Double Acting Piston Seal.

CS 2 Imperial
CS 4 Metric

CS2 CS4

Design

Claron composite seals styles CS2 and CS 4 are designed for use in light duty hydraulic or pneumatic piston applications. Style CS2 covers the range of imperial sizes, and CS4 the metric sizes.

Materials

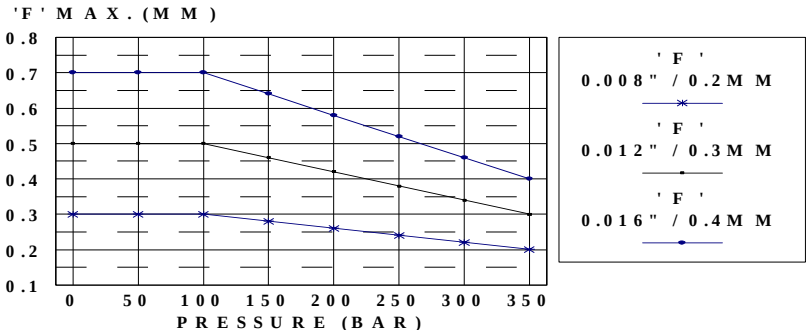
Claron composite seals style CS2 and CS4 as standard comprise of a Virgin PTFE outer sleeve and are energised by a 75° shore hardness Nitrile rubber O-Ring. A full range of materials are available to suit a variety of applications.
See tables in Appendix 2.

Operating Conditions

Maximum Working Pressure for “Standard” seal applications using specified tolerances.
Temp Range: -40°C to +120°C (Dependent upon energiser material. See Appendix 2)
Max. Pressure: 350 Bar
Max. Linear Speed: 15m/s
These range parameters are maximum conditional values
Optimum service conditions are affected by temperature, speed pressure, surface finish and extrusion gaps..
Refer to Appendix 1 section for further information.

Diametral Clearance 'F'

'F' shown in the size tables is based upon Virgin P.T.F.E., temperatures up to 80°C and 350 Bar pressure in designs where PTFE guide tape is utilised. For other pressures, refer to the graph shown below.



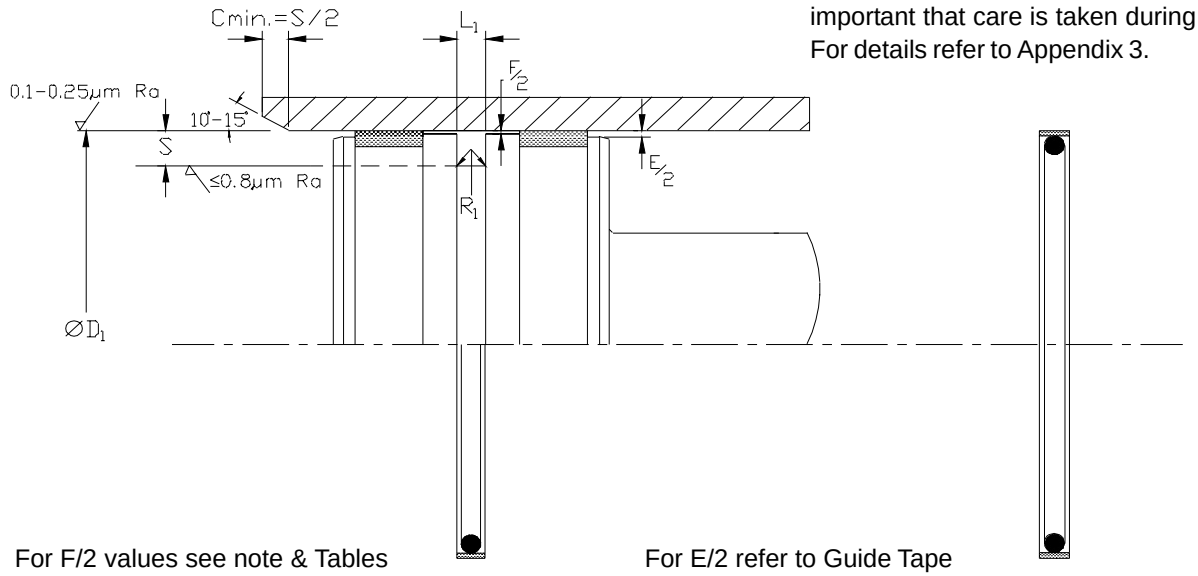
To use this graph, refer to the tables on for the max. value of 'F' at 350 Bar then apply the relevant curve for the various pressures.

The maximum extrusion gap 'F/2' should be calculated allowing for all movements due to tolerances, side-loads and cylinder expansion.

How To Order

When ordering, quote the size reference shown on the dimensions table.
If an energiser material other than the standard nitrile type is required, consult Claron for the part number to be used.

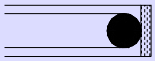
For the seal to function correctly it is important that care is taken during fitting. For details refer to Appendix 3.



For F/2 values see note & Tables

For E/2 refer to Guide Tape

Double Acting Piston Seal.



CS 2 Imperial Sizes

Nominal Dimensions & Machining Tolerances

Claron Part No.	H9 $ØD_1$	L_1 ±0.003	S	Tol. On. S	R_1 Max	F Max (350 Bar)
CS 20031	0.312					
CS 20034	0.343					
CS 20037	0.375	0.094	0.080	+0.002 -0.000	0.010	0.008
CS 20043	0.437					
CS 20050	0.500					
CS 20056	0.562					
CS 20062	0.625					
CS 20068	0.687					
CS 20075	0.750	0.141	0.111	+0.003 -0.000	0.020	0.008
CS 20081	0.812					
CS 20087	0.875					
CS 20093	0.937					
CS 20100	1.000					
CS 20106	1.062					
CS 20112	1.125					
CS 20118	1.187					
CS 20125	1.250					
CS 20131	1.312					
CS 20137	1.375	0.188	0.152	+0.004 -0.000	0.030	0.008
CS 20143	1.437					
CS 20150	1.500					
CS 20156	1.562					
CS 20162	1.625					
CS 20168	1.687					
CS 20175	1.750					
CS 20187	1.875					
CS 20200	2.000					
CS 20212	2.125					
CS 20225	2.250					
CS 20237	2.375					
CS 20250	2.500					
CS 20262	2.625					
CS 20275	2.750					
CS 20287	2.875					
CS 20300	3.000					
CS 20312	3.125					
CS 20325	3.250					
CS 20337	3.375					
CS 20350	3.500	0.281	0.244	+0.004 -0.000	0.040	0.012
CS 20362	3.625					
CS 20375	3.750					
CS 20387	3.875					
CS 20400	4.000					
CS 20412	4.125					
CS 20425	4.250					
CS 20437	4.375					
CS 20450	4.500					
CS 20462	4.625					
CS 20475	4.750					
CS 20487	4.875					
CS 20500	5.000					
CS 20512	5.125					
CS 20525	5.250					
CS 20537	5.375					
CS 20550	5.500					
CS 20562	5.625					
CS 20575	5.750					
CS 20587	5.875					
CS 20600	6.000					
CS 20612	6.125					
CS 20625	6.250					
CS 20637	6.375	0.375	0.328	+0.005 -0.000	0.040	0.016
CS 20650	6.500					
CS 20662	6.625					
CS 20675	6.750					
CS 20700	7.000					
CS 20750	7.500					
CS 20800	8.000					
CS 20850	8.500					
CS 20900	9.000					
CS 20950	9.500					
CS 21000	10.000					
CS 21200	12.000					

CS 4 Metric Sizes

Nominal Dimensions & Machining Tolerances

Claron Part No.	H9 $ØD_1$	L_1 ±0.075	S	Tol. On. S	R_1 Max	F Max (350 Bar)
CS 4008	8					
CS 4009	9					
CS 4010	10					
CS 4011	11					
CS 4012	12	2.40	2.15	+0.05 -0.00	0.25	0.20
CS 4013	13					
CS 4014	14					
CS 4015	15					
CS 4016	16					
CS 4017	17					
CS 4018	18					
CS 4020	20	3.60	3.00	+0.075 -0.00	0.50	0.20
CS 4022	22					
CS 4023	23					
CS 4024	24					
CS 4025	25					
CS 4026	26					
CS 4027	27					
CS 4028	28					
CS 4029	29					
CS 4030	30					
CS 4031	31					
CS 4032	32					
CS 4033	33					
CS 4034	34					
CS 4035	35					
CS 4036	36					
CS 4037	37	4.80	4.00	+0.10 -0.00	0.75	0.20
CS 4038	38					
CS 4039	39					
CS 4040	40					
CS 4041	41					
CS 4042	42					
CS 4043	43					
CS 4044	44					
CS 4045	45					
CS 4047	47					
CS 4048	48					
CS 4049	49					
CS 4050	50					
CS 4053	53					
CS 4055	55					
CS 4056	56					
CS 4060	60					
CS 4063	63					
CS 4065	65					
CS 4070	70					
CS 4073	73					
CS 4075	75	7.15	6.20	+0.10 -0.0	1.00	0.30
CS 4080	80					
CS 4085	85					
CS 4090	90					
CS 4100	100					
CS 4105	105					
CS 4110	110					
CS 4115	115					
CS 4120	120					
CS 4125	125					
CS 4130	130					
CS 4135	135					
CS 4140	140					
CS 4145	145					
CS 4150	150					
CS 4160	160					
CS 4165	165	9.50	8.40	+0.10 -0.00	1.00	0.40
CS 4170	170					
CS 4175	175					
CS 4200	200					
CS 4250	250					
CS 4320	320					