Miba Friction Group
Key Products
Miba Friction Group

Friction materials of the Miba Friction Group are key performance elements in clutches and brakes in the international automotive and machine industries. By constantly developing new friction materials and continuously improving existing materials, Miba is making a significant contribution to overall efficiency improvements to clutches and brakes systems of well-known global OEMs.

The best friction solutions – for applications demanding the highest quality.

Our 4 Technology Core Values for Engineered Tribology:

- **Efficiency**
  Minimum energy losses at desired functionality

- **NVH (noise, vibration and harshness)**
  Best controllability and highest level of comfort

- **Power density**
  Minimum package at desired functionality

- **TCO (total cost of ownership)**
  Best product lifecycle value
Automotive Wet

The Miba Friction Group has become a strategic partner to the international automotive industry through its visionary developments and efficient solutions for clutches and brakes.

We offer a wide range of friction lining technologies for wet-running systems including fiber composite, carbon, sintered friction and molybdenum coated discs.

These are used for mechanical and electronic limited slip differentials as well as for all wheel drive systems equipped with fuel efficient disconnect systems.

Further applications include motorcycle clutch sets, powershift clutches, PTOs and clutches for e-axles.

Our solutions offer best-in-class NVH, power density and drag torque reduction. Our high quality steel disc production guarantees optimal interaction between the components within the disc set.

Application areas:

- Passenger vehicles
- Trucks
- Motorcycles
Off-Highway Wet

In the off-highway wet segment, Miba provides tailor-made brake and clutch solutions to make customer systems more efficient, profitable and environmentally friendly.

Power density, efficiency, NVH and TCO are the technology core values determining our actions. Miba offers the broadest friction materials portfolio in the world, including fiber composite, carbon, sintered bronze, molybdenum and steel friction technology.

From a vertically integrated friction material and steel disc production to global application engineering support and in-house testing capabilities, Miba is creating value for the global off-highway industry.

Application areas:

• Construction machinery and mining vehicles
• Agricultural machinery
• Aerospace industry
• Material handling, marine and industrial applications
• Busses and transportation
Dry

For dry-running applications in clutches and brakes subject to high specific loads, the Miba Friction Group offers ceramic friction materials in combination with mating materials made of steel, cast iron and composite materials.

From truck and tractor clutches to wind power plants and high-speed trains, OEMs and tier 1 suppliers from around the world trust Miba ceramic materials. These are key performance components in clutch and brake systems due to their high friction coefficient stability and wear resistance, coupled with low noise capabilities and high-temperature resistance.

Application areas:

- Trucks
- High-speed trains
- Tractors
- Wind power plants
- Motorsports
- Industrial applications like cranes and conveyors
Engineered Tribology

Our leading R&D objective is to work with our customers in a development partnership in order to master the increasing complexity of applications in the market. Competent teams working with a unique dedicated R&D tool chain to minimize the time to market. This tool chain encompasses a wide array of development projects ranging from friction material formulation by means of in-depth raw material expertise all the way through application engineering final testing. In-house developments achieved through the long-term experience are essential elements of the tool chain. Ideal examples include our AET Application Engineering Tool layout software and our DTTR Drag Torque Test Rig. This is Tribology Engineering.

Highlights of the R&D tool chain:

- Decades of friction solution experience from our R&D engineering team
- The most comprehensive friction technology portfolio
- Continuously renewed and expanded test center with more than 20 test-benches
- Dedicated Tribology Engineering software
Material Development, Verification and Validation

Wet and dry clutch and brake systems can be tested on over 20 component and system test benches under different conditions according to individual customer specifications.

**Friction**
- Wet and dry

We are focused on material development, the evaluation of material properties and the general friction function such as the friction coefficient characteristics and wear for wet and dry operation.

**System**
- Modular, single and dual
- Electrical drive benches

**Special focus**
- Drag loss
- Noise, vibration and harshness
- Cold temperature
- Mechanical strength

**Vehicle**
- Functional feasibility
Global Manufacturing Footprint

Miba HydraMechanica Corp.
USA

Fibertec Šteti s.r.o.
Czech Republic

Miba Steeltec s.r.o.
Slovakia

Miba Frictec GmbH
Austria

Miba Precision Components
China

Miba Drivetec India Pvt. Ltd.
India