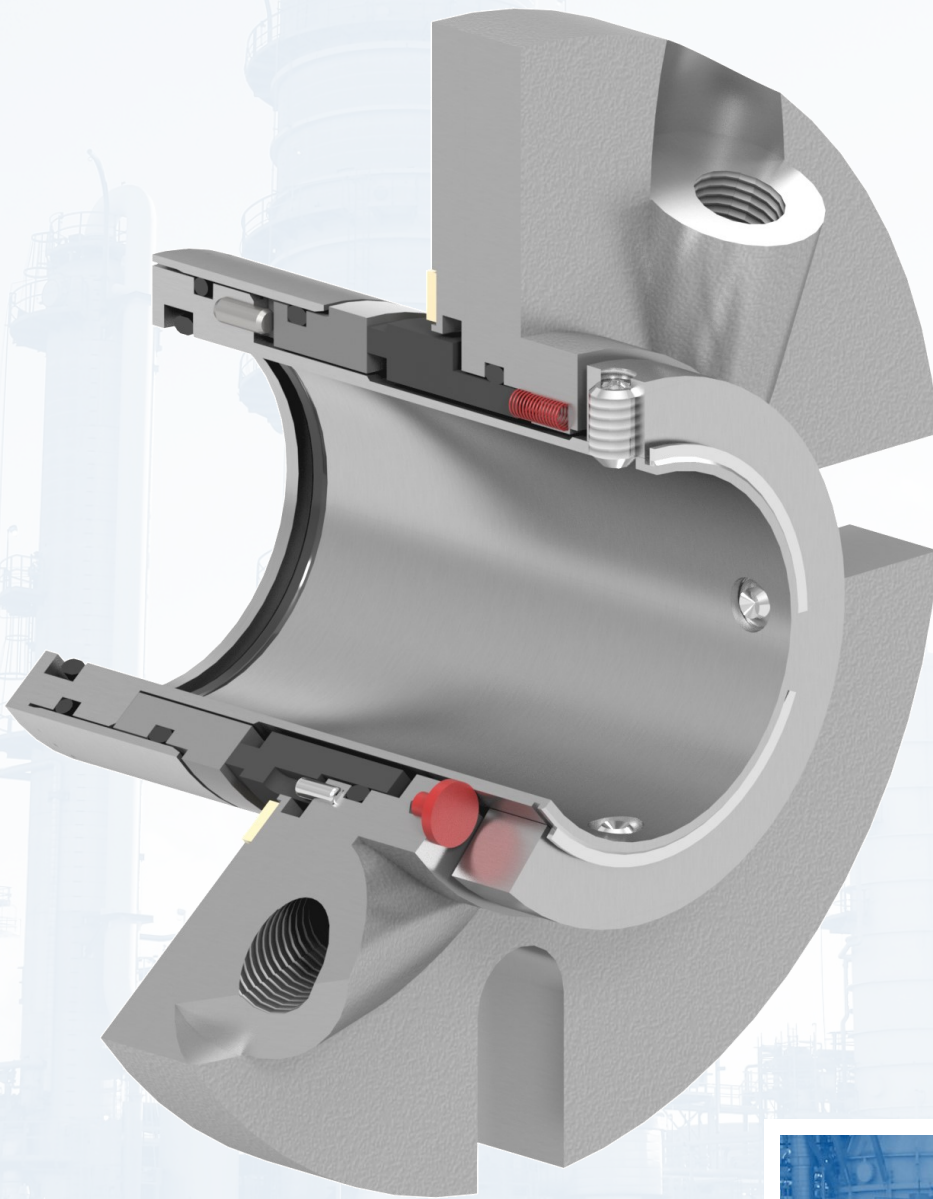




1500EHD Cartridge Seal

Heavy duty single pusher seal



CREATING SEALING SOLUTIONS THROUGH INNOVATIVE ENGINEERING
MADE IN THE USA

DESCRIPTION

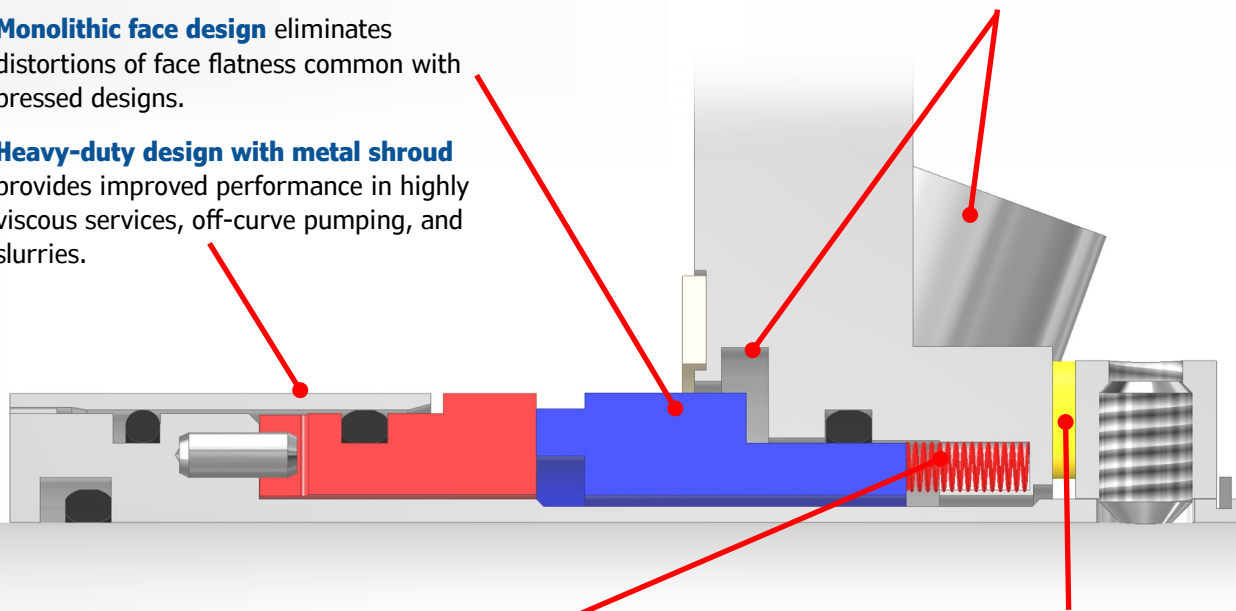
1500EHD Single Seal

The 1500EHD heavy-duty single cartridge seal takes the proven 1500E design and implements several improvements for increased performance in harsh services. A metal shroud surrounds the rotary face for additional protection and reduces thermal-caused stresses in the rotating assembly. The rotary face cross-section is increased throughout, improving resistance to cracking and reducing pressure and temperature caused face distortion.

As with the 1500E, hassle-free setting buttons and monolithic (non-pressed) seal face designs are provided for easy and reliable operation. The 1500EHD is similarly for use in all industries: chemical, petrochemical, power, steel, mining, water, pharma, and food. The seal is designed and available in sizes to fit most popular general-duty process pumps including ANSI standard and plus (1500EHD+) seal chambers.

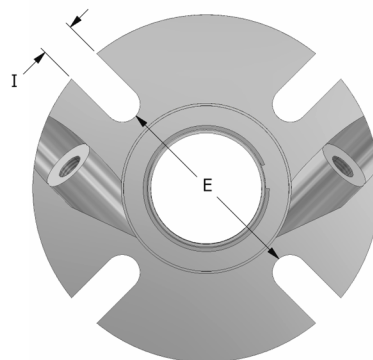
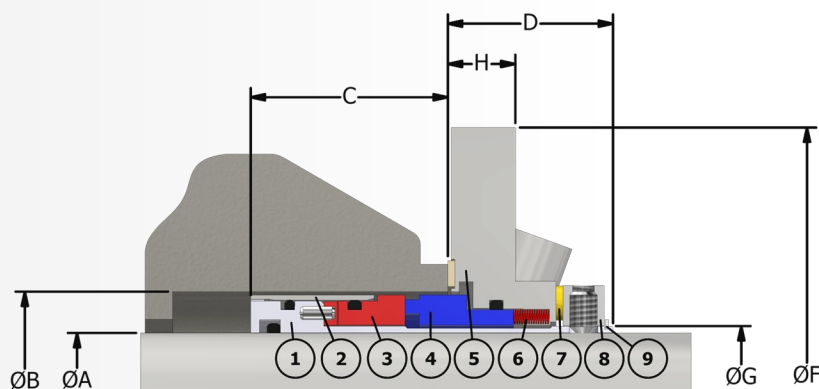
FEATURES

- 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.
- **Heavy-duty design with metal shroud** provides improved performance in highly viscous services, off-curve pumping, and slurries.
- **Cartridge assembly is preset**, eliminating installation error. Cartridge design also prevents the fretting of any pump parts.
- **Standard tangential flush** with annulus provides an optimized flow path for enhanced cooling and cleaning of the seal faces.
- **Stationary spring design** with the springs outside the product accommodates axial movement, 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.



SEAL DIMENSIONAL DATA

1500EHD Single Seal



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

1500EHD 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	1.79	1.50	2.31	4.11	1.125	0.98	0.44
1.125	1.750	2.040	1.79	1.50	2.44	4.24	1.250	0.98	0.44
1.250	2.000	2.270	1.79	1.50	2.69	4.36	1.375	0.98	0.56
1.375	2.000	2.430	1.79	1.50	2.75	4.36	1.500	0.98	0.44
1.500	2.250	2.630	1.79	1.50	2.94	4.99	1.625	0.98	0.56
1.625	2.375	2.690	1.79	1.50	3.06	4.99	1.750	0.98	0.56
1.750	2.500	2.810	1.79	1.50	3.19	5.48	1.875	0.98	0.56
1.875	2.625	2.940	1.79	1.50	3.31	5.49	2.000	0.98	0.56
2.000	2.750	3.190	1.79	1.50	3.44	5.49	2.125	0.98	0.56
2.125	2.875	3.440	1.79	1.50	3.81	5.99	2.250	0.98	0.69
2.250	3.000	3.560	1.79	1.50	3.94	6.24	2.375	0.98	0.69
2.375	3.125	3.590	1.79	1.50	4.06	6.24	2.500	0.98	0.69
2.500	3.250	3.810	1.79	1.50	4.19	6.48	2.625	0.98	0.69
2.625	3.375	4.070	1.79	1.50	4.75	7.62	2.750	0.98	0.69
2.750	3.750	4.190	2.14	1.80	4.88	7.74	3.000	1.20	0.69
3.000	4.000	4.440	2.14	1.80	5.06	8.00	3.250	1.20	0.69
3.125	4.125	4.565	2.14	1.80	5.25	8.12	3.375	1.20	0.69
3.250	4.250	4.690	2.14	1.80	5.38	8.25	3.500	1.20	0.69
3.375	4.375	4.815	2.14	1.80	5.50	8.38	3.625	1.20	0.81
3.500	4.500	4.940	2.14	1.80	5.62	8.50	3.750	1.20	0.81
3.625	4.625	5.065	2.14	1.80	5.75	8.62	3.875	1.20	0.81
3.750	4.750	5.190	2.14	1.80	5.88	8.75	4.000	1.20	0.81
4.750	5.750	6.190	2.14	1.80	6.81	9.75	5.000	1.20	0.81

1500EHD+ 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	1.79	1.50	3.31	4.62	1.250	0.98	0.44
1.375+	2.781	3.219	1.79	1.50	3.53	5.31	1.500	0.98	0.44
1.750+	3.469	4.188	1.79	1.50	4.50	6.31	1.875	0.98	0.56
1.875+	3.406	4.062	1.79	1.50	4.41	6.25	2.000	0.98	0.56
2.125+	3.437	4.375	1.79	1.50	4.81	7.12	2.250	0.98	0.69
2.500+	4.156	5.187	1.79	1.50	5.44	7.88	2.625	0.98	0.69
2.625+	4.156	4.812	1.79	1.50	5.44	7.50	2.750	0.98	0.56

Note: For complete dimensional data, request a copy of typical drawing T-5145 from a PPC Mechanical Seals representative.

MATERIALS OF CONSTRUCTION

1500EHD Single Seal

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

Seal Face Combinations:

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

Process Temperature: -40 to 400 °F (-40 to 204 °C)
Dependent on application and elastomer material
Contact PPC for specific applications outside these parameters

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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