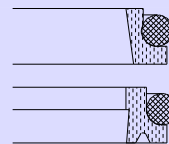


931
941
951

Single & Double Acting Rod Wiper Seals

Metric

931 941 951



Design

Claron Wiper Seals **Style 941** and **951** are designed as low friction **Double-acting** seals to assist the sealing capability of single-acting Rod seal arrangements in arduous conditions. Double Acting Wiper Seals **Style 941** and **951** should not be utilised in combination with double-acting Rod seals unless the housing design allows for pressure relief between the wiper and the seal.

Claron Wiper Seals **Style 931** are designed as low friction **Single-acting** Rod wiper seals for use with other single or double-acting Rod seals in hydraulic and pneumatic cylinders. This style does not offer any assistance to the sealing capability of the Rod seal and therefore would not be recommended for use where **Style 941** and **951** could be utilised. Housing sizes and tolerances for **Style 931** are identical to **Style 941**. **Style 951** utilises a separate range of installation sizes.

Materials

Standard materials are Virgin Modified P.T.F.E with a Nitrile O-Ring Energiser but both the inner wiper element and the energiser are available in a wide range of high performance materials to suit a variety of applications. The application parameters should be carefully considered prior to selecting suitable materials from the tables shown in Appendix 2-3. Consult Claron for further advise.

Operating Range

Temp. -50°C to 200°C, (Dependent upon O-Ring Material used see Appendix 2.)

Velocity upto 15m/s linear, 5m/s Rotary or Oscillating

These range parameters are maximum conditional values.

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

Refer to Appendix 1 section for further information.

Range Of Installation Dimensions

The full range of diameters applicable to the "Standard", "Light" and "Heavy" Duty Sections are shown in the table below.

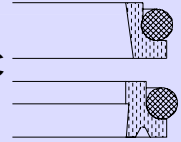
STYLES 931 and 941

Housing		Rod Dia.		
Section	Width	Standard Duty	Light Duty	Heavy Duty
2.4	3.7	6.0 to 11.9	12.0 to 64.9	
3.4	5.0	12.0 to 64.9	65.0 to 250.9	6.0 to 11.9
4.4	6.0	65.0 to 250.9	251.0 to 420.9	12.0 to 64.9
6.1	8.4	251.0 to 420.9	421.0 to 580.0	65.0 to 250.9
8.0	11.0	421.0 to 580.0		251.0 to 420.9

STYLE 951

Housing		Rod Dia.		
Section	Width	Standard Duty	Light Duty	Heavy Duty
3.8	4.2	8.0 to 39.9	40 to 69.9	
4.4	6.3	40 to 69.9	70 to 139.9	
6.1	8.1	70 to 139.9	140 to 350.0	
8.0	9.5	140 to 399.9	400 to 580.0	100 to 139.9
12.0	14.0	400 to 580.0		200 to 399.9

For Standard and Light Duty Sections split grooves should be utilised for Rod Diameters < 30mm
For Heavy Duty Sections use split grooves for Rod Diameters <40mm



How To Order

When ordering, prefix the size reference with the style required and use the suffix shown in the material application tables.

- e.g. 931 Standard section in Virgin Modified material for 70mm Rod **931-0700/VM**
- 941 Light duty section in Virgin Modified material for 70 mm Rod **941-0700/1VM**
- 941 Heavy duty section in Carbon filled material for 70 mm Rod **941-0700/2C**
- 951 Standard section in Virgin Modified material for 70mm Rod **951-0700/VM**

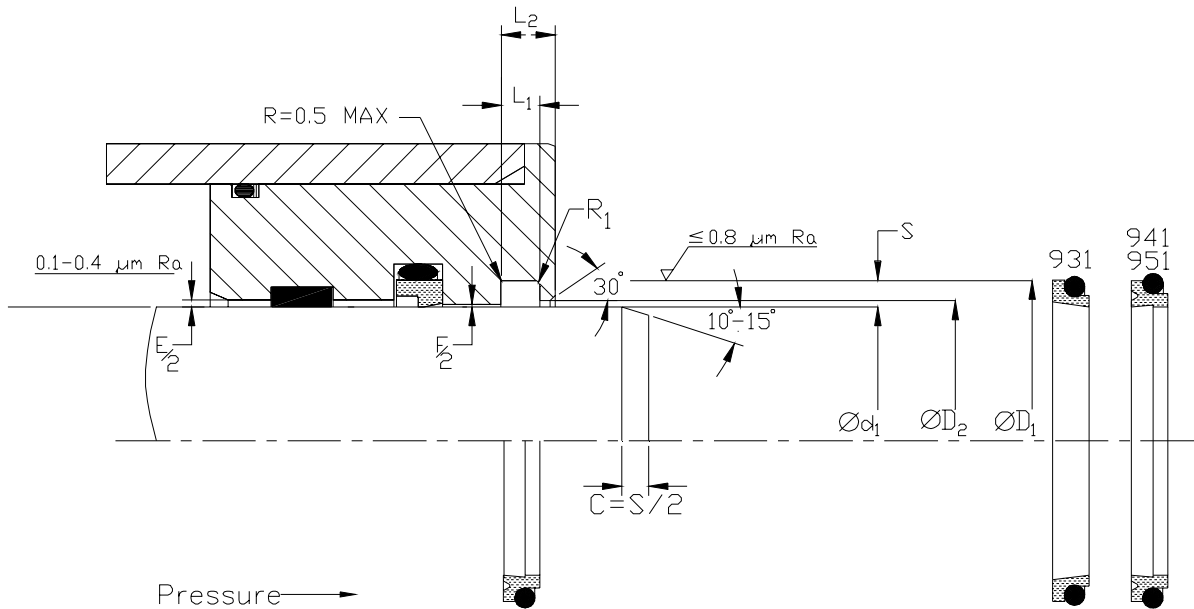
For O-Ring energiser materials other than Nitrile, use suffix shown in material table

e.g. Flourocarbon material (FKM), **941-0700/VM/FKM**

Housing

For surface finish and lead in chamfers refer to the illustration below.

For Housing dimensions and tolerances refer to the table of recommended sizes.



For F/2 values see note and tables

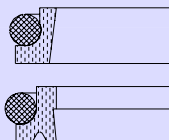
For E/2 values refer to P.T.F.E. Guide Tape

For Standard and Light Duty Sections split grooves should be utilised for Rod Diameters < 30mm
For Heavy Duty Sections use split grooves for Rod Diameters <40mm

Fitting

For the seal to function correctly it is important that care is taken during fitting.

For details refer to Appendix 3.

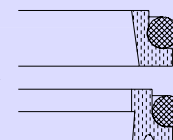


931

941

941

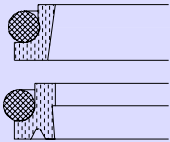
931



Nominal Dimensions & Machining Tolerances

Claron Part Number	f8 d ₁	H9 D ₁	+0.20 -0.00 D ₂	+0.20 -0.00 L ₁	Min L ₂	SECT S	MAX R ₁
941-0060/VM	6.00	10.80	7.50	3.70	5.70	2.40	0.40
941-0063/VM	6.35	11.15	7.85	3.70	5.70	2.40	0.40
941-0080/VM	8.00	12.80	9.50	3.70	5.70	2.40	0.40
941-0100/VM	10.00	14.80	11.50	3.70	5.70	2.40	0.40
941-0120/VM	12.00	18.80	13.50	5.00	7.00	3.40	0.70
941-0140/VM	14.00	20.80	15.50	5.00	7.00	3.40	0.70
941-0150/VM	15.00	21.80	16.50	5.00	7.00	3.40	0.70
941-0160/VM	16.00	22.80	17.50	5.00	7.00	3.40	0.70
941-0180/VM	18.00	24.80	19.50	5.00	7.00	3.40	0.70
941-0200/VM	20.00	26.80	21.50	5.00	7.00	3.40	0.70
941-0220/VM	22.00	28.80	23.50	5.00	7.00	3.40	0.70
941-0250/VM	25.00	31.80	26.50	5.00	7.00	3.40	0.70
941-0280/VM	28.00	34.80	29.50	5.00	7.00	3.40	0.70
941-0300/VM	30.00	36.80	31.50	5.00	7.00	3.40	0.70
941-0320/VM	32.00	38.80	33.50	5.00	7.00	3.40	0.70
941-0350/VM	35.00	41.80	36.50	5.00	7.00	3.40	0.70
941-0360/VM	36.00	42.80	37.50	5.00	7.00	3.40	0.70
941-0400/VM	40.00	46.80	41.50	5.00	7.00	3.40	0.70
941-0420/VM	42.00	48.80	43.50	5.00	7.00	3.40	0.70
941-0450/VM	45.00	51.80	46.50	5.00	7.00	3.40	0.70
941-0480/VM	48.00	54.80	49.50	5.00	7.00	3.40	0.70
941-0500/VM	50.00	56.80	51.50	5.00	7.00	3.40	0.70
941-0520/VM	52.00	58.80	53.50	5.00	7.00	3.40	0.70
941-0550/VM	55.00	61.80	56.50	5.00	7.00	3.40	0.70
941-0560/VM	56.00	62.80	57.50	5.00	7.00	3.40	0.70
941-0600/VM	60.00	66.80	61.50	5.00	7.00	3.40	0.70
941-0630/VM	63.00	69.80	64.50	5.00	7.00	3.40	0.70
941-0650/VM	65.00	73.80	66.50	6.00	9.00	4.40	1.00
941-0700/VM	70.00	78.80	71.50	6.00	9.00	4.40	1.00
941-0750/VM	75.00	83.80	76.50	6.00	9.00	4.40	1.00
941-0762/VM	76.20	85.00	77.70	6.00	9.00	4.40	1.00
941-0800/VM	80.00	88.80	81.50	6.00	9.00	4.40	1.00
941-0850/VM	85.00	93.80	86.50	6.00	9.00	4.40	1.00
941-0900/VM	90.00	98.80	91.50	6.00	9.00	4.40	1.00
941-0950/VM	95.00	103.80	96.50	6.00	9.00	4.40	1.00

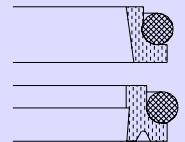
Dimensions in bold type conform to ISO 3320 :1987



931

Single & Double Acting Rod Wiper Seals

Metric



941

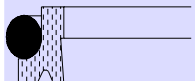
941

931

Nominal Dimensions & Machining Tolerances

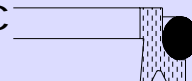
Claron Part Number	f8 d ₁	H9 D ₁	+0.20 -0.00 D ₂	+0.20 -0.00 L ₁	Min L ₂	SECT S	MAX R ₁
941-1000/VM	100.00	108.80	101.50	6.00	9.00	4.40	1.00
941-1050/VM	105.00	113.80	106.50	6.00	9.00	4.40	1.00
941-1100/VM	110.00	118.80	111.50	6.00	9.00	4.40	1.00
941-1150/VM	115.00	123.80	116.50	6.00	9.00	4.40	1.00
941-1200/VM	120.00	128.80	121.50	6.00	9.00	4.40	1.00
941-1250/VM	125.00	133.80	126.50	6.00	9.00	4.40	1.00
941-1300/VM	130.00	138.80	131.50	6.00	9.00	4.40	1.00
941-1350/VM	135.00	143.80	136.50	6.00	9.00	4.40	1.00
941-1400/VM	140.00	148.80	141.50	6.00	9.00	4.40	1.00
941-1500/VM	150.00	158.80	151.50	6.00	9.00	4.40	1.00
941-1600/VM	160.00	168.80	161.50	6.00	9.00	4.40	1.00
941-1700/VM	170.00	178.80	171.50	6.00	9.00	4.40	1.00
941-1800/VM	180.00	188.80	181.50	6.00	9.00	4.40	1.00
941-1900/VM	190.00	198.80	191.50	6.00	9.00	4.40	1.00
941-2000/VM	200.00	208.80	201.50	6.00	9.00	4.40	1.00
941-2100/VM	210.00	218.80	211.50	6.00	9.00	4.40	1.00
941-2200/VM	220.00	228.80	221.50	6.00	9.00	4.40	1.00
941-2300/VM	230.00	238.80	231.50	6.00	9.00	4.40	1.00
941-2400/VM	240.00	248.80	241.50	6.00	9.00	4.40	1.00
941-2500/VM	250.00	258.80	251.50	6.00	9.00	4.40	1.00
941-2800/VM	280.00	292.20	282.00	8.40	11.40	6.10	1.20
941-3000/VM	300.00	312.20	302.00	8.40	11.40	6.10	1.20
941-3200/VM	320.00	332.20	322.00	8.40	11.40	6.10	1.20
941-3500/VM	350.00	362.20	352.00	8.40	11.40	6.10	1.20
941-3600/VM	360.00	372.20	362.00	8.40	11.40	6.10	1.20
941-4000/VM	400.00	412.20	402.00	8.40	11.40	6.10	1.20
941-4200/VM	420.00	432.20	422.00	8.40	11.40	6.10	1.20
941-4500/VM	450.00	466.00	452.00	11.00	15.00	8.00	1.50
941-4800/VM	480.00	496.00	482.00	11.00	15.00	8.00	1.50
941-5000/VM	500.00	516.00	502.00	11.00	15.00	8.00	1.50

Dimensions in bold type conform to ISO 3320 :1987
 All intermediate sizes upto 580mm are available, incl. Imperial



951

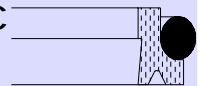
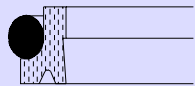
951



Nominal Dimensions & Machining Tolerances

Claron Part Number	f8 d ₁	H9 D ₁	+0.20 -0.20 D ₂	+0.20 -0.00 L ₁	Min L ₂	SECT S	MAX R ₁
951-0080/VM	8.00	15.60	9.00	4.20	7.20	3.80	0.70
951-0100/VM	10.00	17.60	11.00	4.20	7.20	3.80	0.70
951-0120/VM	12.00	19.60	13.00	4.20	7.20	3.80	0.70
951-0140/VM	14.00	21.60	15.00	4.20	7.20	3.80	0.70
951-0150/VM	15.00	22.60	16.00	4.20	7.20	3.80	0.70
951-0160/VM	16.00	23.60	17.00	4.20	7.20	3.80	0.70
951-0180/VM	18.00	25.60	19.00	4.20	7.20	3.80	0.70
951-0200/VM	20.00	27.60	21.00	4.20	7.20	3.80	0.70
951-0220/VM	22.00	29.60	23.00	4.20	7.20	3.80	0.70
951-0250/VM	25.00	32.60	26.00	4.20	7.20	3.80	0.70
951-0280/VM	28.00	35.60	29.00	4.20	7.20	3.80	0.70
951-0300/VM	30.00	37.60	31.00	4.20	7.20	3.80	0.70
951-0320/VM	32.00	39.60	33.00	4.20	7.20	3.80	0.70
951-0350/VM	35.00	42.60	36.00	4.20	7.20	3.80	0.70
951-0360/VM	36.00	43.60	37.00	4.20	7.20	3.80	0.70
951-0400/VM	40.00	48.80	41.50	6.30	9.30	4.40	0.70
951-0420/VM	42.00	50.80	43.50	6.30	9.30	4.40	0.70
951-0450/VM	45.00	53.80	46.50	6.30	9.30	4.40	0.70
951-0480/VM	48.00	56.80	49.50	6.30	9.30	4.40	0.70
951-0500/VM	50.00	58.80	51.50	6.30	9.30	4.40	0.70
951-0520/VM	52.00	60.80	53.50	6.30	9.30	4.40	0.70
951-0550/VM	55.00	63.80	56.50	6.30	9.30	4.40	0.70
951-0560/VM	56.00	64.80	57.50	6.30	9.30	4.40	0.70
951-0600/VM	60.00	68.80	61.50	6.30	9.30	4.40	0.70
951-0630/VM	63.00	71.80	64.50	6.30	9.30	4.40	0.70
951-0650/VM	65.00	73.80	66.50	6.30	9.30	4.40	0.70
951-0700/VM	70.00	82.20	72.00	8.10	12.10	6.10	1.00
951-0750/VM	75.00	87.20	77.00	8.10	12.10	6.10	1.00
951-0762/VM	76.20	88.40	78.20	8.10	12.10	6.10	1.00
951-0800/VM	80.00	92.20	82.00	8.10	12.10	6.10	1.00

Dimensions in bold type conform to ISO 3320 :1987



Nominal Dimensions & Machining Tolerances

Claron Part Number	f8	H9	+0.20 -0.20	+0.20 -0.00	Min	SECT	MAX
	d ₁	D ₁	D ₂	L ₁	L ₂	S	R ₁
951-0850/VM	85.00	97.20	87.00	8.10	12.10	6.10	1.00
951-0900/VM	90.00	102.20	92.00	8.10	12.10	6.10	1.00
951-0950/VM	95.00	107.20	97.00	8.10	12.10	6.10	1.00
951-1000/VM	100.00	112.20	102.00	8.10	12.10	6.10	1.00
951-1050/VM	105.00	117.20	105.00	8.10	12.10	6.10	1.00
951-1100/VM	110.00	122.20	112.00	8.10	12.10	6.10	1.00
951-1150/VM	115.00	127.20	117.00	8.10	12.10	6.10	1.00
951-1200/VM	120.00	132.20	122.00	8.10	12.10	6.10	1.00
951-1250/VM	125.00	137.20	127.00	8.10	12.10	6.10	1.00
951-1300/VM	130.00	142.20	132.00	8.10	12.10	6.10	1.00
951-1350/VM	135.00	147.20	137.00	8.10	12.10	8.00	1.00
951-1400/VM	140.00	156.00	142.50	9.50	14.50	8.00	1.20
951-1500/VM	150.00	166.00	152.50	9.50	14.50	8.00	1.20
951-1600/VM	160.00	176.00	162.50	9.50	14.50	8.00	1.20
951-1700/VM	170.00	186.00	172.50	9.50	14.50	8.00	1.20
951-1800/VM	180.00	196.00	182.50	9.50	14.50	8.00	1.20
951-1900/VM	190.00	206.00	192.50	9.50	14.50	8.00	1.20
951-2000/VM	200.00	216.00	202.50	9.50	14.50	8.00	1.20
951-2100/VM	210.00	226.00	212.50	9.50	14.50	8.00	1.20
951-2200/VM	220.00	236.00	222.50	9.50	14.50	8.00	1.20
951-2300/VM	230.00	246.00	232.50	9.50	14.50	8.00	1.20
951-2400/VM	240.00	256.00	242.50	9.50	14.50	8.00	1.20
951-2500/VM	250.00	266.00	252.50	9.50	14.50	8.00	1.20
951-2800/VM	280.00	296.00	282.50	9.50	14.50	8.00	1.20
951-3000/VM	300.00	316.00	302.50	9.50	14.50	8.00	1.20
951-3200/VM	320.00	336.00	322.50	9.50	14.50	8.00	1.20
951-3500/VM	350.00	366.00	352.50	9.50	14.50	8.00	1.20
951-3600/VM	360.00	376.00	362.50	9.50	14.50	8.00	1.20
951-4000/VM	400.20	424.00	402.50	14.00	22.00	12.00	1.50
951-4200/VM	420.00	444.00	422.50	14.00	22.00	12.00	1.50
951-4500/VM	450.00	474.00	452.50	14.00	22.00	12.00	1.50
951-4800/VM	480.00	504.00	482.50	14.00	22.00	12.00	1.50
951-5000/VM	500.00	524.00	502.50	14.00	22.00	12.00	1.50
951-5500/VM	550.00	574.00	552.50	14.00	22.00	12.00	1.50

Dimensions in bold type conform to ISO 3320 :1987
 All intermediate sizes upto 580mm are available, incl. Imperial