

Now available
with **EtherNet/IP**
control

**WATSON
MARLOW
Pumps**



Industrial process pumps

robust · accurate · intuitive

NEW



- Flexible and scalable fluid handling with low cost of ownership
- Superior flow stability up to 14.5 USGPM from three product ranges
- Equivalent accuracy and the same methods of control from 530, 630 and 730 pumps



Why Watson-Marlow makes the right pump for you

Watson-Marlow Fluid Technology Group is unique in being able to work with you at every process step to ensure your fluid transfer requirements are achieved. Whether performing flavoring addition or chemical metering, we have a solution which can cut pump downtime and reduce chemical costs.

In continuous daily use in food processing, manufacturing and environmental industries, peristaltic pumps play an increasingly important role for handling aggressive and shear sensitive fluids without contamination. The pumped fluid is totally contained within the tube, providing complete isolation of the fluid.

Confident controllability

Watson-Marlow pumps integrate seamlessly into your process control system. Pumps are self-contained and easily configurable, so there is no need for separate variable frequency drives or complex control devices.



530 flows between 0.0001 to 55 USGPH
630 flows between 0.0003 to 5 USGPM
730 flows between 0.0005 to 45 USGPM

Maintaining process integrity with visual status indication and an intuitive user interface

Simplify your system design with Watson-Marlow peristaltic technology

Ultimate process security with a 3-level PIN lock

875,000:1 flow control range, compared with 100:1 from a typical diaphragm metering pump



IP66 NEMA 4X module for watertight/dustproof protection in industrial environments



Industrial integration—manual, remote, analogue and digital communication, PROFIBUS and EtherNet/IP™

Protect your process by connecting remote pressure and flow sensors'

Reduce process downtime—one-minute maintenance

Safe operation with complete isolation of food ingredients or hazardous chemicals

Optimize metering of abrasive and viscous fluids, gases and suspended solids



Food and beverage

Food manufacturers demand many things from their process equipment, but the highest priority is maintaining product integrity throughout production. The 530, 630 and 730 pumps safely dose, meter and transfer colors, flavors and additives, providing linear flow rates from microliters through to 55 USGPM. Fluids are pumped from source to delivery using FDA 21CFR177.XXXX compliant tubing materials, with EC 1935/2004 also available on some materials.

Environmental

Flexible and scalable fluid handling with accurate flow rates ranging from 0.0001 USGPH to 14.5 USGPM over the three pump series.

Widely used in water and wastewater treatment for metering sodium hypochlorite and other common disinfection chemicals, 530, 630, and 730 pumps are self-contained and easily integrated into your process control system.

A typical diaphragm metering pump has a flow control range of 100:1, in comparison to 875,000:1 from a Watson-Marlow process pump, with intuitive menu structures to provide visual status indication and streamlined setup.



Industrial

When higher pressure flow rates are a necessity, the process pumps range includes LoadSure tube element pumpheads to provide accurate and repeatable pumping up to 100psi.

LoadSure pumps enable one minute maintenance, cutting downtime and reducing costs.

Four drive options offer configurable digital communication for ultimate process control.

Select your pump control features

Feature

Manual control

Intuitive keypad and color display. Choice of flow rate or speed display

Full calibration with choice of flow units

Remote control

Configurable Start/Stop, leak detector and pressure switch input (via contact closure or 5V TTL or 24V industrial logic)

Direction change and auto/manual toggle input (via contact closure or 5V TTL or 24V industrial logic)

Remote operation of MemoDose (foot/hand-switch or logic input)

Four configurable digital status outputs through 24V, 30W relays

Software configurable IP31 outputs

Remote pressure/flow sensors

Analog speed control

Fully configurable inputs; 0-10V or 4-20mA. analog outputs; 0-10V, 4-20mA

Keypad/analog input scaling (replacement of diaphragm pumps)

Tacho frequency output; 0-991Hz

Digital communication

RS485 network control

RS232 network control

EtherNet/IP

PROFIBUS DP V0

Security

3-level security PIN lock

530Du	530DuN	530U	530UN	530S	530SN	530Bp/BpN	530En/EnN
630Du	630DuN	630U	630UN	630S	630SN	630Bp/BpN	630En/EnN
730Du	730DuN	730U	730UN	730S	730SN	730Bp/BpN	730EnN

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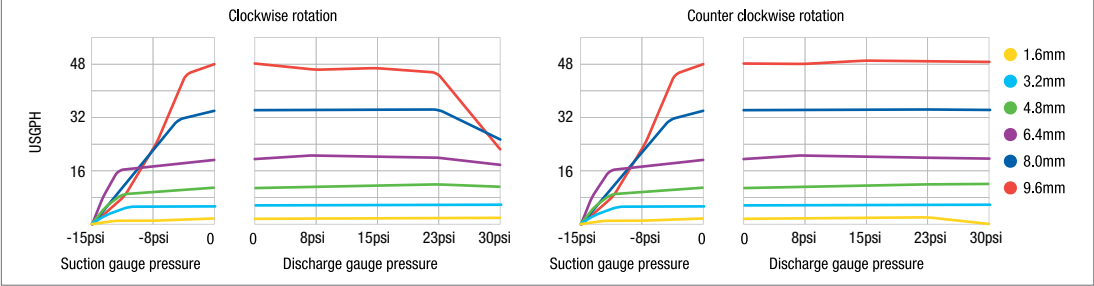
530 Technical data



- » Flow rates from 0.0001 to 55 USGPH and pressures up to 100psi
- » Color display and intuitive menu structure
- » NEMA2 or NEMA4X cased pumps, manual, remote, analog or RS485 digital communication, PROFIBUS and EtherNet/IP™
- » Four drive options and three pumpheads for single and multi-channel flows
- » Precise 2200:1 speed control range

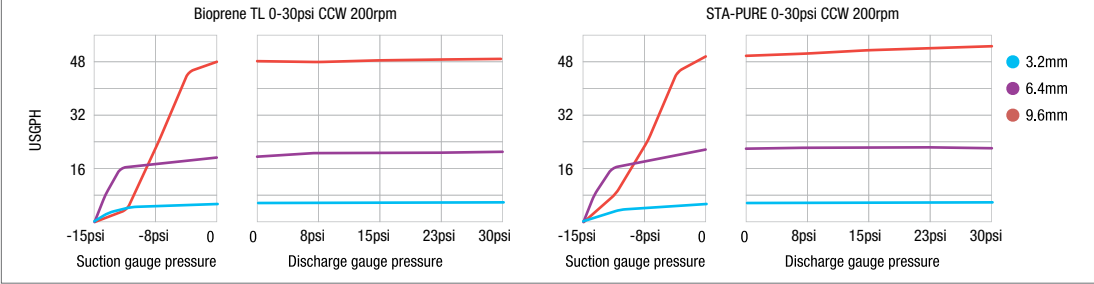
Tube bore and flow rates (USGPH)

Tube material	Speed	0.5mm	1.6mm	3.2mm	4.8mm	6.4mm	8.0mm
Marprene®, Neoprene	0.1 to 220rpm	0.0001–0.15	0.0007–1.5	0.003–6	0.006–13	0.01–23	0.02–53

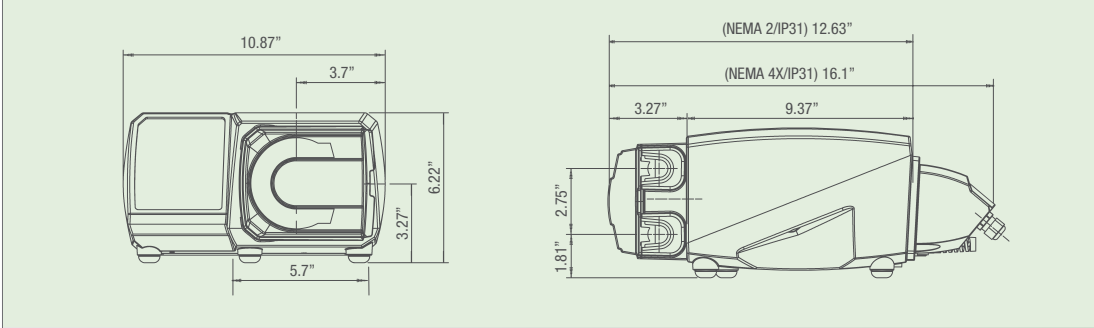


LoadSure® element tubing flow rates (USGPH)

Tube material	Speed	3.2mm	6.4mm	9.6mm
Marprene®, Neoprene	0.1 to 220rpm	0.003–6	0.01–23	0.02–53



Product dimensions



520 Pumpheads



520R/520R2

Continuous tubing pumpheads for pressures up to 30psi and flows to 55 USGPM



520REL/520REM/520REH

LoadSure tube element pumpheads for pressures up to 30, 60 or 100psi operation



313D/314D

Flip top pumpheads for up to six individual channels of flow

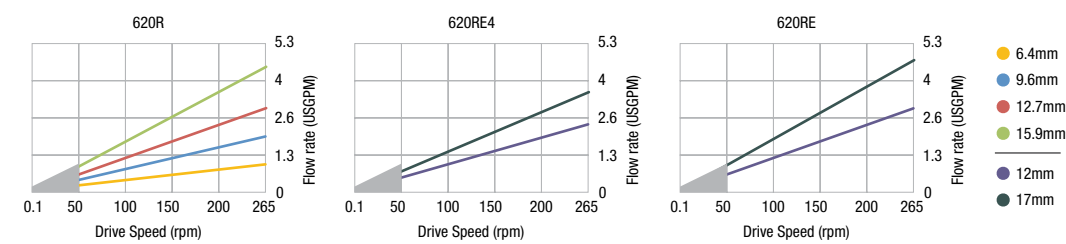


630 Technical data



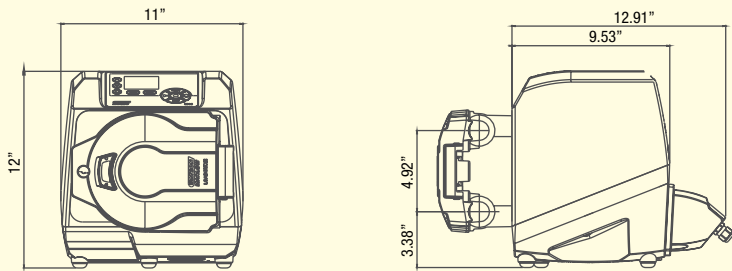
- » Flow rates from 0.0003 to 5 USGPM and pressures up to 60psi
- » Color display and intuitive menu structure
- » NEMA2 or NEMA 4X cased pumps, manual, remote, analog or RS485 digital communication, plus PROFIBUS and EtherNet/IP™
- » Four drive options and two pumpheads for single channel flows
- » Precise 2650:1 speed control range

620 pumpheads: flow ranges, 0.1–265rpm. (USGPM)									
Tube Bore (mm #)		6.4, 17	8.0	9.6, 193	12.0	12.7, 88	15.9, 189	16.0	17.0
620R (continuous tubing)	Marprené® TL	0.0003–0.8	-	0.0007–1.8	-	0.001–1.8	0.002–3	-	-
620RE (LoadSure elements, two rollers)	Marprené® TL	-	-	-	0.001–2.6	-	-	-	0.002–4.7
	Marprené® TM	-	-	-	0.001–2.2	-	-	-	0.002–4.1
620RE4 (LoadSure elements, four rollers)	Marprené® TL	-	-	-	0.001–2.2	-	-	-	0.001–3.3
	Marprené® TM	-	-	-	0.001–2.2	-	-	-	0.001–2.9



● Limited to 30psi below 50rpm. Flow rate varies with tube material, discharge pressure, suction and viscosity

Product dimensions



620 Pumpheads



620R

Twin sprung roller, continuous tubing pumphead



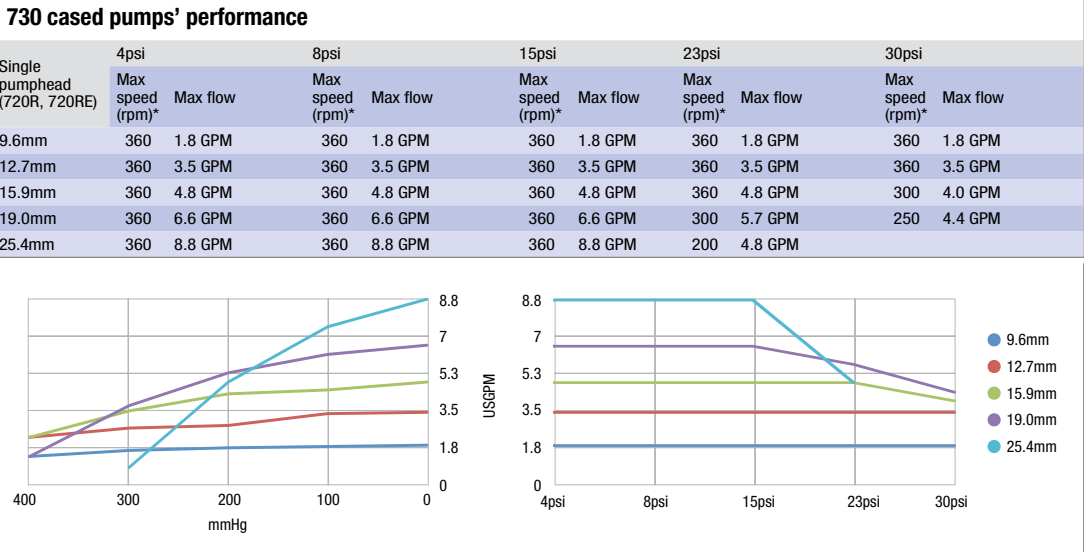
620RE / 620RE4

LoadSure tube element pumpheads with two or four rollers, for one minute maintenance

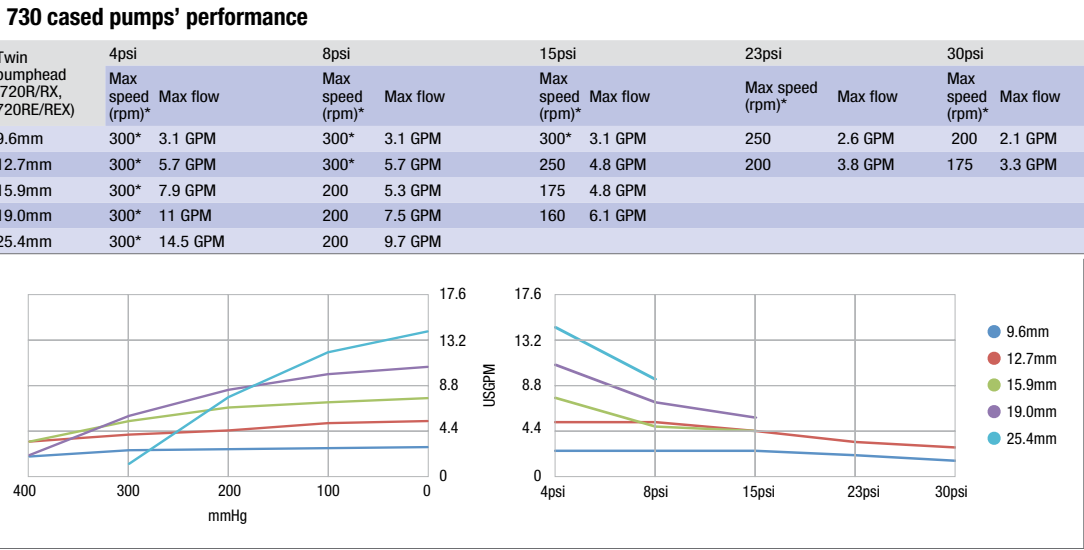
730 Technical data



- » Flow rates from 0.0005 to 14.5 GPM
- » Color display and intuitive menu structure
- » IP66 cased pumps, manual, remote, analog or RS485 digital communication, plus PROFIBUS EtherNet/IP™
- » Four drive options and two pumpheads for single and twin channel flows
- » Precise 3,600:1 speed control range



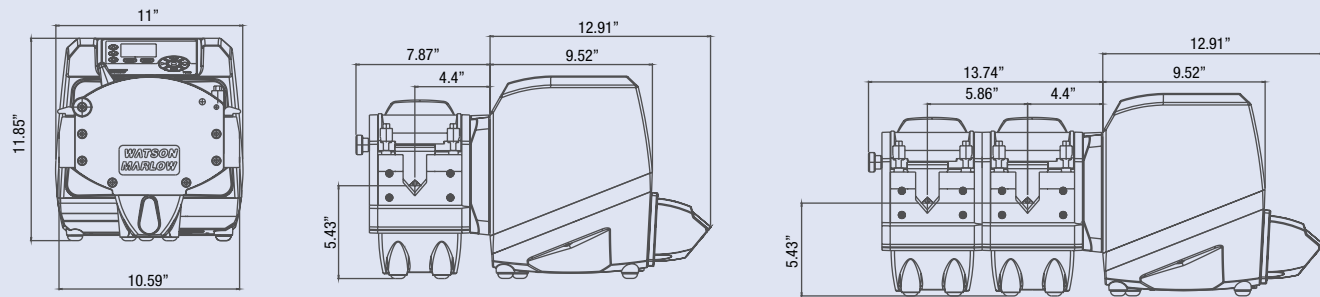
Stated performance applies to all tube materials



Stated performance applies to all tube materials

*The maximum speed is reduced at increased discharge pressures to ensure safe running of the pump

Product dimensions



720 Pumpheads



720R

Continuous tubing pumphead, which can be extended to provide two channels of flow



720RE

LoadSure tube element pumphead for single or twin channels of flow

LoadSure® pumpheads guarantee correct tube loading

Watson-Marlow LoadSure technology offers snap-fit one minute maintenance. LoadSure elements offer greater reliability, easy installation and increased productivity.

520 LoadSure pumphead



- LoadSure® elements with quick release connectors, in Marprene TL and Neoprene for pressures up to 30psi in 3.2mm, 6.4mm and 9.6mm bore, Marprene TM for pressures up to 60psi in 3.2mm and 6.4mm bore and Marprene TH up to 100psi in 3.2mm bore
- 100psi pressures with the 520REH. Flow rates up to 7 USGPH
- 60psi pressures with the 520REM. Flow rates up to 24 USGPH
- 30psi pressures with the 520REL. Flow rates up to 55 USGPH

620 LoadSure pumphead



- LoadSure® elements with Cam and Groove connectors available in Marprene TM for 60psi operation and Neoprene for 30psi operation
- Two tube element bore sizes of 12mm and 17mm
- Highest accuracy and minimal pulsation with the 620RE4's four rollers. Highest flow rates from the 620RE's two rollers
- Flow rates up to 3.5 USGPM, pressures up to 60psi

720 LoadSure pumphead



- LoadSure® elements with Cam and Groove connectors available in Marprene and Neoprene
- Four bore sizes: 12.7mm, 15.9mm, 19.0mm and 25.4mm
- Flow rates from 720RE pumphead up to 9 USGPM flow at up to 15psi pressure
- 720REX extension pumpheads offer identical performance, but at a maximum pressure of 15psi

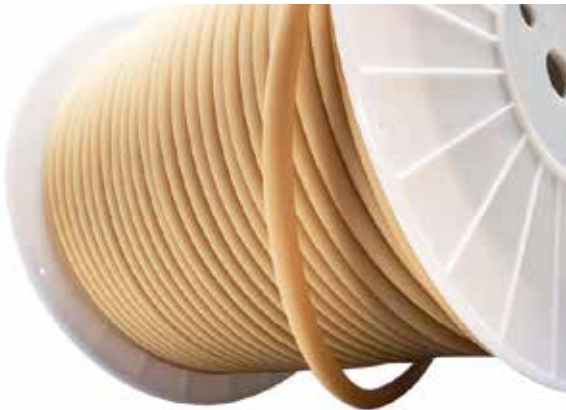
LoadSure elements provide fast and simple tube loading every time



Pump and tubing have equal importance

It is important to recognize that the pump and tubing combination are selected to match your specific application criteria.

Watson-Marlow is the only company that manufactures both the cased pumps and peristaltic tubing, which is a real advantage for customers that want to be certain that their peristaltic pump will work right first time and every time.



Marprene®

Industrial grade thermoplastic elastomer tubing

- Wide chemical compatibility and long life
- Low gas permeability
- Highly resistant to oxidising agents



Neoprene

Industrial grade thermoplastic elastomer tubing

- Excellent performance with abrasive slurries
- Good suction and pressure capabilities

INDUSTRIAL SOLUTIONS



Watson-Marlow Fluid Technology Group

Watson-Marlow Fluid Technology Group supports its customers locally through an extensive global network of direct sales operations and distributors

wmftg.com/global

