

**Cost-Effective Control Panel
Retrofit Delivers Automation &
Greatly Simplifies Processes**

The thought of replacing costly systems on industrial furnaces can be daunting. Capital expenses can easily reach into the millions, and aging equipment is often made obsolete by process changes or lack of support from the manufacturer. Choosing a vendor that first looks for solutions rather than sales—and one that can handle every step of the process—will save time and money.

THE CHALLENGE

Allied Machine & Engineering (AMEC) of Dover, Ohio, a manufacturer of hole-making and finishing tooling systems, was experiencing a number of issues with its vacuum furnace controls, which had become obsolete due to the manufacturer going out of business. AMEC had old controls on its four furnaces, and that was leading to considerable downtime—expensive equipment idling simply due to control issues. The company knew it needed new controls, but wanted an expert opinion on the best course of action.

GETTING STARTED

Even prior to choosing a solution-provider, AMEC sought to solve its vacuum furnace control issues by having Conrad Kacsik perform a comprehensive review of its systems. The company wanted to avoid overpaying for services it didn't need or want, but also wanted to ensure its systems were running optimally.

While conducting preliminary research, Conrad Kacsik impressed AMEC by uncovering some unmet needs while speaking directly with AMEC furnace operators to understand how the company worked with its furnaces.

AMEC ultimately chose Conrad Kacsik because the proposed control panel solution delivered ease of use and innovative features—which were put on display during a detailed demonstration that included an overview of AMEC's equipment and the new control panel's human-machine interface (HMI). Conrad Kacsik's experience, full-service capabilities, proven track record and expertise—demonstrated by its Nadcap compliance consulting and other leading-edge work—all helped AMEC make the final decision to hire Conrad Kacsik.

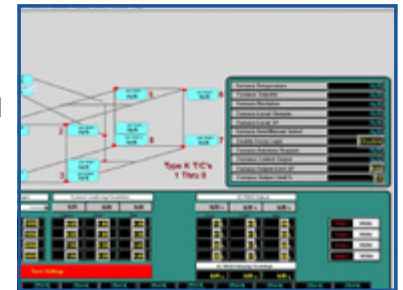
THOROUGH EVALUATION

Conrad Kacsik started by comprehensively evaluating and examining all of AMEC's furnace and control systems. Conrad Kacsik's engineers evaluated the needs and determined a retrofit was impractical for AMEC's incumbent control panel due to its placement. A new panel allowed for faster installation and ultimately reduced expensive downtime.

The Conrad Kacsik engineers partnered with AMEC to develop a deep understanding of the company's current and future needs, and worked to design a system for those exact needs. Conrad Kacsik also created a custom plan to meet all requirements and solve the challenges brought to light during the engineering review. They then worked with AMEC to prepare the specs for its custom installation prior to installing the control panel.

INSTALLATION

Conrad Kacsik did more than facilitate the installation of AMEC's new Honeywell HC900 control panel. The comprehensive job centered around the control panel but brought considerable automation and



simplified a number of processes for AMEC. The new control system allowed for a full range of automated settings for the vacuum system, outgassing, thermocouple calibration and corrections, temperature range settings, vacuum testing and more.

Conrad Kacsik maximized value by using all of AMEC's viable equipment to create a reliable vacuum furnace system. AMEC had good starters, relays and furnaces, so Conrad Kacsik built around that infrastructure to deliver all the benefits of a new system while using as much existing hardware as possible. The new control panel allows AMEC to achieve and maintain the specifications needed to meet its certifications—all at a cost-effective price. The HC900 was a product AMEC was familiar with, and its cost was half of some competing bids.

BETTER PERFORMANCE

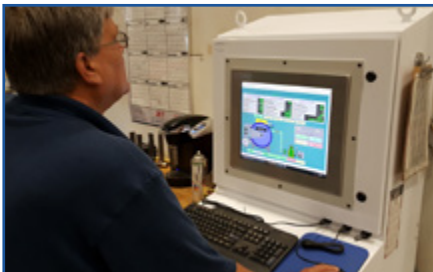
Conrad Kacsik understands the stringent requirements of Nadcap, AMS2750E and other industry-standard heat-treating specifications. The new system makes running the furnaces, capturing and accessing data and handling audits much easier.

It's also easy to learn and run, which is critical in an industry short on experienced workers. Employees can be quickly trained to run the one and only system, and be able to run all the furnaces AMEC has.

"It's a robust control system that is tied into a data collection system that they also installed," said Bryan Cope, manager of heat treating at AMEC. "Now I can monitor all my furnaces from anywhere and know the cycles are correct as we laid them out. If there's any problem, I get a text message and so do my operators, so we can resolve it quickly."

The system also provides for fully accessible tracking and reporting on furnace performance, making auditing and compliance issues much easier to address. The new system offers many other benefits, said Cope.

"We had four unreliable furnaces with old controls," he said. "Now, everything is more dependable.



We have more uptime, and if there's a problem we can quickly understand what went wrong and resolve it. We record everything along the way."

LONG-TERM VALUE

Conrad Kacsik worked to deliver value in every possible way on the AMEC job. As a result, the new control panel offers many advantages:

- **Ease of use:** Employees only need to learn one system—one time.
- **Long-term support:** Parts and factory support are readily available, and AMEC is not tied to Conrad Kacsik or any other vendor for that support.
- **Improved features:** Running, monitoring and collecting data is streamlined, simplified and made more reliable with the latest software.
- **Reliability:** Trustworthy control panels mean more production time and better outcomes.
- **Cost:** Competing bids used proprietary systems that would have tied AMEC to one vendor.

SUPPORT FOR YEARS TO COME

Conrad Kacsik is a one-stop shop; The company is able to evaluate systems, provide training and consulting services, deliver engineering advice and install systems. And everything they do is backed by deeply committed expert service.

"Being able to monitor, adjust and control the software in \$1 million machines using parts and software from any supplier is a big deal," Cope explained.
"Ultimately, I got exactly what I needed, and I've had great support after the sale."

Need more information?

CONTACT THE EXPERTS AT CONRAD KACSIK.



www.kacsik.com | 800-666-1165