



Improving your PERFORMANCE

323S/D and 323S/4D High-performance manual control variable speed pumps

Technical information and features

- High performance microprocessor controlled pumps
- Up to 2000 ml/min from three-roller 323S/D
- Up to 1600 ml/min from four-roller, lower pulsation 323S/4D
- Precision digital speed control 1rpm steps from 3 to 400rpm, 133:1 control ratio
- High visibility digital display and keypad lock
- Compact design, chemical resistant case, contemporary styling
- Zero maintenance, quiet brushless DC motor
- Rapid and simple tube loading flip-top pumphead
- Snap fit extension pumpheads up to 6 channels of flow
- MemoDose facility for accurate single shot dosing
- Auto-restart for mains failure recovery and timer control
- Alternative pumpheads

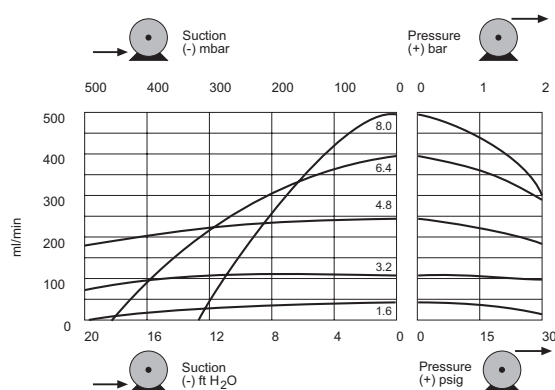


- 314DW four roller pumphead for lower pulsation, 1.6mm wall thickness tube
- 313DW2 three roller pumphead, 2.4mm wall tube for higher suction and delivery pressure
- 314DW2 four roller pumphead, 2.4mm wall tube for higher suction and delivery pressure
- 313X three roller and 314X four roller extension pumpheads for 1.6mm wall tube

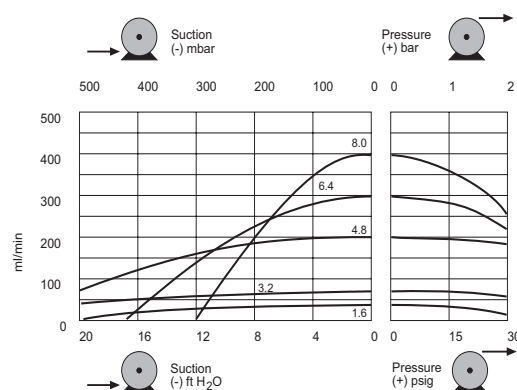


Flow rate ranges (ml/min)

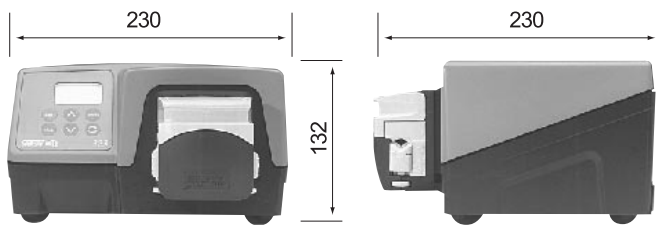
	Tube bore and flow rates (ml/min)							
	Speed rpm	0.5mm	0.8mm	1.6mm	3.2mm	4.8mm	6.4mm	8.0mm
323S/D (3 roller pumphead)	3.0 - 400	0.09-12	0.21-28	0.81-110	3.0-400	6.6-880	11-1400	15-2000
323S/4D (4 roller pumphead)	3.0 - 400	0.09-12	0.18-24	0.75-100	2.6-340	5.7-760	9.0-1200	12-1600



313 pumphead (3 roller) at 100rpm



314 pumphead (4 roller) at 100rpm



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Product codes		
323S/D 3-400rpm	drive, bayonet mounting plate + 3 roller pumphead for 1.6mm wall tube	030.3134.4D0*
323S 3-400rpm	drive only	036.3134.000*
313DW	3 roller pumphead for 1.6mm wall tube	033.3451.000
313X	3 roller extension pumphead for 1.6mm wall tube (maximum five)	033.3431.000
313DW2	3 roller pumphead for 2.4mm wall tube (maximum one)	033.3551.000
314DW	4 roller pumphead for 1.6mm wall tube	033.4451.000
314X	4 roller extension pumphead for 1.6mm wall tube (maximum five)	033.4431.000
314DW2	4 roller pumphead for 2.4mm wall tube (maximum one)	033.4551.000

*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 and Chem-Sure tubing, please contact Watson-Marlow Bredel technical support for drive and pumphead selection.

Tube ordering codes				
Bore/wall (mm)	Bioprene	Marprene	Platinum Silicone	PVC
0.5 / 1.6	903.0005.016	902.0005.016	913.A005.016	
0.8 / 1.6	903.0008.016	902.0008.016	913.A008.016	
1.6 / 1.6	903.0016.016	902.0016.016	913.A016.016	950.0016.016
3.2 / 1.6	903.0032.016	902.0032.016	913.A032.016	950.0032.016
4.8 / 1.6	903.0048.016	902.0048.016	913.A048.016	950.0048.016
6.4 / 1.6	903.0064.016	902.0064.016	913.A064.016	950.0064.016
8.0 / 1.6	903.0080.016	902.0080.016	913.A080.016	950.0080.016
1.6 / 2.4	903.0016.024	902.0016.024	913.A016.024	
3.2 / 2.4	903.0032.024	902.0032.024	913.A032.024	
4.8 / 2.4	903.0048.024	902.0048.024	913.A048.024	
6.4 / 2.4	903.0064.024	902.0064.024	913.A064.024	
Bore/wall (mm)	Neoprene	STA-PURE®	Chem-Sure®	Fluorel®
0.8 / 1.6	920.0008.016			970.0008.016
1.6 / 1.6	920.0016.016	960.0016.016	965.0016.016	970.0016.016
3.2 / 1.6	920.0032.016	960.0032.016	965.0032.016	970.0032.016
4.8 / 1.6	920.0048.016	960.0048.016	965.0048.016	970.0048.016
6.4 / 1.6	920.0064.016	960.0064.016	965.0064.016	970.0064.016
8.0 / 1.6	920.0080.016	960.0080.016	965.0080.016	970.0080.016
1.6 / 2.4		960.0016.024	965.0016.024	
3.2 / 2.4		960.0032.024	965.0032.024	
4.8 / 2.4		960.0048.024	965.0048.024	
6.4 / 2.4		960.0064.024	965.0064.024	

Specification

Weight	4.7kg
Operational temperature range	4°C to 40°C
Noise	<70dBA at 1m
Control ratio	133:1
Standards	CE, IEC335-1, EN60529 (IP31)
Supply	1ph, 100-120V, 220-240V 50/60Hz, 100VA

Materials of construction

Drive	
Drive base	Powder coated aluminium casting
Drive top	Self-coloured ABS plastic
Pumphead	
Body rear	Glass filled polypropylene
Body front, body front extension	IXEF
Mounting plate, track and lever	IXEF
Rotor, tube clamp	Glass filled Nylon
Mounting plate locking tab	Glass filled Nylon
Rollers	MoS2 filled Nylon 6 (Nylatron)
Spindles	Electroless nickel plated, hardened steel
Fixings	Stainless steel
Bearings	Carbon steel - main shaft Sintered bronze - rollers



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Please state the product code when ordering pumps and tubing.