

620 series

NEW

Perfect process pumping with LoadSure™ technology



Perfect process pumping...

Watson-Marlow Bredel is the world leader in the fastest growing pump type for the process industry, so we set high standards for the new 620 series: "Increase pressure and flow capability, cut maintenance time to less than one minute and safeguard the process".

We did it with LoadSure™ technology



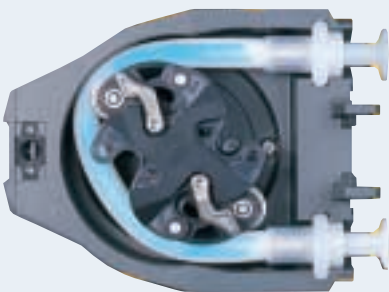
The pump

- **Increases performance:**
4.8 GPM at 60 psi
1100 litre/hour at 4 bar
- **Maximises uptime:**
Snap-fit LoadSure™ elements
Over six months life
Less than one minute to change
- **Protects your process:**
Clean-in-Place and Steam-in-Place
IP55 protection
Process signal control and feedback



... with the unique LoadSure™ rotor

The element at the heart of the peristaltic



The most effective engineering solutions are the simplest. Compressing the pumping element between rotating rollers creates the peristaltic pump action. In between each pass of a roller, the tube recovers to create a vacuum and draws in fluid. This continuous dynamic effect creates a positive displacement, pushing the fluid through the pump. A peristaltic pump is therefore self-priming and requires no valves, glands or seals and can run dry, making it ideal for 24-hour operations.

thanks to the revolutionary LoadSure™ pumphead

LoadSure™ increases process performance

The 620R pumphead is designed around new, tough, thick-wall LoadSure™ pump elements for increased capacity and pressure, taking Watson-Marlow Bredel benefits to thousands more industrial applications.

- **60psi (4 bar) pressure** LoadSure™ elements in STA-PURE™, Bioprene™ and Marprene™ are engineered for 60psi (4 bar) peak discharge pressures and 95% suction lift with no back-flow, offering excellent metering and dosing performance.
- **4.8 GPM (1100 litre/hour) capacity** 250rpm close coupled pumps have a maximum flow rate of 4.8 GPM (1100 litre/hour) at 60psi (4 bar). 165rpm cased pumps have a maximum flow rate of 2.9 GPM (660 litre/hour) at 30psi (2 bar).
- **Maximized flow or minimized pulse options** The standard 620R pumphead has twin rollers for maximum flow. The four-roller 620RE4 provides pulse-free flow for high accuracy dispensing, spraying, ultra-filtration, printing and coating applications.



... and its snap-fit element

The most important part of the pump is the element, and that is why all Watson-Marlow Bredel pumps are designed around LoadSure™ elements and Watson-Marlow Bredel tubing. STA-PURE™ elements will give up to eight months service in a working duty of eight hours a day, five days a week at 30 psi (2 bar).

Improve your performance; put LoadSure™ 620 pumps in your process

thanks to the revolutionary LoadSure™ pumphead



LoadSure™ maximizes uptime, makes maintenance quick and easy



1 Open...



2 Click roller in...



3 Replace LoadSure™ element...



4 Click roller out...

- **No need for maintenance specialists** for LoadSure™ pumpheads. It's a one-minute job for operators. Open, click roller in, replace LoadSure™ element, click roller out, close, finished.

- **Patented LoadSure™ elements and clamps** fit perfectly every time, ensuring trouble-free performance and extending element life. LoadSure™ elements are available in sanitary and industrial standards with Tri-Clamp, DIN15mm or Cam and Groove couplings. You also have the option of continuous tubing using Watson-Marlow Bredel tubing.

621CC



Compact, industrial economy pump with multiple drive options

623S



Laboratory and light industrial manual control pump

624S



Manual control, heavy duty, IP55 industrial process pump

624U



Auto/manual control, heavy duty, IP55 industrial process pump

624Di



Auto/manual control, high accuracy, high flow dispenser

Drives	Continuous 2 roller 30psi 621CC	Continuous 2 roller 60psi 623S	Elements 2 roller 60psi 624S	Elements 2 roller 60psi 624U	Elements 2 roller 60psi 624Di
621CC	•	•	•	•	•
623S	•				
624S	•	•			
624U	•	•	•		
624Di	•	•	•	•	

Drives

Pumphead options

LoadSure™ technology guards your process

- **The perfect sanitary system.** Retractable rollers allow Clean-in-Place or Steam-in-Place as standard. You can clean in-line at full velocity, without the intrusion of the bypass required by most other positive displacement pumps. The element eliminates crevices and potential bug traps in the process.
- **In the event of an element failure,** the process fluids are contained in the pumphead. The controlled waste port allows product to be recovered safely. A failure detection option will automatically shut down the pump and send a warning signal.
- **The pumphead guard** conforms to CE industrial standards and ensures that operators are fully protected.
- **Ingress protection** to IP55 protecting all industrial cased drives against washdown and dust.
- **Digital speed displays** are standard on 623S, 624U and 624Di electrical cased drives.



Every aspect of the LoadSure™ pumphead is designed to maximize uptime. Individual components are made to survive in the most aggressive industrial environments and perform the most arduous duties.

CALL NOW FOR A FREE TRIAL. We will demonstrate how LoadSure™ technology will improve both your process and your productivity.

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Model	Drive enclosure	Speed control and options	Supply	Additional features	Flowrates	Dimensions / weight
620R psi 620R	•	•	•	•	0.10 l/min	190 x 184 x 410 (7.5x7.2x16.1)
620RE Elements 4 roller 60psi 620RE	•	•	•	•	0.11 l/min	195 x 265 x 400 (7.7x10.4x15.7)
620RE4 Elements 4 roller 30psi 620RE4	•	•	•	•	0.05 l/min	195 x 420 x 410 (7.7x16.5x15.7)
620RE4 Elements 4 roller 60psi 620RE4	•	•	•	•	0.05 l/min	195 x 420 x 410 (7.7x16.5x15.7)
623S	•	•	•	•	0.05 l/min	260 x 420 x 400 (10.2x16.5x15.7)
624U	•	•	•	•	18.9 l/min	23 - 31kg (10.4-14.1lbs)
624Di	•	•	•	•	12.0 l/min	18kg (8.2lbs)
					12.0 l/min	21kg (9.5lbs)
					14.6 l/min	21kg (9.5lbs)

Liter/hour=227.142 x GPM

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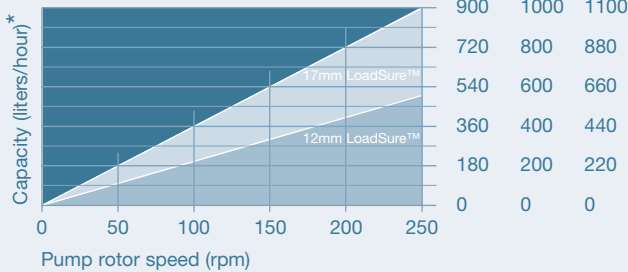
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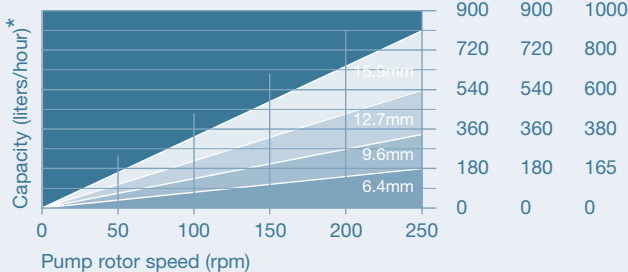
Put LoadSure™ in your process Improve your performance

620 series pumps

620RE performance



620R performance



620RE4 reduce flow rates by 25%.
 Flow rates based on water at 20°C

Tube performance

Material	Pressure Rating	Sanitary Tri-clamp 3/4" or DIN 15mm elements	Industrial Cam and Groove 3/4" elements	Continuous tubing
STA-PURE™	60 psi (4 bar)	●	●	610mm
Marpene™	60 psi (4 bar)	●	●	
Bioprene™	60 psi (4 bar)	●	●	
Marpene TL	30 psi (2 bar)	●	●	15m (50feet)
Bioprene TL	30 psi (2 bar)	●	●	15m (50feet)
Neoprene	30 psi (2 bar)	●	●	3m (10feet)
Peroxide Silicone	30 psi (2 bar)	●	●	3m (10feet)
Platinum Silicone	30 psi (2 bar)	●	●	7.5m (30feet)
Fluorel	30 psi (2 bar)	●	●	5m (20feet)

Continuous tubing fits 620R
 Elements fit 620RE and 620RE4

*Liter/hour=227.142 x GPM

Maximum continuous length