

323 Drive with 313D pumphead

300 series cased pump

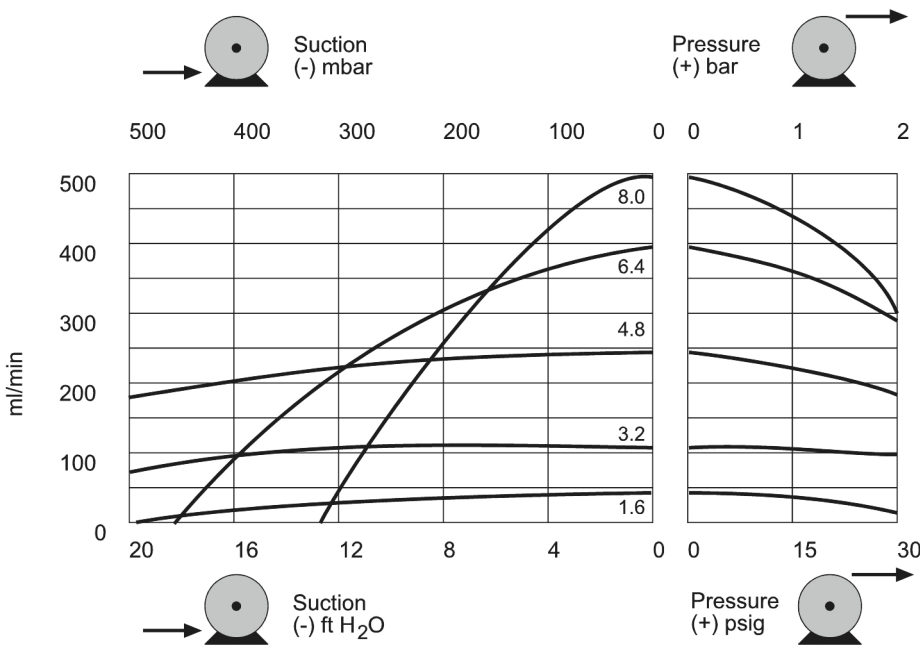
Features and benefits

- Manual or remote 4 mA to 20 mA or 0 V to 10 V analogue auto-control or RS232 control commands
- Up to 133:1 enhanced digital manual speed control
- Keypad lock prevents tampering or accidental changes
- MemoDose facility for accurate single-shot dosing
- Digital TTL inputs for run/stop and direction
- Instantly reversible
- Two-year warranty



323 Drive with 313D pumphead performance

313D three-roller flip-top pumpheads for continuous tubing — Tube bore and flow rates (ml/min)						
	Speed rpm	1.6 mm	3.2 mm	4.8 mm	6.4 mm	8.0 mm
323E/D	15 - 400	4.1 - 110	15 - 400	33 - 880	54 - 1400	75 - 2000
323S/D	3 - 400	0.81 - 110	3.0 - 400	6.6 - 880	11 - 1400	15 - 2000
323U/D	3 - 400	0.81 - 110	3.0 - 400	6.6 - 880	11 - 1400	15 - 2000
323Du/D	3 - 400	0.81 - 110	3.0 - 400	6.6 - 880	11 - 1400	15 - 2000
323Dz/D	2.0 - 400	0.54-110	2.0-400	4.4-880	7.2-1400	10-2000



313 pumphead
(3 roller) at 100rpm

Technical specifications

	323 Drive with 313D pumphead
Pumphead number of rollers	3
Pumphead number of channels	1
Flow rate	0.06 ml/min to 2000 ml/min
Speed control ratio	133:1, 200:1, 27:1
Operating speed	2 rpm to 400 rpm
Operating temperature	5 °C to 40 °C (40 °F to 104 °F)
Weight	4.7 kg (10.4 lbs)
Drive control options	Du, Dz, E, S, U
Standards	CE, cETLus
Drive ingress protection	IP31
Drive humidity	80 % up to 31 °C, 88 °F, decreasing linearly to 50 % at 40 °C, 104 °F
Drive noise	<70dB(A) at 1m
Max. altitude	2000 m (6562 ft)
Drive power supply	1ph, 100 V to 120 V, 220 V to 240 V 50/60 Hz, 100 VA
Compatible tubing bore size	1.6, 3.2, 4.8, 6.4, 8 mm
Compatible tubing wall thickness	1.6 mm

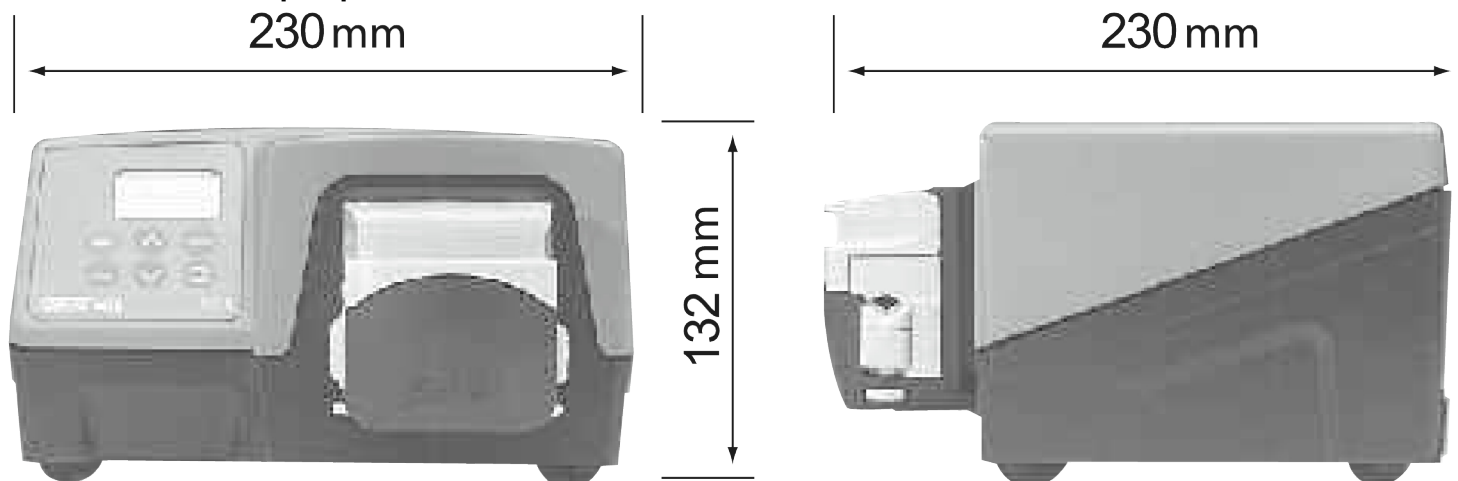
Materials of construction

	323 Drive with 313D pumphead
Bearings	Carbon steel, Sintered bronze
Drive casework	Acrylonitrile butadiene styrene (ABS), Powder coated aluminium LM24
Mounting plate assembly	Glass filled Nylon, IXEF (Polyarylamide)
Pumphead body assembly	Glass filled polypropylene, Polyacrylamide—IXEF (PARA), Stainless steel
Pumphead roller assembly	MoS2 filled Nylon 6 (Nylatron)
Pumphead rotor assembly	Electroless nickel plated hardened steel, Glass filled Nylon
Pumphead track	Polyacrylamide—IXEF (PARA)
Spindles	Electroless nickel plated hardened steel
Tube clamp assembly	Glass filled Nylon

Information listed covers the complete range.

For detailed specifications of individual models/components refer to user manual or contact WMFTS representative.

323 Drive with 313D pumphead dimensions



Control options

Functionality	323E	323S	323U	323Du
Manual control				
Keypad speed control	✓	✓	✓	✓
15-400rpm 27:1 speed control	✓			
3-400rpm 133:1 speed control		✓	✓	✓
1.5-220rpm 147:1 speed control		✓	✓	✓
MemoDose for accurate single shot dosing		✓	✓	✓
Remote control				
Run/Stop, direction change via contact closure or 5V TTL			✓	✓
Remote operation of MemoDose (hand/foot switch)			✓	✓
Analogue speed control				
Inputs; 0-10V or 4-20mA			✓	✓
RS232 digital communication				
Digital serial control				✓
Security				
Keypad lock to protect set-up		✓	✓	✓

Product codes

Pumps, drives and pumpheads product codes		
Description		Partcode
323E/D	Drive and 313D three-roller pumphead	030.3124.3D0*
323S/D	Drive and 313D three-roller pumphead	030.3134.3D0*
323U/D	Drive and 313D three-roller pumphead	030.3144.3D0*
323Du/D	Drive and 313D three-roller pumphead	030.3154.3D0*
323Dz/D	Drive and 313D three-roller pumphead	030.3184.3D0*
323E	Drive only	036.3124.000*
323S	Drive only	036.3134.000*
323U	Drive only	036.3144.000*
323Du	Drive only	036.3154.000*
313DW	Three-roller pumphead for 1.6mm wall tube	033.3451.000
313X	Three-roller extension pumphead for 1.6mm wall tube (maximum five)	033.3431.000

*Replace last 0 with A, E or U for American, European or UK mains supply (American 110V 1ph 60Hz)

If required for use with STA-PURE tubing, please contact Watson-Marlow Bredel technical support for drive and pumphead selection

Tubing product codes			
Bore/wall (mm)	Bioprene	Marprene	Pumpsil™
0.5 / 1.6	933.0005.016	902.0005.016	913.A005.016
0.8 / 1.6	933.0008.016	902.0008.016	913.A008.016
1.6 / 1.6	933.0016.016	902.0016.016	913.A016.016
3.2 / 1.6	933.0032.016	902.0032.016	913.A032.016
4.8 / 1.6	933.0048.016	902.0048.016	913.A048.016
6.4 / 1.6	933.0064.016	902.0064.016	913.A064.016
8.0 / 1.6	933.0080.016	902.0080.016	913.A080.016
Bore/wall (mm)	STA-PURE®Series PCS	STA-PURE®Series PFL	
0.8 / 1.6			
1.6 / 1.6	961.0016.016	966.0016.016	
3.2 / 1.6	961.0032.016	966.0032.016	
4.8 / 1.6	961.0048.016	966.0048.016	
6.4 / 1.6	961.0064.016	966.0064.016	
8.0 / 1.6	961.0080.016	966.0080.016	

Disclaimer: All flow rates shown were obtained pumping water at 20 °C (68 °F) with zero suction and delivery heads. 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. It is the user's responsibility to ensure product suitability for use within their application. Watson-Marlow, LoadSure, Pumpsil, PureWeld XL, Bioprene, Marprene are registered trademarks of Watson-Marlow Limited. Tri-Clamp is a registered trademark of Alfa Laval Corporate AB. GORE and STA-PURE are registered trademarks of W.L. Gore and Associates. Please state the product code when ordering pumps and tubing.



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