

ALTUS-SEAL



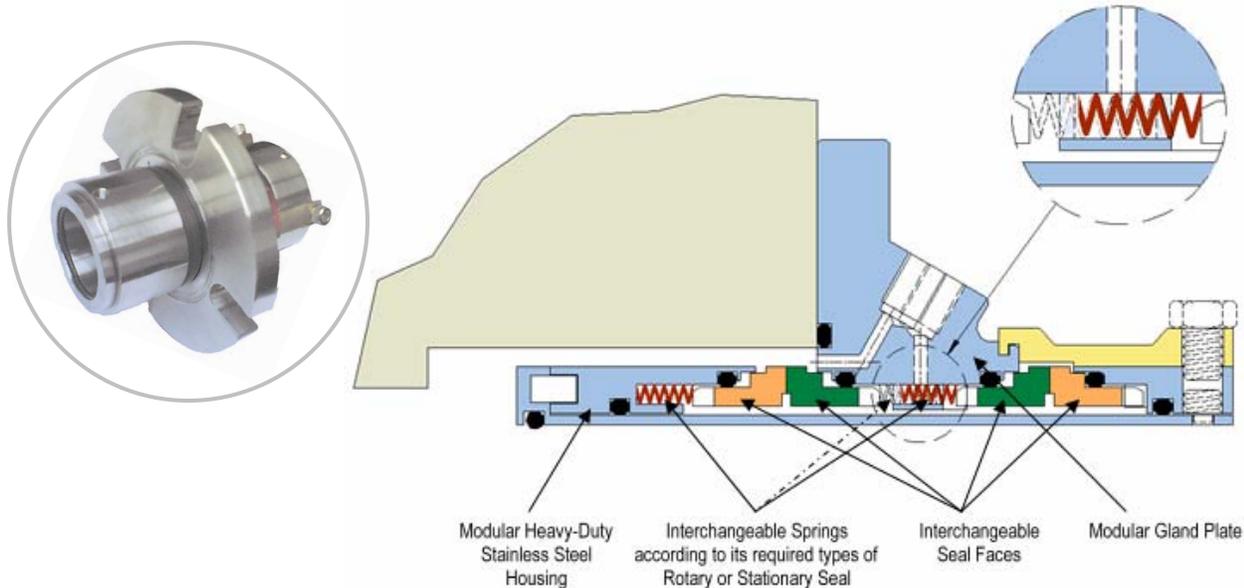
Modular Cartridge Seal Range

(For Pumps, Mixers, Agitators & Reactors)



ALTUS-SEAL MODULAR CARTRIDGE DESIGN

Introducing the World's first and foremost TRUE-MODULAR Seal Design. The all-around cartridge seals specially designed for corrosive, abrasive, viscous and dangerous applications in chemical and petrochemical industries, water distribution and sewage, food processing industry, sugar, boiler plants, paper mills and bio-engineering industries now offers substantial savings and flexibility.



SPECIAL FEATURES

MODULAR SEAL FACE:

1. Seal face fits all, fitted as stationary or rotary and for in-board or out-board seal face.
2. Solid seal face is capable for arduous conditions and rugged applications and can also handle higher temperature than seal face inserted to stainless steel housing.
3. Loosely inserted solid seal face is easy to repair, easy to replace, no re-heating processes and no tight tolerances to follow.

MODULAR HIGH PRESSURE DOUBLE BALANCED SEAL FACES:

1. Seal faces are capable of handling 25 bars on both sides. Ex: Product Pressure 25 bars/Barrier Fluid 0 bar OR Product Pressure 0 bar/Barrier Fluid 25 bars.

MODULAR SEAL HOUSING:

1. Heavy duty solid stainless steel housing, thick and no small or thin parts that would easily break.

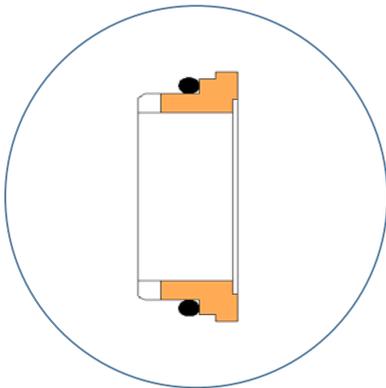
MODULAR ROTARY OR STATIONARY SEAL:

1. As a component seal the design will be used as a rotary seal or stationary seal which the spring is not in contact with the products.
2. As a cartridge seal, it can be used as a stationary seal or rotary seal. You just only place springs in the rotary for rotary seal type or place the spring on the gland plate for stationary seal type OR place spring on both sides for seal flexibility handling above normal vibration condition and shaft deflection.

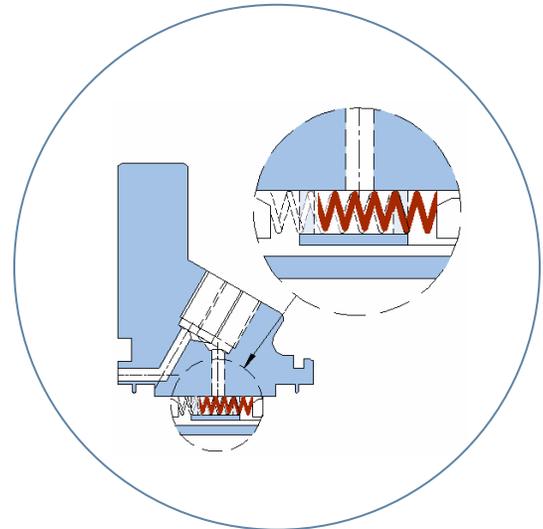
MODULAR GLAND PLATE:

Gland Plate fits all ALTUS-SEAL standard cartridge seal in multiple spring and metal bellows design, single seal and double seal, in multiple spring and metal bellows types.

OPERATING PARAMETERS/WORKING CONDITIONS		MATERIALS OF CONSTRUCTION	
Max. Pressure	20 bars/300 PSI	Seal Faces	Ant. Carbon, Carbon Graphite, Hardened Stainless Steel, Silicon Carbide & Tungsten Carbide
Max. Temperature	-75°C/-100°F to 425°C/800°F	Secondary Seal	EPR, Viton, Teflon-coated Rubber, Aflas & Kalrez
Max. Speed	3600 RPM	Metallurgy	SS316, Hastelloy C276, Titanium

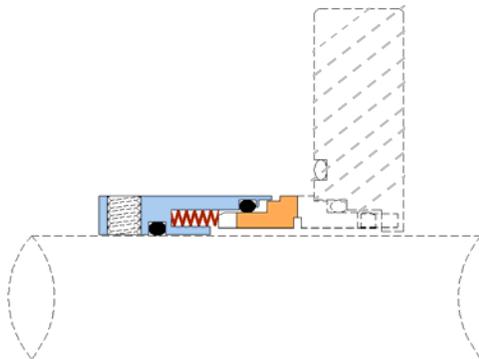


Modular Seal Face

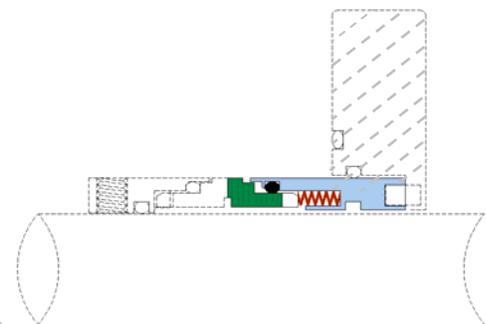
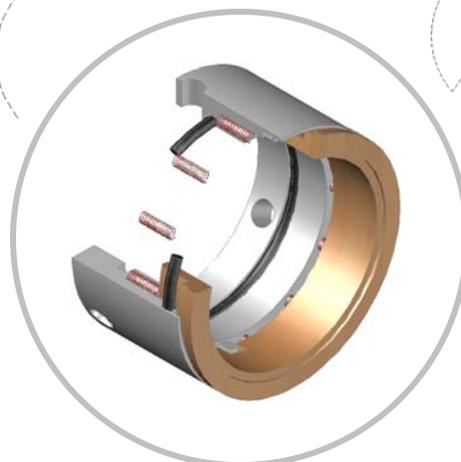


Modular Gland Plate

MODULAR COMPONENT SEAL

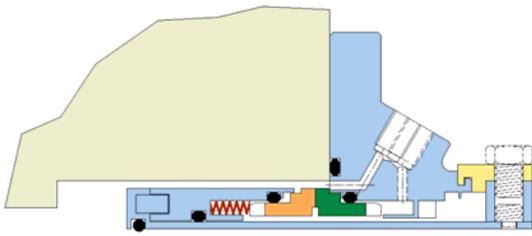


Type R2200
(Rotary Type Component Seal)

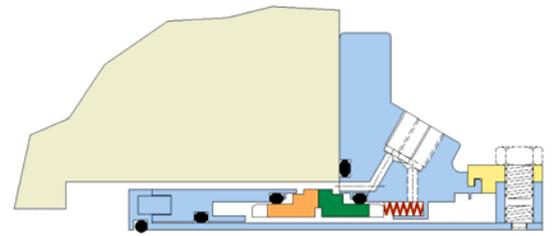


Type S2200
(Stationary Type Component Seal)

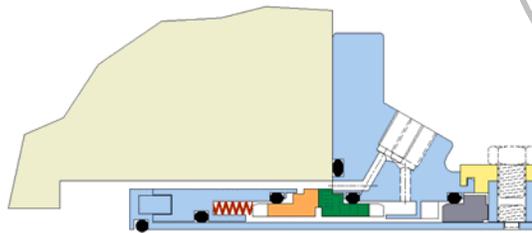
CARTRIDGE SINGLE SEAL



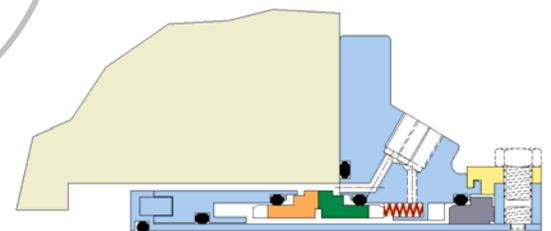
Type CRS2200-F
(Cartridge Rotary Type Single Seal
with Flush Port)



Type CSS2200-F
(Cartridge Stationary Type Single Seal
with Flush Port)

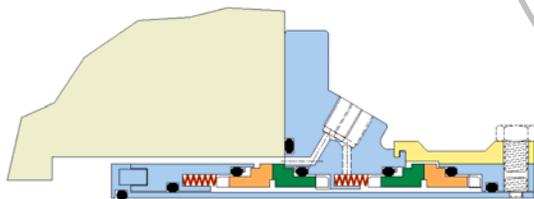


Type CRS2200-R/FQD
(Cartridge Rotary Type Single Seal
With Restricted Bushing, Flush,
Quench & Drain Ports)

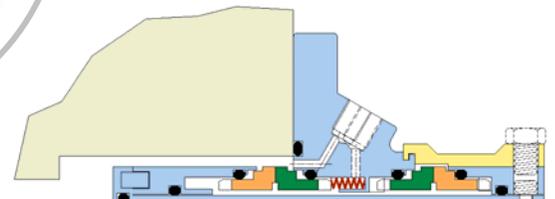


Type CSS2200-R/FQD
(Cartridge Stationary Type Single Seal
With Restricted Bushing, Flush,
Quench & Drain Ports)

CARTRIDGE DOUBLE SEAL



Type CRD 2200/FQD
(Cartridge Rotary Type Double Seal
With Flush, Quench & Drain Ports)



Type CSD 2200/FQD
(Cartridge Stationary Type Double Seal
With Flush, Quench & Drain Ports)

CLEAR REASONS TO EMPLOY MODULAR DESIGN

Design Advantage (Modularity) - Simple and easy to install. Featuring common gland, seal faces and other parts which is interchangeable to all designs of Cartridges making assembly quick and fail-safe. Modification of materials such as seal faces, metallurgy and elastomers is easy. Variations in design from single rotary or stationary seals to double seals can easily be achieved by re-arranging seal parts. Seal faces can be fitted as rotary or stationary, inboard or outboard.

95% Industry Sealing Applications - Suitable for many applications in chemical and petrochemical industries, water distribution and sewage, food processing industry, sugar, boiler plants, paper mills and bio-engineering industries.

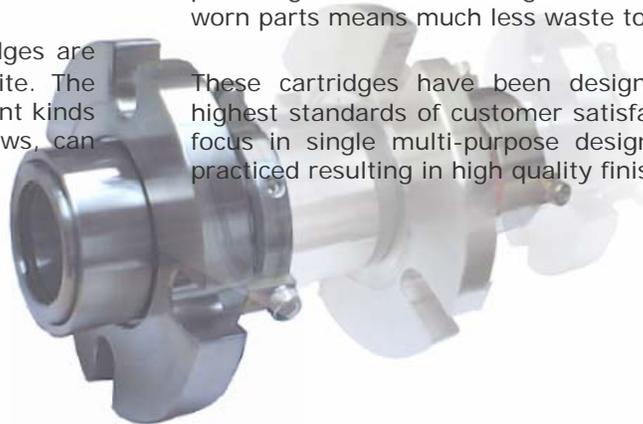
User Re-buildable - Altus-Seal modular cartridges are user re-buildable. They can be repaired on site. The spares kit which includes the seal faces, different kinds of elastomer o-ring, springs, gasket, and screws, can be mounted rapidly.

Quick and Fail-Safe Installation - During the installation of the seal, the module containing the sleeve, drive ring and setting clips is fixed in all directions. This layout provides easy fitting on any types of equipment, in particular when dealing with the latest pumps with compact housings and wide section fasteners. The faces are prevented from being distorted when seal is installed.

Fast Deliveries - Another notable benefit of this modular design is quick deliveries as a result of systematic production process allowing customers to minimize inventories.

Cost-Effective - With modular cartridge design, our customers experienced the lowest cost of repair kits providing 70% more savings. The drastically reduced worn parts means much less waste to deal with.

These cartridges have been designed to reach the highest standards of customer satisfaction. Due to the focus in single multi-purpose design, optimization is practiced resulting in high quality finished products.



OTHER ALTUS CARTRIDGE SEALS



ALTUS also offers cartridge mechanical seals for API applications. The APIC-610/682 seal range was also designed and developed using ALTUS Modular Technology. Through this technique, we minimized production cost, delivery time leads to the most competitive pricing in mechanical seal industry.

For more information or to download other brochures, e-mail us at inquiries@altus-seal.com or log on to www.altus-seal.com.

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