

Another Au2mate case

UK YOGHURT

Au2mate and Sycamore Process Engineering joined forces to help a UK dairy

UK YOGHURT PROJECT

The UK yoghurt project was initiated because of a new strategy from the dairy to concentrate on producing incubated products, in particular, strained type products. Consequently, the dairy stopped pasteurising and packing of retail milk at the site but is maintaining the pasteurising and packing of retail cream.

Sycamore Process Engineering was granted the project as a main contractor by the dairy. Sycamore engaged Au2mate as a subcontractor for the process automation.

BACKGROUND

The new yoghurt plant is an extension to the current site, which will eventually convert the milk manufacturing process plant to a yoghurt production facility.

The new yoghurt plant consists of a new import/export bay, skimmed milk tanks, yoghurt pasteuriser with dosing of cream and culture, yoghurt incubation and cooling, yoghurt storage tanks, fruit dosing and delivery to packaging. Skimmed milk is supplied from the two existing pasteurisers. Furthermore, a new separate CIP plant for the yoghurt section is included.

The existing control system is based on Rockwell Automation CLX (Control-Logix) PLCs and Rockwell FactoryTalk SCADA for visualisation. The existing system is to be updated and expanded to cater for the new expanded yoghurt process.



STATEMENT FROM PAUL MANNING, PROJECT DIRECTOR AT SYCAMORE:

"We've already worked on several projects with Au2mate in the dairy and food industries, these have been a huge success, it felt like the natural next step to add another piece to the Sycamore puzzle. Our number one goal is always to offer our customers a seamless solution to their process requirements; automation is between 10-20 percent of our business, so to have a company like Au2mate on hand to help power our process equipment and designs is a fantastic step forward for us".



SCOPE OF DELIVERY

The scope of delivery by Au2mate in connection with the UK yoghurt project included among others:

- Elaboration of complete functional descriptions for the new process
- Development of software for new Rockwell Automation CLX PLCs
- Development of software for Rockwell FactoryTalk SCADA (Visualisation)
- Participation in I/O testing of the new control system
- Software commissioning of the new control system
- Training of personnel
- After sales service and support for the new control system

PROJECT EXECUTION

The project has been executed in close cooperation between the customer, Sycamore and Au2mate.

The contract was signed in May 2019, and the project execution was initiated immediately after. Software FAT (Factory Acceptance Test) of phase one was held after 5 months and the I/O test was running in parallel. Production tests were initiated according to plan in November 2019, and commercial production started according to plan in March the following year.

Today the dairy has a new, flexible, and optimised control system that is scalable and ready to support the future development of the dairy.

TECHNICAL SOLUTION

The new expanded control system is based on Rockwell Automation CLX (ControlLogix) PLCs and Rockwell FactoryTalk SCADA for visualisation.

The PLC/SCADA code is based on the Au2mate framework inclusive of the following additions:

- Au2mate PLC software
- Au2mate standard control modules
- Au2mate standard SCADA pictures adapted/enhanced to customer requirements
- Integration of membrane filtration plant application into the SCADA network and operator screens

Furthermore, the solution includes integration with the existing site control system. For further information please refer to the block diagram below.

OVERVIEW BLOCK DIAGRAM

