

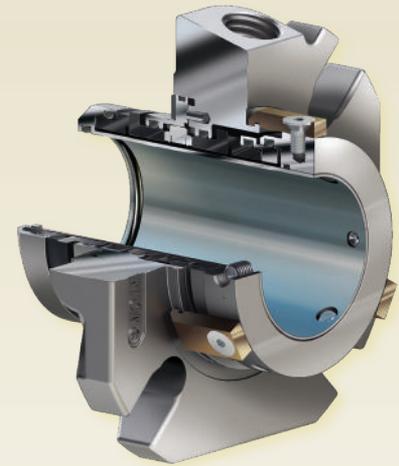
2510

General Duty Double Cartridge Seal

Simple Installation and Increased Plant-Wide Reliability in General-Duty Applications

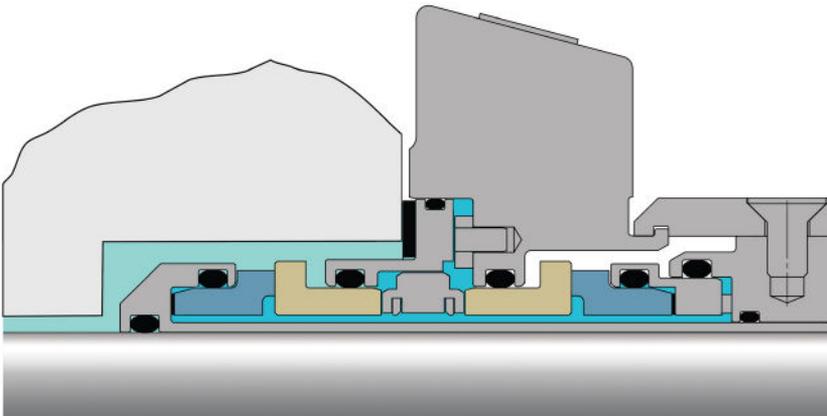
Built on Chesterton's AXIUS™ platform of performance cartridge seals, the Chesterton® 2510 Double Cartridge Seal is designed for maximum reliability, making it an ideal solution for plant-wide standardization of general-duty applications in a field-repairable package. Engineered with a hydraulically double balanced construction, the seal is designed to endure any pressure reversals, shifts, or surges, keeping the faces reliably closed.

The 2510 Double Cartridge Seal offers increased cooling and flow capabilities, resulting in cooler operating seal faces – even at elevated temperatures – through the design of unique sleeve and gland features. Integrating proven technologies from Chesterton's long history of mechanical seal designs, the 2510 Double Cartridge Seal sets the new standard for general-duty double cartridge seals.



Advantages

- Improved motion capabilities to handle both static/dynamic misalignments and shaft motion
- Reliable through temperature cycling and intermittent operation due to monolithic seal faces
- Helps prevent damage to your equipment and internal components via true non-fretting design



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) |
| Maximum Barrier Fluid Pressure | 17 barg (250 psig) for sizes up to 65 mm (2.625") 14 barg (200 psig) for sizes 70 mm (2.750") – 120 mm (4.750") |
| 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

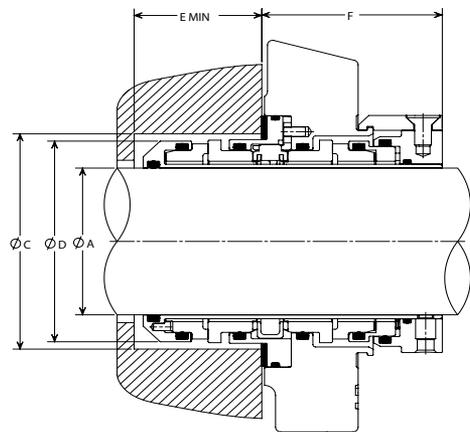
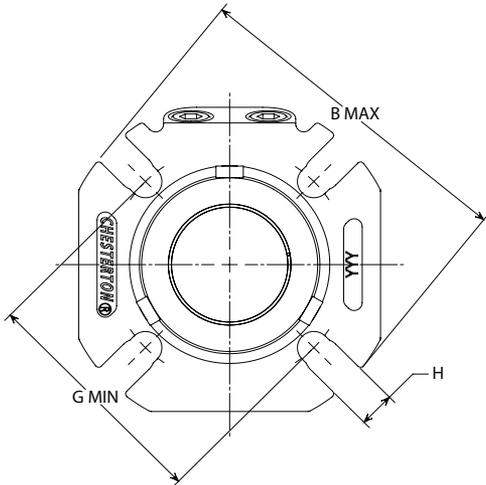
ISO-3069C, ASME B73.1, B73.2

*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



2510 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

Metric

| A | B MAX | C MIN | C MAX | D MAX | E MIN | F MAX | 10 mm | 12 mm | G MIN | 16 mm | 20 mm | H |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 25 mm | 104.2 | 44.2 | 51.0 | 40.2 | 34.8 | 53.9 | 73.4 | – | – | – | – | 11.4 |
| 28 mm | 104.2 | 47.3 | 51.8 | 42.7 | 34.8 | 53.9 | 73.4 | – | – | – | – | 11.4 |
| 30 mm | 104.2 | 49.3 | 56.6 | 44.8 | 34.8 | 53.9 | 78.2 | – | – | – | – | 11.4 |
| 30 mm (OS) | 126.8 | 59.5 | 68.3 | 44.8 | 34.8 | 53.9 | 90.0 | – | – | – | – | 11.2 |
| 32 mm | 110.8 | 51.1 | 57.6 | 46.8 | 34.8 | 53.9 | 80.4 | – | – | – | – | 11.4 |
| 33 mm | 110.8 | 52.1 | 58.6 | 47.8 | 34.8 | 53.9 | 79.9 | 81.9 | – | – | – | 14.7 |
| 35 mm | 110.8 | 54.2 | 59.1 | 49.6 | 34.8 | 53.9 | 83.5 | 85.5 | – | – | – | 14.7 |
| 38 mm | 114.1 | 57.2 | 61.9 | 55.9 | 37.1 | 53.9 | 86.9 | 88.9 | – | – | – | 14.7 |
| 40 mm | 126.8 | 59.2 | 68.3 | 57.7 | 37.1 | 53.9 | 90.3 | 92.3 | – | – | – | 14.7 |
| 40 mm (OS) | 126.8 | 69.4 | 74.6 | 57.7 | 37.1 | 53.9 | 96.5 | – | – | – | – | 11.2 |
| 42 mm | 126.8 | 61.3 | 68.3 | 60.8 | 37.1 | 53.9 | 90.3 | 92.3 | – | – | – | 14.7 |
| 43 mm | 126.8 | 62.3 | 68.8 | 60.8 | 37.1 | 53.9 | 94.4 | 96.4 | – | – | – | 14.7 |
| 45 mm | 139.2 | 64.3 | 73.4 | 62.8 | 37.1 | 53.9 | 95.2 | 97.2 | – | – | – | 14.7 |
| 48 mm | 139.2 | 67.1 | 73.6 | 65.8 | 37.1 | 53.9 | 95.6 | 97.6 | – | – | – | 14.7 |
| 50 mm | 139.2 | 69.1 | 78.4 | 67.9 | 37.1 | 53.9 | 100.3 | 102.3 | – | – | – | 14.7 |
| 50 mm (OS) | 152.2 | 85.4 | 94.4 | 67.9 | 37.1 | 53.9 | 118.6 | 120.6 | – | – | – | 14.5 |
| 53 mm | 152.2 | 72.2 | 87.3 | 72.7 | 37.1 | 53.9 | 108.6 | 110.6 | 114.6 | – | – | 17.8 |
| 55 mm | 152.2 | 74.2 | 81.0 | 72.7 | 37.1 | 53.9 | 104.8 | 106.8 | 110.8 | – | – | 17.8 |
| 58 mm | 152.2 | 77.3 | 91.9 | 78.0 | 37.1 | 53.9 | 116.6 | 118.6 | 122.6 | – | – | 17.8 |
| 60 mm | 152.2 | 79.3 | 91.9 | 78.0 | 37.1 | 53.9 | 116.6 | 118.6 | 122.6 | – | – | 17.8 |
| 60 mm (OS) | 164.7 | 96.3 | 107.9 | 78.0 | 37.1 | 53.9 | 129.8 | 131.8 | – | – | – | 14.5 |
| 65 mm | 163.9 | 84.1 | 100.0 | 84.4 | 37.1 | 53.9 | 127.7 | 129.7 | 133.7 | – | – | 17.8 |
| 70 mm | 195.9 | 95.6 | 113.0 | 93.5 | 49.1 | 63.8 | – | 136.9 | 140.9 | – | – | 17.8 |
| 75 mm | 201.7 | 100.6 | 119.3 | 99.6 | 49.1 | 63.8 | – | 142.8 | 146.8 | – | – | 17.8 |
| 80 mm | 203.0 | 105.5 | 122.4 | 103.4 | 49.1 | 63.8 | – | 149.9 | 153.9 | – | – | 17.8 |
| 85 mm | 211.1 | 110.5 | 128.7 | 109.0 | 49.1 | 63.8 | – | 152.1 | 156.1 | 160.1 | – | 20.8 |
| 90 mm | 214.4 | 115.6 | 132.0 | 113.3 | 49.1 | 63.8 | – | 159.6 | 163.6 | 167.6 | – | 20.8 |
| 95 mm | 221.5 | 120.4 | 138.4 | 118.7 | 49.1 | 63.8 | – | 161.4 | 165.4 | 169.4 | – | 20.8 |
| 100 mm | 227.6 | 125.5 | 144.7 | 125.0 | 49.1 | 63.8 | – | 168.4 | 172.4 | 176.4 | – | 20.8 |
| 105 mm | 228.4 | 130.6 | 151.1 | 131.4 | 49.1 | 63.8 | – | 174.9 | 178.9 | 182.9 | – | 20.8 |
| 110 mm | 237.3 | 135.7 | 154.1 | 134.4 | 49.1 | 63.8 | – | 177.8 | 181.8 | 185.8 | – | 20.8 |
| 115 mm | 241.1 | 140.5 | 160.5 | 140.8 | 49.1 | 63.8 | – | 184.1 | 188.1 | 192.1 | – | 20.8 |
| 120 mm | 266.5 | 145.6 | 163.8 | 144.1 | 49.1 | 63.8 | – | 187.3 | 191.3 | 195.3 | – | 20.8 |

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 |
|------------|-------|-------|-------|-------|-------|-------|------|------|-------|------|------|------|
| 1.000 | 4.10 | 1.75 | 2.01 | 1.58 | 1.37 | 2.12 | 2.88 | – | – | – | – | 0.45 |
| 1.125 | 4.10 | 1.88 | 2.04 | 1.70 | 1.37 | 2.12 | 2.88 | – | – | – | – | 0.45 |
| 1.125 (OS) | 4.49 | 2.61 | 2.94 | 1.70 | 1.37 | 2.12 | 3.77 | – | – | – | – | 0.44 |
| 1.250 | 4.10 | 2.00 | 2.27 | 1.84 | 1.37 | 2.12 | 3.15 | – | – | – | – | 0.45 |
| 1.375 | 4.36 | 2.13 | 2.33 | 1.95 | 1.37 | 2.12 | 3.27 | 3.40 | – | – | – | 0.58 |
| 1.375 (OS) | 5.39 | 2.73 | 2.94 | 1.95 | 1.37 | 2.12 | 3.78 | – | – | – | – | 0.44 |
| 1.500 | 4.49 | 2.25 | 2.44 | 2.20 | 1.46 | 2.12 | 3.41 | 3.53 | – | – | – | 0.58 |
| 1.625 | 4.99 | 2.38 | 2.69 | 2.32 | 1.46 | 2.12 | 3.51 | 3.64 | – | – | – | 0.58 |
| 1.750 | 5.48 | 2.50 | 2.81 | 2.45 | 1.46 | 2.12 | 3.63 | 3.76 | – | – | – | 0.58 |
| 1.750 (OS) | 6.65 | 3.48 | 3.75 | 2.45 | 1.46 | 2.12 | 4.59 | 4.72 | – | – | – | 0.57 |
| 1.875 | 5.48 | 2.63 | 2.94 | 2.57 | 1.46 | 2.12 | 3.75 | 3.88 | – | – | – | 0.58 |
| 1.875 (OS) | 5.99 | 3.53 | 3.81 | 2.57 | 1.46 | 2.12 | 4.65 | 4.78 | – | – | – | 0.57 |
| 2.000 | 5.48 | 2.75 | 3.19 | 2.70 | 1.46 | 2.12 | 4.14 | 4.27 | – | – | – | 0.58 |
| 2.125 | 5.99 | 2.88 | 3.44 | 2.82 | 1.46 | 2.12 | 4.26 | 4.39 | 4.51 | – | – | 0.70 |
| 2.125 (OS) | 6.99 | 3.86 | 4.25 | 2.82 | 1.46 | 2.12 | 5.09 | 5.22 | 5.34 | – | – | 0.69 |
| 2.250 | 5.99 | 3.00 | 3.46 | 2.95 | 1.46 | 2.12 | 4.38 | 4.51 | 4.63 | – | – | 0.70 |
| 2.375 | 5.99 | 3.13 | 3.62 | 3.07 | 1.46 | 2.12 | 4.57 | 4.70 | 4.82 | – | – | 0.70 |
| 2.375 (OS) | 8.39 | 4.11 | 4.50 | 3.07 | 1.46 | 2.12 | 5.34 | 5.47 | 5.59 | – | – | 0.69 |
| 2.500 | 6.45 | 3.25 | 3.81 | 3.20 | 1.46 | 2.12 | 4.63 | 4.76 | 4.88 | – | – | 0.70 |
| 2.500 (OS) | 7.76 | 4.48 | 5.25 | 3.20 | 1.46 | 2.12 | 6.09 | 6.22 | 6.34 | – | – | 0.69 |
| 2.625 | 6.45 | 3.38 | 3.94 | 3.32 | 1.46 | 2.12 | 5.01 | 5.14 | 5.26 | – | – | 0.70 |
| 2.625 (OS) | 6.98 | 4.55 | 4.78 | 3.32 | 1.46 | 2.12 | 5.62 | 5.75 | 5.87 | – | – | 0.69 |
| 2.750 | 7.71 | 3.75 | 4.45 | 3.68 | 1.93 | 2.51 | – | 5.42 | 5.55 | – | – | 0.70 |
| 2.750 (OS) | 7.89 | 4.45 | 4.76 | 3.68 | 1.93 | 2.51 | – | 5.84 | 5.97 | 6.09 | – | 0.82 |
| 2.875 | 7.83 | 3.88 | 4.57 | 3.79 | 1.93 | 2.51 | – | 5.50 | 5.63 | – | – | 0.70 |
| 3.000 | 7.94 | 4.00 | 4.70 | 3.92 | 1.93 | 2.51 | – | 5.65 | 5.78 | – | – | 0.70 |
| 3.000 (OS) | 8.64 | 4.92 | 5.37 | 3.92 | 1.93 | 2.51 | – | 6.45 | 6.58 | 6.70 | – | 0.94 |
| 3.125 | 7.99 | 4.13 | 4.82 | 4.04 | 1.93 | 2.51 | – | 5.80 | 5.93 | – | – | 0.70 |
| 3.250 | 8.19 | 4.25 | 4.95 | 4.17 | 1.93 | 2.51 | – | 5.93 | 6.06 | – | – | 0.70 |
| 3.375 | 8.31 | 4.38 | 5.07 | 4.29 | 1.93 | 2.51 | – | 6.02 | 6.15 | 6.27 | – | 0.82 |
| 3.375 (OS) | 8.39 | 4.95 | 5.23 | 4.29 | 1.93 | 2.51 | – | 6.33 | 6.45 | 6.58 | – | 0.82 |
| 3.500 | 8.44 | 4.50 | 5.20 | 4.42 | 1.93 | 2.51 | – | 6.19 | 6.31 | 6.44 | – | 0.82 |
| 3.625 | 8.49 | 4.63 | 5.32 | 4.54 | 1.93 | 2.51 | – | 6.32 | 6.44 | 6.57 | – | 0.82 |
| 3.750 | 8.72 | 4.75 | 5.45 | 4.67 | 1.93 | 2.51 | – | 6.39 | 6.51 | 6.64 | – | 0.82 |
| 3.750 (OS) | 9.76 | 5.95 | 6.38 | 4.67 | 1.93 | 2.51 | – | 7.46 | 7.59 | – | – | 0.69 |
| 3.875 | 8.84 | 4.88 | 5.57 | 4.79 | 1.93 | 2.51 | – | 6.52 | 6.65 | 6.77 | – | 0.82 |
| 4.000 | 8.96 | 5.00 | 5.70 | 4.92 | 1.93 | 2.51 | – | 6.66 | 6.79 | 6.91 | – | 0.82 |
| 4.125 | 8.99 | 5.13 | 5.82 | 5.04 | 1.93 | 2.51 | – | 6.78 | 6.91 | 7.03 | – | 0.82 |
| 4.125 (OS) | 9.76 | 5.95 | 6.25 | 5.04 | 1.93 | 2.51 | – | 7.33 | 7.45 | 7.58 | – | 0.94 |
| 4.250 | 8.99 | 5.25 | 5.95 | 5.17 | 1.93 | 2.51 | – | 6.92 | 7.04 | 7.17 | – | 0.82 |
| 4.375 | 9.34 | 5.38 | 6.07 | 5.29 | 1.93 | 2.51 | – | 7.03 | 7.16 | 7.28 | – | 0.82 |
| 4.500 | 9.49 | 5.50 | 6.20 | 5.42 | 1.93 | 2.51 | – | 7.18 | 7.31 | 7.43 | – | 0.82 |
| 4.500 (OS) | 12.49 | 6.73 | 7.48 | 5.42 | 1.93 | 2.51 | – | 8.56 | 8.68 | 8.81 | – | 0.89 |
| 4.625 | 9.49 | 5.63 | 6.32 | 5.54 | 1.93 | 2.51 | – | 7.28 | 7.41 | 7.53 | – | 0.82 |
| 4.750 | 10.49 | 5.75 | 6.45 | 5.67 | 1.93 | 2.51 | – | 7.41 | 7.53 | 7.66 | – | 0.82 |
| 4.750 (OS) | 11.39 | 7.20 | 7.63 | 5.67 | 1.93 | 2.51 | – | 8.71 | 8.84 | 8.96 | – | 0.82 |

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