CPU.../OR

Design

The Claron style CPU../OR is a symmetrical profiled lip seal designed for rod sealing, manufactured in a high performance grade of Polyurethane and fitted with an NBR O-Ring. This special feature guarantees the pre-loading of the sealing lips at no load and low pressures whilst polyurethane provides outstanding abrasion and extrusion resistance.

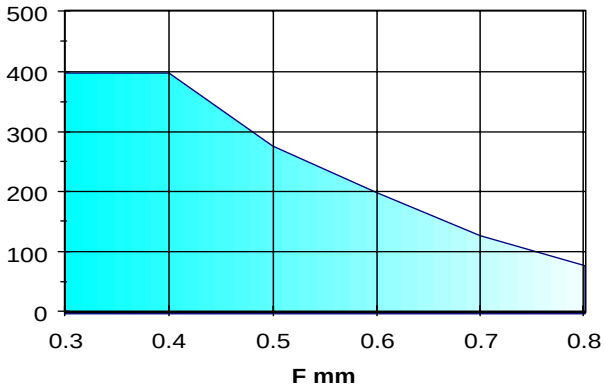
Operating Conditions

Maximum Pressure		
Max Speed	Temp. Range	Temp. Range
m/s	-40°C to 80°C	-40°C to 110°C
0.50	280 Bar	250 Bar
0.15	400 Bar	350 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

Pressure Bar



Continuous operating temperature for various fluids

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

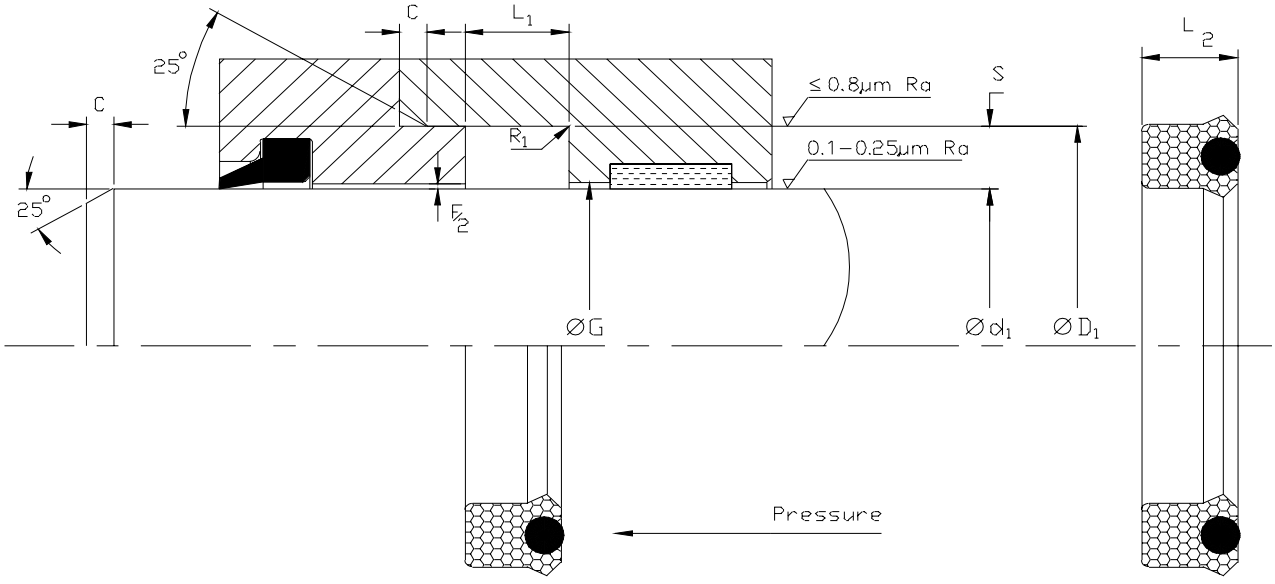
Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 80°C
The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal.

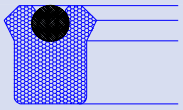
Housing

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

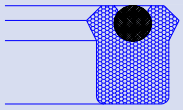
For the seal to function correctly, it is important that care be taken in fitting the seal within its housing.
For a detailed checklist, refer to Appendix 3.





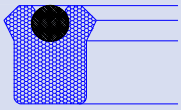
Single Acting Rod Seal Metric

CPU.../OR

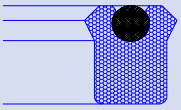


Nominal Dimensions & Machining Tolerances

Claron Part Number	f8 H9 $Ød_1$ ØG	H10 $ØD_1$	+0.25 -0.00 L_1	Nominal L_2	Nominal S	Min C	Max. R_1
CPU 093068/OR	17.5	23.8	7.0	6.35	3.1	2.5	0.2
CPU 118078/OR	20	30	8.0	7.0	5.0	3.5	0.3
CPU 129098/OR	25	33	6.3	5.7	4.0	3.0	0.2
CPU 129098/1OR	25	33	5.5	4.5	4.0	3.0	0.2
CPU 137098/OR	25	35	8.0	7.0	5.0	3.5	0.3
CPU 157118/1FOR	30	40	6.3	5.7	5.0	3.5	0.3
CPU 157118/OR	30	40	7.7	7.0	5.0	3.5	0.3
CPU 165133/OR	34	42	9.0	8.0	4.0	3.0	0.2
CPU 177137/OR	35	45	8.0	7.0	5.0	3.5	0.3
CPU 196157/1OR	40	50	7.7	7.0	5.0	3.5	0.3
CPU 236196/OR	50	60	8.0	7.0	5.0	3.5	0.3
CPU 255196/OR	50	65	12.5	11.4	7.5	5.0	0.4
CPU 295236/OR	60	75	12.5	11.4	7.5	5.0	0.4
CPU 314255/OR	65	80	12.5	11.4	7.5	5.0	0.4
CPU 314275/2OR	70	80	12.5	11.4	5.0	3.5	0.3
CPU 322275/OR	70	82	9.7	8.7	6.0	4.0	0.3
CPU 334275/OR	70	85	12.5	11.4	7.5	5.0	0.4
CPU 433354/OR	90	110	12.5	11.4	10.0	6.5	0.6



CPU.../OR



Nominal Dimensions & Machining Tolerances

Claron Part Number	f8 H9 $Ød_1$ $ØG$	H10 $ØD_1$	+0.010 -0.000 L_1	Nominal L_2	Nominal S	Min C	Max. R_1
CPU 093068/OR	0.687	0.937	0.275	0.250	0.125	0.093	0.020
CPU 125100/OR	1.000	1.250	0.207	0.187	0.125	0.093	0.020
CPU 237175/OR	1.750	2.375	0.582	0.562	0.312	0.156	0.020
CPU 250175/OR	1.750	2.500	0.582	0.562	0.375	0.187	0.020
CPU 250187/OR	1.875	2.500	0.452	0.437	0.312	0.156	0.020
CPU 262200/OR	2.000	2.625	0.475	0.437	0.312	0.156	0.032
CPU 275200/OR	2.000	2.750	0.520	0.500	0.375	0.187	0.020
CPU 337275/OR	2.750	3.375	0.582	0.562	0.312	0.156	0.020
CPU 375300/OR	3.000	3.750	0.520	0.500	0.375	0.187	0.020
CPU 375300/1OR	3.000	3.750	0.582	0.562	0.375	0.187	0.020
CPU 412337/OR	3.375	4.125	0.687	0.625	0.375	0.187	0.020
CPU 462400/OR	4.000	4.625	0.413	0.375	0.312	0.156	0.032
CPU 600525/OR	5.250	6.000	0.413	0.375	0.375	0.187	0.020