Double Acting Piston Seal

CS 8

Metric

Design

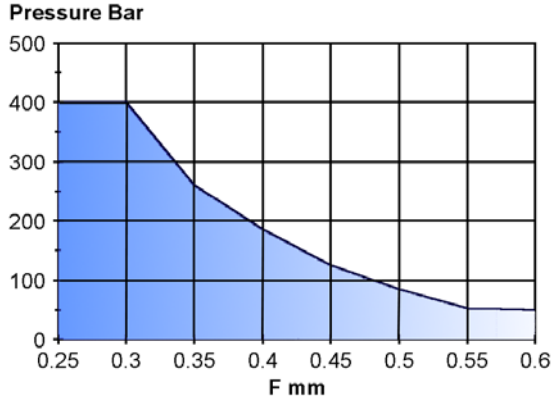
Designed for use on one piece pistons, Claron Style CS8 consists of a precision moulded high performance 98°Shore Polyurethane outer sleeve, pre loaded and pressure energised by a square section NBR 80°Shore rubber element. The compact design allows smaller width pistons to be used, and offers excellent wear resistance on a wide range of surface finishes.

Operating Conditions

Maximum Pressure		
Max Speed	Temp. Range	Temp. Range
m/s	-30°C to 80°C	-30°C to 100°C
1.0	280 Bar	250 Bar
0.5	450 Bar	400 Bar

These range perameters are Maximum simultaneous conditions. Optimum service conditions are affected by temperature, speed, pressure, surface finish and extrusion gaps.
Refer to Appendix 1 for further information.

Maximum Diametral Clearance F



Continuous operating temperature for various fluids

Polyurethane / Nitrile Composite		
DIN	**Hydraulic Fluid Description**	**°C**
H	Mineral oil without additives	100
H-L	Mineral Fluid with anti corrosion and anti ageing additives	100
H-LP	Mineral oil as HL plus additives reducing wear, raising load	100
H-LPD	Mineral oil as H-LP but with detergents and dispersants	100
H-V	Mineral oil as H-LP plus improved viscosity temp.	100
HFA E	Emulsions of mineral oil in water. Water content 80-95%	40
HFA S	Synthetic oil in water. Water content 80-95%	40
HFB	Emulsions of water in mineral oil. Water content 40%	40
HFC	Aqueous polymer solutions. Water content 35%	NS
HFD R	Phosphoric acid ester based	NS
HFD S	Chlorinated hydrocarbon based	NS
HFD T	Mixtures of HFD R and HFD S	NS
HEPG	Polyglycol based	NS
HETG	Vegetable Oil based	60
HEES	Fully synthetic ester based	NS

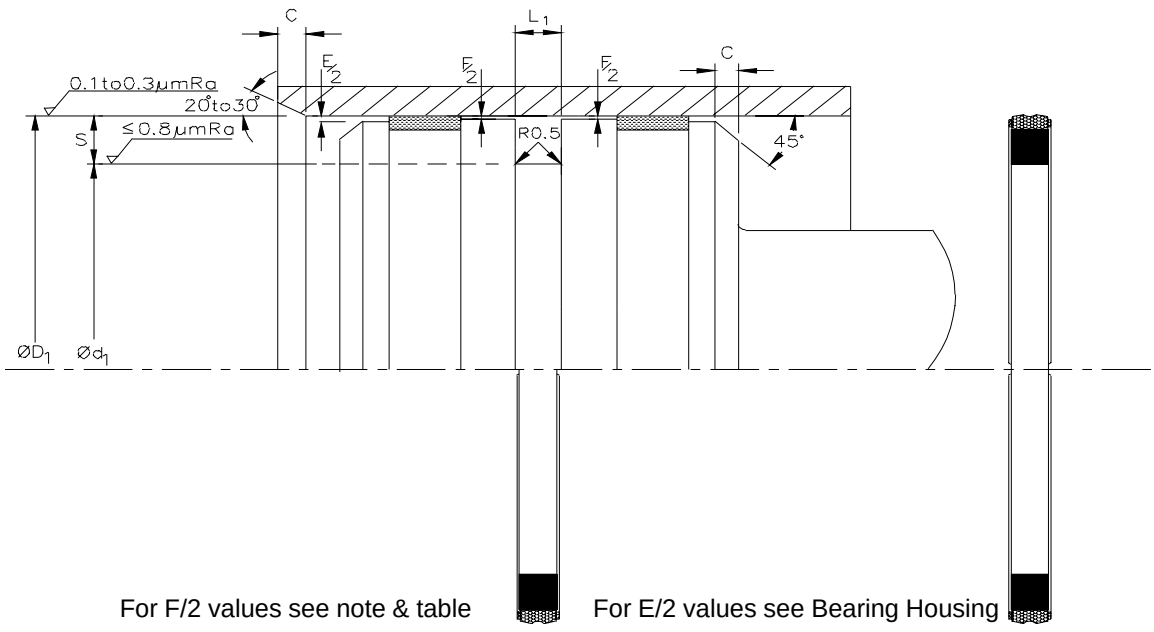
Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 100°C The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal.

Housing

For surface finish and recommended lead in chamfers refer to the illustration below. For housing dimensions and machining tolerances refer to the catalogue page of selected seal. Refer to Appendix 4 for value of tolerance symbols.

Fitting

For the seal to function correctly, it is important that care be taken in fitting the seal within its housing.
For a detailed checklist, refer to Appendix 3.



For F/2 values see note & table

For E/2 values see Bearing Housing

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Nominal Dimensions & Machining Tolerances

Claron Part Number	H9 $ØD_1$	h9 $Ød_1$	+0.20 -0.00 L_1	Nominal S	Nominal C
CS 80200	20	12.5	3.2	3.75	2.0
CS 80250	25	17.5	3.2	3.75	2.0
CS 80300	30	22.5	3.2	3.75	2.0
CS 80320	32	24.5	3.2	3.75	2.0
CS 80400	40	29.0	4.2	5.50	3.0
CS 80400/2	40	24.5	6.3	7.75	4.0
CS 80450	45	34.0	4.2	5.50	3.0
CS 80500	50	39.0	4.2	5.50	3.0
CS 80500/2	50	34.5	6.3	7.75	4.0
CS 80550/2	55	39.5	6.3	7.75	4.0
CS 80600	60	49.0	4.2	5.50	3.0
CS 80600/2	60	44.5	6.3	7.75	4.0
CS 80630	63	52.0	4.2	5.50	3.0
CS 80630/2	63	47.5	6.3	7.75	4.0
CS 80650/2	65	49.5	6.3	7.75	4.0
CS 80650/4	65	52.0	6.3	6.50	3.0
CS 80700	70	59.0	4.2	5.50	3.0
CS 80700/2	70	54.5	6.3	7.75	4.0
CS 80700/4	70	57.0	6.3	6.50	3.0
CS 80750/2	75	59.5	6.3	7.75	4.0
CS 80750/4	75	62.0	6.3	6.50	3.0
CS 80800	80	64.5	6.3	7.75	4.0
CS 80900	90	74.5	6.3	7.75	4.0
CS 81000	100	84.5	6.3	7.75	4.0
CS 81000/2	100	79.0	8.1	10.50	5.0
CS 81000/4	100	86.5	6.3	6.75	4.0
CS 81100/2	110	89.0	8.1	10.50	5.0
CS 81200/2	120	99.0	8.1	10.50	5.0
CS 81250/2	125	104.0	8.1	10.50	5.0
CS 81300/2	130	109.0	8.1	10.50	5.0
CS 81400	140	119.0	8.1	10.50	5.0
CS 81500	150	129.0	8.1	10.50	5.0
CS 81600	160	139.0	8.1	10.50	5.0
CS 81800	180	159.0	8.1	10.50	5.0
CS 82000	200	179.0	8.1	10.50	5.0