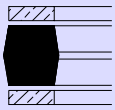
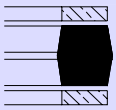


Double Acting Piston Seal

JS.../H

Imperial



Design

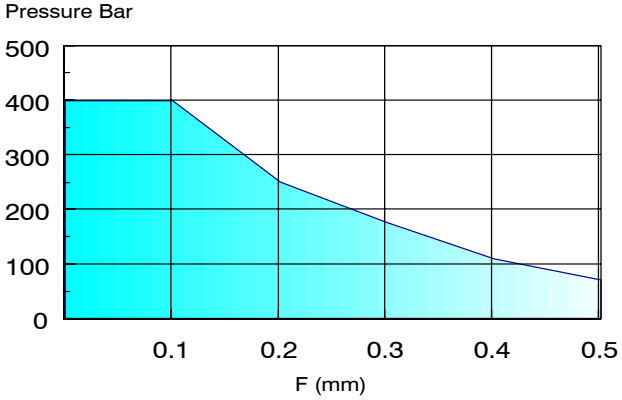
Designed for use on one piece pistons, the three part assembly consists of an endless precision rubber moulded sealing element supported at each end with split polyester support rings.
The seal is also suitable for existing two piece pistons of the same housing dimensions.

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.

Maximum Diametral Clearance F



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

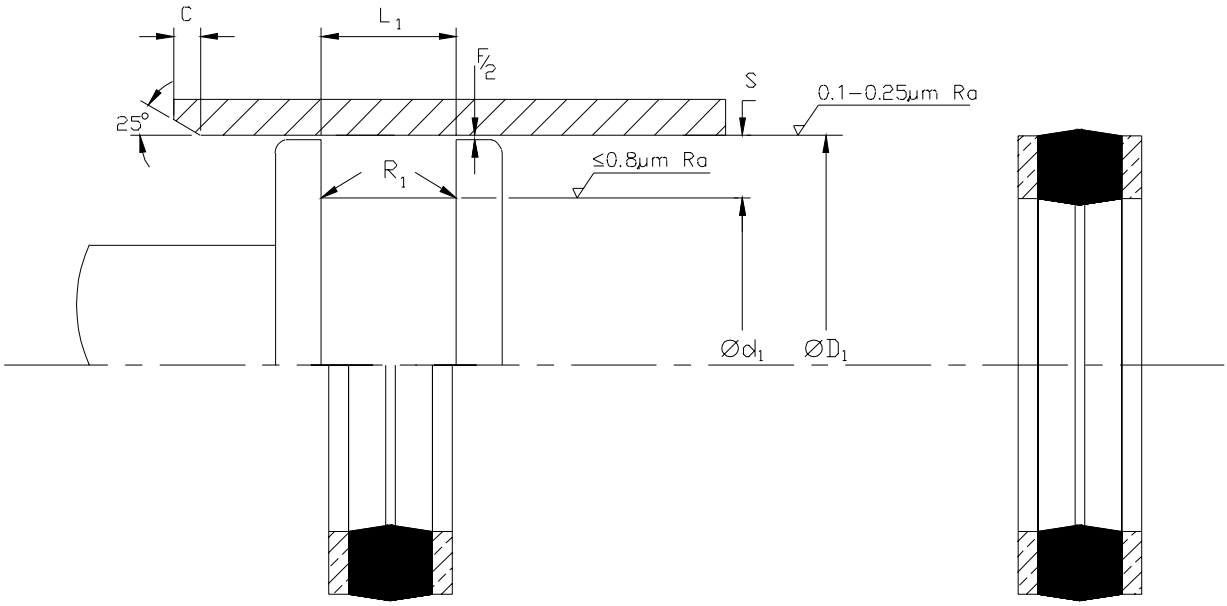
Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 100°C. The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal.

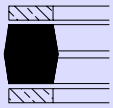
Housing

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.

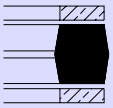




Double Acting Piston Seal

JS.../H

Imperial



Nominal Dimensions & Machining Tolerances

Claron Part Number	H11	js11	+0.025 +0.015	Nominal	Minimum	Maximum
	$ØD_1$	$Ød_1$	L_1	S	C	R_1
JS 112/H	1.125	0.750	0.452	0.187	0.090	0.008
JS 137/H	1.375	1.000	0.452	0.187	0.090	0.008
JS 150/H	1.500	1.125	0.452	0.187	0.090	0.008
JS 162/H	1.625	1.250	0.452	0.187	0.090	0.008
JS 175/H	1.750	1.375	0.452	0.187	0.090	0.008
JS 200/H	2.000	1.500	0.587	0.250	0.125	0.008
JS 225/H	2.250	1.750	0.587	0.250	0.125	0.008
JS 250/H	2.500	2.000	0.587	0.250	0.125	0.008
JS 300/H	3.000	2.500	0.587	0.250	0.125	0.008
JS 325/H	3.250	2.750	0.587	0.250	0.125	0.008
JS 350/H	3.500	3.000	0.587	0.250	0.125	0.008
JS 375/H	3.750	3.250	0.587	0.250	0.125	0.008
JS 400/H	4.000	3.250	0.780	0.375	0.187	0.008
JS 450/H	4.500	3.750	0.780	0.375	0.187	0.008
JS 500/H	5.000	4.250	0.780	0.375	0.187	0.008
JS 550/H	5.500	4.750	0.780	0.375	0.187	0.008