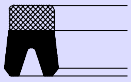


GP

Metric
Imperial

Design

CLARON STYLE GP is designed with a symmetrical profile for Piston or Rod applications. The seal is a precision moulded Nitrile rubber with a fabric reinforced base to resist extrusion. Designed with initial radial interference to effect low-pressure sealing, the seal is progressively energised at higher pressures thereby increasing the sealing force. Rubberised fabric has the advantage of retaining the sealing media within it's surface, thus reducing friction and wear. Style GP is designed to provide effective low pressure sealing through distortion of the lips rather than "squeeze". This gives an improved response to pressure variations and reduces low pressure stiction to ensure a smoother return stroke.

Operating Conditions

Maximum	Pressure
Max Speed	Temp. Range
m/s	-30°C to 100°C
0.50	250 Bar
0.15	400 Bar

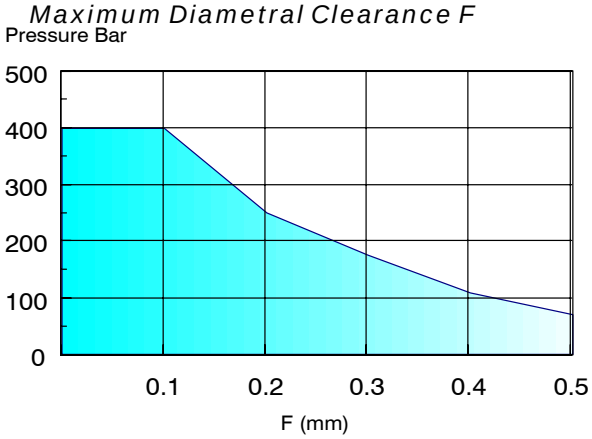
These range perameters are Maximum simultaneous conditions.

Optimum service conditions are affected by temperature, speed, pressure, surface finish and extrusion gaps.
Refer to Appendix 1 section for further information.

Continuous operating temperature for various Fluids

NBR Rubber		
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%	55
HFA S	Synthetic oil in water. Water content 80-95%	55
HFB	Emulsions of water in mineral oil. Water content 40%	60
HFC	Aqueous polymer solutions. Water content 35%	60
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

Maximum Diametral Clearance F



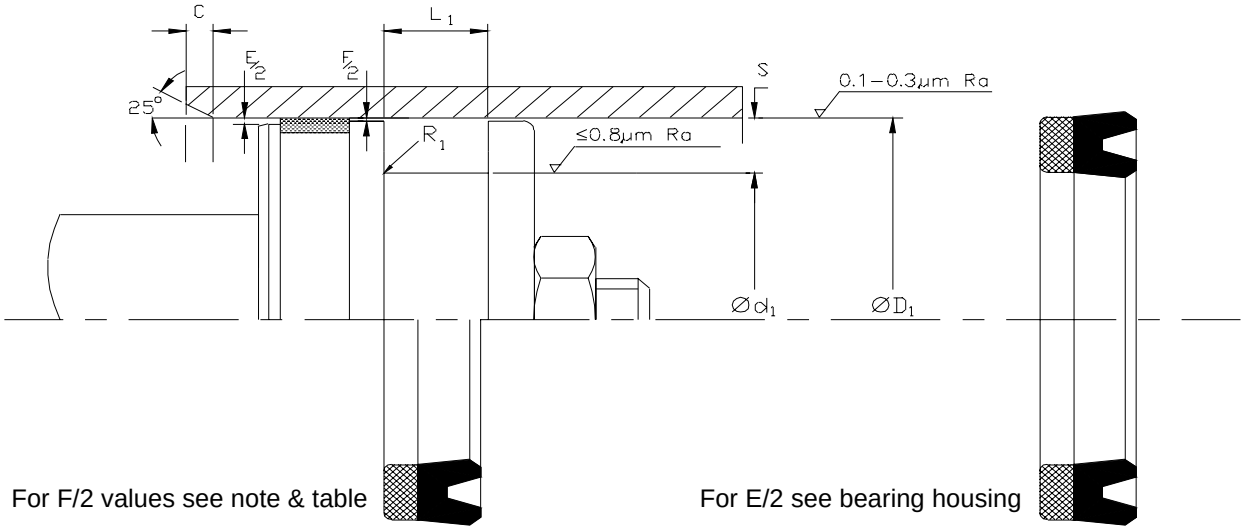
Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 100°C
The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal.

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.
For Rod application see section C.

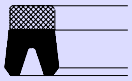
Fitting

Style GP is designed for use on a split piston and may be used with Claron Seal Retainer Style PSR. 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 see bearing housing

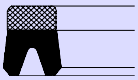


GP

Metric

Nominal Dimensions & Machining Tolerances

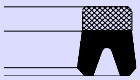
Claron Part Number	H 10 $ØD_1$	js11 $Ød_1$	+0.25 -0.00 L_1	Nominal Sec. S	Min Chamf. C	Max R_1
GP157118	40	30	7.0	5.0	2.5	0.4
GP196157	50	40	7.0	5.0	2.5	0.4
GP236196	60	50	7.0	5.0	2.5	0.4
GP279220	71	56	10.0	7.5	4.0	0.8
GP275236	70	60	7.0	5.0	2.5	0.4
GP314236	80	60	13.0	10.0	5.0	0.8
GP307248	78	63	10.0	7.5	4.0	0.8
GP334275	85	70	12.5	7.5	4.0	0.8
GP354275	90	70	13.0	10.0	5.0	0.8
GP393314	100	80	13.0	10.0	5.0	0.8
GP433354	110	90	13.0	10.0	5.0	0.8



Single Acting Piston Seal

GP

Imperial



Nominal Dimensions & Machining Tolerances

Claron Part Number	H 10 $ØD_1$	js11 $Ød_1$	+0.025 +0.015 L_1	Nominal Sec. S	Min Chamf. C	Max R_1
GP 150100	1.500	1.000	0.375	0.250	0.125	0.015
GP 200150	2.000	1.500	0.375	0.250	0.125	0.015
GP 200150/1	2.000	1.500	0.468	0.250	0.125	0.015
GP 212150	2.125	1.500	0.468	0.313	0.156	0.015
GP 237200/1	2.375	2.000	0.360	0.188	0.093	0.010
GP 262200/1	2.625	2.000	0.312	0.313	0.156	0.015
GP 300237	3.000	2.375	0.312	0.313	0.156	0.015
GP 325250/1	3.250	2.500	0.562	0.375	0.187	0.032