Innovation in Motion

Bearing solutions

Maximizing the full potential of your systems is our top priority. Miba large bearings with **dimensions up to 3.500mm** are used for example in

- Hydroelectric power plants
- Cement mills
- Mining mills

The use of plain bearings opens up new opportunities for our customers also in many other industries. We support our customers and their systems in a wide range of applications:

- Compressors
- Gearboxes
- Pumps
- Engines
- Electric motors
- Generators
- Expanders
- Turbines
- Blowers
- Heat pumps
- Presses
- Jet engines
- Turbocharger
- Synchronous condensers
- Test rigs
- Roller drives

Our bearing offer

Maximum performance of the system thanks to flexible design.

Long service life and resilient to shock loads due to bearing design and operational mode.

Expert support and optimization at every project stage through close partnership with Miba.

Reliable supply chains and localized service through global footprint.

Miba Bearing Group

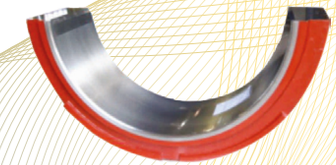
Miba Gleitlager Austria GmbH
Laakirchen, Austria

Miba Industrial Bearings Brasil Ltda
Cataguases, Brasil

T +43 7613 2541-0
M bearinggroup@miba.com

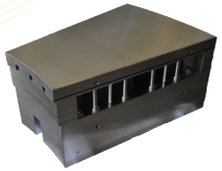
Hydrodynamic Plain Bearing Solutions

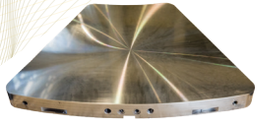
Large bearings



Durability and longevity

Flexibility in design





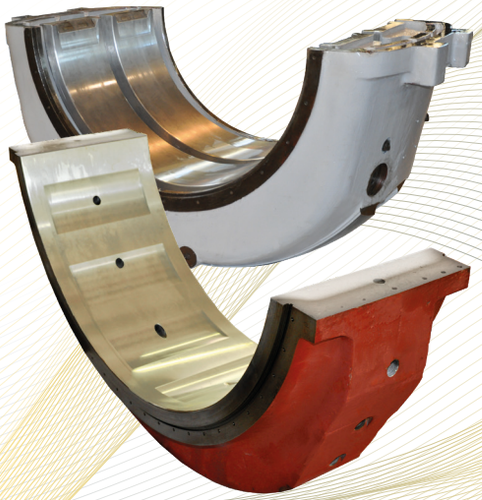
High load and speed capabilities

Hydrodynamic plain bearing technology

Added value for our customers

The use of Miba´s hydrodynamic plain bearings increases the performance and opens up new opportunities for your systems.

- Higher rotation speeds to enable next level systems
- Increased load capacity to enable next level systems
- Reduced assembly space and lower weight for higher power density
- Easy installation and reduced service cost
- Reduced noise emissions for noise-sensitive applications
- Long service life due to hydrodynamic operation and reduced lifetime costs
- More resilient to shock load ensuring longer lifespan



We can actively support you in the realization of your system – starting from the first concept along the whole product lifecycle.

CONCEPT

Feasibility study
- Hydrodynamics
- Technical specifications
- Bearing loading
- Target costs

DESIGN

Bearing design
- Assembly situation
- Hydrodynamic simulation
  - Housing optimization support
  - Fretting risk
  - Cavitation risk
  - Oil flow system
- Model testing
- Bearing type recommendation
- Tribological calculations and reports (NHD)

PRODUCTION

Bearing supply
- Production of bearing and supply

VALIDATION

Bearing validation
- Prototype supply
- Assembly test
- Bearing inspection
  - Lifetime
  - Phenomena analysis
  - Improvement opportunity
  - Lifetime accompanying program

SERVICE

Service
- Remaining bearing life program
- Special investigation services
- Improvement support on demand
- Bearing judgment criteria

Advanced engineering and design capabilities

Geometry and design

A deep understanding of the complex interactions between materials, geometry and operating conditions is required to achieve the optimum design. The correct selection of bearing length, diameter and tolerances is critical for optimum function and will influence performance and life. Depending on the application, the bearing is designed for the individual functions.

Lubrication
Lubrication is essential to reduce friction and wear in hydrodynamic plain bearings. Selection of the correct lubricant and application method is critical to optimum bearing performance.

Load carrying capacity and service life
Our hydrodynamic plain bearings are designed to operate reliably under extreme loads and ensure a long service life. During design, we carefully consider life-determining factors such as load, speed, lubrication and environmental conditions to maximize durability.