

Job Title:

Software Alterations & Improvements

Company:

The Old Bushmills Distillery

Location:

Co. Antrim

Duration:

One Month

Objectives:

- **Increasing the capacity of mash through the software**

The Old Bushmill Whiskey Distillery is one of Irelands oldest distilleries, and produces a wide range of alcoholic products.

The plant has a capacity to produce roughly 5 million litres of pure alcohol per year. For the past decade Irish whiskey has been the fast growing spirit in the world, & the Bushmills distillery was capable of meeting the demands, however with the demand ever increasing, the distillery had options to both optimize the current setup or design and finance an expansion.

Both proposals were put forward to MWCS for consultation. For the sake of the plant and future operations, it was suggested by MWCS that plant optimization was the best solution.

The bottleneck of the distillery was the Lauter Tun, its capacity of 480 hL ran 3 times a day 7 days a week made the 5 million lpa possible. However, there were parameters which were open to be optimized without compromising the quality of the final product.

- The introduction speed of the sparging. The sparging temperature set point was slightly reduced with an increased flowrate. The idea behind this was to simply decrease the amount of time spent sparging.
- The rake speed of the Lauter Tun. Before the contents of the Lauter Tun were left in it for roughly 4 hours. The rake speed was increased to reduce this time frame by 20-30 minutes.
- Finally additional control for the pump draw off speed was introduced. The program was now able to utilize the outlet flowrate, with total amount of contents within the Lauter Tun, to produce a stable outtake of wash. This was to reduce the likelihood of a deepcut being needed.

As a result of the changes the capacity of each mash increased to XXXX litres per mash which in turn was an extra 1 million lpa per year. By improving one aspect of the distilleries process, the production of the plant improved by 20%.