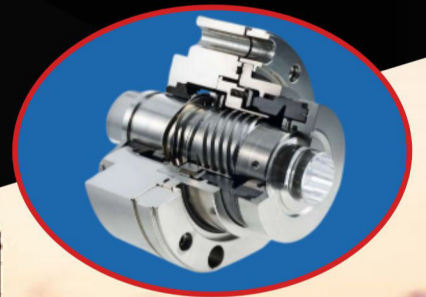




# ***MAHI ENGINEERS***

Mfg. of All type of Mechanical Seals





Dear Sir

We take great pleasure introducing our firm, as one of the leading manufactures of mechanical sales and its spare parts.

**MAHI ENGINEERS** a manufacture specializing in mechanical seal & pumps with a strong base and high technology, we have accumulated plenty of production experience from home and aboard constantly. We make the produce process improved all the times. We have consummate production equipment and perfect inspection method. Our high quality products are widely used in petrochemical, electrical, agriculture, food, petroleum and all kinds of pumps. Our products have won the customer's approval and we keep a long business relationship with client home and aboard. With our principal Quality First, Sincerity Uttermost and Excellent Service, We provide good products to clients.



Yours Truly,  
**MAHI ENGINEERS**



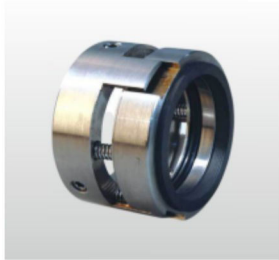
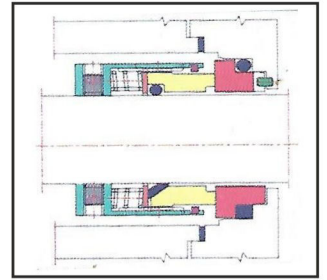


**UBME152 Unbalanced Multi Springs Seal in Retainer with 'O' ring**  
**UBME152 Unbalanced Multi Springs Seal in Retainer with Wedge**

Independent Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 200° C  
 Application : Petrochemicals, General Chemicals,  
 Oil Refiners, Food and Beverages

M.O.C of Secondary Seal According to Fluid & Temp.  
 Various Hard & Soft Faces As Per Liquid.

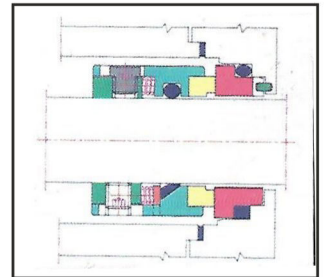


**UBME156 Unbalanced Multi Springs Seal in Lug Drive with 'O' ring**  
**UBME156 Unbalanced Multi Springs Seal in Lug Drive with Wedge**

Independent Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 150° C  
 Application : Petrochemicals, General Chemicals,  
 Oil Refiners, Food and Beverages

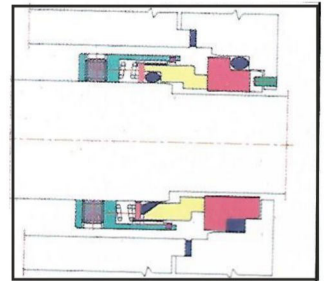
M.O.C of Secondary Seal According to Fluid & Temp.  
 Various Hard & Soft Faces As Per Liquid.



**BME135 Balanced Multi Springs Seal in Retainer with 'O' ring**  
**BME135 Balanced Multi Springs Seal in Retainer with Wedge**  
**Auto Direction of Rotation (Inside Mounted)**

Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 200° C  
 Application : Petrochemicals, General Chemicals,  
 Oil Refiners, Food and Beverages

M.O.C of Secondary Seal According to Fluid & Temp.  
 Various Hard & Soft Faces As Per Liquid.

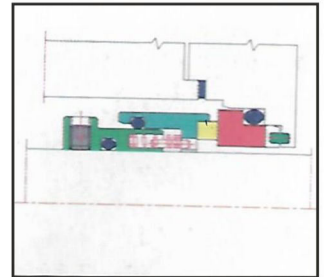


**BME136 Balanced Multi Springs Slurry Seal**

Independent Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40 to 200 C  
 Application : Petrochemicals, General Chemicals,  
 Oil Refiners, Food and Beverages

M.O.C of Secondary Seal According to Fluid & Temp.  
 Various Hard & Soft Faces As Per Liquid.

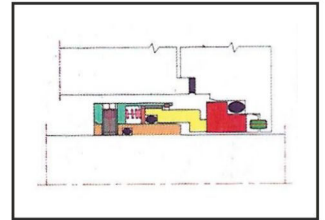




### BME143 Balanced Multi Springs Seal with inbuilt Sleeve 'O' ring Auto Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
Pressure : up to 40 kg/cm<sup>2</sup>  
Temp : -40° to 200° C  
Application : Petrochemicals, General Chemicals,  
Oil Refiners, Food and Beverages

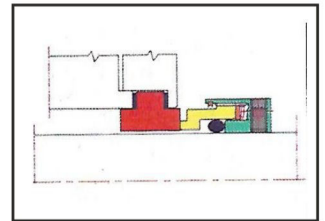
M.O.C of Secondary Seal According to Fluid & Temp.  
Various Hard & Soft Faces As Per Liquid.  
No need to maintain a step on Sleeve for balancing.



### RBME142 Reverse Balanced Multi Springs Seal Auto Direction of Rotation (Outside Mounted)

Size : 0.5" to 6"  
Pressure : vacuum to 25kg/cm<sup>2</sup>  
Temp : -40° to 200° C  
Application : Corrosive Chemicals,  
Hydrocarbon, Abrasive Service

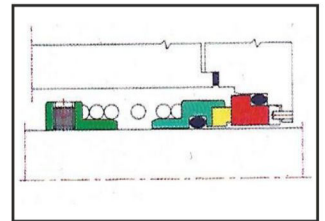
M.O.C of Secondary Seal According to Fluid & Temp.  
Various Hard & Soft Faces As Per Liquid.



### UBME140 Unbalanced Open Single Springs Seal with 'O' ring Single Direction of Rotation (Inside Mounted)

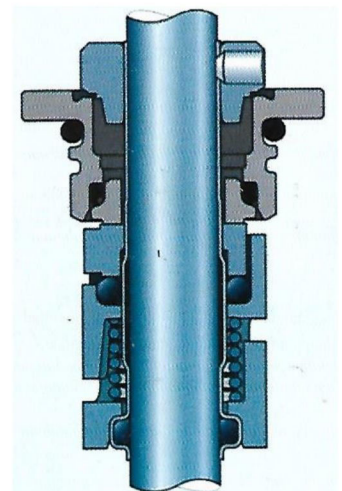
Size : 0.5" to 6"  
Pressure : up to 8kg/cm<sup>2</sup>  
Temp : -40° to 200° C  
Application : Petrochemicals, General Chemicals,  
Oil Refiners,  
Suspended Particles, Temp.

Secondary Seal According to Fluid & Temp.  
Various Hard & Soft Faces As Per Liquid.



### GROUND FOSS PUMP SEAL

- Size : 12/16/22
- Pressure : up to 5 kg/cm<sup>2</sup>
- Temp : -40° to 150° C
- Application : Water, Slurry Water







### UBME186 Unbalanced Single Springs Seal Bi-Directional Auto Direction of Rotation (Inside Mounted)

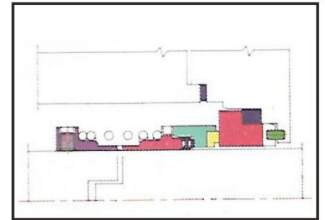
Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 200° C  
 Application : Petrochemicals, General Chemicals, Suspended Particles, Mild Corrosive & Slurry Services.

M.O.C of Secondary Seal According to Fluid & Temp.

Various Hard & Soft Faces As Per Liquid.

**\*Also Available Balance Seal**

Type 8202,8222

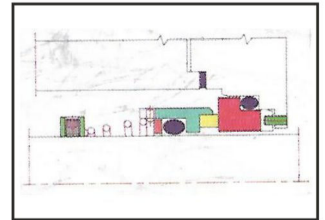


### UBME187 Unbalanced Conical Springs Seal with 'O' ring Single Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 150° C  
 Application : Petrochemicals, General Chemicals, Oil Refineries, Suspended Particles, Slurry

M.O.C of Secondary Seal According to Fluid & Temp.

Various Hard & Soft Faces As Per Liquid.

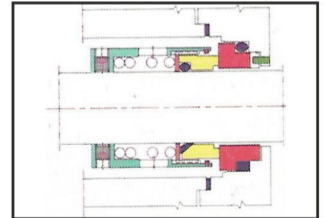


### UBME188 Unbalanced Single Springs Seal in Retainer with 'O' ring UBME188 Unbalanced Single Springs Seal in Retainer with Wedge Auto Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 200° C  
 Application : Petrochemicals, General Chemicals, Oil Refiners, Suspended Particles, Mild Slurry Services

M.O.C of Secondary Seal According to Fluid & Temp.

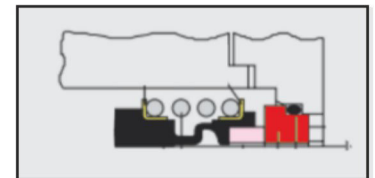
Various Hard & Soft Faces As Per Liquid.



### Rubber Bellow Seal

Auto Direction of Rotation (Inside Mounted)

Size : 0.5" to 4"  
 Pressure : up to 4kg/cm<sup>2</sup>  
 Temp : -40° to 150° C  
 Application : Water

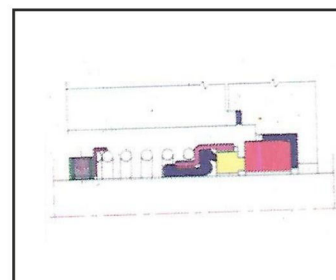




### Me15-UB Unbalanced Single Springs Seal

Single Direction of Rotation (Inside Mounted)

Size : 0.5" to 4"  
 Pressure : up to 8 kg/cm<sup>2</sup>  
 Temp : -40° to 150° C  
 Application : Water, Mild Chemicals, Oil  
 M.O.C of Secondary Seal According to Fluid & Temp.  
 Various Hard & Soft Faces As Per Liquid.

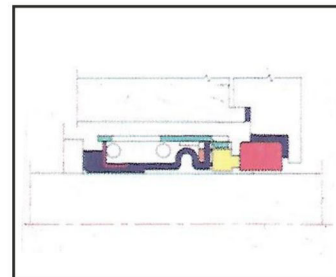


### Me18-UB Unbalanced Rubber Bellow Seal

Size : 0.5" to 4"  
 Pressure : Upto 8kg/cm<sup>2</sup>  
 Temp : -40° to 200° C  
 Application : Water, Mild Chemicals, Oil  
 M.O.C of Secondary Seal According to Fluid & Temp.  
 Various Hard & Soft Faces As Per Liquid.

#### \*Also Available Seal

Type 7431, 7231, (Close Type), 7331 (Open Type)



### Me/20 Teflon Below Seal with Combined Face

Independent Direction of Rotation (Outside Mounted)

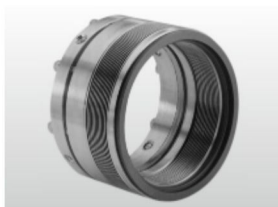
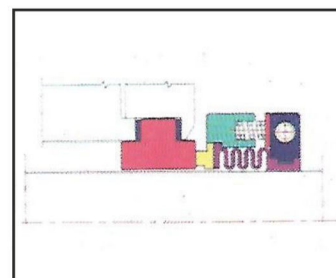
Size : 0.5" to 6"  
 Pressure : up to 3.5kg/cm<sup>2</sup>  
 Temp : -40° to 110° C  
 Application : Chemicals,  
 Oil Refiners,  
 Aggressive Corrosive Application

Various Faces SiCEF, GFT, Ceramic

#### \*Also Available

Type 002, Teflon Below Seal With Split Face

Type 003, Teflon Below Single Spring Seal With Split Face



### Metal Below Balanced Seal With Grafoil Packing

Independent Direction of Rotation (Inside Mounted)

Size : 0.5" to 6"  
 Pressure : up to 15kg/cm<sup>2</sup>  
 Temp : -75° to 450° C  
 Application : Petrochemicals,  
 General Chemicals, Oil Refineries,  
 Corrosive and Abrasive

M.O.C of Secondary Seal According to Fluid & Temp.

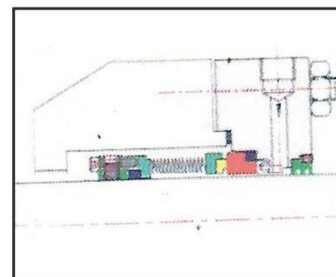
Various Hard & Soft Faces As Per Liquid.

#### \*Also Available Seal

A) Metal Below Seal With 'O'Ring

B) Metal Below Seal With Grafoil Packing (Sleeve Type)

C) Metal Below Seal With Grafoil Packing (Below as Stationary)



### Balanced Multi Springs Slurry Seal

Independent Direction of Rotation (Cartridge)

Size	:	0.5" to 6"
Pressure	:	up to 25kg/cm <sup>2</sup>
Temp	:	-40° to 200° C
Application	:	Petrochemicals, General Chemicals, Waste water, Mining Industries Pulp Sludge Abrasive Service

M.O.C of Secondary Seal According to Fluid & Temp.

Various Hard & Soft Faces As Per Liquid.



### Dry Gas Seals

Shaft	:	30mm to 350mm
Pressure	:	upto 450 Bar
Temperature	:	upto 300° C
Velocity	:	upto 200 m/sec

Dry Gas seals are part of our manufacturing range which are used on high speed compressors in Gas and Oil Industries. We refurbish dry gas seals of any brand.



### Rotary Joints

Shaft	:	3/8" to 2"
Pressure	:	upto 10 Bar
Temperature	:	upto 120° C

Mono flow and double flow design rotary joints are used on equipment for cooling, drying, humidification etc.  
Self supporting on two precision Ball Bearings enough to reduce vibration & wobbling.







These Cartridge Seal units are designed for Mixer, Agitators and Glass Lines Recotors. The Heavy duty construction of the 50 series provides long seal life and excellent reparability. The design incorporates bearing located very close to seal. The design specifically is engineered to accommodate the run-out conditions, up to 0.5mm. Large clearance between rator shaft/ sleeve and mating ring permits higher deflection of the shaft.

For Higher temperature application, the seal assembly has got jacketed chamber to circulate chilled water to bring down the temperature. Also normally chilled/ Plain water is passed through the cooling coll of Thermosyphon to bring down the temperature of compatible barrier fluid circulated in seal housing to maintain the continuous cooling. Bottom portion of seal housing is also designed with heat trapping jacketed cooling to reduced the temperature around the bottom seal face.

Unbalanced Double Back to Back  
with 'O' Ring Agitators Seal For Top Entry

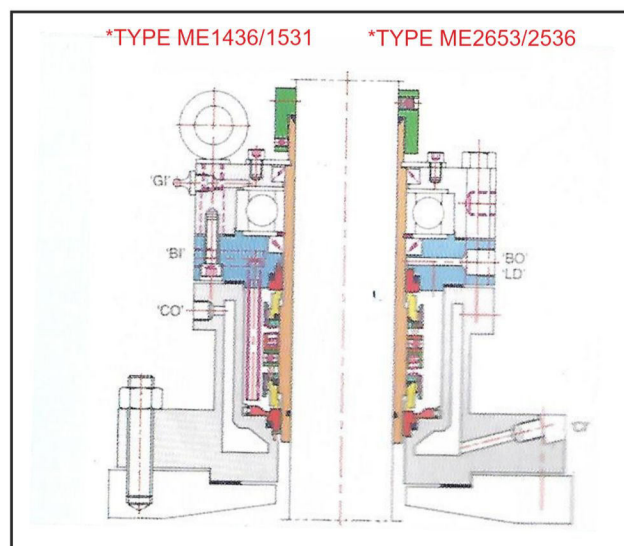
Unbalanced Double Back to Back  
with Wedge Agitators Seal For Top Entry

Balanced Double Back to Back  
with 'O' Ring Agitators Seal For Top Entry

Balanced Back to Back with Wedge  
Agitators Seal For Top Entry  
Bottom Entry Seals Area Also Available

Size	:	1" to 12"
Pressure	:	up to 8kg/cm <sup>2</sup> (Unbalanced)
Pressure	:	up to 35kg/cm <sup>2</sup> (Balanced)
Temp	:	-40° to 200° C
Appication	:	Chemicals and its Vapors, Petrochemicals and its Vapors

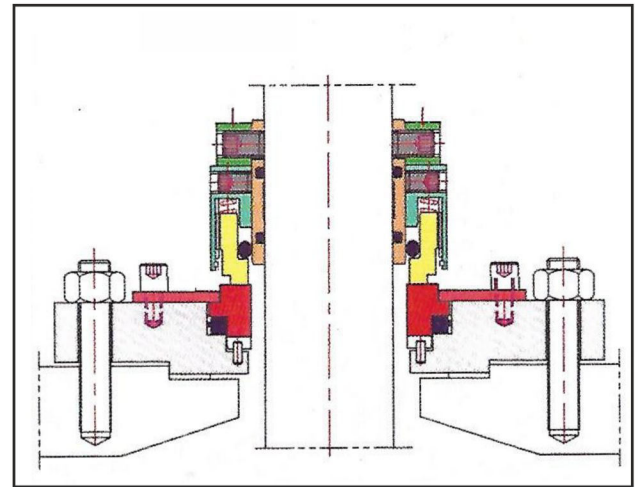
MOC. Ss316, Ss3.4, ALLOY-20, Monal





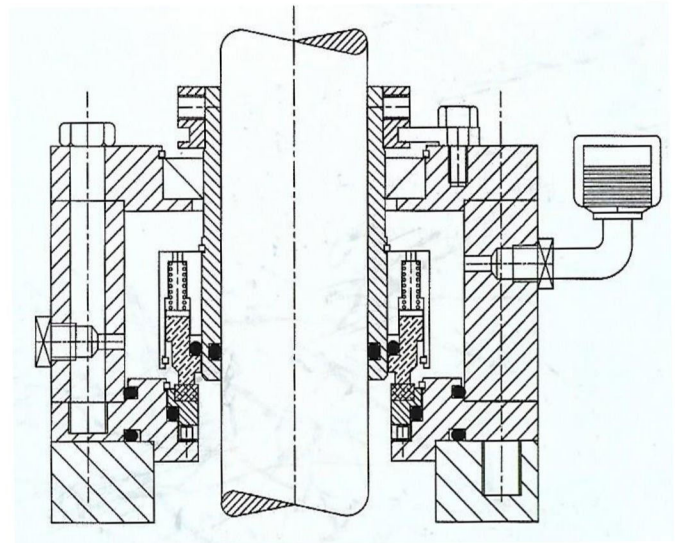
### Dry Seals

For Top Entry Agitator, Vessels and Mixers  
Single Seal, Independent of Direction of Rotation  
Size : 1" to 8"  
Pressure : Vacuum up to 5kg/cm<sup>2</sup>  
Temp : -20° to 230° C  
Speed : 1500 RPM  
Application : Food Products and its Vapors  
Petrochemical Products & its Vapors  
Light Hydrocarbons and its Vapors  
MOC. SS316, SS304, ALOY-20, Monal, Hastelloy-C, Titanium



### Wet Running Single Acting Seals

For Top Entry Agitator, Vessels and Mixers  
Single Seal, Independent of Direction of Rotation  
Size : 1" to 8"  
Pressure : up to 8kg/cm<sup>2</sup>  
Temp : -40° to 200° C  
Speed : 400 RPM to 3000 RPM  
Application : Food Products and its Vapors  
Petrochemical Products & its Vapors  
Light Hydrocarbons and its Vapors  
MOC. SS316, SS304, ALOY-20, Monal, Hastelloy-C, Titanium



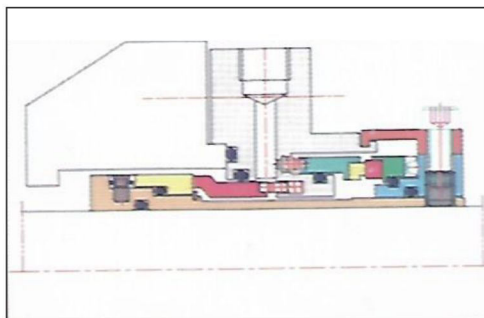
This is a single multi spring externally mounted, reverse balanced seal specifically designed for agitator and vessels.

The 4206 seal design can be applied to all top entry agitator shafts, where the seal chamber is subjected only to gas or vapors. The dry running design eliminated the need for costly buffer fluid systems and prevents contamination of the product. The out side seal design permits easy installation and inspection whether mounted directly on the shaft or mounted as a cartridge.

The design specifically is engineered to accommodate the run-out condition, up to 0.5mm. large clearance between rotation shaft/sleeve and mating ring permits higher deflection of the shaft.

4206 ME Wet Running Seals are used with non pressurized barrier fluid preferably clean soft water because of its good heat transfer qualities fluids by considering the corrosion resistance of wetted parts and compatibility with media to be sealed.



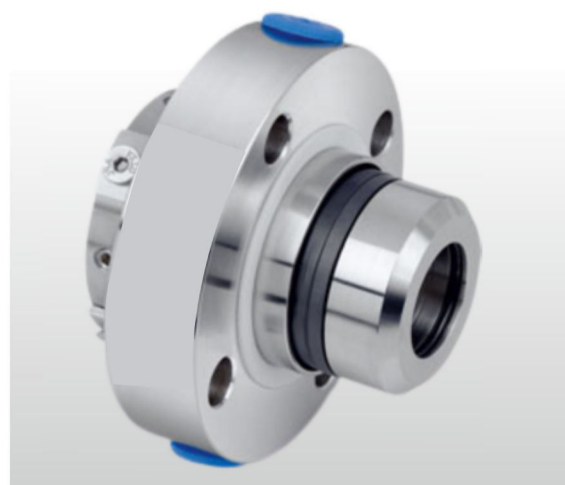


### Balanced Multi Springs Slurry Seal DOUBLE SEAL)

Independent Direction of Rotation (Cartridge)

Size	:	1" to 46"
Pressure	:	up to 25 kg/cm <sup>2</sup>
Temp	:	-40 to 200 C
Application	:	Petrochemicals, General Chemicals, Toxic Liquids, Hazardous Corrosive Liquids

M.O.C of Secondary Seal According to Fluid & Temp.  
Various Hard & Soft Faces As Per Liquid.



### SINGLE WITH BEARING

Independent Direction of Rotation (Cartridge)

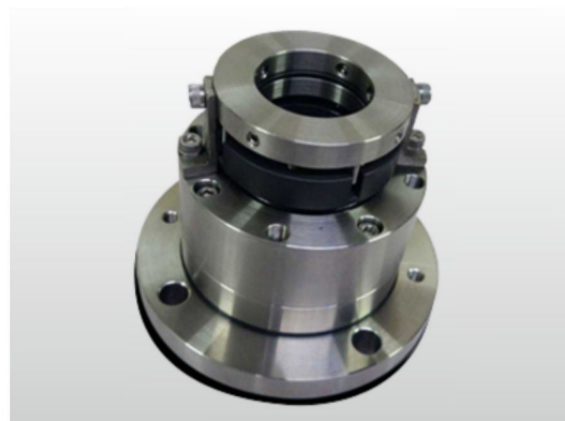
Size	:	0.5" to 12"
Pressure	:	up to 6 kg/cm <sup>2</sup>
Temp	:	-40 to 120 C
Speed	:	400 RPM To 1400 RPM
Application	:	Pharma & Chemicals



### CHOPPER SEAL / MAIN SHAFT FOR RMG

Independent Direction of Rotation (Cartridge)

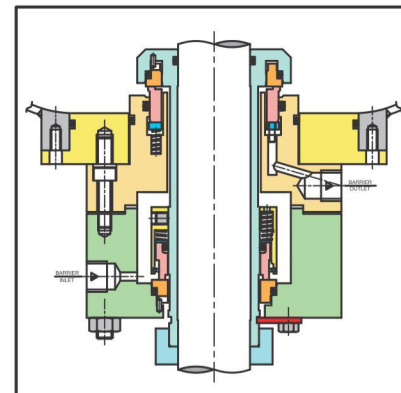
Size	:	0.34" to 8"
Pressure	:	up to 3 kg/cm <sup>2</sup>
Temp	:	20 to 120 C
Speed	:	400 RPM To 3000 RPM
Application	:	Pharma





# Double Mechanical Seal

FOR BOTTOM / SIDE ENTRY AGITATED VESSELS AND MIXERS  
DOUBLE ACTING, INDEPENDENT OF DIRECTION OF ROTATION



## Applications :

- Flooded Reactors
- Lump Breakers & Choppers
- Horizontal Reactors & Mixers
- Grinding Mills
- Agitated Filter Dryers
- PC Autoclaves
- Sand Mill

## Face Materials :

Carbon, Silicon Carbide, Tungsten Carbide, Ceramic

## Metals Parts :

Contact Parts \*\* : SS 316, SS 304  
Non Contact Parts : Carbon Steel

## Secondary Seals :

VITON, ERP, FEP, PTFE, GFT, FFKM

## Seal Characteristics :

- Double Acting Back to Back seals
- Cartridge Unit
- Independent of Direction of Rotation
- Operated with Pressurised Barrier Fluids

## Operating Limits :

Pressure p : Vacuum.....10 bar (max)  
Temperature t : Amb.....200°C (max)  
Shaft speed n : 600 rpm. (max)  
Barrier fluid pressure : Vessel pressure + 1.5 bar

## Seal Support System :-

### PERFORMA OF LIMITS

Capacity : 7.5 Liter

Hyd. Test Pressure : 30 kg

Working Pressure : 20 kg

Max. Working Temp. : 185° C

Heat Transfer -

Area Of Cooling Coil : 0.3 m<sup>2</sup>

Cooling Water Flow Rate- Recommended : 10 Liter/ min

Max. Level Value : 5.5 Ltrs.

Min. Level Value : 3.5 Ltrs.



## MATERIAL OF CONSTRUCTION

SEAL FACE	SECONDARY SEAL	SPRING AND HARDWARE
CARBON, RESIN IMPREGNATED.	VITON	
CARBON METAL IMPREGNATED.	NITRILE	
TUNGSTEN CARBIDE, CABAIL BONDED	EPDM	
TUNGSTEN CARBIDE, NICKEL BONDED	NEOPRENE	CHROMA NICKLE, MOLYBDENUM STEEL
SILICON CARBID REACTION BONDED	SILICON	HAST ALLOY 'B'
SILICON CARBID SINTERED	PTFF	HAST ALLOY 'C'
HIGH ALUMINA CERAMIC(99.5%Al <sub>2</sub> O <sub>3</sub> )	PTFFCOVERED VITON	MONAL METAL
SPECIAL CHROME CASTING	GLASS FILLED(GFT)	ALLOY 20
GLASS FILLED PTEF(GFT)	CARBON FILLED(CFT)	TITANIUM
CARBON FILLED PTFF(CET)		
CHROME OXIDE	PURE GRAPHITE	INCONEL
PHOSPHOR BRONZZ	KALRAZ	
STELLITE	FEP	NI-RESIST



# MAHI ENGINEERS

**ISO-9001-2015 Certified Co.**

Mfg. All type of Mechanical Seals

Address:-W/S-03, Rajban Road, Taruwala, Near Truck Union,  
Paonta Sahib, Distt. Sirmour (H.P) Pin : 173025

Workshop No.: 9594603396, 9816688211, 6230306830

**E-mail:** engineersmahi@gmail.com