Emerson Solution Improves Extrusion Quality at New Medical Tubing Plant

RESULTS

- Developed new analog node for the customer’s electronic valve manifold
- Successfully completed lab and factory floor testing program
- Eliminated quality control problems from electrical line noise
- Fulfilled customer’s quality and production requirements

APPLICATION

Tubing extrusion equipment

CUSTOMER

Medical tubing manufacturer

CHALLENGE

As part of a new 500,000 square-foot facility, a medical tubing manufacturer redesigned its production equipment to improve product quality. Consistency and quality control of the tubing were paramount to achieve competitive advantage. Electrical line noise caused the production equipment’s proportional regulator to lose accuracy and produce variations in extrusion quality. The customer required a new proportional regulator that operated at 50 bars with an analog signal. The regulator also had to work in harmony with an ASCO G3 electronic valve manifold to accurately control air through the extrusion process.

SOLUTION

Emerson’s technical team collaborated with the customer to develop an analog node for the G3 valve manifold platform that was compatible with the ASCO Sentronic™PLUS proportional regulator. The digitally operated Sentronic™PLUS regulator has quick response times and is designed specifically for applications with very dynamic pressure requirements. The solution was tested rigorously by the customer in its lab and on the factory floor to prove the concept would meet all design requirements and eliminate the quality control problems from electrical line noise. Upon installation on six assembly lines, the Emerson solution fulfilled all the manufacturer’s quality and production specifications.

The ASCO™ Sentronic™PLUS regulator’s quick response time made it the ideal solution for the medical tubing extrusion line’s dynamic pressure requirements.