



American Welding Society®  
DETROIT SECTION



## SEPTEMBER 2024 Inside This Issue

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SEPTEMBER 12TH AT WAYNE STATE UNIVERSITY,  
ST. ANDREWS HALL  
918 LUDINGTON MALL  
DETROIT, MI 48202  
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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 Technical Meeting STUDENT NIGHT

**Thursday, Sept. 12, 2024 • 5:30pm**

Come and join the AWS-Detroit Section at the St. Andrews Hall of Wayne State University as we congratulate the students of 2024 who have received AWS scholarships for their excellence in the welding industry!



Visitors are welcome to park in LOT 2. An attendant from WSU will be there to let vehicles in.

- ◆ STUDENT NIGHT VENUE: **St. Andrew's Building**
- ◆ PASSENGER VEHICLE PARKING (FREE): **Parking Structure 2**
- ◆ FSU BUS DROP-OFF/PICK-UP LOCATION: **Noted**
- ◆ FSU BUS PARKING: **Lot 40 (Noted)**



## CLICK. ON. IT!

## Your e-Bulletin is now hyperlinked!

Click on a page number in the "Inside This Issue" (on the left) and it will take you to that page. Then, click on "Inside This Issue" at the top right corner of each page to return to page 1!  
(Click the "continued" pages to jump ahead or return to the previous page!)

**eBulletin Contributors***(Emails linked where available.)*

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## Chairman's Message Russ Webster

**Hello AWS – Detroit Members and Friends,** It is an honor to be the AWS Detroit Chair for this upcoming season. I am excited because this is going to be a season to remember. I am looking forward to meeting all of the new members of the executive board that I may not have had the honor to meet yet. We will be kicking the season off with Student Night, at Wayne State University, on September 12th. I am looking forward to meeting future welding professionals and future AWS members. Please check the E-Bulletin for details on Student Night. I would like to thank Don Maatz and his committee for all of the hours they put into the scholarship activities.

Another upcoming AWS activity to participate in is FABTECH. FABTECH will be held October 15-17, in fantastic Orlando, Florida. If you are looking to network or curious about what is new in the welding world, please consider attending this great event.

## A Look Back at the Past

## AWS-Detroit Scholarship Program is 50 Years and Still Going Strong!

**Can you remember** what was going on back in 1974? Maybe you were in elementary school, or perhaps not yet even born. After all, we are talking about 50 years ago. That being said, there was some history being made back then. And to set the stage for a look at both the present and the future, it might help to take a small step back, to the past.

The world population clocked in at roughly 3.9 billion people back in '74 – we are over 8 billion now. The year also saw plenty of firsts. The 55 MPH speed limit came to be. We also saw the first publication of the life-saving Heimlich maneuver, and President Nixon resigned after Watergate. 1974 was also the first year for the AWS-Detroit Section to award its first welding scholarship.

A part of the Metro-Detroit region since 1925, the AWS-Detroit Section has grown to be a strong voice within the welding community. And that growth has only been possible by the seemingly never-ending efforts of our volunteers. With a stated mission to advance the science, technology, and application of welding, a scholarship program seemed like great way to encourage folks to participate in this important industry.

## The Beginning of a Legacy

The Section took its education responsibility one giant step forward in 1974 by establishing one of the AWS's first scholarship programs. Early proponents of establishing a program included Jim Mitchell (Ford Motor Company), Robert Wilcox (Lincoln Electric), and Amos Winsand (Dollar Electric).

The initial incarnation of the section's scholarship program only involved welding curriculums with an Associate Degree. The first annual budget? A total of \$2,000. The program slowly grew to include 2+2 four-year degrees at Wayne State University and Ferris State University.

**SCHOLARSHIP PROGRAM**  
continued on page 9

## Upcoming Events

### FABTECH

**October 15-17, 2024**

Orlando, Florida

### SMWC XX

ADVANCES IN AUTOMOTIVE WELDING  
AND JOINING CONFERENCE

*"Expanding Beyond the Body Shop  
to Cover the Electric Revolution"*

**October 22-24, 2024**

Laurel Manor

39000 Schoolcraft Rd., Livonia, Michigan

**Tuesday, Oct. 22nd: 8:30a – 5p** (7:30 AM Registration)

**Wednesday, Oct. 23rd: 8:30a – 4:15p** (7:30 AM Registration)

**Wednesday, Oct. 23rd: 4:15 – 7:15p Vendor Display Event**

**Thursday, Oct. 24th: 8:30 – 11:30a** (7:30 AM Registration)

## SPORTING CLAYS FUNDRAISER POSTPONED UNTIL 2025!

AWS Detroit Section Presents:

**SPORTING CLAYS  
FUNDRAISER**

Friday, September 20th @ 10 am

Huron Pointe Sportsmen Association, Lenox MI

**\$250 per person includes:**

50 rounds of sporting clays, 12 rounds of 5 stand, 12 ga ammunition, heavy BBQ lunch, drink tickets (cash bar after), commemorative patch and sticker, Shooting done in teams of four

Beginners are welcome!  
20" Minimum barrel length  
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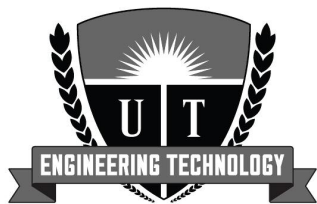
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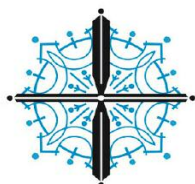
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## AWS Detroit Section Educational Series

The banner features a background image of a car body in a workshop. On the left, the AWS Detroit Section logo is displayed above a QR code. The main title 'SMWC XX' is in large, bold, blue letters. Below it, the subtitle 'ADVANCES IN AUTOMOTIVE WELDING & JOINING CONFERENCE' is in smaller blue letters, followed by the dates 'October 22-24, 2024' in large orange letters. A tagline 'Expanding beyond the Body Shop to cover the Electric Revolution' is in italics. The location 'LAUREL MANOR, Livonia, MI' is in bold. A 'Click Here To Register' link is provided. The bottom section is divided into two columns: 'TECHNICAL PROGRAM | October 22-24' and '| VENDOR DISPLAY NIGHT Wednesday, October 23 from 4-7PM'. Each column has a brief description of the respective event. The bottom of the banner features a silhouette of a city skyline.

**AWS** American Welding Society®  
DETROIT SECTION

# SMWC XX

ADVANCES IN AUTOMOTIVE WELDING & JOINING CONFERENCE  
**October 22-24, 2024**

*Expanding beyond the Body Shop to cover the Electric Revolution*

**LAUREL MANOR, Livonia, MI**

**Click Here To Register:**  
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registration: [eventsquid.com/event/24608](https://eventsquid.com/event/24608)

### TECHNICAL PROGRAM |

**October 22-24**  
The SMWC is the premier technical conference dedicated to bringing experts together to discuss state of the art welding and joining technologies for the automotive, transportation, and light manufacturing industries.

### | VENDOR DISPLAY NIGHT

**Wednesday, October 23 from 4-7PM**  
The Vendor Display Night is an evening dedicated to viewing the latest offerings and technological advancements within the automotive industry. More than 30 companies will be showcased in a strolling format. This event is open to the public with food and refreshments.

**The 20th SMWC (October 22-24)** is shaping up to be an informative conference and a “must attend” event for engineers, sales, suppliers, and others dealing with automotive welding. The technical program will consist of dual tracks spanning 2.5 days with presenters coming from North America, Europe, and Asia. We will have four featured keynotes this year, tackling topics like AI and simulation utilization, welding trends for body construction and propulsion systems, and a global perspective of welding challenges around the globe.

**For an agenda overview, please visit our [website](https://awssection.com/detroit/smw).**

The Vendor Display Night will be held on October 23rd. This is a free event and open to the public. There will be many vendors showcasing emerging technologies with a strolling dinner with refreshments. Please come and network with your peers and check out the latest advancements within the automotive industry.

The conference committee is composed of volunteers from the automotive welding industry and intend on providing educational offerings to individuals spanning all career levels. All proceeds of the conference are used to offer scholarship opportunities to the next generation of welding professionals. We invite you to register for the technical conference and advertise this conference to others within your community.

Please visit our [website](https://awssection.com/detroit/smw) for additional information or [email](mailto:DetroitSMWC@awssections.org) the conference chair.

***We look forward to  
seeing you at SMWC XX  
October 22-24!***



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## September Hotline

### May 16th Awards Night Ceremony

By Michael Karagoulis – AWS Detroit Section Awards Chairman

The AWS Detroit Section hosted an Awards Ceremony during the May Technical Night at IPG Photonics. The marquee awardee was welding instructor **Mark Salgat** from Woodhaven High School. This Ferris State graduate has just retired after 38 years of student welding instruction. His past and present students turned out en masse to celebrate and honor Mark, not only for his expert training, but also for his wise, fatherly mentoring and “tough love” (for those that needed it). Here’s what a few of his thousands of adoring former students had to say:



*“One of Mr. Salgat’s most outstanding qualities is his innate ability to connect with his students on a personal level. His approachable demeanor, empathetic nature, and genuine interest in their lives beyond the classroom have earned him the admiration and respect of countless individuals. It is not uncommon to hear former students speak fondly of Mr. Salgat years after graduating, citing him as a mentor who played a pivotal role in shaping their professional aspirations and personal development.”*

*“Mr. Salgat taught me more about life and being a man than anybody I had ever met. He taught me that patience and persistence were the key to success.”*

*“Mr. Salgat wasn’t just turning kids into welders in the booth. He was forging successful human beings in the shop.”*



#### OTHER AWARDEES THIS YEAR INCLUDE:

**ELIZABETH LEKARCZYK**  
Section Appreciation

**JOHN MCKENZIE**  
Section Distinguished Service

**KEVIN TENG**  
Section Appreciation

**WES DONETH**  
Section Distinguished Service

**FORREST LISSNER**  
Section Meritorious Award

**PHILLIP TEMPLE**  
Section Distinguished Service

**DON DECORTE**  
AWS Distinguished Member Award

**Kudos to all of this year’s fine awardees. WELL DONE!**

## Ask the Welding Engineer

By Donald F. Maatz, Jr.

**Q:** “Do you know of a strategy one can use in an attempt to reduce resistance spot welding expulsion? We have been fighting this issue for a while, with varying degrees of success, and are looking for some fresh ideas. Our shop utilizes predominantly robot mounted welding guns, but have some fixture tools as well.”

**A:** “Our previous columns regarding expulsion (ATWE Dec-23 thru May-24) discussed the phenomenon as it pertains to the Resistance Spot Welding (RSW) process. The conversations on this topic to date have taken us down several different paths. These have included ways to monitor for its presence, theories with regard to the basic weld scheduling elements and how they relate to it, and even a touch of fundamental material properties and how they impact expulsion. However, I think it is time to talk about controlling/reducing, and maybe even (gasp) trying to eliminate, expulsion.

My time in the welding business has taught me many things. Chief among them is not much really happens by chance. For a successful weld of any kind to be made, and in a repeatable manner, more than a few things have to come together. And it is typically not by happenstance when this happens.

Another powerful axiom that can be related to welding is there is never time to do it right, but there is always time to do it again. In other words, if we do not do take the time and effort to put in the upfront work with regard to processing and design for a successful welding condition, one can be sure there will others behind you who will be working hard to make up for the initial shortcomings. With the aforementioned in mind, let’s briefly begin a review how one can approach the reduction/elimination of expulsion in the RSW process.

### PART DESIGN & TOOLING BUILD

We must start with the premise the condition we are tasked with joining together by means of the RSW process is, in fact, weldable in a robust fashion. If we cannot overcome this hurdle, we will then have been successful in creating one of the manufacturing world’s most dreaded of creatures: A finicky process that requires a great deal of babysitting. We have all been there.

The idea behind most of the ATWE columns over these many years has been to try and give one just a bit of information on how to avoid this very condition. Topics such as Flange Width requirements, duty cycle limitations, material welding characterization, electrode cap geometry, the list goes on. These are all a part of avoiding the bear trap that is a finicky process.

All that being said, we now have to take all of this essential, difficult, and unsung work, and translate it into something the manufacturing facility can work with.

### MANUFACTURING

Once our properly designed tools and parts come together, we then begin the process of making the desired product. The goal, as always, is to produce product meeting engineering intent, and in the desired quantities. From an expulsion reduction/prevention perspective the following items are crucial.

**ASK THE WELDING ENGINEER** continued on page 11



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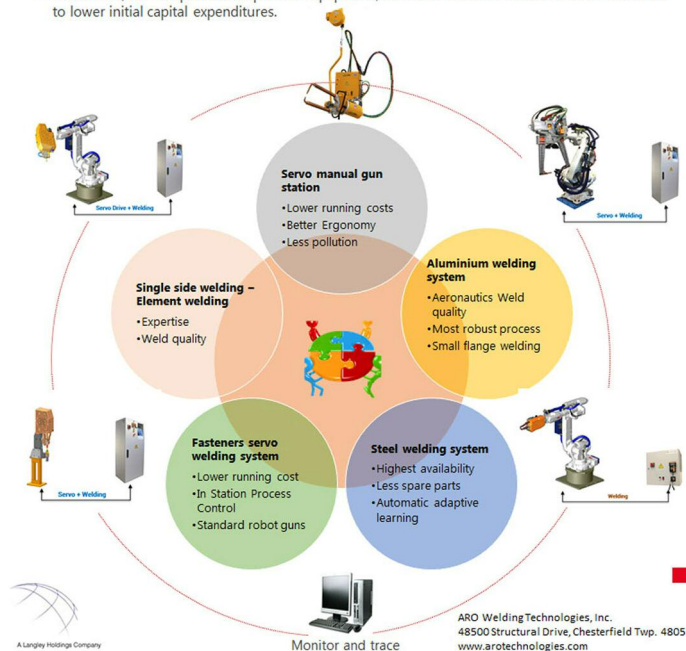
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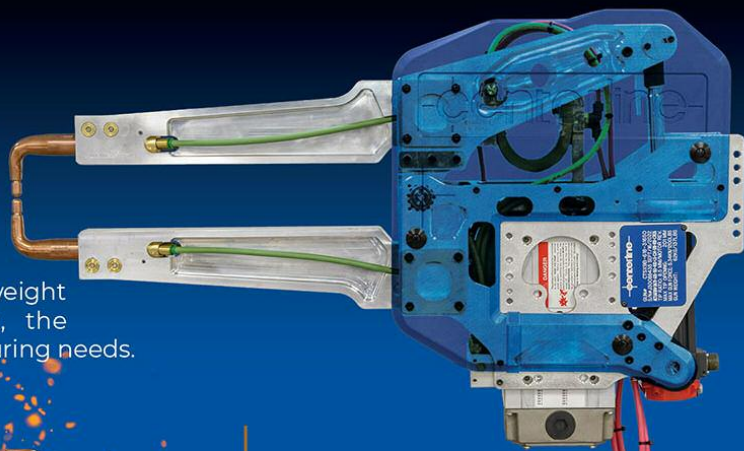
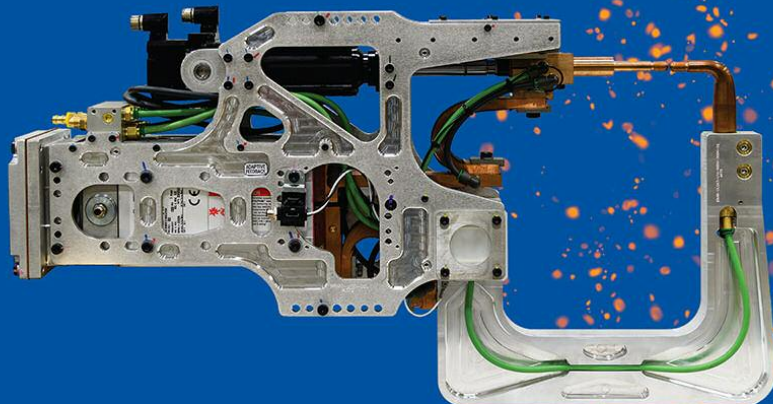
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**SCHOLARSHIP PROGRAM** *continued from page 3*

Like all things requiring patience and a bit of TLC to grow, the Section's scholarship program continued to expand over time. The dedicated volunteers continued their good work, fundraising and raising awareness. Past scholarship chairs (and I count myself among them) included Dick Molica, Tom Sparschu, Glen Knight, and James Dolfi. It should be noted that all eventually went on to become Chair of the AWS-Detroit Section.

The late 1990s saw the Section awarding up to \$20,000 per year, with the late 2000s total awards working their way up to over \$30,000 per year.

**Honoring Our Past**

With a firm grasp of our own history, the AWS Detroit Section honored our scholarship founders by the creating named awards for them. The Robert L. Wilcox Scholarship and The James W. Mitchell Scholarship were both established in 1981. The Section also established District level awards to honor other significant contributors to our educational endeavors with the Fred Ellicott Scholarship for Arc Welding and the Dietrich Roth Scholarship for Resistance Welding.

The Detroit Section also proudly has the Foundations' first scholarship endowed by an individual. The Amos and Marilyn Winsand Scholarship was started in 2001, and has grown to become the most prestigious award offered by the Detroit Section. This tradition of giving back has been enhanced with the establishment of other individually endowed scholarships.

The Detroit Brazing & Soldering Section also contributed with the establishment of the Robert A. Peaslee Scholarship through the AWS Foundation. The scholarship was established in 2004 through contributions from the AWS Detroit Brazing & Soldering Section and the Robert Peaslee family. Thanks to further assistance from numerous other companies and individuals, the AWS Foundation is now able to make available two substantial scholarships annually.

**Collaboration with AWS Foundation**

The year 2012 saw the AWS-Detroit Section partner with the AWS Foundation and make a real difference in our ability to help. We did this with the establishment of our general Section scholarship endowment. The initial donation was for \$350,000. This has since been increased

**1980****1982****1983****1988**





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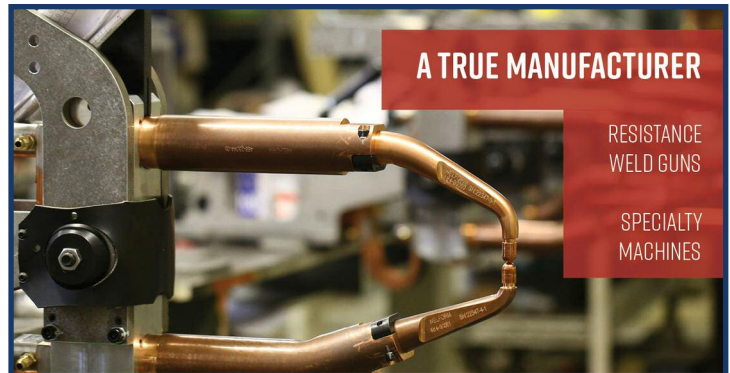
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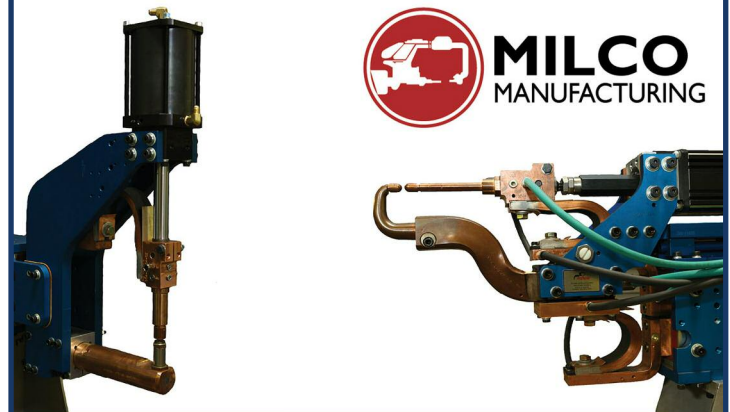
ONE HUNDRED PERCENT of the Patron's Fund Donations are directed to scholarships for students who are pursuing careers in Welding Engineering and Welding Technology. To become a Patron, contact Steve Gucciardo, AWS Detroit Section-Patron's Committee Chair, 810-623-6508 or email [gucciardos@shapecorp.com](mailto:gucciardos@shapecorp.com)



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**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.



**SCHOLARSHIP PROGRAM***continued from page 9*

significantly so that we can also award Vocational Education Grants to help hard working welding educators procure the needed essentials for their programs that a traditional scholarship does not permit. As a result of all of this hard work by the dedicated volunteers of the Detroit Section, our annual scholastic awards and grants now exceed \$90,000. In a word, WOW!

So, congratulations to Jim, Robert and Amos, and the many, many other AWS-Detroit Section volunteers that have been a part of the scholarship program over the years. Who knew what was started 50 years ago would have such a long and lasting legacy?

The year 2024 marks the 50th anniversary of the AWS-Detroit Section Scholarship Program. We will celebrate this milestone, as well as honor all of our 2024-2025 awardees, during our annual Student Night this September.

**SCHOLARSHIP PROGRAM** *continued on page 13***1990****1991****ASK THE WELDING ENGINEER** *cont'd from pg 7*

- The parts are presented to the welder in an acceptable condition
- All part surfaces to be welded are normal to the electrodes
- The tooling has been correctly maintained
- The correct weld schedule is programmed and utilized
- The tooling brings the electrodes together with the desired force on the parts to be welded.

But as we have discussed, the reduction and/or prevention of expulsion is both a journey, and a destination. And neither is ever complete so long as parts are being produced. I say this as there is always something requiring attention, some weak-link needing to be strengthened, some component to be improved.

This is where we will continue our discussion on this journey with regard to expulsion control when we present a multi-step approach to address this issue from the perspective of the plant floor."

If you have more questions about this topic, contact:

**DON MAATZ**

R&E Automated Systems

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Office: (586) 228-1900; Direct: (734) 793-2304

**[dmaat@reautomated.com](mailto:dmaat@reautomated.com)**

Donald F. Maatz, Jr. is with R&E Automated Systems and serves in the capacity of Laboratory Manager. 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.

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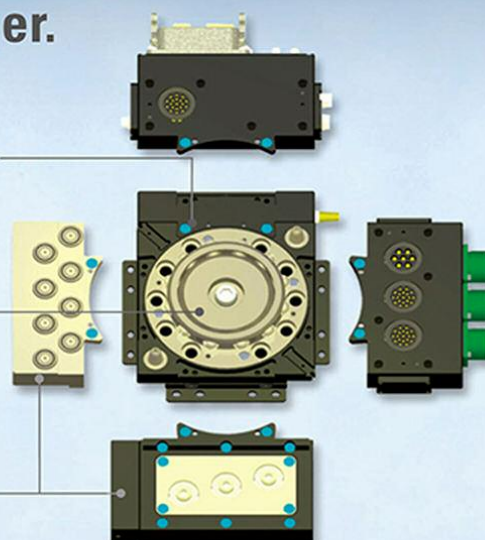
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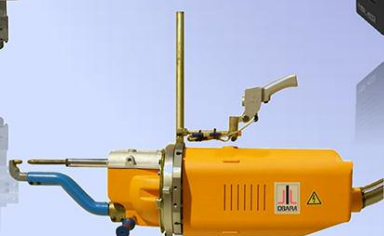


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*My thanks to the many members of the AWS-Detroit Section who contributed their time and efforts to provide information for this article. They drew from old records, and their memories. It was a joy to speak with each and every one of them. ~ DONALD F. MAATZ, JR.*