November 2019
Inside This Issue

1  CHAIR’S MESSAGE
1  OBITUARY: DEACON
Ronalda A. Grenda
2  RECAP OF OCTOBER 10TH
TECHNICAL MEETING
3  NOVEMBER HOTLINE
5  SCIENCE & TECHNOLOGY
6  COMING EVENTS
6  SOCIAL MEDIA UPDATE
7  DAYS GONE BY
9  2019-2020 PATRON’S
FUND DONATIONS
11  COMMITTEE CHAIRS

John McKenzie
Chairman’s Message

We had two great Technical Meetings so far and both have been well received. The first one kicked off our 2019/2020 season with the theme, Student’s Night. All the scholarship recipients were invited with their parents. The Detroit Section of the American Welding Society gave out $60,000 in scholarships to the students. The second was held at Morrell Group - Arnold Fastening on October 10, 2019 and everyone that I talked with had a great time. The Morrell people were very hospitable and put on a very informative presentation about joining aluminum to high strength steel. I hope to see you all at some of the upcoming Technical Meetings.

Below are a couple of programs from AWS National that are on fire:

2019 Member-Get-A-Member (Be The Spark)
• WHAT IT IS: Be the spark that ignites the people you know to join AWS, and get rewards.
• HOW IT WORKS: Build up points throughout the year for each AWS Member you recruit: 5 Points per Individual Membership and 1 Point per Student Membership.
• WHAT YOU GET: The top point-earner will receive a $500 gift card, and all other participants earning over 10 points will get AWS branded merchandise based on points accrued throughout 2019. Learn more at aw-s.org/membership/page/sparking-connections

Light a Spark Grant  Deadline to apply is December 15th
Miller® and the AWS Foundation have partnered to establish the Light a Spark Grant. This grant provides a starter package of equipment and supplies to introduce welding into an existing high school Ag-Ed Program, Career and Technical Education Class, or Practical Skills Course. Up to 10 starter packages valued at more than $12,000 each will be awarded annually! This grant is not intended for schools that have an existing welding program or course.

If you know a local high school that wants to add welding to their curriculum, tell them to go to www.aws.org/sparkgrant to apply!

On a very sad note, for those of you that haven’t heard a dear friend and AWS life member Ronald A. Grenda has passed away. Ron will be missed by many of the AWS Detroit Section members. We wish to express our heartfelt sympathy to his family.

Deacon Ronald A. Grenda, age 78, passed away October 10, 2019 at his home, surrounded by his loving family. He worked for Weltronic & Newcor before starting his own renovation & remodeling company. Ron was a life member in the AWS Detroit Section and held the AWS Detroit Section Secretary position 1997-2004. He was also the recipient of the District Meritorious award in 2003. In 2009 he graduated from Sacred Heart Major Seminary in Detroit, MI as a Deacon. Ron was very passionate about his ministry and service to God.
The AWS-Detroit Section held a technical meeting on October 10, 2019 at The Morrell Group in Auburn Hills, Michigan. The host for the event was Mark Garrett, President of The Morrell Group.

The technical portion of the event was presented by Edward Kortes, the Lead Applications Engineer for Arnold Fastening Systems on the topic of joining of aluminum structures to various conventional and high-strength-steel alloys using only a single joining element. His talk highlighted the idea of using conventional resistance spot welding tooling in concert with a unique element to facilitate the joining of aluminum to steel.
Dengensha Opens New Customer Service and Support Branch Office In Atlanta

Bedford, Oh... Dengensha America recently opened its newest customer service and technical support branch office just north of Atlanta, Georgia. With this new office, Dengensha will be able to provide customer service and support response that is even timelier for resistance welding customers. The new branch office adds to Dengensha’s two existing US facilities in Cleveland and Cincinnati, Ohio, and will support Dengensha’s rapidly growing customer base, but with a primary focus on supporting southern customers.

According to Don Grisez, Dengensha America President, “With the rapid growth of resistance welding customers in our southern territory, as well as automaker expansion in the south, this new branch office demonstrates Dengensha’s ongoing commitment to provide every customer the best possible sales and service support with the fastest response time possible.”

Dengensha America Corporation offers automotive, agricultural and general manufacturers the most complete line of resistance welding equipment in the world. Dengensha America’s resistance welding product line includes projection and spot welders; weld guns, feeders and controls with consumables, and spare parts. Training and field service complete a single source capability.

For more information about Dengensha America as well as more information about our new branch office in Atlanta, contact:

Maiko Robison
Dengensha America
7647 First Place Drive
Bedford, Ohio 44146
440-439-8081
Email: mrobison@dengensha.com
Website: www.dengensha.com

MSR has two new arrivals!

Amber Haselhuhn had twin girls on Monday, October 7: Nora Elizabeth & Hanna Clarice. Congratulations to Amber and her husband!

November Hotline

This is a friendly reminder...

to please submit “Hotline” articles for the AWS Detroit Section’s E-Bulletin. If you have any articles you would like to get into the eBulletin please email them to Cody.Nichols@midwayproducts.com no later than 3p on the 15th of the month, for inclusion in the next publication. Please submit them in Microsoft Word format and feel free to include photos.

As a reminder, the “Hotline” section is devoted to topics that are general interest items for members of the Detroit Section. General interest items can include job openings, jobs wanted, personnel changes, announcements of special meetings, events, educational opportunities, seminars, obituaries and any other items that may interest the members of the Detroit Section.

Offering Tips to Turnkey Solutions

- FlexGun™ Welding Gun Packages
- FlexFast™ Stationary Fastener Welders
- VeriFast™ Fastener Detection
- MicroView™ Controllers
- CenterLine Resistance Welding Consumables
- DuraPin™ Extended Life Welding Pins
- SeamTec™ Roll Spot Welder
- PedTec™ Accessory Stands
- Custom Automated Assembly Systems

Contact CenterLine today to discuss your spot welding or assembly needs.

CenterLine (Windsor) Limited
415 Morton Drive
Windsor, Ontario N9J 3T8
Email: info@cntrline.com

Follow us on Social Media:

Global Affiliate locations in:
USA, Mexico, Brazil, Germany, Romania, China & India.
The most reliable, easy-to-use Gun Changer. Ever.

A more reliable fail-safe. A patented “springless” mechanical fail-safe is guaranteed to work, even with loss of air pressure.

A more reliable locking mechanism. 7,000 pounds of locking force guarantees that signals pass flawlessly, even with heavy accelerations and payloads.

A more flexible utility solution. Widest choice of modules (power, fluid/air, signal, and more) with common mounting features for greater flexibility.

With patented advances in the locking mechanism and fail-safe, and new flexible module mounting and integrated robot mounting patterns, we’ve created the most reliable, easy-to-use Welding Gun Changers. Ever.

The QC-210 Welding Gun Changer. The new standard from ATI.

Introducing Reversing MFDC and Fast Rise Time MFDC

Today’s Automotive Cafe standards are challenging the industry to take weight out of vehicles. To meet these new standards the auto industry is using more Aluminum, Exotic Metals and new High Strength Steel Alloys to replace traditional steel parts. With the development of the Reversing MFDC and the Fast Rise Time MFDC, RoMan is able to offer the auto industry a solution to effectively Resistance Weld light weight materials.

For more information on Reversing MFDC and Fast Rise Time MFDC Power Supplies

Please visit our website at: www.romanmfg.com

RoMan MANUFACTURING
The World’s Most Trusted Source for Resistance Welding Transformers and Power Supplies

Your Single Source For Resistance Welding Value & Support

Dengensha America offers you the most complete line of resistance welding product equipment in the world—including single point projection and spot weld machines, weld guns, automatic nut and bolt feeders, weld controls, transformers, consumables, and spare parts. Training and field service add to our single source support.

Simplicity, reliability and ease of use add to our value.

Call: 440-439-8081
Ask for Steve Andressy
Web: dengensha.com

DENGENSHA AMERICA
Global Leader In Resistance Welding
Fume generation during arc welding is a well-known environmental hazard and a reduction in fume generation is desirable for managing personal and equipment health in a welding environment. To measure fume, specialized collection equipment specifications and calibration procedures are provided in AWS F1.2. Using qualified equipment in accordance with this specification, experimental trials measured the fume generation rates for both GMAW and FCAW processes parameters and wires.

Further, spatter is a nuisance issue that can cause dimensional issues in the fixture and a component performance issue, if the base metal is hardenable. Specifically, spatter can produce small discrete islands of martensite that could reduce the durability performance or cause premature failure. While there is no standard, spatter in these studies was defined by the collection of all loose matter not collected by the fume filter. Since there is no standardized method for assessing spatter generation, an analogous approach (vs fume) was used to determine spatter generation rate. Copper was used in the construction of the apparatus to aid in the collect the spatter. Spatter was collected from the nozzle, copper surfaces, and plate surfaces, where possible, to obtain spatter mass.

A robot, rotatable positioner, furnace, precision scales, and storage oscilloscope were used to gather information on the fan, fume collection efficiency, weld voltage, and current as shown in Figure 1. The fume and spatter generation rates were determined by weighing the change in filter mass before and after the testing and from the weighing the spatter collection wipes. Both were analyzed per AWS F1.2.

Lastly, these studies were all performed using Design of Experiments (DOE) approach that integrated with the requirements of AWS F1.2. Using this approach, both wire and welding variables have been studied to understand the effects of wire feed speed, weld voltage, travel speed, transfer mode, wire grade, and etc. on fume and spatter generation rates. The measured variables in these studies included change in filter mass and mass of spatter wipes. An example of a used filter is illustrated in Figure 2.

In some cases, the wire feed speed was adjusted to provide a uniform weld width, while in other experimental cases, the weld current and voltage were adjusted to obtain differing weld profile/geometry deposits. In the latter case, the weld geometry was then characterized and the deposited volume of metal deposited was related to fume collection rates.

The test findings showed that smoke and spatter generation depended on transfer mode, shielding gas, welding parameters, and deposited weld metal for the different welding processes. For instance, the globular transfer mode produced much more fume compared to spray transfer mode. Increased weld voltage was very significant with respect to increased fume generation rate. When comparing competing wires, the fume generation rates were compared under their respective optimized fume generation rate welding conditions - unique for each wire. Specifically, while welding parameters (e.g. weld speed, voltage, and wire feed speed) play a primary role, the effect of wire manufacturer was also shown to be statistically significant, in some cases producing up to 70% less fume under respective optimum conditions for the same wire classifications.

Knowing the factors that contribute to increased fume and spatter are the first step to controlling the levels of these hazards in the production environment.

Look for part 2 to this article in the February eBulletin edition. Meanwhile, If you have more questions about this topic, contact Warren Peterson at:

United Technical
1081 E North Territorial Rd, Whitmore Lake, MI 48189
(248) 667-9185 – Office
wpeterson@unitedtech1.com

References
**Coming Events**

**November 11-14, 2019**

**FABtech**
Presented by AWS, FMA, SME, PMA, and CCAI
Location: McCormick Place, Chicago

**December 8-13, 2019**

**CWI 9-Year Recertification Seminar/Exam**
Presented by AWS National
Location: Marriott Detroit Metro Airport

**December 14, 2019**

**AWS Christmas Dinner**
Presented by AWS Detroit
Location: TBD

**January 9, 2020**

**Focus Hope Open House**
Presented by AWS Detroit
Location: 1400 Oakman Blvd, Detroit 48238

**January 28-29, 2020**

**Metal Stamping and Tool & Die Conference**
Presented by PMA
Nashville, TN

**February 13, 2020**

**Easom Automation Technical Meeting**
Presented by AWS Detroit Patrons Night
Location: 32471 Industrial Dr, Madison Hts 48071

**March 12, 2020**

**Motoman Yaskawa, Technical Night**
Presented by AWS Old Timers Night
Location: 2050 Austin Ave, Rochester Hills 48309

---

**Follow Us: awsdetroit.org**

**Social Media Update**

**AS OF OCTOBER 3, 2019**

During the past month LinkedIn page has had:
- 5 new members
- 6 new posts

2,590 total members

During the past month Facebook has had:
- 10 posts
- 117 page likes
- 180 page views
- Posts reached 4,307 people
- 902 people engaged with the posts

8,112 total page likes
Days Gone By...
EISELE LIQUIDLINE - INCREASE WATER FLOW AND REDUCE DELTA P ON WELD-GUN WATER COOLING SYSTEMS

- Standard fittings engineered to deliver 10%+ flow optimization
- Wide-sweep fittings improve flow rates 50%+
- Made from dezincification resistant brass alloy
- Anti-splatter release sleeve
- Swivel designs available
- Threads available in BSPP (G), BSPT (R), Metric & NPT
- Custom sizes and solutions available

When paired with Eisele ProWeld® flame-retardant tubing, you can count on years of leak-free performance.

Contact us today, we will be glad to provide a solution for your application!

*Available in metric and inch in a variety of colors.

SDK ENGINEERING, LLC

WELD PROCESSING SUPPORT
- Joining Consultants
- Long Term Onsite Engineering
  Support Includes
  - RSW/LASER/GMAW(CWI)
  - Alt Joining Processes
    - Self Piercing Rivets
    - FDS
  - Ultrasonic Inspection
  - Tensionics Setup/Training
  - Destruct Services
- MEXICAN AFFILIATE COMPANY
  NISESA GROUP S DE RL DE CV

All Facets of Project Management, Weld Processing, Robot Programming, Equipment Integration, Field Service, & Troubleshooting.

www.sdkeng.com
2019-2020 Patron’s Fund Donations

Our goal at the AWS Detroit Section is “to advance the science, technology and application of welding.” We accomplish this by promoting education and section participation.

It is time again this year to ask you for your generosity in contributing to the Patron’s Fund. We will, as always, contribute 100% of these funds directly towards scholarships for students who are pursuing careers in Welding Engineering and Welding Technology. Each year the American Welding Society Detroit Section sponsors many students with these funds, and because this is such an important part of giving back to the industry that supports us, we hope you can help us by being a proud supporter in this effort.

To be a Patron, simply send a check made out to the American Welding Society Detroit Section for a minimum of $100 or visit our website at http://www.awsdetroit.org/scholarships.html, at the bottom of the scholarship page there is a “Pay Now” button. I encourage you to please consider a contribution of more than the $100.00 minimum, and here’s why.

This year my plea for your support is with more intensity than ever before. The last four years were remarkable years for Patron contributions. Through you, our Patrons, we were able to raise over $11,000 last year. Over the last four years the Patrons have helped us raise nearly $40,000. This year again my goal is $15,000. That may sound ambitious, but I’m sure that many, if not all of you, have had an opportunity to interview applicants for welding related positions within your company. If so, you’ve probably noticed that although the ambition may be there with these potential new hires, the skill sets may not. That’s where the funding comes in. The cost of education is high, and with your help we can provide students that are seeking careers in welding related positions with financial assistance to improve those skills. This creates a stronger, better educated, workforce and a more efficient and profitable company for you. Additionally, you’ll be recognized in the industry for your contributions. Patrons are made known to the membership in the monthly technical bulletin, to the industry on the AWS website, and are further acknowledged with a listing in the annual Ladies Night Program.

If you are a Patron, we thank you for your support, and ask you to please consider increasing your contribution. Whether a longtime Patron or a first-time Patron, your help will assist us to bring about an educated future workforce.

I thank you in advance for your contribution, and await your rapid response for the 2019/2020 season.

Please make contributions payable to: AMERICAN WELDING SOCIETY DETROIT SECTION

Mail to:
Steve Gucciardo
FCA US LLC
800 Chrysler Dr.
Auburn Hills, MI 48326
CIMS: 481-00-35

Warmest regards,
Steve Gucciardo
AWS Detroit Section-Patron’s Committee, Chair
810-623-6508
steve.gucciardo@fca.com

Scott Pronger
Stäubli North America
The Ohio State University
Welding Engineering Alumni
United Technical LLC
Safe Weld Water Solutions

WBB – Water Saver Block is a complete condensed water control system providing water shut off, water flow control, temperature and flow indication all in one tight package.

WRA – Water Retract Actuator allows for SAFE weld tip changes by virtually eliminating water spray when removing a tip. The unit can be used in a stand alone application or in conjunction with robotic weld cell.

Parker provides custom weld water control solutions including fence panels and robot base units.

For more information visit: www.parker.com/weld or contact us at: implantauto@parker.com

ENGINEERING YOUR SUCCESS.

QUALITY ASSURANCE AND INSPECTION SYSTEMS

PRODUCE QUALITY. ALWAYS.

WWW.PLASMO-US.COM

plamento

44160 Plymouth Oaks Blvd. • Plymouth, MI 48170 • USA

CUSTOM PRODUCTS, REPLACEMENT PARTS, COMPLETE BUILD

ANY GLOBAL SPEC WHEN YOU NEED IT.

CUSTOM ELECTRODES

WE WELFORM ELECTRODES INC.

2147 Kenney
Warren, Michigan 48091
www.wellform.com P: (586) 755-1184
F: (586) 755-5639
Chairman
JOHN MCKENZIE

Treasurer
ANDRE YOUNG

Secretary
DAN WELLMAN

1st Vice Chair
JOHN PIPPIN, JR.

2nd Vice Chair
ERIC LICHTFUSZ

1st Assistant to Chair
MARK GUGEL

2nd Assistant to Chair
DONNIE CRIST

3rd Assistant to Chair
RUSSELL WEBSTER

Bulletin Editor
FORREST LISSNER

Webmaster
RODNEY BEREZNICKI

Advertising
BRIAN PETERSON

Hotline Coordinator
CODY NICHOLS

Meeting Reservations
JASON WORKMAN

For Advertising Opportunities
Contact Brian Peterson
810-844-2800
peterson.brian@fronius.com
Proteus Industries Inc.
Flow Measurement Excellence Since 1978

Precise Coolant Control
And Leak Detection for Robotic Welding Systems

SOLD LOCALLY THROUGH
RAM
SOLUTIONS, INC.
Automation and Welding Solutions

Local Sales and Product Support
24/7 Support
Factory Authorized Training

Contact us at Tech@proteusind.com or Sales@ramsolutions.com

UNITED TECHNICAL
WELDING TECHNOLOGY

Welding Engineering Technology
- Consulting - Welding engineering, metallurgical
- Process Development
- Welding Laboratory - Multiple welding processes
- Welder Certification Test Services
- Welding Academy and Training Facility
- On-Site Consulting, Program Support - Short & long term projects
- Weld Evaluations - Full metallurgical, lab, ISO accredited services
- Destruct Services / Vehicle Teardown - ISO accredited

Non-Destructive Testing (NDT)
- ASNT ACCP Level II Certified Inspectors
- Large volume, production capabilities
- Ultrasonic and Ultrasonic Phase Array Services
- Dye Penetrant (PT), Magnetic Particle (PT)
- Helium Leak Testing, Pressure Testing

ISO Accredited Laboratory Testing
- Full Metallurgical Laboratory
- Tensile, Impact (CVN), Fatigue, Hardness
- Scanning Electron Microscope (SEM / EDS)
- Macro Cross-Sectional Evaluations
- Failure Analysis
- Chemical Analysis

United Technical, Inc.
1081 E. North Territorial Road
Whitmore Lake, MI 48189
Office: (248) 667-9185
www.unitedtechnicalinc.com