

Cryogenic Mechanical Seal (for Ultra-Low Temperature & LNG Service)

TYPE : CS790

Face Materials :

- Carbon / Silicon Carbide / Tungsten Carbide

Secondary Seals :

- PTFE / PCTFE / Spring-Energised PTFE / Flexible Graphite

Hardware :

- SS 304L / SS 316L / SS 316LN / Inconel 718 / Inconel 625 / Nitronic 50 / Monel K500

Operating Limits :

Size : 20.0 mm to 120.0 mm (0.750" to 4.750")

Speed : Up to 15,000 rpm

Pressure : Up to 12 bars (174 psi), higher on request

Temperature : -196 °C to +100 °C (-321 °F +212 °F)

Application :

- LNG Terminals & Regasification Plants
- LNG Ship Loading & Unloading Systems
- Air Separation Units (Liquid Nitrogen & Argon)
- Industrial Gas Plants
- Cryogenic Centrifugal Pumps
- Submerged Motor Pumps
- Cryogenic Transfer Pumps
- Petrochemical Refrigeration Circuits
- Liquid Ethylene, Methane & Propane Service
- Aerospace & Cryogenic Test Stands
- Research, Medical & Semiconductor Equipment



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Features :

- **Hydraulically Balanced Design** reduces closing force and frictional heat at high differential pressure.
- **Precision-Lapped Seal Faces** for controlled, low leakage in low-viscosity liquefied gas service.
- **Low Thermal-Distortion Face Geometry** for stable sealing through cooldown and warm-up cycles.
- **Cryogenic-Compatible Secondary Seals** that remain flexible at ultra-low temperature.
- **Outboard-Isolated Spring Assembly** keeps the springs in a warmer zone, avoiding embrittlement and icing.
- **Cartridge Construction** factory pre-assembled and pre-set for concentric, repeatable installation.
- **Independent of Direction of Rotation**, suitable for vertical and horizontal cryogenic pumps.
- **Factory Tested up to 15,000 rpm** at 12 bars, with 40 to 50 minute test runs.

➤ **DIMENSIONS FOR HIGHER SIZES AVAILABLE ON REQUEST**