

100 FD DV pump

100 series panel mount pumps

- Small size, compact and robust design
- Trouble-free continuous tube loading in seconds
- Reliable performance without any operator adjustments
- Automatic tube stretch for high accuracy and repetitive flow
- Safe and closed with visible rotor movement
- Pumphead accepts seven bore sizes of tubing for flows up to 300 ml/min
- Robust iron-core, carbon brush motor with low EMI
- Spring-loaded operation for good pressure control



100 FD DV pump performance

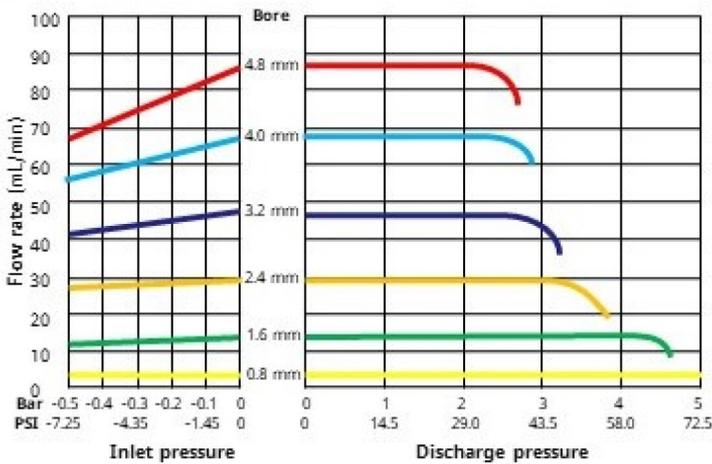
Flow rates (ml/min) Tubing 1.6 mm wall				
Tube bore (mm)	(ml/rev)	Speed (rpm)		
		60	190	350*
0.5	0.02	1.4	4.3	8.0
0.8	0.04	2.6	8.2	15
1.6	0.14	8.4	26.5	49
2.4	0.29	17.5	55	100
3.2	0.47	28.5	90.5	165
4.0	0.67	40.5	128	235
4.8	0.85	51	160	300

*Low pressure applications only. Pumpsil up to 4.8 mm bore. Other tubing up to 3.2 mm bore.

Custom options	
Drives	Encoder, three pulses per motor revolution
	Alternative speeds available
Pumpheads	No visible rotation - covered holes
	Logic off switch and rotation sensor
	Custom colours
	Models for thin wall tubing
	Custom occlusion settings

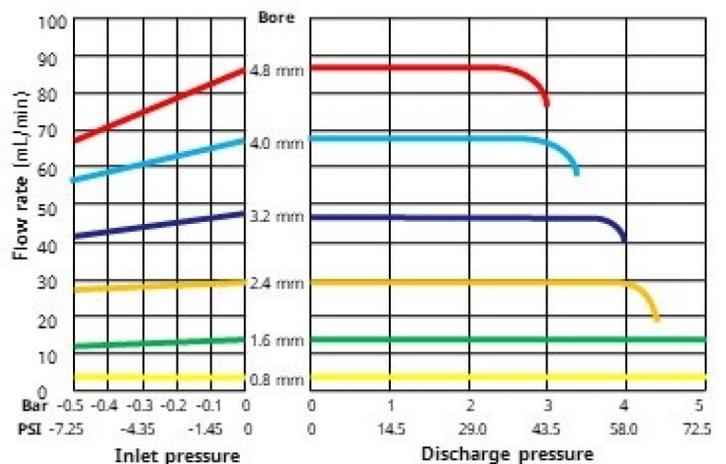
114DV Pumphead

Marprene, water, 100 rpm, counter-clockwise



114DVP Pumphead

Marprene, water, 100 rpm, counter-clockwise



Technical specifications

	100 FD DV pump
Motor types	Fixed speed DC motor
Pumphead options	114DV
Number of rollers	4
Number of channels	1
Flow rate range	1.4 ml/min to 300 ml/min
Operating speed range	to 350 rpm
Supply voltage	12 V DC, 24 V DC
Operating temperature	-10 °C to 45 °C (14 °F to 113 °F)
Power consumption	5W
Control options	Fixed speed
Weight	0.3 kg (0.661 lbs)
Location	Indoor, Enclosure
Noise	EMI noise reduction filter
Gearbox ratio	Spur; 100:1, 30:1, 15:1
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 3000hrs

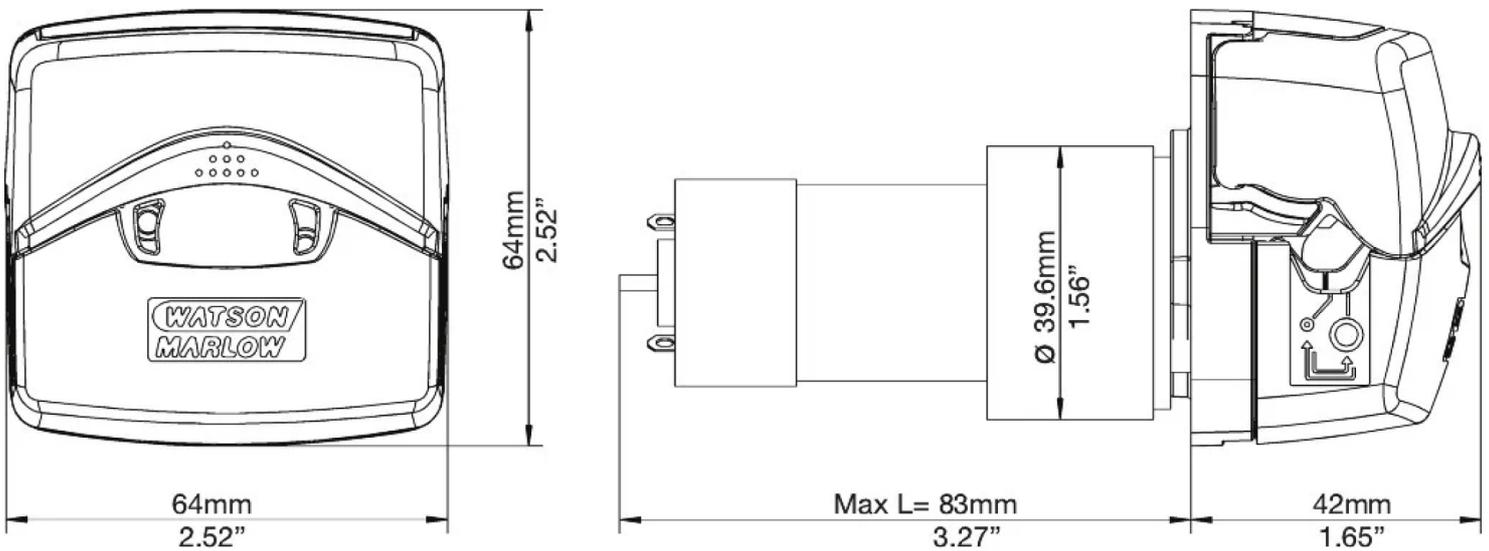
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

	100 FD 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

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

100 FD DV pump dimensions



Product codes

Pump product codes				
Description	Supply	Speed (rpm)	with 114DV	with 114DVP
114FD DC motor drive	12 VDC	60	010.5AM0.00A	010.5AM0.P0A
	24 VDC	60	010.5BM0.00A	010.5BM0.P0A
	12 VDC	190	010.5AS0.00A	010.5AS0.P0A
	24 VDC	190	010.5BS0.00A	010.5BS0.P0A
	12 VDC	350	010.5AU0.00A#	010.5AU0.P0A#
	24 VDC	350	010.5BU0.00A#	010.5BU0.P0A#

Low pressure applications only. Pumpsil up to 4.8 mm bore. Other tubing up to 3.2 mm bore

Tubing product codes for 114DV and 114DVP pumpheads						
Bore/wall	Pumpsil	Marpene	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			
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 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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