

Design

Designed for use on split pistons, the seal is a precision moulded rubber element with rubberised fabric reinforcements. Style DPW is fitted with clip on anti-extrusion bearing rings on the O.D. to allow larger machining clearances between the piston head and cylinder bore, and to permit higher working pressures. The Polyacetal bearing rings also support the piston head under side load conditions thus preventing metal to metal contact. The bearing rings are an integral part of the seal therefore react directly to operating pressures thus closing the extrusion gap. The seal is designed with sufficient radial sectional interference that on complete assembly low pressure sealing is effected. The supporting rubberised fabric has the capability of retaining the sealing media thus assisting in reducing friction and wear. Style DPW has proven to be effective over a wide range of applications.

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 parameters 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.

Continuous operating temperature for various fluids

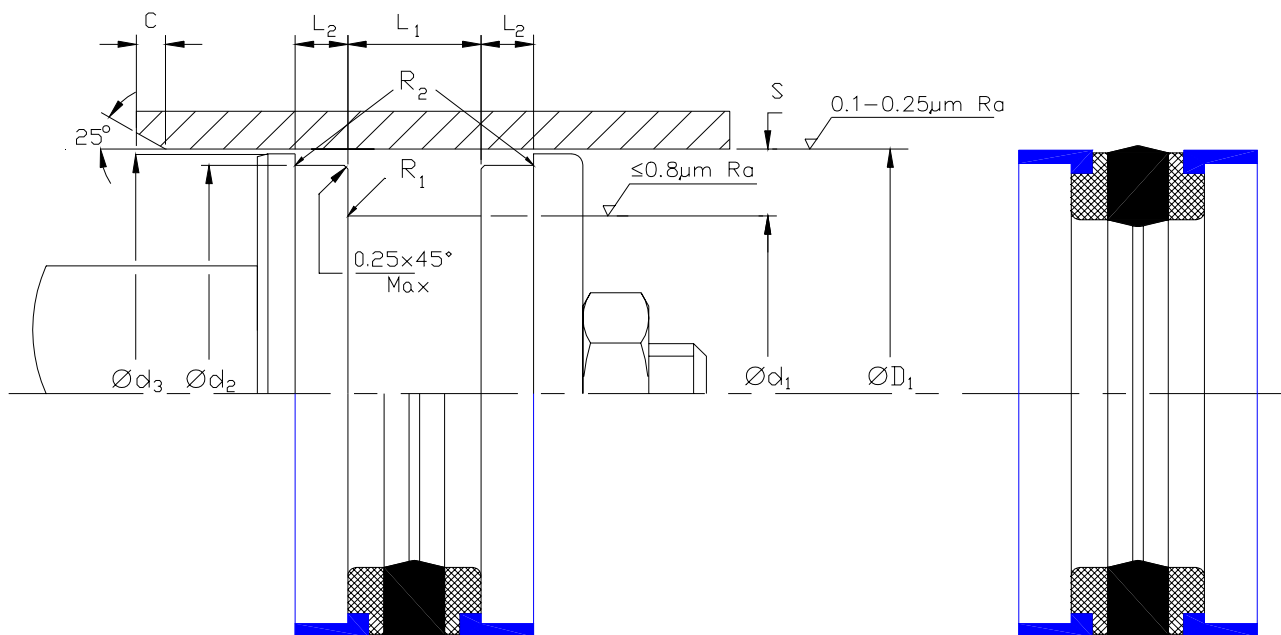
NBR Rubber		
DIN	Hydraulic Fluid Description	°C
H	Mineral oil without additives	100
H-L	Mineral Fluid with anti corrosion and anti ageing additives	100
H-LP	Mineral oil as HL plus additives reducing wear, raising load	100
H-LPD	Mineral oil as H-LP but with detergents and dispersants	100
H-V	Mineral oil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

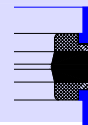
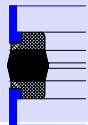
For surface finish and recommended lead in chamfers refer to the illustration below. For housing dimensions and machining tolerances refer to the catalogue page of selected seal. Refer to Appendix 4 for value of tolerance symbols.

Fitting

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.

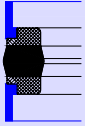


DPW



Nominal Dimensions & Machining Tolerances

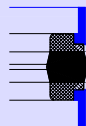
Claron Part Number	H11 ØD ₁	js11 Ød ₁	js10 Ød ₂	js11 Ød ₃	+0.63 +0.38 L ₁	+0.1 -0.0 L ₂	Nominal S	Minimum C	Maximum R ₁	Maximum R ₂
DPW 098047	25	12	21.45	23.75	12	6.35	6.5	2.5	0.4	0.2
DPW 118066	30	17	26.45	28.95	15	6.35	6.5	2.5	0.4	0.2
DPW 157094	40	24	35.40	38.65	18	6.35	8.0	4.0	0.4	0.2
DPW 177114	45	29	40.40	43.65	18	6.35	8.0	4.0	0.4	0.2
DPW 188125	48	32	43.35	46.65	18	6.35	8.0	4.0	0.4	0.2
DPW 196133	50	34	45.40	48.65	18	6.35	8.0	4.0	0.4	0.2
DPW 216153/1	55	39	50.40	53.65	18	6.35	8.0	4.0	0.4	0.2
DPW 236173/1	60	44	55.40	58.65	18	6.35	8.0	4.0	0.4	0.2
DPW 248185	63	47	58.40	61.65	19	6.35	8.0	4.0	0.4	0.2
DPW 255196	65	50	60.40	63.65	18	6.35	7.5	4.0	0.6	0.2
DPW 275196	70	50	64.15	68.35	22	6.35	10.0	5.0	0.8	0.2
DPW 295216	75	55	69.15	73.35	22	6.35	10.0	5.0	0.8	0.2
DPW 314236	80	60	74.15	78.35	22	6.35	10.0	5.0	0.8	0.2
DPW 334255	85	65	79.15	83.35	22	6.35	10.0	5.0	0.8	0.2
DPW 354275	90	70	84.15	88.35	22	6.35	10.0	5.0	0.8	0.2
DPW 393295	100	75	93.15	98.00	22	6.35	12.5	6.5	1.2	0.4
DPW 393314	100	80	94.15	98.35	25	6.35	10.0	5.0	0.8	0.2
DPW 413314	105	80	98.10	103.35	22	6.35	12.5	6.5	1.2	0.4
DPW 433334	110	85	103.10	108.00	25	6.35	12.5	6.5	1.2	0.4
DPW 433334/1	110	85	103.10	108.00	22	6.35	12.5	6.5	1.2	0.4
DPW 452354	115	90	108.10	113.00	22	6.35	12.5	6.5	1.2	0.4
DPW 472374	120	95	113.10	118.00	22	6.35	12.5	6.5	1.2	0.4
DPW 492393	125	100	118.10	123.00	25	6.35	12.5	6.5	1.2	0.4
DPW 531433	135	110	128.00	133.00	25	6.35	12.5	6.5	1.2	0.4
DPW 543433	138	110	131.00	136.00	25	6.35	14.0	7.5	1.2	0.4
DPW 551472	140	120	134.05	138.35	25	6.35	10.0	5.0	0.8	0.2
DPW 570472	145	120	138.30	143.00	25	6.35	10.0	5.0	0.8	0.2
DPW 590492	150	125	143.00	148.00	25	6.35	12.5	6.5	1.2	0.4
DPW 629511	160	130	153.00	158.00	25	6.35	15.0	7.5	1.2	0.4



ClaronPolyseal®

Double Acting Piston Seal Imperial

DPW



Nominal Dimensions & Machining Tolerances

Claron Part Number	H11	js11	js10	js11	+0.025" +0.015"	+0.004 -0.000	Nominal	Minimum	Maximum	Maximum
	ØD ₁	Ød ₁	Ød ₂	Ød ₃	L ₁	L ₂	S	C	R ₁	R ₂
DPW 100062	1.000	0.625	0.883	0.964	0.468	0.250	0.187	0.093	0.008	0.008
DPW 112062	1.125	0.625	0.986	1.083	0.500	0.250	0.250	0.125	0.015	0.008
DPW 125075	1.250	0.750	1.111	1.208	0.625	0.250	0.250	0.125	0.015	0.008
DPW 150100	1.500	1.000	1.360	1.458	0.625	0.250	0.250	0.125	0.015	0.008
DPW 150100/S	1.500	1.000	1.360	1.458	0.625	0.188	0.250	0.125	0.015	0.008
DPW 162112	1.625	1.125	1.485	1.583	0.625	0.250	0.250	0.125	0.015	0.008
DPW 175112	1.750	1.125	1.570	1.698	0.750	0.250	0.312	0.156	0.025	0.008
DPW 200137	2.000	1.375	1.820	1.948	0.750	0.250	0.312	0.156	0.025	0.008
DPW 212150	2.125	1.500	1.944	2.074	0.750	0.250	0.312	0.156	0.025	0.008
DPW 225162	2.250	1.625	2.069	2.197	0.750	0.250	0.312	0.156	0.025	0.008
DPW 237175	2.375	1.750	2.194	2.322	0.750	0.250	0.312	0.156	0.025	0.008
DPW 250187	2.500	1.875	2.319	2.446	0.750	0.250	0.312	0.156	0.025	0.008
DPW 250187/1	2.500	1.875	2.302	2.437	0.937	0.250	0.312	0.156	0.025	0.008
DPW 262200	2.625	2.000	2.443	2.571	0.750	0.250	0.312	0.156	0.025	0.008
DPW 275200	2.750	2.000	2.522	2.685	0.937	0.250	0.375	0.187	0.031	0.008
DPW 300225	3.000	2.250	2.772	2.935	0.937	0.250	0.375	0.187	0.031	0.008
DPW 300225/1	3.000	2.250	2.772	2.935	1.125	0.250	0.375	0.187	0.031	0.008
DPW 312237	3.125	2.375	2.896	3.060	0.937	0.250	0.375	0.187	0.031	0.008
DPW 325250	3.250	2.500	3.021	3.184	0.937	0.250	0.375	0.187	0.031	0.008
DPW 350275	3.500	2.750	3.271	3.434	0.937	0.250	0.375	0.187	0.031	0.008
DPW 375300	3.750	3.000	3.520	3.683	0.937	0.250	0.375	0.187	0.031	0.008
DPW 387312	3.875	3.125	3.646	3.809	0.937	0.250	0.375	0.187	0.031	0.008
DPW 400325	4.000	3.250	3.770	3.933	0.937	0.250	0.375	0.187	0.031	0.008
DPW 425350	4.250	3.500	4.019	4.182	0.937	0.250	0.375	0.187	0.031	0.008
DPW 450350	4.500	3.500	4.229	4.422	1.250	0.250	0.500	0.218	0.046	0.015
DPW 450350/1	4.500	3.500	4.229	4.422	1.500	0.250	0.500	0.218	0.046	0.015
DPW 475375	4.750	3.750	4.478	4.671	1.250	0.250	0.500	0.218	0.046	0.015
DPW 500400	5.000	4.000	4.728	4.921	1.250	0.250	0.500	0.218	0.046	0.015
DPW 525425	5.250	4.250	4.977	5.170	1.250	0.250	0.500	0.218	0.046	0.015
DPW 550450	5.500	4.500	5.227	5.420	1.250	0.250	0.500	0.218	0.046	0.015
DPW 550450/2	5.500	4.500	5.232	5.437	1.500	0.370	0.500	0.218	0.046	0.015
DPW 575475	5.750	4.750	5.475	5.669	1.250	0.250	0.500	0.218	0.046	0.015
DPW 600500	6.000	5.000	5.726	5.919	1.250	0.250	0.500	0.218	0.046	0.015
DPW 650550	6.500	5.500	6.226	6.419	1.250	0.250	0.500	0.218	0.046	0.015
DPW 700600	7.000	6.000	6.724	6.917	1.250	0.250	0.500	0.218	0.046	0.015
DPW 800700	8.000	7.000	7.723	7.915	1.250	0.250	0.500	0.218	0.046	0.015
DPW 950850	9.500	8.500	9.225	9.418	1.250	0.250	0.500	0.218	0.046	0.015