

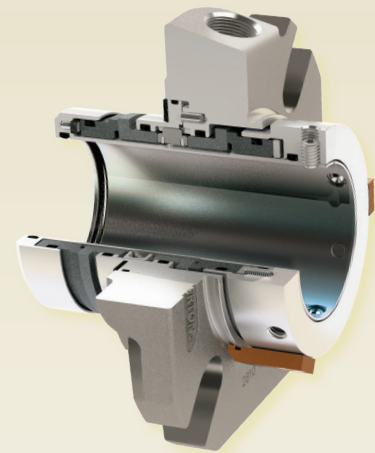
2810

Heavy-Duty Modular Double Cartridge Seal

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

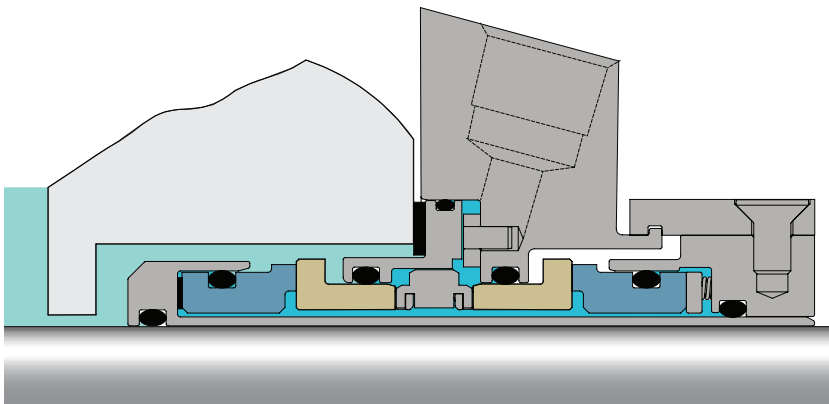
This Chesterton® double cartridge seal offers you the ultimate in seal quality, flexibility, and emissions control. Leveraging Chesterton's proprietary AXIUS modular platform, the 2810 can be configured with several different face profiles and auxiliary components within a common gland housing. This 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™ 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) |

Applicable Standards and Approvals

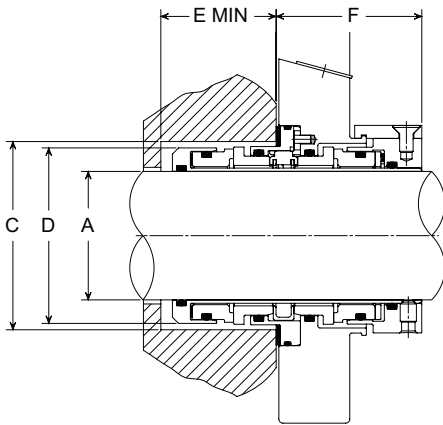
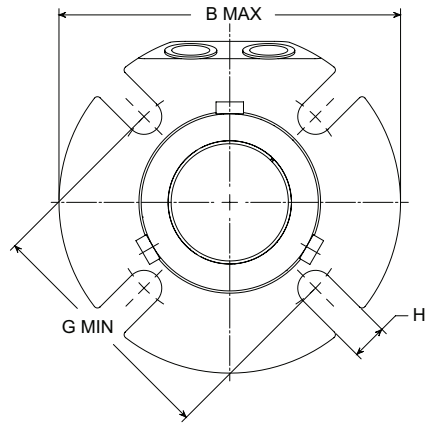
ISO-3069C, ASME B73.1, B73.2, ATEX Category I, Group 2 approved

* 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 | STUFFING BOX BORE | | IB SEAL DIA | SB DEPTH | OB LENGTH | BOLT CIRCLE BY BOLT SIZE | | | |
|------------|-----------|-------------------|--------------|-------------|----------|-----------|--------------------------|---------------|-----------|-------|
| | | B | C | | | | C | D | E | F |
| A | B | C | C | D | E | F | 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 | STUFFING BOX BORE | | IB SEAL DIA | SB DEPTH | OB LENGTH | BOLT CIRCLE BY BOLT SIZE | | | |
|------------|---------------|-------------------|-------------|-------------|----------|-----------|--------------------------|-------------|-------------|-------------|
| | | B | C | | | | C | D | E | F |
| A | B | C | C | D | E | F | 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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