

Accurate, versatile chemical pumps



**WATSON
MARLOW
Pumps**

Expanded range! Now includes
qdos120

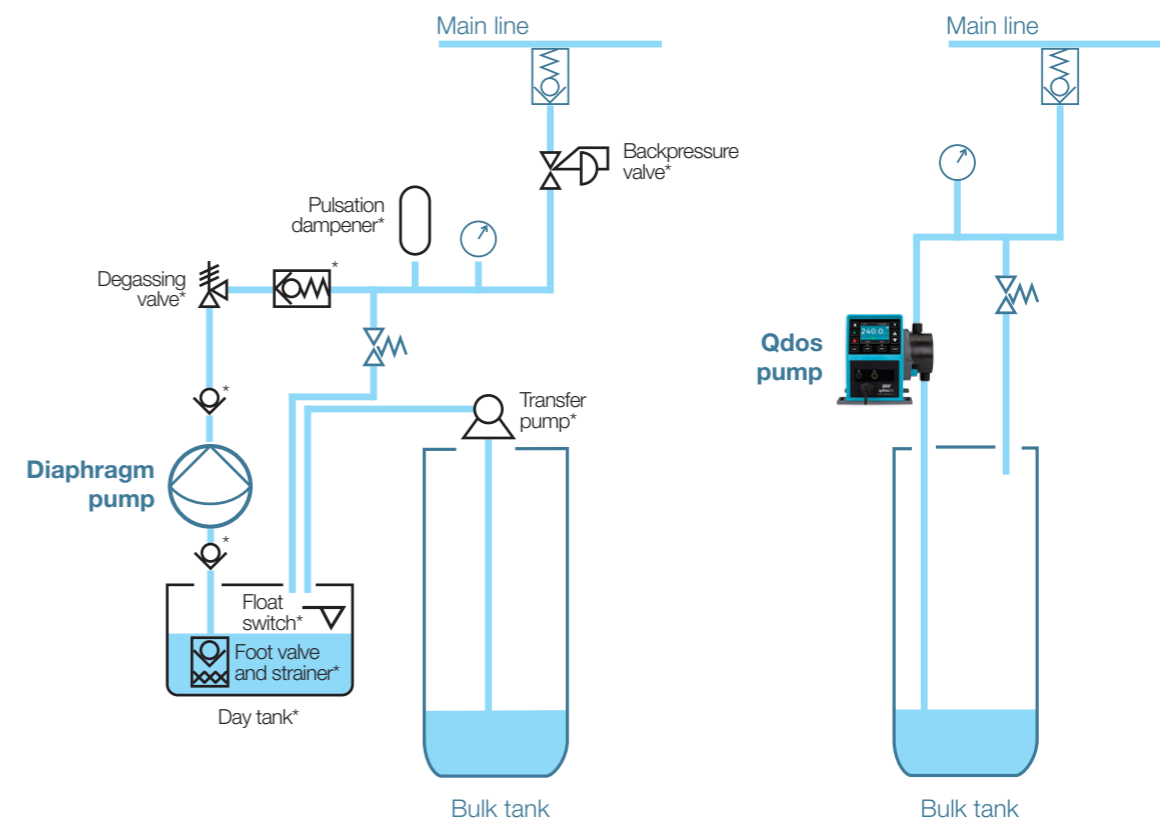


- Cut chemical cost through higher accuracy metering
- Simple drop-in installation eliminates ancillary equipment
- Reduced maintenance with single, no-tools, component replacement
- Range expanded to include Qdos 120. Flow rates from 0.1 to 2,000 ml/min (0.001 to 32 USGPH) at up to 7 bar (100psi)

Total cost of ownership is less than a diaphragm pump

Typical installation comparing a diaphragm metering pump with the Qdos peristaltic metering pump

*Not required for Qdos system



Diaphragm metering pumps require high maintenance ancillaries to function. The Qdos range eliminates this equipment while maintaining accurate, linear and repeatable metering for all process conditions.

- No backpressure valves
- No pulsation dampener
- No degassing valves
- No foot valves and strainers
- No float switches



ReNu Revolutionary pumphead technology

The unique design of the patented ReNu™ pumphead enables accurate and repeatable flow for fluids of wide ranging viscosities.

No-tools maintenance means quick, safe and easy pumphead replacement with no specialist training or maintenance technicians.

The contained pumphead design with integral leak detection reduces wastage and eliminates operator exposure to chemicals.



Optional HMI protective screen

Rugged IP66 (NEMA 4X) pump drive, designed for industrial environments

Easy access high-visibility interface

Keypad and 3.5" TFT colour display provide easy access and high-visibility status indication. Configurable in 7 languages

Three models in the range

Qdos 30, Qdos 60 and Qdos 120

Reduce your chemical costs

Accurate, linear and repeatable flow, with varying process conditions. Keeps pumping even when gassing-off occurs or when the chemical contains solids. No need to over-meter chemicals

Simplify your system design

High suction lift and viscous handling eliminates the need for flooded suction, day tanks and specialist piping systems

Safe maintenance

The sealed ReNu pumphead with integral leak detection eliminates operator exposure to chemicals. No chemicals on the floor, no parts to clean and rebuild

Replace your pump in seconds

Process uptime is maximised with **no-tools maintenance** quick and easy pumphead replacement

Low maintenance

No valves or seals to clog, leak or corrode, giving minimal maintenance. Drop-in replacement for diaphragm metering pumps



Features of the Qdos range

Simplicity in installation, operation and maintenance were key considerations when designing the Qdos range of pumps.

An intuitive menu offers advanced control features including:

- Fluid level monitoring
- Line priming
- Flow calibration

The 3.5" TFT colour display provides instant pump status, and can be configured to display in 7 different languages.

Qdos pumps can be ordered with the ReNu pumphead mounted on the left or right of the pump. The keypad, display and input/output connections are readily accessible for easy operation and maintenance. All models are IP66 (NEMA 4X) rated for use in washdown environments.

Qdos pump model range functionality



Universal+	Universal	Manual
Flexibility for automatic and manual control together with configurable 4-20mA input and output	Automatic and manual control	Manual speed control



Remote	PROFIBUS
Remote control for absolute process security	Manual and PROFIBUS control



Features overview

Functionality	Universal +	Universal	Manual	Remote	PROFIBUS
Operational modes					
Manual	•	•	•		•
Contact	•	•			
4-20mA	•	•		•	
Fluid recovery	•	•	•	•	•
Fault reporting	•	•	•	•	•
PROFIBUS control and diagnostics					•
Manual control					
Numerical flow display	•	•	•		•
Numerical speed display	•	•	•		•
Numerical percentage of max speed display	•	•	•		•
Fluid level monitor	•	•	•		•
Max (prime)	•	•	•		•
Auto restart	•	•	•		•
Pumphead failure alarm	•	•	•		•
Remote control					
4-20mA input	•	•		•	
4-20mA input two point calibration	•				
4-20mA output	•			•	
Contact input (pulse/batch)	•	•			
Run stop input	•	•		•	
Run status output	•	•		•	
Alarm output	•	•		•	
Remote fluid recovery	•	•		•	
Optional 24V or 110V industrial logic*	•	•			
LED status icons					
Pump status				•	
4-20mA status				•	
Fault				•	
Security					
Keypad lock	•	•	•		•
PIN lock	•	•	•		•

Control options - Universal and Universal+ models*

Variant	Standard pump (L)
Input	5-24V DC
Output	Open collector
Variant	Relay module (H)
Input	110V AC
Output	Contact rating 110V AC, 5A 30V DC, 5A
Variant	Relay module (R)
Input	5-24V DC
Output	Contact rating 110V AC, 5A 30V DC, 5A



Standard pump (L)
Input and output control option



Relay module (H) or (R)
Input and output control option



Maintenance downtime cut from 1.5 hours to just five minutes

An important stage of wastewater purification at Selters, Germany, is the elimination of phosphates with the addition of precipitants, including ferric chloride.

Ferric chloride is both chemically aggressive and abrasive and attacked the diaphragms of the pumps previously used at the sites' metering station. Technicians were replacing pump diaphragms every 3 to 4 months, and each one took at least one hour to change, plus clean up time for leaked chemical.

Qdos pumps were installed in the precipitant metering station and immediately reduced maintenance time to five minutes.



Rare mineral recovery process

In vital floatation duties at British Fluorspar, twelve Qdos pumps meter reagents from mixer tanks to header tanks.

Acid grade fluorspar (fluorite) is a relatively rare industrial mineral and its extraction involves precise metering of reagents such as methyl isobutyl carbinol, sodium isopropyl xanthate, caustic soda pearl and other chemicals. Overdosing of these chemicals is a costly business which must be avoided.



Precise delivery of electroplating chemicals

BIA Kunststoff- und Galvanotechnik is involved in electroplating plastic components with metallic surfaces for the automotive industry.

The Qdos pumps employed by BIA precisely dose the chemical additives to the electroplating machines with minimal pulsation, and avoid them being "shattered".

In addition to low pulse dosing, virtually no pump downtime and no additional accessories such as check valves, makes Qdos pumps the best choice for electroplating duties.



Sodium hypochlorite metering with no gas locking

Qdos pumps replaced magnetic membrane and progressive cavity pumps in chemical metering applications at Huhtamaki Moulded Fiber Technology BV.

In a 2 bar (30 psi) counter-pressure application metering sodium hypochlorite to cooling water, the Qdos pumps provide smooth, accurate and linear flows without downtime or gas locking issues.



Ensuring the supply of safe drinking water

High concentrations of iron and manganese in the Canadian Barrie region, mean that a sequestering agent is required for potable water. The City of Barrie Water Operations Branch uses sodium silicate (Na₂SiO₃) to bind the Fe/Mn and prevent it from oxidising. The effect is aesthetic to avoid staining sanitary ware.

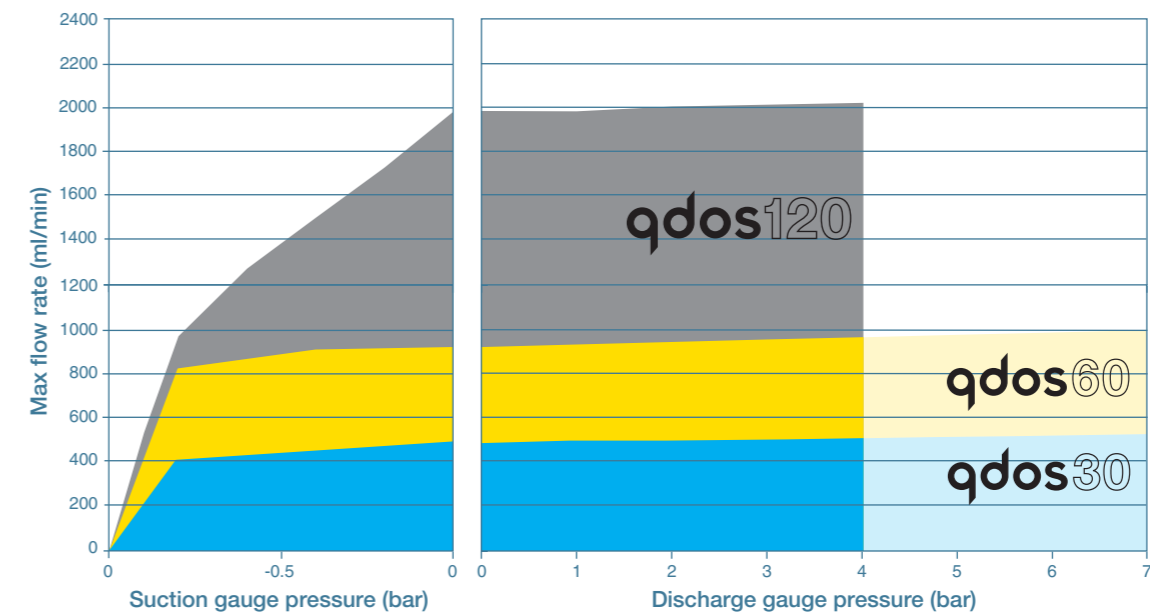
Diaphragm metering pumps had been chosen to meter between 4-6 parts sodium silicate, until sticking ball valves and clogging caused serious maintenance issues at the unmanned site.

Investing in Qdos pumps was easy for the Water Operations Department to justify on the costs of downtime and spare parts alone.

Performance data

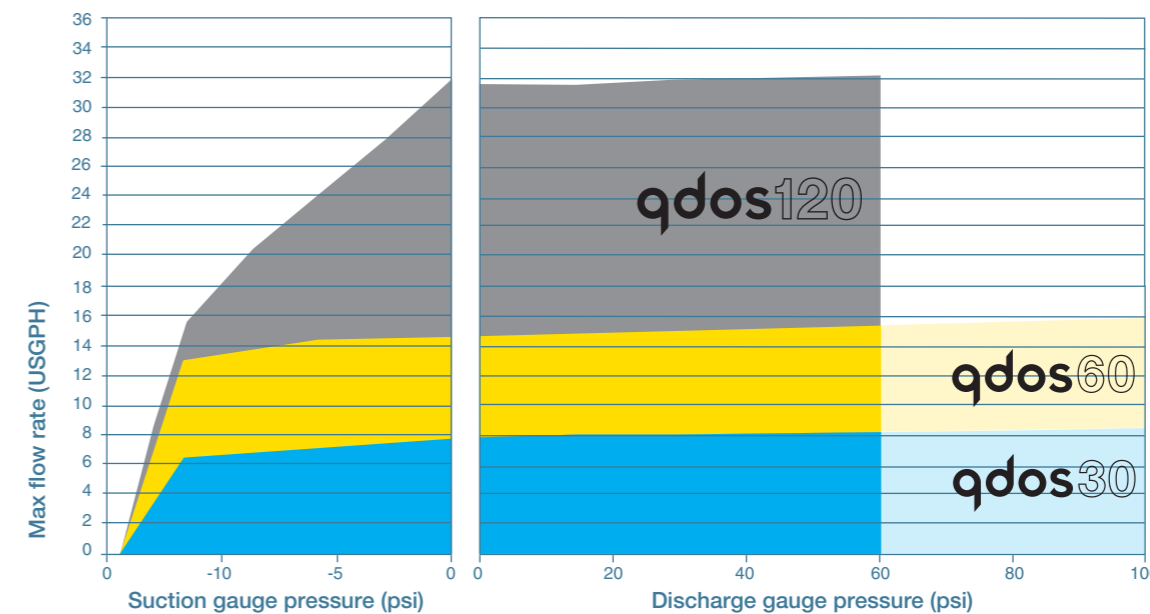
Model	Speed (rpm)	Flow (ml/min)		
		Qdos 30	Qdos 60	Qdos 120
Universal+, Universal, Manual, PROFIBUS	0.004 - 125	0.1 - 500	0.1 - 1000	0.1 - 2000
Remote	0.078 - 125	0.3 - 500	0.6 - 1000	1.2 - 2000
		Flow (USGPH)		
Universal+, Universal, Manual, PROFIBUS	0.004 - 125	0.001 - 7.93	0.001 - 15.85	0.001 - 31.7
Remote	0.078 - 125	0.005 - 7.93	0.01 - 15.85	0.02 - 31.7

Performance curves



Pumphead options

- Santoprene or SEBS
- Santoprene or SEBS
- Santoprene
- Santoprene
- Santoprene

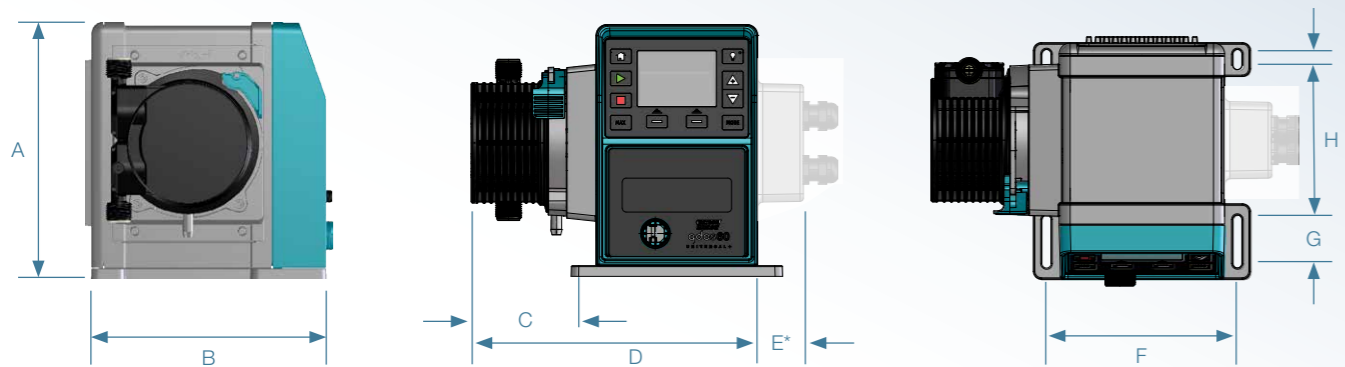


Weight

Model	kg	lb
Qdos 30	5.0	11lb 2oz
Qdos 60	5.7	12lb 9oz
Qdos 120	5.7	12lb 9oz

Important note - The ReNu Pumphead contains lubricant. It is the user's responsibility to comply with local health and safety regulations, including ensuring chemical compatibility between the tubing, lubricant and the duty fluid before use. For guidance refer to www.wmftg.com/chemical

Dimensions

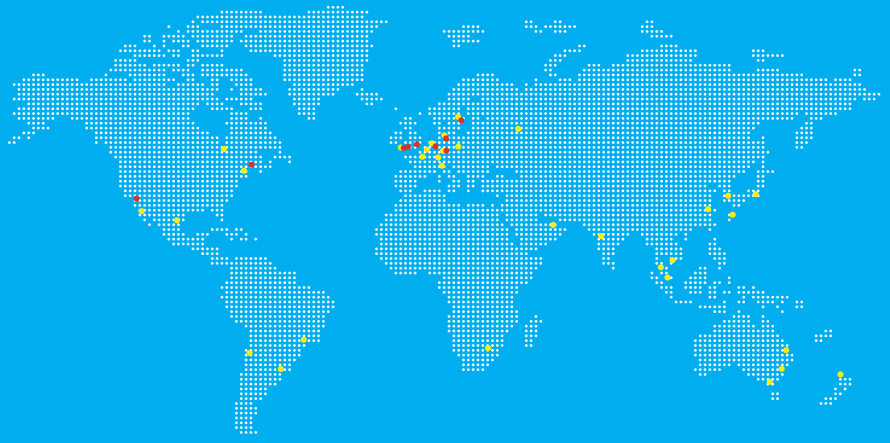


Model	A	B	C	D	E*	F	G	H	I
Qdos 30	234mm (9.2")	214mm (8.4")	82.5mm (3.2")	233mm (9.2")	43mm (1.7")	173mm (6.8")	40mm (1.6")	140mm (5.5")	10mm (0.4")
Qdos 60	234mm (9.2")	214mm (8.4")	118mm (4.6")	266mm (10.5")	43mm (1.7")	173mm (6.8")	40mm (1.6")	140mm (5.5")	10mm (0.4")
Qdos 120	234mm (9.2")	214mm (8.4")	118mm (4.6")	266mm (10.5")	43mm (1.7")	173mm (6.8")	40mm (1.6")	140mm (5.5")	10mm (0.4")

* Optional relay module

Watson-Marlow Fluid Technology Group has nine world-class factories supported by direct sales operations in 30 countries and distributors in more than 50 countries. For contact details visit our website:

www.wmftg.com



Watson-Marlow Bredel Alitea Flexicon MasoSine BioPure Asepco Flow Smart



Watson-Marlow online

Our engineers around the world can help you choose the perfect pump and tubing for your needs.

More information? Our brochures are on our website: www.wmftg.com

For more information on Qdos peristaltic metering pumps visit: www.qdospumps.com



Watson-Marlow... Innovation in Full Flow

Tel: +44 (0) 1326 370370
info@wmftg.co.uk

Watson-Marlow Fluid Technology Group
Falmouth, Cornwall, TR11 4RU, UK
www.wmftg.co.uk

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. It is the users responsibility to ensure product suitability for use within their application. Watson-Marlow, and ReNu are trademarks of Watson-Marlow Limited.