



American Welding Society®
DETROIT SECTION

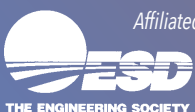


NOVEMBER 2025 Inside This Issue

- 1 HOLIDAY PARTY
@ ONE EYED JACKS
SATURDAY, DEC. 6,
2 TO 5PM
RSVP BY NOV. 25
- 2 CHAIRMAN'S MESSAGE
- 3 OUR MISSION
- 4 2025-26 PATRONS
- 5 ASK THE WELDING ENGINEER
- 8 E-BULLETIN CONTRIBUTORS

Check out the latest videos published
by the American Welding Society
on its YouTube page.

AWS Technical Nights are open to everyone!
We encourage that members bring students
and non-members to learn more about our
organization and industry.



Affiliated With

AWS Detroit Section Presents

Holiday Party @ One Eyed Jacks

Saturday, Dec 6th, 2025 2pm to 5pm

RSVP by November 25th at:
<https://www.eventsquid.com/event/30090>
Tickets for \$65/person



Get ready to jingle, mingle, and swing into the holiday season at One Eyed Jacks Bar and Grill! Join us for an unforgettable Holiday Party packed with epic fun, delicious food, and the best vibes in Southeast Michigan. Whether you're looking to connect with friends, make new professional contacts, or just have fun, this is the place to be!

- Games Galore: Battle it out over vintage arcade games, rack 'em up at the pool table, tee off at a state-of-the-art golf simulator, or toss some bags on one of the cornhole lanes. There's something for everyone to flex their competitive side!
- Mouthwatering Eats: Feast on legendary pizza, and a pub favorite taco bar from the kitchen. Save room for decadent holiday desserts to satisfy your sweet tooth!
- 50/50 Raffle & Giveaways: Try your luck in our 50/50 raffle for a chance to win big, plus score awesome giveaways throughout the night!
- Vibes & Connections: Mix and mingle with friends, colleagues, and new faces. It's the perfect spot to spark new professional connections or just soak up the holiday spirit.

Why You Can't Miss This: From the high-energy games to the bold flavors and lively atmosphere, this holiday party is your chance to celebrate the season in style. Bring your crew, your holiday cheer, and maybe even your A-game for cornhole or golf!



Chairman's Message
Donnie Crist

Hello AWS Members and Friends,

It's hard to believe that November is already here!

On Thursday, October 23rd, CenterLine hosted the Detroit Section Technical Meeting at Wayne State University's College of Engineering auditorium. Kyle Meloche

from CenterLine delivered an excellent presentation on the latest Versa Force Clinch Press solutions. We had a great turnout, and Kyle's insights into mechanical joining were very well received. Thank you to Kyle and the entire CenterLine team for their support and for sharing their expertise.

During the meeting, we also had the privilege of honoring the late Bruce Kelly. Bruce's family joined us as we posthumously presented him with the District Meritorious Award in recognition of his more than 40 years of dedicated service to the Detroit Section. Bruce served on numerous committees and as an RWMA instructor, leaving a lasting impact on our welding community.

Looking ahead, our next Technical Meeting will be held in January and promises to feature an exciting topic. Stay tuned—details will be announced in next month's E-Bulletin.

Before then, we hope you'll join us for some holiday cheer at the **AWS Detroit Section Holiday Party**, which will take place on **Friday, December 6th**, from 2 to 5 PM at One Eyed Jacks in Shelby Township. This event will be a great opportunity to relax, reflect on the year, and enjoy the company of fellow members and friends. Be sure to mark your calendars—registration will open soon!

Thank you all for your continued support of the AWS Detroit Section. I look forward to seeing you at our upcoming events.

Warm regards,
Donald Crist

LUVATA



Ask us about the difference a Luvata weld can make

Manufacturing welding solutions including Nitrode®, A-Trode®, H-Trode®, Z-Trode®, Cupal®, Luvaweld® brazing wire, MIG contact tips and projection welding electrodes.

Luvata Ohio, Inc.
1376 Pittsburgh Drive
Delaware, Ohio 43015
Phone: +1 740 363 1981
www.luvata.com/welding

A Group Company of  MITSUBISHI MATERIALS



Kentucky 859-283-5490
Michigan 586-755-1250

Obara USA has established itself as a premier supplier of high quality welding equipment and services. With our worldwide resources for equipment, research and development, and manufacturing, Obara USA can meet any project requirements, regardless of size or scope.

www.obarausa.com



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
 - Tessonics 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

Our Mission

is to advance the science, technology and application of welding and allied joining and cutting processes worldwide, including brazing, soldering and thermal spraying. AWS Detroit provides support for the industry in many ways, including:

- » *Institutional Grants (endowment based);*
- » *Scholarships through Application (endowment based);*
- » *Scholarships through aptitude (HSWC);*
- » *Vocational Support (case by case but budgeted each year), Institution (e.g. supply gas and materials), Local Contest (e.g. travel expense), International Contest (e.g. travel expense);*
- » *Student Memberships (evaluated each year);*
- » *Student Chapter (evaluated each year);*
- » *Technical and Educational Opportunities.*

A TRUE MANUFACTURER

RESISTANCE
WELD GUNS

SPECIALTY
MACHINES



MILCO
MANUFACTURING

2147 East Ten Mile Phone: (586) 755-7320
Warren, Michigan 48091 Fax: (586) 755-7442
www.milcomfg.com

TECNA[®] USA

Resistance Welding Systems & Balancers

**the most complete range of
spot welding robot guns for the industrial sector**



INDUSTRIAL RESISTANCE WELDING SYSTEMS
CAR BODY REPAIR TECHNOLOGIES
BALANCERS & BOWDEN RETRACTORS





Patrons 2025-26

Thank you for your support!

ONE HUNDRED PERCENT

of the Patron's Fund Donations
are directed to scholarships for students
who are pursuing careers in Welding
Engineering and Welding Technology.

To become a Patron, contact Mike Poss,
AWS Detroit Section-Patron's Committee Chair,
michael.g.poss@gm.com

ARO Welding Technologies, Inc.

CenterLine (Windsor) Ltd.

Changer & Dresser Corp.

Don Decorte-DTS Technical services

Elizabeth Lekarczyk

Employees of United Technical, Inc.

Eureka Welding Alloys

Ferris State University Welding
Engineering Technology Alumni

FUSION Welding Solutions

Jack and Sons Welding and Fabricating

LeTourneau University Welding
Engineering Alumni

Lube Power, Inc.

Luvata

Milco Manufacturing Company

Obara Corp. USA

Ram Solutions, Inc.

RoMan Manufacturing

Steve Gucciardo

The Ohio State University Welding
Engineering Alumni

Techna, Inc.

TJ Snow

United Technical Inc.

Vector NDT

WSI, Weld Systems Integrators, Inc.



Ask the Welding Engineer

By Donald F. Maatz, Jr.

Projection Types

Q: “What options exist for evaluating the quality of a weld nut, other than push-off, and how viable are they?”

A: “Our previous columns (ATWE Nov-24 thru Jan-25, Mar-25 & Oct-25) started a broad look at projection welding (PW). As stated in these earlier submissions, while the initial question related to the important topic of PW quality, it will take us some time to get there as, from my perspective, we need to establish a few important things about the PW process. To date we have touched on a few of the challenges. These would include the varied material coatings, gauges, and substrate strengths one is asked to weld on. We also reviewed the weld schedules and equipment needed to attach these fasteners. We then reviewed the potential variability associated with these projections by reviewing a specific projection type. We now take a brief look at the history of the PW process, especially with regard to forged/coined projection weld nuts, so we can better understand how we got to this point.

A bit of history...

As is typically the case, a look back at the beginning of the PW process with regard to forged/coined projection weld nuts is more than a bit revealing, especially with regard to the design of the projections themselves*. The earliest rendition of what was to become a weld nut were really just square pieces of steel with a threaded hole in the center. This initial version of a weld nut then had its corners rolled into rough points. These four (4) turned down corners acted as concentration points for the force and current. It was fine folks at the Budd Company in Philadelphia that came up with this idea, as near I can tell, back in in the late 1920s. And thus, the idea of forged/coined projection welding came to be.

The notion of welding a fastener was an idea that quickly caught on in many other manufacturing circles, especially amongst the US automakers. As automotive production scaled up post-WWII, manufacturers sought faster, more reliable ways to attach threaded fasteners to sheet metal, and forged/coined projection weld nuts seemed like the answer. But this is where the story breaks into two (2) parts.

- The first is that many different and talented folks began the development work to better understand this new process. As a result, there were entire labs at Budd, Ford, General Motors, and others, trying to better understand how this new way of attaching a fastener could benefit what they did. Their work bore fruit and the process became popular, and its applications more numerous.
- The second issue is really a direct off-shoot of the first – All of the companies doing this development work did so independently. As a result, the design of the weld nuts, or more importantly the projections, they came up with were all different. And after absorbing all of that cost, none were in the mood to share what they had learned.



Figure-1 – Projection weld nuts - Examples

How should we weld ‘your’ weld nut?

As was the case with all aspects of welding development, the manufactures took great pride in their work, publishing numerous standards covering almost all aspects of their efforts. You can still find folks today (myself included) that remember these standards, almost holding them with a degree of reverence. Names like W-Standard, Red Book, or Blue Book, etc. come to mind. And while these standards were cutting edge, there was one thing missing from almost all of them – Any relevant data on how to weld their specific weld nuts. The weld nuts themselves were often spec’d out, just not how to join them to a base material.

To this day there are still very few published sets of data for the projection welding of weld nuts. The RWMA manual and AWS standards offer good information on stamped steel (embossed/hollow) projections in most lower strength steels (think UTS < 350 MPa). However, they offer nothing on actual forged/coined projection weld nuts.

“Projection Types” continued on page 8


T. J. SNOW
**INDUSTRIAL
WATER CHILLER**
A Division of T. J. Snow


RESISTANCE WELDING

One-Spot-Shop

MACHINERY | SUPPLIES | SERVICE | TRAINING

CONTACT US TODAY!

 (423) 894-6234 | www.tjsnow.com
RoMan[®]
MANUFACTURING
"THE POWER TO TRANSFORM"

RoMan's resistance welding power supplies can be integrated with any brand of controls, weld guns, or robotic systems and are designed to meet all resistance welding application requirements—from small spot welds to large projection welds.

RoMan products are proudly made in the USA!


RoMan TDC - 5998B

- | New modular primary - field changeable from RobiFix to Hardwire
- | Our first available product with RobiFix and dual secondary voltages 9V/13V

RoMan TDC - 7537

- | High-capacity size 6 rectifier and 225KVA transformer
- | 13V/17.5V secondary taps cover a wide range of applications including aluminum spot welding and Fast Rise projection welding

RoMan has innovations for all of your high-current resistance applications including:

- Welding
- Heat Treating
- Sintering
- Glass Making

Connect with us to learn more!

Grand Rapids, MI | 616.530.8641 | www.romanmfg.com



Unleash your welding potential

Fronius


Wixom, MI

sales.northeast@fronius.com (810) 844-2800

COR-MET[®]

SPECIALTY CORED WIRE

COATED WELDING ELECTRODES

TOOL STEEL MIG & TIG

Tel: 810-227-3251

Fax: 810-227-9266

12500 Grand River Road
Brighton, MI 48116 U.S.A.

www.cor-met.com



RAM SOLUTIONS, LLC
AUTOMATION SOLUTIONS PROVIDER

1904 Woodslee Drive | Troy, MI 48083
248-299-0525 phone | 248-299-0528 fax

PARTNERS



Robot Guidance, Bin Picking, Flexible Inspection
and Industrial System Communication



Tip Dressing and Tip Changing Technologies



Pneumatic Components, Valves, Mechanical
Indexing Systems, and Semiconductor Products



Vacuum Automation Technology



Fittings and Multi-Line Connectors



High-End Stainless Steel Pneumatic Valves



Crane Technology and Ergonomic Lifting Products



Cables, Wires, Media Technology, Cable Accessories,
Data, Network & Business Technology



stay connected

Power Supplies, Control Interfaces,
Cables/Connectors, and IO Systems



Clamping units, centring units, grippers, rotating
units and complete multi-axis positioning systems.



Proteus WeldSaver™ - Leading Water Safety Device
For Flow Control & Leak Detection



Autonomous Mobile Robots (AMRs) and Accessories
for Internal Material Transportation



Robotic Tool-Changing Systems



Clamping Technologies Made in Italy Since 1966
Pneumatic Products for Industrial Automation



Ultrasonic Inspection Device



Smart Sensor and Image Processing Technologies

Scan the QR Code and Visit Our Website For
More Information About RAM Solutions.



"Projection Types" *continued from page 5*

This lack of formalized information is not due to any fault of their own. Instead, the culprit lies with the extreme proliferation of projection weld nut and stud designs over the last 80+ years.

There is currently no movement underway to create a 'common standard' for all of these variations, and I do not see one happening any time in the near future. But credit where credit is due: There is a company in Ohio (**Buckeye Fastener**) that has published some general weld parameter information for some of their standard weld nut and stud offerings.

BOTTOM LINE: The wide variety of projection designs (*Ref. Figure-1*), and the lack of specificity on how to weld them, will continue to this day.

We have now seen a bit of how we have gotten to where we are at with the PW process. In our next column, we will attempt to design a weld nut, and learn what challenges one faces in this area."

**The utilization of hollow/embossed projections pre-dates forged/coined projection welds nuts by many years. This process, the original projection welding, came about due to work by the inventor of the resistive welding process, Elihu Thomson.*

If you have more questions, contact Don at:

Milco Manufacturing Company

2147 E 10 Mile Rd., Warren, MI 48091

dmaat@milcomfg.com | (586) 427-2422 (Desk)

Donald F. Maatz, Jr. is with Milco Manufacturing, and serves in the capacity of Senior Welding Engineer. He is past-chairman of the AWS-Detroit Section, serves on the D8 and D8.9 Automotive Welding Committees, is chair of the D8D, and an advisor to the C1 Resistance Welding Committee, is an AWS endorsed CWI and an instructor for the RWMA School. He is a graduate of Ohio State with a BS in Welding Engineering.

RESISTANCE WELDING TOTAL SOLUTION

Dengensha brings innovative welding solutions, state-of-the-art equipment, and world-class service which includes:

- Troubleshooting and Repairs
- Rebuilds
- Testing and Training Lab
- On-Site or Online Training
- Customizable Courses



**DENGENSHA
AMERICA**

Global Leader in Resistance Welding

SINCE 1935

dengensha.com

440-439-8081

Sales@dengensha.com

eBulletin Contributors

(Emails linked where available.)

CHAIRMAN

Donnie Crist

TREASURER

**Andre Young/
Christian Megna**

SECRETARY

Elizabeth Lakarczyk

FIRST VICE CHAIR

George Meeker

SECOND VICE CHAIR

Steve Gucciardo

1ST ASSISTANT TO THE CHAIR

Robert Watson

2ND ASSISTANT TO THE CHAIR

Erin Lalinsky

3RD ASSISTANT TO THE CHAIR

Kurt Van Donkelaar

EBULLETIN EDITOR

Daniel Sims

WEBMASTER

Christian Megna

ADVERTISING

Brian Peach

HOTLINE COORDINATOR

Brandon Fuson

TECH NIGHT MEETING RESERVATIONS

Steve Gucciardo

The most reliable, easy-to-use Gun Changer. Ever.

ROBOTIC END EFFECTORS

A more reliable fail-safe.

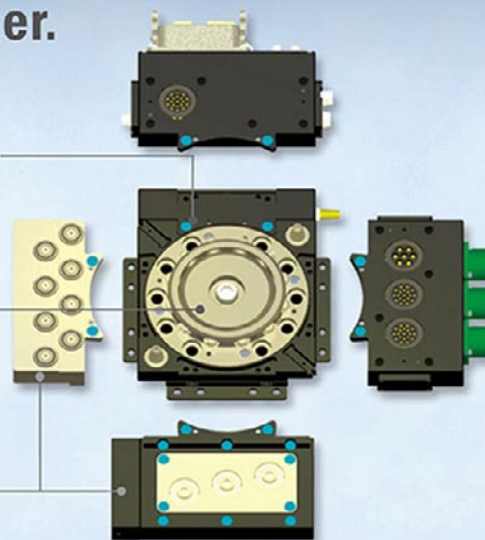
A patented "springless" mechanical fail-safe is guaranteed to work, even with loss of air pressure.

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 failsafe, 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.



Engineered Products for Robotic Productivity

4577 S. Lapeer Road, Suite I

Orion Township, MI 48359

248.276.0502

www.ati-ia.com/dstc

Welding Solutions for Fabrication & Manufacturing



- PQR, WPS & WQTR
- Process Optimization, Specification & Development: GMAW, GTAW, RW, Etc.
- Applied Research
- Design of Experiments
- Weld Cross-Sections
- Teardowns



- AWS Certified Educators & Inspectors
- Custom Corporate Training
- Learning Center
- Welding Simulator
- Robotic Training Cells
- Real-time Welding Camera

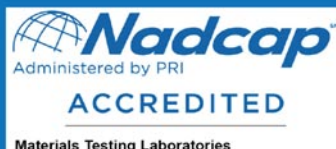


Small Business



WEMCO

An Association of Welding Manufacturers



1081 E North Territorial Rd
Whitmore Lake MI 48489
248-667-9185
info@unitedtech1.com
<http://www.unitedtech1.com>

CUSTOM PRODUCTS, REPLACEMENT PARTS, COMPLETE BUILDS

ANY GLOBAL SPEC...
WHEN YOU NEED IT.CUSTOM
ELECTRODES**WELFORM
ELECTRODES INC.**2147 Kenney
Warren, Michigan 48091

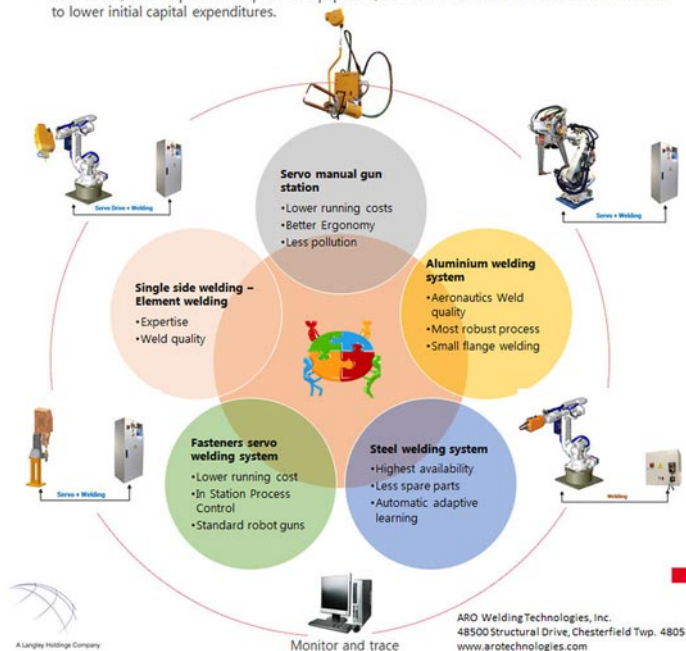
www.welform.com

P: (586) 755-1184
F: (586) 755-5639

WELDING TECHNOLOGIES

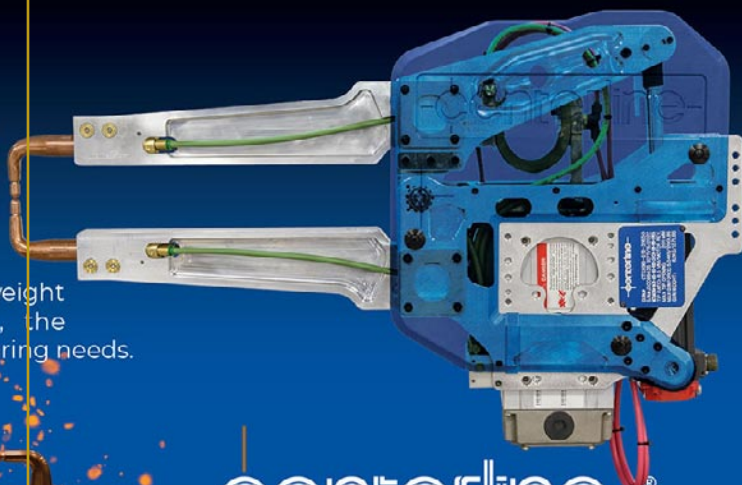
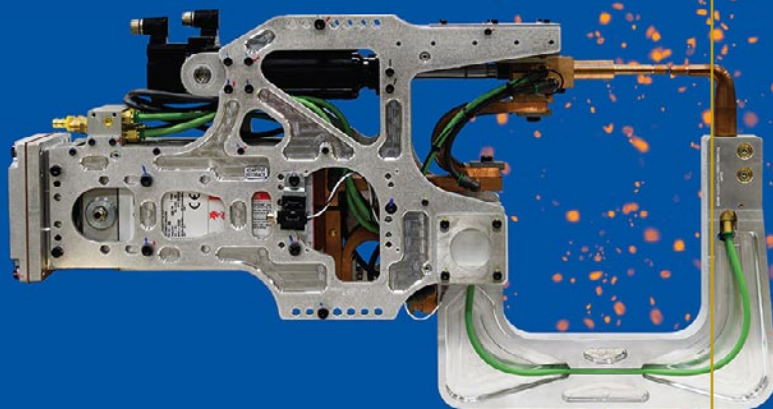
**One stop shopping
All Servo solutions****Why mix and match components of your Resistance welding process?**

- One global, solid, responsible supplier
 - Guaranteed lowest running costs
 - Top Welding quality
 - Lowest carbon foot print
 - Less air and noise pollution
 - Best flexibility and equipment re-use potential
 - Homogeneous supervisory network
 - Expert assistance through product life
- In addition, for comprehensive process equipment, ARO offers bundle discounts as an incentive to lower initial capital expenditures.

**FlexGun™ Ultra**
Spot Welding Guns

The **FlexGun™ Ultra** and **Ultra HC** (High Capacity) are lightweight weld guns that are part of **CenterLine's FlexGun™** product family. These are ideal for use on robot models with payloads starting at 80kg and for applications requiring 2.5 to 8.9kN of weld force.

With integrated robot mounting, superior strength-to-weight ratio, compact size, and true symmetrical design, the **FlexGun™ Ultra** is ideal for your high-density manufacturing needs.

**centerline****Want To Learn More?**

Contact **CenterLine** to learn more about the **FlexGun™** product family.

800-820-6977

www.cntline.com