

Casting Facility Controls, Monitoring, and Reporting

Company Profile

Medium sized investment casting manufacture serving aerospace, defense, commercial, and medical markets.

Challenge

Investment casting is a very labor intensive process that relies on the skills of a highly trained workforce. Most of the manufacturing process is done by hand, but there are many aspects that the customer wanted to automate and optimize in order to relieve their workers from having to perform mundane tasks. Additionally, the customer requires strict reporting and quality standards which was previously being done using manual data retrieval methods which are inaccurate and inefficient.

Solution

Several control panels were provided to aid the skilled workers in completing their work quicker and more accurately including two heat treat oven control panels for setpoint recipe batch control, one pressure pot control panel for setpoint control, one autoclave control panel for setpoint recipe control, and several other controllers for data collection. In addition to local control, these panels were all networked back to a central SCADA system which provide the end user with the ability to monitor all of these systems from one location. The SCADA system provide real-time system data, historical trends, batch reporting, regulatory reporting, and automatic alarm email notifications.

Results

With a customer investment of about \$100k, Rawson/Industrial Controls was able to convert their process to a modern cohesive unit of both humans and advanced systems providing the best of both worlds. The customer estimates that they should be able to increase production rates by 25% due to freed up workforce from faster and easier controls, as well as avoiding costly regulatory fines for lack of accurate reporting data.

