

520Di/REL IP31 and 520DiN/REL 0-2 bar IP66 pumps fitted with LoadSure® element pumphead

500 series

Watson-Marlow Pumps Group

FEATURES

- Dispensing accuracy to $\pm 0.5\%$
- Single channel dispensing pump which uses element tubing
- Flow rates up to 4800ml/min at 2 bar (30psi) peak pressure with 520 LoadSure® elements
- Full calibration by weight or by volume with choice of units
- "Suck-back" facility eliminates drips at dose end, plus ramps ensure soft start and end of dose
- Up to 50 dispensing programs including dose parameters and calibration can be stored in the memory with full file name
- 520REL 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



0 – 2 bar
0 – 30 psi



Watson-Marlow... Innovation in Full Flow

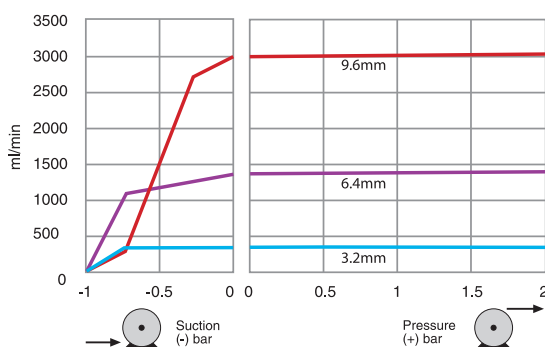
FUNCTIONALITY

Pump drives	520Di	520DiN
Enclosure		
Ingress protection rating	IP31	IP66
Manual control		
Digital speed control with full calibration to display flow	•	•
Choice of flowrate or speed display	•	•
Numerical keypad for entry of speed	•	•
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 Dosestart with instantaneous switch	•	•
Four programmable digital status outputs through 24V, 30W relays		•
Digital communication		
Digital network serial control	RS232	RS485
Security		
Security code to protect set-up, programs and dose parameters	•	•
Outputs as per IP31	•	

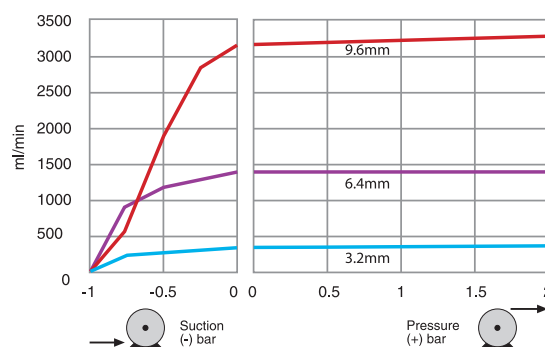
PERFORMANCE

LoadSure® Element tubing flow rates (ml/min)				
Tube Material	Speed	3.2mm	6.4mm	9.6mm
Pumpsil, STA-PURE® Series PFL and Series PCS, Neoprene	0.1 to 300rpm	0.18-530	0.70-2100	1.6-4800
Marprene TL, Bioprene TL	0.1 to 300rpm	0.17-500	0.67-2000	1.5-4500

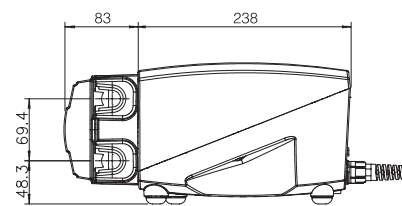
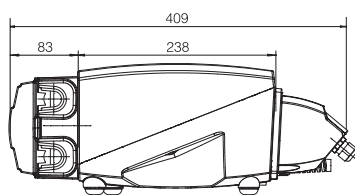
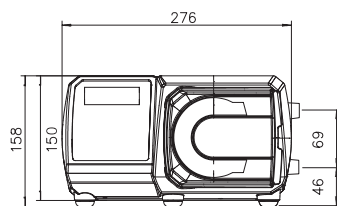
Marprene TL 0-2 bar CCW



STA-PURE® Series PCS 0.2 bar CCW 200rpm



DRAWINGS



All dimensions in mm

SPECIFICATIONS

	520Di	520DiN
Ingress rating	IP31 / NEMA 2	IP66 / NEMA 4X
Enclosure	Wipedown	Watertight, dustproof
Suitability	Dry industrial environments with noncorrosive atmospheres	Corrosion resistant for heavy industrial environments
Humidity	(Non-condensing) 80% to 31C, 88F, decreasing linearly to 50% at 40C, 104F	(Condensing) 10-100% RH
Temperature	5C to 40C (40F to 104F)	5C to 40C (40F to 104F)
Pump weight	9.82kg, 21lb 10oz	10.7kg, 23lb 9oz
Speed control ratio	2200:1	2200:1
Torque rating	2.2Nm, continuous duty	2.2Nm, continuous duty
Noise	< 70dB(A) at 1m	< 70dB(A) at 1m
Standard	CE, cETLus	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 (polyphenylene sulphide)
Guard	Polycarbonate
Guard seal	Neoprene
Rotor hub	Stainless steel 316
Roller arms, rotor cover	PPS (polyphenylene sulphide)
Rollers – main/guide	Stainless steel 316
Main roller bearings	Stainless steel with PTFE seals
Drain port and nut	PP (polypropylene)
Drain plug	Hytrell

ORDER INFORMATION

Pump and pumphead product codes			
Description	Partcode	Description	Partcode
520REL element pumphead only	053.1011.EL0	520Di (IP31) drive only	056.7171.000*
520Di/REL (IP31) pump	050.7171.EL0*	520DiN (IP66) drive only	056.717N.000**
520DiN/REL (IP66) pump	050.717N.EL0**	Leak detector 520Di	059.8121.000
		Leak detector 520DiN	059.8131.000

* 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.

	Industrial LoadSure® elements Quick-release PVDF connectors			Sanitary LoadSure® elements ³ / ₄ in Sanitary PVDF connectors		
	3.2mm	6.4mm	9.6mm	3.2mm	6.4mm	9.6mm
	Pumpsil	913.A032.PFQ	913.A064.PFQ	913.A096.PFQ	913.A032.PFT	913.A064.PFT
Bioprene TL				903.0032.PFT	903.0064.PFT	903.0096.PFT
STA-PURE® Series PCS				960.0032.PFT	960.0064.PFT	960.0096.PFT
STA-PURE® Series PFL	965.0032.PFQ	965.0064.PFQ	965.0096.PFQ	965.0032.PFT	965.0064.PFT	965.0096.PFT
Marprene TL	902.0032.PFQ	902.0064.PFQ	902.0096.PFQ			
GORE® Style 400		964.0064.PFQ				
Neoprene	920.0032.PFQ	920.0064.PFQ	913.A096.PFQ			

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**
Watson-Marlow Pumps Group

Watson-Marlow Pumps Group
Falmouth, Cornwall England TR11 4RU
Tel: +44 (0)1326 370370 Fax: +44 (0)1326 376009
www.wmpg.com info@wmpg.uk
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