTICAL BEARINGS**

**VERTICAL COMBINATION BEARINGS** 

**VERTICAL GUIDE BEARINGS** 

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# 02. KMP Vertical Bearings

Combined Thrust & Guide Bearing Guide Bearing

03. Features

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### INTRODUCTION

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.

# KMP VERTICAL BEARINGS

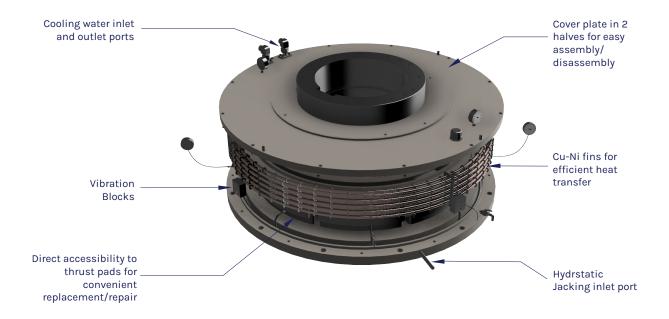
### **COMBINED THRUST & GUIDE BEARING**

#### **RANGE OF PROJECTS EXECUTED**

AXIAL THRUST (kN)		
	DUTY POINT	SHUT OFF
LOAD (Upto)	2481	4634

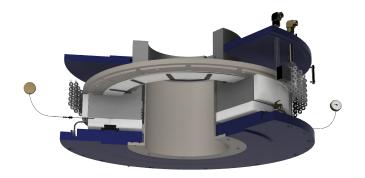
	OPERATING SPEED (RPM)	RUNWAY SPEED (RPM)
SPEED (Upto)	600	720

SHAFT DIAMETER (mm)	
600	



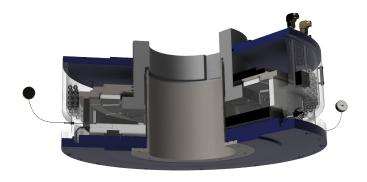
#### **VERTICAL COMBINATION BEARING**

#### FIXED UPPER THRUST





#### TILTING UPPER THRUST





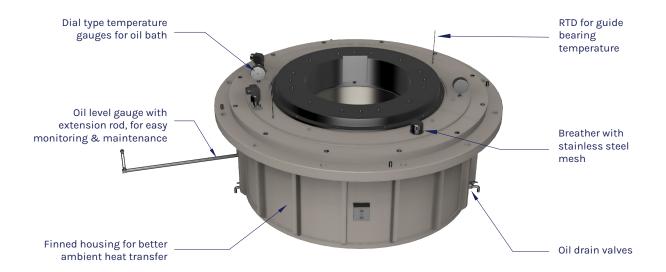
### **GUIDE BEARING**

#### **RANGE OF PROJECTS EXECUTED**

AXIAL THRUST (kN)		
	DUTY POINT	SHUT OFF
LOAD (Upto)	318	1260

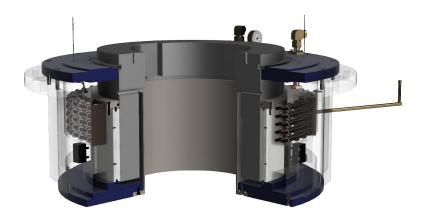
	OPERATING SPEED (RPM)	RUNWAY SPEED (RPM)
SPEED (Upto)	720	774

SHAFT DIAMETER (mm)
600

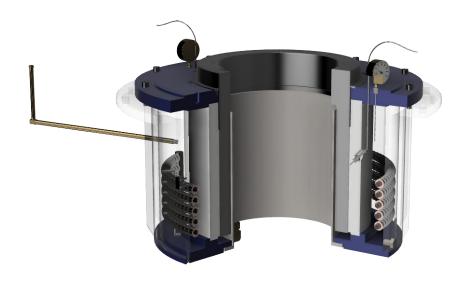


#### **VERTICAL GUIDE BEARING**

#### PAD TYPE



#### SLEEVE TYPE



### **FEATURES**

#### **Hydrostatic Jacking**

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

#### **Adjustable Clearance**

The clearance can be adjusted manually or mechanicaly.

#### Easy Assembly/Repair

All KMP bearings are designed for easy repair assembly. Making it convenient to repair bearings on location.

#### **Pressure Equalizing**

In case of intermittent asymmetric loading, self equalizing pads can be provided to distribute pressure evenly, and prevent pad failure.

### **MATERIALS**

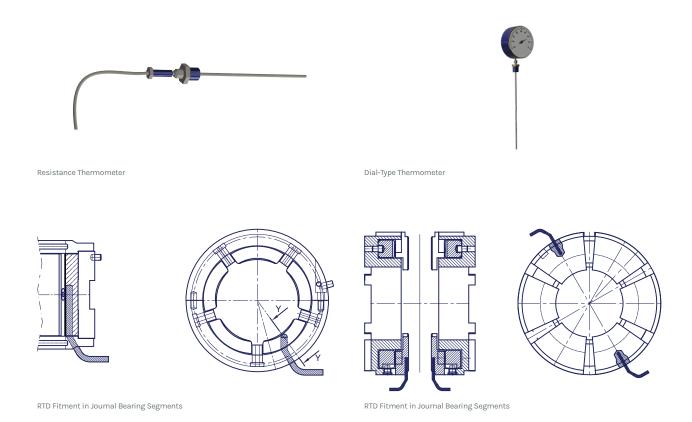
Our Vertical Bearings are manufactured with the most carefully selected materials, keeping in view the specific requirements of high loads, speeds and other operating conditions.

#### The most common materials used in our standard design are as follows:

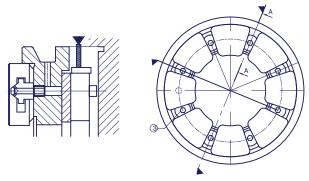
Part Description	Material
Main Housing/Casing Cover Plate Base Plate	High Grade Alloy Steel Casting
Oil Sleeve	Cast Steel / Fabricated
Runner Carrier Ring	High Alloyed, Heat Treated Steel Forging
Guide Bearing/Pad Backing Shell Thrust Pad Backing Shell	Dehydrogenated/Vacuum De-gassed, Heat Treated Steel Forging
	Special Babbit Alloys - ASTM B23, Tego V738 (Ecka Granules, Germany)
Cooling Coils (Single or Multiple coils as per requirement)	Tubing - SS 304/316 or Cupro-Nickel Fins - Aluminium SS Connectors for Inlet/Outlet ports

### **INSTRUMENTATION**

# Probes for temperature measurement in Journal & Thrust Bearing Segments



#### Load Cells for dynamic thrust measurements



4 Load Cells, fitted in Thrust Bearing Segment

# Provision for Vibration Probes at specific locations to check damping

#### **Heat Exchangers**



Typical Vibration Block with provision for Probes



SS Tubes with Ci-Ni or Extruded Aluminium Fins

#### **Breathers**



With Nylon or SS Mesh

#### **Oil Level Gauges**



With optional extension rod for easy monitoring & maintenance

#### **Valves for Oil Drainage**

