

Design

Claron Style PSR retainer is designed to retain single acting piston seals. The retainer is manufactured from Acetal (POM) and is profiled to fit into a groove on the piston. The retainer is split with two holes similar to a circlip to facilitate fitting with circlip pliers. The retainer provides a simple housing design solution for all single acting piston seals.

Operating Conditions

Temp. range -30°C to 100°C

Linear Speed m/sec 5

Optimum service conditions are affected by temperature, speed, side load and surface finish.

Refer to Appendix 1 for further information.

Continuous operating temperature for various fluids

POM Polyacetal		
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	80
HFD S	Chlorinated hydrocarbon based	80
HFD T	Mixtures of HFD R and HFD S	80
HEPG	Polyglycol based	100
HETG	Vegetable Oil based	60
HEES	Fully synthetic ester based	100

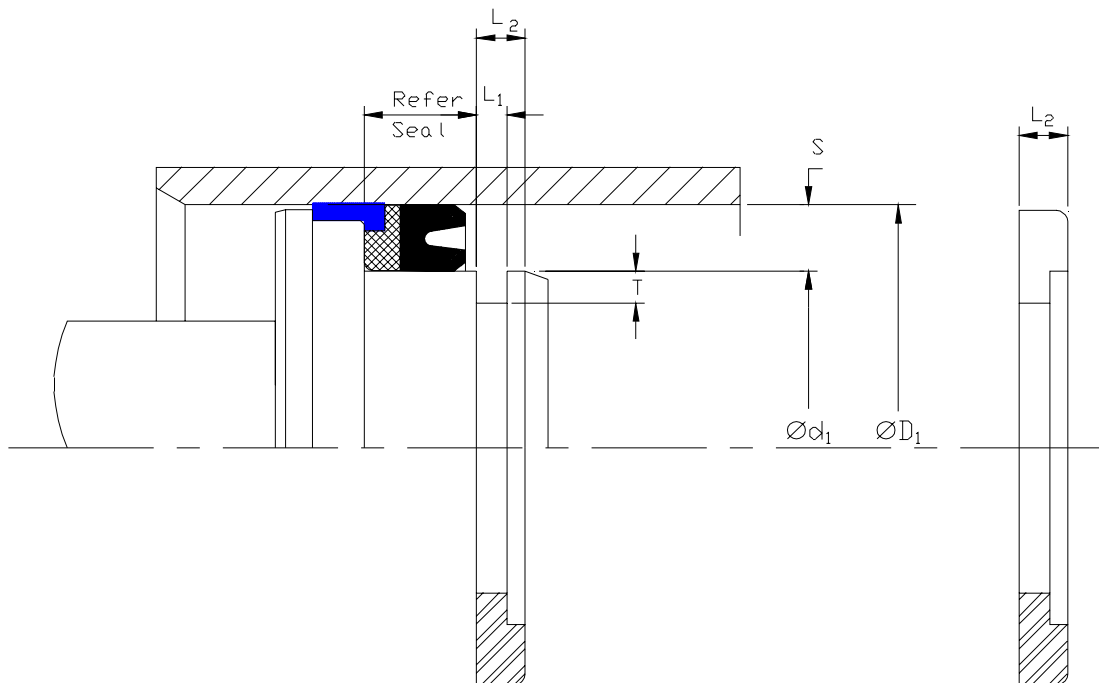
Housing

For surface finish and recommended lead in chamfers refer to the illustration below. For seal housing dimensions and machining tolerances refer to the catalogue page of selected seal. Refer to Appendix 4 for value of tolerance symbols.

Fitting

Style PSR snap fits into a groove and may be fitted with standard circlip pliers. 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.



Piston Seal Retaining Ring Metric
PSR



Nominal Dimensions & Machining Tolerances

Claron Part Number	Refer to seal section		Nominal S	+0.13 -0.00 L ₁	+0.00 -0.13 T	+0.13 -0.13 L ₂
	ØD ₁	Ød ₁				
PSR 125086	32.00	22.00	5.00	2.62	2.10	5.00
PSR 157110	40.00	28.00	6.00	3.12	2.10	6.00
PSR 196137	50.00	35.00	7.50	3.30	2.10	6.40
PSR 196157	50.00	40.00	5.00	2.62	2.10	5.00
PSR 216157	55.00	40.00	7.50	3.30	2.10	6.40
PSR 248188	63.00	48.00	7.50	3.30	2.10	6.00
PSR 248196	63.00	50.00	6.50	3.30	2.10	6.40
PSR 275196	70.00	50.00	10.00	3.30	2.10	6.40
PSR 314236	80.00	60.00	10.00	3.30	2.10	6.40
PSR 354275	90.00	70.00	10.00	3.30	2.10	6.40
PSR 393314	100.00	80.00	10.00	3.30	2.10	6.40
PSR 411334	104.50	85.00	9.75	3.30	2.20	6.30
PSR 433354	110.00	90.00	10.00	3.30	2.10	6.40

ClaronPolyseal®
Piston Seal Retaining Ring Imperial
PSR

Nominal Dimensions & Machining Tolerances

Claron Part Number	Refer to seal section		Nominal S	+0.005 -0.000 L ₁	+0.000 -0.005 T	+0.005 -0.005 L ₂
	ØD ₁	Ød ₁				
PSR 112062	1.125	0.625	0.250	0.098	0.082	0.187
PSR 141087	1.417	0.875	0.270	0.130	0.082	0.195
PSR 150100	1.500	1.000	0.250	0.130	0.082	0.250
PSR 162100	1.625	1.000	0.312	0.130	0.082	0.250
PSR 162112	1.625	1.125	0.250	0.130	0.082	0.250
PSR 175125	1.750	1.250	0.250	0.130	0.082	0.250
PSR 178116	1.781	1.160	0.312	0.130	0.082	0.250
PSR 200137	2.000	1.375	0.312	0.130	0.082	0.250
PSR 212150	2.125	1.500	0.312	0.130	0.082	0.250
PSR 225162	2.250	1.625	0.312	0.130	0.082	0.250
PSR 237175	2.375	1.750	0.312	0.130	0.082	0.250
PSR 250187	2.500	1.875	0.312	0.130	0.082	0.250
PSR 262200	2.625	2.000	0.312	0.130	0.082	0.250
PSR 275200	2.750	2.000	0.375	0.130	0.082	0.250
PSR 275212	2.750	2.125	0.312	0.130	0.082	0.250
PSR 300225	3.000	2.250	0.375	0.130	0.082	0.250
PSR 312250	3.125	2.500	0.312	0.130	0.082	0.250
PSR 325250	3.250	2.500	0.375	0.130	0.082	0.250
PSR 325262	3.250	2.625	0.312	0.130	0.082	0.250
PSR 337275	3.375	2.750	0.312	0.130	0.082	0.250
PSR 350275	3.500	2.750	0.375	0.130	0.082	0.250
PSR 350287	3.500	2.875	0.312	0.130	0.082	0.250
PSR 362300	3.625	3.000	0.312	0.130	0.082	0.250
PSR 387312/1	3.875	3.125	0.375	0.190	0.110	0.312
PSR 400325	4.000	3.250	0.375	0.130	0.082	0.250
PSR 400325/1	4.000	3.250	0.375	0.190	0.082	0.275
PSR 412337	4.125	3.375	0.375	0.130	0.082	0.250
PSR 412350	4.125	3.500	0.312	0.130	0.082	0.250
PSR 450375	4.500	3.750	0.375	0.130	0.082	0.250
PSR 475375	4.750	3.750	0.500	0.145	0.082	0.281
PSR 475400/1	4.750	4.000	0.375	0.190	0.110	0.312
PSR 500400	5.000	4.000	0.500	0.145	0.082	0.281
PSR 575500/1	5.750	5.000	0.375	0.190	0.110	0.312
PSR 675600/1	6.750	6.000	0.375	0.190	0.110	0.312
PSR 875800/1	8.750	8.000	0.375	0.190	0.110	0.312