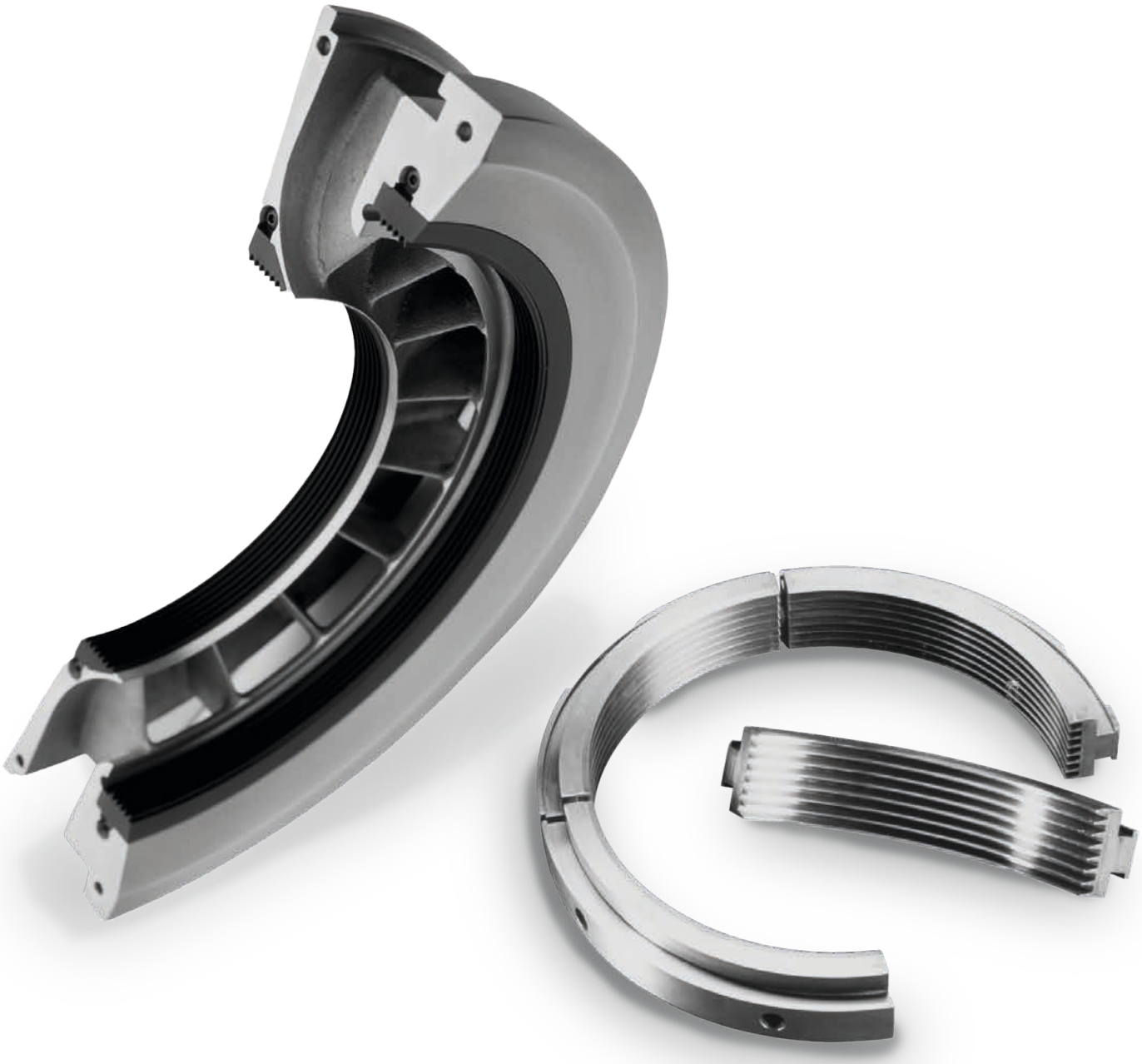
Innovation in Motion

Miba Industrial Bearings
Labyrinth Seal Solutions



Advanced Labyrinth Seal Solutions Realized Through Collaboration, Innovation and Expertise

Seals types

- Turbine and Compressor Labyrinth Seals
- Turbine packing
- Pump wear rings
- Bearing-housing oil Seals
- Compressor oil-film Seals
- Hydrogen Seal Rings for Gas Turbines
- Windback Seals

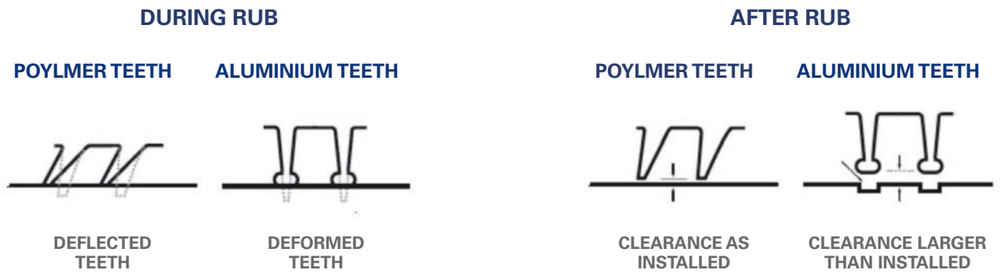
Material:

- Aluminum
- Bronze
- Thermoplastic (PEEK, Torlon)
- Fluorosint
- Nickel graphite
- Honeycomb
- Nickel silver
- Ni-Resist, steel
- “J” strips

Benefits

- ☑ DESIGN
  Forgiving during hard rubs (gall resistant)
- ☑ EFFICIENCY
  Designed with reduced clearances
- ☑ DURABILITY
  Increased resistance to corrosion
- ☑ RELIABILITY
  Maintains clearance during rubs
- ☑ MAINTENANCE
  Easy installation

Custom-engineered seals



Rotor Contact Scenario:
Thermoplastic vs. Metallic Seal Solutions

Upgrade & save money

Metallic vs. Polymer Seals
The key to maximizing efficiency is installing seals that can run with close clearances and maintain these clearances even after a normal rub occurs. If the shaft contacts rotating or stationary labyrinths made from thermoplastics, they are more forgiving than aluminum. That is why there is a growing interest in them and our design solutions in particular. Today, hundreds of compressors are running efficiently and reliably with replacement Duratron (Tolron), Ketron (PEEK), and Fluorosint seals made by us. Making us one of the largest and most experienced manufacturers of thermoplastic seals. Whether you want a direct replacement or custom-designed seals, we are confident that we can provide you with a robust, reliable, and efficient design solution.

Improving Oil-Guard Design
One of the problems for rotating equipment and their operators is oil leaks. Miba has engineered many different solutions to the specific problems encountered in the field. As the solution to each issue is generally application-specific, we will work closely with you to eliminate such problems to improve on-site safety and reduce maintenance and operating costs.

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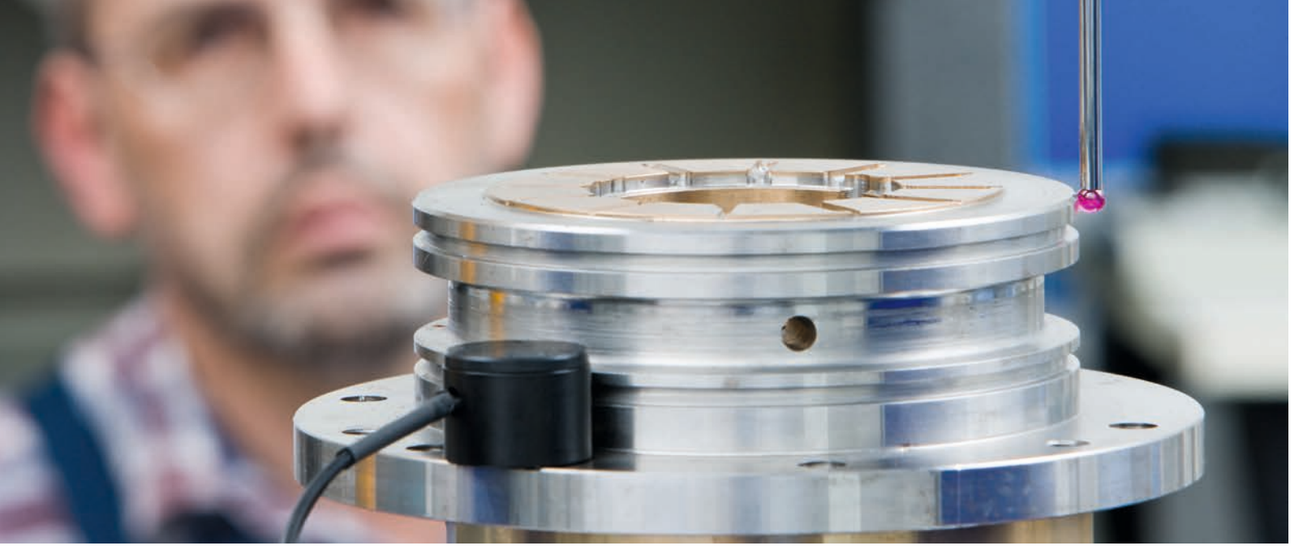
Note: Miba's many innovative design changes, such as the addition of a purge and a wind back labyrinth. In addition, no machine modifications were necessary to accomodate the upgraded seal.



Innovation is a big part of our engineering edge

Polymer Seals upgrade the efficiency of Nine Compressors in One Plant

An ethylene producer in East Texas wanted to increase the efficiency of its centrifugal compressors without sacrificing reliability. We explained that a good way to achieve that added performance was to replace the OEM aluminum interstage and balance-piston seals with thermoplastic labyrinths. Relying on our reputation for manufacturing and installing these hardworking replacements, they decided to upgrade one compressor and measure the results for themselves. The upgraded unit performed so well, we were asked to do the same for eight more compressors in the plant. The project went smoothly, efficiency improved, and today, that customer is extremely pleased with the performance gains from our seal solution.application-specific, we will work closely with you to eliminate such problems to improve on-site safety and reduce maintenance and operating costs.

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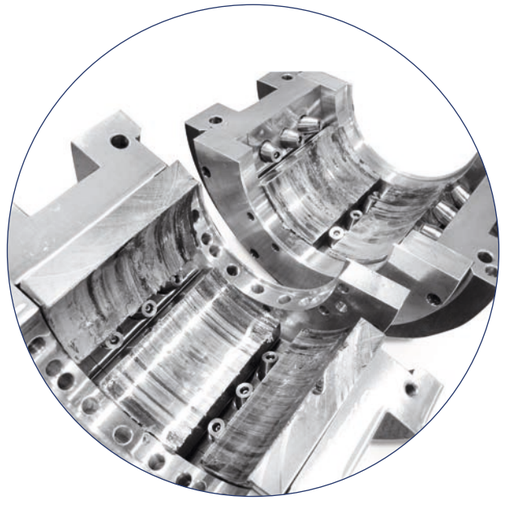
Bearing Repair Service

Damage to bearings generally results in machine failure and thus in costly downtimes. This is why Miba has expanded the area of bearing repair, in addition to the specialization in the development and manufacturing of new bearings. We help customers to increase efficiency and lower costs by upgrading or reengineering old bearings.

Starting with an evaluation of the existing bearing, we can recommend the best solution and realize the repair of your bearing. Please contact us for information and consultation.

Our services

- Bearing failure analysis
- Bearing design optimization
- Bearing repair
- Reverse engineering
- Training
- On-site service



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