



Custom Cap Seal Program

Product Data

Chesterton's CCS Program provides end users with custom cap seals designed to fit existing equipment. Thus, eliminating the need for equipment modification.

This cap seal is comprised of a two-piece, sealing system that uses a high performance cap with an o-ring to create a very effective seal.

Both components are available in a range of engineered materials to best suit the specific operating requirements.

Second generation PTFE offers improved performance over conventional materials.

Features & Benefits:

- Custom designs to fit existing equipment, no need for modifications
- 2nd Generation PTFE extends service life minimizing downtime and maximizing profits
- Compact design, minimizes groove design criteria
- Compression seal that increases its sealing force with pressure
- Proven seal design provides predictable performance
- Available for reciprocating or rotary applications in both inch and metric sizes

How to Place an Order:

- 1 Verify Groove Height
- 2 Verify Cross Section
- 3 Verify Diameter Range
- 4 Identify Material
- 5 Contact Distributor to place order



Materials		AWC 800 Red Polymer	AWC 820 Cherry Polymer	AWC 550 60% Bronze filled PTFE	AWC 440 10% / 1% Carbon/Graphite PTFE	AWC 220 8% Glass Filled PTFE
General Use		Highly abrasive resistant for use in general hydraulic & pneumatic applications	Highly abrasive resistant for use in higher temperature hydraulic & pneumatic applications	High pressure capability, good extrusion and heat resistance properties, for use in hydraulic applications	High chemical resistance, used typically in pneumatic applications	Low friction, good wear and extrusion resistance, superior strength
Temperature Range	AWC740 Nitrile 70 A o-ring	-35 to 85 °C (-30 to 185 °F)	-35 to 120 °C (-30 to 250 °F)		-35 to 120 °C (-30 to 250 °F)	
	AWC730 FKM 75 A o-ring	NA	-25 to 120 °C (-15 to 250 °F)		-25 to 200 °C (-15 to 400 °F)	
Operating¹ Speed Maximum	Reciprocating	0.85 m/sec (185 ft/min)	1.25 m/sec (250 ft/min)		50 m/sec (3,000 ft/min)	
	Rotary	0.50 m/sec (100 ft/min)	0.75 m/sec (150 ft/min)		5.0 m/sec (960 ft/min)	
Pressure Maximum²		345 bar, (5,000 psi)				
Mating Surface Finish				Static	0.4 - 0.8 μm (16 - 32 μinch)	
				Dynamic	0.2 - 0.4 μm (8 - 16 μinch)	

¹ Maximum speed values are greatly influenced by other operating conditions such as pressure, equipment clearances and temperature. Consider all operating parameters when selecting the appropriate materials and designs.

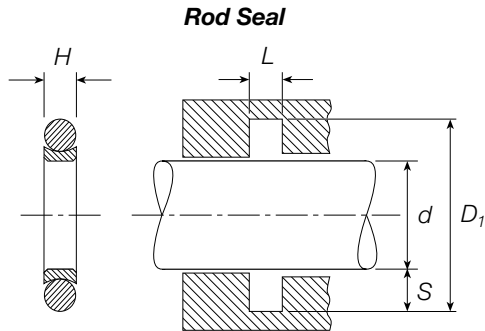
² Maximum pressure values based upon diametrical extrusion clearances.

Contact Engineering for additional cap and o-ring material availability, including FDA materials.



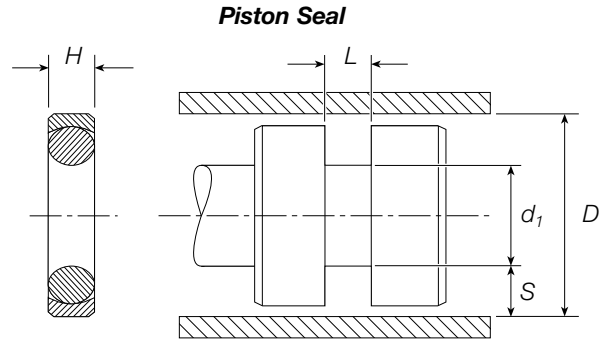
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Cross Sectional Drawings



Designations:

Shaft diameter = d Groove height = L
 Equipment bore = D_1 Cross section = S
 Seal width = H



Designations:

Shaft diameter = d_1 Groove height = L
 Equipment bore = D Cross section = S
 Seal width = H

Available Seal Sizes

Groove Height (L)		Cross-Section* (S)		Diameter Range, mm (inch)	
Min.	Max.	Min.	Max.	19 (0.75)	381 (15.000)
mm (inch)		mm (inch)			
2.1 (0.079)	2.8 (0.112)	2.0 (0.080)	6.3 (0.247)	(5.158) 131 (5.787) 147	
2.8 (0.112)	3.3 (0.128)	2.8 (0.109)	8.6 (0.339)	(9.603) 244 (10.512) 267	
3.3 (0.128)	3.8 (0.149)	3.3 (0.131)	8.9 (0.351)	(10.079) 256 (11.024) 280	
3.8 (0.149)	4.3 (0.171)	3.8 (0.150)	12.6 (0.495)	(17.835) 453 (19.016) 483	
4.3 (0.171)	5.6 (0.221)	4.5 (0.177)	13.0 (0.512)	(17.087) 434 (18.347) 466	
5.6 (0.221)	7.5 (0.297)	5.7 (0.225)	17.4 (0.685)	(25.787) 655 (27.441) 697	
7.5 (0.297)	9.4 (0.371)	8.6 (0.338)	18.9 (0.745)	108 (4.252) 119 (4.685) (25.748) 654 (27.559) 700	

Please Consult Factory for Sizes
 > 381 mm (15 inch)
 and
 < 19 mm (0.75 inch).

* Check with Factory on cross-sections for specific diameters.

■ Rod diameter
 ■ Piston bore



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