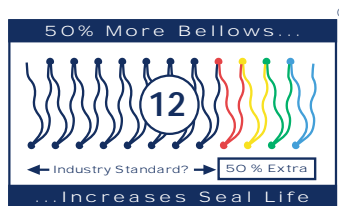
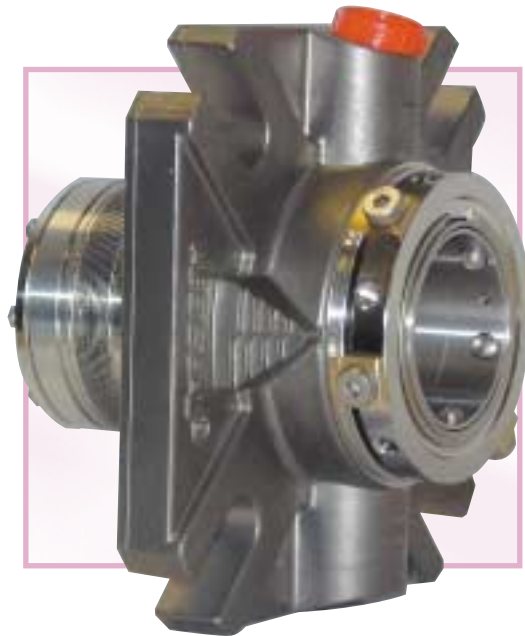




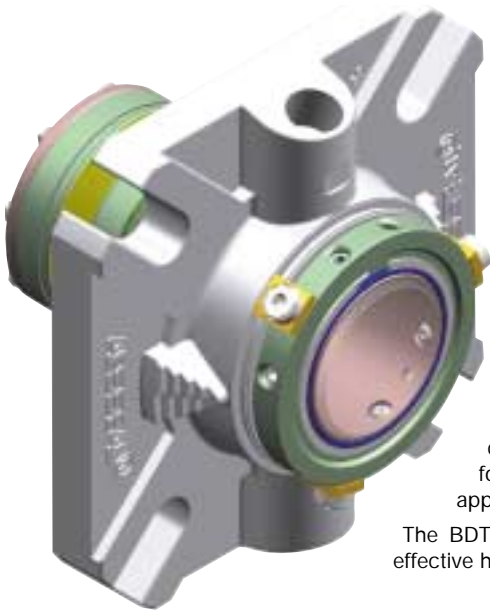
BDTP™ Bellows Double Tandem Pumping



- PATENT PENDING DESIGN
- TANDEM BELLOWS
CARTRIDGE SEAL
- INTEGRAL BI-DIRECTIONAL
FLOW INDUCER
- DIRECTED BARRIER FLUID
CIRCULATION
- FITS ON PUMPS WITH THIN
RADIAL CROSS SECTIONAL
SPACES (8mm / 0.312")

BDTP™ - better by design

The BDTP™ is an innovative hybrid design, modular to the highly successful BDFI™.



Inboard Bellows

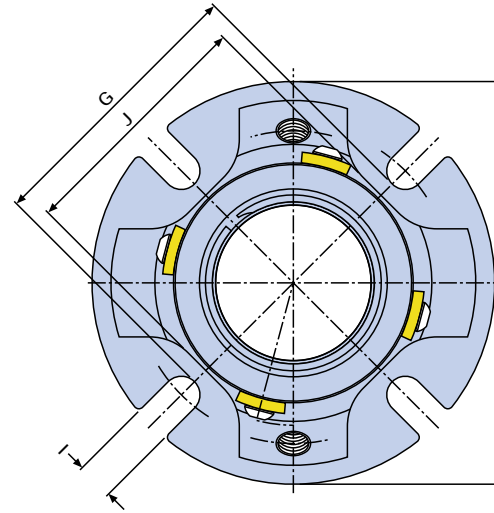
The bellows unit (Patent Pending) is ideally suited to replace the semi-dynamic sliding elastomer of a conventional pusher seal. This allows the bellows design to be more readily applied to thermal applications.

The BDTP™ is available in any AESSEAL® standard metal bellows material and seal face combination including SHS, HHH and SAC with Carbon, Antimony Carbon, TC or SiC seal faces.

Directed Barrier Fluid Circulation

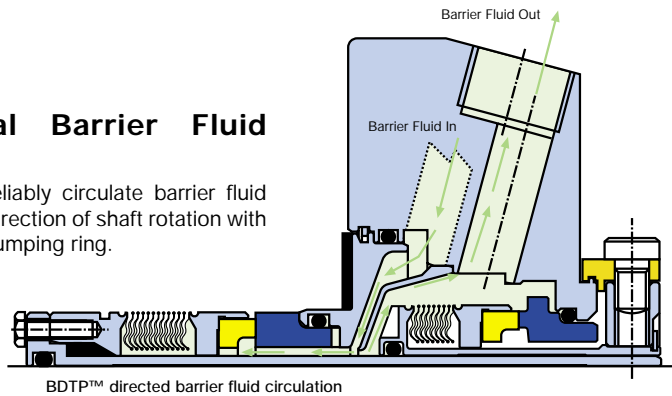
Removing the heat at the inboard faces is critical for any double mechanical seal, more so for a seal which may be applied to thermal applications.

The BDTP™ directed barrier fluid flow path achieves effective heat removal at both sets of seal faces.

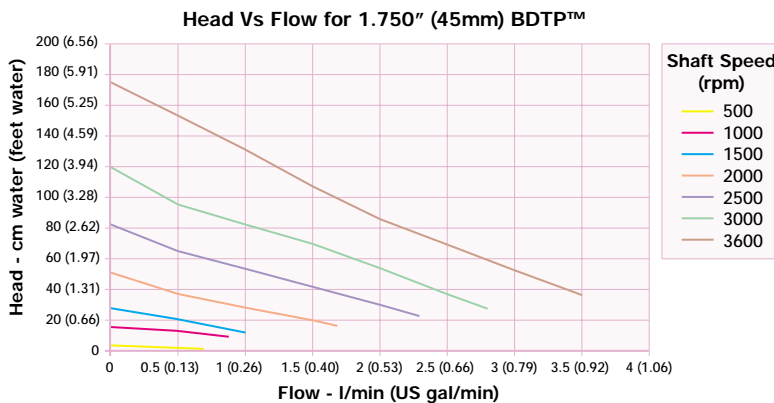


Bi-directional Barrier Fluid Circulation

The BDTP™ will reliably circulate barrier fluid irrespective of the direction of shaft rotation with a Patent Pending pumping ring.



BDTP™ directed barrier fluid circulation



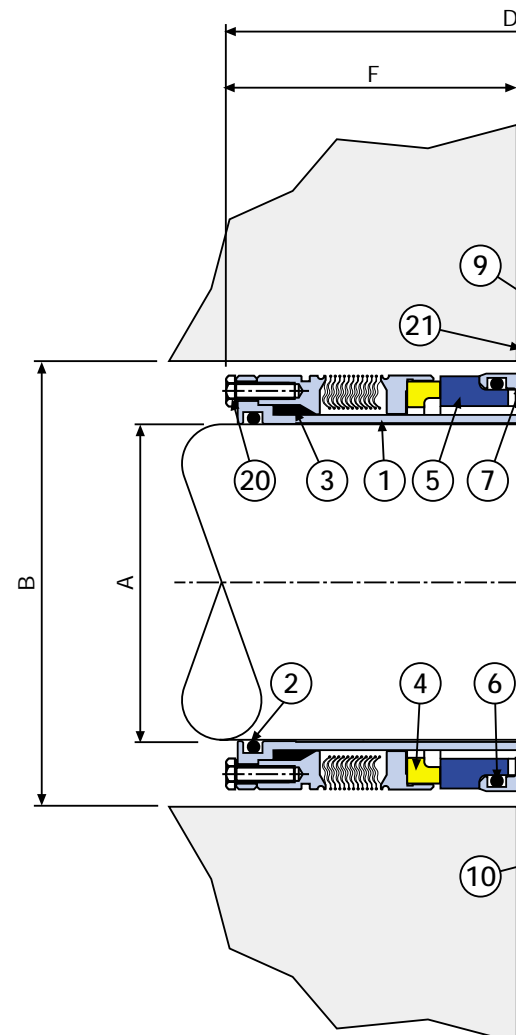
Fits in Thin Radial Cross Sectional Spaces

The BDTP™ can be installed on equipment with radial cross sectional spaces as small as 0.312" (8mm). This is typical on some smaller sized process pumps.

Bellows Outboard Rotary Seal face

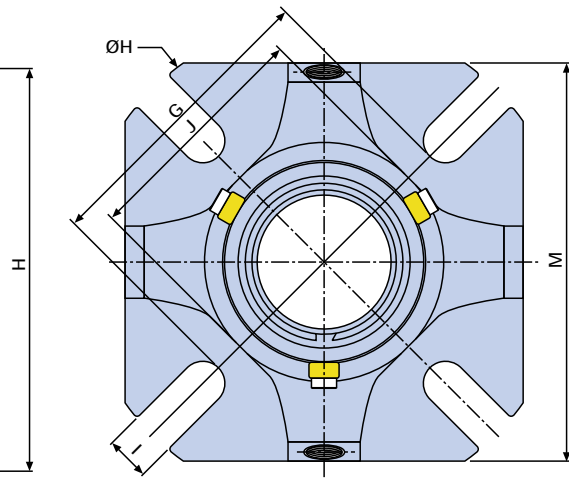
Any seal design applied to thermal applications must have the ability to seal relatively hot barrier fluids without leaking externally.

The Patent Pending outboard rotary seal face is offered as standard with an Alloy C276 Bellows stack and 316L Stainless Steel face holder. As the face holder is a modular component to many other AESSEAL® product ranges it can be offered in Alloy C276 if required.



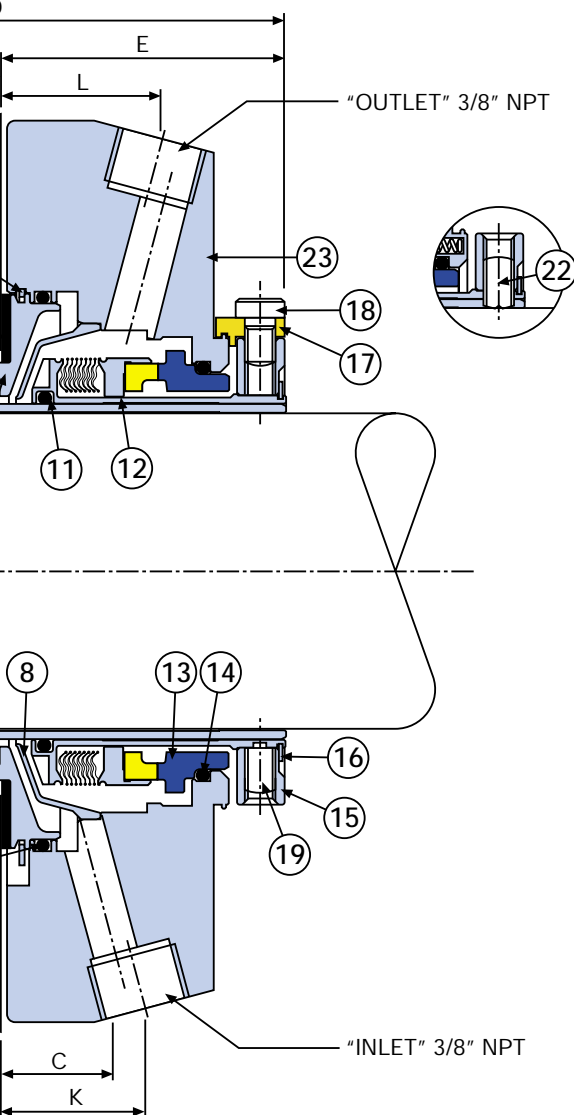
Standard ISO / ANSI Box Bore 28.0mm - 65mm (1.125" - 2.625")

A	B Min	B Max	C	D	E	F	G	H	I	J	K	L
28.0	44.0	52.0	19.1	100.8	52.4	48.4	62.2	111.1	14.0	57.2	20.6	28.6
35.0	51.0	60.3	19.1	100.8	52.4	48.4	71.8	104.1	11.0	67.0	20.6	28.6
45.0	63.5	73.0	19.1	106.7	53.1	53.6	83.8	139.1	14.0	75.7	31.5	33.0
55.0	74.0	90.5	22.2	108.7	53.1	55.6	100.3	150.0	17.5	86.6	25.3	29.0
60.0	79.4	95.0	19.1	108.7	53.1	55.6	108.7	170.8	17.5	94.4	26.5	29.7
63.0	85.8	95.0	19.1	114.9	53.1	61.8	108.7	170.8	17.5	94.4	31.5	33.0
65.0	88.9	98.0	19.1	114.9	53.1	61.8	111.9	180.3	17.5	98.3	31.5	33.0
1.125	1.750	2.062	0.750	3.970	2.062	1.908	2.449	4.375	0.551	2.250	0.812	1.125
1.375	2.000	2.375	0.750	3.970	2.062	1.908	2.827	4.100	0.433	2.638	0.812	1.125
1.750	2.500	2.875	0.750	4.200	2.091	2.109	3.297	5.475	0.551	2.982	1.240	1.299
1.875	2.625	3.000	0.750	4.200	2.091	2.109	3.450	5.906	0.689	3.108	1.240	1.299
1.875-D	2.625	2.875	0.800	4.200	2.091	2.109	3.325	4.875	0.472	3.025	1.150	1.150
2.125	2.875	3.562	0.875	4.280	2.091	2.189	3.950	5.906	0.689	3.408	0.995	1.140
2.375	3.125	3.750	0.750	4.280	2.091	2.189	4.280	6.725	0.689	3.716	1.043	1.170
2.500	3.375	3.750	0.750	4.525	2.091	2.437	4.280	6.725	0.689	3.716	1.240	1.299
2.625	3.500	3.875	0.750	4.525	2.091	2.437	4.405	7.100	0.689	3.871	1.240	1.299



Large ISO / ANSI Plus Box Bore

A	B Min	B Max	C	D	E	F	G	H	I	J	K	L	M
1.125	1.750	2.750	0.750	3.970	2.062	1.908	3.199	5.000	0.551	2.323	1.125	1.125	3.990
1.375	2.000	3.062	0.750	3.970	2.062	1.908	3.449	5.375	0.551	2.638	1.125	1.125	4.250
1.750	3.500	4.000	0.790	4.200	2.000	2.200	4.449	6.750	0.551	3.100	1.087	1.087	5.480
1.875	3.500	4.000	0.619	4.200	2.000	2.200	4.449	6.750	0.551	3.500	1.087	1.087	5.480
2.125	3.875	4.187	0.669	4.280	2.000	2.280	4.661	7.600	0.689	3.715	1.125	1.125	6.205
2.500	4.500	4.812	0.760	4.525	2.091	2.437	5.411	8.225	0.689	4.525	1.231	1.231	6.705
2.625	4.500	4.812	0.760	4.525	2.091	2.437	5.411	8.225	0.689	4.525	1.093	1.093	6.705

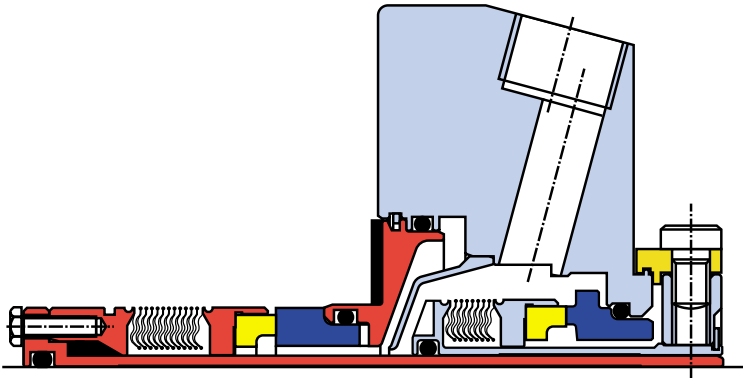


Item	Description	Material
1	Sleeve	316L Stainless Steel
2	Sleeve 'O' Ring	Viton® / EPR / Kalrez® / Alfas®
3	Rotary Wedge	Graphite
4	Rotary Bellows Face - SHS	316L SS - Alloy C276 - 316L SS - Carbon / TC / SiC / Antimony Carbon
4	Rotary Bellows Face - SAC	316L SS - AM350 - Alloy 42 - Carbon / TC / SiC / Antimony Carbon
4	Rotary Bellows Face - HHH	Alloy C276 - Alloy C276 - Alloy C276 - Carbon / TC / SiC / Antimony Carbon
5	Stationary Face	SiC / TC
6	Stationary 'O' Ring	Viton® / EPR / Kalrez® / Alfas®
7	Gland Insert	316L Stainless Steel
8	Deflector	316L Stainless Steel
9	Snap Ring	Stainless Steel
10	Gland Insert 'O' Ring	Viton® / EPR / Kalrez® / Alfas®
11	Rotary Holder 'O' Ring	Viton® / EPR / Kalrez® / Alfas®
12	Rotary Face - SHS	316L SS - Alloy C276 - 316L SS - Carbon / TC / SiC / Antimony Carbon
12	Rotary Face - SHH	316L SS - Alloy C276 - Alloy C276 - Carbon / SiC / TC / Antimony Carbon
13	Stationary Face	SiC / TC
14	Stationary 'O' Ring	Viton® / EPR / Kalrez® / Alfas®
15	Clamp Ring	316L Stainless Steel
16	Circlip	Stainless Steel
17	Settings Clips	Brass
18	Setting Clip Screws	Stainless Steel
19	Anti Tamper Screws	Stainless Steel
20	Screws	Stainless Steel / Alloy C276
21	Gasket	AF1 / GFT / Graphite
22	Drive Screws	Stainless Steel
23	Gland	316 Stainless Steel

Contact AESSEAL® Technical Department for dimensional information of seal sizes not shown.

Check availability as only a limited size range is inventoried.

BDTP™ / BDFI™ - modularity at it's best



Exotic Alloy BDTP™

Exotic Alloy Wetted Options.

The BDTP™ is available with wetted components offered in Alloy 276.

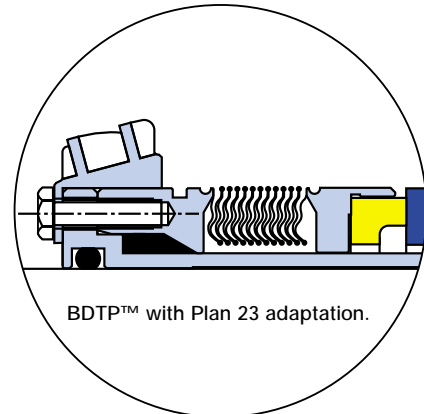
EXOTIC ALLOY SEALS
Contact AESSEAL® for availability of Exotic Alloy options.

Changing the Environment

Often the most successful solution when sealing difficult applications is to change the seal environment.

AESSEAL® widely promote the use of Plan 23 systems, using seals and systems like the SMSS23™ and AESSEAL® Cooler™ range.

The BDTP23™ is a simple and cost-effective solution which also effectively changes the seal environment when used in conjunction with an appropriate adapter plate.



BDTP™ with Plan 23 adaptation.

BDFI™ & BDFC™ Range

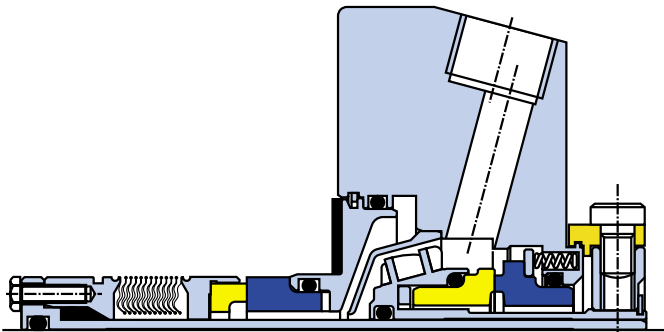
Like all AESSEAL® products, modularity is the key to providing service at an affordable price.

The BDFI™ and BDFC™ are sister products to the BDTP™.

The BDFI™ / BDFC™ offer the advantage of an inboard metal bellows unit available in any AESSEAL® standard metal bellows material and seal face combinations including SHS, HHH and SAC with Carbon, Antimony Carbon, TC or SiC seal faces.

This inboard bellows design is ideal to replace the semi-dynamic rotary elastomer in some chemical or thermal applications

See the BDFI™ / BDFC™ literature for further information. You can download this and other information from www.aesseal.com or request it from marketing@aes seal.com



BDFI™ - Bellows Double Flow Induced

THIS DOCUMENT IS DESIGNED TO PROVIDE DIMENSIONAL INFORMATION AND AN INDICATION OF AVAILABILITY. FOR FURTHER INFORMATION AND SAFE OPERATING LIMITS CONTACT OUR TECHNICAL SPECIALISTS AT THE LOCATIONS BELOW.



USE DOUBLE MECHANICAL SEALS WITH HAZARDOUS PRODUCTS. ALWAYS TAKE SAFETY PRECAUTIONS:

- GUARD YOUR EQUIPMENT
- WEAR PROTECTIVE CLOTHING



WARNING

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