

520SN/REM, 520UN/REM, 520DuN/REM 30-60 psi NEMA 4 pumps fitted with LoadSure® element pumpheads

500 series

Watson-Marlow Pumps Group

FEATURES

- Flow rates up to 1500ml/min at 60psi (4 bar) peak pressure with 520 LoadSure® elements
- 520REM 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



2 – 4 bar
30 – 60 psi



Watson-Marlow... Innovation in Full Flow

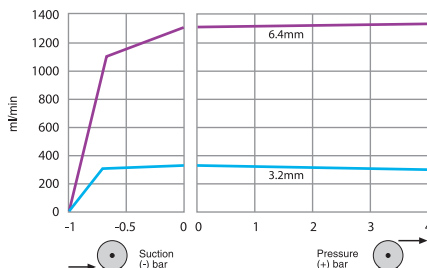
FUNCTIONALITY

| Pump drives | 520SN | 520UN | 520DuN |
|---|-------|-------|--------|
| 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) | | • | • |
| Four programmable digital status outputs through 24V, 30W relays | | • | • |
| Outputs as IP32 with 520R | • | • | • |
| 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 | | | |
| RS485 network control | | | • |
| Security | | | |
| Basic security code to protect set-up | | | • |

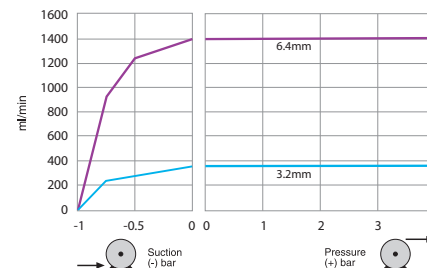
PERFORMANCE

| LoadSure® Element tubing flow rates (ml/min) | | | |
|--|---------------|----------|-----------|
| Tube Material | Speed | 3.2mm | 6.4mm |
| STA-PURE® Series PCS and Series PFL | 0.1 to 220rpm | 0.18-390 | 0.70-1500 |
| Marprene TM, Bioprene TM | 0.1 to 220rpm | 0.17-370 | 0.67-1500 |

Maprene TM 2-4 bar CCW 200rpm

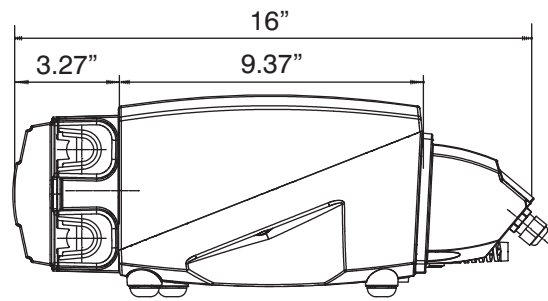
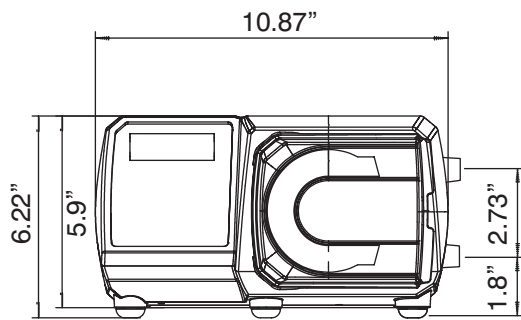


STA-PURE® Series PCS 2-4 bar CCW 200rpm



To achieve 4 bar pressure the pump must rotate counter-clockwise

DRAWINGS



SPECIFICATIONS

| | 520SN, 520UN, 520DuN |
|---------------------|---|
| 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 |
| 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 |
| Drain port and nut | PP (polypropylene) |
| Drain plug | Hytrel |

ORDER INFORMATION

Pump and pumphead product codes

| Description | Part code | Description | Part code |
|------------------------------|--------------|-------------------|--------------|
| 520REM element pumphead only | 053.1011.EMO | 520SN drive only | 056.713N.00A |
| 520SN/REM pump | 050.713N.EMA | 520UN drive only | 056.714N.00A |
| 520UN/REM pump | 050.714N.EMA | 520DuN drive only | 056.715N.00A |
| 520DuN/REM pump | 050.715N.EMA | Leak detector | 059.8131.000 |

Element product codes

| | Industrial LoadSure® elements Quick-release PVDF connectors | | Sanitary LoadSure® elements 3/4 in Sanitary PVDF connectors | |
|----------------------|--|--------------|--|--------------|
| | 3.2mm | 6.4mm | 3.2mm | 6.4mm |
| Bioprene TM | | | 903.P032.PFT | 903.P064.PFT |
| STA-PURE® Series PFL | 965.M032.PFQ | 965.M064.PFQ | 965.M032.PFT | 965.M064.PFT |
| Marpene TM | 902.P032.PFQ | 902.P064.PFQ | | |
| GORE® Style 400 | | 964.P064.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 PFL and GORE® Style 400 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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