Mitsubishi Electric Provides Superior Tension Control, Registration and Servo Accuracy on the Performance Series P7 Press from Mark Andy, Inc.

Case Study

Solution
- iQ Automation Platform
- MR-J4B-RJ Servos
- FR-A700 VFD
- GT27 HMI
- Local and worldwide support

Mark Andy Product Benefits
- Future-proof machine architecture
- Best-in-class registration & tension control
- Reduced development time
- Low total cost of ownership

Mitsubishi Electric Value-added Advantages
- Single-source solution
- Superior compatibility
- High performance motion control
- Low support cost

BACKGROUND
Two years ago, Mark Andy began pursuing an upgrade path with their motion control supplier. The next generation products from their existing controls vendor would force them to abandon their software platform.

Faced with the considerable amount of program development required to upgrade, the Mark Andy engineering team led the search for a new controls platform to help them maintain their reputation for cutting edge servo printing equipment.

The search started with a field of 15+ potential suppliers which was quickly narrowed to a short list of just 5 leading controls vendors using a decision matrix and a cost analysis. In addition to overall system performance, commonality of development tools, training, service, local and worldwide support were key criteria in choosing a controls platform.

CHALLENGE
Mark Andy, a leader in the printing industry, was looking to upgrade the controls on their servo-driven inline flexographic printing presses and to standardize their product line on a single architecture to improve the ability to support customers. Of course they wanted to maintain the highest levels of print quality using the latest hardware and software available.

SOLUTION
After thoroughly evaluating the top 5 vendors, Mark Andy made several observations that influenced their final decision. Two of the companies presented polished software packages, but the hardware lacked backward and forward compatibility and future upgrades would be costly. Two other companies demonstrated industrytailored products, but there were doubts about support and product obsolescence. Mitsubishi Electric offered the best combination of reliable hardware and intuitive software with a clear long-term strategy for upgrades and product

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– Kevin Wilken, CEO, Mark Andy, Inc.
end-of-life. Ultimately, Mitsubishi Electric was chosen to demonstrate the iQ Automation Platform with MR-J4B-RJ servos, the GT27 Series HMI, and iQ Works Software. Working with HTE Technologies, the local distributor, a pilot project was started to evaluate the performance with emphasis on registration accuracy, servo following error, and tension control since these directly affect final print quality.

RESULTS
After 6 weeks of development and testing, Mitsubishi Electric and HTE Technologies were able to demonstrate significant performance advantages. Kevin Wilken stated “The iQ Automation Platform and MR-J4B-RJ servo system from Mitsubishi Electric improved our tension control by 500%, with more accurate registration and less servo following error than other systems we have tested.” Beyond the performance advantage, Mitsubishi’s software and hardware has maintained backward compatibility over the years. This stability provides a level of confidence that as performance-enhancing and ease-of-use features become available, Mark Andy will be able to take full advantage without the expense and learning curve of major architecture changes.