Design

Claron Style DPDS double acting piston seal is a 5 piece assembly consisting of a Nitrile Rubber sealing element supported by 2 thermoplastic elastomer headers with Acetal anti-extrusion bearing rings on the O.D. The complete assembly forms a highly robust sealing unit for use in high pressure applications where shock loads and pressure spikes are present. This seal is widely used in the mobile plant industry.

Operating Conditions

Maximum	Pressure
Max Speed	Temp. Range
m/s	-30°C to 100°C
0.50	325 Bar
0.15	600 Bar

These range perameters are Maximum simultaneous conditions.

These range parameters are Maximum conditional values.
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

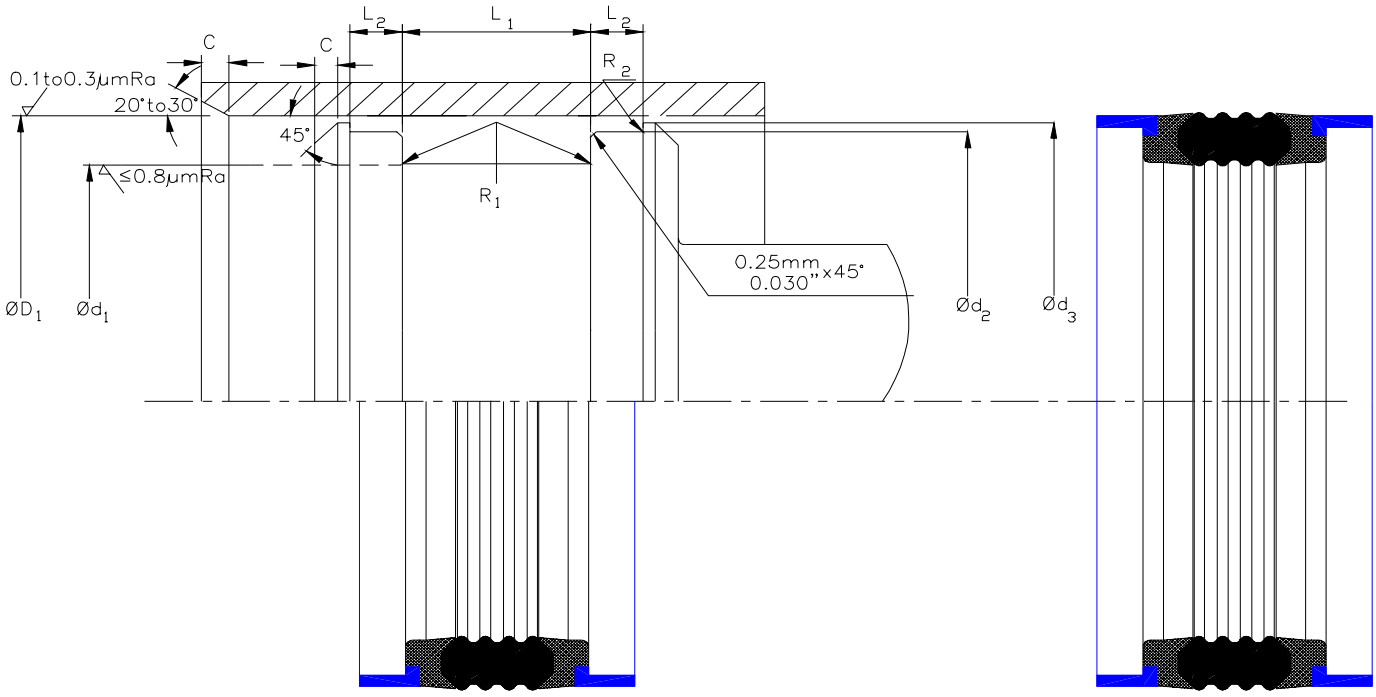
NBR Rubber		
DIN	**Hydraulic Fluid Description**	**°C**
H	Mineral oil without additives	100
H-L	Mineral Fluid with anti corrosion and anti ageing additives	100
H-LP	Mineral oil as HL plus additives reducing wear, raising load	100
H-LPD	Mineral oil as H-LP but with detergents and dispersants	100
H-V	Mineral 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

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 DPDS is designed to be fitted onto a split piston as shown in the illustration below.
The seal can be supplied split to ease fitting if required. 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.



ClaronPolyseal®

Double Acting Piston Seal

DPDS

Metric

Nominal Dimensions & Machining Tolerances

Claron Part Number	H 11 $ØD_1$	h 10 $Ød_1$	js 10 $Ød_2$	js 11 $Ød_3$	+0.6 +0.4 L_1	+0.2 -0.0 L_2	S	Min C	Max. R_1	Max. R_2
DPDS 228165	58.00	42.00	51.10	56.00	32.00	9.52	8.00	4.00	0.40	
DPDS 393314	100.00	80.00	92.60	97.50	35.00	9.52	10.00	5.00	0.40	
DPDS 433354	110.00	90.00	102.60	107.40	35.00	9.52	10.00	5.00	0.40	
DPDS 492393	125.00	100.00	116.80	122.30	45.00	12.70	12.50	6.50	0.40	

Double Acting Piston Seal

DPDS

Imperial

Nominal Dimensions & Machining Tolerances

Claron Part Number	H 11	h 10	js 10	js 11	+0.025 +0.015	+0.005 -0.000		Min	Max.	
	$ØD_1$	$Ød_1$	$Ød_2$	$Ød_3$	L_1	L_2	S	C	R_1	R_2
DPDS 362287	3.625	2.875	3.330	3.530	1.375	0.375	0.375	0.187	0.008	
DPDS 400325	4.000	3.250	3.710	3.900	1.375	0.375	0.375	0.187	0.008	
DPDS 450350	4.500	3.500	4.180	4.400	1.750	0.500	0.500	0.218	0.015	
DPDS 500400	5.000	4.000	4.675	4.900	1.750	0.500	0.500	0.218	0.015	
DPDS 600500	6.000	5.000	5.675	5.900	1.750	0.500	0.500	0.218	0.015	