

## MESSAGE FROM THE CHAIRMAN

This year is moving by at a rapid pace. As the eternal optimist, I foresee manufacturing coming back to life in the near future. Although, it is still on life support, the phones are ringing, old projects are being re-addressed, and new orders are starting to flow. Maybe “flow” is not an accurate word; more like fast trickle. But a lot better than a few months ago!

In my conversations with many of you, the universal comment seems to be that we are “hanging on,” and waiting for manufacturing to crank up again. I believe that the time is now. If the prognosticators of the economy are correct, we should be getting close to normal by the second quarter of 2010.

Next spring, we will have a co-located meeting in Florida with WEMCO (Welding Equipment Manufacturers Committee.) This is an exciting experiment to see how sharing location, social functions, and speakers will benefit RWMA members. I can tell you the speakers are dynamite, and include well-renowned people, which RWMA could not otherwise afford if we were not co-locating our meeting with WEMCO.

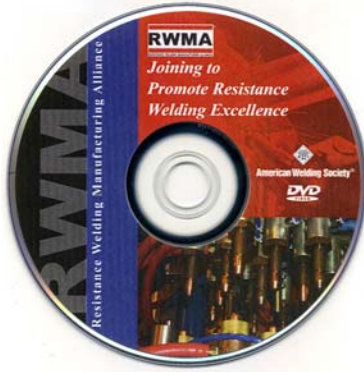
In addition, the ability to network in a social gathering should itself be worth the cost of the meeting. And, don't forget that even though the cost is a little higher than previous meetings, we are only having one meeting per year. This will lower the annual cost to all of us, and allow the members a far superior meeting event. If you haven't sent your registration form in for the 2010 Annual Meeting, why not work on it today? There are a limited number of rooms, so register soon to secure your space.

I want to thank the committees who have been holding teleconferences since our last meeting. They will provide a progress reports at the 2010 Annual meeting.

*Roger Hirsch*  
RWMA 2009 Chair



## NEW RWMA DVD



The RWMA (Resistance Welding Manufacturing Alliance) is excited to inform you that its recently produced DVD on the resistance welding industry, and the basics of resistance welding, as well as its opportunities and growth, is now available to accredited instructors for free! This DVD covers all of the rudiments of resistance welding. It would be a terrific introduction for your classroom regarding all elements of resistance welding. It is fast moving and information-laden, with extraordinary visuals.

This DVD can, and will, be provided as a tool to educators to promote the education of the resistance welding process. We are also promoting Resistance Welding as a potential career path for students. This tool will provide tips for implementing resistance welding into a school's curriculum, and inclusion in the occupation-specific competencies.

The DVD is available for viewing online at <http://www.aws.org/rwma/videos/>. If you would like your free instructor copy of this DVD, contact Susan Hopkins, RWMA Program Manager, at [susan@aws.org](mailto:susan@aws.org), or 800-443-9353, ext. 295.

## INTRODUCTION TO RESISTANCE WELDING DVD?????

RWMA also highly recommends the "Introduction to Resistance Welding" DVD. This comprehensive training video illustrates technique, control, and application. Covers spot, projection, seam, and flash/butt welding. It explains the basic principles, machine components and setup, electrodes, tooling, controls, and transformers. It is ideal for classroom and seminar use, and for introducing and training a company's personnel on resistance welding. (Order Code: *RWVID* - Price \$415 non-members, or \$320 for members.)

## RWMA PUBLICATIONS



RWMA publications and bulletins can be purchased through World Engineering Xchange Ltd. (WEX). Call 1-888-WELDING, or e-mail your orders to [orders@awspubs.com](mailto:orders@awspubs.com). You can also place orders through the RWMA Web site at [www.aws.org/rwma](http://www.aws.org/rwma)

## RWMA'S ANNUAL MEETING IN 2010

On March 11-13, 2010, the, the Resistance Welding Manufacturing Alliance (RWMA), and the Welding Equipment Manufacturers Committee (WEMCO) have agreed to co-locate their annual meetings. The annual meetings will take place at the PGA National Resort and Spa, in Palm Beach Gardens, Florida.

Although both committees will conduct independent meetings, there will be ample time during the 3-day event to converge and network with one another about today's pressing issues, such as the country's economic state, the challenges manufacturers are facing today during the economic recovery, and the global automotive industry crisis.

We are expecting a large attendance, and therefore the room block is also expected to fill up quickly.

We are very excited about the nationally known speakers that will participate in the 2010 Co-located Annual Meetings:



**Emily Stover DeRocco**  
President of the Manufacturing Institute and Senior Vice President of the National Association of Manufacturers (NAM)  
Washington, D.C.

**Discussion:** Challenges manufacturers are facing today during the economic recovery. Succeeding in a post-recession business environment.

Emily DeRocco oversees the education and research arm of NAM, and the design and operations of the new national center dedicated to fostering a new generation of manufacturing workers for the 21st century.

Nominated by President Bush, and confirmed by the U.S. Senate as the Assistant Secretary of Labor in 2001, DeRocco was responsible for managing a \$10 billion investment in the nation's workforce in her previous position. She created and implemented regional economic development initiatives in 39 regions across the nation, and, used talented development strategies to drive competitive advantage for America's businesses.

During her tenure with the Labor Department, DeRocco chaired or vice-chaired numerous boards and commissions, including the Education and Workforce Committee of the Secretary of Education's Commission on the Future of Higher Education, the Education and Workforce Committee of the Department of Commerce's Interagency Working Group on Manufacturing, and the President's Committee on Economic Adjustment for the Defense Department's Base Realignment and Adjustment Commission. She also was active on the National Advisory Board of the Manufacturing Extension Partnership.

DeRocco also brings over 10 years of private sector experience in managing a national non-profit organization and prior federal government experience at the Departments of Energy and Interior, the Federal Energy Regulatory Commission and the Interstate Commerce Commission.

DeRocco is a proud graduate of The Pennsylvania State University and received her Jurist Doctorate from the Georgetown Law Center.



**Dr. David E. Cole**  
Chairman of the Center for Automotive Research (CAR)  
Ann Arbor, Mich.

**Discussion:** The challenges facing the global automotive industry today, as well as its future direction.

David E. Cole is the Chairman of the Center for Automotive Research (CAR) in Ann Arbor, Michigan. He was formerly Director of the Office for the Study of Automotive Transportation (OSAT) at the University of Michigan Transportation Research Institute. He has worked extensively on internal combustion engines, vehicle design, and overall automotive industry trends.

Dr. Cole's recent research has focused on strategic issues related to the restructuring of the North American industry and trends in globalization, technology, market factors, and human resource requirements. He was formerly a member of the Energy Engineering Board of the National Research Council and the U.S.-Canada Free Trade Pact Select Panel. He is also a director of the Original Equipment Suppliers Association, as well as a director of seven automotive supplier companies. In addition, Dr. Cole is a member of the Executive Committee of the Michigan Economic Development Corporation (MEDC) and was recently appointed by Michigan's Governor to the Strategic Economic Investment and Commercialization Board and the Michigan Renewable Fuels Commission. He was named a co-chair of Detroit Renaissance's "Road to Renaissance" Project in the fall of 2006.

In 1994, Design News selected Dr. Cole as one of eight engineering leaders, and he was also selected to receive Sweden's Order of the Polar Star. In the fall of 1998, Dr. Cole was named as the Marketing

Educator of the Year by the Society of Marketing Executives. In addition, he received the 1998 Rene Dubos Environmental Award for his contributions to the industrial ecology of the automobile and in 1999, Chevalier of the National Order of Merit from France. In 2000, he received the Engineering Society of Detroit's (ESD) highest award, the Horace H. Rackham medal.

Dr. Cole received his B.S.M.E. and Mathematics, M.S.M.E. and Ph.D. from the University of Michigan.



**Martin Quinn**  
President of Thermadyne Holdings Corporation  
St. Louis, Mo.

**Discussion:** Thermadyne Holdings take significant strides toward key goals during the sharp economic downturn that has depressed sales throughout the industry. The company's key goals include: supporting the brand strategy, improving customer service and introducing innovative new products.

Martin Quinn is the President of Thermadyne Holdings Corporation, a manufacturer and supplier of cutting and welding products, headquartered in Chesterfield, Missouri. He has held various positions over his 25-year history at Thermadyne, including production manager, general manager of marketing, managing director for Asia, and vice president of sales and marketing for Asia Pacific. Before assuming the role of president, Mr. Quinn served as the company's executive vice president of global sales and marketing. As a result of his long career with Thermadyne, Mr. Quinn has had substantial experience in every aspect of managing the company from running manufacturing facilities, to building businesses from the ground up in Asia.

Mr. Quinn graduated from the University of Melbourne, Australia, with a Bachelors degree in engineering. He also obtained a graduate diploma of business administration from Swinburne University of Technology.



**Alan Beaulieu**  
Principal and Economist for the Institute for Trend Research  
Boscawen, New Hampshire

**Discussion:** Presentation of his highly acclaimed annual economic forecast.

Since 1990, renowned economist Alan Beaulieu of the Institute for Trend Research has consulted with companies around the world, and his economic forecasts have been quoted in numerous business publications and economic journals. Alan Beaulieu has been a long-time favorite of WEMCO, and is a highly-anticipated feature at the Annual WEMCO Meetings.

Beaulieu's topics include:

- Short-term and long-term economic forecasts.
- How those forecasts directly impact your company.
- What leading economic indicators we should be watching.
- What about inflation and interest rates?
- How China's and India's growth impacts the US.
- What impact the current or future Administration has on the economy.
- Does the stock market give us a true reading of the economy?

To register or to receive more information on this exciting event, one you won't want to miss, contact Susan Hopkins, RWMA Program Manager at [susan@aws.org](mailto:susan@aws.org), or call 800-443-9353, ext. 295.

## COMMITTEE WORK IN PROGRESS

J1 Committee. Kendall Ymker and the J1D Task Group have been working over the summer on a draft proposal for ANSI Z49.1-1995 Clause 12 on Resistance Welding Safety.

The changes are intended to strengthen the existing text of the standard and to address technological advancements pertaining to MFDC weld controls and manual transguns. The draft is progressing towards a final review before it is balloted to the J1 Committee. If you have an interest in this subject matter and would like to review and comment on the draft, please contact Kendall or Susan Hopkins soon to get on the e-mail distribution.

Individuals who are interested in participating on the J1 committee or any of these workgroups can obtain additional information by contacting the J1 Secretary, Annette Alonso by phone (800-443-9353 x 299) or Email ([aalonso@aws.org](mailto:aalonso@aws.org)). The committee membership application can also be completed on-line at the AWS Website [http://www.aws.org/w/a/survey/standard?survey\\_start=techapplication](http://www.aws.org/w/a/survey/standard?survey_start=techapplication).

CCRW Subcommittee. The AWS-CCRW subcommittee on the Certification of Resistance Welding Technicians (CRWT) continues to move the AWS-QC20 "Specification for AWS Certification of Resistance Welding Technicians" draft document forward by accepting all but two of the fifteen editorial comments and proposed resolutions provided by members the AWS-Certification Committee, and is currently balloting five substantive items provided by the Certification Committee back to the CCRW subcommittee members for review. The written fundamentals exam for the CRWT program has also taken a significant step forward due to the efforts of a nine-man task-group assigned to develop properly formatted questions for specific topics which have since been submitted and forwarded to the AWS-Exam Bank subcommittee member assigned as project manager to the CRWT program for review.

Special thanks go to the members and volunteers of the CCRW-Fundamentals Written Exam Task Group; C. Breidenbaugh, J. Dally, R. Hirsh, B. Matteson, B. Qualls, J. Schemel, T. Snow, Jr., M. Simmons and J.P. Derdeyn.

## RWMA COMMITTEE UPDATE

The RWMA Strategic Planning Committee met on April 28, and discussed a priority/objective list for RWMA developed at a past meeting. The Committee felt it would be best to begin by focusing on two of the objectives, and having each of the RWMA Committees find ways to implement them. The two objectives are "Market the Process," defined as, "*Develop a list of Action Items to promote the advantages of Resistance Welding as a superior process to other joining methods;*" and "Support Education," defined as, "*Develop a list of Action Items that make information available to further understand the concepts and technical aspects of Resistance Welding.*"

RWMA Marketing Committee: The Marketing Committee, with the assistance of AWS Marketing Director Ross Hancock, has begun its campaign to promote the advantages of resistance welding. Their first venture was to run two advertisements in *Machine Design* magazine. This publication is geared toward the design engineering function. In its editorial emphasis, the magazine features special issues that deal with hydraulics and pneumatics, materials, motion control, electrical and electronic and fastening and joining. The resistance welding ad appeared in *Machine Design's* September 10<sup>th</sup> issue, (80<sup>th</sup> Anniversary issue), and will again appear in the October 2009 issue, which will feature "fastening and joining." The RWMA Marketing Committee will monitor the "bingo card" and phone number requests through Susan Hopkins, RWMA Program Manager.

Second, the RWMA Marketing Committee continues to be diligent contacting local trade schools, community colleges, and vocational/welding schools to promote the new RWMA informational DVD. Bron Zienkiewicz, RWMA Marketing Committee Member, has spearheaded this effort and has done an excellent job promoting the RWMA and resistance welding. This DVD has been passed on to various organizations, including to Lincoln Electric's Welding School in Cleveland, Ohio.

Finally, the RWMA Marketing Committee has made significant progress working on the directive set by the RWMA Governance Committee to “Market the Process”, and to “Support education”. The Committee is almost finished with their action items for “Marketing the process.” There is still work to do on action items for “Support education.”

**RWMA Education Committee:** The RWMA Education Committee has conducted two teleconferences since the Spring Meeting in April. They were held June 23, and August 26. During the last teleconference, the subjects discussed were:

- ❖ Publicize resistance welding as a career track. Developing an Instructor’s Plan Outline to be used in conjunction with the RWMA DVD to promote Resistance Welding as a career. This program will be used as a presentation feature at community colleges, high schools, and universities. Jim Dally and Larry Moss have agreed to serve as speakers at the local school programs that indicate an interest in featuring resistance welding in their curricula. Additional speakers are needed. Volunteers should contact Pat Adams.
- ❖ Discussion with Skills USA competition are in progress; specifically with the Collision Repair section. The format of Skills USA Competition may be used to provide a testing environment for the CCRW program.
- ❖ Exploit publication opportunities in the *Welding Journal*. Don Maatz has been writing the Q&A column every other month in the *Welding Journal*. More volunteers are needed to write more resistance welding articles, as well as for the Q&A column.
- ❖ The RWMA Designer’s Guide is in the editing process.

The next scheduled teleconference is October 26.

**RWMA Technical Committee:** The RWMA Technical Committee had a teleconference on July 22, 2009. Agenda items that were discussed included:

- ❖ Designer Guide for Resistance Welding: All draft chapters were completed, but the final completion date is still in the future.
- ❖ CCRW update indicated that the document was balloted to the AWS Certification committee. The CRR contained 20 comments that are being addressed.
- ❖ As part of the Strategic Plan development, there were two RWMA objectives that were examined. Strategic action items were added by the committee to both “Market the Resistance Welding Process,” and “Support Education.” The details of each are available in the minutes, available at [www.aws.org/rwma/member.html](http://www.aws.org/rwma/member.html).

Future meetings are scheduled for:

Sept 23, 2009

Nov 18, 2009

Feb 24, 2010

## SPANISH LANGUAGE *WELDING JOURNAL*



The fifth edition of the Spanish language *Welding Journal* was issued in September 2009. The next edition will be published in April 2010.

If you would like to receive a copy of the Spanish language *Welding Journal*, contact Carlos Guzman, Editor, at [cguzman@aws.org](mailto:cguzman@aws.org).

## SPECIAL DISCOUNT FOR RWMA MEMBERS ONLY

### Grow Resistance Welding Sales Faster!

Here's a special offer for RWMA members that you should seriously consider as a way to jump-start sales.

The *AWS Welding Journal* will focus its December 2009 editorial on resistance welding. The editorial will center on some of the newest and most productive happenings in resistance welding.

All RWMA members who advertise in this issue are eligible for a special 5% across-the-board bonus ad discount. The issue will reach 57,000 AWS members and many of them make big volume purchases of resistance welding related goods and services.

Contact Lea Garrigan at 800-443-9353 Ext. 220 ([garrigan@aws.org](mailto:garrigan@aws.org)), or Rob Saltzstein ([salty@aws.org](mailto:salty@aws.org)) at Ext. 243, for special ad rates and ad production information. They can even help you design an ad to fit your budget. Ad design is free. Rates are reasonable. The issue closes November 1st for ads.

Call/contact Lea or Rob today for more information.

## RWMA MACHINE PLATES



RWMA members may purchase Machine Plates, displaying their association with RWMA. These plates measure 3 1/4" X 2". They are sold in sets of 25, at \$25.00 per set. To request an order form, contact Susan Hopkins at [susan@aws.org](mailto:susan@aws.org), or call 800-443-3953, ext. 295. These are only available to RWMA members for their use on equipment they produce.

## RWMA LOGO

As an RWMA member, we hope you are displaying the RWMA member logo on all your company's promotional material. To request a logo sheet, contact Susan Hopkins at [susan@aws.org](mailto:susan@aws.org).

## DID YOU KNOW?



*Story submitted by Holly Stevens  
Flex-cable  
Howard City, Michigan*

"Proper Robot Dress-Out" is a phrase which can take on multiple meanings and have many different levels. There is no absolute right or wrong way. There is no "perfect" dress-out. There are only those that work well and those that do not. The goal in any robot dress out is to have the cables, wires, and hoses all last as long as possible. For the cables, the way to achieve this is to minimize twisting, bending and abrasion. That would be easy if the robot did not move, however; since this is not the case, here are some important notes that will help in robot

dress out and increased cable life.

Use high quality dress-out equipment and accessories. Use equipment that will not bend, break, burn or melt. Robots accelerate and stop at remarkable speeds that create extremely large forces acting on the equipment. The use of dress-out equipment (based on a modular system) is extremely helpful when trying out a new dress-out idea. Utilizing such a system will allow the cables or hoses to be mounted almost anywhere has definite advantages.

Run the robot through its cycle(s) many times to ensure that the dress-out keeps the cable and hoses from contacting other surfaces, without being kinked or bent too tightly. Note: Bend radius' will vary by hose type and manufacturer of cables.

If contact between the cables or hoses and other items cannot be eliminated by dress-out, there are other ways of reducing the effects of abrasion that are available in the market today.

Along with a proper dress-out should come good cable maintenance. Cable and hose life can be extended with the use of periodic inspections. The time interval for checks is subject to many factors, but motion of the robot and proper dress out are two of the main items. The inspection interval should be determined by each plant and perhaps each robot. A general guideline for this is once a week.

Things that need to be checked are:

- 1) No abrasion, cracks or delamination of the rubber on the cables or hoses.
- 2) All bolts are tightened properly.
- 3) No water leaks
- 4) While running the robot through its cycles, check to make sure that there are no kinks in the hoses or wires and that the bend radius on the cables is not too small.
- 5) Any controlling wires are not being pinched or kinked.
- 6) A minimal amount of breaking strands on air cooled cables or no sign of overheating.
- 7) Water flow for cables.

Any problems found should be fixed or monitored on a more frequent basis.

## FROM THE FIELD

*Story submitted by Rick Newman  
Brush Wellman  
Mayfield Heights, Ohio*

From time to time questions arise about the use of “beryllium.” This article will attempt to answer those questions and clear up some confusion.

What is often referred to as “beryllium” is actually an alloy containing a small amount of beryllium combined with copper, aluminum or nickel. Copper beryllium alloys, the most common beryllium-containing alloys, typically contain between 0.15 percent and 2.0 percent beryllium. Copper-beryllium alloys are common in the electronics, automotive, defense, and aerospace industries because of their unique properties. Their most desirable properties are strength, electrical and thermal conductivity, magnetic transparency, and corrosion resistance. Copper-beryllium is used in auto electronics, including ignition control systems to increase gas mileage, thereby reducing air pollution. Copper-beryllium products are integral for both wired and wireless communications, such as cellular phones. Other applications include computers, oil exploration equipment, aircraft landing gear bushings and bearings, plastic injection molding dies, and resistance welding components. Alloys containing beryllium are essential to some of the most advanced lifesaving and life-enhancing technologies throughout the medical field.



Copper-beryllium (CuBe), in solid form and as contained in finished products, presents no special health risks. Most manufacturing operations conducted properly on well-maintained equipment are capable of safely processing copper-beryllium-containing materials. However, like many industrial materials, beryllium may present a health risk if handled improperly. The inhalation of dust, mist or fumes containing beryllium can cause a serious and sometimes fatal lung disease called chronic beryllium disease (CBD). CBD does not occur in most people. However, it is not currently possible to tell who is potentially allergic and who is not. Therefore, all workers need to be protected and airborne beryllium particles must be controlled by implementing engineering controls and good work practices.

One method used for managing potential exposure pathways is the Beryllium Worker Protection Model. The Beryllium Worker Protection Model is a comprehensive approach for reducing occupational exposure to beryllium particles. The model focuses on keeping beryllium work areas clean and keeping

particles and solutions containing beryllium out of the lungs, off the skin, off of clothing, in the work process, in the work area and on the plant site. Worker and management education and motivation are important components. A combination of engineering, work practice and personal protection approaches are used, as needed, to reduce potential occupational exposures.

The model includes the use of a recommended exposure guideline of 0.2 micrograms of beryllium per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) which is ten times below the current OSHA permissible exposure limit (PEL) of  $2 \mu\text{g}/\text{m}^3$ .

How can I learn more about the Beryllium Worker Protection Model?

An innovative tool called the *Interactive Guide to Working Safely with Beryllium and Beryllium-containing Materials* (Interactive Guide) has been developed to provide employers and employees with specific information on the elements of the Beryllium Worker Protection Model. The Interactive Guide is available on CD and on the internet at [www.berylliumsafety.com](http://www.berylliumsafety.com). It is made up of six distinct sections that describe the Beryllium Worker Protection Model in an easy-to-understand format. Upon completion of the Interactive Guide, users are provided with a printable action plan and information to address most types of operations and tasks performed on beryllium-containing materials in an industrial environment.

## WELCOME NEW RWMA MEMBERS

Rolasol S.R.L., located in Argentina, specializes in the manufacturing of equipment for resistance welding. They currently manufacture equipment for solar points 10-15-20-30 kva pedal (manual) and pneumatic. Also, Rolasol performs repairs on any make and model resistance welding equipment.

Rolasol represents several foreign companies in the welding industry, such as Taylor Stud Welding (UK) and Sellstrom (USA).

They are currently negotiating with several companies representing the following countries: USA, Japan, Germany and Denmark.

Bolton Power, Ltd., located in Mexico, supplies industry with a full range of extruded products, in a range of alloys, in many shapes and sizes. These include the following, available in both standard and non-standard alloys:

Rotor bar materials for AC induction motors. Commutator materials for DC induction motors. Generator rotor copper for hydro and turbine rotors. Rod, bar and profiles for all types of power distribution industries. Rods and bars in alloy materials for welding and high speed machining. Rod and bar for busbar systems. Strip material in coil and lengths for the manufacture of electrical connectors.

## RWMA Q&A COLUMN



Check out the September issue of the *AWS Welding Journal* on page 15. Donald Maatz, Jr., Laboratory Manager, RoMan Engineering Services, is the most recent author of the RWMA Q&A column. This column appears every other month in the *Welding Journal*. If you would like to contribute your expertise to a future issue, please contact Susan Hopkins at [susan@aws.org](mailto:susan@aws.org).

## INDIAN WELDING JOURNAL

Roger Hirsch, RWMA Chair, is the featured AWS Editorial in the July 2009, *Indian Welding Journal*. "A Bulletproof Way to make Successful Spotwelding" will be available on the RWMA website for your reading enjoyment.

## FABTECH MEXICO CO-LOCATED WITH AWS WELDMEX AND METALFORM MEXICO

Mark your calendar for the next AWS Weldmex Show, May 11 - 13, 2010, in Mexico City. If you would like information on exhibiting, contact Joe Krall, at [jkrall@aws.org](mailto:jkrall@aws.org), or call him at 800-443-9353, ext. 297.

AWS Weldmex, joined by FABTECH Mexico and METALFORM Mexico is the largest welding, metalworking and fabrication show in Latin America.

## FABTECH INTERNATIONAL & AWS WELDING SHOW



The FABTECH International & AWS Welding Show, including METALFORM is the largest event in North America dedicated to showcasing a full spectrum of metal forming, fabricating, tube and pipe, and welding equipment and technology. In 2009, the event returns to Chicago! Thousands of buyers and sellers from around the world will gather at McCormick Place to exchange products and services, form new business relationships, problem-solve, and share best practices. Be a part of this exciting manufacturing tradition --- make plans now to exhibit or attend the 2009 FABTECH International & AWS Welding Show, including METALFORM.

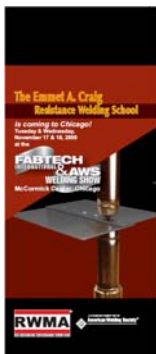
If you want to reach a qualified audience of prospects hungry for what you offer, look no further than the FABTECH International and AWS Welding Show, including METALFORM. There are still a few booths left if you would like to exhibit. Contact Joe Krall, at [jkrall@aws.org](mailto:jkrall@aws.org), or call him at 800-443-9353, ext. 297.

### 2009 SHOW HOURS

Sunday, November 15, 2009	11:00 a.m. to 4:00 p.m.
Monday, November 16, 2009	9:00 a.m. to 5:00 p.m.
Tuesday, November 17, 2009	9:00 a.m. - 5:00 p.m.
Wednesday, November 18, 2009	9:00 a.m. - 3:00 p.m.

FABTECH International & AWS Welding Show, including METALFORM  
McCormick Place North and South Halls  
2310 S. Lakeshore Drive  
Chicago, IL 60616  
Hall website: [www.mccormickplace.com](http://www.mccormickplace.com)

## EMMET A. CRAIG RESISTANCE WELDING SCHOOL IN CHICAGO



The Emmet A. Craig Resistance Welding School will be held in Chicago, Illinois, on November 17 and 18 at McCormick Place. This is the only resistance welding school sponsored by RWMA. Each program session is prepared to offer every participant a thorough knowledge of resistance welding. Actual demonstrations and hands-on participation using a classroom welding machine, and other auxiliary equipment aid tremendously in the learning process.

This intensive 2-day course about the basics of resistance welding is offered once a year. The school is designed to give operators, production supervisors, engineers, and others the opportunity to study, better understand, and further their knowledge in the theory,

applications, and equipment used in the resistance welding process. This intense learning atmosphere will better prepare the unfamiliar and further educate the experienced.

As an RWMA Member Company you understand the value of a program that provides specific information on topics relevant to the resistance welding industry.

You can also help us to educate others on the resistance welding process by offering the Welding School brochures to your colleagues and customers. Request your copies today by calling 1-800-443-9353, ext. 295, or email [susan@aws.org](mailto:susan@aws.org) and we'll get them out to you immediately.

If you haven't had the opportunity to attend this welding school in the past, don't miss out any longer. You may register online at <http://www.aws.org/show/rwma.html>.

## RWMA WELDING SCHOOL TABLETOP EXHIBITS

Join many of the RWMA members who will be taking advantage of exhibiting during the Emmet A. Craig Resistance Welding School lunch on November 17 and 18 in Chicago, Illinois, at McCormick Place. As of the publishing of this Newsletter, only three tabletop display spots are available. Only RWMA member companies may exhibit. The following companies have already reserved their location:

Acme Electric Welder Co.	RoMan Manufacturing, Inc.
CenterLine (Windsor), Ltd.	Resistance Welding Manufacturing Alliance (RWMA)
CMW, Inc.	Southern Copper & Supply
Flexcable	Tec-Option
Huys Industries, Ltd.	The Taylor-Winfield Corp.
Luvata Ohio, Inc.	T.J. Snow Company, Inc.
Matuschek Welding Products, Inc.	Tuffaloy Products, Inc.
National Bronze & Metals	Unitrol Electronics, Inc.
Obara Corp.	

Having a tabletop exhibit is a perfect opportunity to network with students, welders, industry customers, and potential customers. You can find out more about exhibiting by contacting Susan Hopkins at [susan@aws.org](mailto:susan@aws.org), or calling her at 1-800-443-9353, ext. 295.


## AWS ONLINE FORUMS

Did you know that AWS has online forums? These live, interactive forums on the AWS Web site at [www.aws.org](http://www.aws.org) are your virtual sounding board to the wide world of welders and welding. They provide a fast and easy way to exchange ideas, post questions, share insights, as well as get tips and advice on everything welding.

There is no limit to what you can learn on the forums. Everything from inspection questions to new jobs, to advice on equipment and consumables, and local events, are posted. It is the one place where all welding professionals can get together for a chat or even a good laugh.

Don't miss out on the action. Join the forums at [http://www.aws.org/cgi-bin/mwf/forum\\_show.pl](http://www.aws.org/cgi-bin/mwf/forum_show.pl).

## RWMA JOINS FACEBOOK

 RWMA is now on the popular, social networking site, Facebook. On the site, RWMA has been established as a group that visitors can join, and as a web page that visitors can become fans of. Becoming a part of the networking site increases RWMA's visibility.

Become a fan, and we will keep you informed of all the current happenings within the Committee. If you have any suggestions to make this page more useful, do not hesitate to contact Susan Hopkins, RWMA Program Manager at [susan@aws.org](mailto:susan@aws.org).

### APEX WELCOMES NEW SALES MANAGER



APEX Controls is pleased to announce the addition of Terry L. Stevens as the new Sales Manager for the Control Systems Division. Stevens brings with him a wealth of knowledge, experience and acquaintances. He comes to APEX Controls from Rockwell Automation where he spent 16 years as a sales technical specialist in PLC, HMI, CNC, servos and software.

*Submitted by Matt Post  
Apex Controls  
Hudsonville, Michigan*

### NEW LOCATION FOR RoMAN ENGINEERING SERVICES

RoMan Engineering Services (RES) has grown! After many years at the Madison Heights, Michigan, location, the company has moved to a larger and more up-to-date facility. On August 17th, 2009, RoMan Engineering Services began operations on its new facility located at 32711 Glendale Avenue, Livonia, Michigan, 48150-1611. The telephone and fax numbers will remain the same (248-585-5540 phone, 248-585-5577 fax.) The new facility boasts a more updated plant and metallurgical laboratory, and allows RES to reorganize its operations to better suit customer needs. Please make note of the new location, and stop in anytime to see the new facility.

*Submitted by Don DeCorte  
RoMan Manufacturing Services  
Grand Rapids, Michigan*



### CADI COMPANY AUTHORIZED DISTRIBUTOR FOR BOLTON POWER LIMITED

Cadi Company was appointed authorized distributor for Bolton Power Limited RWMA Copper Alloys in the United States, Canada and Mexico.

*Submitted by Rocco Capozzi  
Cadi Company  
Naugatuck, Connecticut*

### FLEX-CABLE PASSED ISO AUDIT AND HIRES NEW QUALITY ENGINEER

Congratulations to Flex-Cable, on passing its ISO9001/2000 audit.

Welcome to Dana Macklin, Flex-Cable's new Quality Engineer. Mr. Macklin will lead Flex-Cable to TS16949:2009E Certification by year end. They are currently in the process of TS (Technical Specification) to allow them to be a production supplier to the automotive industry. Their usual supply to the auto industry has always been as a non-production supplier. They are currently in the process of making a product to be used in hybrid and electric vehicles. Prototypes are now being made and supplied to the automotive industry.

Because of their goal to be part of the future, Flex-Cable has recently had their local State Representative, (D) Mike Huckleberry, as well as their US Congressman (R) David Camp, visit their facility, and they were excited about where Flex-cable is headed and the job creation this will bring to the area. We all know Michigan's economy isn't the best these days, and Flex-Cable is working to help turn things around.

Flex-Cable has recently been featured twice in their local newspaper regarding what they are doing and where they are headed.

### NEW RELEASE FROM NATIONAL BRONZE & METALS

National Bronze & Metals, Inc. announces the release of *NBM Model 3 Free Machining DZR "Lead Free" Brass*. It is a LEAD FREE alternative to C36000 - Free Machining Brass. It can be used in RWMA applications, as it out-performs C36000 Brass (26% IACS) versus 37% IACS. It is also a DZR (Dezincification-Resistant) brass, which reduces maintenance and increases longevity for those parts that come in contact with water. For more information, please contact Norman Lazarus.

Submitted by Nilo Aranzamendez  
National Bronze & Metals, Inc.  
Houston, Texas

### THE LATEST PATENTED COMPRESSOR WELDING TECHNOLOGY HAS BEEN LAUNCHED

Prevail Technology (Shenzhen) Co., Ltd. held a press conference on April 10<sup>th</sup>, 2009 to announce a patented resistance welding technology of copper tube and iron compressor shell.

It announced that the welding cost of one refrigerator compressor applied with this patent will be reduced by US\$.44 (RMB3.00);. Therefore, the patent may save billions of dollars in production cost for refrigerator compressor manufacturers a year.

This patent applies the resistance of metals to be welded and correct the accurate mid-frequency inverter direct current for 1ms - 100ms at the power frequency of 1,000Hz before rectification, then resistance heat will be generated between electrodes, and at the same time, impose some force onto the metals being welded to weld. It takes a short time to weld a work piece, only 0.2 seconds, and welding operation will not produce high temperature, without any auxiliary materials and toxicity, so it's environment friendly.

This technology may be applied to save a lot of production cost, reduce the production cycle, effectively improve the product yield and obviously enhance the working conditions of operators by removing lead from the process.

Submitted by Alyssa  
Prevail Technology (Shenzhen) Co., Ltd.  
Hong Kong

### TECNA INTRODUCES ITS NEW CONTROL UNIT - TE700 SIMPLIFIED TECHNOLOGY



Tecna has recently designed a new control unit named TE700 paying particular attention to achieve a simple use of the product and solve various production problems.

The control unit is provided with medium frequency inverter technology, which allows reduced energy consumptions in comparison with single-phase technology and higher welding performances. The quality of the welded spots is repeatable and constant in time.

In addition to five other modes, the Tecna TE700 control unit is provided with an "adaptive" operating mode named Dynamic allowing repeating a welding spot once defined as optimum even though the conditions of the piece to be welded have varied as it may happen in the following situations: non-uniformly aligned sheets, presence of dirt, grease, rust or whatever else may be in between the two parts to be welded. When set in Dynamic mode the TE700 control unit recognizes the presence of an anomalous material and extends the welding time, re-adjusts the parameters and reproduces the spot as it had been in ideal conditions.

Submitted by Doriana Lombardi  
Tecna S.p.A.  
Castel San Pietro, Italy

### PROMOTIONS AT KRITON WELD EQUIPMENTS

Congratulation to Mr. Tulsi Kakadia on his promotion to Technical Vice President, and Mr. Jagdish K. Desai, who has joined as Executive Director. Mr. Desai has thirty-eight years of experience as a Mechanical Engineer in the industry.

Submitted by Vishal K. Purohit  
Kriton Weld Equipments Pvt., Ltd.

## 6<sup>th</sup> INTERNATIONAL SEMINAR ON ADVANCES IN RESISTANCE WELDING

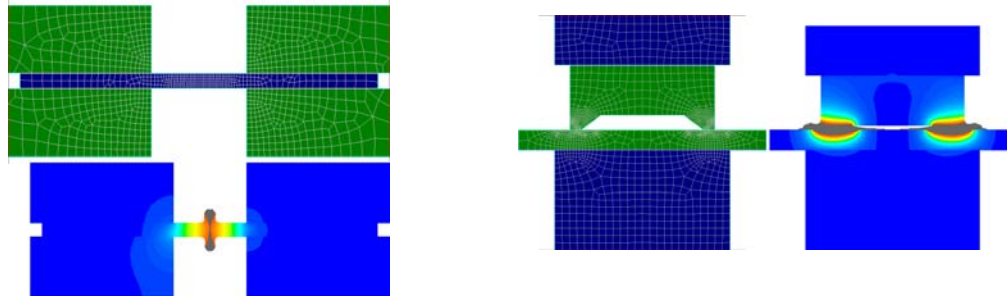
The 6<sup>th</sup> International Seminar on Advances in Resistance Welding will be held in Hamburg, Germany, September 22<sup>nd</sup>- 24<sup>th</sup>, 2010, and follows on the heels of the successful 5<sup>th</sup> Seminar, which was held in Toronto in September 2008 and which 80 people attended from 18 countries. The seminar will concentrate on new product introductions, process control improvements and new materials. For more information, contact Huys Industries.

Submitted by Nigel Scotchmer  
Huys Industries, Ltd.  
Weston, Ontario, Canada

## HUYS INDUSTRIES MAKES IMPROVEMENTS TO SORPAS SIMULATION SOFTWARE

Huys Industries is pleased to introduce further improvements in the latest version of Sorpas simulation software, which now has improved butt and flash welding and square nut projection welding capabilities as a result of improved dynamic mechanical reaction times. These improvements also allow small scale micro-resistance welding applications, where weld force and weld power are sensitive to small changes, to be more accurately forecast.

Submitted by Nigel Scotchmer  
Huys Industries, Ltd.  
Weston, Ontario, Canada



## HUYS INDUSTRIES AWARDED TWO GRANTS FOR ITS INNOVATIVE RESEARCH

The National Research Council has awarded two grants to Huys Industries for its innovative research. The first grant is for the development of patent-pending Form-Fit™ rivets and lock bolts that can join dissimilar materials such as metals and composites. These unique joining materials can be used in conjunction with resistance welding and exhibit superior fatigue life characteristics. The second grant from the NRC is for the development of an improved power supply for Huys' patented electric spark deposition process. This welding process, made famous by the TiCap® titanium electrode, has a welded metallurgical bond and effectively no heat affected zone.

Submitted by Nigel Scotchmer  
Huys Industries, Ltd.  
Weston, Ontario, Canada

## CONGRATULATIONS TO NIGEL SCOTCHMER

Nigel Scotchmer of Huys Industries has been appointed Project Leader by ISO/TC44/SC6 for the development of ISO/NP 12145 (ISO/PWI 13469), which will endeavor to establish standards for the testing and evaluation procedures for certain types of mechanical joints.

Submitted by Kevin Chan  
Huys Welding Strategies, Ltd.  
Weston, Ontario, Canada

## **RWMA 2010 MEMBERSHIP DIRECTORY AVAILABLE SOON**



The 2010 RWMA Membership Directory will be available January 1, 2010. This directory is a very valuable benefit, as it assists others looking for Resistance Welding companies in their area. These directories are available at all trade shows where AWS participates.

All RWMA members will be sent copies when they have been published. If additional copies are desired, contact Susan Hopkins, RWMA Program Manager, at [susan@aws.org](mailto:susan@aws.org).

## RWMA SCHOLARSHIP

This scholarship was established in 2005 by the Resistance Welder Manufacturers' Association (RWMA) to perpetuate its legacy of support for welding education.

The RWMA was a trade association founded in 1936 to promote the technical and economic advantages of the resistance welding process. For 70 years, the members of the RWMA volunteered their time and pooled their resources to ensure that every opportunity was afforded to those individuals who had an interest in the resistance welding process.

This scholarship was established when RWMA joined AWS in 2005, to commemorate the efforts of all those who had worked throughout the years to provide opportunities for learning. The Resistance Welder Manufacturers' Association Scholarship continues, under the direction of the AWS Foundation, to support students of the resistance welding process. The hope is that the scholarship recipients will learn to appreciate the simple elegance and robustness of the process, so that they can carry the message forward to the next generation.

### Purpose

The purpose for this scholarship is to provide financial assistance to those individuals who express an interest in the resistance welding process while pursuing a career in welding engineering.

### Eligibility

This scholarship is available to U. S. and Canadian citizens who are students majoring in Welding Engineering or Welding Engineering Technology. These students must be in good academic standing and meet the following criteria.

1. Junior level student in a four-year program only.
2. Applicant must have a minimum 3.0 overall grade point average.
3. Financial need is not required.
4. Applicant must be a citizen of the United States or Canada, and plan to attend an academic institution located within the United States or Canada.
5. Applicant must be working towards a four-year degree in Welding Engineering or Welding Engineering Technology.
6. Applicant must submit a completed application.
7. Applicant must provide an essay of 500 words or less about why the student wishes to become involved in the resistance welding industry.
8. Candidates must submit a letter of recommendation from a faculty member or an Academic Advisor using the RWMA Scholarship Recommendation form.
9. Candidates must submit a second letter of recommendation from another party, such as an employer, using the RWMA Scholarship Recommendation form.
10. Candidates must submit a personal statement to include the following information: demonstrated timeliness and completion of assignments, creativity in solving problems, demonstrated responsibility on own initiative, ability to work well with others, organization skills (ability to handle multiple tasks, time management), participation in class, campus and outside organizations, participation in AWS Student and Section activities, and career objectives.

For more information please contact: AWS Foundation, Inc.

550 N. W. LeJeune Road

Miami, Florida 33126

800-443-9353, extension 212

305-445-6628

FAX: 305-443-7559

[found@aws.org](mailto:found@aws.org)



## CALENDAR OF EVENTS

FABTECH International & AWS Welding Show Chicago, Illinois November 15-18, 2009	Power-Gen International Las Vegas, Nevada December 8-10, 2009	RWMA/WEMCO Co-located Annual Mtg. Palm Bch Gardens, Fla. March 11 - 13, 2010	WESTEC Los Angeles, California March 23 - 25, 2010
Japan International Welding Show Tokyo, Japan April 21 - 24, 2010	Offshore Technology Conference & Expo Houston, Texas May 3 - 6, 2010	AISC National Steel Construction Conference & Expo Orlando, Florida May 12, 2010	EASTECC W. Springfield, Mass. May 25 - 27, 2010
Beijing-Essen Welding and Cutting Fair Beijing, China May 27 - 31, 2010	AWS Weldmex Mexico City, Mexico June 11 - 13, 2010	Skills USA Kansas City, Missouri June 20 - 25, 2010	Weld Expo Canada Mississauga Canada September 2010
IMTS Chicago, Illinois September 13 - 18, 2010	FABTECH International & AWS Welding Show Atlanta, Georgia November 2 - 4, 2010	Power-Gen Orlando, Florida December 14 - 16, 2010	

## RWMA MISSION STATEMENT

The mission of the RWMA Committee of AWS is to advance resistance welding technology, broaden its use, and promote its economic benefits.

### ANYTHING TO ADD?

If you have news for us, we'll be glad to print it. Send a copy of the information in electronic format to [susan@aws.org](mailto:susan@aws.org), and we'll make sure it gets in the next issue.

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## RWMA 2009 OFFICERS & COMMITTEE CHAIRS

### RWMA Executive Committee

RWMA Chair - Roger Hirsch, Unitrol Electronics

RWMA 1<sup>st</sup> Vice Chair - Wade Burnette, NSRW, Inc.,

RWMA 2<sup>nd</sup> Vice Chair - Mark Gramelspacher, CMW Inc.

RWMA Immediate Past Chair - Michael Simmons, Resistance Welding Products, Ltd.,

### Machinery Division

Representative, Tom Snow, T.J. Snow Company

Alternate Representative, Richard (Dick) Vreeland, Ewald Instruments

### Electrode Division

Representative, Greg Chambers, Luvata Ohio, Inc.

Alternate Representative, Dan Wellman, Obara Corp., USA

### Components Division

Representative, Ricky Martin, Intertron Industries

Alternate Representative, Dan Uszynski, CenterLine (Windsor), Ltd.

### Education Committee

Chair, Patricia (Pat) Adams, ENTRON Controls, LLC

Vice Chair, Tom Snow, T.J. Snow Company

#### Scholarship Subcommittee

RWMA Representative, Kurt Hofman, RoMan Manufacturing, Inc.

#### Welding School Subcommittee

Chair - Bruce Kelly, Kelly Welding Solutions

Vice Chair - Don Sorenson, ENTRON Controls, LLC

### Executive Finance Committee

Chair - Mark Gramelspacher, CMW Inc.

### Marketing Committee

Chair - Ed Langhenry, Jr., Watteredge, Inc.

Vice Chair - Danny Thomason, Dimplex Thermal Solutions

#### Web Site Subcommittee

Chair - John Collins, Spotwelding Consultants, Inc.

#### Member Recruitment Subcommittee

Chair - Garret Herringdon, Southern Copper & Supply

#### Newsletter Subcommittee

Chair - Bill Brafford, Tuffaloy Products, Inc.

### Membership Committee

Chair - Holly Stevens, Flex-Cable

Vice Chair - Wade Burnette, NSRW, Inc.

### Strategic Planning Committee

Chair - Michael Simmons, Resistance Welding Products, Ltd.

### Technical Committee

Chair - Bob White, Jr., Janda Company, Inc.

Vice Chair - Don Maatz, RoMan Engineering Services, Inc.