

## DISTRIBUTED MOTOR CONTROL IMPROVES INSTALLATION

Solution Provider Polytron teamed with Rockwell Automation to build a new distribution system for a large computer manufacturer. Using Allen-Bradley ArmorStart Distributed Motor Controllers reduced costs and simplified maintenance.

By Brian Griffin, Supervisor Product Marketing, Rockwell Automation



The Allen-Bradley Bulletin 280 ArmorStart Distributed Motor Controller is an integrated, pre-engineered combination starter for full-voltage and reversing applications.

tight deadline because thousands of products passed through its distribution system each day, so minimal downtime was crucial. The four-week deadline was not negotiable.

Polytron turned to Rockwell Automation to reduce the system's overall cost, design and installation time. The solution ultimately would also provide flexibility for future upgrades, minimize wiring and panel space, and simplify troubleshooting and maintenance.

### Controlling Costs

Rockwell Automation recommended the Allen-Bradley Bulletin 280 ArmorStart Distributed Motor Controllers for all of the distribution system's motor starting functions. ArmorStart is an integrated, pre-engineered combination starter for full-voltage and reversing applications. It includes an IP67 NEMA-certified Type 4 enclosure design and plug-and-play disconnects for the I/O, communications and motor connections. It's one of Rockwell Automation's On-Machine solutions, which mount components closer to the application or on the machine itself, reduce the space, wiring and conduit required for most

➤➤ Predictability, cost-effectiveness and on-time delivery are key components of a business strategy that focuses on customer satisfaction. This was the strategy of a large computer manufacturer that needed a new distribution system with multiple production lines feeding into the distribution system. The system featured three control panels,

12 DeviceNet networks, 80 motors and 160 I/O points.

Solution Provider Polytron Inc., Norcross, Ga., coordinated the project, which promised to be no walk in the park. An accelerated schedule required full operation in less than four weeks, start to finish. Traditional panel designs require six to eight weeks. The end user set this

control panels and result in quicker installation.

"When we reviewed the ArmorStart, we immediately realized it would be an ideal fit for this application," says Brent Stromwall, vice president of Polytron. "Although our initial hard-

## Polytron had to meet a four-week deadline to minimize downtime while thousands of products went through the distribution system daily.

ware costs were slightly higher than similar systems, we more than made up for it with the reduced design, installation and start-up costs."

Rockwell Automation helped Polytron install 83 ArmorStart modules throughout the distribution system directly on the conveyors and near the motors. Quick disconnects allowed engineers to connect and install the motors and sensors in a matter of hours versus days.

"Using this On-Machine approach, we were able to eliminate the complex wiring associated with more traditional systems, which was a tremendous time-saver," says Todd Turnquist, project manager for Polytron. "In addition, the ArmorStart modules tuck neatly under the conveyors and result in a cleaner look."

The standard diagnostics in the ArmorStart simplify maintenance and troubleshooting. Its built-in LED provides both advisory and fault indication, reducing the need for maintenance personnel to access the control panel each time they check a connection.

"If a fault occurs, maintenance personnel can quickly pinpoint the problem," says Turnquist. "And with the ArmorStart's modular plug-and-play design, maintenance workers can quickly replace the starter and have the system up and running in a matter of minutes."

Using the ArmorStart Distributed Motor Controller, Polytron could complete the installation and get it fully operational within the four-week deadline. Polytron reduced design and installation time by nearly 20 percent. Most importantly, Polytron produced a system that exceeded the end-user's expectations by adding flexibility for future upgrades and making it easier to perform maintenance and troubleshooting.

"With a traditional control solution, it could have taken us six to eight weeks to complete this project," says Turnquist. "And even then, we wouldn't have been able to provide the additional options and benefits achieved using ArmorStart." **ABJ**

**Allen-Bradley ArmorStart Distributed Motor Controller**

[www.ab.com/go/armorstart](http://www.ab.com/go/armorstart)

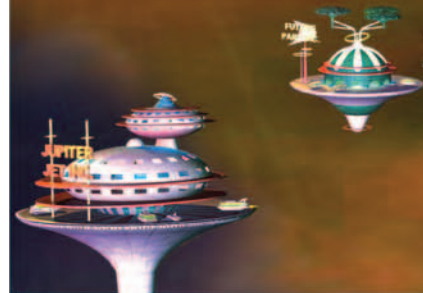
**Polytron, Inc.**

[www.polytron.com](http://www.polytron.com)

**Circle 687**

Polytron recently joined the Rockwell Automation Solution Provider Program — a designation reserved for an elite group of system integrators that meet Rockwell Automation measures for operational excellence, application expertise and customer focus. For a full list of Solution Providers, visit [www.rockwellautomation.com/partners](http://www.rockwellautomation.com/partners) and search the Systems Integrators database.

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