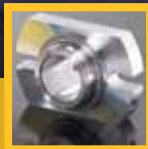
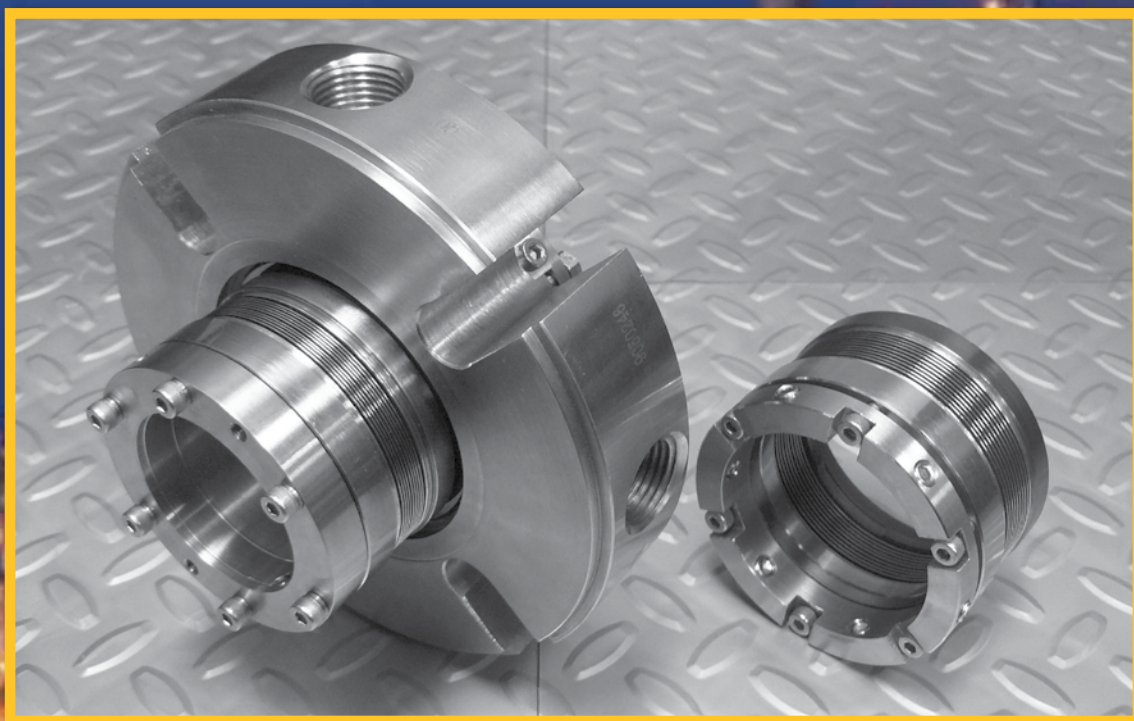


HIGH TEMPERATURE METAL BELLOWS SEALS

SEPCO[®]

Sealing Equipment Products Co., Inc.



Quality Fluid Sealing Solutions for Industry.

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HIGH TEMPERATURE METAL BELLOWS SEALS

The **SEPCO HTB/HTC** is a high temperature, non-pusher, rotating welded metal bellows single seal in component or cartridge design. A rugged metal bellows mechanical seal for handling high pressures and high temperature environments, which also has the flexibility to fit in ANSI+ and DIN standards.

Standard Design

Compact design allows to be used in all types of rotating equipment. Designed to fit in ANSI+ and DIN standards. Flush, Vent, Drain and Throttle Bushing come standard.

Dispersing Stress

Seals are manufactured with a 45° tilt angle on the inside diameter of the bellows to disperse the stresses on the welds.

Optimized Face Design

Finite element analysis has been used to optimize seal faces design, which minimizes radial and angular deflections throughout the entire operating range. High precision lapping finish for optimal sealing performance.

Secondary Seals

High temperature Grafoil eliminates the need for o-rings that fail at elevated temperatures.

Rotary Design

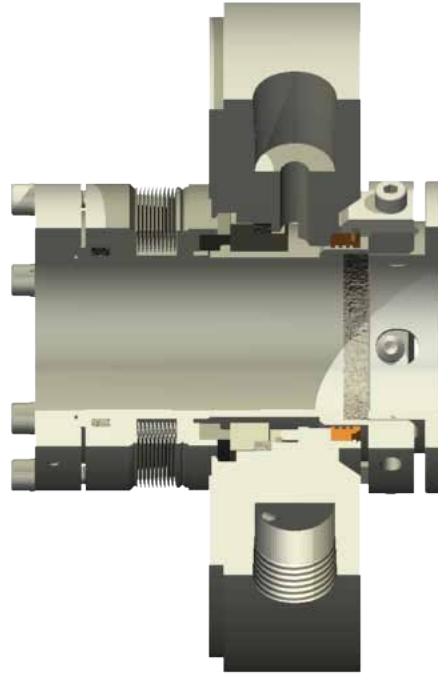
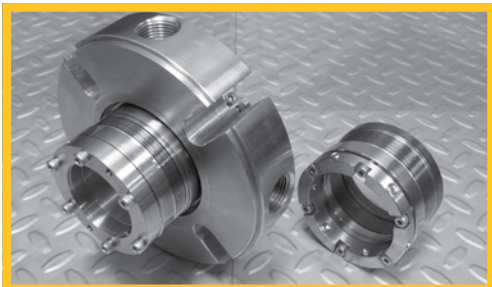
The rotating bellows throw off suspended particles and provides the self-cleaning effect which reduces the possibility of solids entering the bellows convolutions.

Unique Drive

Located by a snap ring and driven through pins to make the drive safe and reliable.

Slotted Gland

The HTB's slotted gland allows for more versatility



Standard Materials

Rotary Faces:

- Antimony Carbon
- Nickel Tungsten /Sintered Silicon Carbide

Stationary Faces:

- Sintered Silicon Carbide

Bellows:

- AM350 heat-treated

Front Adapter:

- Low expansion alloy 42

Metal Parts:

- 316SS

Secondary Seals:

- High Temperature Grafoil

Operating Parameters

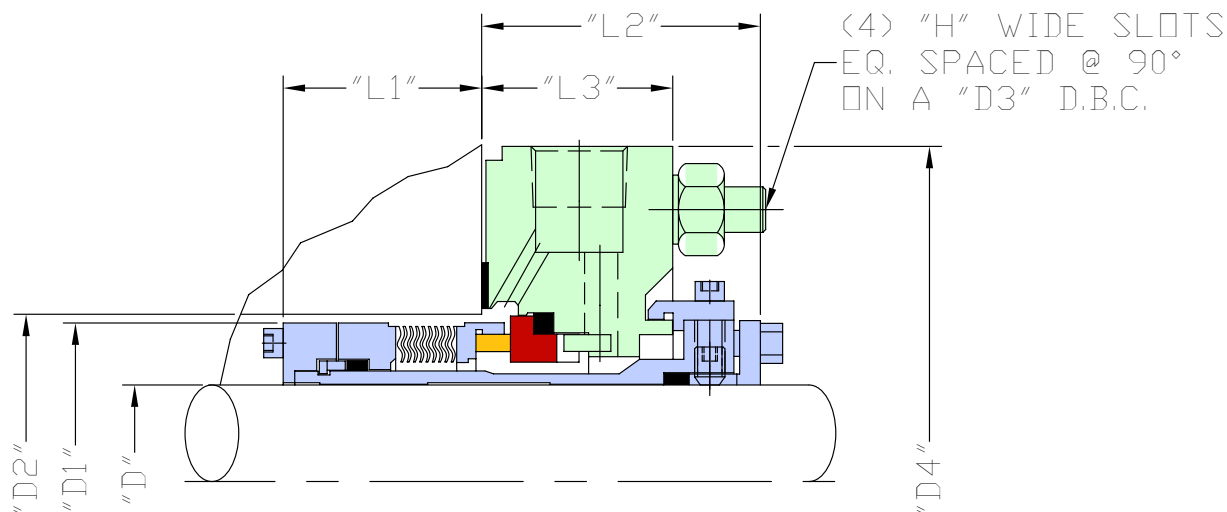
Temperature Limits:

- -25 F to 700 F (30 C to 360 C)

Speed Limits

- To 4000 fpm (20 mps)

HTC GENERAL DRAWING



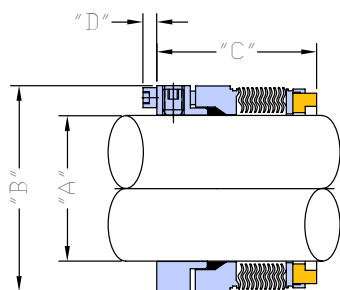
Imperial

D	D1	D2 min	D2 max	D3	D4	L1	L2	L3	H
1.000	1.875	2.000	2.283	3.228	4.252	1.594	2.047	1.240	0.512
1.125	2.000	2.125	2.362	3.228	4.252	1.594	2.047	1.240	0.512
1.250	2.125	2.250	2.441	3.346	4.488	1.594	2.047	1.240	0.512
1.375	2.250	2.375	2.638	3.583	4.764	1.575	2.126	1.319	0.551
1.500	2.375	2.500	2.756	3.701	5.236	1.606	2.126	1.319	0.551
1.625	2.500	2.625	2.953	3.898	5.512	1.606	2.126	1.319	0.551
1.750	2.625	2.750	3.031	3.976	5.748	1.638	2.126	1.319	0.551
1.875	2.750	2.875	3.150	4.173	5.748	1.657	2.126	1.319	0.551
2.000	2.875	3.000	3.228	4.488	6.260	1.720	2.165	1.358	0.709
2.125	3.000	3.125	3.425	4.567	6.260	1.720	2.165	1.358	0.709
2.250	3.250	3.375	3.661	4.764	6.496	1.791	2.244	1.378	0.709
2.375	3.375	3.500	3.858	4.961	6.496	1.858	2.244	1.378	0.709
2.500	3.500	3.625	3.937	5.039	6.496	1.858	2.244	1.378	0.709
2.625	3.687	3.812	4.173	5.276	7.008	1.933	2.500	1.535	0.709
2.750	3.812	3.937	4.252	5.354	7.008	1.933	2.500	1.535	0.709

Metric

D	D1	D2 min	D2 max	D3	D4	L1	L2	L3	H
24	44	47	54	78	108	40	52	31.5	13
25	45	48	55	78	108	41	52	31.5	13
28	49	52	58	82	108	41	52	31.5	13
30	51	54	60	82	108	41	52	31.5	13
32	54	57	62	85	114	41	52	31.5	13
33	54	57	63	85	114	41	52	31.5	13
35	57	60	67	91	121	40.5	54	33.5	14
38	60	63	70	94	133	40.5	54	33.5	14
40	62	65	72	96	140	40.5	54	33.5	14
43	65	68	75	99	140	40.5	54	33.5	14
45	67	70	77	101	146	41.5	54	33.5	14
48	70	73	80	106	146	42	54	33.5	14
50	72	75	82	110	159	42	55	34.5	18
53	75	78	85	114	159	44	55	34.5	18
55	77	80	87	116	159	44	55	34.5	18
58	82	85	93	121	165	47	57	35	18
60	84	87	95	123	165	48	57	35	18
63	87	90	98	126	165	48	57	35	18
65	89	92	100	128	165	48	57	35	18
68	94	97	106	134	178	49.5	63.5	39	18
70	97	100	108	136	178	49.5	63.5	39	18

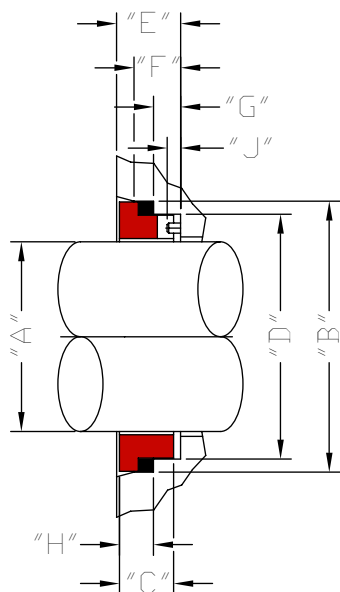
HTB HIGH TEMPERATURE COMPONENT BELLOWS



SHAFT SIZE	OUTSIDE DIA	OPERATING LENGTH	SCREW HEAD PROTRUSION
A	B	C	D
1.000	1.562	1.687	0.125
1.125	1.687	1.562	0.125
1.250	1.812	1.562	0.125
1.375	1.937	1.750	0.125
1.500	2.170	1.750	0.164
1.625	2.295	1.750	0.164
1.750	2.420	1.750	0.164
1.875	2.545	1.750	0.164
2.000	2.670	1.750	0.164
2.125	2.795	1.750	0.164
2.250	2.920	1.875	0.164
2.375	3.045	1.875	0.164
2.500	3.187	1.875	0.164
2.625	3.312	1.875	0.164

SHAFT SIZE	OUTSIDE DIA	OPERATING LENGTH	SCREW HEAD PROTRUSION
A	B	C	D
25mm	39.7	42.8	3.2
28mm	42.8	39.7	3.2
30mm	46.0	42.8	3.2
32mm	46.0	42.8	3.2
35mm	49.2	44.5	3.2
38mm	55.1	44.5	4.2
40mm	58.3	44.5	4.2
42mm	61.5	44.5	4.2
45mm	62.3	44.5	4.2
48mm	64.6	44.5	4.2
50mm	67.8	44.5	4.2
55mm	74.2	47.6	4.2
60mm	77.3	47.6	4.2
65mm	84.1	47.6	4.2

STATIONARY ASSEMBLY – DIMENSIONAL DATA



SHAFT SIZE	STAT. BORE DIA	STAT. LENGTH	CAVITY STEP DIA	CAVITY DEPTH	BORE DEPTH	CAVITY STEP DEPTH	NOSE LENGTH	PIN EXTRUSION
A	B	C	D	E	F	G	H	J
25mm	41.2	11.1	35.1	14.0	9.9	6.1	6.6	3.1
1.000	1.625	0.437	1.384	0.551	0.390	0.240	0.261	0.125
28mm	44.4	11.1	38.3	14.0	9.9	6.1	6.6	3.1
1.125	1.750	0.437	1.509	0.551	0.390	0.240	0.261	0.125
30/32mm	47.6	11.1	41.5	14.0	9.9	6.1	6.6	3.1
1.250	1.875	0.437	1.634	0.551	0.390	0.240	0.261	0.125
35mm	50.8	11.1	44.6	14.0	9.9	6.1	6.6	3.1
1.375	2.000	0.437	1.759	0.551	0.390	0.240	0.261	0.125
38mm	53.9	11.1	47.8	14.0	9.9	6.1	6.6	3.1
1.500	2.125	0.437	1.884	0.551	0.390	0.240	0.261	0.125
40mm	60.3	12.7	54.2	15.0	10.9	6.3	7.9	3.1
1.625	2.375	0.500	2.134	0.592	0.431	0.251	0.314	0.125
42mm	63.5	12.7	57.3	15.0	10.9	6.3	7.9	3.1
1.750	2.500	0.500	2.259	0.592	0.431	0.251	0.314	0.125
45mm	66.6	12.7	60.5	15.0	10.9	6.3	7.9	3.1
1.875	2.625	0.500	2.384	0.592	0.431	0.251	0.314	0.125
48mm	69.8	12.7	63.7	15.0	10.9	6.3	7.9	3.1
2.000	2.750	0.500	2.509	0.592	0.431	0.251	0.314	0.125
50mm	76.2	14.2	70.0	16.2	12.1	7.6	8.7	3.9
2.125	3.000	0.562	2.759	0.641	0.480	0.300	0.346	0.156
55mm	79.3	14.2	73.2	16.2	12.1	7.6	8.7	3.9
2.250	3.125	0.562	2.884	0.641	0.480	0.300	0.346	0.156
60mm	82.5	14.2	76.4	16.2	12.1	7.6	8.7	3.9
2.375	3.250	0.562	3.009	0.641	0.480	0.300	0.346	0.156
2.500	3.375	0.562	3.134	0.641	0.480	0.300	0.346	0.156
65mm	85.7	15.8	79.6	17.3	13.2	8.6	9.6	4.3
2.625	3.375	0.625	3.134	0.682	0.521	0.341	0.379	0.170