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Find the *Watson-Marlow 520UN* at our website: ***Click HERE***

520S/R, 520U/R, 520Du/R IP31 pumps fitted with 520R pumphead for 1.6mm wall tubing

500 series

Watson-Marlow Pumps Group

FEATURES

- Flow rates from 0.004ml/min to 2.4 litre/min using 1.6mm wall thickness tubing
- 520R pumphead features large swept volume with sprung rollers for high accuracy, gentle pumping of shear-sensitive fluids
- Robust pumphead construction with PPS (polyphenylene sulphide) track and rotor and stainless steel rollers and bearings
- Precise 2200:1 speed control range from 0.1 to 220rpm in 0.1rpm increments
- High efficiency maintenance free brushless DC motor
- IP31 ingress protection for light industrial and wipedown environments
- Dual voltage, 115V/230V 50/60Hz



5 YEARS WARRANTY

24 hour duty

Watson-Marlow...Innovation in Full Flow

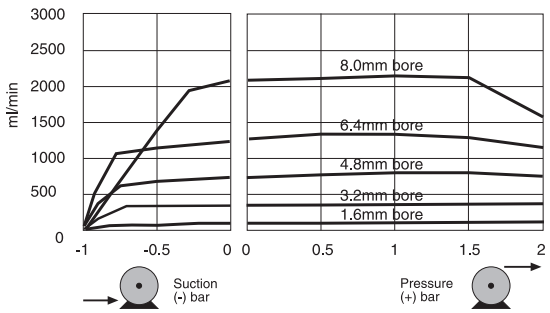
FUNCTIONALITY

Pump drives	520S	520U	520Du
Manual control			
MemoDose - accurate single shot dispensing	●	●	●
Full calibration with choice of flow units			●
Simple calibration to display flow in ml/min	●	●	
Choice of flowrate or speed display	●	●	●
Remote control			
Run/Stop, direction change, auto/manual toggle, leak detector input (via contact closure or 5V TTL or 24V industrial logic)		●	●
Remote operation of MemoDose (foot/hand-switch or logic input)		●	●
IP31 outputs		●	●
Analogue speed control			
Software programmable inputs; 0-10V, 1-5V or 4-20mA		●	●
Analogue outputs; 0-10V		●	
Analogue outputs; 0-10V, 4-20mA			●
Keypad/analogue input scaling (replacement of diaphragm pumps)			●
Tacho frequency output; 0-1258Hz		●	●
Digital communication			
RS232 network control			●
Security			
Basic security code to protect set-up		●	●

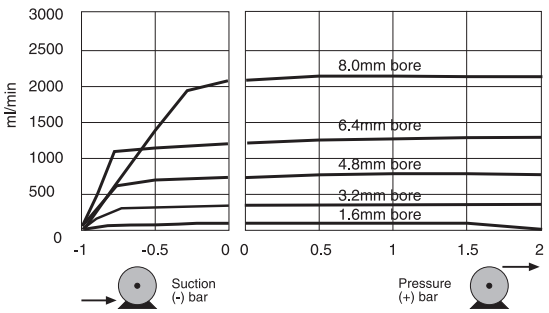
PERFORMANCE

Tube bore and flow rates (ml/min)								
Tube material	**Speed**	**0.5mm**	**0.8mm**	**1.6mm**	**3.2mm**	**4.8mm**	**6.4mm**	**8.0mm**
Pumpsil, GORE® Style 400, Neoprene	0.1 to 220rpm	0.004-9.5	0.01-24	0.04-97	0.18-390	0.40-870	0.70-1500	1.1-2400
STA-PURE® Series PCS and Series PFL	0.1 to 220rpm	0.004-9.5	0.01-24	0.04-97	0.18-390	0.40-870	0.70-1500	1.1-2400
Marprene/Bioprene TL, PureWeld XL	0.1 to 220rpm	0.004-9.0	0.01-23	0.04-92	0.17-370	0.38-830	0.67-1500	1.1-2300

Clockwise rotation

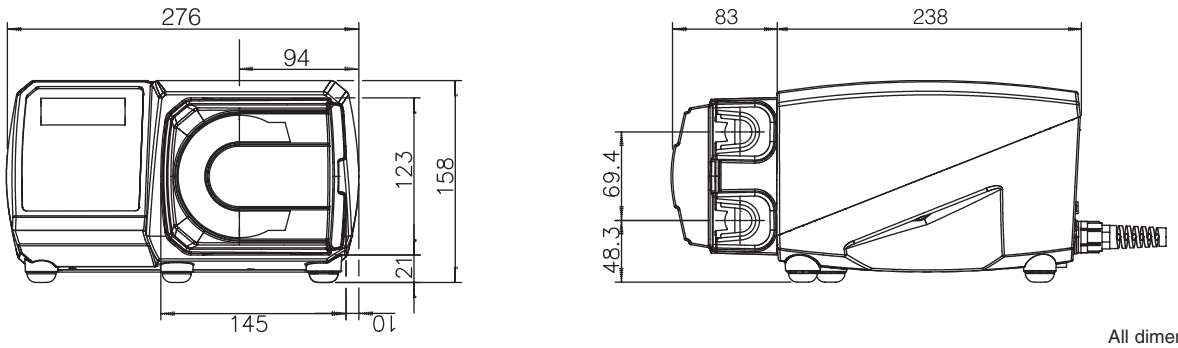


Counter Clockwise rotation



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DRAWINGS



All dimensions in mm

SPECIFICATIONS

	520S, 520U, 520Du
Ingress rating	IP31 / NEMA 2
Enclosure	Wipe-down
Suitability	Dry industrial environments with non-corrosive atmosphere
Humidity	(Non-condensing) 80% to 31C, 88F, decreasing linearly to 50% at 40C, 104F
Temperature	5C to 40C (40F to 104F)
Pump weight	9.82kg, 21lb 10oz
Speed control ratio	2200:1
Torque rating	2.2Nm, continuous duty
Noise	< 70dB(A) at 1m
Standard	CE, cETLus

MATERIALS OF CONSTRUCTION

Component	Material
Keypad	Polyester
Switch-plate	Glass filled ABS plastic
Rear blanking plate	Stainless steel 304
Drive casework	Pressure die-cast aluminium LM24
Case work coating	Alocrom pre-treatment, exterior grade polyester powder coat
Drive shaft	Electroless nickel plated carbon steel
Pumphead track	PPS (polyphenelene sulphide)
Guard	Polycarbonate
Rotor hub	Stainless steel 316
Roller arms, rotor	PPS (polyphenylene sulphide)
Rollers – main/guide	Stainless steel 316
Main roller bearings	Stainless steel with PTFE seals

ORDER INFORMATION

Pump and pumphead product codes

Description	Partcode	Description	Partcode
520R pumphead only	053.1011.100	520S drive only	056.7131.000*
520S/R pump	050.7131.100*	520U drive only	056.7141.000*
520U/R pump	050.7141.100*	520Du drive only	056.7151.000*
520Du/R pump	050.7151.100*		

* Supplied as 2.4 metre mains lead without plug. To specify American, European or United Kingdom 2.8m mains lead please specify A, E or U respectively. Replace the last zero with the mains lead code. For example - 050.7131.10A is a 520S/R pump with American mains lead.

Tubing 1.6mm wall thickness tubing for 520R

Tube bore	Tube	Pumpsil/Pumpsil D	PureWeld XL	Bioprene	STA-PURE® Series PCS	STA-PURE® Series PFL
0.5mm (1/50 in)	112	913.A005.016	941.0005.016	903.0005.016		
0.8mm (1/32 in)	13	913.A008.016	941.0008.016	903.0008.016		
1.6mm (1/16 in)	14	913.A016.016	941.0016.016	903.0016.016	965.0016.016	960.0016.016
3.2mm (1/8 in)	16	913.A032.016	941.0032.016	903.0032.016	965.0032.016	960.0032.016
4.8mm (3/16 in)	25	913.A048.016	941.0048.016	903.0048.016	965.0048.016	960.0048.016
6.4mm (1/4 in	17	913.A064.016	941.0064.016	903.0064.016	965.0064.016	960.0064.016
8.0mm (5/16 in)	18	913.A080.016		903.0080.016	965.0080.016	960.0080.016
Tube bore	**Tube**	**Marprene**	**GORE® Style 400**	**Neoprene**	**PVC**	
0.5mm (1/50 in)	112	902.0005.016		920.0005.016		
0.8mm (1/32 in)	13	902.0008.016		920.0008.016		
1.6mm (1/16 in)	14	902.0016.016		920.0016.016	950.0016.016	
3.2mm (1/8 in)	16	902.0032.016	964.0032.016	920.0032.016	950.0032.016	
4.8mm (3/16 in)	25	902.0048.016		920.0048.016	950.0048.016	
6.4mm (1/4 in	17	902.0064.016		920.0064.016	950.0064.016	
8.0mm (5/16 in)	18	902.0080.016		920.0080.016	950.0080.016	

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, Bioprene, Marprene, Pumpsil and PureWeld are trademarks of Watson-Marlow Limited. Disclaimer: 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. LoadSure is a trademark of Watson-Marlow Limited. STA-PURE® Series PFL and STA-PURE® Series PCS are registered trademarks of W.L Gore & Associates Inc. Please state the product code when ordering pumps and tubing.

WATSON MARLOW
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Watson-Marlow...Innovation in Full Flow

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