IMPLEMENTATION OF A COST EFFECTIVE BREWERY TRADE WASTE PH CORRECTION SOLUTION

"Ah, good ol' trustworthy beer. My love for you will never die." - *Homer Simpson*

Industry
Manufacturing

Sector
Beverage

Segment
Instrumentation

Project

The client is a brewer making premium quality craft beers.

To comply with their trade waste agreement with the local water utility the client needed to ensure that their waste water discharge into the municipal system from the brewing process met stringent pH levels so as to not effect the utility waste water treatment systems.

The client needed a simple, cost effective solution that would blend seamlessly into their state of the art brew house which also doubled as a bar/restaurant experience.

The client approached Cromarty Automation for a solution.

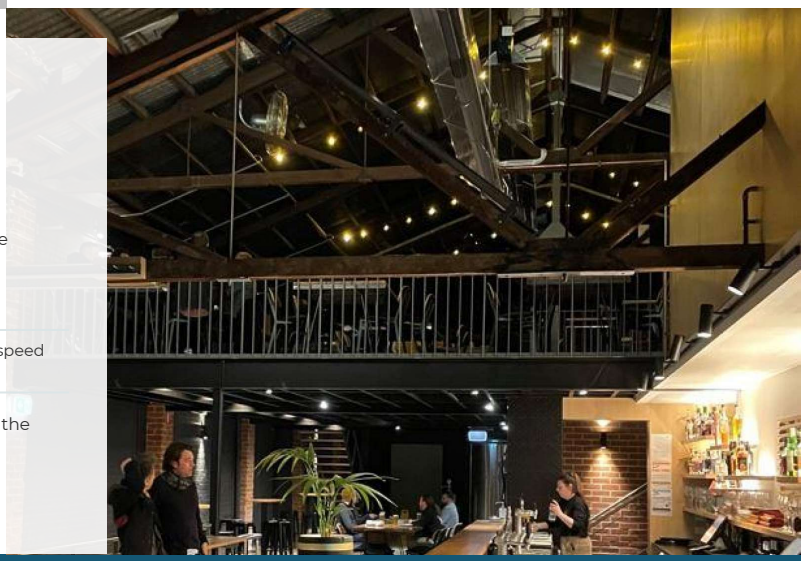
Solution

As Cromarty Automation has worked extensively with water utility's we fully understood the compliance requirements and were able to balance those requirements with a cost effective simple solution for the client.

The system design cleverly avoided having to program an expensive PLC by combining a PID control loop, pH sensor, level sensor and dosing pumps. The system then operated in either ***AUTOMATIC*** or ***MANUAL*** mode.

- In ***MANUAL***, the pump speed and dump valve state are set manually
- In ***AUTOMATIC*** mode, the pH transmitter automatically controls the pump speed and dump valve

A flow meter was also used to act as a totaliser to display cumulative total of the wastewater outflow and an SD card used to store data to support proof of compliance for the utility.



Outcome

The project was a great success. The client's budget was achieved by eliminating the need for a PLC and it's associated complexity while still achieving reliable automation. The water utility requirements for measurement and data logging were met seamlessly and as the system had a small footprint it was installed into an aesthetically pleasing panel that matched the main onsite distribution board and blended into the aesthetic.