

Case Study

Dalton Winery, Israel

Afcon SCADA Solution Helps Meet Production Targets



Introduction

The Dalton Winery (www.dalton-winery.com) is set in the beautiful green, hilly area of the Upper Galilee, five kilometers from the Lebanese border, overlooking the Hermon Mountain.

The Winery was established in 1995 when the Haruni family from England came to settle in Israel. The winery was initially situated on makeshift premises in Moshav Kerem Ben Zimra and produced about 20,000 bottles, but it now occupies its own home overlooking the Hula Valley and currently produces about 850,000 bottles annually.

Challenge

The Dalton Winery wanted to ensure continuous production flow. They requested a system that would provide complete monitoring and control of the production process, alert them of problems in the process, and provide remote supervision while the winery was not manned.

Solution

Afcon Control and Automation (www.afcon.co.il) was selected to design and install Dalton Winery's control system.

The Afcon SCADA/HMI (Supervisory Control and Data Acquisition/Human Machine Interface) solution was chosen to control and monitor the wine production tanks, the glycol-based cooling system, and the winery barrel room.

The Afcon SCADA solution provides remote supervision by sending alerts to mobile devices when the status of the cooling fluid valves do not change according to the controller commands, upon temperature deviation of the tanks, and upon cooling system malfunctions.

The winery wine production is controlled by a central Modicon Momentum PLC. An on-site Afcon SCADA solution Client/Server system is the user interface for the winemaker and the maintenance manager. The Afcon SCADA solution provides visualization, alarm management, and trending information, including trend graphs of each tank and cooling system.



Benefits

Since it was installed several years ago, the Afcon SCADA solution has alerted the winery team whenever problems occurred during the production process. Among the conditions that the Afcon SCADA solution helps detect are:

- ▣ Temperature deviations in the tanks and the barrels room. Within just a few hours, abnormal temperature can cause thousands of gallons of wine to turn into almost worthless vinegar. Most critically, the Afcon SCADA solution has alerted staff about tank fluid valve malfunctions, thereby preventing the tanks from heating up.
- ▣ Pressure reduction in the glycol-based system, which can cause glycol leakage and resultant contamination of the stored wine.

The Afcon SCADA solution's successful implementation has repeatedly prevented huge financial losses to the Dalton Winery.

Contact Info

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