

323 Drive With 314D Pump Head 300 Series Cased Pump

Features and Benefits

- Manual, or manual remote, analog, and RS-232 control options
- 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



WARNING

This product is not approved or intended for, and should not be used for, medical, clinical, surgical, or other patient-oriented applications.

Performance

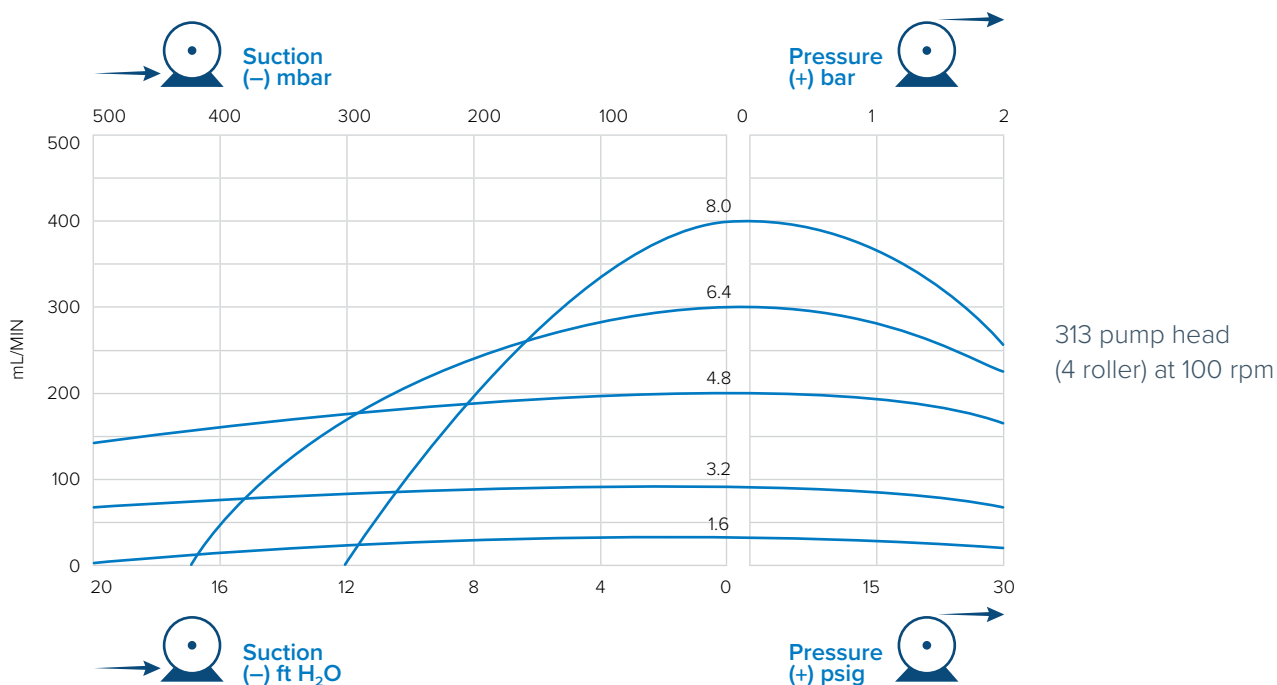
314D four-roller flip-top pump head for continuous tubing — tube bore and flow rates (ml/min)

	Speed rpm	1.6 mm	3.2 mm	4.8 mm	6.4 mm	8 mm
323S/4D and 323Du/4D	2 to 400	0.5 to 100	1.7 to 340	3.8 to 760	6 to 1200	8 to 1600

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323 Drive With 314D Pump Head Performance



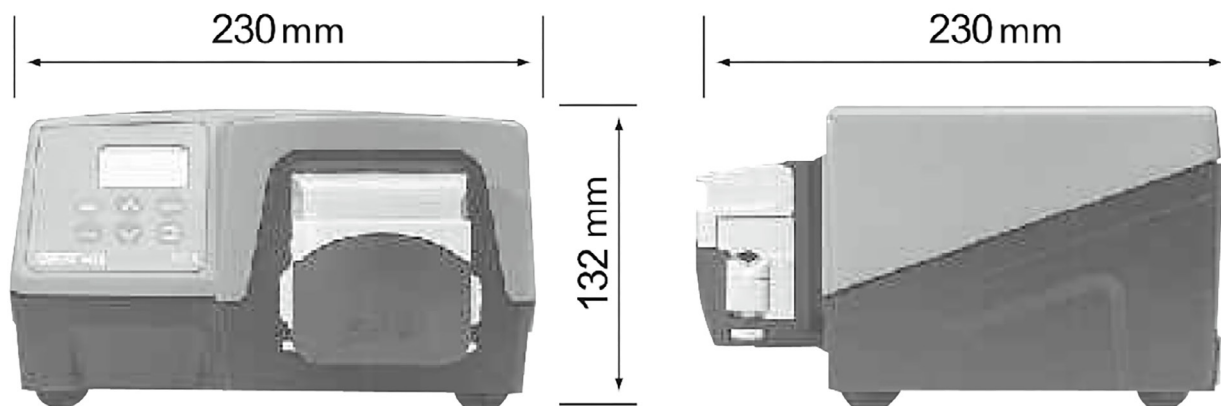
Materials of Construction

Specifications	323 drive with 314D pump head
Bearings	Carbon steel, sintered bronze
Drive casework	ABS (acrylonitrile butadiene styrene), powder-coated aluminium LM24
Mounting plate assembly	Glass-filled nylon, Ixef® (polyarylamide)
Pump head body assembly	Glass-filled polypropylene, Ixef® (polyarylamide), stainless steel
Pump head roller assembly	MoS2-filled nylon 6 (Nylatron®)
Pump head rotor assembly	Electroless nickel-plated hardened steel, glass-filled nylon
Pump head track	Ixef® (polyarylamide)
Spindles	Electroless nickel-plated hardened steel
Tube clamp assembly	Glass-filled nylon

Technical Specifications

Specification	Description
Pump head number of rollers	4
Pump head number of channels	1
Max. flow rate	1600 ml/min
Min. flow rate	0.6 ml/min
Speed control ratio	200:1
Max. operating speed	400 rpm
Min. operating speed	2 rpm
Operating temperature range	5 to 40 °C, 40 to 104 °F
Weight	4.7 kg, 10.4 lbs
Drive control options	S and Du
Drive standards	CE, cETLus
Drive ingress rating	IP31
Drive humidity	80% up to 31 °C, 88 °F, decreasing linearly to 50% at 40 °C, 104 °F
Drive noise	<70dB(A) at 1 m
Max. altitude	2000
Drive power supply	1ph, 100 to 120 V, 220 to 240 V 50/60 Hz, 100
Compatible tubing bore size	1.6, 3.2, 4.8, 6.4, 8 mm
Compatible tubing wall thickness	1.6 mm

323 DRIVE WITH 314D PUMP HEAD DIMENSIONS



Control Options

Functionality	323S	323Du
Manual control		
Keypad speed control	✓	✓
3 to 400 rpm 133:1 speed control	✓	✓
1.5 to 220 rpm 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)		✓
Analog speed control		
Inputs; 0-10V or 4-20mA		✓
RS232 digital communication		
Digital serial control		✓
Security		
Keypad lock to protect setup	✓	✓

Ordering Information

Pumps, drives, and pump heads		
Description		Item number
323S	Drive only	50130-20
323Du	Drive only	50130-21
314DW	Four-roller extension pump head for 1.6 mm wall tube	50130-15
314X	Four-roller extension pump head for 1.6 mm wall tube (maximum five)	50130-14

Ordering Information

Tubing		
Bore/wall (mm)	Bioprene	Platinum silicone
0.5 / 1.6	50130-27	50130-22
0.8 / 1.6	50130-28	50130-23
1.6 / 1.6	50130-29	50130-24
2.4 / 1.6	50130-30	—
3.2 / 1.6	50130-31	50130-25
4.8 / 1.6	50130-32	50130-26
6.4 / 1.6	50130-33	—
8.0 / 1.6	50130-34	—



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 Cole-Parmer 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 and Bioprene are registered trademarks of Watson-Marlow Limited. Please state the item number when ordering pumps and tubing.