

## CARTRIDGE SEALS

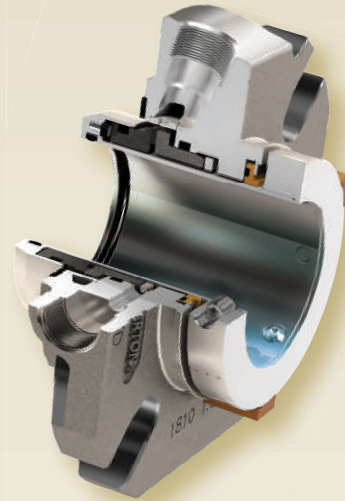
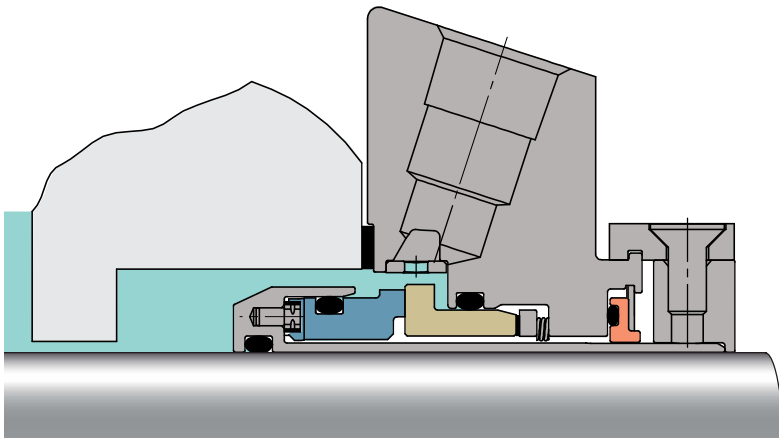
# 1810

## Heavy-Duty Modular Single Cartridge Seal

***Built on Chesterton's AXIUS™ modular platform for simple configuration and installation plant-wide***

This Chesterton single cartridge seal offers you the ultimate in seal quality, flexibility, and convenience. Leveraging Chesterton's proprietary AXIUS modular platform, the 1810 can be configured with several different face profiles and auxiliary components which allow performance to be tailored to a wide range of process conditions.

A plant-wide sealing solution, the 1810 is effective for both simple and highly demanding applications. It offers selectable features around a common gland housing. This flexibility allows for the creation of the best sealing parameters for your equipment and application needs to maximize single seal reliability.



**AXIUS™**  
Chesterton® Modular Platform

- Simplifies configuration and maximizes seal performance with the AXIUS™ modular platform
- Maintains reliability throughout temperature cycling and stop/start processes with monolithic seal faces
- Increases face life and reduces contact stress with cushioned drive pins
- Allows for easy, positive seal identification with ViewIn™ technology

**ViewIn™**  
Chesterton® Technology

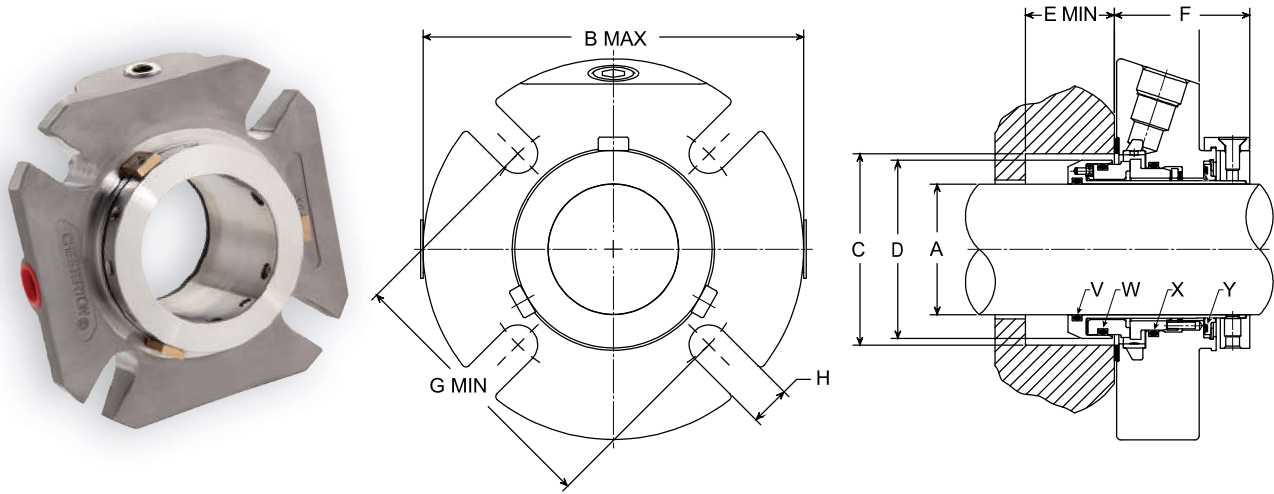
Operating Conditions		Materials	
Size	25 mm – 120 mm (1.000" – 4.750")	Faces	CB, SSC, TC
Pressure	711 mm (28") Hg Vacuum – 40 bar g (600 psig)*	Elastomers	FKM, EPDM, FEPM, FFKM
Temperature	-55°C – 300°C (-67°F – 570°F)	Metals	EN 1.4401 (316SS)
Speed	25 m/s (5000 fpm)	Springs	EN 2.4819 (Alloy C-276)

Standards and Approvals: ISO-3069C, ASME B73.1, ASME B73.2, NSF-61

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

# 1810 Heavy-Duty Modular Single Cartridge Seal – Metric

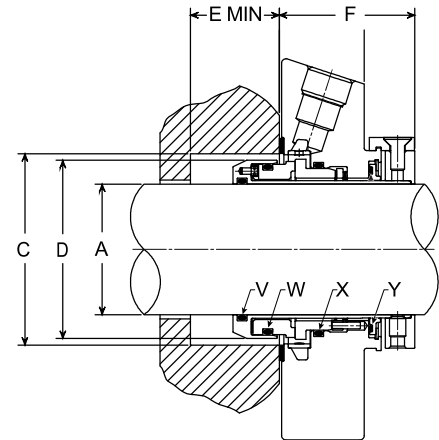
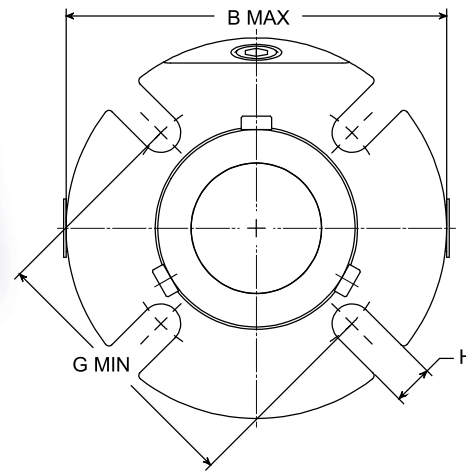
Mechanical Seal Dimensional Data



Key			
A – Shaft Size	D – Inboard Seal Diameter	G – Minimum Bolt Circle by Bolt Size	W – Rotary Seal O-Ring
B – Gland Outside Diameter	E – Seal Chamber Depth	H – Slot Width	X – Stationary Seal O-Ring
C – Seal Chamber Bore	F – Outboard Seal Length	V – Shaft O-Ring	Y – Bushing O-Ring

A	B MAX	C MIN	C MAX	D MAX	E MIN	F MAX	10 mm	G MIN 12 mm	16 mm	H	V	W	X	Y
25	104	44	54	43	19	50	73	–	–	11	120	126	127	028
28	104	47	57	46	19	50	76	–	–	11	122	128	129	029
30	104	49	59	48	19	50	78	–	–	11	123	129	130	029
32	104	51	61	50	19	50	80	–	–	11	124	130	131	030
33	114	52	62	51	19	50	81	83	–	14	125	131	132	030
35	111	54	64	53	19	50	85	85	–	14	126	132	133	031
38	114	57	66	56	19	50	86	88	–	14	128	134	135	031
40	127	59	68	58	19	50	90	92	–	13	129	135	136	032
42	127	61	68	60	19	50	89	92	–	13	130	137	138	032
43	127	62	68	61	19	50	94	96	–	13	131	137	138	033
45	139	64	73	63	19	50	95	97	–	13	133	139	140	033
48	139	67	73	66	19	50	95	97	–	13	134	141	142	034
50	139	69	78	68	19	50	100	102	–	13	136	142	143	035
53	152	73	87	72	19	50	109	111	115	17	137	144	145	036
55	152	74	83	73	19	50	105	107	119	17	139	145	146	037
58	152	80	91	78	19	50	116	118	122	17	141	148	149	038
60	152	80	91	78	19	50	116	118	130	17	142	148	149	038
65	164	86	101	84	19	50	–	128	132	17	146	151	151	040
70	196	96	113	93	24	63	137	141	–	17	233	237	238	043
75	202	102	119	99	24	63	143	147	–	17	234	238	239	043
80	203	106	122	103	24	63	149	151	–	17	236	240	241	044
85	211	111	129	109	24	63	156	159	163	21	237	241	242	045
90	214	116	132	113	24	63	160	164	168	21	239	243	244	046
95	221	121	138	118	24	63	161	156	169	21	240	244	245	046
100	228	127	144	125	24	63	168	172	176	21	242	246	247	047
110	237	137	154	134	24	63	178	182	186	21	245	249	250	049
120	266	146	163	144	24	63	190	194	197	21	248	252	253	050

# 1810 Heavy-Duty Modular Single Cartridge Seal – Inch



Key													
A – Shaft Size	B – Gland Outside Diameter	C – Seal Chamber Bore	D – Inboard Seal Diameter	E – Seal Chamber Depth	F – Outboard Seal Length	G – Minimum Bolt Circle by Bolt Size	H – Slot Width	V – Shaft O-Ring	W – Rotary Seal O-Ring	X – Stationary Seal O-Ring	Y – Bushing O-Ring		

A	B MAX	C MIN	C MAX	D MAX	E MIN	F MAX	3/8"	G MIN 1/2"	5/8"	H	V	W	X	Y
1.000	4.11	1.75	2.13	1.69	0.73	2.07	2.87	–	–	0.44	120	126	127	028
1.125	4.11	1.88	2.26	1.82	0.73	2.07	3.00	–	–	0.44	122	128	129	029
1.250	4.11	2.00	2.38	1.94	0.73	2.07	3.12	–	–	0.44	124	130	131	030
1.375	4.36	2.13	2.51	2.07	0.73	2.07	3.25	3.37	–	0.57	126	132	133	031
1.500	4.49	2.25	2.63	2.19	0.73	2.07	3.38	3.50	–	0.57	128	134	135	031
1.625	4.99	2.38	2.69	2.32	0.73	2.07	3.51	3.63	–	0.57	130	136	137	032
1.750	5.49	2.50	2.81	2.44	0.73	2.07	3.62	3.75	–	0.57	132	138	139	033
1.875	5.49	2.63	2.94	2.57	0.73	2.07	3.75	3.87	–	0.57	134	140	141	034
2.000	5.49	2.75	3.19	2.69	0.73	2.07	4.13	4.25	–	0.57	136	142	143	035
2.125	5.99	2.88	3.44	2.82	0.73	2.07	4.25	4.38	4.50	0.69	138	144	145	036
2.250	5.99	3.00	3.56	2.94	0.73	2.07	4.37	4.50	4.62	0.69	140	146	147	037
2.375	5.99	3.13	3.59	3.07	0.73	2.07	4.58	4.71	4.83	0.69	142	148	149	038
2.500	6.49	3.25	3.81	3.19	0.73	2.07	4.62	4.75	4.87	0.69	145	151	151	040
2.625	6.49	3.38	3.94	3.32	0.73	2.07	5.00	5.12	5.25	0.69	232	236	237	042
2.750	7.71	3.75	4.44	3.67	0.96	2.48	5.42	5.55	–	0.69	232	236	237	042
2.875	7.83	3.88	4.56	3.79	0.96	2.48	5.50	5.71	–	0.69	234	238	239	043
3.000	7.94	4.00	4.69	3.92	0.96	2.48	5.65	5.77	–	0.69	235	239	240	044
3.125	7.99	4.13	4.81	4.04	0.96	2.48	5.80	5.92	–	0.69	236	239	240	044
3.250	8.19	4.25	4.94	4.17	0.96	2.48	5.93	6.17	–	0.69	237	241	242	045
3.375	8.31	4.38	5.06	4.29	0.96	2.48	6.05	6.30	6.39	0.81	238	242	243	045
3.500	8.44	4.50	5.19	4.42	0.96	2.48	6.18	6.31	6.43	0.81	239	242	243	045
3.625	8.49	4.63	5.31	4.54	0.96	2.48	6.31	6.52	6.62	0.81	240	244	245	046
3.750	8.72	4.75	5.44	4.67	0.96	2.48	6.38	6.51	6.63	0.81	241	245	246	047
3.875	8.84	4.88	5.56	4.79	0.96	2.48	6.52	6.72	6.82	0.81	242	246	247	047
4.000	8.96	5.00	5.69	4.92	0.96	2.48	6.66	6.78	6.91	0.81	243	247	248	048
4.125	8.99	5.13	5.81	5.04	0.96	2.48	6.79	6.90	7.03	0.81	244	248	249	048
4.250	8.99	5.25	5.94	5.17	0.96	2.48	6.92	7.17	7.26	0.81	245	249	250	049
4.375	9.34	5.38	6.06	5.29	0.96	2.48	7.03	7.15	7.28	0.81	246	250	251	049
4.500	9.49	5.50	6.19	5.42	0.96	2.48	7.18	7.30	7.43	0.81	247	251	252	050
4.625	9.49	5.63	6.31	5.54	0.96	2.48	7.30	7.55	7.65	0.81	248	252	253	050
4.750	10.49	5.75	6.47	5.67	0.96	2.48	7.41	7.66	7.75	0.81	248	252	253	050