

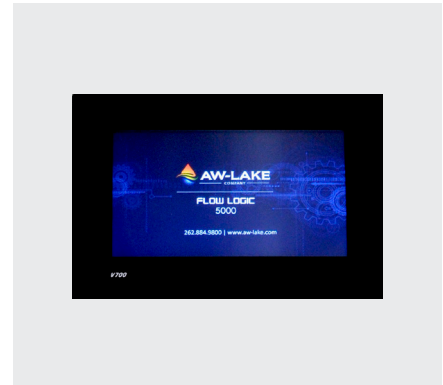


APPLICATION SPOTLIGHT

In-Line Material Blending Factory Automation



In-Line Material Blending Factory Automation



APPLICATION:

This company sells large press-feeding systems along with the necessary machinery to apply a water-based coating to the sheet metal as it is fed into the presses. To supply this material to multiple locations throughout a plant they developed a central mixing, storage, and on-demand delivery system for the material.

PRODUCT SUPPLIED:

- Flow Logic 5000 with custom control enclosure & custom fluid section
- TRG turbine flow meter
- JV-KG flow meter
- Sensors, valves, check valves, orifice, mix manifold, and static mixer and all necessary cables in made-to-order lengths

CHALLENGE:

One of the challenges with this application was the inconsistent pressure and flow rate of the city water into the facility. It was essential that the ratio of the injected material and water be accurate for the sheet metal coating to be effective.

SOLUTION:

AW-Lake Company worked to provide an on-demand system that could blend the additive at a precise ratio into the water as it filled the central storage tank regardless of fluctuations in city water pressure and delivery flow rate.

A custom fluid delivery system and control enclosure with Flow Logic 5000 computer opens the water and additive valves when a fill is called for and monitors the water flow while controlling the rate of the additive injection into the water. The custom Flow Logic 5000 system monitors ratio and flow providing alarms for out of ratio conditions, low and high flow conditions, and leak conditions. The valves are shut on a ratio alarm and contacts provide the fault information to a central monitor.