

# Miba Bearing Group

High performance bearing products



# Miba bearings keep your systems running

Miba is one of the world's leading manufacturers of hydrodynamic bearings. We develop and produce customized hydrodynamic bearings that enable our customers to implement their systems in the best possible way. Our lead-free hydrodynamic bearings offer a reliable way of meeting future requirements in terms of increasing power density, service life, and cost optimization.

# To improve the performance of your systems

Maximizing the full potential of your systems is our top priority. By incorporating our bearings, we create new opportunities for our customers across various industries. We provide comprehensive support for our customers and their systems across a wide range of applications.

- Blowers
- Heat pumps
- Presses
- Jet engines
- Turbochargers
- Synchronous condensers
- Test rigs
- Roller drives

- Compressors
- Gearboxes
- Pumps
- Engines
- Electric motors
- Generators
- Expanders
- Turbines
- Mills

# Merging material and design competence

#### Miba technology is unique on the market

Miba Bearing Group combines material and design expertise in hydrodynamic bearing technology. We support our customers with excellent material expertise for highly loaded applications. Customers with applications with very high circumferential speeds rely on our broad design expertise. With our interdisciplinary knowledge, we offer solutions for a wide range of applications and requirements and provide our customers with optimum support.



# Miba Bearing Group Products



# TILTING PAD JOURNAL BEARINGS

Journal bearings with tilting pads for greater load carrying in heavy-duty rotating machinery.







#### MATERIALS

- Steel/Babbitt
- Steel/Bronze
- CuCr/Babbitt
- Alternate materials available



# APPLICATION EXAMPLES

- Gas & Steam Turbines
- Compressors
- Expanders
- Pumps
- Turbo Gearboxes

# TILTING PAD THRUST BEARINGS

Thrust bearings with tilting pads for supporting greater axial loads in heavy-duty rotating machinery.

Combined bearings - tilting pad journal and thrust bearings - are also available.







#### **MATERIALS**

- Steel/Babbitt
- Steel/Bronze
- Bronze/Babbitt
- CuCr/Babbitt
- CuCr/AlSn40
- PEEK
- Alternate materials available



# APPLICATION EXAMPLES

- Gas & Steam Turbines
- Compressors
- Expanders
- Pumps
- Turbo Gearboxes

#### **HOUSING BEARINGS**

Smart modular system pedestal, end flange, and center flange bearings built to the standards of DIN 31 690, 693 and 694.





#### MATERIALS

- Nodular Cast Iron EN-GJS-400-15 (GGG40)
- Upon request Grey Cast Iron EN-GJL-300 (GG30)
- Upon request EN-GJS-400-18 LT (GGG40.3)



### APPLICATION EXAMPLES

- Generators
- Blowers
- Large electric machinery
- Hydro Turbines
- Synchronous Condensers
- Test Rigs
- Turbogenerators

#### **FIXED GEOMETRY BEARINGS**

Sleeve bearings with different bore profiles and thrust face design for optimized performance.

Cylindrical	Lemon- bore	3 Lobe	Offset Halves	4 Lobe







#### **MATERIALS**

- Steel/Babbitt
- Steel/Bronze
- Bronze
- CuCr/Babbitt
- Polymer
- Alternate materials available



### APPLICATION EXAMPLES

- Blowers
- Gearboxes
- Large electric motors
- Pumps
- Refrigeration Compressors
- Gas & Steam Turbines
- Turbochargers

#### **HYDRO BEARINGS**

Miba Hydro Bearings are used in turbines and generators for small (below 30 megawatts), medium-sized (31 and 80 megawatts), and large (above 80 megawatts) hydropower plants.





#### MATERIALS

- Steel/Babbitt
- Alternate materials available



### APPLICATION EXAMPLES

- Generators
- Kaplan Turbine
- Kaplan STurbine
- Francis Turbine
- Pelton Turbine
- Reversible Turbines
- BulbTurbine
- Open Pit Turbine

#### **VERTICAL BEARINGS**

Vertical housing bearings for demanding applications. In addition to standardized vertical bearings, tailor-made bearing designs according to customer's needs are available.



#### **MATERIALS**

- Pads: Steel/Babbitt
- Housing: Nodular Cast Iron
   EN-GJS-400-15 GGG40



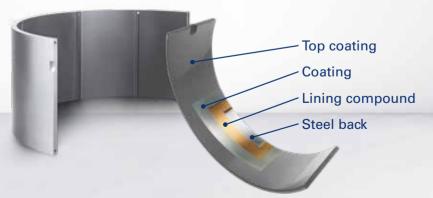


### APPLICATION EXAMPLES

- Pumps
- Kaplan Vertical
- Francis Vertical

# HALF SHELL JOURNAL BEARINGS

Journal bearings for greater load carrying due to layered structure.





#### MATERIALS

- Steel back
- Lining compound:
   Aluminium, Bronze, Babbit
- Coatings: Electroplating, Sputtering, Syntec<sup>®</sup>



# APPLICATION EXAMPLES

- High Pressure Pumps
- Compressors
- Engines
- Heat Pumps
- Roller Drives
- Mills

# FIXED GEOMETRY THRUST BEARINGS

Fixed geometry thrust bearings for supporting axial loads for different applications.



#### **MATERIALS**

- Bilayer solution: Steel back, Aluminium
- Solid bearing:Aluminium-Tin



### APPLICATION EXAMPLES

- Gearboxes
- Engines



#### **BUSHINGS**

Bushings for greater load carrying due to layered structure.

The tribologically active material can be applied to either the outer or inner diameter of the bushing.







#### MATERIALS

- Steel back
- Lining compound: Aluminium, Bronze, Babbitt
- Coatings:
   Electroplating, Sputtering, Synthec®



### APPLICATION EXAMPLES

- Gearboxes
- Engines
- Heat Pumps
- Presses
- Mills



The ready-to-install elements stand out due to their high-precision geometry and plane parallelism, achieved through double-sided grinding and lapping, as well as computer-measured analysis. Including: Valve plates, down-hold segments, face plates, port plates, retainer segments and plates and slipper retainers.



#### **MATERIALS**

- C22/ CuPb10Sn10
- C10/ CuPb10Sn10
- St37 / CuPb22Sn2
- 100Cr6
- 34CrNiMo6L



### APPLICATION EXAMPLES

- Axial Piston Motors
- Axial Piston Pumps
- Bent Axis Motors
- Heavy Duty Pumps
- Hydraulic Motors



#### **SEALS**

Our business is servicing our customers' needs for the repair and manufacture of labyrinth seals for turbomachinery, either in-kind or customized to your operation.





#### MATERIALS

- Aluminium
- Bronze; Bronze/Babbitt
- Felt Metal
- Fluorosint
- Nickel Graphite; Nickel Silver
- Ni-resist
- PEEK
- Steel; Steel/Babbitt
- TORLON/DURATRON
- VESPEL



#### APPLICATION **EXAMPLES**

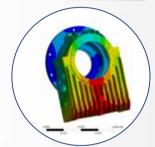
- Compressors
- Expanders
- Generators
- Turbo Gearboxes

# Service Portfolio

From designing, material choice and exceptional engineering, right through to service and repair we stand for innovative problem solving skills.











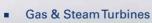


MANUFACTURING









# Miba Bearing Group Sites

You need a partner you can completely rely on. Miba employs a global team of experts, who deal with a large number of customer challenges and a variety of applications and specifications worldwide. This broad wealth of experience is the core of our work.

#### Miba Industrial Bearings U.S. LLC

Columbus, NE, USA 3300 East 8th Street, Columbus, NE 68601, USA

T +1 262 377-2210 mibusg\_sales@miba.com

#### Miba Industrial Bearings U.S. (Houston) LLC

Bearing repair and service business
Deer Park, TX, USA
1800 W 13th St, Deer Park, TX 77536, USA

T +1 713-943-9100 houston.sales@miba.com

#### Miba Industrial Bearings U.S. LLC

Grafton, WI, USA 1111 Cedar Creek Rd, Grafton, WI 53024, USA

T +1 262 377-2210 mibusg\_sales@miba.com

#### "ABM Advanced Bearing Materials LLC

Greensburg, IN, USA 1515 W., Main Street, Greensburg, IN 47240, USA

#### Miba Bearing US LLC

McConnelsville, OH, USA 5037 North State Route 60 McConnelsville, OH 43756, USA

T +1 740 962 4242 bearinggroup@miba.com

#### · Miba Industrial Bearings Germany Osterode GmbH

Osterode, Germany
Rolandsweg 16-20, 37520 Osterode am Harz, Germany

T +49 (0) 5522 31 27-0 mibg\_sales@miba.com

#### ·· Miba Gleitlager Austria GmbH

Laakirchen, Austria
Dr.-Mitterbauer-Straße 3, 4663 Laakirchen, Austria

T +43 7613 2541 0 bearinggroup@miba.com

#### Miba Bearings Materials GmbH

Aurachkirchen, Austria Aurachkirchen 45, 4694 Ohlsdorf, Austria

#### ··· ADMOS Gleitlager GmbH

Berlin, Germany
Wilhelminenhofstrasse 89a, 12459 Berlin, Germany

T + 49 (0) 30 53009-0 ... info@admos-gleitlager.de

#### Miba Industrial Bearings Brasil Ltda.

Cataguases, Brazil Av. Manoel Inácio Peixoto 2147, 36771-000 Cataguases MG, Brazil

T + 55 (32) 3429-5302 vendas.mibcat@miba.com

#### · Miba Precision Components (China) Co.Ltd.

Suzhou, China No. 15, Xinglong Street, Phase III 215024 Suzhou Industrial Park Jiangsu Province, P. R. China

T +86 512 6285 0900 bearinggroup@miba.com

# YOUR RELIABILITY IS OUR PASSION. OUR INSPIRED PEOPLE MAKE THE DIFFERENCE.

Contact us: bearinggroup@miba.com



www.miba.com/en/product-areas/bearings