

# FOOD and BEVERAGE

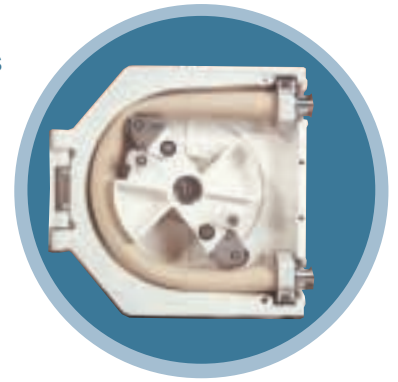
Improve your Process



# New levels of plant productivity ...

Every week pump failures are losing food manufacturers thousands of pounds in rejected product and downtime – unacceptable costs in an increasingly competitive market.

Food products, such as dairy, bakery, cereals, beverages and confectionery, demand pumps that meet today's hygiene standards and are able to handle products with care. Peristaltic pumps from Watson-Marlow Bredel guarantee these performance standards and create significant cost savings.



- **Superior hygienic performance**
- **Improved finished product quality**
- **Greater accuracy and repeatability**
- **Reduced downtime and lower maintenance costs**

## ... and superior finished product quality ...

### **Easily cleaned**

CIP and SIP are now essential procedures in the manufacture of many foods, and hygiene standards have never been under greater scrutiny. Watson-Marlow Bredel pumps enable you to clean in-line at full velocity, without the intrusion of the bypass required by most other positive displacement pumps. Dismantling and further cleaning are not required giving significant operational advantages and cost savings.

### **Hygienic**

There is no risk of bacterial growth or even product clogging as the fluid is contained totally within the tube. There are no dead spots. The pumping action ensures that the tube is fully swept and the suction and delivery orientation enables the pump to self drain. No other pump is able to meet this level of hygienic performance.

### **Low Shear**

The presentation of finished goods is critical for most products, and transfer of the product must be made without degrading consistency or appearance. The low-shear action and straight-through flow of the Watson-Marlow Bredel peristaltic ensures product quality. Other pumps can damage the product by using impellers, vanes, lobes or valves.

### **Accurate**

Flavourings, colourings and additives demand accurate and repeatable metering to ensure quality. Watson-Marlow Bredel pumps give true positive displacement with no siphoning or slip providing an accuracy of up to  $\pm 0.5\%$ . They are the market's most accurate dosing and metering pumps.

### **Reliable**

Pump failure during production cannot be tolerated, with tight cost control and deadlines to meet. Watson-Marlow Bredel pumps have no seals, valves, diaphragms, glands, immersed rotors, stators or pistons to leak, clog, corrode and replace. They are virtually maintenance free. Self priming and dry running capabilities further help to reduce dramatically spares inventory and maintenance.



A major "ready meals" producer pumps cooked food portions direct from the cookers on to transfer trays for delivery to the packaging area. The original lobe pumps did not fully empty the cookers and pipe work and hence wasted product. The lobe pump was also difficult and time consuming to clean.

# ... using a pump inherently maintenance free ...

Watson-Marlow Bredel pumps are designed for the food industry. The low shear peristaltic pump action is created by compressing the tube element between rotating rollers or shoes. In between each pass of a roller, the element recovers to create a vacuum and draw in fluid. This means that the pump is self priming and dry running. 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 pump types, such as lobe or diaphragm pumps for example, which rely on their mechanism including seals and valves to work within your product.

The tube element provides a fully swept and self draining pumping chamber with material selection to suit your product, complying with USDA food handling plus FDA, USP and NSF Class VI standards. Tube connectors include Tri-clamp, DIN, RJT, IDF-ISS plus others on request.



# ... and open expert consultation ...

For perfect results, experienced selection and installation advice is essential. Our engineers will carry out a full consultation to ensure that we know your needs accurately, 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.

## Operations Manager

*"I was impressed by the speed with which they reacted to our request, and the technical knowledge of the people who came to see me. They were very professional and knew what they were talking about."*

## Senior Manager

*"You can rely on them from the pumps to the technical back-up. It is an overall package I know I can rely on"*

## Project Engineer

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

# ... to deliver the promised results.

**All our customers have made major quality improvements to finished goods, with increased hygiene, reliability and production efficiency.**



To improve production and  
**decrease downtime by over 40%**

an 840FB/R pump was installed. The customer confirmed that improvements in the system

**saved over £250 a week**

giving payback on the pump in under 6 months.





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[www.watson-marlow.co.uk](http://www.watson-marlow.co.uk)

Members of the Spirax-Sarco Engineering Group

## Pump Series

<b>100</b>	Low flow single channel pumps. Fixed and manual/auto control variable speed.	1µl/min - 53ml/min	101F/R
<b>200</b>	Near pulseless, multi-channel pumps with up to 32 channels.	0.6µl/min - 22ml/min	205S/CA
<b>300</b>	Single or multi-channel benchtop pumps with manual, remote, analogue, RS232 control and accurate dispensing.	2µl/min - 3 litre/min	323E/D
<b>400</b>	Ultra-compact scientific pumps for low flow single or multi-channel applications.	1µl/min - 610ml/min	401U/D1
<b>500</b>	NEW Superb range of IP31 and IP66 rated pumps for science and industry as well as fixed and variable speed close-coupled pumps.	10µl/min - 4.4 litre/min	520S/R
<b>600</b>	IP55 mid-flow process pumps with full clean-in-place and steam-in-place capability.	50ml/min - 18.3 litre/min	623/R
<b>700</b>	Industrial cased and baseplate mounted pumps for use with continuous tubing or new LoadSure elements. Three phase motors, ATEX rated drives or pneumatic.	1.6 litre/min - 2,000 litre/hr	704S/R
<b>800</b>	High flow hygienic pumps with full CIP and SIP capability.	2 litre/min - 33 litre/min	840
<b>SPX</b>	High flow high-pressure industrial pumps with unique patented direct coupled design. Duplex and CIP models available.	0.3 litre/min - 80m <sup>3</sup> /hr	SPX40

**Tubing Hoses**

Extensive range of tubing ensures chemical compatibility. USP Class VI and FDA approvals. Precision machined, reinforced hoses provide flow stability and excellent suction performance.

- Twelve tubing materials in bore sizes 0.13mm to 25.4mm
- Autoclavable Marprene, Bioprene, STA-PURE, Chem-Sure and Pumpsil (platinum-cured Silicone)
- Four hose materials including Natural Rubber, Nitrile NBR, Hypalon and EPDM from 10mm to 100mm

## Flow Rates

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



Hoses

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

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