

Concrete Batch Plant – Complete Automation

Challenge

John Henry Foster Company was asked to design, build, and startup an electronic control system for an entire batching plant. The ingredients consisted of 4 aggregates, 2 cements, 5 chemical admixtures and water; all being batched to a single mixer.

Goals

- Simple installation
- Easy operation – operators not trained on PC controls
- Consistent batch quality
- Reliable, maintenance free hardware
- Expandability
- 4 minute batches

System Features

- Allen Bradley PLC
- Rockwell Automation FactoryTalk ViewSE Interface
- Ethernet communications
- Rice Lakes Weight Indicators
- IEC motor controls, with soft starters on large motors
- Microsoft Access database for recipe storage and batch data storage
- Customized, "On Demand" report generation
- Auto adjustment for moisture compensation
- Remote connectivity for troubleshooting and maintenance assistance by JHF Engineering staff
- Pre-weigh materials to minimize batch mix time

Project Successes

- Easy operation – minimal training with on screen graphical representations of plant hardware
- Consistent batch quality
- State certified concrete batching process

