

100 VDL/DV pump



100 series panel mount pumps

- Unique easy load pump head for flows up to 510ml/min
- Brushless Direct-Drive technology for life up to 20,000hrs
- No maintenance – Minimum total life cost
- Simple to use – Analogue speed control, 0-4 V
- CW/CCW direction control
- Brake feature – Stops in microseconds
- Encoder feedback, 36 pulses per motor revolution

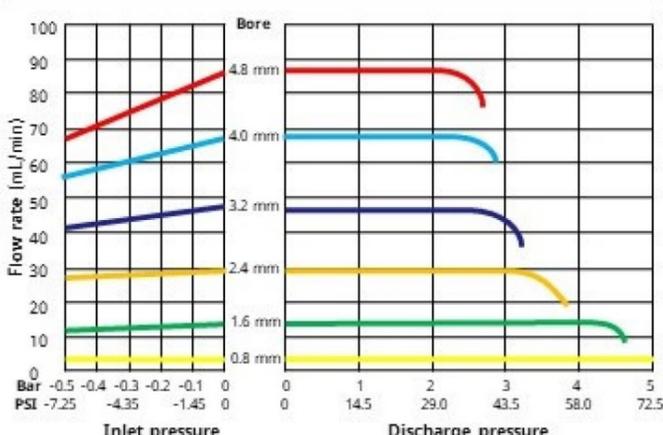


100 VDL/DV pump performance

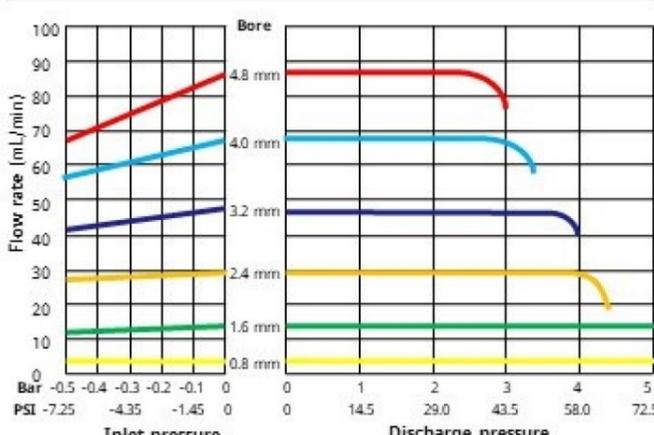
Flow rates (ml/min) Tubing 1.6 mm wall					
Tube bore (mm)	(ml/rev)	Speed (rpm)			
		100	400	600 (intermittent)	
0.5	0.02	2.2	9.1	13.5	
0.8	0.04	4.3	17	26	
1.6	0.14	14	56	84	
2.4	0.29	29	115	175	
3.2	0.47	47.5	190	285	
4.0	0.67	67	270	405	
4.8	0.85	85	340	510	

Custom options	
Drives	0-10 V analogue control
	4-20mA analogue control
	Fixed speed (no control voltage needed)
	Potentiometer control
Pumphead	No visible rotation - covered holes
	Logic off switch and rotation sensor
	Custom colours
	Custom occlusion settings

114DV Pumphead
Marprene, water, 100 rpm, counter-clockwise



114DVP Pumphead
Marprene, water, 100 rpm, counter-clockwise



Technical specifications

	100 VDL/DV pump
Motor types	Variable speed brushless DC motor
Pumphead options	114DV
Number of rollers	4
Number of channels	1
Flow rate range	2.2 ml/min to 510 ml/min
Operating speed range	100 rpm to 600 rpm
Supply voltage	24 V DC
Operating temperature range	-10 °C to 45 °C
Operating temperature range	14 °F to 113 °F
Power consumption	75W
Control options	0-10 V, 0-4 V, 4-20 mA, Manual
Outputs	Tacho
Weight	0.8 kg
Weight	1.763 lbs
Location	Indoor, Enclosure
Compatible tubing bore size	0.5, 0.8, 1.6, 2.4, 3.2, 4, 4.8 mm
Compatible tubing wall thickness	1.6 mm
Approximate Motor Life	Up to 20,000hrs

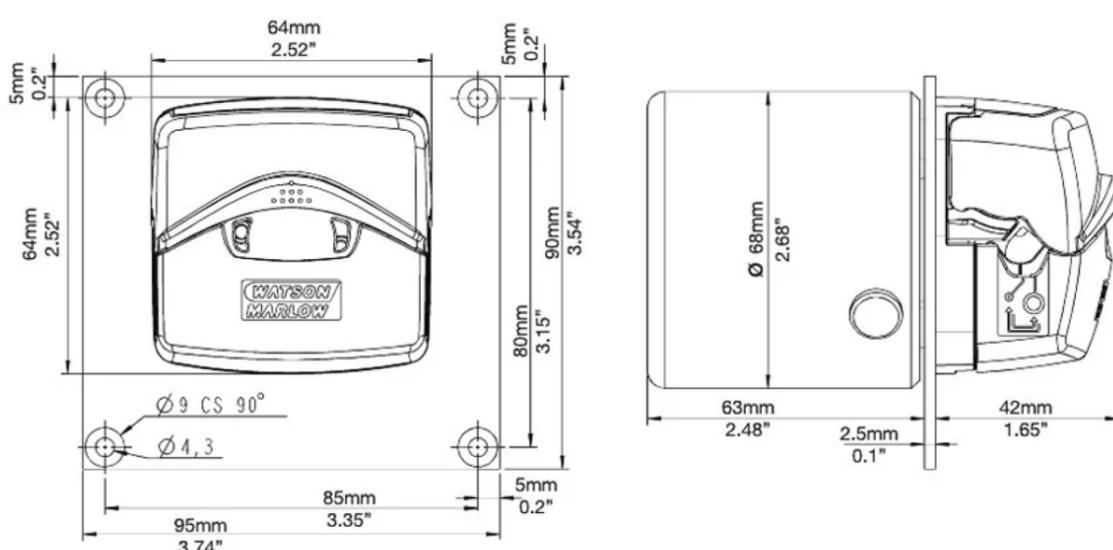
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

	100 VDL/DV pump
Pumphead body assembly	Grilamid PA12, Polyacrylamide—IXEF (PARA)
Pumphead rotor assembly	FPM rubber, Polyacrylamide—IXEF (PARA), PTFE filled PBT, Stainless steel
Pumphead roller assembly	PTFE filled PBT
Bearings	Stainless steel
Adaptor plate	IXEF PARA
Driveshaft	Stainless steel
Springs	Stainless steel
Mounting plate assembly	Anodised aluminium

Information listed covers the complete range. For detailed specifications of individual models/components refer to product reference manual or contact WMFTS representative.

100 VDL/DV pump dimensions



Product codes

Pump product codes				
Description	Supply	Speed (rpm)	with 114DV	with 114DVP
114VDL variable speed motor drive	24 VDC	100 - 600	010.5NW0.00A	010.5NW0.P0A

Tubing product codes for 114DV and 114DVP pumpheads						
Bore/wall	Pumpsil	Marprene	Bioprene	STA-PURE PFL	PVC*	STA-PURE PCS
0.5/1.6 mm	913.A005.016	902.0005.016	933.0005.016			
0.8/1.6 mm	913.A008.016	902.0008.016	933.0008.016			
1.6/1.6 mm	913.A016.016	902.0016.016	933.0016.016	966.0016.016	E3603.016.16	961.0016.016
2.4/1.6 mm	913.A024.016	902.0024.016	933.0024.016			
3.2/1.6 mm	913.A032.016	902.0032.016	933.0032.016	966.0032.016	E3603.032.16	961.0032.016
4.0/1.6 mm			933.0040.016		E3603.040.16	
4.8/1.6 mm	913.A048.016	902.0048.016	933.0048.016	966.0048.016	E3603.048.16	961.0048.016

*recommended for 114DVP +pressure pumphead only

Disclaimer: All flow rates shown were obtained pumping water at 20 °C (68 °F) with zero suction and delivery heads. Watson-Marlow, Pumpsil, PureWeld XL, Bioprene and Marprene are trademarks of Watson-Marlow Limited. The information contained in this document is believed to be correct but Watson-Marlow of Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. GORE and STA-PURE are trademarks of W. L. Gore & Associates. Please state the product code when ordering pumps and tubing.



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