

GMP Production Facility

Solution Overview

Requirements

Design, Create, Test, and Install Automated Batch Manufacturing Systems for a multi-product facility

Solution

Distributed ControlLogix PLC and Rockwell HMI system with web-based reporting

Results

Efficient and accessible system fully qualified and user-ready

Intelligent setup allowing for simple production changeovers

Immediate report generation ideal for decision-making

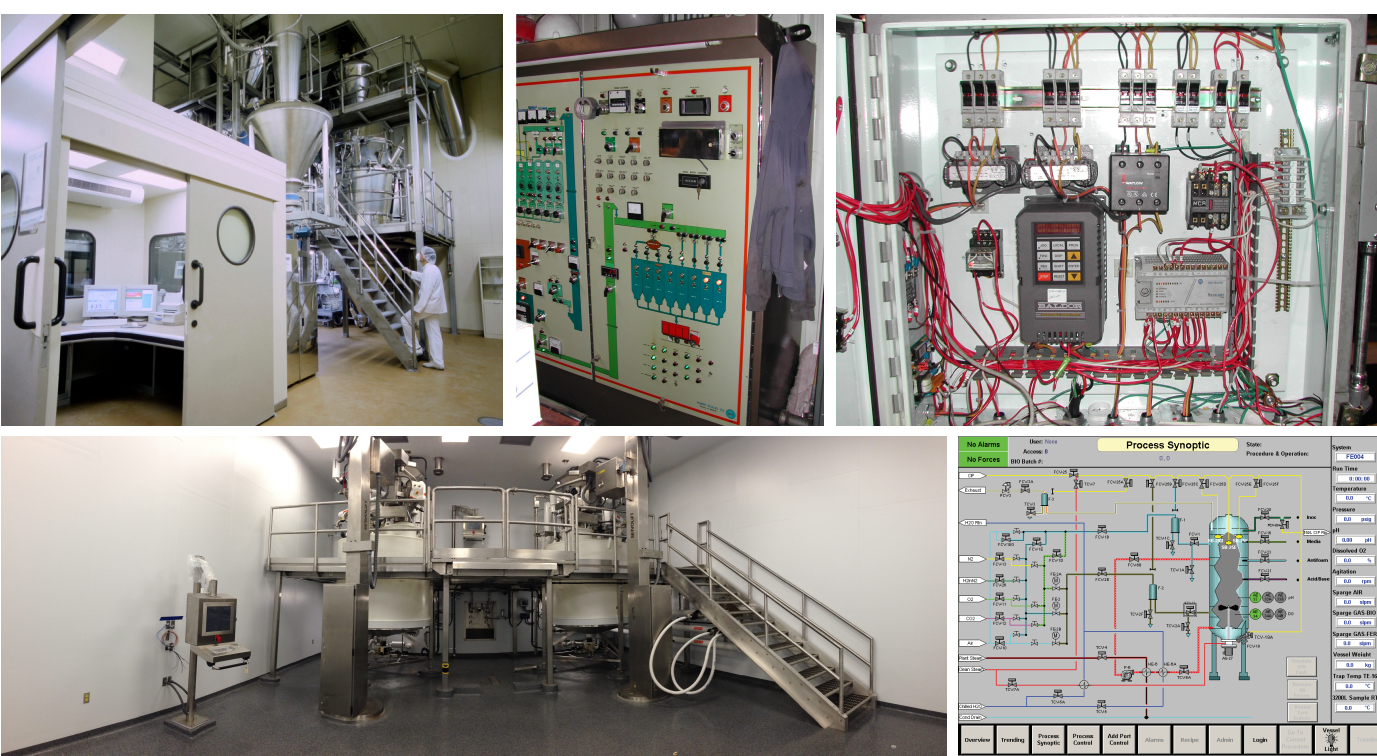
Technologies Used

Allen Bradley ControlLogix PLCs (3)

Factory Talk View HMIs (10),

Factory Talk Batch

Factory Talk Historian



GMP Production Facility

QSPEC Solutions was responsible for the design and implementation of an automated batch system utilizing multiple Allen Bradley ControlLogix PLC's, distributed Factory Talk View HMI's, a Factory Talk Batch server and a Factory Talk Historian server.

The GMP Production Facility process control system provides continuous monitoring/control of process and plant utilities (e.g. purified water, RO water, chilled water, compressed air); continuous and batch control of fixed production 5,000L compounding tanks and portable compounding tanks (sized 100L to 1000L). The PCS interfaced with skidded equipment (e.g. CIP Skid, COP Skid, Drum Lifts, Autoclave, Parts Washer) for data display, historization and control handshaking (CIP/COP skids).

Each PLC controlled equipment in dedicated areas; the HMI application was intelligent and "node aware" to allow for logical display of equipment and processes local to the HMI node. Portable tanks were configured to plug into stations in multiple rooms which the PCS would detect and control accordingly so any tank could plug into any station.

QSPEC Solutions provided all documents: URS, FRS, DDS, FAT & SAT test plans, Control Panel layouts and wiring diagrams. We programmed PLC's, configured HMI's, developed the Batch model, recipes & reports, and configured the Historical data collection functions. This fully automated batch system allowed the client to scale up from a small scale manual production process to a large scale repeatable operation.