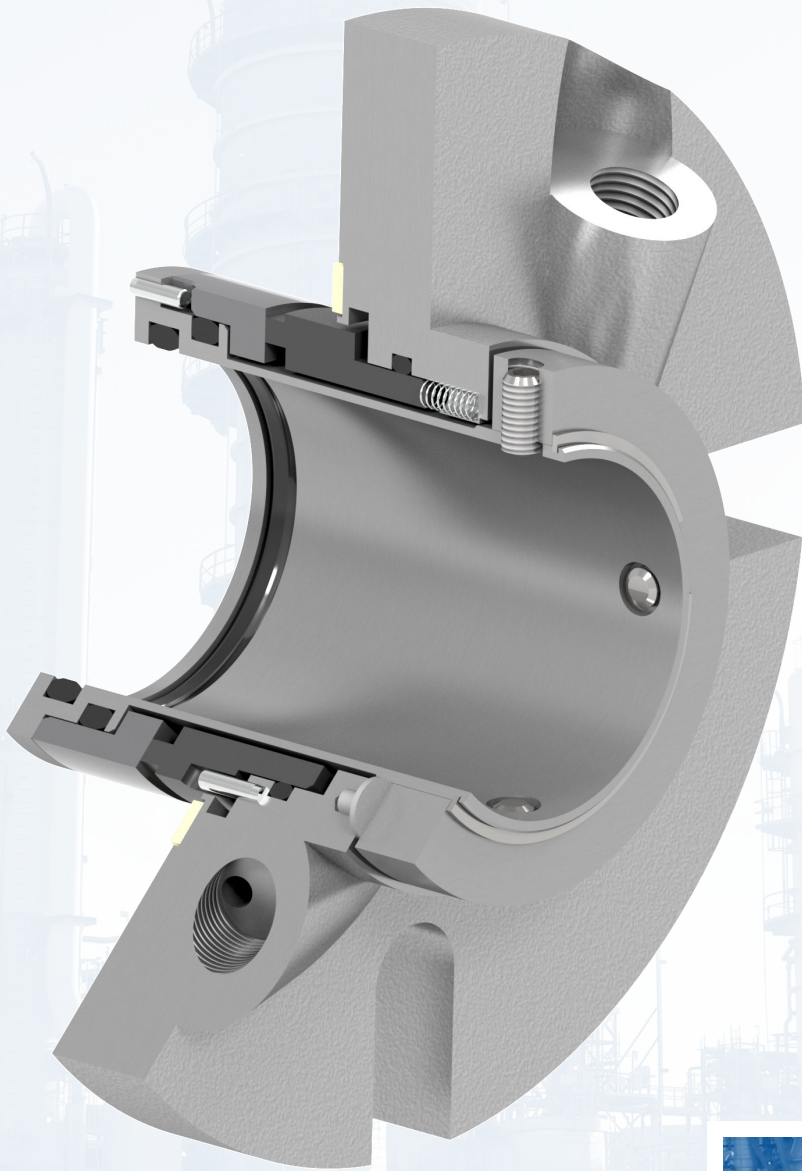




1500E Cartridge Seal

General purpose single pusher seal



CREATING SEALING SOLUTIONS THROUGH INNOVATIVE ENGINEERING
MADE IN THE USA

DESCRIPTION

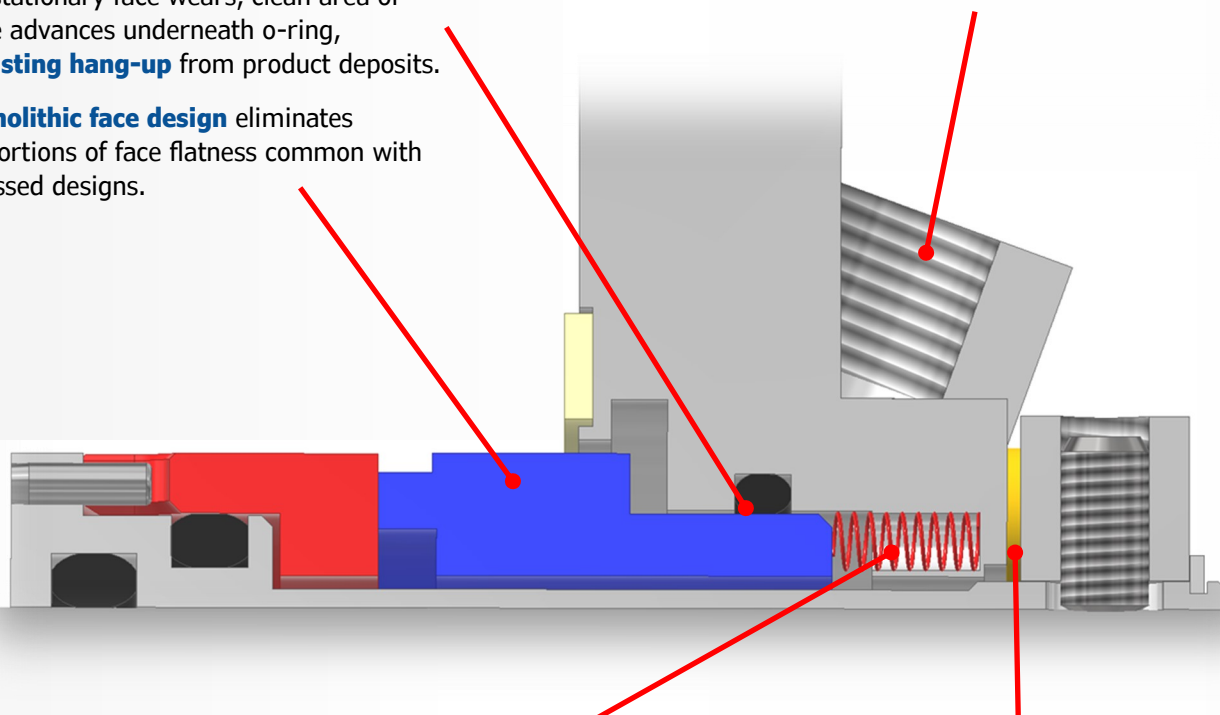
1500E Single Seal

The 1500E single cartridge seal is an economical, yet robust, general purpose seal for use in all industries: chemical, petrochemical, power, steel, mining, water, pharma, and food. The seal's setting buttons are one of the main features that benefit customers the most. There is no hassle of removing the old style setting spacers prior to start-up or trying to re-install when moving the pump's impeller.

A second major advantage, monolithic (non-pressed) face designs with cross-sections greater than the industry average, prevent distortions and excessive leakage, even at the seal's operating limits (pressure, temperature and speed). The 1500E is designed and available in sizes to fit most popular general-duty process pumps including ANSI standard and plus (1500E+) seal chambers.

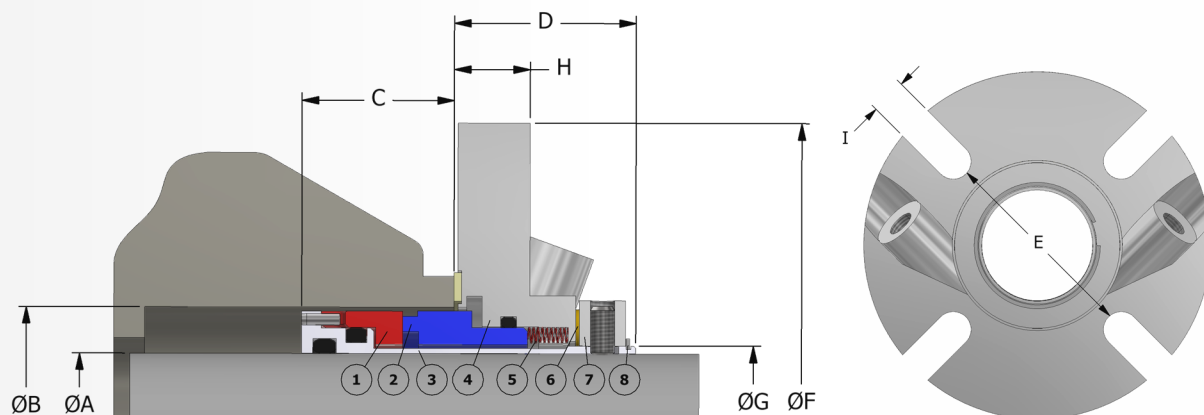
FEATURES

- Dynamic o-ring does not slide against metal gland, preventing fretting damage.
- As stationary face wears, clean area of face advances underneath o-ring, **resisting hang-up** from product deposits.
- **Monolithic face design** eliminates distortions of face flatness common with pressed designs.
- **Standard tangential flushing** provides an optimized flow path for enhanced cooling and cleaning of the seal faces.
- **Stationary coil springs located outside the product.** Coil springs accommodate equipment axial movement while stationary spring design resists centrifugal forces and self-aligns the seal faces to account for angular misalignment of the equipment.
- **Unique centering buttons** make seal installation easy, removing the additional step of setting clip removal. They also serve as an indicator for excessive axial movement.
- **Cartridge assembly is preset**, eliminating installation error. Cartridge design also prevents the fretting of any pump parts.



SEAL DIMENSIONAL DATA

1500E Single Seal



Item	Description
1	Rotary Face
2	Stationary Face
3	Sleeve
4	Gland
5	Springs
6	Setting Buttons
7	Collar
8	Retaining Ring

1500E DIMENSIONS FOR STANDARD BORE SEAL CHAMBER

A SEAL SIZE	B (MIN)	B (MAX)	C	D	E	F	G	H	I
1.000	1.625	2.010	1.21	1.49	2.31	4.11	1.125	0.98	0.44
1.125	1.750	2.040	1.21	1.49	2.44	4.24	1.250	0.98	0.44
1.250	1.875	2.270	1.21	1.49	2.69	4.36	1.375	0.98	0.56
1.375	2.000	2.430	1.21	1.49	2.75	4.36	1.500	0.98	0.44
1.500	2.250	2.630	1.21	1.49	2.94	4.99	1.625	0.98	0.56
1.625	2.375	2.690	1.21	1.49	3.06	4.99	1.750	0.98	0.56
1.750	2.500	2.810	1.21	1.49	3.19	5.48	1.875	0.98	0.56
1.875	2.625	2.940	1.21	1.49	3.31	5.49	2.000	0.98	0.56
2.000	2.750	3.190	1.21	1.49	3.44	5.49	2.125	0.98	0.56
2.125	2.875	3.440	1.21	1.49	3.81	5.99	2.250	0.98	0.69
2.250	3.000	3.560	1.21	1.49	3.94	6.24	2.375	0.98	0.69
2.375	3.125	3.590	1.21	1.49	4.06	6.24	2.500	0.98	0.69
2.500	3.250	3.810	1.21	1.49	4.19	6.48	2.625	0.98	0.69
2.625	3.375	4.070	1.21	1.49	4.75	7.62	2.750	0.98	0.69
2.750	3.750	4.190	1.36	1.80	4.88	7.74	3.000	1.20	0.69
3.000	4.000	4.440	1.36	1.80	5.06	8.00	3.250	1.20	0.69
3.125	4.125	4.565	1.36	1.80	5.25	8.12	3.375	1.20	0.69
3.250	4.250	4.690	1.36	1.80	5.38	8.25	3.500	1.20	0.69
3.375	4.375	4.815	1.36	1.80	5.50	8.38	3.625	1.20	0.81
3.500	4.500	4.940	1.36	1.80	5.62	8.50	3.750	1.20	0.81
3.625	4.625	5.065	1.36	1.80	5.75	8.62	3.875	1.20	0.81
3.750	4.750	5.190	1.36	1.80	5.88	8.75	4.000	1.20	0.81
4.750	5.750	6.190	1.36	1.80	6.81	9.75	5.000	1.20	0.81

1500E+ DIMENSIONS FOR BIG BORE SEAL CHAMBER

A SEAL SIZE	B (MIN)	B (MAX)	C	D	E	F	G	H	I
1.125+	2.500	2.906	1.21	1.49	3.31	4.62	1.250	0.98	0.44
1.375+	2.781	3.219	1.21	1.49	3.53	5.31	1.500	0.98	0.44
1.750+	3.469	4.188	1.21	1.49	4.50	6.31	1.875	0.98	0.56
1.875+	3.406	4.062	1.21	1.49	4.41	6.25	2.000	0.98	0.56
2.125+	3.437	4.375	1.21	1.49	4.81	7.12	2.250	0.98	0.69
2.500+	4.156	5.187	1.21	1.49	5.44	7.88	2.625	0.98	0.69
2.625+	4.156	4.812	1.21	1.49	5.44	7.50	2.750	0.98	0.56

Note: For complete dimensional data, request a copy of typical drawing T-3791 from a PPC Mechanical Seals representative.

MATERIALS OF CONSTRUCTION

1500E Single Seal

Metallurgy: 316 SS, Alloy 20
Other materials available, including Duplex SS, Alloy C-276 & Titanium

Seal Face Combinations:

Stationary		Rotary
Carbon (Resin-filled)	vs.	Sintered Silicon Carbide
Carbon (Resin-filled)	vs.	Tungsten Carbide
Tungsten Carbide	vs.	Tungsten Carbide
Tungsten Carbide	vs.	Sintered Silicon Carbide
Sintered Silicon Carbide	vs.	Sintered Silicon Carbide

Other materials available upon request

Elastomers: Fluoroelastomer (FKM), EPDM, AFLAS®, Perfluoroelastomer (FFKM)
Other materials available upon request

Gland Gasket: GYLON® (Filled PTFE)

Springs: Alloy C-276

AFLAS® is a registered trademark of Asahi Glass Co., Ltd.
GYLON® is a registered trademark of Garlock Sealing Technologies LLC

OPERATING CONDITIONS

Seal Chamber Pressure: Up to 300 psig (20 bar g)
Dependent on size, speed, and sealed fluid properties

Process Temperature: -40 to 400 °F (-40 to 204 °C)
Dependent on application and elastomer material

Surface Speed: Up to 4500 fpm (23 m/s)

APPLICATIONS

- Chemical Processing
- Pulp and Paper
- Power
- Petrochemicals
- Corn and Grains
- Water/Wastewater Treatment
- Pharmaceutical
- Mining
- Biofuels
- Steel
- Food



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