

Heated Tank Application

CALOGIX APPLICATION NOTE : CLA2



The Application

The application consists of 12 tanks of wax which is used as an ingredient for polish products. At ambient temperatures wax is a solid, so the tanks must be kept at a higher temperature to ensure the wax is a liquid when used in the manufacturing process. Temperature control is achieved by opening and closing of valves on each of the tanks allowing the required amount of steam to heat the jacket of the wax tank to the desired temperature.

The customer needed to upgrade his plant. The main reasons were to simplify user operation and to record historic data for quality control purposes. As it takes a considerable time to heat the wax from cold the customer also wanted to automatically preheat the system before a shift starts in the morning. This would eliminate wasting time at the start of each shift waiting for the system to heat up. In addition more tanks may be required in the future, therefore expandability was also a factor in selecting a solution.

Why CALogix?

The modular construction of CALogix allowed the customer to build a system that not only met his current requirements but allowed for future expansion. A centralised operator panel meant that information could be displayed on all the tanks at a single point within the production area. It was also possible to restrict access so that only relevant information and parameter settings were available to the user. The CALogix HMI allowed a screen layout in a logical format for the application, making it easier for the operator to use. In addition, the real-time clock function within the panel can be used to start and stop the system automatically without user intervention.

By fitting an Ethernet card to the touchscreen operator panel, data can be fed back to a PC which was running CAL's process monitoring and configuration software, CALgrafix. The customer did not require additional wiring to his office PC as he was utilizing the Ethernet network that was already available within his factory.

CAL's philosophy of using open industry standards such as Modbus, Ethernet and OPC meant that CAL provided not only the individual component parts they required, but a *complete system solution*.



