



ChemSeal is a true Chemineer mixer seal designed for demanding top entry agitator applications.

Superior Performance

- Available in either single or double configurations, the ChemSeal provides outstanding seal performance and safety
- ChemSeal is designed specifically for agitator duties where shaft movements are larger, speeds are slower and conditions more variable than those encountered by pump seals
- Balanced seal design reduces seal face wear rate and increases the pressure capability by reducing the seal contact pressure as the process pressure fluctuates
- Dual sleeve to shaft o-rings with heavy cross sections make the seals more tolerant of shaft deflections inherent in agitator applications

Safe and Reliable Operation

- Double balanced seal design keeps seal faces closed during a pressure reversal caused by process upset or failure of barrier system, preventing seal failure, containing vessel contents, and improving operator and plant safety
- Permanently installed above the tank drop collar design securely holds the shaft during seal change and improves operator safety by eliminating “on the fly” installation of shaft support, prevents the shaft from falling into the vessel, and eliminates the need for vessel entry or overhead cranes to support the shaft

Simple Maintenance and Fast Replacement

- Industry leading swing-out seal change out procedure with drop collar is simple and can be completed in 30 to 60 minutes, providing increased process uptime
- True cartridge design allows for removal, inspection and replacement of worn seals quickly and easily
- Mixer seal design and heavy duty gearbox bearings eliminate need for a seal bearing and associated installation and maintenance costs
- Provision for jacking screws and setting clips storage is provided to aid in seal removal and future setting of the seal

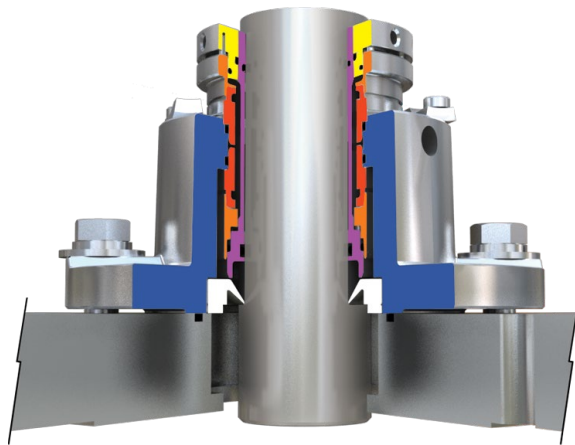
Application Versatility

- Bidirectional rotation enhances process and operational flexibility
- Designed for a wide range of agitator models to allow ChemSeal to be the common plant standard
- Throttle bushing option is available for clean flush below seal
- Debris well option available to eliminate process contamination

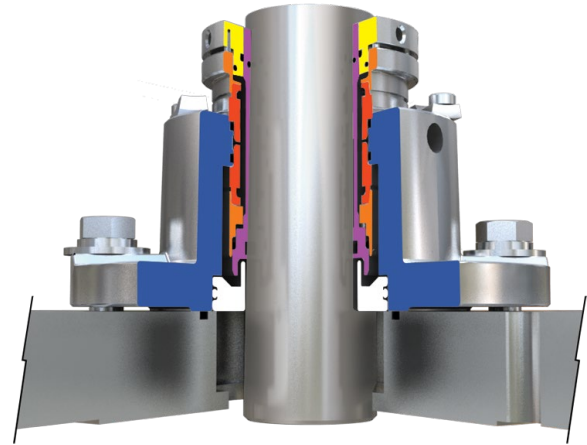
Troubleshooting and Replacement Parts Assistance

- Our service center is available 24 hours a day to diagnose and correct sealing problems
- Factory trained technicians available for in-plant help with installation, operation and maintenance questions
- Replacement parts are readily available to increase uptime and reduce customer inventory requirements

Chemineer ChemSeal Top Entering Mixer Seal



Throttle Bushing



Debris Well

Product Specifications

Sealing Configurations

- Dry running pressure balanced single seal
- Lubricated fully pressure balanced double seal
- Multi-spring rotary pusher seal typical of all seals

Material Selection

- Standard stocked materials
 - Carbon rotating head
 - Silicon carbide stationary seat
 - Viton® o-rings
 - 316SS metal parts
- Optional face combinations
 - Soft versus hard:
 - Carbon/tungsten carbide
 - Hard versus hard:
 - Tungsten carbide/tungsten carbide
 - Tungsten carbide/silicon carbide
 - Silicon carbide/silicon carbide
- Optional o-ring materials
 - Kalrez® (6375)
 - EPR, Aflas®
 - A variety of others
- Special metal materials available

Sealing Sizes and Ratings

- Available in 1.5", 2.0", 2.5", 3.0", 3.5", 4.0", 4.5" and 5.0" sizes
- Temperatures from -20°F (-28.9°C) to 356°F (180°C)
- Pressures from full vacuum to 300 psi (20.7 bar)
- Peripheral speeds to 4,000 ft/minute (20 m/sec)

Technical Data

- Angular misalignment: Up to 1/10th of a degree
- Mechanical face loading: 30 psig (2 bar) — factory set

Lubrication

- 0.25" NPT ports provided for lubrication
- Recommended API plans: Plan 53 and 54
- Supported API plans: Plan 51, 52, 53, 54 and 62
- Recirculating gas panels or dead end gas pressure for dry running single seals
- Barrier pressure to be set 30 to 60 psi (2 to 4 bar) above product pressure for ideal operation

