



Magnetic Bearing Hardware

SEALED MAGNETIC BEARINGS

Waukesha Magnetic Bearings® sealed magnetic bearings are designed to be immersed in a process fluid environment where liquid content and liquid carryover are present. Sealed bearing technology is ideal for mildly corrosive environments and applications requiring high reliability and availability. This is accomplished by immersing the bearings in the process fluid, thereby eliminating shaft seals. The sealed magnetic bearing stators and sensors have all windings, conductors and connections encapsulated for protection against liquid content. It provides a liquid resistant system for mildly corrosive environments.

The sealed magnetic bearing system is available with rotor and stator laminations made of corrosion resistant alloys or more conventional alloys protected with specialised coatings. Liquid-resistant auxiliary bearings are available with these systems.

APPLICATIONS

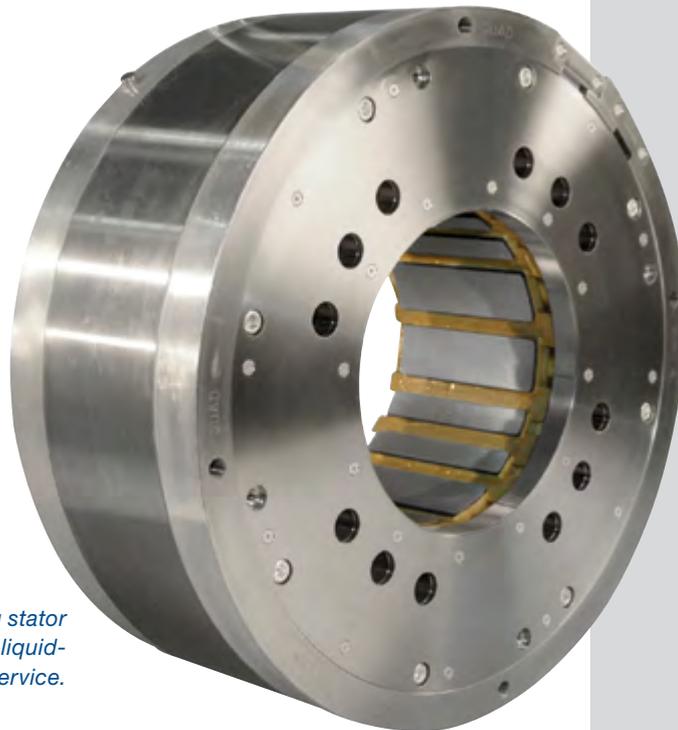
- Compressors
- Electric motors
- Steam turbines
- Turboexpanders

ENVIRONMENTS

- Liquid content
- Mildly corrosive

BENEFITS

- High reliability and availability
- Extends service life



Sealed radial magnetic bearing stator and position sensor designed for liquid-resistant service.

CANNED MAGNETIC BEARINGS

Waukesha canned magnetic bearings are designed to be immersed in the process fluid with the most extreme corrosive and abrasive environments. This solution is the only choice for compressor applications where the gas is contaminated with H₂S, chlorides, sand, condensate and other liquids. Canned bearing technology is also applied to pumps, steam turbines and other applications where the bearings are continuously or intermittently immersed in high-pressure corrosive liquid environments.

The canned magnetic bearing system includes canned stators and sensors, and corrosion-resistant rotor laminations, thrust collars and auxiliary bearings. Canned stators are integrated into completely seal-welded housings without the need for elastomeric elements. The rotor laminations are made of special ferromagnetic alloys and do not require coatings to maintain corrosion resistance. The auxiliary bearings are constructed of corrosion-resistant alloys and materials to complete the entire bearing system ready for service in the most extreme corrosive environments.



Radial and axial magnetic bearing stators with position sensors integrated into a hermetically sealed housing for a vertical, integrated motor-compressor application.

APPLICATIONS

- Compressors
- Electric motors
- Steam turbines
- Pumps
- Turboexpanders

ENVIRONMENTS

- NACE
- Highly corrosive sour gas (H₂S)
- Continuous liquid immersion
- Abrasive sand
- Subsea

BENEFITS

- Zero emissions
- Ultimate reliability and availability
- Highly integrated modular design
- Extends service life