

A mechanical seal just for rotary valves and airlocks

The MECO MB seal is a fully custom mechanical seal, which can be retrofitted, or installed as OEM equipment, into an existing stuffing box. The MB seal's air purge not only fortifies its sealing performance but is also an effective diagnostic tool. Unlike standard stuffing box seals, the MB seal is non-abrasive to the machine's shaft.

How it works

The MB model's dynamic seal is formed between two rotating, polymer seal faces (rotors) and stationary, stainless-steel seal faces (stators). The seal's polymer rotors are frictionally locked into rotation with the machine's shaft by an elastomer drive ring. Two O-rings form a static seal between the outer diameter of each stator and the application's existing stuffing box bore. The MB seal is pneumatically loaded by a compressed gas – typically air or an inert gas – which also acts to clear the rotating seal faces of product and debris. In addition, the purge gas helps isolate the process from the atmosphere.

Applications

The MB seal is best suited to rotary feeders and airlocks and can be an effective solution where conventional stuffing box seals are unsatisfactory. The MB seal is best applied to dimensionally accurate equipment with minimal shaft runout. Several common machines and process material applications are listed below.

MB Seal machine applications

- Rotary feeders
- Airlocks

MB Seal process material applications

- | | |
|------------------|------------|
| • Cement | • Sugar |
| • Ore | • Minerals |
| • Grains | • Fly ash |
| • Plastics | • Flour |
| • Dust | • Gypsum |
| • Cereals | • Lime |
| • Pharmaceutical | • Coffee |



Stuffing box not included

MB Seal features:

- ✓ Non-abrasive to shaft
- ✓ Economical
- ✓ Fits existing stuffing box
- ✓ Gas-purged



Material Options

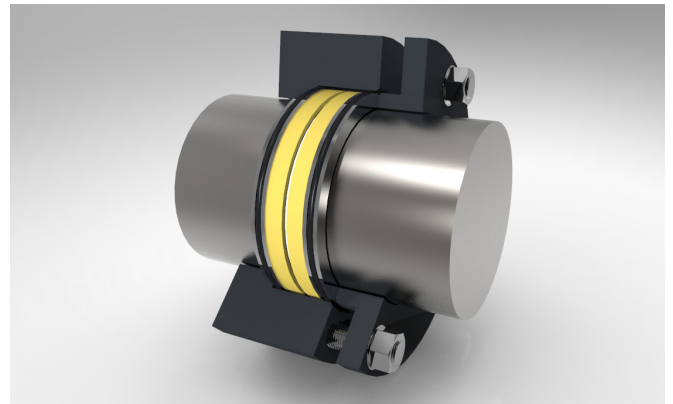
The MB seal is available in a variety of materials to meet the requirements of your sealing application. The most common materials are listed below, but alternate materials may be available upon request. Contact us with your specific application requirements for a custom solution.

Stator materials	Elastomer materials	Rotor materials
304L stainless-steel	Viton®	MECO 3000 *
316L stainless-steel	Silicone	MECO 3120 *
17-4 stainless-steel	EPDM	Glass-filled PTFE

* FDA Approved Polymers

Typical Dimensions

The MECO MB model is a custom seal, designed per application and available in a variety of sizes. A minimum stuffing box cross-section of 8mm (5/16") x 34mm (1-5/16") deep is required. Accurate measurements of the existing stuffing box's cross-section and depth are necessary for Woodex-MECO engineers to effectively design a custom seal for your machine. In retrofit applications, it may be necessary to relocate the original purge inlet port, or add a port if one is not already present midway along the depth of the stuffing box.



Maintenance

The MB model's sealing performance can be easily monitored by maintenance and production personnel using the seal's pressure gauge system. The pressure gauge system is effective in quickly alerting maintenance and production personnel of a potential seal breach so that adjustments or replacements can be made before bigger product leakage occurs. The MB seal can be adjusted by tightening the stuffing box's existing gland follower.

Operating parameters

Woodex-MECO specializes in custom engineered seals designed for the particulars of each specific application. The mechanical capabilities of the MB seal are dependent on the materials and processes involved in the application. We have a range of other seal models that may be more applicable if the MB seal isn't a good fit for your application.



To learn more and to find out if the **MB Seal** is the right seal for you, please give us a call, or submit an online application today!

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