

CASE STUDY

Chemical Pilot Plant Increase Production by 60%

www.epicsysinc.com | (314) 334-1089

JOB OVERVIEW

Key Features

- Automated pilot plant with custom formulation capabilities
- Centralized automation integration
- DeltaV distributed controls
- Recipe management software

Challenges

- New formulations required a broader temperature range and higher output than current equipment could accommodate
- Strict new formulation testing required during product development
- Short build and delivery schedule

Impact

- Increased production by 60%
- Allowed a broader range of products to be developed on a single system
- End-client formulation quality was improved with in-process testing and sampling through upgraded instrumentation

THE EPIC SOLUTION



The client upgraded their system to an automated operation, featuring custom formulation capabilities for internal testing and end-customer formulation flexibility. Production was increased 60% through a customized automation integration plan, new batch management software, and an engineered approach to process scale-up.

Moving from manual to automated batching improved consistency of batches between runs, with better tracking of process parameters. Using the distributed control system DeltaV, EPIC implemented an automation software that enables users to quickly gain access to recipe management

and data collection running throughout the plant. New equipment with higher temperature ratings (than the previous system) allows a broader range of potential future products.

Modular design of the pilot plant meant a faster build and delivery schedule, with basic operation testing taking place before shipment. The client performed FAT testing before the pilot plant left EPIC's fabrication shop. From initial design through fabrication and FAT testing, the pilot plant took only eleven months and was successfully delivered to the client.