

Campari producer Wray and Nephew choose Puresep for distilled water project.



J Wray & Nephew UK Ltd, is a distributor and brand builder of premium spirits. Originally founded in 1992 to distribute and market the Appleton range of rums, they have grown to become a professional and creative distributor of a variety of products, including the product Campari.

Due to an increase in market demand for Campari, there was a need to significantly increase the production capability of Campari at Wray and Nephew in Jamaica. Dwight Bali, head of engineering at Wray and Nephew commissioned Puresep to design, build, install and commission a fully operational and automated distillation water treatment plant including all the hardware, automation, controls and training that goes with this Installation project.

It was Campari specification that the product make up water is produced through hot distillation. So, Puresep worked with sister company EWS to design and build a vapour compression still that matched Wray and Nephews



requirements. The distilled water production had to specifically take into account critical quality factors; such as the sterility of the water, elimination of the pyrogens and of the chlorine solvents with low molecular weight are t along with critical economic factors. The distiller has the ability to produce hot or cold distillate with huge energy cost savings as there is no need to cool the water.

The compressor was designed to operate electronically or through steam depending on the cost of electricity at the time or on availability of pure water.

Benefits of Vapour Compression Technology include:







- Low energy consumption
- No need of cooling water to condensate the pure steam
- No need for high quality inlet water or any pre-treatment of incoming water
- Very high quality pure water produced
- No need to pressurize the inlet water
- Extremely safe process, no risk of any cross contamination through plant steam or inlet water
- Flexibility in terms of capacities and WFI temperatures
- Reduced Maintenance
- Extremely efficient due to Heat exchange on the way in so all heat energy goes back into water

A Brix Monitor was added as part of the inline process instrumentation on the sugarmixing tank, measuring dissolved sugar in the solution thus ensuring the BRIX levels met with Campari's requirements.

Bill Denyer, Puresep's Engineering Manager, wrote and designed the software that gave Campari a fully automated plant. A central HMI on a pedestal in the centre of the plant was built, giving the operator an overview and full control of all parts of the plant from, valves, tank levels to pressure and so on. Through the PLC, Puresep are able to offer remote support through an IP address – giving online access and telephone support with full visibility of plant performance.



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