

MESSAGE FROM THE CHAIRMAN

Dear RWMA members:

I want to thank all of those who attended and participated in the Spring Meeting recently held in York, Pennsylvania, this past May. The number of attendees was the largest that I have seen at the Spring Meeting in recent years. The location and accommodations were above expectations, as always the case with the integral support of our RWMA Program Manager, Susan Hopkins, and the AWS staff.

The topics of discussions were as varied as the members present, covering the broad range of global business, product and process development, and the changing landscape of the market in North America. The changes in the world metal market now affect everyone, and company size is no longer an insulation for any of us.

The tour of the Harley-Davidson plant was apropos, and represents an entity adversely affected by the global marketplace. They have now structured themselves to be the driving force in a segment of that market. Harley-Davidson demonstrated strong sales throughout the world with a product and brand that is recognized as the leader in recreational motorcycles. Applying your efforts to a single focus, and being able to say no to areas that detract you from being number one are key variables in today's world.

The Willie G.[®] leather jacket raffle, that was organized by Bill Love, of CMW Inc., and Jim Dally, of Standard Resistance Welder Company, to raise monies for the RWMA National Scholarship fund, was an excellent idea, as shown by the initial sales. Please remember that if you wish to purchase raffle tickets to support the RWMA National Scholarship fund, contact Susan Hopkins at 800-443-9353, ext. 295, or e-mail her at susan@aws.org. The drawing will take place on August 10th. Education is a vital key in developing the resistance welding market.

I look forward to seeing everyone at the RWMA Annual Meeting in the fall, as well as the FABTECH International and the AWS Welding Show this year.

Thank you.

Michael S. Simmons

RWMA Chair

RWMA SCHOLARSHIP RAFFLE



RWMA kicked off a raffle at the recent 2007 Spring meeting to raise money for the RWMA National Scholarship Fund. Take a chance to win an authentic Harley-Davidson Willie G.[®] leather jacket. Raffle tickets cost \$10 each, or 11 tickets for \$100. Only 2000 tickets will be sold. Proceeds from this raffle will go directly to the RWMA Scholarship Fund.

The RWMA scholarship was established in 2005 by the Resistance Welder Manufacturers' Association (RWMA) in an effort to continue its legacy of support for welding education. The purpose of 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.

The drawing will take place on **August 10, 2007**. Purchase your tickets today, and support the RWMA Scholarship Fund. Contact Susan Hopkins, RWMA Program Manager, at 800-443-9353, ext. 295, or e-mail your request for raffle tickets to susan@aws.org.

RWMA 2007 SPRING MEETING RECAP

Another successful meeting was accomplished with the RWMA 2007 Spring Meeting that was held in York, Pennsylvania, on May 16 - 18, 2007, at the beautiful and historical Yorktowne Hotel. With 35 RWMA member companies represented, and over 56 actual attendees (including spouses), there was ample networking, plenty of information sharing, and a lot of fun for all to enjoy.

The behind-the-scenes tour of the Harley-Davidson Motor Company was especially enjoyable as you can tell by the many photographs on the Photo Gallery page of this Newsletter.



RWMA's guest speaker, Michael Smeltzer, Executive Director of Manufacturers' Association of South Central Pennsylvania, gave a very informative presentation on Preparing Students for High-Quality Technical Careers in America.



This meeting also included four very productive workgroups:

- ✓ **Designers Guide to Resistance Welding.**
- ✓ **Bulletin A - MFDC Inverter Resistance Welding Systems.** This Bulletin will describe the range of MFDC components available, system configurations, and application information.
- ✓ **Bulletin B - Welding Guns.** This Bulletin will describe the various resistance welding gun configuration types, options, installation and maintenance information.
- ✓ **Bulletin C - How to Select a Resistance Welding Machine.** This Bulletin will provide an overview of the considerations that are necessary to select the proper welding machine type, size and configuration.

“COMMITTEE WORK IN PROGRESS”

J1 Committee. Three J1 Committee Task Groups have recently held teleconferences with the support of the AWS eCommittee tool. The result of these meetings led to the drafts of the following documents:

J1A - Specification for Resistance Welding Controls (planned to supersede RWMA Bulletin 5); J1B - Guide to Installation and Maintenance of Resistance Welding Machines (planned to supersede RWMA Bulletin 14); and, J1C - Resistance Welding Pocket Handbook (planned to supersede RWMA Quickie Reference).

A virtual meeting of the J1 Committee on Resistance Welding Equipment will be held in July and the first physical meeting is planned for Tuesday, November 13, 2007, in Chicago.

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). 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).

C1 Committee. The C1 Committee on Resistance Welding is scheduled to meet in Chicago, Illinois, on Monday, November 12, from 1:00 p.m. to 4:00 p.m.

Designers' Guide to Resistance Welding Workgroup. During the RWMA Spring Meeting, members reviewed the outline for the “Designers' Guide to Resistance Welding” prepared by Mike Cubert of Sciaky Inc., and Dan Uzynski of Centerline (Windsor) Limited. The outline provides sufficient technical detail to enable a Product Designer to apply resistance welding in basic assembly configurations. In the event that the application should become technically complex, the listed references in the guide would serve as a basis for the designer to conduct his/her own investigation to complete the design.

The outline was prepared based on a draft developed during the Fall Meeting, and covers the following chapter headings:

1. Fundamentals of Resistance Welding
2. Weldability
3. Joint Design
4. Process Selection
5. Weld Performance Requirements
6. Equipment
7. Pre/Post Processing
8. Work Handling
9. Technical References

Each part of the guide was further elaborated upon and references were provided for each chapter item. The reference material, which in some cases may be somewhat dated, was used to prepare the draft; however, it was noted that updates would be required in order to reference modern welding practices, in addition to technical advancements.

Members reviewing the Designer's Guide outline to the guide were very helpful in providing additional reference information and comments on ways to improve the document. The next step is to assimilate the information and comments, via a matrix, and solicit assistance from members, who believe they can offer contributions in specific areas of expertise, which will help complete the guide.

A special thanks to all members who participated in the meeting and to those who will be volunteering their time to advance this draft towards its eventual hand-off to the C1 Committee on Resistance Welding.

CCRW Subcommittee. The CCRW (Certification of Resistance Welding Technicians) Subcommittee met in conjunction with the RWMA Spring Meeting on May 16th, 2007. The attendees demonstrated a lot of interest in this subcommittee. P. Howe, Secretary of this subcommittee, reported that plans are moving forward, and the next meeting will be held in San Antonio, Texas, in conjunction with the RWMA Annual Meeting. This meeting is open to all attendees. More information will soon be available.

RWMA WELDING SCHOOL IN CHICAGO

The Emmet A. Craig Resistance Welding School, which is an intensive 2-day course about the basics of resistance welding, will be held in Chicago, Illinois, on November 13 - 14, 2007, at McCormick Place. 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.

This is the only resistance welding school sponsored by the voice of the industry, the 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 welder and other auxiliary equipment, aid tremendously in the learning process.

If you are planning on attending, we highly suggest that you make your hotel accommodations very soon, as the rooms are filling up quickly.

You can register online at <http://www.aws.org/w/a/show/rwma.html>.

RWMA WELDING SCHOOL TABLETOP EXHIBIT & RECEPTION

Only RWMA members may reserve a tabletop exhibit space at the Emmet A. Craig Resistance Welding School in Chicago, Illinois. This exhibit and reception will take place after the first day's program on November 13th, from 5:00 p.m. to 6:30 p.m. at McCormick Place.

Did you know that 70% of RWMA Welding School attendees are decision-makers with purchasing power, and 57% of them plan to make a purchase in the 12 months following the Welding School? As an exhibitor at the welding

school, you'll have the unique opportunity to talk directly to these decision-making professionals, as well as show your products and services to a captive audience of buyers, technicians, and engineers, who are seriously looking at Resistance Welding as a business solution. As an exhibitor, your company can tap into this growth potential and meet the market's decision-makers.

Exhibitor Benefits

- Standard tabletop exhibit space 6' long by 30" wide, draped, reinforced table.
- Free Entrance to the AWS/FABTECH Show Floor.
- Two free booth personnel registrations.
- 1-½ hours of exhibits with reception to ensure traffic in the exhibit hall. The reception, with complimentary beverages, is scheduled for Tuesday, November 13, 2007, from 5:00 p.m. to 6:30 p.m. to attract attendees and provide an excellent opportunity to mingle in a relaxed setting.
- Experienced and professional show management dedicated to serving your needs.
- Free booth sign with your company name.
- Free pre-registered attendee list distributed on-site.
- Free final conference attendee list.
- Tabletop Exhibit Reservations are on a first-come, first-served basis.

Space is limited, so register today. The deadline is August 1, 2007. Cost is \$300 for a standard tabletop exhibit, and remember, **ONLY RWMA Members may take advantage of this special offer.** For more information or to reserve your tabletop exhibit, contact Gladys Santana at 800-443-9353, ext. 223.

RWMA BOOTH AT FABTECH INTL. & AWS WELDING SHOW

RWMA will have a booth at the upcoming FABTECH International and AWS Welding Show in Chicago, Illinois, November 11 - 14, 2007. Are you able to spare an hour or two as a volunteer in the RWMA booth? Your expertise is needed in providing industry insight and technical assistance to prospective members and interested show attendees. Please contact Susan Hopkins at susan@aws.org or 800-443-9353, ext. 295, if you will be available to assist at the booth.

RWMA PUBLICATIONS



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

MEMBER NEWS

CMW's SIGNIFICANT INVESTMENT IN STATE-OF-THE-ART TECHNOLOGY

CMW Inc.'s significant investment in state-of-the-art CNC technology for high volume, resistance welding consumables production is working very well. CMW has also significantly expanded its capabilities to make Asian and European taper products and threaded electrodes. Together with cold-forming capabilities, these new technologies have greatly enhanced CMW's ability to meet the varied needs of the resistance welding marketplace. CMW thanks all of its authorized welding distributors for their support.

CMW HAS NEW PRODUCT IN BETA TESTING

CMW Inc. has new products in development, and one is now in beta testing. More details to come.

CMW WELDING SCHOOL IN CHICAGO

CMW Inc. plans to send two people to the November, 2007 RWMA Welding School in Chicago, IL. CMW encourages all RWMA members to promote the Welding School to your customers, end-users, and employees.

*William (Bill) Love
CMW Inc.*

SCIAKY, INC., ATTENDING 2007 AEROMAT CONFERENCE

Sciaky, Inc., will be attending the 2007 AeroMat Advanced Aerospace Materials & Processes Conference and Exposition June 25-28, 2007, in Baltimore, Maryland. At the exposition, Sciaky will be demonstrating its latest advancements in Electron Beam Free Form Fabrication (EBFFF). A model of the part is created using the latest CAM techniques. From the model, machine instructions are generated that allow the tested, proven, and widely used EB welders along with their new innovative controls to deposit a near net shape in a fraction of the time and expense of traditional fabrication methods. Sciaky will also be presenting technical papers at the conference.

*Michael Cubert
Sciaky, Inc.*

Portable Niton X-ray Fluorescence Materials Analyzer acquired by Cadi Company

Cadi Company recently acquired a portable Niton X-ray Fluorescence materials analyzer. This new analytical equipment enables Cadi to perform onsite chemical analysis of most metals within seconds on the shop floor. This technology was originally developed by NASA to allow analysis of minerals in space on the Mars Rover. This equipment can be taken to the market to identify or verify composition.

*Tom Chandler
Cadi Company*

SORPAS Resistance Welding Simulation Software acquired by RoMan Engineering Services

RoMan Engineering Services is proud to announce the acquisition of the SORPAS resistance welding simulation software. This is the latest addition to RoMan's full-service welding laboratory and consultation service.

SORPAS (Simulation and Optimization of Resistance Projection and Spot welding processes) is a fully integrated professional software package designed to aid in the determination and refinement of resistance spot and projection welding process parameters.

"The integration of SORPAS into our existing welding laboratory allows RoMan Engineering Services to tailor a wide range of services and testing to meet the growing demands of the welding engineering industry. SORPAS, together with our current services, will allow RES to completely assist customers with their welding needs from conceptual part design and material selection to final production on the plant floor," said Kurt Hofman, President. "This unique bundling of services will increase our efficiency and compress the time required to meet our customers' needs."

*Don DeCorte
RoMan Manufacturing*

MIYACHI UNITEK RELEASES 2000A INVERTER

The ISA-2000CR is the latest addition to Miyachi Unitek's range of large scale inverters for resistance welding. This unit is capable of producing 2000A primary with all of the features of the ISA family including 5 feedback modes, fast rise times, high output stability, NEMA style enclosure, built-in weld monitoring, communications package, and force control option. This weld control was specifically developed to address the growing demand for projection welding.

Increased efficiency is always a prime manufacturing process goal: increased throughput, reduced material usage, improved strength. High current resistance welding can provide extremely efficient, fast, high integrity joints of connectors, fasteners and subassembly pieces. Inverter resistance welding can replace slower joining technologies, such as brazing and arc welding, and offer increased process control over traditional AC and CD weld controls.

*Ivonet Gomez
Miyachi Unitek*

CYBERSMITH ENGINEERING EXPANDING

Cybersmith Engineering has increased its square footage by an additional 10,000 square feet. The aim is to streamline final assembly of special machines.

*Jack Smith
Cybersmith Engineering*

DID YOU KNOW?



Over time, the flexing and thermal cycling of the secondary cables and shunts will start to increase their electrical resistance. Even though a cable does not look worn out, it may be much less efficient than you think. I was at a plant where they said the cables were “like new” but they “blew up all the time.” When we checked them, the resistance was very high and the cause of their unexpected failures. When a cable or shunt has reached approximately double its new resistance value, it is time to change the cable or shunt. Kickless cables and shunts that are moving with every weld are prone to naturally breaking down and do have a limited life. The cost of these cables requires that we get the most use out of them as possible. Periodic monitoring of the resistance of the cables will allow your process to get the most out of your cables and can tell when something is wrong with the system – before it is too late.

*Submitted by Kevin R. Chan
Huys Welding Strategies, Ltd.*

FROM THE FIELD

CMW Inc. received a phone call from one of its Welding distributors requesting help with one of its customers. The customer had a spot welding machine set-up with fixtures to weld a specific part, and they wanted to make the machine capable of welding various different set-ups. The customer was relatively new to resistance welding. They had done resistance welding of specific parts and were looking to expand their business.

We explained to the distributor salesman that the customer did not need all of the special tooling and could make a standard set-up capable of running various different parts. The distributor salesman, who was also new to resistance welding, did not understand how to remove the special tooling and convert the set-up. We asked him to take digital pictures of the customer’s current machine set-up from various angles, and then e-mail them to us.

After the pictures were sent, we called him to discuss them. We went through each picture and talked about which fixtures to remove and what this should leave in the machine. We continued this process until we got to where all we had left were the two arms with holes. We then explained how to measure the ID (inside diameter) in each arm to determine which holder barrel size would fit the arm, so we could select a standard holder. We determined with the customer that a standard 8" long barrel with the correct size OD (outside diameter) is what they needed. Then, we discussed which electrode shape and material would be best for each of the different applications they were planning.

The customer ordered the parts through the distributor and now can run any of their jobs on any of the different equipment they have on the shop floor. The customer is very happy that they standardized their equipment through this process. The distributor and the customer also learned a great deal about equipment set-up.

*Submitted by Jim Embry
CMW Application Engineer*

RWMA 2008 MEMBERSHIP DIRECTORY



We will soon begin working on the 2008 edition of the RWMA Membership Directory. RWMA members will receive requests to review their current write-up and make any changes necessary. The Directory will be published by January 1, 2008, and sent to all RWMA members, as well as being available where AWS exhibits.

Advertising space in the 2008 Directory will once again be offered. Be sure to reserve your space early to get a prime spot.

RWMA 2007 ANNUAL MEETING IN SAN ANTONIO, TEXAS



MARK YOUR CALENDARS! The RWMA Annual Meeting is scheduled for October 18 - 20, 2007, in San Antonio, Texas. Join us at the Omni, La Mansion del Rio Hotel, located in the heart of San Antonio, along the banks of the historic Riverwalk for this year's meeting. You won't want to miss out on the networking opportunities as well as the Committee work. RWMA has been able to secure a special group rate at the hotel of \$200 per night, based on double occupancy. However, space is limited, so you'll need to register soon to ensure that special price. For more information, or to register for the Annual Meeting, contact Susan Hopkins, RWMA Program Manager at (800) 443-9353, ext. 295, or e-mail susan@aws.org. You may also print the registration form online at www.aws.org/rwma.

NEW RWMA EDUCATIONAL VIDEO



Mark Gramelspacher from CMW Inc., Jim Dally from Standard Resistance Welder Company, and John Collins from Spot Welding Consultants, recently visited the AWS Headquarters and met with Administrative Staff, Ray Shook, AWS Executive Director and Jeff Weber, AWS Associate Executive Director. They, along with Bob Roth from RoMan Manufacturing, discussed the production of a new RWMA Educational video. AWS will work with the Committee on this project.

(L-R) John Collins, Jim Dally, Jeff Weber, Mark Gramelspacher, Ray Shook

WELCOME TO OUR NEWEST RWMA MEMBERS

Aerosmith Welding (Queensland, Australia), manufactures and repairs aircraft components with Civil Aviation Authority #A403037, and Civil Aviation Authority #C573723. They are also involved with engineering approvals for safer aviation components.

CIS Technical Solutions (Windsor, Ontario, Canada), has been helping businesses successfully implement and optimize new and existing robotics and control processes for over twenty years. CIS welding professionals are well versed in a variety of welding applications, and are highly adept at bringing process improvement and optimization solutions to all automated resistance, projection, and arc welding applications. Visit them at www.cistechnicalsolutions.com.

General Electrode Engineering, Inc. (GEECO, Inc.) (Cockeysville, Maryland), manufactures specialized electrodes, holders, and assemblies utilized in resistance welding. They also specialize in difficult to weld applications where weld quality and electrode longevity are important weld criteria. Their customers often are looking for Sigma 6 production standard of quality. In addition, they work closely with their customers to address design issues, testing, as well as technical know-how.



KVA Resistance Welding Supply (Belcamp, Maryland), distributes resistance welding equipment and supplies. They also install, service, and repair resistance welding machinery. Visit them at www.kvawelding.com.

RWMA Chair, M. Simmons presenting C. Breidenbaugh, President of KVA Resistance Welding Supply, with their new member plaque.



RMSA, Inc., (Landsdale, Pennsylvania), has been serving the resistance welding industry for more than 15 years. They currently stock a wide range of equipment and supplies for all of your resistance welding requirements. They are also wholesale distributors for the industry. Visit them at www.rmsa-inc.com.

RWMA Chair, M. Simmons, presenting Theresa Mustaccio, Director of Operations of RMSA, Inc., with their new member plaque.

2007 CALENDAR OF EVENTS

<p>GAWDA Annual Meeting San Francisco, CA September 15-19, 2007</p>	<p>RWMA 2007 Annual Meeting San Antonio, TX October 18-20, 2007 Omni La Mansion del Rio</p>	<p>FABTECH International and the AWS Welding Show Chicago, IL November 11 - 14, 2007</p>	<p>POWER-GEN International New Orleans, LA December 11-13, 2007</p>
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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, and we'll make sure it gets in the next issue.

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2007 SPRING MEETING GALLERY



Ron Pratt, Cadi Company, Ed Langhenry, Jr., Watteredge, Inc., Fred Burton, Southern Copper & Supply, Preston Harris, Tuffaloy, and William (Bill) Love, CMW Inc.



Randy Spoth (left), Sherbrooke Metals Corporation, and Jim Dally, Standard Resistance Welder Company



Daniel Galliher (left), Tower Automotive, and Dan Uszynski, CenterLine (Windsor) Ltd.



Ricky Martin, Intertron Industries



Tom Snow, T. J. Snow Co.



Larry Moss (left), Automation International, and Roger Hirsch, Unitrol Electronics



RWMA members enjoying the Harley-Davidson tour.



Joe Krall (left), AWS, and Mark Gramelspacher, CMW Inc.



Bea Remmetter-Paar, Nonferrous Products



Nigel Scotchmer, Huys Industries



Bill Love, CMW Inc.



Fred Burton, Southern Copper & Supply