

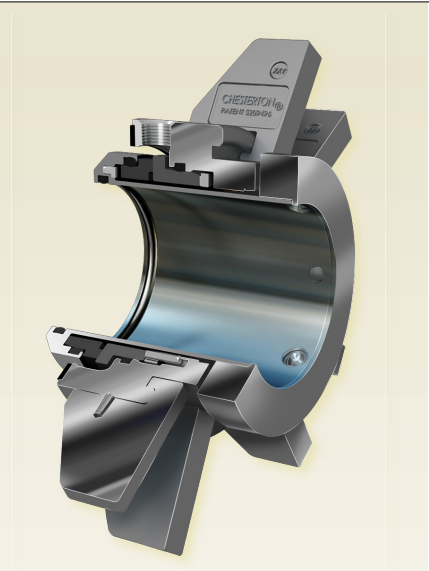
1510

General Duty Single Cartridge Seal

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

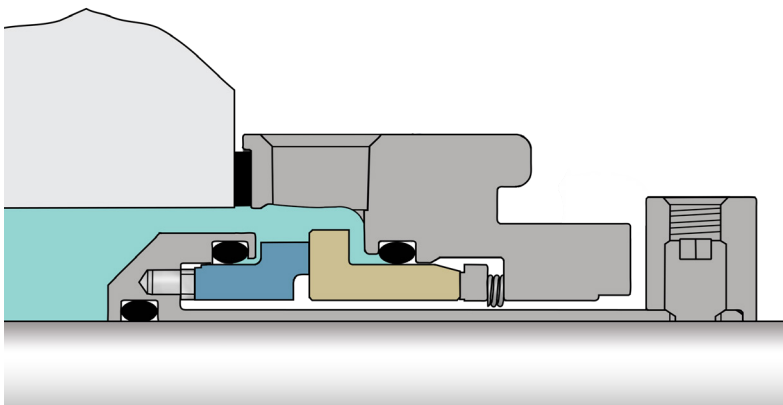
Maximize maintenance efficiency and increase plant productivity with the 1510 Single Cartridge Seal. Designed to fit process equipment plant-wide by incorporating Chesterton T.A.B.S. (Tapered Adjustable Bolting System), the compact profile makes seal installation easy.

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

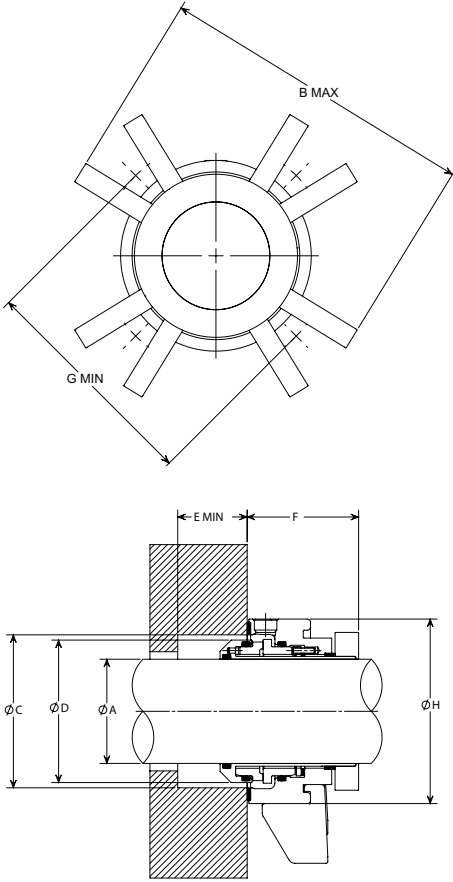
ISO-3069C, ASME B73.1, B73.2, ACS, KTW, NSF61, WRAS

*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

| 1510 Dimensional Data Inches | | | | | | | | | | | |
|------------------------------|--------------|-------------------|-------------|-------------|----------|-----------|--------------------------|-------------|-------------|-------------|-------------|
| SHAFT SIZE | GLAND OD | STUFFING BOX BORE | | IB SEAL DIA | SB DEPTH | OB LENGTH | BOLT CIRCLE BY BOLT SIZE | | | | HUB OD |
| | | B | C | | | | G MIN | | | | |
| A | MAX | MIN | MAX | D | E | F | 3/8" | 1/2" | 5/8" | 3/4" | H MAX |
| 1.000 | 4.66 | 1.63 | 2.00 | 1.58 | 0.55 | 2.07 | 2.88 | 3.01 | 3.13 | | 2.45 |
| 1.125 (OS) | 4.70 (5.37) | 1.75 (2.39) | 2.03 (2.75) | 1.70 | 0.55 | 2.07 | 2.88 (3.59) | 3.01 (3.71) | 3.13 (3.84) | | 2.48 (3.15) |
| 1.250 | 4.92 | 1.88 | 2.26 | 1.84 | 0.55 | 2.07 | 3.13 | 3.26 | 3.38 | | 2.70 |
| 1.375 (OS) | 5.05 (5.64) | 2.00 (2.67) | 2.42 (3.00) | 1.95 | 0.55 | 2.07 | 3.12 (3.86) | 3.25 (3.99) | 3.37 (4.11) | | 2.84 (3.43) |
| 1.500 | 5.24 | 2.25 | 2.62 | 2.20 | 0.55 | 2.07 | 3.32 | 3.45 | 3.57 | | 3.03 |
| 1.625 | 5.30 | 2.38 | 2.68 | 2.32 | 0.55 | 2.07 | 3.52 | 3.65 | 3.77 | | 3.08 |
| 1.750 (OS) | 5.42 (6.71) | 2.50 (3.47) | 2.80 (3.75) | 2.45 | 0.55 | 2.07 | 3.64 (4.93) | 3.77 (5.05) | 3.89 (5.18) | | 3.20 (4.49) |
| 1.875 (OS) | 5.54 (6.66) | 2.63 (3.52) | 2.93 (3.81) | 2.57 | 0.55 | 2.07 | 3.76 (4.88) | 3.89 (5.00) | 4.01 (5.13) | | 3.32 (4.44) |
| 2.000 | 5.75 | 2.75 | 3.18 | 2.70 | 0.55 | 2.07 | 3.97 | 4.10 | 4.22 | | 3.53 |
| 2.125 (OS) | 6.05 (7.38) | 2.88 (3.85) | 3.43 (4.25) | 2.82 | 0.55 | 2.07 | 4.27 (5.60) | 4.40 (5.73) | 4.52 (5.85) | | 3.84 (5.17) |
| 2.250 | 6.16 | 3.00 | 3.55 | 2.95 | 0.55 | 2.07 | 4.38 | 4.51 | 4.63 | | 3.94 |
| 2.375 (OS) | 6.30 (7.15) | 3.13 (4.10) | 3.59 (4.50) | 3.07 | 0.55 | 2.07 | 4.45 (5.37) | 4.58 (5.49) | 4.70 (5.62) | | 4.08 (4.93) |
| 2.500 (OS) | 6.42 (8.21) | 3.25 (4.47) | 3.80 (5.25) | 3.20 | 0.55 | 2.07 | 4.64 (6.43) | 4.77 (6.56) | 4.89 (6.68) | | 4.21 (6.00) |
| 2.625 (OS) | 6.69 (7.48) | 3.50 (4.54) | 3.94 (4.78) | 3.32 | 0.55 | 2.07 | 4.88 (5.70) | 5.01 (5.83) | 5.13 (5.95) | | 4.47 (5.27) |
| 2.750 (OS) | 7.76 (8.14) | 3.75 (4.34) | 4.13 (4.78) | 3.68 | 0.69 | 2.45 | | 5.48 (5.83) | 5.61 (5.95) | 5.73 (6.08) | 4.92 (5.27) |
| 2.875 | 7.89 | 3.88 | 4.25 | 3.79 | 0.69 | 2.45 | | 5.60 | 5.73 | 5.85 | 5.04 |
| 3.000 (OS) | 8.01 (8.76) | 4.00 (4.94) | 4.44 (5.39) | 3.92 | 0.69 | 2.45 | | 5.73 (6.44) | 5.86 (6.57) | 5.98 (6.69) | 5.17 (5.88) |
| 3.125 | 8.14 | 4.13 | 4.55 | 4.04 | 0.69 | 2.45 | | 5.85 | 5.98 | 6.10 | 5.29 |
| 3.250 | 8.26 | 4.25 | 4.69 | 4.17 | 0.69 | 2.45 | | 5.98 | 6.11 | 6.23 | 5.42 |
| 3.375 (OS) | 8.39 (8.64) | 4.38 (4.88) | 4.80 (5.27) | 4.29 | 0.69 | 2.45 | | 6.10 (6.33) | 6.23 (6.45) | 6.35 (6.58) | 5.54 (5.76) |
| 3.500 | 8.51 | 4.50 | 4.94 | 4.42 | 0.69 | 2.45 | | 6.23 | 6.36 | 6.48 | 5.67 |
| 3.625 | 8.64 | 4.63 | 5.05 | 4.54 | 0.69 | 2.45 | | 6.35 | 6.48 | 6.60 | 5.79 |
| 3.750 (OS) | 8.76 (9.73) | 4.75 (5.97) | 5.14 (6.40) | 4.67 | 0.69 | 2.45 | | 6.48 (7.41) | 6.61 (7.54) | 6.73 (7.66) | 5.92 (6.85) |
| 3.875 | 8.89 | 4.88 | 5.26 | 4.79 | 0.69 | 2.45 | | 6.60 | 6.73 | 6.85 | 6.04 |
| 4.000 | 9.01 | 5.00 | 5.44 | 4.92 | 0.69 | 2.45 | | 6.73 | 6.86 | 6.98 | 6.17 |
| 4.125 (OS) | 9.14 (9.64) | 5.13 (5.84) | 5.55 (6.27) | 5.04 | 0.69 | 2.45 | | 6.85 (7.33) | 6.98 (7.45) | 7.10 (7.58) | 6.29 (6.76) |
| 4.250 | 9.18 | 5.25 | 5.69 | 5.17 | 0.69 | 2.45 | | 6.89 | 7.02 | 7.14 | 6.33 |
| 4.375 | 9.30 | 5.38 | 5.81 | 5.29 | 0.69 | 2.45 | | 7.02 | 7.15 | 7.27 | 6.46 |
| 4.500 (OS) | 9.43 (10.75) | 5.50 (6.75) | 5.94 (7.50) | 5.42 | 0.69 | 2.45 | | 7.14 (8.44) | 7.27 (8.56) | 7.39 (8.69) | 6.58 (7.87) |
| 4.625 | 9.55 | 5.63 | 6.06 | 5.54 | 0.69 | 2.45 | | 7.27 | 7.40 | 7.52 | 6.71 |
| 4.750 (OS) | 9.76 (11.36) | 5.75 (7.22) | 6.22 (7.65) | 5.67 | 0.69 | 2.45 | | 7.47 (9.04) | 7.60 (9.16) | 7.72 (9.29) | 6.91 (8.48) |

| 1510 Dimensional Data Metric | | | | | | | | | | | | |
|------------------------------|---------------|-------------------|--------------|-------------|----------|-----------|--------------------------|-------------|-------------|-------------|--------|---------------|
| SHAFT SIZE | GLAND OD | STUFFING BOX BORE | | IB SEAL DIA | SB DEPTH | OB LENGTH | BOLT CIRCLE BY BOLT SIZE | | | | HUB OD | |
| | | B | C | | | | G MIN | | | | | |
| A | MAX | MIN | MAX | D | E | F | 8 mm | 10 mm | 12 mm | 16 mm | 20 mm | H MAX |
| 25 mm | 118.4 | 41.0 | 51.0 | 40.1 | 14.0 | 52.6 | 70.0 | 72.0 | 74.0 | 78.0 | | 62.3 |
| 28 mm | 118.7 | 44.0 | 51.8 | 42.7 | 14.0 | 52.6 | 71.5 | 73.5 | 75.5 | 79.5 | | 62.5 |
| 30 mm (OS) | 124.2 (135.5) | 46.0 (59.2) | 57.0 (68.3) | 44.7 | 14.0 | 52.6 | 76.0 (89) | 78.0 (91) | 80.0 (93) | 84.0 (97) | | 67.9 (79.0) |
| 32 mm | 124.8 | 48.0 | 57.7 | 46.7 | 14.0 | 52.6 | 77.8 | 79.8 | 81.8 | 85.8 | | 68.6 |
| 33 mm | 124.7 | 49.0 | 58.8 | 47.8 | 14.0 | 52.6 | 78.1 | 80.1 | 82.1 | 86.1 | | 68.6 |
| 35 mm | 128.3 | 51.0 | 62.0 | 49.5 | 14.0 | 52.6 | 77.7 | 79.7 | 81.7 | 85.7 | | 72.2 |
| 38 mm | 133.2 | 57.0 | 62.0 | 55.9 | 14.0 | 52.6 | 83.8 | 85.8 | 87.8 | 91.8 | | 77.0 |
| 40 mm (OS) | 134.7 (142.0) | 60.0 (66.4) | 68.0 (74.6) | 57.7 | 14.0 | 52.6 | 86.0 (95) | 88.0 (97) | 90.0 (99) | 94.0 (103) | | 78.5 (85.6) |
| 42 mm | 134.7 | 62.0 | 68.8 | 60.7 | 14.0 | 52.6 | 88.2 | 90.2 | 92.2 | 96.2 | | 78.3 |
| 43 mm | 134.7 | 62.0 | 68.8 | 60.7 | 14.0 | 52.6 | 88.2 | 90.2 | 92.2 | 96.2 | | 78.3 |
| 45 mm | 140.1 | 65.0 | 73.0 | 62.7 | 14.0 | 52.6 | 92.0 | 94.0 | 96.0 | 100.0 | | 83.9 |
| 48 mm | 139.7 | 67.0 | 73.8 | 65.8 | 14.0 | 52.6 | 93.1 | 95.1 | 97.1 | 101.1 | | 83.4 |
| 50 mm (OS) | 145.1 (164.1) | 70.0 (84.8) | 78.0 (96.7) | 67.8 | 14.0 | 52.6 | 97.0 (117) | 99.0 (119) | 101.0 (121) | 105.0 (125) | | 88.7 (107.7) |
| 53 mm | 153.7 | 75.0 | 83.6 | 71.6 | 14.0 | 52.6 | 102.9 | 104.9 | 106.9 | 110.9 | | 97.6 |
| 55 mm | 150.1 | 75.0 | 83.0 | 72.6 | 14.0 | 52.6 | 102.0 | 104.0 | 106.0 | 110.0 | | 93.8 |
| 58 mm | 160.0 | 80.0 | 91.0 | 78.0 | 14.0 | 52.6 | 111.3 | 113.3 | 115.3 | 119.3 | | 103.7 |
| 60 mm (OS) | 160.0 (175.3) | 80.0 (96.0) | 91.0 (107.9) | 78.0 | 14.0 | 52.6 | 111.3 (128) | 113.3 (130) | 115.3 (132) | 119.3 (136) | | 103.7 (118.9) |
| 65 mm | 169.8 | 88.9 | 100.1 | 84.3 | 14.0 | 52.6 | 124.4 | 126.4 | 128.4 | 132.4 | | 113.6 |
| 70 mm | 197.1 | 95.0 | 105.0 | 93.5 | 17.4 | 62.2 | | 135.0 | 137.0 | 141.0 | 145.0 | 125.0 |
| 75 mm | 203.5 | 104.0 | 113.0 | 99.6 | 17.4 | 62.2 | | 141.0 | 143.0 | 147.0 | 151.0 | 131.3 |
| 80 mm | 206.7 | 109.0 | 116.0 | 103.4 | 17.4 | 62.2 | | 144.0 | 146.0 | 150.0 | 154.0 | 134.4 |
| 85 mm | 213.0 | 119.0 | 122.0 | 109.0 | 17.4 | 62.2 | | 151.0 | 153.0 | 157.0 | 161.0 | 140.7 |
| 90 mm | 216.2 | 119.0 | 125.0 | 113.3 | 17.4 | 62.2 | | 154.0 | 156.0 | 160.0 | 164.0 | 144.0 |
| 95 mm | 222.5 | 124.0 | 131.0 | 118.6 | 17.4 | 62.2 | | 160.0 | 162.0 | 166.0 | 170.0 | 150.4 |
| 100 mm | 228.9 | 129.0 | 138.0 | 125.0 | 17.4 | 62.2 | | 167.0 | 169.0 | 173.0 | 177.0 | 156.7 |
| 105mm | 223.1 | 133.4 | 144.5 | 131.3 | 17.4 | 62.2 | | 173.0 | 175.0 | 179.0 | 183.0 | 160.8 |
| 110 mm | 236.2 | 137.0 | 148.0 | 134.4 | 17.4 | 62.2 | | 174.0 | 176.0 | 180.0 | 184.0 | 164.1 |
| 115mm | 242.6 | 143.0 | 153.9 | 140.7 | 17.4 | 62.2 | | 182.0 | 184.0 | 188.0 | 192.0 | 170.4 |
| 120 mm | 247.8 | 146.0 | 158.0 | 144.0 | 17.4 | 62.2 | | 186.0 | 188.0 | 192.0 | 196.0 | 175.5 |

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