

Project Brief...

Spray Dryer Process Line

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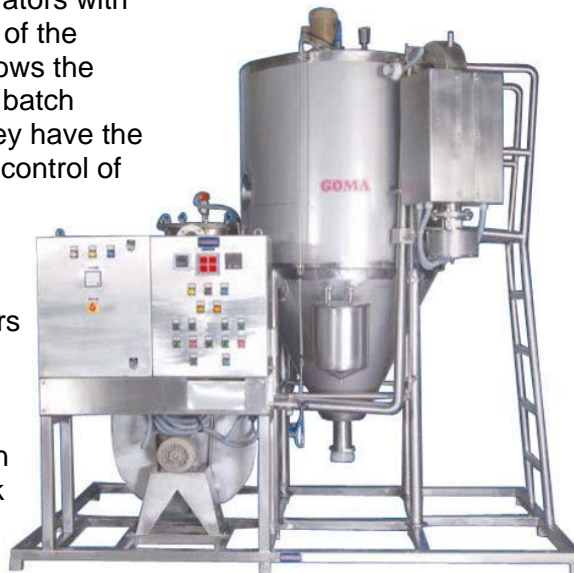
A contract manufacturing facility in the Pharmaceutical industry required automation and controls for a new Spray Dryer Process line consisting of skid-mounted equipment and requiring the highest level of versatility and portability for product change-overs, as well as capacity for future expansion to control a second line.

QSPEC Solutions assisted during the process design by being a sounding board for automation and process control scale up and tech transfer questions. QSPEC worked with the operations group to best determine the manufacturing process by providing a level of automation that will allow for maximum flexibility for engineering trials and also provide the automated functionality for GMP Commercial Manufacturing. We assisted with specification and provision of over 35 instruments in addition to design, documentation, programming and configuration, and commissioning of the control system.

QSPEC Solutions' innovative design provided a main S/S enclosure to house the ControlLogix PAC and Wonderware InTouch SCADA system, with Ethernet I/P connectivity to remote Flex I/O located in S/S control enclosures mounted on the various portable process equipment skids, with VFD's where required. All are powered by an umbilical cord to minimize operator setup effort.

Our software design provides the operators with both an automatic and manual control of the process equipment. This approach allows the operators to logically step through the batch process, yet when problems occur, they have the ability to manually respond with direct control of the equipment.

With a role-based security model, the Wonderware InTouch HMI provides a Part 11 compliant HMI for the operators to monitor and control the process as well as respond to safety and process alarms. Historical trend data is collected by the Wonderware Historian and is available in preconfigured quick trend displays for each unit.



Solution Overview

Requirements

Scalable, fully-integrated control system for monitoring and operating (manually and automatically) a new portable, multi-skid-based Spray Dryer Process line.

Solution

Rockwell ControlLogix Process Automation Controller with remote Flex Block I/O, Ethernet I/P connected NEMA 4X touch screen industrial computer, and remote I/O panels for skidded process equipment.

Results

Simple operator toggle between manual control and automatic operation

Sequence of Operations provides consistent and repeatable process

Portable and expandable system ideal for client's needs

Technologies Used

Rockwell ControlLogix PAC
Wonderware InTouch SCADA
Wonderware Historian

QSPEC Solutions

Automation Consulting and Technical Services