



# HEAVY DUTY SPLIT CARTRIDGE MECHANICAL SEAL

Designed Specifically for  
Mixers and Agitators

The **Flex-A-Seal Style 85M Heavy Duty Split Cartridge Mechanical Mixer Seal** applies the same innovative technology we use in our Style 85 Split Cartridge Mechanical Seal, but is designed specifically to meet the challenges of sealing mixers and agitators, centrifuges, and other special rotating equipment. Mixers are known for having a much larger radial shaft run-out than typical pumps, and using a conventional split seal that was designed for a standard pump would significantly reduce the performance and life of the seal.

The Flex-A-Seal Style 85M is specifically designed to handle this additional shaft movement, increasing long-term seal reliability while giving you the best performance you need for your equipment. Plus, the style 85M features the same ease of installation as our standard Style 85.

## Materials of Construction:

- Rotating Face:** Silicon Carbide
- Stationary Face:** Carbon or Silicon Carbide
- Elastomers:** Viton® Standard, Aflas®, or Fluoraz® option
- Metal Parts:** 316 S.S.
- Springs:** Hastelloy® C-276

Additional materials available upon request



## Operating Parameters:

- Size:** 1 1/2" – 9" (38mm – 228 mm)
- Temperature:** 350°F (175°C)
- Speed:** 1 1/2" – 3" – 3600 RPM  
3 1/8" – 4 3/4" – 1800 RPM  
4 7/8" – 9" – 875 RPM
- Pressure:** Up to 450 psig (30 Bar)  
Pressure capabilities of the seal are dependent on the fluid sealed, temperature, speed, and seal face combinations
- Runout:** Up to .060 (1.5 mm) TIR Radial movement

\* Maximum temperature/speed/pressure/runout indicates operating extremes independently and does not imply the seal will function at these extremes at the same time.



# HEAVY DUTY SPLIT CARTRIDGE MECHANICAL SEAL

Flex-A-Seal Specialty Seal for Mixers, Agitators, and Centrifuges

## Features and Benefits:

### 1 Two-Piece Fully Split Cartridge Mechanical Seal Design

- Fastest split seal installation in the world
- Eliminates damaging of lapped faces, O-rings and springs due to mishandling

### 2 True Cartridge Mechanical Seal Design

- No measurements, shims, or special tools required
- Shaft adjustments can be made without removing the seal

### 3 Precision Lapped Faces Protected Together Inside Metal Sleeve and Gland

- Dirt and grease cannot get between the lapped faces
- Metal components protect faces from mishandling damage

### 4 Hydraulically Balanced Seal Faces

- Lowers seal heat generation
- Provides a wider range of operating pressure for more reliable sealing

### 5 Large Radial Clearance

- Allows for more shaft movement without damaging any of the seal's components

### 6 Stationary Seal Design

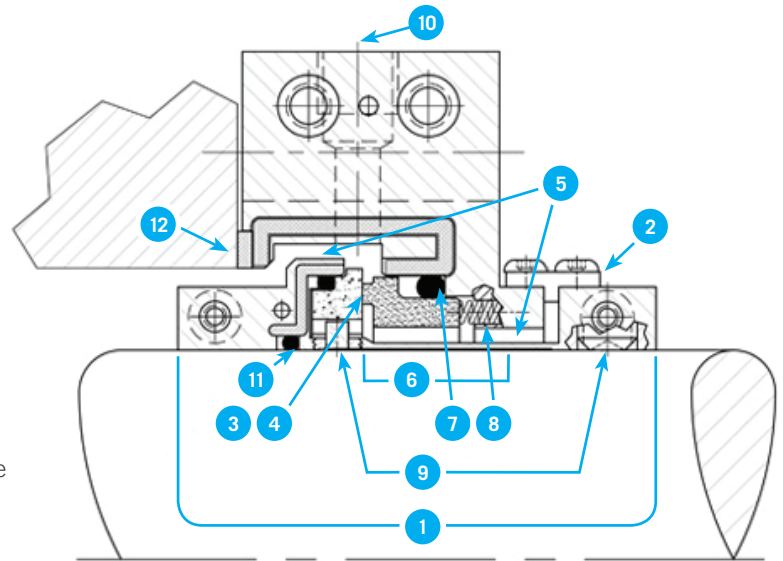
- Ensures optimum seal face tracking and alignment
- Springs do not have to flex with every revolution

### 7 Large Diameter Cross Section Dynamic O-Ring Slides on Smooth Clean Seal Ring Surface

- Eliminates all shaft or sleeve damage due to fretting

### 8 Springs Located and Protected Inside Cartridge Seal Gland

- Not in contact with sealed fluid
- Non-clogging and corrosion resistant
- Self-contained springs eliminate the possibility of losing one or more during installation



### 9 Heavy Duty Rotating Seal Drive Components

- Sleeve drive pins ensure positive direct drive to the rotating face
- Set screws lock the seal firmly in place and allow for higher pressure capability

### 10 Standard NPT Flush Connection in Gland

- Improves the seal environment with a means for venting or flushing the seal

### 11 Cartridge Sleeve O-Ring Located Outside the Stuffing Box

- Cartridge sleeve O-ring seals on shaft or sleeve area away from damage done by normal packing wear

### 12 Larger, Thicker Gland Gasket

- Better to seal slight surface imperfections of the seal chamber



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