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WATSON
MARLOW PUMPS
Bredel

ENGINEERING

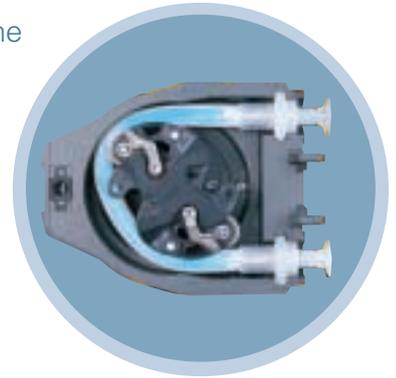
Improve your Process



With a pump matched to your needs ...

Reliable, low-cost transfer of fluids within your equipment or plant, demands the correct pump selection and installation. Incorrect specifications or compromises will lead to high running costs, extensive downtime, lost production and unnecessary maintenance demands.

Watson-Marlow Bredel has the widest application experience of any company in its field, and has helped thousands of customers identify performance and cost improvements giving rapid payback.



- **Superior reliability and extensive chemical compatibility**
- **High resistance to abrasive products** • **Accuracy up to $\pm 0.5\%$**
- **Continuous dry-running, self-priming performance and low-shear action**

... to deliver better process performance

Superior reliability

Pump failure during production cannot be tolerated, with tight cost control and production deadlines to meet. Watson-Marlow Bredel pumps have no seals, valves, diaphragms, stators or pistons to leak, clog, corrode and replace. They are virtually maintenance free, ensuring predictable service life, reduced downtime, spares inventory and maintenance costs.

Wide chemical compatibility and total fluid containment

Chemical attack or corrosion due to compromises in pump material or seal selection often results in pump leakage. This can be expensive and cause serious health and safety risks and environmental problems. Watson-Marlow Bredel peristaltic pumps totally contain the fluid within a tube or hose, eliminating all possible leak paths. An extensive chemical compatibility matrix ensures accurate pump selection for system security.

Abrasive and solids handling

Many products are abrasive and contain soft or hard solids. Seals, valves, lobes, vanes or impellers can suffer from high wear rates or even blockage, resulting in significantly reduced performance and pump life. Watson-Marlow Bredel tubes or hoses are resistant to abrasive wear and provide a clear flow path, allowing reliable product transfer and maximum pump uptime.

Dry-running and self-priming

Unexpected changes in system conditions can lead to a pump having to run dry and also be able to self prime. Most traditional pumps will fail under these conditions. Watson-Marlow Bredel pumps are designed to run dry continuously, and prime up to 9.5 metres. Pump flexibility allows easy, low cost installation and guaranteed performance.

Accuracy

Many processes rely on accurate and repeatable low shear metering or dosing to meet cost and quality standards. Watson-Marlow Bredel pumps are true positive displacement pumps with no backflow, slip or shear within the pump, giving repeatable results up to $\pm 0.5\%$.



A leading alloy wheel manufacturer, identified a problem in its pre-treatment plant which was the cause of unacceptably high rejected product. More **accurate and reliable** metering of various aggressive chemicals such as deoxidants, hydrofluoric acid, detergents and chromate solutions was required.

... using a proven design ...

The peristaltic pump action is inherently low shear and is created by compressing the tube or hose between rotating rollers or shoes. In between each pass of the roller, the tube recovers to create a vacuum and draws in fluid. This simple dynamic effect requires no seals or valves, and the fluid is totally contained within the tube, separated from the pump. No other positive displacement pump offers this unique separation of pump and fluid. Watson-Marlow Bredel pumps clearly outperform other pumps which rely on seals, valves or vanes for their operation. These components are repeatedly the cause of pump failure and high maintenance.

The Watson-Marlow Bredel pump range provides flow rates from microlitres per minute to 80 cubic metres per hour and pressures up to 16 bar. Fixed, variable, flameproof, and air operated drives, with comprehensive control options, to enable pumps to be configured precisely to your requirements.



... with expert advice to give the best system and installation ...

For perfect results, experienced selection and installation advice is essential. A Watson-Marlow Bredel engineer based close to you will carry out a full consultation to ensure we understand your precise needs, and select a suitable pump with clear benefits and payback. That same engineer will be there to support your installation and ensure you are completely satisfied.

These quotations were given to an independent marketing organisation by customers who are delighted to have found Watson-Marlow Bredel.

Works Engineer

"You can rely on them from the pumps to the technical backup. It's an overall package I know I can rely on"

Projects Engineer

"I like the fitness for the job. The pumps are excellent; they perform very well with very little maintenance"

Technical support Manager

"They're very reliable, hard wearing, consistent and accurate. A very good industrial pump"

... to deliver the promised results.

All our customers have made major improvements in process performance, maintenance and product quality, resulting in cost savings previously thought unavailable.



The original piston diaphragm pumps were replaced by Watson-Marlow Bredel 504U/RL IP55 rated pumps. Ion-specific electrodes were also installed to meter the chemicals and allow automatic pump control. Increased accuracy, complete reliability and easy pump set-up means this company **obtained all its planned cost savings** and achieved payback in a matter of weeks.





Put a peristaltic in your process **Improve your performance**

	Single channel, low flow pumps. Fixed or variable speed.	1µl/min - 50ml/min	
100	Near pulseless, multi-channel pumps with up to 32 channels.	0.5µl/min - 21ml/min	101U
200	Single or multi-channel pumps with manual, remote or dispensing control.	0.07ml/min - 2 litre/min	205U
300	Microprocessor controlled and IP55 process pumps with manual, auto and digital control.	10µl/min - 4.37 litre/min	313U
500	IP55 mid-flow process pumps with full CIP and SIP capability. Fixed or variable speed.	50ml/min - 18.3 litre/min	505S
600	IP55 industrial pumps with manual or auto control, single or twin channel.	1.6 litre/min - 66 litre/min	624U
700	High flow hygienic pumps with full CIP and SIP capability.	2 litre/min - 133 litre/min	704U
800	Breidel: High flow industrial pumps operating at pressures up to 16 bar (230 psi).	0.3 litre/min - 80m ³ /hr	840
SPX			SPX



For further information on Watson-Marlow Breidel pumps in Engineering, please request copies of application and technical data sheets.