This two-day event with a bonus day hosted by Miller Electric features two tours of the future of robotics. On Tuesday, June 2, the conference features a tour of power management company Eaton, which manufactures the Cooper Power™ series of electrical transformers, and utilizes a vast array of automation with a variety of arc welding processes and resistance welding. A major investment within the company’s Waukesha, Wis., plant has introduced new high mix, low volume flexible robotic welding automation, fiber laser cutting processes, and new upstream technologies to improve the fabrication process. The Wednesday, June 3 tour of John Deere Horicon will feature robots used for welding, paint and material handling. John Deere Horicon has been a leader in robotics, utilizing cutting edge technologies in robotics for 30 years. Proceeds fund the John F. Hinrichs Memorial Endowment, which provides scholarships to students in welding and engineering.

Sponsored by the American Welding Society D16 Committee, AWS Milwaukee Section and Milwaukee Area Technical College. If you are interested in exhibiting, registering or learning more about this event, please email Karen.gilgenbach@airgas.com, phone 262-613-3790, or visit http://sections.aws.org/milwaukee/
Building Welding Automation with Innovation

Miller invites you to join us for demonstrations of automated welding technology at our corporate headquarters in Appleton, WI on June 1, 2015.

Go along with us on a tour of our facilities. You will see Miller Welding Automation (Panasonic), Yaskawa, Fanuc and ABB robotic systems in action. You will also have a chance to interact with the people that make a difference in the production of industry leading welding equipment.

12:00 p.m. - 12:30 p.m. Departure from Hotel and Conference Center
12:30 p.m. - 2:30 p.m. Travel time to Miller Facilities, Appleton WI
2:30 p.m. - 6:00 p.m. Tour of Miller Manufacturing Facilities, and demonstrations with Miller Welding Automation (Panasonic), Yaskawa, ABB and Fanuc robots. Appetizers served.

- Cutting edge aluminum welding process for thin gauge applications
- Adaptive welding process on thick plate multi-pass joints.
- Complete welding torch solutions and accessories for welding robots.
- Metal core & aluminum wire and its application.
- Production Monitoring & Arc Data Monitoring in various welding products.
- Robotic Welding Offline Programming.
- Tours of Miller Electric manufacturing areas.
- Discussion and interaction with Miller employees.

6:00 p.m. - 7:00 p.m. Dinner
7:30 p.m. - 9:30 p.m. Bus ride back to Milwaukee with additional refreshments.
9:30 p.m. Arrival back at Hotel & Conference Center

Miller Facility Tour
June 1, 2015
Appleton, WI
www.MillerWelds.com
This two-day event with a bonus day hosted by Miller Electric features two tours of the future of robotics. On Tuesday, the conference features a tour of power management company Eaton, which manufactures the Cooper Power™ series of electrical transformers, and utilizes a vast array of automation with a variety of arc welding processes and resistance welding. A major investment within the company’s Waukesha, WI plant has introduced new high mix, low volume flexible robotic welding automation, fiber laser cutting processes, and new upstream technologies to improve the fabrication process. The Wednesday tour of John Deere Horicon will feature robots used for welding, painting, and material handling. John Deere Horicon has been a leader in robotics, utilizing cutting edge technologies in robotics for 30 years. Proceeds fund the John F. Hinrichs Memorial Endowment which provides scholarships to students in welding and engineering.

For more information or to register, contact:  
Karen Gilgenbach (262) 613-3790  
Karen.gilgenbach@airgas.com  
Or register online:  
http://sections.aws.org/milwaukee/
HOTEL REGISTRATION:
For Reservations call 414-481-2400
Or toll free 866-481-2400.

Clarion Hotel & Conference Center
5311 South Howell Avenue
Milwaukee, WI 53207

Special Room Rate:

Business Queen / Double Room $89.99
Business King $99.99

Room rate offered through May 1st, 2015

The Clarion Hotel is easily accessible off Interstate 94/894 at the airport exit and we offer complimentary shuttle to and from the airport 24/7 on demand. Our hotel is directly across the street from the airport.

The hotel offers an on site restaurant and lounge, room service, full service gym, business center and indoor pool. All of the guest rooms have microwaves and refrigerators, coffee makers, hair dryers and ironing boards and irons. High speed wireless internet is available throughout the hotel for no charge.

The hotel is minutes from several golf courses, and is close to many popular area attractions, including the Boerner Botanical Gardens, the Bradley Center arena, Lake Michigan, the Miller Brewing Company and the Milwaukee County Zoo. There are a variety of restaurants and cocktail lounges located in the area. Be sure to visit the on-site Cork 'N Cleaver Restaurant and enjoy daily gourmet specials, a selection of wines, Friday Fish Fry and Sunday Brunch. The restaurant also provides room service with extensive menu selections.

Milwaukee Area Technical College’s ECAM Center:

Milwaukee Area Technical College is a co-sponsor of the National Robotic Arc Welding Conference. Segments of the event will take place at the Center for Energy Conservation and Advanced Manufacturing. This new, $9 million, 34,000 square-foot applied technology center at the MATC Oak Creek Campus is designed to
June 2nd, 2015: Hosted by Eaton and Milwaukee Area Technical College

7:00 – 7:30 am Light, healthy breakfast at MATC

7:30 – 8:00 am Exhibit Viewing at MATC:
This is a unique opportunity to see live demonstrations, and tabletop displays of cutting edge products, while talking to industry leaders about their technologies, and how they may apply in your particular application.

8:00 – 8:30 am Modular Fixturing and Applications for Robotic Arc Welding
*Todd Bennett, Sr. Applications Engineer, Bluco Corp.*
Overview of modular fixturing and its application in robotic arc welding cells to achieve benefits such as increased changeover efficiency and reduced costs. A key to success is to include tooling considerations as early in the process as possible.

8:30 – 9:00 am Making Smart Decisions Based on Real Time Data
*Heath A. Suraba, Robotic Welding Applications Engineer, Lincoln Electric*
How to use the latest tools within the robotic arc welding industry to track weld quality and adapt to varying parts and conditions on a real time basis.

9:00 – 9:30 am What is New with the AWS D16 Robotics & Automation Committee in Areas of Safety, Training & Certification
*Jeffrey Noruk, President Servo Robot Corp., Vern Mangold President KaySafety*
Standards, training, and certification are the glue that allows new technology to move forward. Learn what is new in this area applicable to robotic arc welding as well as the latest in a ground breaking court judgment related to robot cell safety.

9:30 – 9:50 am Break

9:50 – 10:20 am Enhancing Robotic Arc Welding by Reducing Costs in Programming
*Robert Axtman, CEO, Visual Components North America Corporation*
The majority of programming of robotic arc welding cells is still being done manually on the production floor. Offline programming, automatic path generation and simulation can save time and improve performance especially with cells involving multiple robots, positioners and gantries.

10:20 – 10:50 am A Case Study of Launching a New Fabrication Process in Large Construction Equipment Industry
*Chase Walker, Senior Engineer, John Deere Davenport Works*
This is a review of some of the latest robotic welding technologies used for this new fabrication process with emphasis on keys to success by careful planning and execution.

10:50 – 11:20 am Best Practices for Sustained Robot System Performance
*Jeff Peterson, Manager of Robotics and Welding, Crenlo Industries*
Are your robots running as advertised years after the initial installation? Learn proven methods for programming, training, troubleshooting, and support that will help you achieve peak performance.

11:20 – 11:50 am Modern Concepts for Implementing Robotic Arc Welding Automation
   Steve Wise, Lead Project Engineer, Eaton Corporation & Terry Merrifield, VP/GM Automation Manager, Midwest Engineering
Addressed will be the many reasons to automate by outlining modern techniques, common mistakes, applications of sensor technologies, vendor selection criteria and keys to success for robotic arc welding automation in your operation.

11:50 – 12:20 pm Lunch and Exhibit Viewing

12:20 – 12:35 pm Load Buses

12:35 – 1:15 pm Drive to Eaton

1:15 – 3:15 pm Tour Eaton

3:15 – 4:30 pm Drive Back to MATC

4:30 – 5:30 pm Exhibits at MATC, with Hors D’oeuvres, and Business Networking
Local AWS Milwaukee Section members invited

5:30 – 5:45 pm Shuttle Bus Back to Hotel for Dinner

5:45 – 6:30 pm Exhibit Viewing & Socialize

6:30 – 7:15 pm Keynote Speaker
   Stefan Lampa, CEO, Kuka Robotics, and former Global Head of Robotics and Automation at ABB
Stefan provides insight into the global general robot market with respect to trends and technology. He will also zero in on the robotic arc welding market and prepare us for what is coming.

7:15 – 8:00 pm Dinner at the Clarion Hotel

8:00 – 8:30 pm Awards - AWS D16 Committee Excellence in Robotics Award
June 3rd, 2015: Hosted by Milwaukee Area Technical College and John Deere

6:30 am Meeting at the Clarion Hotel to Bus to John Deere Horicon

6:40 – 8:00 am Drive to John Deere

8:00 – 8:15 am Welcome at John Deere Horicon

9:00 – 12:00 pm John Deere Tour and Presentation
The tour at John Deere Horicon will break attendees into smaller groups to provide a focus on specific strengths in the manufacturing environment. Each group will cycle through various learning and tour environments.

Please note- we have a 100 person limit on the John Deere tour, so please register early.

12:00 – 12:30 pm Lunch at John Deere

12:30 – 12:45 pm Buses Load

12:45 – 2:05 pm Drive to MATC

2:05 – 2:15 Exhibit Viewing

2:15 – 2:45 pm Tactical Approach for Programming & Fixturing
Steve Redig, Senior Manufacturing Engineer, Iowa Tool Mold (Oshkosh Corp)
Hear “tricks of the trade” learned the hard way. Simplify your robot programming and fixturing so that small batches of parts can be run using quick setups to insure customer required quality and delivery is achieved.

2:45 – 3:15 pm Simplified Robot Programming for Arc Welding
Chris Anderson, Associate Chief Engineer, Yaskawa Motoman
Get insight into the first big change in programming arc welding robots in years. Welders can now position the torch by hand and create icon based task sequences via a color touch screen thus saving time and reducing programming skill required.

3:15 – 3:45 pm In-Process Video Monitoring of Arc Stability and Common Welding Discontinuities Using Novel Imaging Technique
Matt Sinfield, Welding Engineer, David Lammlein, Mechanical Engineer, Dennis Lueken, Infrared Engineer, Naval Surface Warfare Center, Carderock Division
Learn how a novel infrared imaging technique can help improve arc welding process stability and reduce the occurrence of defects and thus the need for non-value added repair.

3:15 – 3:30 pm Break
3:30 – 4:00 pm Flexible Fixturing – Why, How and How Much
Doug Huston, Project Manager, Genesis Systems
This speech features considerations for the successful implementation of flexible
fixturing in low to high volume production environments, including an integrated
approach to product and process interaction.

4:00 – 4:30 pm Adding Multiple Processes to Your Arc Welding Robot
Bryan Hackbarth, Welding Engineering Manager, Joy Global & Jay Haynes, Regional
Manager, Wolf Robotics
Review how adding ancillary processes to the same robot can make fabrication of a
100,000 pound mining shovel component with 100+ welding passes feasible. Preheating,
joint preparation, laser vision camera joint finding & weld dressing are just some of the
added processes.

4:30 – 5:00 pm Adaptive Welding Methodologies
Connie Reichert, Principal Automation Engineer & Steve Massey, Engineering
Manager, EWI
Learn the different types of adaptive welding including trajectory control (keep the wire
in the joint), parameter adjustment and algorithm theories dealing with multi-bead and
multi-layer strategies.
National Robotic Arc Welding Conference & Exhibition 2015
Registration / Fees:

Payments may be made online at http://sections.aws.org/milwaukee/
or mailed in. Email to karen.gilgenbach@airgas.com

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Once tours are full, attendees can register for the conference without tours for a $100 discount (Option 2).

While we do our best to accommodate all attendees, our tour locations have to option to exclude competitors. If there is an issue with your attendance on a tour you will be contacted.

Signature:________________________________________________

Special Considerations: In accordance with the Americans with disabilities act (ADA) we strive to accommodate any additional needs. Please contact us at 1-262-613-3790 for further information or to make us aware of a possible concern

Form may be printed and mailed with payment to: AWS- Milwaukee Section C/O Karen Gilgenbach, Airgas, Inc 5120 68th Ave, Kenosha WI 53144
Robotic Welding Conference History:

Celebrating the conference’s 32\textsuperscript{nd} year!

The conference was started by John Hinrichs of AO Smith Corporation through a partnership with the University of Wisconsin- Milwaukee and its Continuing Education Program in 1983. This year marks the 30\textsuperscript{th} anniversary of the conference. The mission of the conference was to present new and emerging technology in the areas of welding and automation. The conference was unique in that it did not have a call for papers but instead was an invited list based on what technologies were viewed as being cutting edge at the time. The conference prospered for many years in downtown Milwaukee but in 1992 the attendance was starting to decline (can you spell Milwaukee in February?) and the decision was made to move to Florida.

This change in venue to Orlando was done in conjunction with the American Welding Society (AWS) and with the addition of Paul Ramsey (former AO Smith Welding Research Manager and AWS President) as Co-Chairman. The next few years the emphasis was placed even more on introducing very new technologies as evidenced by the first presentation in North America about Friction Stir Welding at the 1994 conference. In 1997 a partnership was formed with the AWS D16 Committee on Robotic and Automatic Arc Welding to assist in the running of the conference and highlighting the work being done by this group in the areas of standards. The name of the event was changed to the AWS 1st Robotic Arc Welding Conference and Exhibition.

In 1999 Jeffrey Noruk, D16 Chairman, joined John and Paul as a co-chairmen and continued to strengthen the relationship with the D16 committee via the presentation of educational material associated with standards on Safety, Do’s and Don’ts, Qualification and Certification of Personnel and Robotic Equipment Interfacing.

In 2005 we came full circle with the conference moving back to Milwaukee, but this time in conjunction with the local AWS Milwaukee Section and the Milwaukee Area Technical College. This conference has been held every other year (the “odd years”), and is modeled after the highly successful Detroit Sheet Metal Conference which is held in “even years”.

In 2012 our friend and mentor, John F Hinrichs, passed away. The proceeds from the 2005, 2007, 2009, 2011 and 2013 funded the John F Hinrichs Memorial Endowment through the AWS Foundation, which provides over $10,000 annually in the form of scholarships to students in areas of Welding and Engineering.

Profits from this conference will go towards the John F Hinrichs Memorial Endowment. The format of a conference and exhibition will be maintained as well as the close ties to the AWS D16 committee.