

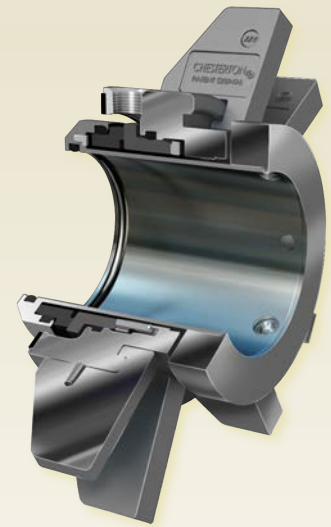
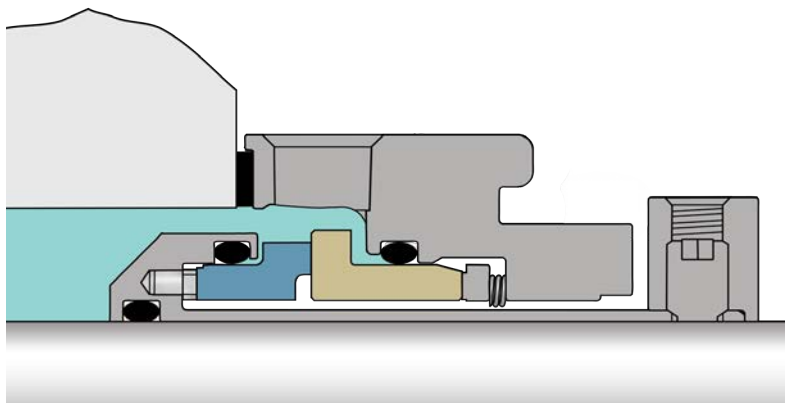
# 1510

## General Duty Single Cartridge Seal

### Simple Installation and Increased Reliability Plant-wide in General Duty Applications

Maximize maintenance efficiency and increase plant productivity with the 1510 Single Cartridge Seal. Designed to fit process equipment plant-wide by incorporating Chesterton T.A.B.S. (Tapered Adjustable Bolting System), the compact profile makes seal installation easy.

Reliability through temperature variations and intermittent operations is ensured with the use of monolithic seal faces and true non-fretting construction. Impeller adjustments after seal fitment are accommodated with the unique resettable centering strap, even when adjustment is required between routine maintenance. Incorporating Chesterton's 5 key features of good mechanical seal design, the Chesterton 1510 sets the new standard for general duty cartridge seals.



#### Advantages

- Reliable through temperature cycling and intermittent process with monolithic seal faces
- In service impeller adjustment is possible with the unique centering strap
- Mounts easily on various types of rotating equipment using Chesterton T.A.B.S.
- Prevents damage to your equipment and internal components via true non-fretting design

#### Five Key Seal Design Features



- ✓ *Balanced Design*
- ✓ *Non-Fretting*
- ✓ *Monolithic Seal Faces*
- ✓ *Stationary Design*
- ✓ *Protected Springs*

#### SPECIFICATIONS

##### Operating Parameters

Sizes	25 mm – 120 mm (1.000" – 4.750")
Pressure*	711 mm or 28" Hg Vacuum to 20 bar g (300 psig)
Temperature	-55°C – 300°C (-67°F – 570°F) Temperature limits depend on actual elastomers used
Speed	25 m/s (5000 fpm)

##### Applicable Standards and Available Approvals

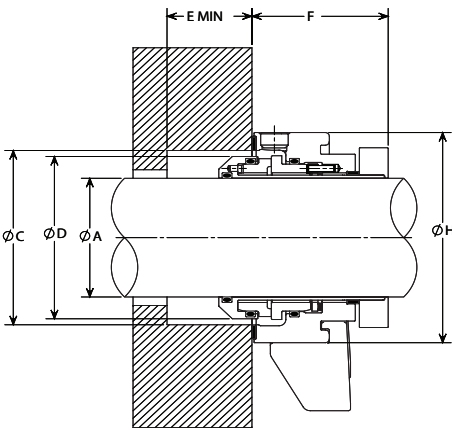
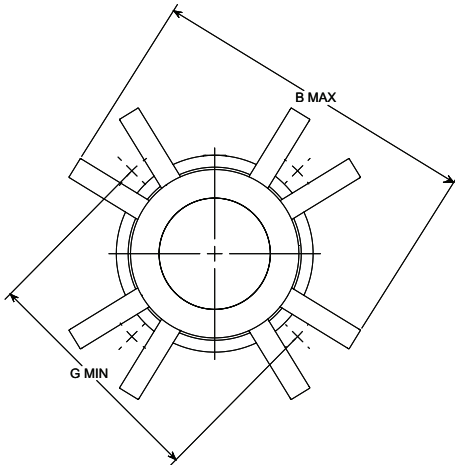
ISO-3069C, ASME B73.1, B73.2, ACS, KTW, NSF61, WRAS

\*Seal pressure capabilities are dependent on the fluid sealed, temperature, speed, and seal face combinations. For operation outside these limits and for additional materials please contact Chesterton Mechanical Seal Engineering.

##### Materials of Construction

Rotary Faces	CB SSC TC
Stationary Faces	SSC TC
Elastomers	FKM EPDM FEPM FFKM
Metal Parts	EN 1.4401 (316 Stainless Steel)
Springs	EN 2.4819 (Alloy C-276)

# Dimensional Data



### 1510 KEY

- A – Shaft Size
- B – Maximum Gland Diameter
- C – Seal Chamber Bore
- D – Seal Outside Diameter
- E – Minimum Seal Chamber Depth
- F – Outboard Seal Length
- G – Minimum Bolt Circle by Bolt Size
- H – Hub Outer Diameter

### Metric

A	B MAX	C MIN	C MAX	D MAX	E MIN	F MAX	8 mm	10 mm	G MIN	12 mm	16 mm	20 mm	H MAX
25	118,5	41,4	51,1	40,2	14,0	51,1	71,7	73,7	75,7	79,7	—	—	61,2
28	118,8	44,2	51,8	42,7	14,0	51,1	71,9	73,9	75,9	79,9	—	—	62,3
30	124,3	46,0	56,6	44,8	14,0	51,1	77,4	79,4	81,4	85,4	—	—	67,8
30 OS	135,5	59,2	68,3	44,7	14,0	51,1	88,6	90,6	92,6	96,6	—	—	79,0
32	124,9	48,0	57,7	46,8	14,0	51,1	78,1	80,1	82,1	86,1	—	—	68,5
33	124,7	49,0	58,7	47,8	14,0	51,1	77,9	79,9	81,9	85,9	—	—	68,3
35	128,4	51,1	59,2	49,6	14,0	51,1	81,6	83,6	85,6	89,6	—	—	72,0
38	133,2	57,2	66,8	55,9	14,0	51,1	86,4	88,4	90,4	94,4	—	—	76,8
40	134,7	59,2	68,3	57,7	14,0	51,1	87,9	89,9	91,9	95,9	—	—	78,3
40 OS	142,0	66,4	74,6	57,7	14,0	51,1	95,5	97,5	99,5	103,5	—	—	85,6
42	134,7	62,2	68,8	60,8	14,0	51,1	87,9	89,9	91,9	95,9	—	—	78,3
43	134,7	62,2	68,8	60,8	14,0	51,1	87,9	89,9	91,9	95,9	—	—	78,3
45	140,2	64,3	73,4	62,8	14,0	51,1	93,3	95,3	97,3	101,3	—	—	83,7
48	139,7	67,1	74,7	65,8	14,0	51,1	92,9	94,9	96,9	100,9	—	—	83,3
50	145,1	69,1	78,5	67,9	14,0	51,1	98,3	100,3	102,3	106,3	—	—	88,7
50 OS	164,1	84,8	96,7	67,8	14,0	51,1	117,6	119,6	121,6	125,6	—	—	107,7
53	153,8	73,2	87,4	71,7	14,0	51,1	107,0	109,0	111,0	115,0	—	—	97,4
55	150,2	74,2	83,6	72,7	14,0	51,1	103,3	105,3	107,3	111,3	—	—	93,7
58	160,0	79,5	91,2	78,0	14,0	51,1	113,2	115,2	117,2	121,2	—	—	103,6
60	160,0	79,5	91,2	78,0	14,0	51,1	113,2	115,2	117,2	121,2	—	—	103,6
60 OS	175,3	96,0	107,9	78,0	14,0	51,1	128,8	130,8	132,8	136,8	—	—	118,9
65	169,9	85,9	100,1	84,4	14,0	51,1	123,1	125,1	127,1	131,1	—	—	113,5
70	197,2	95,3	111,3	93,5	17,4	62,2	—	136,4	138,4	142,4	146,4	—	124,8
75	203,5	101,3	119,1	99,6	17,4	62,2	—	142,7	144,7	148,7	152,7	—	131,1
80	206,7	105,2	121,9	103,4	17,4	62,2	—	145,9	147,9	151,9	155,9	—	134,3
85	213,1	111,0	128,3	109,0	17,4	62,2	—	152,3	154,3	158,3	162,3	—	140,7
90	216,2	115,3	131,8	113,3	17,4	62,2	—	155,4	157,4	161,4	165,4	—	143,8
95	222,6	120,4	136,9	118,7	17,4	62,2	—	161,8	163,8	167,8	171,8	—	150,2
100	228,9	126,7	144,5	125,0	17,4	62,2	—	168,1	170,1	174,1	178,1	—	156,5
105	223,1	133,1	150,6	131,4	17,4	62,2	—	172,3	174,3	178,3	182,3	—	160,7
110	236,3	136,4	153,9	134,4	17,4	62,2	—	175,5	177,5	181,5	185,5	—	163,9
115	242,6	142,7	160,3	140,8	17,4	62,2	—	181,9	183,9	187,9	191,9	—	170,3
120	247,8	145,8	164,3	144,1	17,4	62,2	—	187,0	189,0	193,0	197,0	—	175,4

### Inch

A	B MAX	C MIN	C MAX	D MAX	E MIN	F MAX	3/8"	1/2"	G MIN	5/8"	3/4"	H MAX
1.000	4.66	1.63	2.01	1.58	0.55	2.01	2.88	3.01	3.13	—	—	2.45
1.125	4.70	1.76	2.04	1.70	0.55	2.01	2.92	3.04	3.17	—	—	2.48
1.125 OS	5.37	2.39	2.75	1.70	0.55	2.01	3.59	3.71	3.84	—	—	3.15
1.250	4.92	1.89	2.27	1.84	0.55	2.01	3.13	3.26	3.38	—	—	2.70
1.375	5.05	2.01	2.33	1.95	0.55	2.01	3.27	3.40	3.52	—	—	2.84
1.375 OS	5.64	2.67	3.00	1.95	0.55	2.01	3.86	3.99	4.11	—	—	3.43
1.500	5.24	2.25	2.63	2.20	0.55	2.01	3.46	3.59	3.71	—	—	3.03
1.625	5.30	2.38	2.69	2.32	0.55	2.01	3.52	3.64	3.77	—	—	3.08
1.750	5.42	2.50	2.81	2.45	0.55	2.01	3.64	3.77	3.89	—	—	3.20
1.750 OS	6.71	3.47	3.75	2.45	0.55	2.01	4.93	5.05	5.18	—	—	4.49
1.875	5.54	2.63	2.94	2.57	0.55	2.01	3.76	3.89	4.01	—	—	3.32
1.875 OS	6.66	3.52	3.81	2.57	0.55	2.01	4.88	5.00	5.13	—	—	4.44
2.000	5.75	2.75	3.19	2.70	0.55	2.01	3.97	4.10	4.22	—	—	3.53
2.125	6.05	2.88	3.44	2.82	0.55	2.01	4.27	4.40	4.52	—	—	3.84
2.125 OS	7.38	3.85	4.25	2.82	0.55	2.01	5.60	5.73	5.85	—	—	5.17
2.250	6.16	3.00	3.56	2.95	0.55	2.01	4.38	4.50	4.63	—	—	3.94
2.375	6.30	3.13	3.59	3.07	0.55	2.01	4.52	4.64	4.77	—	—	4.08
2.375 OS	7.15	4.10	4.50	3.07	0.55	2.01	5.37	5.49	5.62	—	—	4.93
2.500	6.42	3.25	3.81	3.20	0.55	2.01	4.64	4.77	4.89	—	—	4.21
2.500 OS	8.21	4.47	5.25	3.20	0.55	2.01	6.43	6.56	6.68	—	—	6.00
2.625	6.69	3.38	3.94	3.32	0.55	2.01	4.91	5.03	5.16	—	—	4.47
2.625 OS	7.48	4.54	4.78	3.32	0.55	2.01	5.70	5.83	5.95	—	—	5.27
2.750	7.76	3.75	4.38	3.68	0.69	2.45	—	5.48	5.60	5.73	—	4.92
2.750 OS	8.14	4.34	4.78	3.68	0.69	2.45	—	5.83	5.95	6.08	—	5.27
2.875	7.89	3.87	4.49	3.79	0.69	2.45	—	5.60	5.73	5.85	—	5.04
3.000	8.01	3.99	4.69	3.92	0.69	2.45	—	5.73	5.85	5.98	—	5.17
3.000 OS	8.76	4.94	5.39	3.92	0.69	2.45	—	6.44	6.57	6.69	—	5.88
3.125	8.14	4.12	4.80	4.04	0.69	2.45	—	5.85	5.98	6.10	—	5.29
3.250	8.26	4.24	4.94	4.17	0.69	2.45	—	5.98	6.10	6.23	—	5.42
3.375	8.39	4.37	5.05	4.29	0.69	2.45	—	6.10	6.23	6.35	—	5.54
3.375 OS	8.64	4.88	5.27	4.29	0.69	2.45	—	6.33	6.45	6.58	—	5.76
3.500	8.51	4.49	5.19	4.42	0.69	2.45	—	6.23	6.35	6.48	—	5.67
3.625	8.64	4.62	5.30	4.54	0.69	2.45	—	6.35	6.48	6.60	—	5.79
3.750	8.76	4.74	5.39	4.67	0.69	2.45	—	6.48	6.60	6.73	—	5.92
3.750 OS	9.73	5.97	6.40	4.67	0.69	2.45	—	7.41	7.54	7.66	—	6.85
3.875	8.89	4.87	5.50	4.79	0.69	2.45	—	6.60	6.73	6.85	—	6.04
4.000	9.01	4.99	5.69	4.92	0.69	2.45	—	6.73	6.85	6.98	—	6.17
4.125	9.14	5.12	5.80	5.04	0.69	2.45	—	6.85	6.98	7.10	—	6.29
4.125 OS	9.64	5.84	6.27	5.04	0.69	2.45	—	7.33	7.45	7.58	—	6.76
4.250	9.18	5.24	5.93	5.17	0.69	2.45	—	6.89	7.02	7.14	—	6.33
4.375	9.30	5.37	6.06	5.29	0.69	2.45	—	7.02	7.14	7.27	—	6.46
4.500	9.43	5.49	6.18	5.42	0.69	2.45	—	7.14	7.27	7.39	—	6.58
4.500 OS	10.75	6.75	7.50	5.42	0.69	2.45	—	8.44	8.56	8.69	—	7.87
4.625	9.55	5.62	6.31	5.54	0.69	2.45	—	7.27	7.39	7.52	—	6.71
4.750	9.76	5.74	6.47	5.67	0.69	2.45	—	7.47	7.60	7.72	—	6.91
4.750 OS	11.36	7.22	7.65	5.67	0.69	2.45	—	9.04	9.16	9.29	—	8.48

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Form No. EN600679  
 1510 Product Data Sheet – English  
 03/23