

Multiple benefits for filled wine

Flexicon equipment provides solutions for Wine Innovations Ltd



London-based Wine Innovations Ltd, the inventors, founders and pioneers of 'The Tulip' pre-filled wine goblet, is now using industrial peristaltic filling machines from Flexicon Liquid Filling, part of the Watson-Marlow Pumps Group, on its latest filling lines.



Having originally used volumetric filling equipment, the company, which is known for its appearance on the BBC's *Dragons' Den* television programme in 2009, is enjoying a vast array of benefits from its switch to Flexicon technology.

Wine Innovations Ltd has its UK filling line located at a partner company based in Middlesbrough. This company operates the machine and provides all the associated business functions, such as quality control, stock ordering and packaging, to serve the entire UK and European marketplace.

"Following the PR from *Dragons' Den* it was immediately clear we couldn't serve the global market from a single UK filling line, so we had the idea of building additional machines and licensing the entire concept to third party companies overseas," says Mr Nash.

However, before constructing its second machine, there were certain design issues to address.

"The UK machine features volumetric filling," he explains. "While this technology is accurate and quick, the equipment has a lot of complex parts, such as stainless steel pipes, pistons, three-way valves and air diaphragms, and these cause certain issues when it comes to cleaning:

they create opportunities for yeast, bacteria and mould to harvest."

For this reason, Wine Innovations has a strict cleaning regime that includes regular cold water, hot water and steam clean operations. However, if changing product, from white wine to rosé, for example, a flush-through and steam clean heats many of the volumetric filler's intricate parts so they become extremely hot. In some instances, residue wine can 'bake' on to components and

prove extremely difficult to remove. "I'd seen Watson-Marlow at a packaging exhibition in Birmingham a couple of years ago, and this is where I first came across Flexicon technology," says Mr Nash. "Faced with building a second machine, and possibly many more, I thought Flexicon machines could provide a better solution than volumetric filling – albeit with the benefit of hindsight."

Working with Watson-Marlow, the company decided to acquire Flexicon PD221 industrial peristaltic machines in combination with Flexicon MC12P OEM control units.

The Flexicon PD221 is a tabletop unit that requires no cleaning validation. It also facilitates easy and rapid product change-over (less than 60 seconds) and provides no potential for cross-contamination, hence providing the perfect solution to the problems faced by Wine Innovations. But, as Mr Nash points out, there are many more benefits besides.

"The first thing I noticed was its

ease of installation," he says. "The control unit is a separate unit that we simply integrate into our HMI area, and then there is the nice new PD221 units with flexible tubing – it couldn't be more straightforward."

Mr Nash also cites the equipment's accuracy ($\pm 0.5\%$) and speed, and likes the adjustable acceleration and deceleration capability, as well as being able to adjust other parameters with just a couple of button pushes. "We are also achieving a much better dissolved oxygen result than before," says Mr Nash. "Oxygen is the 'enemy' of wine and volumetric fillers can occasionally churn the product, creating bubbles, which in turn leads to rejects."

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