

Constellation Europe chooses Puresep as key provider of state of the art filtration equipment

Following an in-depth review of requirements, industry recommendations and a major review of available technologies, Constellation Europe Ltd, part of Constellation Brands Inc has chosen Puresep Filtration Technologies Ltd, a leading provider of in-house manufactured filtration equipment, and Begerow, the liquid filtration specialists, to provide state of the art Stepflow filtration technology to its new Winery in Avonmouth. The Stepflow system ensures the wine is efficiently and economically filtered ready for bottling at one of Europe's largest bonded warehouse.

Two Stepflow systems have been commissioned to serve the two bottling lines in place at Avonmouth. Stepflow filters are fully automated bespoke systems. They are stand-alone units, each on a base frame. Each filter has its own control with an operator panel. The filters are on a duplex skid, each having two independent filtration streams, one in filtration and one in standby.

Each line sees wine filtered through two stages, a pre-filter and a final sterilising filter. The pre-filter stage is a 30-fold cartridge housing using Begerow depth filter cartridges. The final sterile filter is a 24-fold cartridge housing with Begerow membrane cartridges.

The system is fully automated, with a differential pressure monitoring system to provide automatic changover between lines; however it is also linked to an operator station for permission to changeover. Mix proof valves



allow regeneration on one line of the plant whilst the other is in filtration. The regeneration process is programmed to start at least every 12 hours of production; depending on the quality and the volume of wine. Once the Stepflow has completed its regeneration it is ready for use. The filter regeneration and integrity test is fully automated and therefore, it is not possible for filtration to start with a negative integrity test.

A self-contained CIP system was also installed in order to aid in efficient cartridge sterilisation and aid in maximising efficiency. A wine warmer was put in place to ensure optimal temperature of the wine is maintained, to ensure efficient bottle labelling.

Each Stepflow is fully integrated within the entire plant's control system, enabling all facets of the production line to be



interlinked; so, when production is required all components in the process communicate with each other.

Craig Crosby, Project Manager for Constellation Europe, says “we needed a system that could efficiently serve the needs of the Avonmouth plant. The Puresep / Begerow partnership matched our exact requirements. Not only is the technology state of the art and bespoke to our needs but the service levels offered from local experienced engineers is second to none”

Benefits

- Usage of cartridges is optimised
- Fully automated and user friendly
- Minimised manpower
- Environmentally friendly – reduced water consumption and reduced costs
- No usage or disposal of filter powders
- Enclosed self regenerating system and sterilisation program
- Remote maintenance via analogue/digital modem
- Local experienced engineers

Vince Payne, Managing Director of Puresep says “**Supplying Constellation with both filtration and water treatment solutions shows our capability and strength in providing bespoke systems across a whole plant, from water intake through to final packaging. It enables us to take responsibility for the whole system. Working with the Constellation team has been a pleasure**”



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