



DUAL CARTRIDGE MIXER/AGITATOR SEALS

PATENTED

MGS® 2000™

HIGH RELIABILITY DUAL CARTRIDGE SEALS FOR MIXERS AND AGITATORS

Product Description

Dual cartridge seal MGS 2000 revolutionizes mixer seals with the integration of sturdy construction, high resistance to stress, durability, light weight, compactness, and ease of delivery and installation.

With advanced dual cartridge design and balanced construction for both pressure directions, MGS 2000 can accommodate shaft runout and prevent VOC emissions, providing high operational safety. As a dynamic fluid sealing instrument, MGS 2000 seal's capabilities of cooling through a pressurized flush liquid, self-circulating, and handling low-pressure, low-speed rotating equipment with large runout make it the best working partner to reaction kettles.

Specific Features

- Light and compact construction enables easy assembly and long-distance shipment, and quick and easy on-site installation with no professional assistance required.
- Advanced dual cartridge design features heavy duty transmission construction for maximum seal reliability.
- Pumping grooves on the seal sleeve provide cooling effect by circulating the cooling fluid to carry away seal-generated heat, improving sealing efficiency and stability.
- Tolerance for shaft runout up to ± 1.3 mm during operation, increasing operational reliability.

Operating Capabilities

Temperature	-20 ~ 230°C (-4 ~ 446 °F)
Pressure	Up to 284psig (20 kg/cm ² G)
Surface Speed	Up to 1968 fpm (10 m/s)

Recommended Piping Plans

Between Seals 52/53/54

※ Custom designs are available to combine various compatible plans.

Applications

- Suitable for rotating equipment with significant radial shaft movement (e.g. runout, whip or deflection), axial shaft movement (end play), and high vibration levels, such as large mixers and agitators.
- Ideal for rotating equipment that requires dual seals to contain VOC emissions.
- Widely used in the refining, petrochemical, food and beverage, pharmaceutical, electric power, chemical processing, and pulp and paper industries.



More Information for You

Specific Features

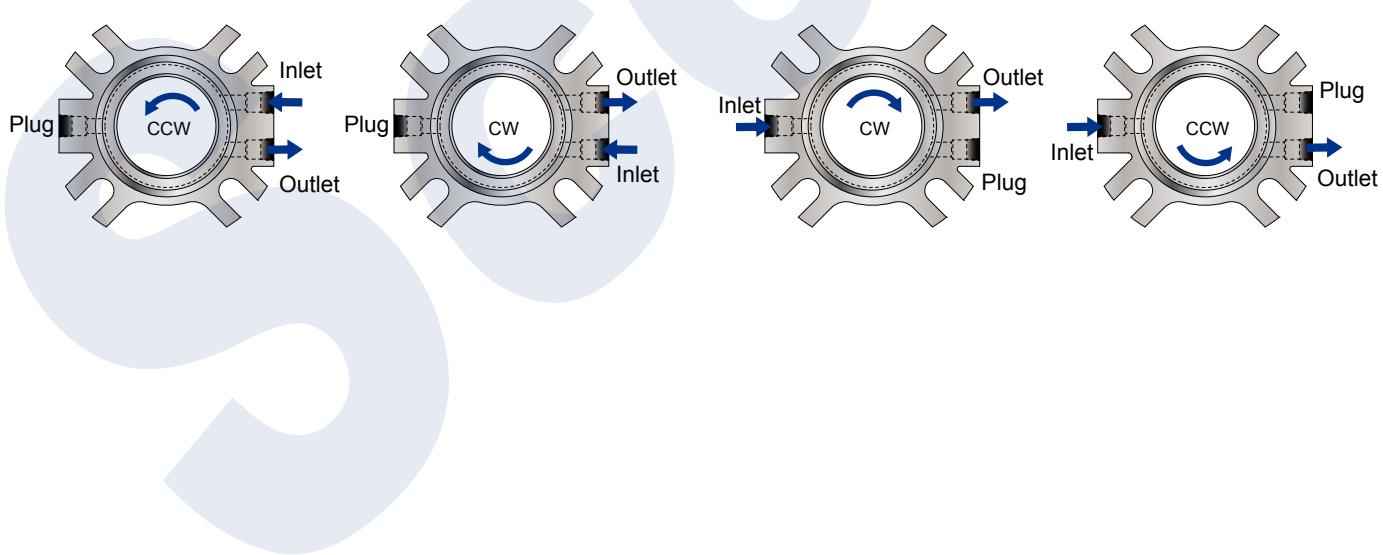
- Robust compression ring for pressure transmission extends sealing face life.
- With balanced construction for both pressure directions, this seal operates well with a barrier/buffer fluid pressurized or unpressurized, depending on the application; the pressurized mode is equivalent to API 682 piping plans 53/54 while the unpressurized mode equivalent to plan 52.
- Low emissions design effectively minimizes VOC emissions to comply with the environmental emission regulations.
- Monolithic sealing faces with precise dimensions, and excellent resistance to wear and distortion.

Material Selection

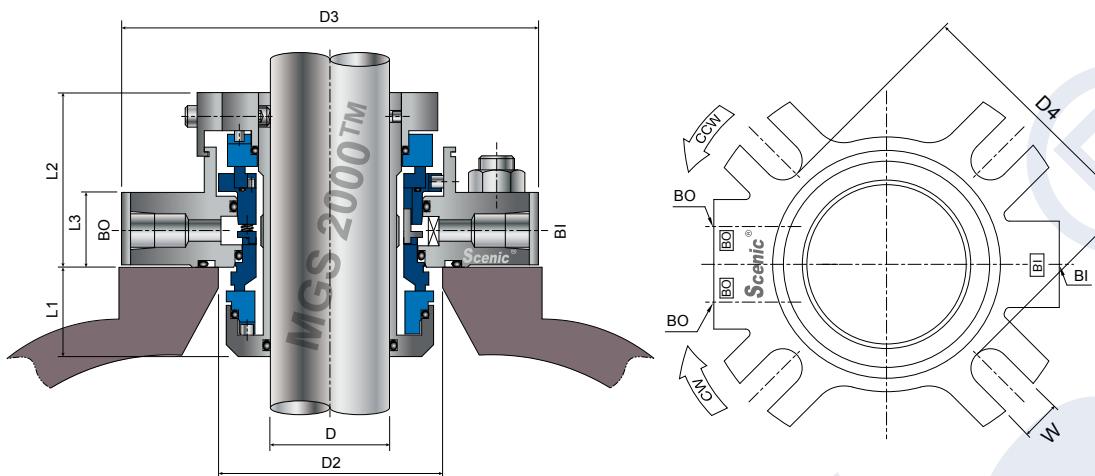
Seal Components	Standard Materials	Other Material Options
Stationary Ring	Carbon Graphite	Silicon Carbide Tungsten Carbide
Rotary Ring	Tungsten Carbide	Silicon Carbide
Metal Parts	316 Stainless Steel	304 Stainless Steel 316L Stainless Steel 316Ti Stainless Steel Duplex Stainless Alloy C-276 Titanium Monel®
Elastomeric O-rings	FKM	AFLAS NBR EPDM TV TS FFKM (Sceniraz™ / Chemraz® / Kalrez®)
Springs	316 Stainless Steel	Alloy C-276 Inconel®
Cooling Jacket (Optional)	316 Stainless Steel	304 Stainless Steel 316L Stainless Steel 316Ti Stainless Steel Duplex Stainless Alloy C-276 Titanium Monel®

Guide to Piping Installation

Note: Viewed from the drive end



Assembly Dimensions



※ Listed are frequently used sizes. For custom sizes, please contact Scenic for details.

MGS® 2000™ - Metric standard sizes in mm

Seal Code	Shaft D	D2		D3	L1	L2	L3	D4	W
		MIN.	MAX.						
MGS2000-0040	40	80.0	82.0	155.0	36.5	74.5	32.5	109.0	18.0
MGS2000-0045	45	87.0	87.0	165.0	36.5	74.5	32.5	114.0	18.0
MGS2000-0050	50	95.0	97.0	175.0	36.5	74.5	32.5	120.0	18.0
MGS2000-0055	55	100.0	100.0	180.0	36.5	74.5	32.5	129.0	18.0
MGS2000-0060	60	100.0	100.0	180.0	36.5	74.5	32.5	129.0	18.0
MGS2000-0065	65	118.0	118.0	195.0	36.5	74.5	32.5	142.0	18.0
MGS2000-0070	70	118.0	118.0	195.0	36.5	74.5	32.5	142.0	18.0
MGS2000-0075	75	125.0	127.0	210.0	37.5	74.5	32.5	155.0	18.0
MGS2000-0080	80	125.0	127.0	210.0	37.5	74.5	32.5	155.0	18.0
MGS2000-0085	85	140.0	140.0	225.0	37.5	74.5	32.5	168.0	20.0
MGS2000-0090	90	140.0	140.0	225.0	37.5	74.5	32.5	168.0	20.0
MGS2000-0095	95	152.0	152.0	240.0	44.5	81.5	34.0	182.0	20.0
MGS2000-0100	100	152.0	152.0	240.0	44.5	81.5	34.0	182.0	20.0
MGS2000-0105	105	160.0	160.0	250.0	44.5	81.5	34.0	194.0	22.0
MGS2000-0110	110	160.0	160.0	250.0	44.5	81.5	34.0	194.0	22.0
MGS2000-0115	115	176.0	176.0	260.0	42.0	80.0	36.0	201.0	22.0
MGS2000-0120	120	176.0	176.0	260.0	42.0	80.0	36.0	201.0	22.0
MGS2000-0125	125	185.0	185.0	290.0	42.0	81.0	36.0	215.0	22.0
MGS2000-0130	130	185.0	185.0	290.0	42.0	81.0	36.0	215.0	22.0
MGS2000-0135	135	205.0	205.0	320.0	50.0	137.0	40.0	235.0	24.0
MGS2000-0140	140	205.0	205.0	320.0	50.0	137.0	40.0	235.0	24.0
MGS2000-0145	145	220.0	220.0	330.0	50.0	140.0	41.5	250.0	24.0
MGS2000-0150	150	220.0	220.0	330.0	50.0	140.0	41.5	250.0	24.0
MGS2000-0160	160	225.0	225.0	340.0	54.5	141.5	41.5	260.0	24.0
MGS2000-0170	170	236.0	236.0	360.0	54.5	143.0	41.5	275.0	24.0
MGS2000-0180	180	246.0	246.0	370.0	54.5	145.0	41.5	285.0	24.0



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