Case Study:

Paper Machine Receives Automation Upgrade

Quad Plus®

Existing controls for the paper machine were manually operated, which required maintenance personnel to manually adjust.

Objective

- Upgrade paper machine with automated controls.

Solutions

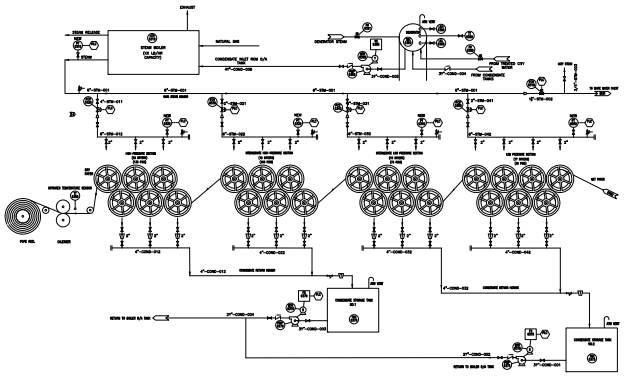
- Performed onsite audit of the existing system.
- Designed a fully automated control system for the paper machine.
- Implemented a Siemens PLC system, flow and pressure transmitters, control valves, consistency transmitter, and a gauging system for basis weight measurement.
- Developed control software and provided SCADA system.

Results/Benefits

- Paper machine can now be operated using the visualization system rather than manually adjusting valves.
- A single operator is needed to run the machine rather than several.
- Consistent paper grade was achieved which reduced the amount of raw materials consumed during production.

Background

The Quad Plus team was called out to a customer in the paper industry to upgrade their recycled paper process to include automated features. Their existing machine was manually operated, requiring maintenance personnel to adjust the valves to achieve production requirements. The customer wanted to upgrade to an automated system to reduce worker interaction and to improve the consistency of their production lines.



Quad Plus Solution

Our first step was to provide an onsite audit of the existing controls of their recycled paper process. We then designed an automated control system for the paper machine. The Quad Plus engineers specified and procured the instrumentation and control devices. Our design included a Siemens PLC system, flow and pressure transmitters, control valves, consistency transmitter, and a gauging system for basis weight measurement. We then developed the control software and provided a Wonderware SCADA system.

The result for the customer was the ability to control the paper machine through the visualization system using a single operator. The customer was also able to ensure a consistent paper grade, which reduced the raw materials consumed during production.