

MESSAGE FROM THE CHAIRMAN

Dear RWMA members:

Our membership continues to grow, as well as the attendance to our meetings. The number of active participants is the main focal point that will move our agenda forward with the education of the manufacturing world of resistance welding, as well as inspiring young and upcoming adults to pursue a profession within our industry. Even though we continue to grow, we must not lose sight of the fact that a single-minded focus turns resources into results in a global market.

This was shown in the reports of some firms increasing sales through overseas markets with the strength of the dollar setting records in the last few months while the North American market languishes in a slowing economy. By reducing the excess of non-core business goals, companies/organizations and individuals can be easily visible to a global customer base, with the real-time information tools, when they are at the top of their field.

In closing, I want to thank all of the long-standing members, newly renewed past members, and new members, for allocating resources to the progress of the RWMA.

Thank you.

Michael S. Simmons

RWMA Chair

RWMA 2007 ANNUAL MEETING RECAP

Another successful meeting was accomplished with the RWMA 2007 Annual Meeting held in San Antonio, Texas, October 18 - 20, 2008, at the Omni La Mansion del Rio Hotel, located along the banks of the historic San Antonio River. With 36 RWMA member companies represented, and over 85 actual attendees (including spouses), there was ample networking, and a lot of fun for all to enjoy.



RWMA's guest speaker, Joann Natarjan, Compliance Assistance Specialist in the Austin-area Occupational Safety and Health Administration (OSHA) office, educated the attendees with an overview of OSHA cooperative programs, including Partnerships, Alliances, OSHA Challenge, and the Voluntary Protection Program. Ms. Natarjan also discussed OSHA statistics regarding spot welder accidents, and safety precautions for spot welders.

Some of the attendees at the Annual meeting participated in a teambuilding "scavenger" hunt around the Riverwalk. It proved to be a great opportunity to socialize in a fun setting, and to become acquainted with many of the attendees. The group was made up of five teams, with Team Armadillo winning first place. Dos Equis and Team Omni won second and third, respectively. Go to the [RWMA website](http://www.rwma.org) to get a glimpse of the various teams exploring the Riverwalk.

Members were also entertained by a strolling mariachi trio at the Welcome Reception on Thursday evening. Friday evening brought out the country-western in the attendees, when they donned western attire and enjoyed a Texas bar-b-que feast. The reception and dinner allowed for plenty of networking, as well as dancing.



RWMA SCHOLARSHIP RAFFLE



Randy Spoth showing off his Willie-G® Harley-Davidson Jacket.

Congratulations to Randy Spoth from Sherbrooke Metals, winner of the first RWMA raffle. Randy was presented with a Harley-Davidson Willie G® leather jacket, during Friday evening's dinner at the RWMA Annual Meeting.

Over \$3300 was raised to help fund a new RWMA scholarship as a result of this raffle. This scholarship will provide financial assistance to individuals who express an interest in the resistance welding process, while pursuing a career in welding engineering.

A new raffle will commence at the RWMA Booth, #38003 in the North Hall, during the FABTECH International and AWS Welding Show in Chicago. Take a chance to win a \$500 Gift Card from either Home Depot or Lowes. Tickets will be \$2 each, \$5 for 3, or \$7 for 5. Proceeds will go directly to 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. The drawing will take place on November 30, 2007.

“COMMITTEE WORK IN PROGRESS”

J1 Committee. The inaugural meeting of the J1 Committee on Resistance Welding Equipment is scheduled for Tuesday, November 13, 2007, at McCormick Place in Chicago, Illinois. The current J1 task group efforts are directed to the following standards: 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). In addition, a new task group is planned to determine a method of resolving the RWMA Bulletin 16 electrode material classification system with ISO/FDIS-5182 Welding Materials for resistance welding electrodes and ancillary equipment.

Individuals who are interested in participating on the J1 committee or any of these task groups can obtain additional information by contacting the J1 Secretary, Annette Alonso, by phone (800-443-9353 x 299) or e-mail (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.

The C1 Committee is currently working on the revisions of the C1 standards: C1.1, Recommended Practices for Resistance Welding, C1.4, Specification for Resistance Welding of Carbon and Low-Alloy Steels, and C1.5, Specification for the Qualification of Resistance Welding Technician.

If anyone would like more information on the C1 committee, please contact the C1 Secretary, Annette Alonso, by phone (800-443-9353 x 299), or e-mail (aalonso@aws.org).

Designers' Guide to Resistance Welding Workgroup. During the RWMA Annual Meeting, members reviewed the current draft of the “Designers' Guide to Resistance Welding.” Volunteers were assigned to specific chapters within the Designers' Guide for further research. This Guide will be available for review during the RWMA Spring Meeting. The Co-Chairs of this workgroup are Dan Uszynski and Mike Cubert. A special thanks to all members who participated in the meeting, and to those who volunteered their time to advance this draft towards its eventual hand-off to the C1 Committee on Resistance Welding.

Below are the 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

CCRW Subcommittee. The CCRW (Certification of Resistance Welding Technicians) Subcommittee met in conjunction with the RWMA Annual Meeting on October 18, 2007. The members of the subcommittee worked diligently towards the advancement of the programs ultimate success, with clear direction from Vice-Chairman, Mr. Don Maatz. Frank Lopez Del Rincon, Alternate Secretary of this subcommittee, reported that plans are moving forward in the preparation of the exam questions. The next meeting will be held in Bowling Green, Kentucky, again in conjunction with the RWMA Annual Meeting. This meeting is open to all attendees. More information will soon be available.

ELIHU THOMSON AWARD



Congratulations to Howard D. Johnston, the 2007 Elihu Thomson Award Recipient. This award is presented annually to a living individual who has made an outstanding contribution to the technology and application of resistance welding as evidenced by any of the following:

1. A technical paper published in the Welding Journal.
2. Innovations in resistance welding equipment.
3. A unique application of resistance welding in a production environment.
4. Other contributions as the Awards Committee shall deem worthy of recognition.

Mr. Johnston was raised in southern Wisconsin, and graduated from Milton Union High School in 1955. He started working for Fisher Body in Janesville, Wisconsin, while still a senior in high school.

In August 1955, he transferred to the Chevrolet Division in Saginaw, Michigan, to attend General Motors Institute (now Kettering University) in Flint, Michigan. He received his bachelor's degree in mechanical engineering in 1959. His graduation thesis concerned the V-8 cylinder head combustion chamber. For the next four years, he continued with Chevrolet in various supervision and plant engineering positions.

In 1963 he joined Chrysler Corporation, where he held several manufacturing positions. In 1970, he was promoted to manufacturing manager.

The following year, Johnston joined P. R. Mallory and Co., Inc., as a division manager in Indianapolis, Indiana. In 1972, he met Phillip Roger Mallory who introduced him to the early history of resistance welding. Mr. Mallory had worked with Henry Ford to develop resistance welding technology.

In 1978, Johnston and his partners purchased Mallory Metallurgical Company from P. R. Mallory to form CMW Inc. The company continued to develop materials and improve resistance welding products. After selling the company in 1999, he retired as company president in 2002.

Johnston was an active member of RWMA for many years, serving on the Finance Committee of the Board of Directors, helping to establish budgets and a sound financial condition for the organization.

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, 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.

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, on November 13, from 5:00 p.m. to 6:30 p.m. at McCormick Place. Huys Industries, Flex-cable, Tuffaloy Products, Tec-Option, NSRW, CMW, LORS, and the Taylor-Winfield Company, will be taking advantage of this special offer.

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. Cost is \$300 for a standard tabletop exhibit. 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. Visit us in booth number 38003 in the North Hall. There, you will be able to take a chance to win a copy of the *Resistance Welding Manual*. You will also be able to purchase raffle tickets to win a \$500 gift card from either Home Depot or Lowes. Only 3,000 tickets are for sale.

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 Inc.

CMW Inc. welcomes Jeffrey L. Schemel, who joined their Resistance Welding Business Unit as Major Account Manager.

*Submitted by B. Love
CMW Inc.*

DID YOU KNOW?



The term "shunt" has been used as a ubiquitous term for both a secondary rope lay power cable, and a copper laminated secondary power conductor; however, one would be better suited to distinguish between the two to avoid confusion. There is a distinction and, to be correct, you should NOT use the term "shunt" to mean a power conductor of rope lay material, either as an air-cooled cable or a water-cooled cable. A cable is a secondary power conductor manufactured out of copper in a rope lay style configuration. This is a cable and should be called out with that terminology.

On the other hand, a shunt is a secondary power conductor, manufactured by using individual copper laminations, stacked together to a specified thickness and shape. A shunt can be made to various thicknesses and shapes—e.g., "C", "J", "FLAT", — but always uses copper laminations, not copper rope. Use of proper terminology is critical to providing the proper part for maximizing power efficiencies.

*Submitted by Ed Langhenry, Jr.
Watteredge, Inc.
Avon Lake, Ohio*

FROM THE FIELD

Over the past several years, water chillers have become increasingly popular in plants running water-cooled resistance welders. With each welder typically needing several gallons of water per minute to run cool at production line speeds, self-contained, re-circulating chillers are often used today because they pay for themselves quickly.

However, while chillers efficiently solve the problem of high water cost and questionable availability, chillers can also create expensive maintenance problems due to condensation.

Recently, we've seen an alarming increase in the failure of resistance welding transformers after being wet with condensation for extended periods of time.

Transformers that are internally soaked with water can short out and "blow" in a dramatic fashion. Often, it seems, these breakdowns happen at the worst possible time — during a critical production run.

Well-meaning plant personnel sometimes assume that if a steady supply of cool water is good for their welders, then chilled water is even better. While chilled water may help extend electrode life, it may damage the transformer if allowed to run continuously, especially if the machine is not actively welding, such as during lunchtime and at night.

We sometimes see chillers set at temperatures near 50-degrees F, instead of at a temperature slightly above the prevailing Dew Point. (Dew Point is the temperature at which water in the atmosphere condensates. This temperature changes with weather conditions and rises on hot, humid days.)

Although condensation can be a good thing on a glass of ice water or a cold beer, it's bad for a resistance welder.

Unfortunately, due to extremely hot temperatures, and high levels of humidity during the past two summers, condensation is becoming more of a problem and must be taken into consideration when using water chillers with resistance welders.

*Submitted by Tom Snow
T. J. Snow Co., Inc.
Chattanooga, Tennessee*

RWMA 2008 MEMBERSHIP DIRECTORY



The 2008 edition of the RWMA Membership Directory will be published in January 2008. Many RWMA member companies took advantage of purchasing advertising space in this Directory. Additional copies of the Directory may be requested by contacting Susan Hopkins at susan@aws.org.

The Directory will be available at all booths where AWS exhibits.

NEW RWMA EDUCATIONAL VIDEO



Vmatrix, Inc., a production company from California, has been contracted by the American Welding Society to produce an educational video for RWMA. Gary Gabriel, President of Vmatrix, attended the RWMA Annual Meeting in San Antonio, Texas, and spent a considerable amount of time with the RWMA members discussing the content of the video. The members provided their expertise in all the areas being covered. RWMA is excited about receiving the finished product shortly.

WELCOME TO OUR NEWEST RWMA MEMBERS

Lake Welding Supply Company (Muskegon, Michigan), has been serving the welding industry since 1953. They are an ISO 9001:2000 certified supplier of welding equipment; consumables; industrial, specialty, medical and carbonic gases; safety equipment; abrasives; and power and hand tools. Visit their website at www.lakewelding.com.

RWMA 2008 SPRING MEETING IN BOWLING GREEN, KENTUCKY



MARK YOUR CALENDARS! The RWMA Spring Meeting is scheduled to take place April 30 - May 2, 2008, in Bowling Green, Kentucky. While there, attendees will have the opportunity to tour the Corvette Plant. More information will be available shortly.

CALENDAR OF EVENTS

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| FABTECH International and the AWS Welding Show Chicago, IL November 11 - 14, 2007 | POWER-GEN International New Orleans, LA December 11-13, 2007 | WEMCO Annual Meeting Longboat Key, FL January 24 - 26, 2008 | Weld India 2008 International Institute of Welding Congress Chennai INDIA January 8-10, 2008 |
| Weldmex Mexico City, MEXICO January 29 - 31, 2008 | Schweissen & Schneiden (Welding & Cutting) India New Delhi, INDIA February 14-16, 2008 | National Assn. of Trailer Manufacturers Show Las Vegas, NV February 25 - March 2, 2008 | CONEXPO CON/AGG Las Vegas, NV March 11 - 15, 2008 |
| WESTEC Los Angeles, CA March 31 - April 3, 2008 | AISC National Steel Construction Conference and Exhibition Nashville, TN April 2 - 5, 2008 | Japan International Welding Show Osaka JAPAN April 2 - 12, 2008 | RWMA Spring Meeting Bowling Green, KY April 30 - May 2, 2008 |
| Beijing-Essen Welding & Cutting Fair Beijing CHINA May 14 - 17, 2008 | EASTECH West Springfield, MA May 20-22, 2008 | International Manufacturing Technology Show (IMTS) Chicago, IL September 6-13, 2008 | Weld Canada 08' Toronto, Ontario CANADA September 26-28, 2008 |
| FABTECH International & AWS Welding Show Las Vegas, NV October 6-8, 2008 | ASNT Fall Conference & Quality Testing Show Charleston, SC November 10-14, 2008 | Power-Gen International Orlando, FL December 2 - 4, 2008 | |

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 ANNUAL MEETING GALLERY



(L-R) David Beneteau, CenterLine Ltd.; and Milton Tann, Phelps Dodge Specialty Copper Products.



RWMA 1st Vice Chair Roger Hirsch (left), Unitrol Electronics, & John Mendoza, AWS District 18, Director and AWS Vice President



RWMA Chair Michael Simmons, TG Systems, and his wife Kathy.



John Collins, Spotwelding Consultants and his wife, Sharrie



RWMA Members dancing the "Twist" at the Country-Western Reception/Dinner.



RWMA Members during the new video production meeting.



Winners, Team Armadillo, (L-R) Ron Rhodes, Spotwelding Consultants; Bea Remmetter-Paar, Nonferrous Products, Germaine Gould, and Ed Langhenry, Jr., Watteredge, Inc.



2nd Place winners, Team Dos Equis, (L-R) Danny Thomason, Dimplex Thermal Solutions, Natalie James-Tapley, WEMCO Program Manager, Pat Adams, ENTRON Controls, LLC, Bill DeGroot, Gilbert Industrial



3rd Place Winners, Team Omni, (L-R) Preston Harris, Tuffaloy Products; Bill DeGroot, Gilbert Industrial; Ron Adams; Robert Wilson, Toyota Motor Manufacturing and John Collins, Spotwelding Consultants.

VIEW MORE PICTURES FROM THE RWMA ANNUAL MEETING AT www.aws.org/rwma - Annual Meeting Highlights