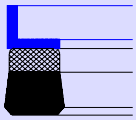
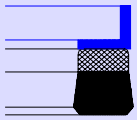


Single Acting Piston Seal

PW.../L

Imperial



Design

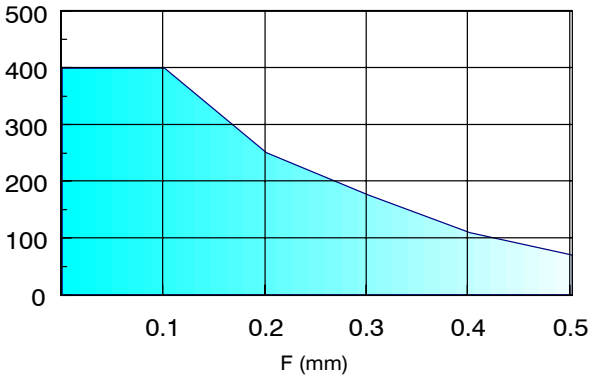
CLARON STYLE PW.../L is a precision moulded Nitrile rubber with a fabric reinforced base. Produced with initial radial interference to effect low-pressure sealing, the seal is progressively energised at higher pressures thereby increasing the sealing force. Rubberised fabric has the advantage of retaining the sealing media within it's surface, thus reducing friction and wear. The full width polyacetal bearing ring resists extrusion of the seal to allow greater clearances and higher pressures, and provides bearing support for the piston preventing misalignment and metal to metal contact between piston and bore.

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.

Pressure Bar



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

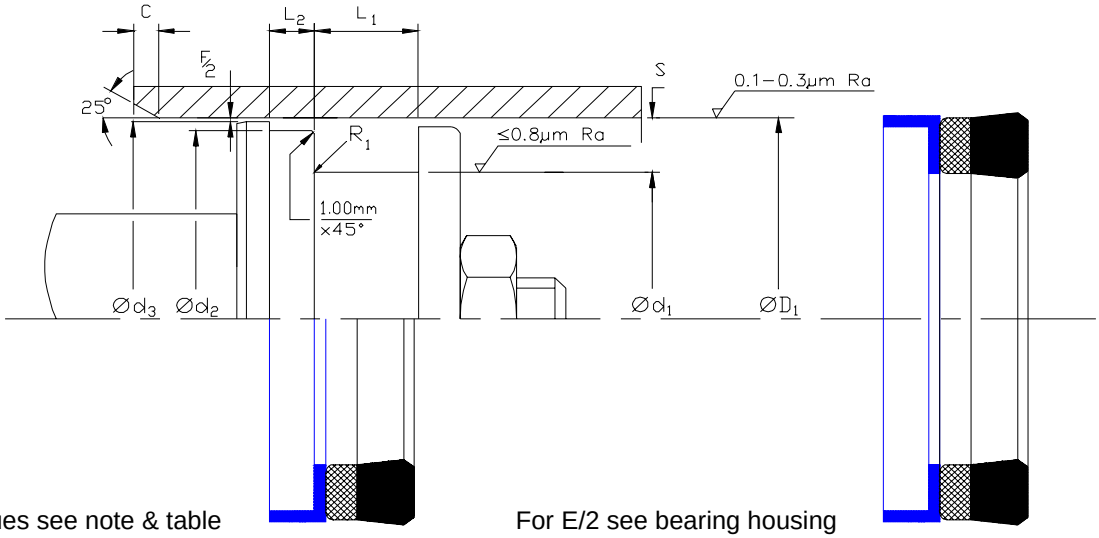
Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 100°C
The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal.

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.

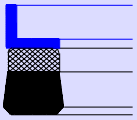
Fitting

Style PW/L is designed to be fitted onto 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

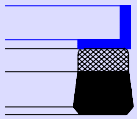


ClaronPolyseal®

Single Acting Piston Seal

PW.../L

Imperial



Nominal Dimensions & Machining Tolerances

Claron Part Number	H 10 $ØD_1$	js 11 $Ød_1$	js 10 $Ød_2$	js 11 $Ød_3$	+0.025 +0.015 L_1	+0.004 -0.000 L_2	Nominal S	Min C	Max R_1	Max R_2
PW 100062/L	1.000	0.625	0.868	0.968	0.343	0.182	0.187	0.093	0.008	
PW 125075/1L	1.250	0.750	1.115	1.218	0.375	0.245	0.250	0.125	0.008	
PW 125075/2L	1.250	0.750	1.115	1.218	0.437	0.245	0.250	0.125	0.008	
PW 150100/L	1.500	1.000	1.365	1.468	0.437	0.245	0.250	0.125	0.008	
PW 150100/1L	1.500	1.000	1.365	1.468	0.312	0.245	0.250	0.125	0.008	
PW 175112/L	1.750	1.125	1.552	1.687	0.531	0.245	0.312	0.156	0.008	
PW 200137/1L	2.000	1.375	1.802	1.937	0.468	0.245	0.312	0.156	0.008	
PW 200137/2L	2.000	1.375	1.802	1.937	0.531	0.245	0.312	0.156	0.008	
PW 200137/3L	2.000	1.375	1.802	1.937	0.593	0.245	0.312	0.156	0.008	
PW 200137/4L	2.000	1.375	1.802	1.937	0.406	0.245	0.312	0.156	0.008	
PW 225162/L	2.250	1.625	2.052	2.187	0.531	0.245	0.312	0.156	0.008	
PW 237175/L	2.375	1.750	2.177	2.312	0.531	0.245	0.312	0.156	0.008	
PW 250187/L	2.500	1.875	2.302	2.437	0.531	0.245	0.312	0.156	0.008	
PW 250187/1L	2.500	1.875	2.302	2.437	0.468	0.245	0.312	0.156	0.008	
PW 250187/3L	2.500	1.875	2.302	2.437	0.406	0.245	0.312	0.156	0.008	
PW 262200/L	2.625	2.000	2.428	2.562	0.531	0.245	0.312	0.156	0.008	
PW 262200/2L	2.625	2.000	2.428	2.562	0.406	0.245	0.312	0.156	0.008	
PW 262200/3L	2.625	2.000	2.428	2.562	0.593	0.245	0.312	0.156	0.008	
PW 275200/L	2.750	2.000	2.482	2.687	0.562	0.245	0.375	0.187	0.008	
PW 275200/2L	2.750	2.000	2.482	2.687	0.687	0.245	0.375	0.187	0.008	
PW 300225/L	3.000	2.250	2.732	2.937	0.500	0.245	0.375	0.187	0.008	
PW 300225/1L	3.000	2.250	2.732	2.937	0.625	0.245	0.375	0.187	0.008	
PW 300225/2L	3.000	2.250	2.732	2.937	0.687	0.245	0.375	0.187	0.008	
PW 325250/L	3.250	2.500	2.982	3.187	0.500	0.245	0.375	0.187	0.008	
PW 325250/1L	3.250	2.500	2.982	3.187	0.687	0.245	0.375	0.187	0.008	
PW 325250/2L	3.250	2.500	2.982	3.187	0.750	0.245	0.375	0.187	0.008	
PW 325250/3L	3.250	2.500	2.982	3.187	0.593	0.245	0.375	0.187	0.008	
PW 350275/L	3.500	2.750	3.232	3.437	0.687	0.245	0.375	0.187	0.008	
PW 350275/1L	3.500	2.750	3.232	3.437	0.500	0.245	0.375	0.187	0.008	
PW 350275/3L	3.500	2.750	3.232	3.437	0.625	0.245	0.375	0.187	0.008	
PW 362300/L	3.625	3.000	3.360	3.562	0.500	0.245	0.312	0.156	0.008	
PW 375300/L	3.750	3.000	3.482	3.687	0.687	0.245	0.375	0.187	0.008	
PW 375300/2L	3.750	3.000	3.482	3.687	0.500	0.245	0.375	0.187	0.008	
PW 400325/1L	4.000	3.250	3.732	3.937	0.687	0.245	0.375	0.187	0.008	
PW 425350/1L	4.250	3.500	3.985	4.187	0.687	0.245	0.375	0.187	0.008	
PW 450350/1L	4.500	3.500	4.232	4.437	0.687	0.370	0.500	0.218	0.015	
PW 450350/2L	4.500	3.500	4.232	4.437	.875	0.370	0.500	0.218	0.015	
PW 450350/3L	4.500	3.500	4.232	4.437	0.500	0.370	0.500	0.218	0.015	
PW 475375/2L	4.750	3.750	4.485	4.687	0.875	0.370	0.500	0.218	0.015	
PW 500400/L	5.000	4.000	4.732	4.937	0.875	0.370	0.500	0.218	0.015	
PW 550450/L	5.500	4.500	5.232	5.437	0.875	0.370	0.500	0.218	0.015	
PW 600500/L	6.000	5.000	5.732	5.937	0.875	0.370	0.500	0.218	0.015	
PW 650550/L	6.500	5.500	6.232	6.437	0.875	0.370	0.500	0.218	0.015	
PW 700600/L	7.000	6.000	6.732	6.937	0.875	0.370	0.500	0.218	0.015	