

# The Power of Blue® and Motoman Solutions



Together, Miller Electric Mfg. Co. and Motoman Inc. have developed innovative solutions to provide powerful advantages. This partnership brings talents and resources of respected industry leaders together to meet your business needs.

For the ultimate in welding quality, flexibility, and productivity, combine the advantages of a Motoman automation solution with The Power of Blue... Miller's Axcess® line of automation power sources.

Whether you're purchasing new robotic systems or retrofitting existing workcells with new power sources, Miller's Auto-Axcess® Systems can dramatically improve welding throughput, repeatability and quality. With your choice of either an analog or digital robotic interface, Axcess provides seamless integration of digital control technology combined with a state-of-the-art inverter welding power source.



# Auto-Axcess® Systems Offer Multi-MIG® Performance

Auto-Axcess® is designed to adapt to a broad range of materials and welding requirements. Accu-Pulse®, Accu-Curve™, Accu-Speed™ and Regulated Metal Deposition (RMD™) provide cutting-edge technology and productivity gains to fulfill your diverse needs. In addition, Axcess can switch between any of eight pre-programmed settings—on the fly!

## Regulated Metal Deposition (RMD)—Thin Material and Gaps

The patented RMD process is a software-based option for all Axcess models. It is a precisely controlled short-circuit transfer that predicts when the short is going to clear and then rapidly reacts to this data, dynamically changing the current levels. This capability allows RMD to solve many issues related to welding on thin material, including improved gap filling, decreased spatter, and minimized distortion due to heat input.

## Accu-Pulse — Steel and Stainless Welding

This patented process allows for precise control of the pulse arc. Accu-Pulse provides optimum molten puddle control and has the power to increase wire feed speeds and deposition 20–25% in many applications.

## Accu-Speed — High-Speed, Out-of-Position Welding

Developed specifically for the type of arcs needed in automated welding applications, Accu-Speed has a tighter driving arc that can be directed into the joint, yet still remains stable at the higher travel speeds used in automated welding (up to 20% greater travel speed than Accu-Pulse).



## Accu-Curve — Aluminum and Stainless Welding

As a variation of the Accu-Pulse process, the transitions from peaks to background voltage are “curved”. The curved transitions provide a “softer” feel without sacrificing the tight arc lengths that allow for better puddle control that have become the hallmark of the Accu-Pulse process. Accu-Curve is particularly well-suited for welding on aluminum.

### Axcess® Process Capability

Process	Standard Spray	Pulsed Spray	Accu-Pulse® Accu-Speed™ Accu-Curve™	Standard Short Circuit	RMD™ Regulated Metal Deposition (Optional)
Weld Puddle Control	Flat/Horizontal	All Position Performance			Thin Materials/Gap Filling

## Other Key Axcess® Features

### Auto-Line™

Miller's patented technology allows for any input voltage hookup (190 V–630 V, single- or three-phase, 50 Hz or 60 Hz) with no manual linking. This assures rock-solid, consistent welding output when operating on fluctuating primary lines. It also makes Axcess a truly international machine, allowing you to deploy it anywhere in the world.

### Auto-Cal

Technology that allows simple, automatic scaling and synchronization to analog robot controllers. This assures consistent and repeatable results with minimal downtime when installing Auto-Axcess power sources into existing robot cells.

### Auto-Axcess Digital Interface

Miller introduced the Digital Interface version of the Auto-Axcess which is controlled by signals on a DeviceNet network. Motoman utilized this capability to provide more functionality from the robot using the robot's teach pendant.

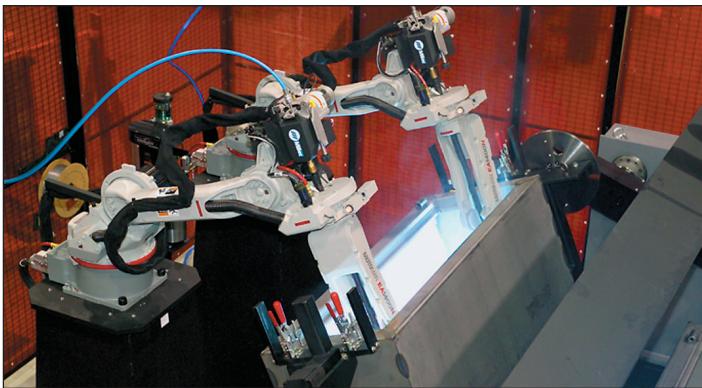
### Miller Reliability

Backed by the True Blue® 3-year warranty for the best coverage in the industry! Miller delivers solid protection and peace of mind.

# Motoman – A World of Automation Solutions

Motoman delivers more than robots, they deliver solutions. From complete “World” solutions to advanced custom systems, Motoman robotic solutions will make your operations more efficient and your products more consistent. Whatever your welding application requires — from heavy-deposition welds on thick steel plates to small beads on light-gauge materials, even aluminum or exotic metals — Motoman robots deliver.

Motoman’s extensive product line includes over 175 robot models and more than 40 fully-integrated pre-engineered World solutions that include robots, process equipment and safety devices.



*Expert-Arc robots improve access into confined parts.*

## Application-Specific Robots

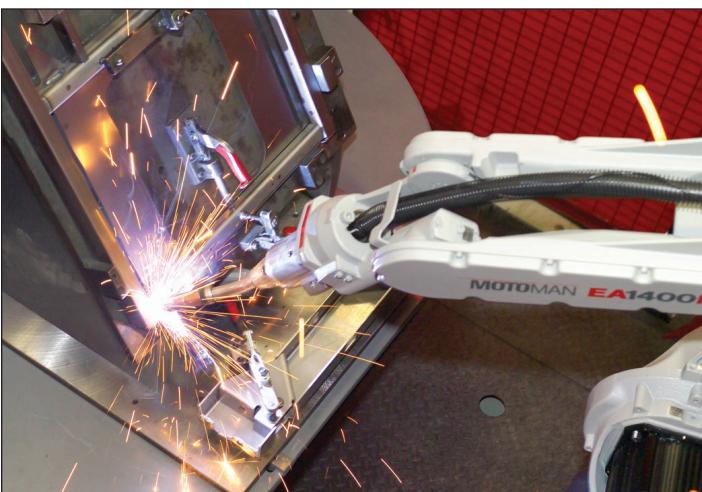
Motoman introduced the “Expert-Arc” series arc welding robots with patented wrist and torch cable designs. The integrated torch system reduces downtime and improves access into confined parts and tooling. The extended reach EA1900N and new faster SSA2000 robots have proven reliability and are supported with torch options from a variety of manufacturers.

## Leading Welding Solutions

The ArcWorld® and FabWorld® product line represents the most complete system offering on the market. Different price and productivity levels are available to suit users from job shops to automotive Tier 1, from construction machinery to steel furniture, from railcars to recreational vehicles. Motoman designs and builds the fastest, most robust positioning products for arc welding.

## Customer Satisfaction

Motoman is committed to delivering the best customer satisfaction in the robot industry with 24-hour technical and field service support, industry-leading warranties and maintenance protection plans. Motoman supports the entire system — robot, positioner and welding equipment. This support is further enhanced through Motoman’s partnership with Miller.



*Standardized workcells simplify integration.*

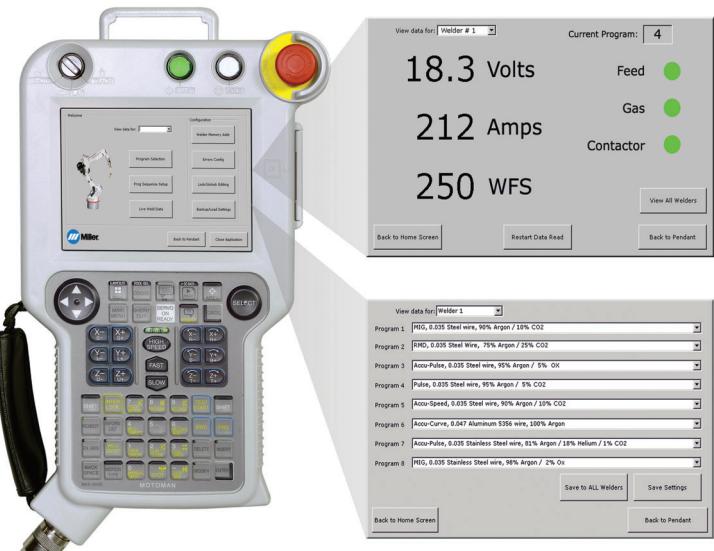


*Motoman provides the widest selection of robotic workcells.*

# Experience the Power of a Great Partnership

## Miller and Motoman Deliver Industry-Leading Solutions

- Cutting-edge technology that solves automated welding challenges.
- Proven reliability, innovation and unmatched robotic welding experience.
- Industry-leading performance and extensive field support.
- Seamless integration of digital control technology that combines an inverter welding power source and a robotic interface.
- Miller offers broadest range of automation components, including welding power sources, accessories, connections and controls.
- Motoman provides patented application-specific robots designed to optimize performance and minimize life cycle costs.
- Integrated Miller and Motoman systems help reduce product costs while increasing throughput, flexibility and quality.



Auto-Axcess® utilities provided through robot teach pendant with digital interface.

## Industry-Leading Customer Service

Miller and Motoman experts are available to help you create a welding automation solution that will enable your company to achieve its welding goals, while offering tangible benefits that will result in a solid payback on your investment. A successful automated manufacturing project depends on proper application of robotic and welding technology.

Motoman and Miller provide:

- Robot arms optimized for arc welding productivity.
- The widest range of standardized robotic workcells for different markets.
- Multi-MIG® welding processes designed to address a myriad of common automated welding challenges.
- A complete line of Miller semi-automatic welding options to complement your robotic welding cells.
- Expert assistance with everything from installation and setup to part run-off.
- Automation knowledge that will help avoid unnecessary costs, delayed launches, unplanned rework, additional manufacturing processes, poor quality and weld failure.
- International offices to support North American and global customers.



- ★ Miller Corporate Headquarters
- Miller Advanced Manufacturing Systems Specialists
- Miller District Manager Locations
- ★ Motoman Corporate Headquarters
- Motoman Regional Support Specialists
- Motoman Regional Sales Managers



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