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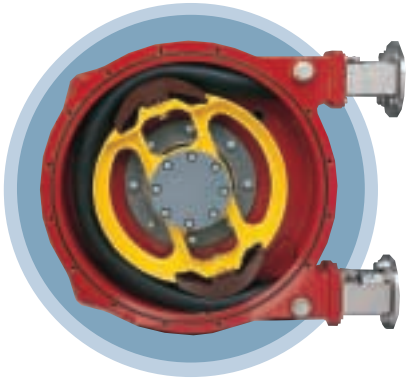
WATSON MARLOW Bredel PUMPS

# BREWING

## Improve your Process

# Improve product quality and cost savings …

Whether you are a national, regional or micro brewery, your profitability and product quality rely on the efficient performance of your plant. Yeast, finings and other additives which are critical ingredients to the brew, must be pumped accurately and reliably. These ingredients and the brewing system, place many demands on your pumps. Watson-Marlow Bredel peristaltic pumps provide significant improvements to the brewing process and save our customers many thousands of pounds by:



- **Superior handling of yeast and additives without damage**
- **Improved accuracy for pitching and dosing • Continuous dry running and self priming**
- **Hygienic design and CIP/SIP capability • Greater reliability and lower maintenance**

# … greater process control and reliability …

### Low shear

Yeast and finings are easily damaged and should be pumped without shear. Traditional pumps can produce varying degrees of agitation by impellers, vanes, lobes or valves, but Watson-Marlow Bredel pumps avoid these arduous routes with their low shear action and straight through flow path. Yeast quality is maintained and finings functionality is unaffected, allowing accurate process control and improved finished product quality.

### Dry running and self priming

System requirements and gaseous liquids in cropping or skimming duties demand self priming and dry running pump performance. This can cause wear in traditional pumps, resulting initially in loss of performance and then premature failure. Watson-Marlow Bredel pumps do not rely on the pumped media for lubrication, offering true dry running, improved reliability and eliminating unplanned maintenance.

### Accuracy

The brewing process relies on the correct addition of yeast and additives for consistency of taste and quality. Watson-Marlow Bredel pumps give true positive displacement with no siphoning or slip providing an accuracy of up to ± 0.5%, regardless of fluid viscosity changes. They are the market's most accurate dosing and metering pumps.

### Clean in place (CIP)

CIP and SIP are becoming essential procedures as 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.

### Reliability

Pump failure during production cannot be tolerated, with tight cost targets and deadlines to meet. Watson-Marlow Bredel pumps have no seals or valves and are not affected by abrasive or clogging products, for example diatomaceous earth. Their service life is predictable, and scheduled maintenance is simple, quick and of low cost. They represent the lowest whole life cost of any pump.

A national brewer uses Watson-Marlow Bredel SP65 pumps for yeast cropping. Duty conditions mean the yeast viscosity can vary from aqueous to 3000cP and contain up to 75% solids. Entrained $CO_2$ and long suction lines often means periodic dry running. The Watson-Marlow Bredel pumps replaced lobe pumps whose performance was affected by viscosity which caused back flow and damage to the yeast.

# … using a pump designed for your industry …

The peristaltic pump action is low shear and created by compressing the hose between rotating shoes or rollers. In between each pass of a shoe, 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. Watson-Marlow Bredel pumps clearly outperform other pumps types such as lobe, progressive cavity or diaphragm pumps.

The hose is the core of our pump and is resistant to dry running and abrasive wear. Its unique four-ply structure and ground surface ensures excellent suction and pressure performance that extends its service life beyond other pump designs. The pump is 100% positive displacement, eliminating product back flow or slip, allowing metering or dosing accuracies up to ± 0.5%.

# … and expert advice for the best plant installation and operation …

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 that 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**

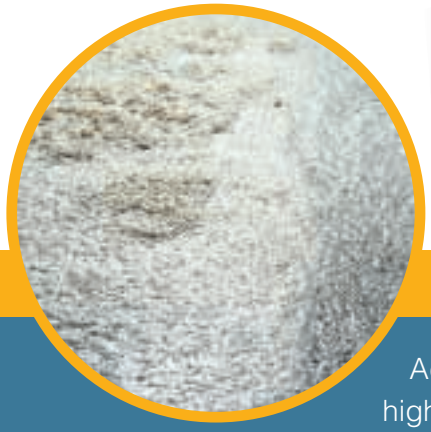
*"I like the fitness for the job. The pumps are excellent; they perform very well with very little maintenance"*

**Technical support Manager**

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

# … to give promised results.

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



Additionally, wear from dry running caused high maintenance costs. Significant savings are now being made by improving yeast retention and

## reducing downtime.

Watson-Marlow Bredel Pumps is a full member of ABTA the Allied Brewery Traders' Association.

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HBO119

WATSON MARLOW Bredel PUMPS

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 | Bredel: 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 Bredel pumps in the Brewing industry, please request copies of application and technical data sheets.

TIMOTHY GUY DESIGN