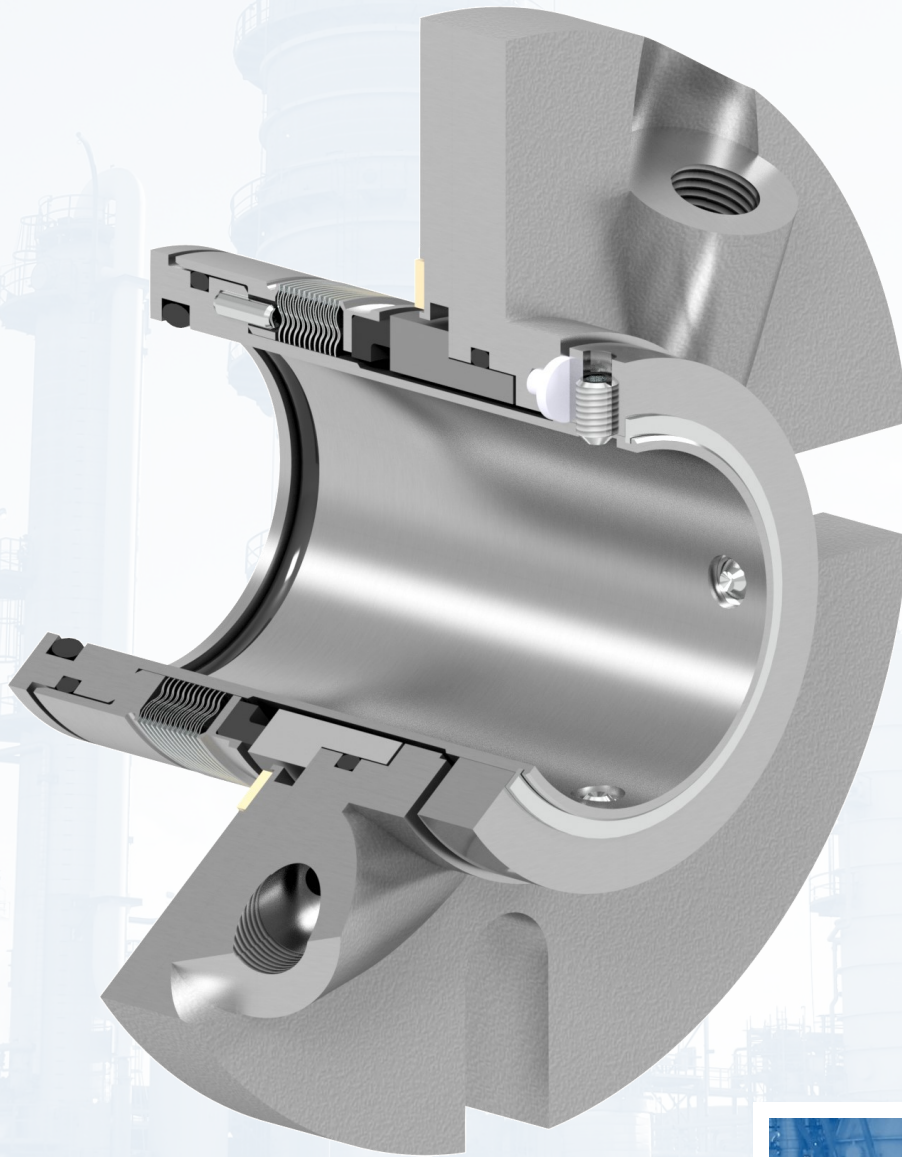




1500ERB Cartridge Seal

General purpose single bellows seal



CREATING SEALING SOLUTIONS THROUGH INNOVATIVE ENGINEERING
MADE IN THE USA

1500ERB Single Seal

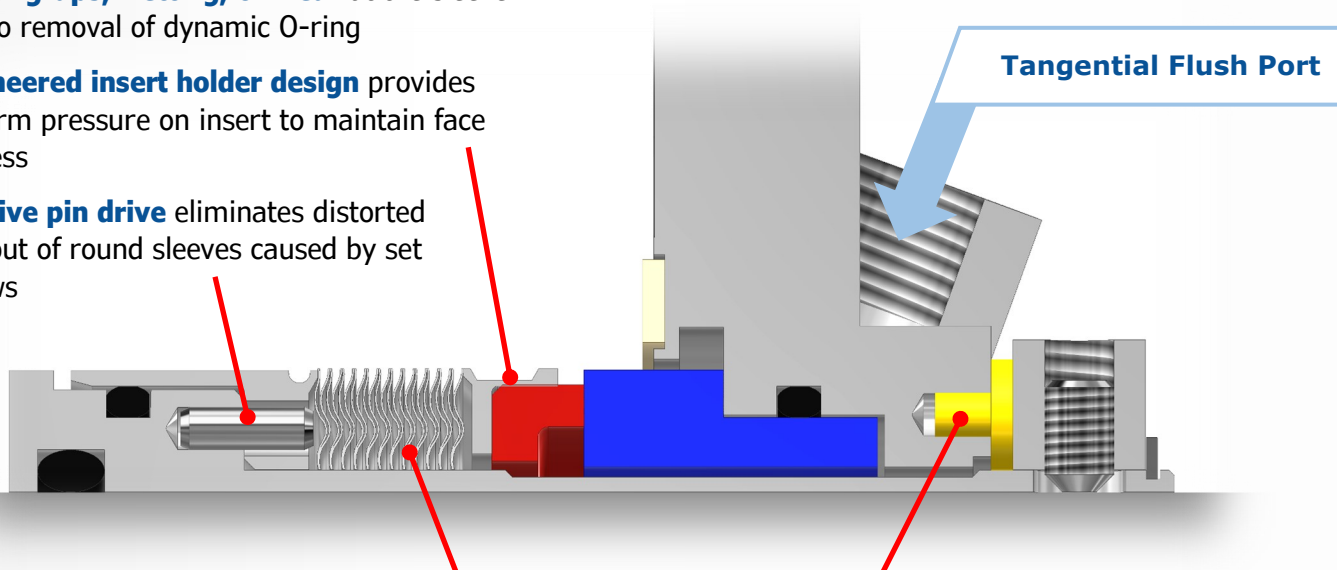
DESCRIPTION

The 1500ERB single cartridge seal is PPC's general purpose rotating bellows seal within the 1500E series. The metal bellows design prevents hang-up at the dynamic O-ring for increased performance over pusher-style seals and is inherently balanced for reduced heat generation. Standard bellows material is Alloy C-276, providing excellent corrosion resistance and pressure capability. The seal also features our no-hassle setting buttons to eliminate the need of removing the old style setting spacers prior to start-up or trying to re-install when moving the pump's impeller.

The 1500ERB is designed and available in sizes to fit most popular general-duty process pumps including ANSI standard and plus (1500ERB+) seal chambers.

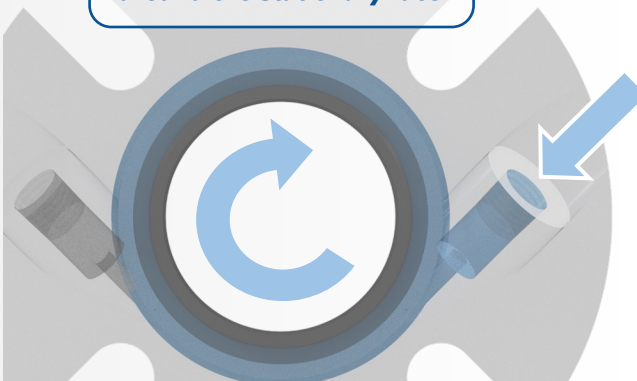
FEATURES

- **No hang-ups, fretting, or wear** at the sleeve due to removal of dynamic O-ring
- **Engineered insert holder design** provides uniform pressure on insert to maintain face flatness
- **Positive pin drive** eliminates distorted and out of round sleeves caused by set screws



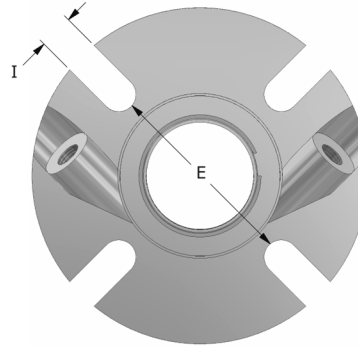
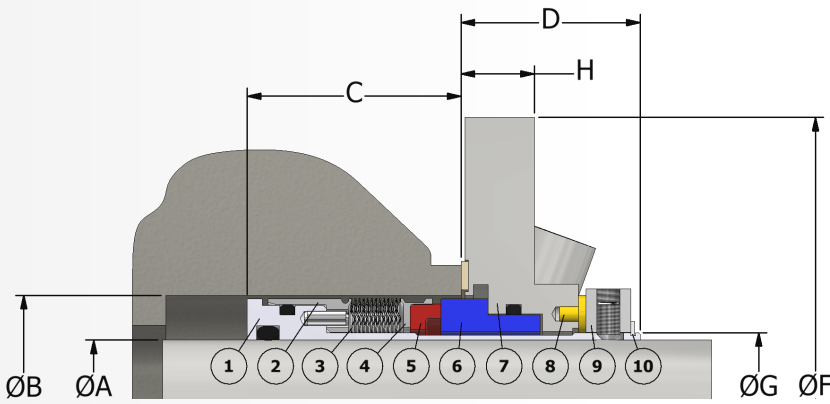
Tangential flush port and annular groove provide a 360-degree cooling path around the stationary face

- **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.
- **Welded metal bellows** uses nesting, double-ripple design that provides excellent pressure capability and even face loading.
- **Cartridge assembly is preset**, eliminating installation error. Cartridge design also prevents the fretting of any pump parts.
- **Standard tangential flushing** provides an optimized flow path for enhanced cooling and cleaning of the seal faces.



SEAL DIMENSIONAL DATA

1500ERB Single Seal



Item	Description
1	Sleeve
2	Bellows Collar
3	Bellows
4	Insert Holder
5	Insert (Rotary Face)
6	Stationary Face
7	Gland
8	Setting Buttons
9	Drive Collar
10	Retaining Ring

1500ERB DIMENSIONS FOR STANDARD BORE SEAL CHAMBER

A SEAL SIZE	B (MIN)	B (MAX)	C	D	E	F	G	H	I
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	3.250	3.590	1.79	1.50	4.06	6.24	2.500	0.98	0.69
2.500	3.375	3.810	1.79	1.50	4.19	6.48	2.625	0.98	0.69
2.625	3.500	4.070	1.79	1.50	4.75	7.62	2.750	0.98	0.69
2.750	3.812	4.190	2.14	1.80	4.88	7.74	3.000	1.20	0.69
3.000	4.062	4.440	2.14	1.80	5.06	8.00	3.250	1.20	0.69
3.250	4.312	4.690	2.14	1.80	5.38	8.25	3.500	1.20	0.69
3.500	4.562	4.940	2.14	1.80	5.62	8.50	3.750	1.20	0.81
3.750	4.812	5.190	2.14	1.80	5.88	8.75	4.000	1.20	0.81

1500ERB+ 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-5383 from a PPC Mechanical Seals representative.

MATERIALS OF CONSTRUCTION

1500ERB Single Seal

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

Seal Face Combinations:

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

Other materials available upon request
**Contact PPC for applications above 200 °F*

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

Gland Gasket: GYLON® (Filled PTFE)

Metal Bellows: 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
Contact PPC for specific applications outside these parameters

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

APPLICATIONS

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



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