

100 ST DV pump

100 series panel mount pumps

- Unique easy-load pumphead for flows up to 510 ml/min
- Spring loaded tube holder design for maximized tube life
- Reliable performance without operator adjustments
- Brushless stepper motor drive ensures long life
- Excellent speed, flow and dosing accuracy
- Maintenance free
- Cost effective compact design



100 ST DV pump performance

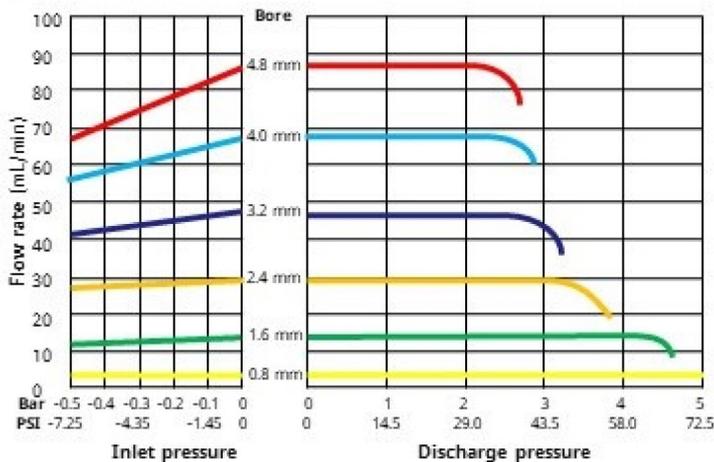
Flow rates (ml/min) Tubing 1.6 mm wall					
Tube bore (mm)	(ml/rev)	Speed (rpm)			
		100	400	600 (Intermittent)	
0.5	0.02	2.2	9.1	13.5	
0.8	0.04	4.3	17	26	
1.6	0.14	14	56	84	
2.4	0.29	29	115	175	
3.2	0.47	47.5	190	285	
4.0	0.67	67	270	405	
4.8	0.85	85	340	510	
Motorcode (P/N)	Current A/phase	max speed low torque	max speed medium torque	max speed high torque	
Z2	1.2	600*	400*	300*	

*Approximate figures, tested with a simple bipolar drive at 24 V DC and at nominal current, using speed ramp

Custom Options
No visible rotation - covered holes
Logic off-switch and rotation sensor
Custom colours
Custom occlusion settings

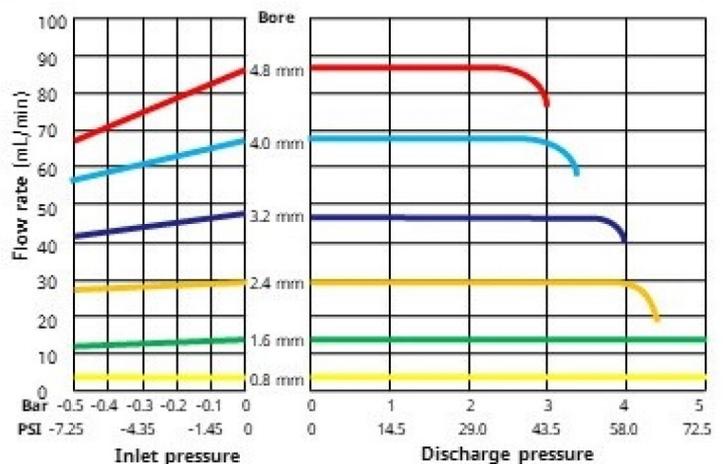
114DV Pumphead

Marprene, water, 100 rpm, counter-clockwise



114DVP Pumphead

Marprene, water, 100 rpm, counter-clockwise



Technical specifications

100 ST DV pump	
Motor types	Stepper 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	0 rpm to 600 rpm
Supply voltage	24 V DC
Operating temperature	-10 °C to 45 °C (14 °F to 113 °F)
Power consumption	10W
Weight	0.45 kg (0.992 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
DC Resistance/Inductance	3.5 ohm/6.4 mH +/-10%
Required Driver	Bipolar, up to 1.2A

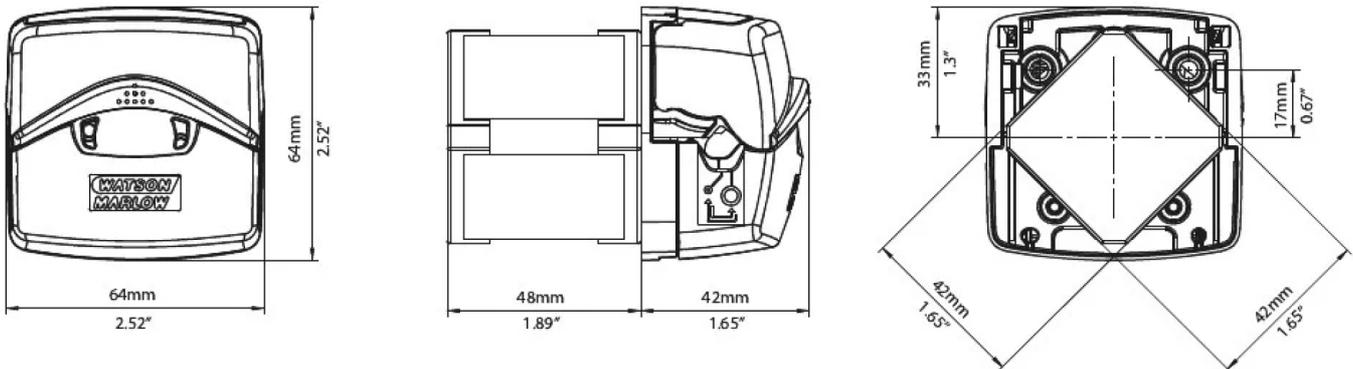
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

100 ST 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 ST DV pump dimensions



Product codes

Pump product codes						
Description	Supply	Speed (rpm)	with 114DV	with 114DVP		
114ST stepper motor drive	24 VDC	0 - 600	010.5Z2S.00A	010.5Z2S.P0A		
Tubing product codes for 114DV and 114DVP pumphheads						
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 pumphhead 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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