



**WATSON  
MARLOW** PUMPS  
Bredel

## 520 PUMPS - INDUSTRIAL

**NEW** High Pressure LoadSure® Metering Pumps



One minute  
maintenance

# LoadSure®: perfect process pumping



Cased pumps for functionality, power and control

More on drive choices: [back page](#)



Close-coupled pumps for extreme industrial conditions



Repeatable performance

Simplicity

Secure connection

Colour-coded LoadSure® elements fit into position for simple, **error-free tube loading**: optimum performance and tube life every time.

Using the patented LoadSure® D-connectors and easy-grip clutched rotor, the element can be changed in under one minute: **simplicity itself, no special skills required.**

Quick-release connectors link the pump to your process instantly: push, **click and it's secure.**



The pump for high-pressure performance

# The new 520 LoadSure<sup>®</sup> 7 bar (100 psi) metering pump

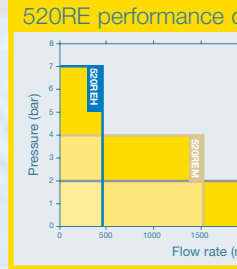
Industrial process users now have the functionality of the best-selling 520 metering pumps with pressure capability. The new 520 LoadSure<sup>®</sup> pump offers flows of 3,500 ml/min at 2 bar (30 psi) to 450 ml/min at 7 bar (100 psi). Reliable, robust and easy to use, the perfect metering pump covers a wide range of applications:

- High-pressure chemical injection of sodium hypochlorite, ferric chloride and other aggressive chemicals
- Contained, low-shear metering of printing ink, dyes and brighteners
- Simple transfer of viscous fluids such as adhesives
- Spray nozzle coating feed

One-minute maintenance:



Three pressure ranges for industrial applications, with precise metering and wide chemical compatibility



## Why Peristaltics?

Compared with other positive displacement pumps, peristaltic pumps win on every count. They handle difficult fluids, abrasives and suspended solids with ease, and provide precision dosing and metering. Cleaning and maintenance are quick and easy. They self-prime, can run dry and have no valves or seals to leak, corrode or clog, and the duty fluid is totally contained within the tube – so no contamination. That's why Watson-Marlow Breddel pumps outperform piston, progressive cavity, lobe, and gear pumps.

We engineer our winning performance – we don't just turn up the speed. 60% fewer occlusions than our competitors for the same flow means 2½ times the tube life.

- Pumps, pumpheads and tubing last longer.
- There's less downtime, fewer failures – and less maintenance.
- In the unlikely event of a problem, next-day delivery keeps your production rolling.
- Our products are recognised for quality, reliability and performance, backed by a three-year guarantee.

So the best pump really does cost less. Call us for the proof.

It all adds up to –

*Value for life*

# ...tough, versatile and easy to use

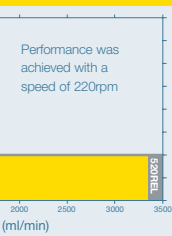


## Fluid management

Operator safety comes first. The impact-resistant guard is sealed to contain spillages. The drain port allows easy, safe disposal of any spilled fluid, while the optional float-switch leak detector guarantees process security.

- Safe
- Convenient
- Controlled

## data



## 7 bar with all the advantages

Watson-Marlow Bredel peristaltic pumps with LoadSure® elements are simple. With only one wetted component, the 520 LoadSure® pump is easy to install and operate. No extensive installation ancillaries are necessary. Unlike other traditional metering pumps there are no internal check valves or seals to wear, clog or replace. Even gas-entrained fluids like sodium hypochlorite, which causes other pump types to vapour-lock, are no problem for the 520. Downtime is minimal and running costs are low, keeping productivity high.



## Pumphead reliability

The 520RE pumphead is constructed of stainless steel and polyphenylene sulphide, a high-performance engineering plastic, to defeat acid, alkaline and solvent attack. Spring-loaded rollers with low-friction bearings and double PTFE seals guarantee accurate and repeatable long-life pumping.

- Chemical resistance
- Robust
- Long life

## We have what industry wants



### Chemical

Total fluid containment.  
High accuracy and reliability.



### Printing and packaging

Low shear, no foaming, no cross-contamination, fast changeover time.



### Mining

Accurate metering of reagents and flocculants, even in the toughest environments.



### Water and waste treatment

Reliable dosing of ferric chloride and sodium hypochlorite with outstanding accuracy.

# Three pressure ranges



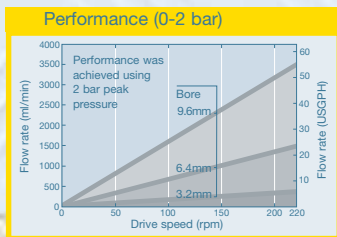
## 520REL pumphead for up to 2 bar (30 psi) pressure

Typical applications include:

- Metering of aggressive and abrasive fluids
- Narrow web printing

Elements available in:

Marprene® TL, Pumpsil®, Neoprene® and Chem-Sure®



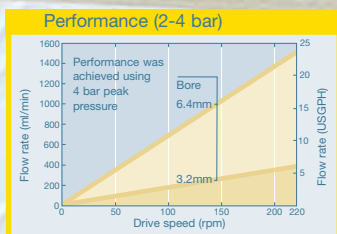
## 520REM pumphead for up to 4 bar (60 psi) pressure

Typical applications include:

- Spray coating
- Metering of viscous fluids such as adhesives

Elements available in:

Marprene® TM and Chem-Sure®



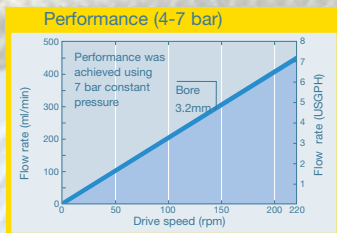
## 520REH pumphead for up to 7 bar (100 psi) pressure

Typical applications include:

- High-pressure chemical injection for water treatment

Elements available in:

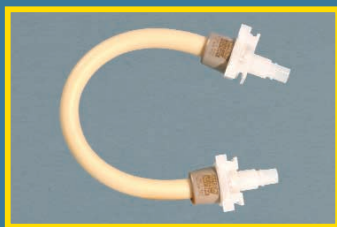
Marprene® TH and Sta-Pure®



## Assured performance from LoadSure® elements

LoadSure® elements are available in three sizes and four materials, with a range of performance characteristics for many applications – but all share features designed to work at their best in aggressive industrial processes.

Robust industrial connections in PVDF offer exceptional resistance to chemicals they are likely to encounter. There are no metallic components in the assembly, cutting the risk of chloride attack.





**IP66**  
**IP31**



IP31

## 520S, 520U and 520Du cased drives

- Manual speed control with flow calibration
- 2200:1 speed control to 0.1% speed accuracy
- Single or dual analogue inputs and analogue output
- 24V logic remote control
- RS232 serial communication



IP66/NEMA 4X

## 520SN, 520UN and 520DuN cased drives

The same functionality plus

- IP66/NEMA 4X high pressure washdown enclosure
- Volt-free relay output
- Large connector terminals for easy wiring, every function clearly marked
- RS485 serial communication



## 521 close-coupled pumps

- Fixed speed or inverter-controlled options
- 230/400V 3 phase or 110/230V 1 phase
- Cost and energy efficient TEFC motors
- IP55 ingress protection
- Optional base-plate mounting

The information contained in this document is believed to be correct, but Watson-Marlow Bredel accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

**WARNING** These products are not designed for use in, and should not be used for, patient connected applications.

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Call +44 (0) 1326 370 370 for further information on the 520 pump range including technical data sheets.

Or log on to our web site: [www.watson-marlow.co.uk](http://www.watson-marlow.co.uk) to view details on our complete peristaltic pump range.

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