

ClaronPolyseal® Single Acting Rod Seal

CPGI.../OR

Metric



Design

The seal is an asymmetric Polyurethane U-seal incorporating an NBR energiser pre-loading the seal lips thus improving sealing at low pressures. The secondary sealing lip assists sealing, reduces friction and helps to protect the main lip from damage caused by dirt ingression. The Anti-extrusion ring which is energised at high pressures increases the maximum working pressure as well as protecting the seal against pressure spikes caused by shock loads. Polyurethane exhibits outstanding abrasion and wear resistance ensuring that the seal operates in the most arduous conditions.

Operating Conditions

Maximum Pressure								
Max Speed	Temp. Range	Temp. Range						
m/s	-40°C to 80°C	-40°C to 110°C						
0.50	350 Bar	300 Bar						
0.15	500 Bar	450 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

Polyurethane / Nitrile Composite					
DIN	Hydraulic Fluid Description				
Н	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	NS			

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.





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Claron	Nominal Dimensions & Machining Tolerances							
Part Number	f8	H10 H9	+0.25 -0.00	Nominal	Nominal	Min	Max.	
	Ød ₁	ØD ₁ ØG	L	L_2	S	С	R ₁	
CPGI 065080/OR CPGI 070085/OR CPGI 075090/OR CPGI 080095/OR CPGI 090105/OR CPGI 095110/OR CPGI 100115/OR	65 70 75 80 85 90 95 100	80 85 90 95 100 105 110 115	12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	0.4 0.4 0.4 0.4 0.4 0.4 0.4	