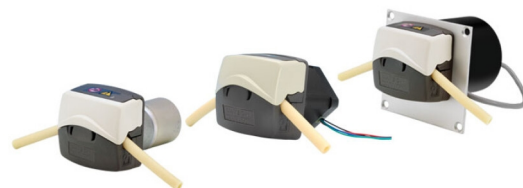


# 100ST DV

## 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



## 100ST DV performance

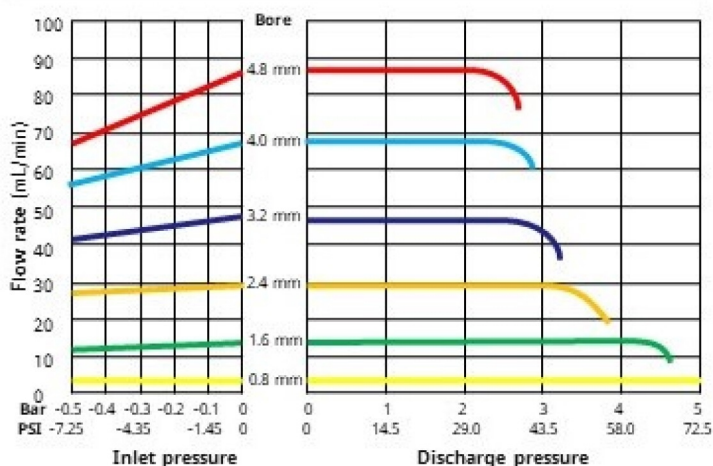
| Flow rates (ml/min) Tubing 1.6 mm wall |                 |                      |     |                         |                       |
|----------------------------------------|-----------------|----------------------|-----|-------------------------|-----------------------|
| Tube bore (mm)                         | (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 colors                        |  |
| Custom occlusion settings            |  |

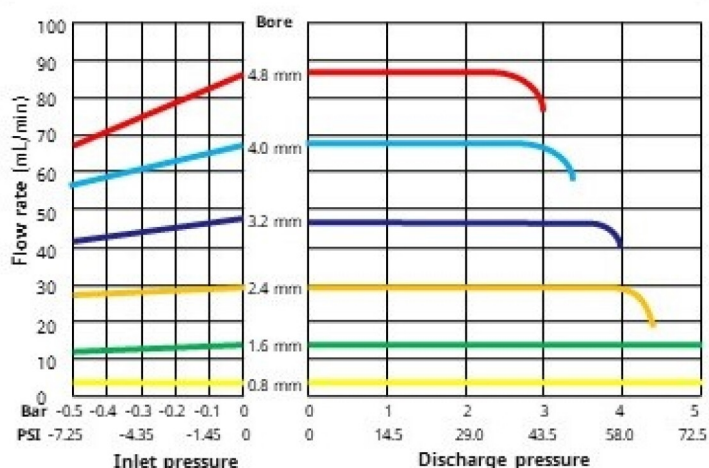
### 114DV Pumphead

Marprene, water, 100 rpm, counter-clockwise



### 114DVP Pumphead

Marprene, water, 100 rpm, counter-clockwise



Technical specifications

|                                  | 100ST DV                           |
|----------------------------------|------------------------------------|
| Motor types                      | Stepper motor                      |
| Pumphead options                 | 114DV                              |
| Number of rollers                | 4                                  |
| Number of channels               | 1                                  |
| FlowRateRange                    | 2.2 ml/min to 510 ml/min           |
|                                  | 0 rpm to 600                       |
| Supply voltage                   | 24VDC                              |
| Operating temperature            | 14 °F to 113 °F (-10 °C to 45 °C)  |
| Power consumption                | 10W                                |
| Weight                           | 0.992 lbs (0.45 kg)                |
| 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                |

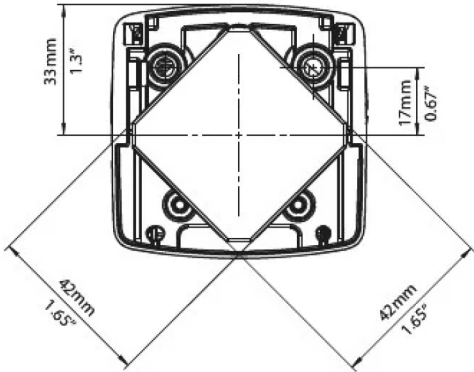
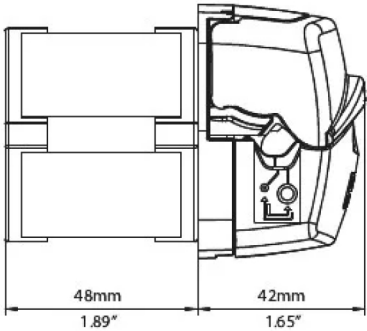
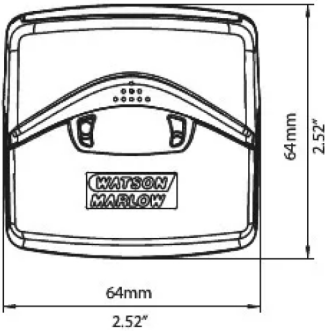
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

|                          | 100ST DV                                                                                                                                         |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Pumphead body assembly   | Grilamid PA12, Polyacrylamide–IXEF (PARA)                                                                                                        |
| Pumphead rotor assembly  | FPM rubber, Polyacrylamide–IXEF (PARA), Polytetrafluoroethylene (PTFE) filled Polybutylene Terephthalate (PBT), PTFE filled PBT, Stainless steel |
| Pumphead roller assembly | Polytetrafluoroethylene (PTFE) filled Polybutylene Terephthalate (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.

100ST DV 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 pumpheads |              |              |              |              |              |
| Bore/wall                                           | Pumpsil      | Marprene     | Bioprene     | STA-PURE PFL | PVC*         |
| 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 |
| 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 |
| 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 |

\*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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21 October 2025