AWS Detroit
Wishes You a Merry Christmas and a Blessed New Year!

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Andre Young  Mike Karagoulis
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December 2015

This Issue of the Bulletin can be viewed on the web at awsdetroit.org

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Wesley Doneth
Chairman’s Message

Well, we are closing out 2015 and it has been a good year. The world of automotive has been booming and the Metro area seems to build more steam each month. The Detroit Section has a great annual event planned with our Christmas Party planned for Friday December 11, 2015 at the Western Golf and Country Club in Redford. Dan did an amazing job last year so I asked if he could do an encore! Please consider attending and take your spouse out for a wonderful evening. You can contact Susann Morfino for more information at smorfino@hticybernetics.com.

I am now nearly half way thru my term as Chairman and even over the last 7-8 years the membership at AWS is amazing. I was able to attend the AWS Fabtech show in Chicago and over the 4 days met with customers, old friends, students and great people like our current President Dave Landon.

Chicago this year drew 43,836 people from 90 countries and was very busy with people looking at new products. I attended the AWS Section Luncheon and it has grown so large they had to split the Image of Welding into its own event because they couldn’t get a room large enough for all that wanted to attend. During the Section Luncheon, 25 year Silver, 35 Year Life and 50 year Gold members were honored. We had so many Life member awardees they had to split into two groups so everyone could be honored with their award and photographed on stage. I was surprised that when one of the speakers asked for a show of hands how many were members that there were many hands not in the air. If you receive our bulletin and are not a member please consider joining and if you are already a member, please forward this bulletin to someone who may benefit from it and consider gifting them a membership. Another great idea is to share your monthly AWS Journal hardcopy with a student or young person who may be interested in manufacturing.

Well, I would like to wish you a Merry Christmas, Happy Hanukkah and a Happy New Year. See you in 2016 please have a safe holiday season and enjoy time relaxing with family and friends.

Best regards

Wesley Doneth
Celebrate Christmas

Western Golf & Country Club
14600 Kinloch, Redford MI 48239

Friday, December 11, 2015
6:30 PM–11 PM

Attendance Includes
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- Served Meal
- Dessert
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Ask the Welding Engineer

By Donald F. Maatz, Jr.

Q: “In general, when should I use a water-cooled welding cable in place of an air-cooled one? It would seem that there are tremendous advantages to a water-cooled cable for dealing with the heat generated by welding.”

A: “To begin, every component in an electrical circuit has an electrical rating associated with it. This rating may be characterized based on voltage, current, kVA, temperature or some other measurable parameter and can be referenced to an applicable code or standard for that component. The determination of the component’s electrical rating may even involve some form of calculation. Regardless of how it is determined, this electrical rating strongly affects equipment safety and component longevity. In other words, anything in an electrical circuit can act as a fuse should you decide to prove the point. However, it goes without saying this is not at all a recommended course of action.

Generally, the limit for a properly installed air-cooled secondary cable is about 24”, or so. When the length gets much beyond that, the thermal capacity of the shunt is so low as to be almost impractical. Conversely, a reasonable transition point to begin considering a water-cooled secondary is when the required length gets to be greater than about 18”. But, as can be seen in either example, there are no firm guidelines.

An important point to keep in mind is that a short water-cooled cable can become quite stiff. This has two potential ramifications: 1) They can be difficult to install, and 2) Their restriction to movement can potentially have a detrimental effect on weld force.

But to answer your question, both the water-cooled and air-cooled secondary cables have thermal ratings associated with them. And, it is possible to find applications where both can work. The RWMA Bulletin #16 – Resistance Welding Equipment Standards contains guidance in this area and should be referenced as needed. To determine the proper sized secondary cable (air or water cooled) two things must be known:

- The required length
- The maximum continuous current

With the above information you will be able to determine the required cross-sectional area (measured in MCM*) for your application, or more importantly, if it is even feasible.

One final note, the maximum continuous current is also called the Equivalent Continuous Thermal Current, or ECTC. It really is a topic in and of itself and will be the subject of my next column.”

*The cross-sectional area is measured in 1000 circular mils, or MCM. For reference 1 in² = 1273 MCM.

If you have more questions about this topic, Don can be reached at:

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(586) 228-1900 – Office
(734) 793-2304 – Direct
dmaatz@reautomated.com  Subject line: “Ask the Welding Engineer”

References:
2) RWMA Bulletin #16 – Resistance Welding Equipment Standards

Detroit Team,
Another year has passed and we saw many tragedies happen throughout the United States and the world. We need to pray for those who have been afflicted and ask for Peace and understanding. The Christmas season is one of Love for our fellow brothers and sisters. A time for us to come together and help those in need, to give whenever we can. We must remember that Jesus is the reason for the season and we need to come together to bless those we are against. Love those we hate, give a hug and kiss to our children and spouse, pray for peace. May your season be blessed! From my house to yours may we wish you the warmth and beauty of the season and a Merry Christmas!

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Atlas Copco teams with ICR Services to deliver comprehensive repair solutions for pneumatic and electric assembly tools

Warren, MI - Atlas Copco, a world-leading provider of sustainable productivity solutions, and ICR Services, a leader in machinery life cycle solutions, announce today a partnership to provide customers a more seamless and integrated repair solution for pneumatic and electric assembly tools. The two companies will forge an alliance to provide customers from the manufacturing sector with joint comprehensive services from repair to preventive maintenance. Known for providing advanced tightening technology with their world-class industrial tools for the manufacturing industry, Atlas Copco backs up their products with exceptional service solutions. The new partnership seeks to join two industry leaders within the industrial repair space and deliver superior customer service for all pneumatic and electric assembly tools sent to ICR Services for evaluation. The new partnership furthers each company’s goal of providing cost-effective and dedicated solutions.

ABOUT ICR Services - ICR Services is a single source solution provider of industrial component repair, products and services for manufacturing and industrial automation systems. The company is headquartered in Warren, Michigan, United States, with locations in Mexico, Canada and South Africa. Founded in 1992, the company has over 200 employees worldwide.

ABOUT Atlas Copco - Atlas Copco is a world-leading provider of sustainable productivity solutions. The Group serves customers with innovative compressors, vacuum solutions and air treatment systems, construction and mining equipment, power tools and assembly systems. Atlas Copco develops products and services focused on productivity, energy efficiency, safety and ergonomics. The company was founded in 1873, is based in Stockholm, Sweden, and has a global reach spanning more than 180 countries. In 2014, Atlas Copco had revenues of BSEK 94 (BEUR 10.3) and more than 44,000 employees.

Lincoln Electric investing $30M in welding education

Reprinted with permission from American Metal Market; Written by Dan Israeli, dan.israeli@amm.com

NEW YORK – Lincoln Electric Co. is investing some $30 million in a new Welding Technology Center on its Euclid, Ohio, campus.

Construction is expected to begin in early 2016, with the opening of the center anticipated in 2017. The 130,000 square foot facility will double Lincoln’s welding education capacity to 180 welding booths and include high-tech classroom and seminar spaces.

“This investment reflects our commitment to being at the forefront of welding innovation and education,” Lincoln Electric chairman and chief executive officer Christopher L. Mapes said in a statement.

“The increased demand from customers, the skilled trades and technical schools to help develop the next generation of industry-ready welders has accelerated our investment in education,” he said. “Our new Welding Technology Center will allow us to demonstrate how our technical expertise and the value of our solutions can have a measurable impact on educators, students and customers.”

The center will focus on the training of welding educators and industry leaders to “address the rising demand for welding education and career pathways in welding and advanced manufacturing,” Lincoln Electric said, and it also will dedicate resources to support welding training for veterans.

The center will showcase and integrate Lincoln Electric’s latest technologies and solutions into a comprehensive welding curriculum, making it what the company called “the industry’s most advanced facility of its kind.”
Re-cap of November – FABTECH Events
Submitted by Donald Maatz, Jr.

The AWS-Detroit section did not have its monthly technical meeting in November. This was done so that its members could participate in FABTECH, held this year in Chicago, IL. As can be seen below, the section was well-represented in a wide range of activities.

Of Note:
• Past Chairman Don DeCorte (2005-06) received the Elihu Thomson Resistance Welding Award.
• Membership Chair, Dan Galiher, represented the section at the membership recognition luncheon.
• Scholarship Chair, Don Maatz, Jr., chaired the Certified Resistance Welding Technician (CRWT) exam meeting, and was an instructor at the Emmet A. Craig Resistance Welding School.
• Events Chair, Viji Kuruvilla, received his 25 year membership award.
• Current Section Chair, Wes Doneth, represented the section at the membership recognition luncheon and also manned the booth at Fronius, USA LLC.
• Detroit section member, Craig Case, received his 35 year membership award.
• Sheet Metal Welding Conference committee member, Dr. Jerry Gould received the R.D. Thomas Award for support of IIW activities.

It was great to see so many members from all over the world together for this event. FABTECH occurs every November. If you get the chance to attend FABTECH, take advantage of it. I guarantee you will come away with a great experience.

Co-op Welding Students, Summer Interns and Part-time Welders
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Welcome, Amanda! Please tell us a little bit about yourself. My name is Amanda E. Davis-Scherzer, and I’m a Welding Engineer/Metallic Materials Engineer at FCA US.

That’s great Amanda! Do you mind telling us what you enjoy about your position at FCA?
I love dealing with so many different subjects and projects. Maintaining all the arc welding specs, problem solving weld issues and being able to meet so many different people and visit different suppliers. It isn’t monotonous and it’s always entertaining.

One question we always ask our members is, “Why did YOU join AWS?”
My advisor in college recommended it as a way to stay connected with the welding community. AWS gives you so many opportunities to learn and it allows you to network. Since the community is relatively small it’s an amazing way to stay connected.

What’s your favorite AWS event?
FabTech – I like being able to see all of the different things the welding world has to offer, all in the same place.

What do you like to do outside of work?
I enjoy Quad riding. I like to read a lot of books, and camp all over Michigan with my family as often as possible.

Do you have a funny memory or story to share with us regarding welding?
I was sent to South Carolina for hands on weld training. I was working with someone who was doing a GMAW 3G vertical plate test and he got so close to the plate while testing, he melted the front lens and a part of his helmet. It was only after that (and about a month of working with him) he confided that he was legally blind in one eye and the other wasn’t much better. He did pass the testing though.

What about any special or memorable moments?
I took a summer class at the skill center I went to in high school and ended up being a teacher’s aide. The class was open to anyone 14 to 18. I will never forget what it was like to teach a 14 year old kid how to properly use an acetylene torch.

That’s great Amanda! Some of the best memories are made when you can pass on your knowledge to someone else, especially with the younger generation.

Is there anyone or anything that you would consider near/dear to your heart?
Family. They always supported me and made sure I had the things I needed to make it all happen, especially my grandparents.

Have you had a special mentor or have you had the opportunity to mentor someone else in the field of welding?
I have been so fortunate to have known so many wonderful instructors from the time I was in high school to the time that I graduated from college. Every one of my instructors did their best to instill their wisdom in me, and some of them actually succeeded!

Friends and members of my extended family have asked about becoming a welding engineer vs. being a welder. Having lived in both worlds I can see the pros and cons of both career choices.

Amanda, how did you get your start in welding?
It was a complete and total accident. I ended up in a metal shop class by accident in high school. My counselor said it could be changed but I stuck with it and it ended up being awesome. I then went to a skill center my junior and senior years of high school and learned about welding engineering. I realized that I could be a starving artist or a welding engineer. The decision sort of made itself.

What do you see as the biggest challenge for the welding community in the future?
Reliable and capable welders. At one point I had to test new hires and it always amazed me the amount of people that came in with little talent. The pay grade could also use some work, to help promote the need for the skill.

What would you tell someone who may be “on the fence” about getting into welding as a career?
Careers are a funny thing. I was told once that you should love your job and work at something that interests you. If it’s something you love, going to work every single day isn’t that hard anymore. If they were on the fence I’d tell them to consider pros and cons of the career options that are available to them. Chances are after everything is factored in one career choice will out shine the other.

Would you encourage more schools (both high school and junior high) to encourage more young people to look into technical schools and jobs and not just degreed positions?
Absolutely. When in high school, the skill center I attended allowed dozens of schools to attend and learn a skilled trade. There’s quite the age gap between people that are looking to retire and the newest members of the workforce in all trades, not just welding. Having a skilled trade is something you can take anywhere with more open options than what most high school students realize.

Down to our final question of the interview, if you weren’t involved in the welding industry, what would be your dream job?
I have my dream job. Total cliché but completely true. There isn’t anything else I’d rather be doing.

Amanda, Thank YOU for taking the time out of your schedule to be our December “Meet our Members” featured member.

If you would like to be a featured member in our e-bulletin, please contact Daniel Galiher by email at galiher.daniel@towerinternational.com to set up an interview.
WELDING SCHOLARSHIPS
for
POST SECONDARY TRAINING, ASSOCIATE OR BACHELOR DEGREE in WELDING ENGINEERING, WELDING ENGINEERING TECHNOLOGY or RELATED FIELDS with WELDING CONTENT

For students pursuing Post-secondary training or an Associate/Bachelor Degree in Welding Engineering or Welding Engineering Technology. These scholarships provide money to be used for the student's tuition, books, or lab fees for one year. To be eligible for these scholarships, you must be enrolled in a certification-based program or two (2) or four (4) year engineering degree program in Welding, Welding Technology, or a related field. The program supports students attending schools in the state of Michigan and the following counties in the province of Ontario; Essex, Chatham-Kent, and Sarnia-Lambton.

Application forms will soon be on the AWS Detroit Section website www.awsdetroit.org
Application deadline for the 2016-17 academic year is April 1, 2016.
Scholarship Committee, AWS Detroit Section
P.O. Box 32952 • Detroit, MI 48232-0952

For 2015/16 the section was able to award 32 scholarships totaling $45,500 to students from 8 different schools.