

Solutions

- **Allen-Bradley® PowerFlex® 70 AC Drives**
 - Variable-frequency drives provide automated pressure control and considerable energy savings
- **Allen-Bradley MicroLogix™ Contoller**
 - Compact size and distributed control architecture for easier installation, programming and debugging
- **Allen-Bradley PanelView™ 550 Operator Interface**
 - Allows users to view a complete spray booth maintenance log and makes troubleshooting more efficient

Results

- **Better customer service**
 - Since the installation, Nova Verta has eliminated 98 percent of its technical service calls and can easily identify customer problems remotely
- **Reduced training and operation costs**
 - User-friendly controls and drives reduce training and operation costs by 80 percent
- **Improved Reliability**
 - Improved automation systems and better support help Nova Verta remain the industry leader in automotive and industrial spray booths

Paint Booth Manufacturer Reduces Technical Service Calls by 98 Percent; Saves 80 Percent on Training and Operation Costs with Rockwell Automation Solution

Allen-Bradley® PowerFlex® drives and Allen-Bradley MicroLogix™ controllers allow Nova Verta USA to boost efficiency and improve customer support



Background

To remain competitive and sustain profits, spray paint booth manufacturers are continuously improving their equipment to reduce design time, downtime, and response time for technical service calls. Likewise, many are looking to new manufacturing technologies and suppliers to improve production efficiency. Such is the case for the Nova Verta USA plant in Spokane, Wash., which, after experiencing some reliability problems, looked for a new supplier to provide more dependable control equipment that was easier to operate, troubleshoot, and maintain.

Nova Verta is a leading supplier of high-performance automotive and industrial spray paint booths. Its customers include racing teams, educational and training facilities, collision repair facilities, and automotive, truck, train and aircraft manufacturers. From automating its manufacturing capabilities to streamlining processes and distribution, Nova Verta continuously integrates new ideas and services throughout its organization — all to provide quality products to its customers, while remaining competitive in the marketplace.

Nova Verta knows that in order to maintain its advantage in the performance automotive and industrial spray booths market, it must remain one step ahead of the competition. The company is the first and only

manufacturer in its industry to offer variable-frequency drives as standard equipment on its paint booths to give customers increased efficiency and reduced fuel and energy costs.

Challenge

About four years ago, Nova Verta began to experience some increased product failures with its existing control system. The company sought more support from its automation supplier so it could clearly identify the equipment problems that were causing customer frustrations.

“The vendor of our old system was not giving us the service and support that our customers had come to expect from us,” said Brad Kennison, national sales manager at Nova Verta. “We wanted to serve our customers better so we decided to look for a better solution.”

As part of its efforts to reduce customer downtime and provide better customer service, managers at Nova Verta decided to look for a new automation supplier. The company sought a supplier that could provide strong customer support and supply high-quality, user-friendly controls and drives with improved reliability.

In its search for a new automation supplier, Nova Verta evaluated a variety of vendors, but found many of them lacked the support

capabilities that met the company's high service expectations. To ensure consistency throughout its plant and single-source responsibility for product questions and reliability issues, Nova Verta sought one supplier capable of meeting all of its automation equipment needs. The company evaluated the technology and support capabilities of Allen-Bradley and found precisely what it was seeking.

In turning to Rockwell Automation to supply all of its automation equipment, Nova Verta discovered a catalyst for improved customer support and reduced technical support calls and operation costs.

"Switching suppliers, installing new technology and making sure it integrates with the existing architecture are very difficult changes to make," said Kennison. "After looking at other suppliers, we decided to go with Rockwell Automation because of the user-friendliness of the equipment and, more importantly, because of the support. We felt confident in the company's technology expertise and extensive support capabilities."

Solution

Prior to making its selection, Nova Verta tested various Rockwell Automation products against some competitive brands to compare performance. One key result was that Nova Verta did not experience any failures with the Allen-Bradley® drives, but did with the other suppliers' products. Nova Verta had originally planned to change over only the control system to Allen-Bradley, but once the company tested the Allen-Bradley PowerFlex® drives, the decision to incorporate them was simple.

"We started having trouble with our drives, and, after conducting a cost/benefit analysis, we discovered that replacing all of our controls and drives with Allen-Bradley components was the most prudent and logical option," said Kennison. "We had already made the decision to switch to

MicroLogix™ controllers, but had not yet made the decision to switch over the drives. But once we tested the drives against competitive products, it was obvious that the PowerFlex drives were the better choice."

Today, the control systems for Nova Verta products consists primarily of Allen-Bradley products, including MicroLogix1200 controllers, PowerFlex 70 drives and PanelView™ 550 operator interface displays. Measuring 5.19 x 6.62 x 3.43 inches (132 x 168 x 87 mm), the compact MicroLogix 1200 controller features an innovative two-piece design with a small footprint. Its distributed control architecture gives Nova Verta unique advantages, including easier programming and debugging capabilities. The PanelView displays allow operators to view all activities taking place on the line at a given time and quickly troubleshoot when faced with problems. In addition, the PowerFlex drives allow simplicity, reliability and easy configuration for Nova Verta's needs. Using Allen-Bradley DriveExplorer™ software for drive programming, Nova Verta can easily install and program drives into each paint booth before shipment.

By using programmable controllers and variable-frequency drives with energy-saving controls, Nova Verta has enhanced the user-friendliness of its booths for the technicians and owners who operate the equipment. Additionally, the control systems and drives offer self-diagnostic capabilities and are dependable and easy to service.

The new Rockwell components also have enhanced Nova Verta's own Total Control Technology. Total Control Technology provides self-diagnostics and automated pressure control. Through the use of Allen-Bradley PowerFlex 70 variable-frequency drives, Nova Verta's control technology eliminates the need for pressure-control dampers. The Total Control System allows more precise control of booth pressure and airflow, and provides automatic maintenance documentation and

reminders, helping to maximize equipment reliability and longevity. Additionally, a complete maintenance log is viewable from the convenience of the operator station, an Allen-Bradley PanelView 550.

Results

As a result of switching to Allen-Bradley controls and drives, Nova Verta has eliminated 98 percent of its technical service calls and is now better able to clearly identify the source of customer problems. If a problem arises, Nova Verta's staff is able to troubleshoot the issue over the phone using touch screens. This allows technicians to diagnose the problem remotely rather than having to send someone out to the customer site. The drives deliver a high level of reliability, resulting in fewer product failures, and operators are better able to monitor the drives through the touch-screen display that allows more effective troubleshooting.

Because of the user-friendly Allen-Bradley products, Kennison estimates that the company has saved 80 percent on training and operation costs. Additionally, the switch to MicroLogix controllers saves Nova Verta approximately \$75 per hour in design time.

"The efficiency of the controls and drives and the tremendous service and support have saved us time and money. In fact, our switch to Allen-Bradley technology has been so well received by our customers that we've decided to further improve the product by offering PanelView 600C Plus color touch screens beginning in June 2005," said Kennison. "Thanks largely to Rockwell Automation, we remain the industry leader in performance automotive and industrial spray booths."

The results mentioned above are specific to Nova Verta's use of Rockwell Automation products in conjunction with other products. Specific results may vary for other customers.

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