

**“ We Need To Increase Production
But Our Modicon Controllers Are
Twenty Years Old.”**

What Our Client Said

We make sheet molding compound (SMC) for a growing compression molding industry and our 20-plus-year-old Modicon controls are hard to modify and troubleshoot to make the changes we need to improve our efficiency. We also keep having pump breakdowns that we can't troubleshoot because our system does not provide us with enough information. Even worse, they present major reliability issues. We are struggling to get parts, and the decentralized controls have created a “rat's nest” in the control enclosures that nobody fully understands.

What We Heard

Help us to bring order to our Control System so we can keep up with demand. We need controls for our SMC machines that are easy to operate, maintain, and troubleshoot, so we can concentrate on our output rather than on our systems.

What We Did

Listening is always the first step. The client told us that they were impressed by our work with sister facilities, and that our status as a Rockwell Solutions Partner gave them confidence in our expertise. They were in desperate need of an upgrade, and LSI approached the challenge by designing a new control panel and VFD panel based on a careful study of the SMC machine's functions and input from the customer. The goal was not simply to modernize the process and reduce the risk of downtime, but to improve the productivity of the systems themselves in the process.

LSI provided:

- Programming and configuration
- Reconfiguration and organization of electrical enclosures
- Installation of historian software
- Safety and security enhancements to both hardware and software
- Control and VFD panel design
- Panel fabrication
- Complete electrical install, including control panels and VFD panels

The control system consisted of:

- Rockwell ControlLogix
- Rockwell PlantPax
- Rockwell FactoryTalk SE HMI
- PowerFlex 525 VFDs
- ACP ThinManager

The Results Speak For Themselves

Significantly improved reliability

- The number of pumps with snapped shafts has dropped to zero from over thirty per year, saving \$24,000 yearly
- Service, support, and parts – while needed less frequently – are readily available
- Overall resources devoted to maintenance have been dramatically reduced

Increased production

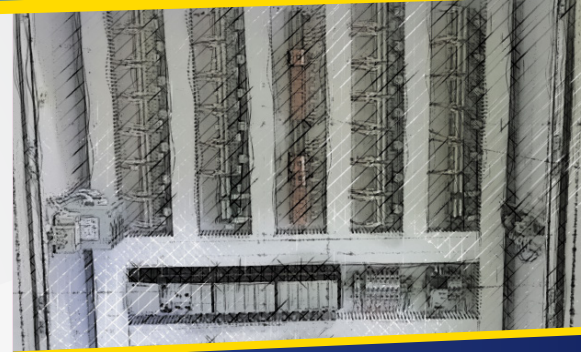
- Not only did the line improve in reliability, but we were also able to increase production rates by 15-20%.
- Flow rates have become 15% more consistent and manageable
- Ratio Control Loops are simple for plant engineers to tune, maximizing product quality
- Historian software allows for better process studies, by logging the actual data every second – the data is easily used or graphed in a spreadsheet now
- Modern VFD parameters can be changed remotely to quickly adapt to process needs

Enhanced safety

- Centralized HMI allows operators easier control and troubleshooting
- Electrical enclosures can now be locked without having to overcome the “rat’s nest”

Let LSI listen to your challenges today, and we’ll work together to write a success story for you.

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LSI listened, then developed a custom solution by utilizing products and knowledge from global vendors best suited to the project. Because LSI is independent and not owned by a manufacturer, we were able to put the customer’s needs first – selecting the best technology for the job. “This is awesome,” said the client in a post-project email. “I’m quite certain that we have never seen this kind of ratio control before.”

***LSI’s work
contributed to
a line speed
increase of as
much as 20% and
more consistent
flow rates.***
