Innovation in Motion

Bearing solutions

To improve the performance of your systems

Maximizing the full potential of your systems is our top priority. By incorporating 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.

- 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

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

Low maintenance costs, as our bearings are precisely tailored to your specific requirements. You benefit from the comprehensive design and material expertise of our employees.

We work closely with you from the start of the project through every step of the way.

Reduced assembly space due to use of a combined bearing (thrust and journal).

Reliable supply chains and localized service through global footprint.

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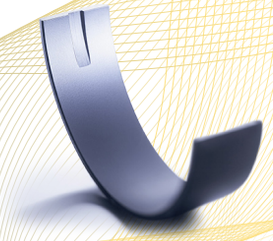
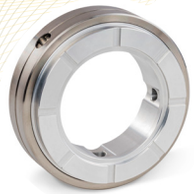
Hydrodynamic Bearing Solutions

For industrial heat pumps



Durability and longevity

Flexibility in design



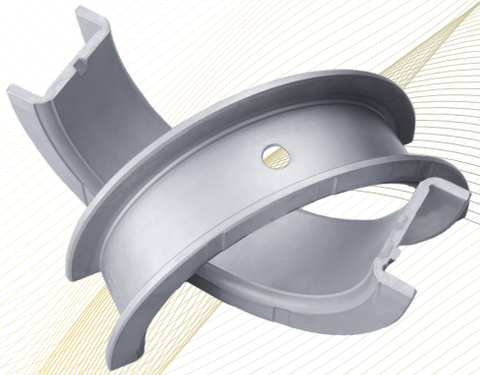
High load and speed capabilities

Hydrodynamic bearing technology

Added value for our customers

Our hydrodynamic bearings are optimized for high speed, high load and dynamic applications. They float on an oil or lubricant film thanks to an active oil supply provided by an existing infrastructure or independently. This design ensures:

- Easy installation and reduced service costs
- Minimizes risk of early failure
- Higher load capabilities for higher pressure
- Reduced assembly space and lower weight
- Reduced noise emissions
- Long service life due to hydrodynamic mode



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

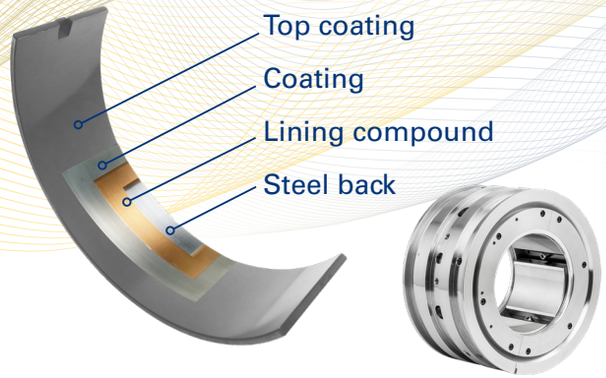
Flexible bearings

Different design and material options possible

A deep understanding of the complex interactions between materials, geometry and operating conditions is necessary to find the optimum design. Depending on the application, the bearing will be designed to the individual functionalities.

For heat pumps with pistons we recommend a layered bearing structure. The steel backing is responsible for the strength of the bearing system. The tribological requirements are ideally implemented thanks to the layered structure consisting of lining compound (bearing metal) and coatings.

For turbo applications we are able to design and manufacture complex structures such as offset halves, 3-face, 4-face bearings or tilting pads. This allows us to achieve the best damping and stiffness characteristics, as well as high speeds and vibration prevention.



Miba offers different lining compounds:
Aluminium, Bronze, Babbitt

Miba offers different coatings:
Electroplating, Sputtering, Synthec® Coatings