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WATSON
MARLOW PUMPS
Bredel

CERAMICS

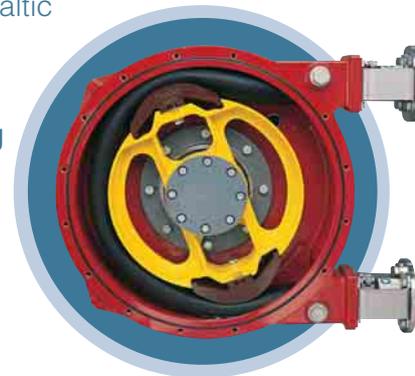
Improve your Process



Reduce product waste and plant downtime ...

All types of ceramics from fine china to brick manufacture use materials which are extremely hard on pumps. The daily wear on plant and the cost of rejected product can be enormous, and the constant need for manufacturers to drive down costs make savings in these areas vital. Peristaltic pumps from Watson-Marlow Bredel provide significant savings by:

- **Eliminating scrapped product due to pinholes, contamination and pulsing**
- **Preventing costly overdosing of chemical additives**
- **Extending pump life and reducing maintenance**



... and deliver consistently high quality product with low maintenance ...

This allows you to guarantee finished product quality, improve plant efficiency and reduce costs.

No pinholes

Air entrainment via seals or aggressive pump suction action is eliminated. Watson-Marlow Bredel pumps have no seals, diaphragms or glands. The significant reductions in scrap provide major cost savings.

No contamination

Contamination of finished ceramic products caused by the abrasive wear of traditional metallic pump results in waste. The hose element of Watson-Marlow Bredel pumps has no metal components and an extremely high level of abrasion resistance, and it ensures consistent quality of finished product.

No pulsing

Pulse-free flow is required for filling casts or applying glaze. The low shear pumping action of Watson-Marlow Bredel pumps, backed by our extensive installation knowledge, ensures repeatable high quality results.

No overdosing

Costly overdosing of essential additives in the ceramics, brick and pipe industries has become a recognised concern to manufacturers. Accurate metering of additives, such as barium carbonate and manganese dioxide, by Watson-Marlow Bredel pumps makes significant cost savings and big improvements in product quality.

No blocking

Pump clogging and blockage from viscous and high specific gravity slurries often cause poor pump performance and premature pump failure. The simple flow path of Watson-Marlow Bredel pumps eliminates these potential problems, extends service life and improves plant productivity.

No metal abrasion

Rapid wear to metallic pumps can also result in an early reduction in performance and premature failure of the pump. The long life of the hose element increases reliability and reduces downtime. Watson-Marlow Bredel offers the lowest whole life cost of any pump.



Photo supplied courtesy of Caradon Bathrooms

A leading sanitary ware manufacturer calculated the cost of scrapped product due to pinhole problems to be, on average, £2,000 per day. By replacing a traditional positive displacement pump with a Watson-Marlow Bredel SPX65 the company has achieved

costs savings of over **75%**

... using a unique design ...

The most effective engineering solutions are the simplest. The peristaltic pump action is low-shear and is created by compressing the hose element between rotating rollers or shoes. In between each pass of a roller, the hose recovers to create a vacuum and draws in fluid. This simple dynamic effect requires no seal or valves and the fluid is totally contained within the hose, separated from the pump. No other positive displacement pump offers this unique separation of pump and fluid. Watson-Marlow Bredel pumps clearly outperform other pump types, such as piston, progressive cavity or diaphragm pumps which rely on seals and valves for their operation - often a cause of air ingress, high maintenance and pump failure.

The hose is the core of our pump and is resistant to abrasive wear. Its unique four-ply structure ensures excellent suction and pressure performance, and extends service life beyond other pump designs. The rapid wear of metallic pumps means a quick drop in performance even before eventual failure. Watson-Marlow Bredel pumps provide a metering accuracy of $\pm 1\%$ for the whole of their pump life.



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

For perfect results, experienced selection and installation advice is essential. A Watson-Marlow Bredel engineer will carry out a full site survey with you to ensure that we know your precise needs and are able to select a suitable pump with clear benefits and payback. 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 produce results that exceed expectations.

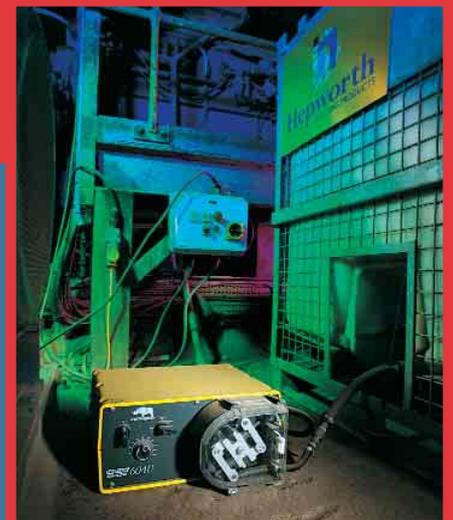


All our customers have made major improvements in process performance, maintenance and product quality, resulting in cost savings previously thought unattainable.



Chemical savings of over **30%**

have been achieved by the manufacturers of bricks, tiles and pipes who need a system that delivers critical chemical additives, reliably and accurately. Over many years different pump types have been used and Watson-Marlow Bredel pumps are now regarded as best practice for their greater accuracy and long pump life.



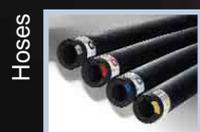
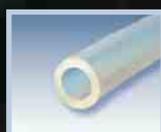


Pump Series

Flow Rates

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

100	Single channel, low flow pumps. Fixed or variable speed.	1µl/min - 50ml/min	101U
200	Near pulseless, multi-channel pumps with up to 32 channels.	0.5µl/min - 21ml/min	205U
300	NEW Compact, single or multi-channel laboratory pumps with manual, remote, analogue, RS232 or dispensing control.	2µl/min - 2.2 litre/min	323U
500	Microprocessor controlled and IP55 industrial pumps with manual, auto and digital control.	10µl/min - 4.37 litre/min	505S
600	IP55 mid-flow industrial pumps. Fixed or variable speed.	50ml/min - 18.3 litre/min	624U
700	IP55 industrial pumps with manual or auto control, single or twin channel.	1.6 litre/min - 66 litre/min	704U
800	High flow hygienic pumps with full CIP and SIP capability.	2 litre/min - 133 litre/min	840
SPX	Bredel: High flow industrial pumps operating at pressures up to 16 bar (230 psi).	0.3 litre/min - 80m ³ /hr	SPX40
Tubing Hoses	Extensive range of tubing ensures chemical compatibility. USP Class VI and FDA approvals. Precision machined, re-inforced hoses provide flow stability and excellent suction performance. <ul style="list-style-type: none"> • Twelve tubing materials in bore sizes 0.13mm to 25.4mm • Autoclavable Marprene, Bioprene, STA-PURE, Chem-Sure and Silicone (platinum-cured) • Four hose materials including Natural Rubber, Nitrile NBR, Hypalon and EPDM from 10mm to 100mm 		



For further details on Watson-Marlow Bredel pumps in the Ceramics industry, please request copies of application and technical details.