

# 520SN/REH, 520UN/REH, 520DuN/REH 60-100 psi NEMA 4 pumps fitted with LoadSure® element pumpheads

# 500 series

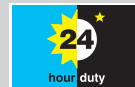
Watson-Marlow Pumps Group

## FEATURES

- Flow rates up to 450ml/min at 100psi (7bar) constant pressure with 520 LoadSure® elements
- 520REH 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
- NEMA 4 enclosure provides the highest level of ingress protection for arduous conditions and high pressure washdown environments
- Dual voltage, 115V/230V 50/60Hz



4 – 7 bar  
60 – 100 psi



*Watson-Marlow... Innovation in Full Flow*

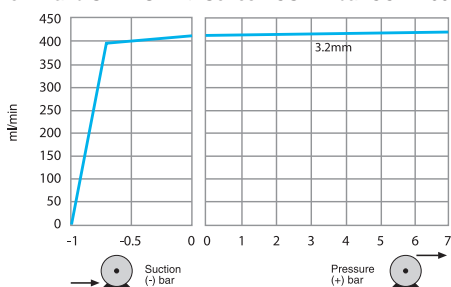
## FUNCTIONALITY

Pump drives	520SN	520UN	520DuN
<b>Manual control</b>			
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	•	•	•
<b>Remote control</b>			
NEMA 4 outputs		•	•
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)		•	•
<b>Analogue speed control</b>			
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		•	•
<b>Digital communication</b>			
RS485 network control			•
<b>Security</b>			
Basic security code to protect set-up			

## PERFORMANCE

LoadSure® Element tubing flow rates (ml/min)		
Tube Material	Speed	3.2mm
Marprene TH, Bioprene TH, STA-PURE® Series PCS	0.1 to 220rpm	0.20-450

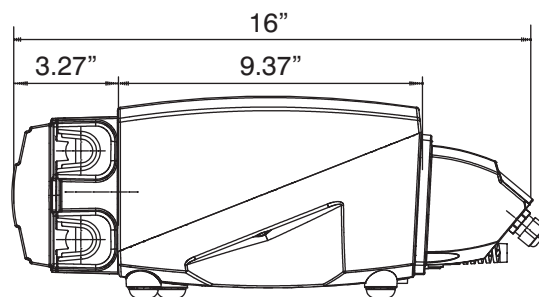
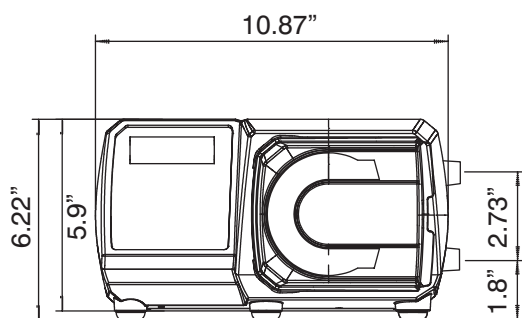
Maprene TH and STA-PURE® Series PCS 4-7 bar CCW 200rpm



To achieve 7 bar pressure the pump must rotate counter-clockwise



## DRAWINGS



## SPECIFICATION

	<b>520SN, 520UN, 520DuN</b>
Ingress rating	IP66 / NEMA 4X
Enclosure	Watertight / dustproof
Suitability	Corrosion resistant for heavy industrial environments
Humidity	(Condensing) 10-100% RH
Temperature	5C to 40C (40F to 104F)
Pump weight	10.7kg, 23lb 9oz
Speed control ratio	2200:1
Torque rating	2.2Nm, continuous duty
Noise	< 70dB(A) at 1m
Standard	CE, cETLus
Power supply	115/230V 1ph 50/60Hz

## MATERIALS OF CONSTRUCTION

Component	Material
Keypad	Polyester
Switch-plate	Glass filled ABS plastic
Rear blanking plate	Stainless steel 304
Drive casework	Pressure die-cast aluminum 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	Hytrel

## ORDER INFORMATION

Pump and pumphead product codes			
Description	Part code	Description	Part code
520REH element pumphead only	053.1011.EH0	520SN drive only	056.713N.00A
520SN/REH pump	050.713N.EHA	520UN drive only	056.714N.00A
520UN/REH pump	050.714N.EHA	520DuN drive only	056.715N.00A
520DuN/REH pump	050.715N.EHA	Leak Detector	059.8121.000

Element product codes		
	Industrial LoadSure® elements	Sanitary LoadSure® elements
	Quick-release PVDF connectors	3/4 in Sanitary PVDF connectors
	3.2mm	3.2mm
Bioprene TH		903.H032.PFT
STA-PURE® Series PCS	960.H032.PFQ	960.H032.PFT
Marprene TH	902.H032.PFQ	

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, Bioprene and Marprene 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 PCS is a registered trademark of W.L. Gore & Associates Inc. Please state the product code when ordering pumps and tubing.

**WATSON  
MARLOW**  
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