

Bathroom ceramics manufacturer ensures production quality using Movicon™ SCADA system

RESULTS

- Simplified control of production process
- Cost-effective data collection, aggregation and analysis
- Easy detection of problems causing production losses and downtime
- Elimination of time-consuming paperwork



APPLICATION

SCADA system supervising a frits (ceramic composition) production plant.

CUSTOMER

Leading bathroom sanitary ceramic company in Turkey.

CHALLENGE

Frits, used to create bathroom sanitary items at a production plant in Turkey, are produced by melting mixtures of raw materials in special kilns, then pouring the mix into water and finally grinding it into a fine powder. The plant can be roughly separated into two sections. The first is dedicated to the production of frits, with 21 silos storing raw materials, measuring correct batches according to the recipes, mixture of the raw materials and transfer to the kilns. The second section is dedicated to automated loading and packing into 50 kg or 100 kg bags.

SOLUTION

Omni Process Automation, a specialist in turnkey industrial automation projects, was tasked with automating the plant and selected Emerson's Movicon SCADA system to manage production. Using Ethernet, Movicon communicates with a programmable logic controller that monitors in real time the powder quantities that are mixed together to create the appropriate compound for the product being produced. Every silo is equipped with motorized valves and three load cells, which send the powder weight measurements to the SCADA system. These are then compared with the specific recipe, ensuring that parameters are respected and guaranteeing a perfect final mixture.

Movicon collects and stores, in real time, the process data of different mixtures in a SQL database. The data not only includes the weight measurements of each different powder, but also the entry order and mixing time values. This extremely complex part of the production is

“Emerson’s Movicon SCADA system constantly monitors the raw material quantities and silo levels, and checks the production plant, helping to prevent downtime.”

Ümit İyice
 Technical director and co-founder,
 Omni Process Automation

managed and supervised by Movicon. When the mixture is ready, it is transported to the ovens, with temperature and humidity values monitored and historized in different data loggers. The data can be exported in reports that production managers can use to check that the process complies with expected quality standards.

The Movicon system provides a number of important benefits. Its ease-of-use helps reduce the time to train operators and the “one click operation” allows manual control and management of the entire plant. The errors and alarms readability better supports production managers, together with the reporting system that allows them to determine all costs and production quantities.

RESOURCES

Programmable Automation Controllers

www.Emerson.com/PACSystems

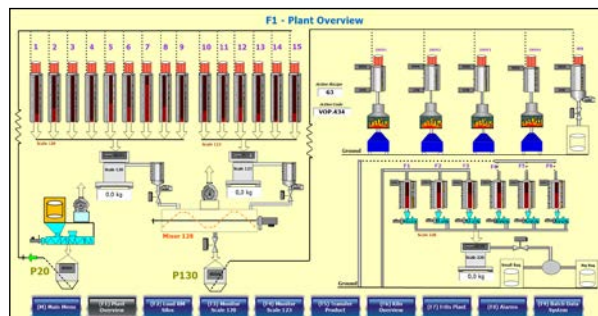
Movicon

www.Emerson.com/Automation-Software

“Both Omni Process Automation and the end user really appreciate the scalability of Movicon, which enables new elements to be easily added, if needed, without changing the existing SCADA system.”

Ümit İyice

Technical director and co-founder,
Omni Process Automation



Real-time monitoring of silos.

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00830-0100-0116