

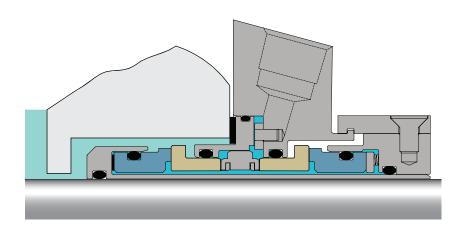
## 2810

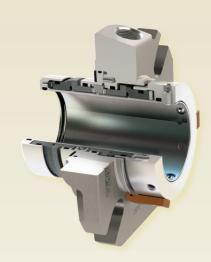
### **Heavy-Duty Modular Double Cartridge Seal**

# Built on Chesterton's AXIUS™ modular platform for simple configuration and emission control plant-wide

This Chesterton® double cartridge seal offers you the ultimate in seal quality, flexibility, and emissions control. Leveraging Chesterton's proprietary AXIUS modular platform, the 2810 can be configured with several different face profiles and auxiliary components within a common gland housing. This flexibility allows seal performance to be tailored to a wide range of process conditions.

A plant-wide sealing solution, the 2810 uses a geometric double-balanced seal face design. An optimized barrier/buffer channel for enhanced fluid flow provides greater seal reliability even at elevated temperatures.







#### **Advantages**

- 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
- Accommodates axial, radial, and angular shaft movement through unified seal face alignment
- Allows for easy, positive seal identification with ViewIn<sup>™</sup> technology

#### **SPECIFICATIONS**

#### **Operating Parameters**

Sizes	25 mm – 120 mm
	1.00" – 4.75"
Pressure	711 mm or 28" Hg Vacuum to 40 bar g (600 psig*)
	17 bar g (250 psig) outboard
Temperature	–55°C − 300°C (−67°F − 570°F)
	Temperature limits depend on actual elastomers used
Speed	25 m/s (5000 fpm)
Speed	25 m/s (5000 fpm)

#### **Applicable Standards and Approvals**

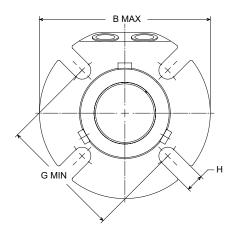
ISO-3069C, ASME B73.1, B73.2, ATEX Category I, Group 2 approved

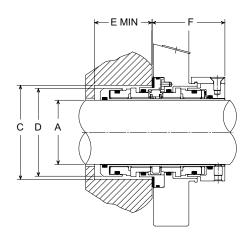
\* Seal pressure capabilities are dependent on the fluid sealed, temperature, speed, and seal face combinations. For operation outside the limits and additional materials consult Chesterton Mechanical Seal Engineering.

#### **Materials of Construction**

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

#### **Dimensional Data**





#### 2810 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 - Slot Width

2810 Dimensional Data Metric										
SHAFT SIZE	GLAND OD		FING BORE	IB SEAL DIA	SB DEPTH	OB LENGTH	BOLT CIRCLE BY BOLT SIZE			
	В	C	C	D	E	F		G MIN		
A	MAX	MIN	MAX	MAX	MIN	MAX	10 mm	12 mm	16 mm	20 mm
25	104	44.5	51.1	42.9	40	53.8	73.2	-	-	-
28	104	47.8	51.8	46.2	40	53.8	73.2	-	-	-
30 (OS)	104 (127)	51.0 (59.4)	56.6 (68.1)	49.5	40	53.8	78.0 (90.0)	-	-	-
32	104	49.0	58.7	47.4	40	53.8	80.1	_	-	-
33	111	49.0	58.7	47.4	40	53.8	80.1	81.6	-	-
35	111	53.9	59.2	52.4	40	53.8	83.2	85.2	-	-
38	114	57.1	62.0	55.5	40	53.8	85.8	88.6	-	-
40 (OS)	127	59.0 (69.3)	68.3 (74.3)	57.5	40	53.8	90.0 (96.5)	92.0 (-)	-	-
42	127	61.0	68.3	59.5	40	53.8	90.2	92.0	-	-
43	127	62.0	68.8	60.5	40	53.8	94.0	96.0	-	-
45	139	64.0	73.4	62.5	40	53.8	94.8	96.8	-	-
48	139	67.0	73.8	65.5	40	53.8	95.3	97.3	-	-
50 (OS)	139 (152)	69.0 (85.2)	78.5 (94.1)	67.5	40	53.8	100.0 (118.6)	102.0 (120.6)	-	-
53	152	73.0	87.4	71.4	40	53.8	108.3	110.3	114.3	-
55	152	74.0	81.2	72.4	40	53.8	104.5	106.5	110.5	-
58	152	79.3	91.9	77.8	40	53.8	116.2	118.2	122.2	-
60 (OS)	152 (165)	79.3 (78.9)	91.9 (107.5)	77.8	40	53.8	116.2 (129.8)	118.2 (131.8)	122.2 (-)	-
65	164	85.7	100.1	84.1	40	53.8	127.4	129.4	133.4	-
70	196	95.0	113.0	93.0	52	64.0	-	137.0	141.0	-
75	202	101.0	119.0	99.0	52	64.0	-	143.0	147.0	-
80	203	106.0	122.0	103.0	52	64.0	-	150.0	154.0	-
85	211	111.0	129.0	109.0	52	64.0	-	156.5	160.5	164.0
90	215	116.0	132.0	114.0	52	64.0	-	160.0	164.0	168.0
95	222	121.0	138.0	118.0	52	64.0	-	161.0	165.0	170.0
100	228	127.0	144.0	125.0	52	64.0	-	168.0	172.0	177.0
110	237	137.0	154.0	134.0	52	64.0	-	178.0	182.0	186.0
120	267	146.0	163.0	144.0	52	64.0	-	191.0	195.0	198.5

2810 Dimensional Data Inches											
SHAFT SIZE	GLAND OD	STUF BOX	IB SEAL DIA	SB DEPTH	OB LENGTH	BOLT CIRCLE BY BOLT SIZE					
	В	C	С	D	E	F		G MIN			
A	MAX	MIN	MAX	MAX	MIN	MAX	3/8"	1/2"	5/8"	3/4"	
1.000	4.11	1.75	2.01	1.69	1.58	2.12	2.88	-	-	-	
1.125 (OS)	4.11 (4.49)	1.88 (2.61)	2.04 (2.92)	1.82	1.58	2.12	2.88 (3.77)	-	_	-	
1.250	4.11	2.00	2.27	1.94	1.58	2.12	3.14	-	_	-	
1.375 (OS)	4.45 (5.39)	2.13 (2.73)	2.33 (2.92)	2.06	1.58	2.12	3.27 (3.78)	3.40 (-)	-	-	
1.500	4.50	2.25	2.44	2.19	1.58	2.12	3.40	3.53	-	_	
1.625	5.00	2.38	2.69	2.31	1.58	2.12	3.52	3.64	_	-	
1.750 (OS)	5.50 (6.65)	2.50 (3.48)	2.81 (3.73)	2.44	1.58	2.12	3.62 (4.59)	3.75 (4.72)	_	_	
1.875 (OS)	5.50 (5.99)	2.63 (3.53)	2.94 (3.79)	2.56	1.58	2.12	3.75 (4.65)	3.88 (4.78)	_	_	
2.000	5.50	2.75	3.19	2.69	1.58	2.12	4.13	4.27	_	-	
2.125 (OS)	6.00 (6.99)	2.88 (3.86)	3.44 (4.23)	2.81	1.58	2.12	4.25 (5.09)	4.38 (5.22)	4.50 (5.34)	_	
2.250	6.00	3.00	3.47	2.94	1.58	2.12	4.37	4.50	4.62	_	
2.375 (OS)	6.00 (8.39)	3.13 (4.11)	3.62 (4.48)	3.06	1.58	2.12	4.56 (5.34)	4.75 (5.47)	4.82 (5.59)	_	
2.500 (OS)	6.50 (7.76)	3.25 (4.48)	3.81 (5.23)	3.19	1.58	2.12	4.62 (6.09)	4.75 (6.22)	4.87 (6.34)	_	
2.625 (OS)	6.50 (6.98)	3.38 (4.55)	3.94 (4.76)	3.31	1.58	2.12	5.00 (5.62)	5.13 (5.75)	5.26 (5.87)	-	
2.750 (OS)	7.71 (7.89)	3.76 (4.45)	4.44 (4.76)	3.67	2.05	2.50	-	5.42 (5.84)	5.55 (5.97)	- (6.09)	
2.875	7.83	3.88	4.56	3.79	2.05	2.50	-	5.50	5.72	_	
3.000 (OS)	7.94 (8.64)	4.00 (4.92)	4.69 (5.37)	3.91	2.05	2.50	-	5.65 (6.45)	5.77 (6.58)	- (6.70)	
3.125	7.99	4.13	4.81	4.04	2.05	2.50	-	5.80	5.92	_	
3.250	8.19	4.25	4.94	4.16	2.05	2.50	-	5.93	6.17	_	
3.375 (OS)	8.31 (8.39)	4.38 (4.95)	5.06 (5.26)	4.29	2.05	2.50	-	6.05 (6.33)	6.30 (6.45)	6.39 (6.58)	
3.500	8.44	4.50	5.19	4.41	2.05	2.50	-	6.18	6.31	6.43	
3.625	8.49	4.63	5.31	4.54	2.05	2.50	_	6.31	6.55	6.62	
3.750 (OS)	8.72 (9.76)	4.75 (5.95)	5.44 (6.38)	4.66	2.05	2.50	-	6.38 (7.46)	6.51 (7.59)	6.63 (-)	
3.875	8.84	4.88	5.56	4.79	2.05	2.50	-	6.52	6.75	6.82	
4.000	8.96	5.00	5.69	4.91	2.05	2.50	-	6.66	6.78	6.91	
4.125 (OS)	8.99 (9.76)	5.13 (5.95)	5.81 (6.26)	5.04	2.05	2.50	-	6.79 (7.33)	6.90 (7.45)	7.03 (7.58)	
4.250	8.99	5.25	5.94	5.16	2.05	2.50	-	6.92	7.17	7.26	
4.375	9.34	5.38	6.06	5.29	2.05	2.50	-	7.03	7.15	7.28	
4.500 (OS)	9.49 (12.49)	5.50 (6.73)	6.19 (7.49)	5.41	2.05	2.50	-	7.18 (8.56)	7.30 (8.68)	7.43 (8.81)	
4.625	9.49	5.63	6.31	5.54	2.05	2.50	-	7.32	7.56	7.65	
4.750 (OS)	10.49 (11.39)	5.75 (7.20)	6.44 (7.63)	5.66	2.05	2.50	-	7.41 (8.21)	7.66 (8.84)	7.75 (8.96)	

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