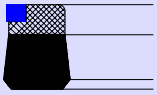
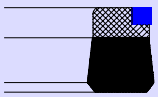


Single Acting Piston Seal

PEO

Imperial



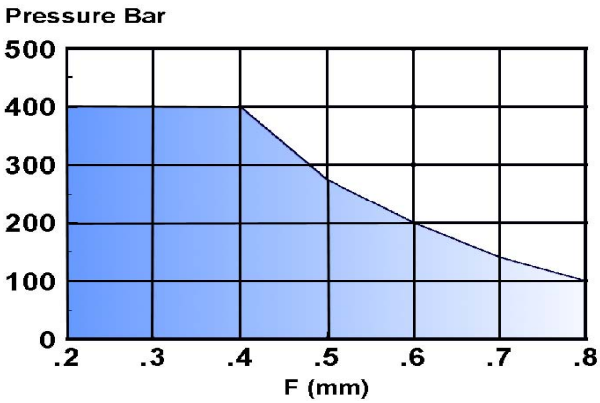
Design

Claron Style PEO is designed for use as a single acting piston seal. The seal is a precision moulded Nitrile rubber sealing element with a bonded reinforced fabric base and an acetal back up ring to resist extrusion. The acetal back up ring allows larger clearances and higher pressures. The seal is designed with initial radial interference to effect low pressure sealing. At higher pressures the seal is energised thus increasing sealing . The rubberised fabric header has the advantage of retaining fluid within its surface thus reducing both friction and wear.
Style PEO is an effective seal over a wide range of applications.

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 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

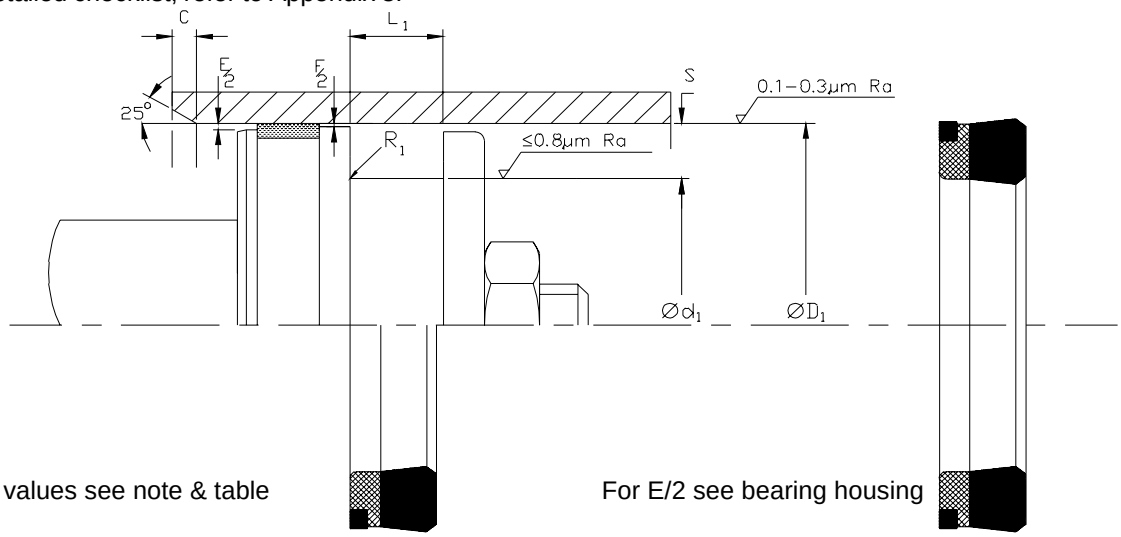
Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 100°C The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal.

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.

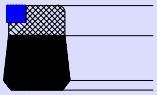
Fitting

Style PEO is designed to be fitted onto a split piston, and may be used with a Claron Style PSR retainer. 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

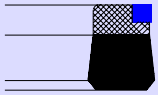
For E/2 see bearing housing



Single Acting Piston Seal

PEO

Imperial



Nominal Dimensions & Machining Tolerances

Claron Part Number	H10 $ØD_1$	js11 $Ød_1$	+0.025 +0.015 L_1	Nominal Sec. S	Min C	Max R_1
PEO 100062	1.000	0.625	0.281	0.188	0.093	0.010
PEO 112075	1.125	0.750	0.312	0.188	0.093	0.010
PEO 125075/1	1.250	0.750	0.312	0.250	0.125	0.010
PEO 150100	1.500	1.000	0.375	0.250	0.125	0.010
PEO 168118	1.687	1.187	0.312	0.250	0.125	0.010
PEO 175112	1.750	1.125	0.437	0.313	0.156	0.015
PEO 200137/1	2.000	1.375	0.375	0.313	0.156	0.015
PEO 200137/2	2.000	1.375	0.437	0.313	0.156	0.015
PEO 200150	2.000	1.500	0.375	0.250	0.125	0.010
PEO 237175	2.375	1.750	0.437	0.313	0.156	0.015
PEO 250187	2.500	1.875	0.437	0.313	0.156	0.015
PEO 275200/1	2.750	2.000	0.625	0.375	0.187	0.010
PEO 275200/2	2.750	2.000	0.562	0.375	0.187	0.032
PEO 300225/2	3.000	2.250	0.562	0.375	0.187	0.032
PEO 325250/1	3.250	2.500	0.562	0.375	0.187	0.032
PEO 350300	3.500	3.000	0.375	0.250	0.125	0.010
PEO 362300	3.625	3.000	0.375	0.313	0.156	0.015
PEO 400325/1	4.000	3.250	0.562	0.375	0.187	0.032
PEO 400350	4.000	3.500	0.375	0.250	0.125	0.010
PEO 450350/1	4.500	3.500	0.562	0.500	0.250	0.032
PEO 500400	5.000	4.000	0.750	0.500	0.250	0.032
PEO 700600	7.000	6.000	0.750	0.500	0.250	0.032
PEO 700625	7.000	6.250	0.562	0.375	0.187	0.032
PEO 825750	8.250	7.500	0.562	0.375	0.187	0.032