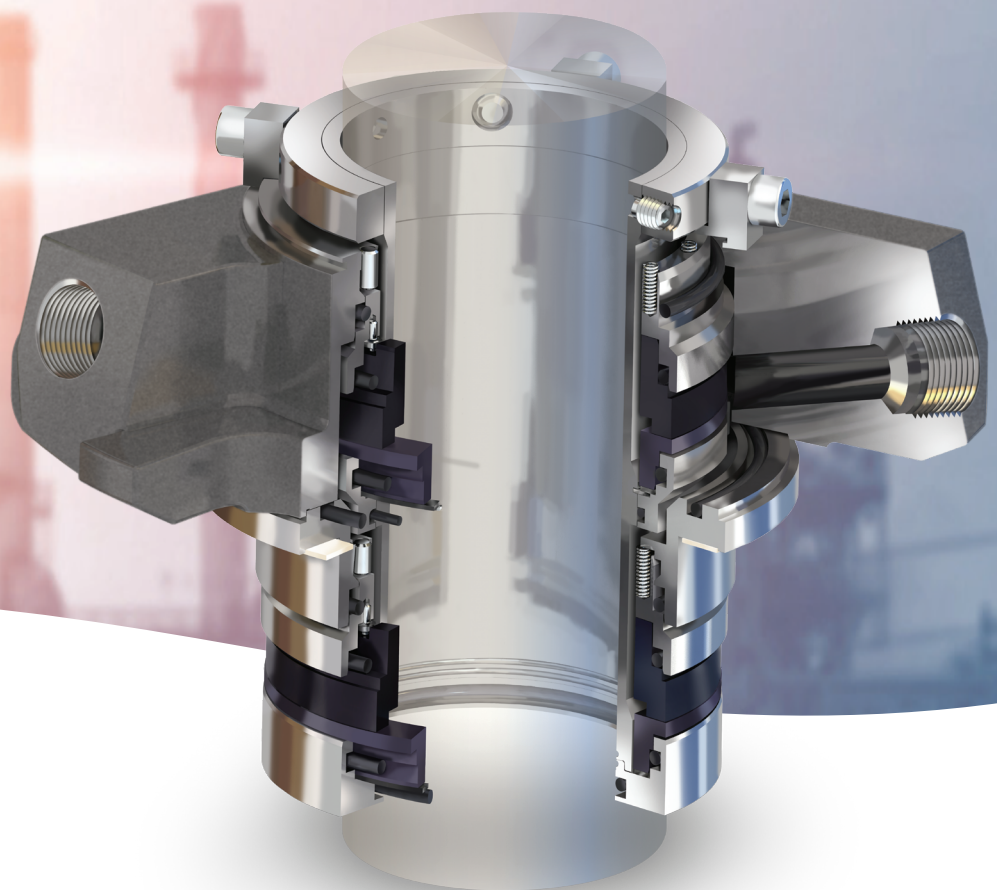




ISC2-MW Top-Entry Mixer Seal

Proven design provides cost-effective and reliable solution for chemical and pharmaceutical applications



Experience In Motion

A proven and cost-effective mixer seal design

The ISC2-MW mixer seal is a versatile top-entry, liquid-barrier mixer and agitator seal that cost-effectively handles difficult-to-seal chemical and pharmaceutical applications.

Product contamination, high vessel pressures, shaft run-out, spatial limitations, and a broad range of viscosity and emissions control are just a few of the potential issues that need to be met with a reliable mechanical seal. The ISC2-MW mixer seal is built upon Flowserve's proven ISC2 mechanical seal platform to provide the reliability and versatility to address all of these challenges.

Features and customer benefits

- **Enhanced reliability** due to robust internal clearances that allow for a shaft run-out capability of 1.14 mm (0.045 in.) TIR
- **Maintain a clean operating environment** for the mechanical seal while also eliminating fugitive emissions as a result of the liquid-barrier, dual-pressurized configuration.
- **Extended mean time between repair (MTBR)** as a result of exclusive thermal management technology, which dramatically improves heat transfer between the silicon carbide rotating seal face and the sleeve in order to lower seal face operating temperatures
- **Product side seal** has reverse-pressure capability.
- **Ensure the seal faces stay cool** at extremely low shaft speeds with an integral volute groove, which significantly increases barrier fluid flow within the seal.
- **Maximized seal face integrity** as a result of square-head drive pins, which self-align with the seal faces to distribute torque loads evenly
- **Versatility** to handle a broad range of applications for both glass-lined and steel vessels





Materials of construction

| | |
|----------------------|---|
| Metal parts | 316 stainless steel, alloy C-276, alloy 20, titanium |
| Seal faces | Premium resin carbon vs. sintered silicon carbide Sintered silicon carbide vs. sintered silicon carbide Premium resin carbide vs. tungsten carbide Tungsten carbide vs. sintered silicon carbide |
| Metal bellows | Alloy C-276 |
| Elastomers | Fluoroelastomer Perfluoroelastomer Ethylene propylene diene monomer (EPDM) Tetrafluoroethylene propylene (TFE propylene) |
| Springs | Alloy C-276 |
| Set screws | 17-4 H900 stainless steel |

Operating parameters

| | |
|----------------------------|--|
| Vessel pressure | Vacuum to 300 psig (20.7 bar) |
| Product temperature | -40°C to 240°C (-40°F to 400°F) |
| Shaft speed | Up to 175 rpm |
| Size range | 25 to 203 mm (1.000 to 8.000 in.) |
| Run-out capability | Up to 1.14 mm (0.045 in.) TIR on shaft sizes up to 89 mm (3.500 in.) and 1.52 mm (0.060 in.) TIR on shaft sizes greater than 89 mm (3.500 in.) |

Configurations

- Internal cooling option for higher temperatures available
- Cooling flange for higher temperatures up to 300°C (572°F) available
- Available with or without bearing
- DIN compatibility available



Improve uptime and extend equipment life with predictive maintenance



Predictive maintenance is one of the best ways to improve the reliability of mixer and agitator seals. With RedRaven, you'll be able to monitor ISC2-MW mixer seal temperatures, pressures and flow rates. The end-to-end internet of things (IoT) solution enables plant operators and technicians to understand what's happening inside flow control equipment. This means corrective actions can be taken sooner, often preventing unplanned shutdowns.

By proactively addressing equipment issues, uptime can be improved, maintenance costs can be reduced, and — most importantly, safety and reliability will increase.

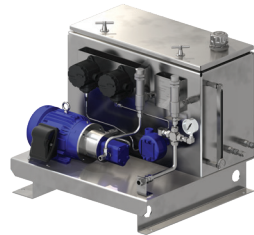
Discover more at Flowserve.com/RedRaven

Reservoirs and circulators to match your requirements



NR Series reservoirs

NR Series reservoirs are ideally suited for unpressurized or pressurized seal configurations. Available in many pre-engineered configurations or customizable to your requirements, these reservoirs are easy to install and maintain with water or other barrier/buffer fluids.



N54 circulators

N54 barrier fluid circulators are designed to provide pressurized clean barrier fluid at a controlled flow rate, pressure and temperature. Flowserve offers a complete line of standard circulators for a wide range of applications using water or other barrier fluids.

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