

SEPTEMBER 2023

## Inside...

- 2 **2023-24 Executive Board**
- 2 **Chair's Note**
- 3 **Be a Part of Our Exclusive Advertising Supporters**
- 3 **2023-24 Chapter Program**
- 4 **Sustaining Members**
- 4 **Introducing the ASM Detroit Mentorship Program**
- 6 **Teachers Camp**
- 8 **Golf Outing Results**

# Micro-Examiner

## The ASM Detroit and DWAFS Professional/Student Mixer Returns to Conor O'Neill's in Ann Arbor!

Mark your calendars for the upcoming annual ASM and AFS Professional/Student Mixer Night, scheduled for 6:00 PM on Thursday, September 21, 2023. The event will take place at the charming Conor O'Neill's Irish Pub located in the heart of downtown Ann Arbor. This highly anticipated event offers an excellent platform for Chapter Members to connect with emerging talents in the field of Materials Science from local universities and colleges. Set in a relaxed setting, the mixer fosters interactions between students and industry professionals, enabling discussions about the societies array of networking and scholarship opportunities. We invite you to save the date and participate in this engaging social gathering, where students and seasoned professionals can engage in conversations about diverse career paths within the realm of Materials Engineering.

## Thank You to Our Student Mixer Sponsors!

**AFC-HOLCROFT** offers atmosphere-based heat treating equipment, built to the highest standards for quality. An extensive product range includes universal batch systems, mesh/cast link belt furnaces, continuous pusher furnaces, roller hearth and rotary hearth furnaces, walking beam furnaces, austempering systems, atmosphere generators, aluminum processing equipment and more. AFC-Holcroft, together with our AICHELIN Group companies, are the largest provider of atmosphere furnaces worldwide. We are proud of our many decades as Sustaining Members of ASM International and the ASM Detroit Chapter – and are also active in ASM International's affiliated society ASM HTS which focuses specifically on heat treating. Our staff enjoy meeting other ASM Detroit Chapter participants and appreciate the unique opportunity to talk with students and other members, hearing firsthand from different perspectives while receiving suggestions how we might continue to evolve our industry in ways that are relevant and exciting to the workforce of the future. We invite you to visit our website [afc-holcroft.com](http://afc-holcroft.com) to learn more about us.

**AFC HOLCROFT**  
industrial furnace solutions

**JOYWORKS STUDIO** in Ann Arbor, Michigan was founded in 2005 by its proprietor John R. (Chip) Keough, PE, FASM, John R. (Chip) Keough, PE, FASM, as a creative outlet for his passions for metal and, particularly, metal castings. Serving as a platform for casting design, product

**Sponsors** continued on page 2



**ASM Detroit & DWAFS**  
**Professional/Student Night Mixer**  
**Thursday, September 21, 2023 • 6:00 – 9:00 p.m.**  
**Location: Conor O'Neill's, 318 South Main St, Ann Arbor, MI 48104**  
**\$20 with Reservation; \$25 No Reservation/Non-Members; \$20 Retirees/Unemployed; \$5 Students. Reservation includes 2 drink tickets and appetizers.**  
**For reservations contact Julie Nimer at the Chapter Office at 586-944-5656 or e-mail [AsmDetroitChapter@gmail.com](mailto:AsmDetroitChapter@gmail.com)**

# 2023-2024 ASM-Detroit Chapter Executive Board

## CHAPTER OFFICERS

**Nicholas Lessnau**  
Chair

**Mark Harper**  
Vice-Chair

**Rajan Bhambroo**  
Secretary

**Daniel Baker**  
Treasurer

**Julie Nimer**  
Chapter Administrator

## EXECUTIVE COMMITTEE MEMBERS

**Jason Coryell**  
Attendance/Publicity

**Nikki Tiernan**  
Young Members/  
Student Affairs - Co-Chair

**Maxwell Mayhew**  
Young Members/  
Student Affairs - Co-Chair

**JP Singh**  
National Affairs

**Kae Poor**  
Chapter Council Representative,  
Education/MEI/Roundtable Co-Chair

**Tristan Brohm**  
Education/MEI/Roundtable Co-Chair

**Tim Stachowski**  
Entertainment Co-Chair

**Trisha Rouse**  
Entertainment Co-Chair

**Manish Mehta**  
Awards/Recognition Chair

**Eric McCarty**  
Finance/Council of Fellows Chair

**Angella Sell**  
Membership/Sustaining  
Members Co-Chair

**Yi Liu**  
Membership/Sustaining  
Members Co-Chair

**James Boileau**  
Member-at-Large

**Robert Cryderman**  
Papers/Programs Chair

**Kathy Hayrynen**  
ASM Teacher's Camp

**Peg Jones**  
ASM Teacher's Camp



## Chair's Note

Well, if you weren't at the ASM-AFS golf outing on August 11th, then you definitely missed out. The weather was perfect, and the post-outing meal was just right. Thank you to all our sponsors and the volunteers that made the annual golf outing tick. As always, our gracious host Fellow's Creek of Canton made sure we had everything we needed for a Friday on the course. Thank you, Fellow's Creek.

The ASM Detroit Chapter has another exciting program for our membership this upcoming year. Please mark your calendars for all the upcoming events this fall and spring. I would certainly love to see a healthy gathering of our professional members at the September 21st student mixer in Ann Arbor. This is an easy way to connect with local materials students in a relaxed setting. We always have a great time when we see our undergraduate and graduate students from Wayne State University, Michigan State University, the University of Michigan, and other local college programs.

One thing I am excited for, but you won't see on the chapter program, is our Heat Treat Mini-Camp at IMAT this year. This is an opportunity for the ASM- Detroit Chapter to work towards fulfilling our mission of bringing materials and the thought of a materials-directed career path to students that may not even be aware it exists. The chapter and its volunteers will be demonstrating materials to local middle/high school students through several exhibits at Huntington Place in Detroit. Students will get a taste of Foundry-in-a-Box, induction hardening, lightweighting and sustainability, and careers in materials, just to name a few. This is certainly where the rubber meets the road for our organization.

Calling all volunteers... Keep your eyes peeled for a communication from our own Julie Nimer to volunteer at the Heat Treat Minicamp. Also keep a look out for opportunities to lend a hand in bringing materials to students and helping young professionals navigate the early years of their career. More coming your way on that soon.

I have said all I have to say and now I need to clean a mess that our new dog just made. Wish me luck!

## Sponsors *continued from page 1*

development, research, teaching, and creative, metallurgical endeavors, Joyworks harnesses the full breadth of technology on everything from Art to R&D. Joyworks' interns work closely with customers to develop the smartest casting designs and prototypes in (their specialty) iron, or steel, bronze or aluminum.

Joyworks takes pride in being a no-red-tape source for off-the-beaten-path projects. Equipped with 200# Inductotherm furnaces and utilizing 3D-printed mold technologies, Joyworks applies the 2400 sq ft studio to craft the highest quality gray, ductile, and austempered ductile iron casting prototypes. Joyworks strongly believes in paving the way for future metallurgical innovations and innovators. Partnering with the University of Michigan, Joyworks helps teach future Materials Science and Engineering students the science and art of the foundry. The team also aims to serve the industry and industrial associations related to metal casting. To find out more about Joyworks Studio, please visit [Joyworksstudio.com](http://Joyworksstudio.com). We look forward to sharing with you at member events.

# ASM Detroit Chapter Micro-Examiner 2023-2024: Your Chance to Shine!

## Be a Part of Our Exclusive Advertising Supporters

Exciting things are in the works for the upcoming chapter season of 2023-2024, and we want you to be a part of it! If you're already one of our valued advertisers, get ready for your annual letter of solicitation that's making its way to you shortly.

For those who are considering joining our advertising supporters' roster for

the first time, now is the perfect moment to seize the opportunity. Picture your brand featured prominently in the pages of Micro-Examiner, showing not only your commitment to ASM but also your dedication to the Materials community.

Want to step into the spotlight and support a thriving network of

professionals? Reach out to the Detroit Chapter Administrator at (586) 944-5656 or drop us a line at [asmdetroitchapter@gmail.com](mailto:asmdetroitchapter@gmail.com) to explore this exciting avenue. Your support matters, and so does your place in the Micro-Examiner for the 2023-2024 season!

### 2023-2024 ASM Detroit Chapter Program

**September 21, 2023**

**Student Mixer**

Location: Conor O'Neill's, Ann Arbor

**October 9, 2023**

**Fall Joint ASM/AFS**

ROB MACKAY - Nemak

"Fatigue Durability Test Method Comparison"

Location: Livonia Marriott

**November 13, 2023**

**Fellows Night**

JULIO VILLAFUERTE

"Cold Spray History, Technology, and Current Applications"

Location: TBA

**February 12, 2024**

**Membership Night**

BOB CRYDERMAN

History of Steel

Location: TBA

**March**

TBA

**April**

TBA

**May**

TBA



**MetLab Corporation**  
www.metlabcorp.com  
800-828-6966

**FOR ALL YOUR METALLOGRAPHIC NEEDS SINCE 1968**



**TITAN METALLURGY, L.L.C.**

*We specialize in quick turnaround time and customer satisfaction.*

YOUR SOURCE FOR  
METALLURGICAL TESTING,  
ANALYSIS & CONSULTATION.

10400 Capital St.  
Oak Park, MI 48237  
Telephone: (248) 543-3578  
testing@titanmetallurgy.com  
www.titanmetallurgy.com



**ALLIED HIGH TECH PRODUCTS, INC.**

**Sample Preparation Solutions for YOUR Materials**

- Metals
- Composites
- Plastics/Polymers
- Electronics
- Ceramics/Glass
- Thermal Sprays

jbutchart@alliedhightech.com  
www.alliedhightech.com



**Surface Combustion**

**Industrial Furnaces and Thermal Processing Equipment**

1-800-537-8980  
surfacecombustion.com

- Atmosphere
- Batch
- Continuous
- Controls
- Vacuum
- Allcase® Batch Integral Quench Furnace
- OEM Aftermarket Parts & Service
- RX® Endothermic Gas Generators

# **The ASM Detroit Chapter Thanks It's Sustaining Members for Their Continued Support!**

**Aalberts surface technologies**  
**AFC Holcroft**  
**Ajax Tocco Magnethermic Inc.**  
**Allied High Tech Products Inc.**  
**Autokiniton**  
**Auto/Steel Partnership**  
**Bruker Nano Inc.**  
**Buehler**  
**Burris Law**  
**Darrow Mustafa PC**  
**Dubois - Heatbath Park**  
**Metallurgical**  
**Element Materials Technology**  
**Gasbarre Thermal Processing**  
**Systems**  
**GM Global R&D Laboratories**  
**Inductoheat**  
**Kolene Corporation**  
**MetLab Corporation**  
**Michigan Metrology**  
**MSU Libraries/Serials**  
**Acquisitions**  
**National Element Incorporated**  
**Nitro-Vac Heat Treating Inc.**  
**OMNI Metals Laboratory**  
**Incorporated**  
**Rolled Alloys**  
**RTI Laboratories, Inc.**  
**Solar Atmospheres**  
**Struers**  
**Sun Tec Corporation**  
**Surface Combustion**  
**Incorporated**  
**Titan Metallurgy**  
**United Technical Inc.**  
**Upton Industries Incorporated**

## **Empowering the Future**

# **Introducing the ASM Detroit Mentorship Program**

*Greetings, esteemed members of the ASM community!*

We are thrilled to unveil a groundbreaking initiative of mentorship, collaboration, and professional growth within our society. As we transition into a new era of engineering excellence, it's imperative that we provide young engineers with the tools they need to flourish in the industry. Enter the ASM Detroit Chapter Mentorship Program!

The ASM Detroit Mentorship Program endeavors to accomplish two vital goals: encouraging increased participation in ASM activities and cultivating lasting connections among our members. We believe that by nurturing the skills and knowledge of our younger engineers, we not only empower them to excel professionally but also ensure the enduring strength of our community.

So, what can you expect from this endeavor? The program envisions monthly meetups, where mentors and mentees can gather to exchange ideas, discuss challenges, and chart a course toward success. These meetups will not only provide a platform for learning but also for networking. Beyond the monthly gatherings, the mentorship will extend a full year, allowing ample time for mentees to absorb wisdom, gain insight, and build enduring relationships.

We have set forth a series of actionable steps to reach our goal:

1. **Mentorship Framework Creation:** Nikki Tiernan will be spearheading the creation of a comprehensive mentorship framework. This framework will serve as the backbone of our program, ensuring that the mentorship journey is structured, purposeful, and impactful.
2. **Questionnaire Development:** In order to ensure the most suitable mentor-mentee pairings, a questionnaire will be designed to help us match mentors with mentees based on their backgrounds, aspirations, and areas of expertise.
3. **Introduction in this Newsletter:** As an exciting prelude to the launch of the mentorship program, we're pleased to include this article as an introduction. We hope it whets your appetite for what's to come and sparks enthusiasm within the ASM community.

We invite all members – whether seasoned professionals or recent graduates – to embrace this extraordinary opportunity.

Stay tuned for more updates as we work diligently to roll out this program in the near future. To let us know your interest, please reach out to Nikki at [nikki.tiernan@element.com](mailto:nikki.tiernan@element.com).



regional sales manager

**Mark Bergel**

M: 231-342-5686

[mark.bergel@aalberts-st.us](mailto:mark.bergel@aalberts-st.us)

Aalberts surface technologies  
specialized heat treatment U.S.  
209 West Mount Hope Ave.  
Lansing, MI 48910

[www.aalberts-ht.us](http://www.aalberts-ht.us)



**SOLAR**  
ATMOSPHERES

Vacuum  
Heat Treating  
& Brazing Services

Five Locations  
• Michigan  
• Eastern PA  
• Western PA  
• South Carolina  
• California

ISO9001 • AS9100 • Nadcap

1-855-WE-HEAT-IT

[solaratm.com](http://solaratm.com)



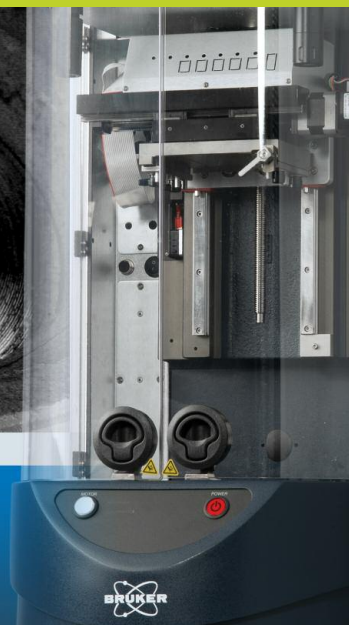
# Tribology and Mechanical Testers

CONTACT OUR TRIBOLOGY EXPERT

**Steve Papanicolaou**

+1.408.410.5391

[www.Bruker.com/tribology](http://www.Bruker.com/tribology)



**RTI LABORATORIES, INC.**

Environmental, Chemical & Materials Testing

- Full Service Independent Metallurgical Lab
  - Mechanical, Physical Testing and Chemical Analysis\*
  - SEM/EDS Analysis and Metallurgical Failure Analysis\*
- Environmental Exposure Testing
  - Salt Spray, Humidity & Corrosion Testing
- Materials Characterization & Analysis
  - Paint Failure Analysis and Product Deformation\*



**Lloyd Kaufman**

[lkaufman@rtilab.com](mailto:lkaufman@rtilab.com)

734-422-8000 x 109

**Materials Testing Division**

33080 Industrial Road  
Livonia MI 48150

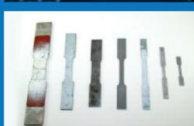


ACCREDITED  
Cert. # 0570.01/02/03

ISO/IEC 17025:2005 accredited lab service  
\*Parameters that are specifically referenced in scopes of accreditation



Contact us at  
[rtilab.com](http://rtilab.com)



**BUEHLER**  
Your Partner for Success

Proven Innovations for  
Metallography Laboratories

- ▲ Semi-Automatic Sample Preparation
- ▲ Hot Compression Double Mounting
- ▲ Automated Hardness Testing Systems
- ▲ Quick Ship Superior Consumables



Visit [www.buehler.com](http://www.buehler.com)  
or to shop consumables  
[www.shop.buehler.com](http://www.shop.buehler.com)

For More Information Contact:

**Jon Peavey**

(734) 276-5064 | [Jon.Peavey@buehler.com](mailto:Jon.Peavey@buehler.com)

**NATIONAL ELEMENT, INC.**

**Largest Heating Element Bank In The World**

- Rod Elements • Ribbon Elements • Coil Elements
- Ceramic • Refractory • Roller Chain • Pintle Chain
- Chain Edge Belts • Hinge Plate Belts • Forced Air Plugheaters for Tempering • Annealing

[www.nationalelement.com](http://www.nationalelement.com)

1-800-600-5511 / [info@nationalelement.com](mailto:info@nationalelement.com)

**AFC HOLCROFT**  
Industrial furnace solutions

Technology Leader for Thermal  
Processing Equipment

AFC-Holcroft, L.L.C.  
49630 Pontiac Trail  
Wixom, MI 48393-2009  
U.S.A.  
[www.afc-holcroft.com](http://www.afc-holcroft.com)

Phone +1 248-624-8191  
Fax +1 248-624-3710

[sales@afc-holcroft.com](mailto:sales@afc-holcroft.com)

Reliability at work



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](http://www.cor-met.com)

Oil Quenchants • Molton Salts  
Polymer Quenchants

# DuBois

[www.duboischemicals.com](http://www.duboischemicals.com)

800 438 2647



# 2023 Ann Arbor Teachers Camp


During the week of July 17th, a group of seventeen high school teachers participated in the Ann Arbor Teachers Camp. Guiding them through this experience were our esteemed Master Teachers, Lisa Ogiemwonyi and Laura Moore. Both Lisa and Laura embarked on their Materials Science journeys through the Ann Arbor Camps, Lisa and Laura have been recipients of grants from the Detroit chapter in the past and the faces of Lisa and Laura might also be familiar due to their past participation in ASM Detroit meetings and events.

The camp's success owes much to the unwavering support of the University of Michigan MSE department staff. Dr. Elizabeth Holm, Dr. Tim Chambers, Dr. Sahar Farjami, along with Jack Eilers, Shelly Fellers, Keith McIntyre, and numerous others, dedicated themselves to enriching the camp from Sunday to Friday. Their commitment extended to opening their lab doors, offering insightful tours that enriched the participants' understanding of real-world materials science applications.


Distinguished guests further enriched the camp's experience. Dr. James Boileau, freshly returned from his teaching endeavors in China, brought a global perspective to



the discussions. Tom Prucha's introduction of the AFS Foundry in a Box kit added a tangible, hands-on element to the learning. Katie Sebeck and Nick Lessnau also assisted. Thanks to Dr. Kathy Hayrynen and Trisha Rouse for pampering the teachers with delectable homemade treats and an abundance of snacks. This thoughtful gesture ensured that the participants remained fueled and energized throughout the week, their neurons firing at full capacity.


**SUN-TEC**  
HARDNESS TESTING SPECIALISTS





sunteccorp.com



**CERTIFIED**  
Rockwell Type  
Knoop / Vickers  
Brinell, Portable  
Tensile / Compression  
Ductility Equipment  
Hardness Standards / Indenters

Metallographic  
Equipment Consumables  
Test Accessories  
Accredited Repair  
and Calibration







## METALLURGICAL, CHEMICAL & MECHANICAL TESTING

We exist to help make certain that the materials and products that we test, inspect, certify and calibrate are always safe, quality, compliant and fit for purpose.

- Cleanliness Testing (ISO 16232/VDA 19)
- Failure Analysis & Consulting
- Weld Procedure Qualification
- Wear & Abrasion testing
- NADCA/H13 Die Steel Qualification
- Hot Hardness Testing (up to 1400 °F)
- Salt Spray, Humidity & Cyclic Corrosion Testing (CCT)
- Fatigue Testing (HCF & LCF)
- IPC Certified Circuit Board Sectioning & Inspection



Europe: +44 808 234 1667 Germany: +49 800 000 5137 Americas: +1 888 786 7555



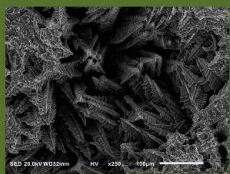


## Accredited Metallurgical & Mechanical Testing Laboratory

### One Source for Your Complete Project

**Weld Evaluation**  
PQR & WPS Documentation and Testing

**Non-Destructive Testing**  
Ultrasonic Testing (UT)  
Penetrant Examinations (PT)  
Magnetic Particle Examination (MT)  
Visual Inspection (VT)  
Radiographic/X-Ray Inspection (RT)



A complete list of services is available at [unitedtech1.com](http://unitedtech1.com)

### Metallurgical and Mechanical Testing

Failure Analysis  
Fatigue  
SEM/EDS  
Chemistry  
Grain Size  
Impact Testing - CVN  
Tensile Testing  
Micro & Macro Etch  
Mosaic Image Analysis  
Case Depth

✓ **PROVEN**    ✓ **TRUSTED**    ✓ **EXPERIENCED**

Destructive Testing | Non-Destructive Testing | Weld Engineering | Corporate Training

Full-service company that has provided technical solutions for over 12 years



See ASME website for list of accreditation



Visit [unitedtech1.com](http://unitedtech1.com), call 248-667-9185 or email [sales@unitedtech1.com](mailto:sales@unitedtech1.com)

1081 E. North Territorial Rd  
Whitmore Lake, MI 48189



## INDUCTOHEAT

An Inductotherm Group Company

Carl Wesolowski  
[carlw@inductoheat.com](mailto:carlw@inductoheat.com)  
cell 248 376-6565

Tim LeClair  
[tclair@inductoheat.com](mailto:tclair@inductoheat.com)  
cell 248 556-6454

32251 North Avis Drive  
Madison Heights, MI 48071

[www.inductoheat.com](http://www.inductoheat.com)

## INDUCTION HEATING

**Paul Bogdajewicz**  
Regional Sales Manager  
[pbogdajewicz@ajaxtocco.com](mailto:pbogdajewicz@ajaxtocco.com)  
(317) 815-1126

**Chris Pedder**  
Technical Sales Manager  
[cpedder@ajaxtocco.com](mailto:cpedder@ajaxtocco.com)  
(248) 691-2290

**Cris Candela**  
Aftermarket Sales Mgr.  
[ccandela@ajaxtocco.com](mailto:ccandela@ajaxtocco.com)  
(586) 215-8709

[www.AjaxTocco.com](http://www.AjaxTocco.com)  
24/7 Customer Service  
800-547-1527

**Ajax TOCCO**  
30100 Stephenson Hwy ■ Madison Heights, MI 48071

Induction Scanners    Power Supplies    Parts, Maintenance & Service

## 2022-2023 ASM Detroit Chapter STEM Outreach Sponsor!



## FLUXTROL® Centre for Induction Technology™

Thanks to Fluxtrol's generous donation we are able to offset the dinner cost at our monthly chapter dinner meetings for our STEM Outreach attendees. These attendees include: Teacher Scholarship Winners, University Scholarship Winners, Community College Scholarship Winners, Metro Detroit Science Fair Winners, and ESD Future City Winners.

College and university students can also attend our ASM Detroit Chapter dinner meetings for just \$5 thanks to this generous donation!



**Marc Glasser**  
Director of Metallurgical Services



125 West Sterns Road  
Temperance, Michigan 48182  
800-255-2340 734-847-9450  
Fax: 734-847-6917  
[mglasser@rolledalloys.com](mailto:mglasser@rolledalloys.com)



Ensuring Certainty

### Metallography & Hardness Testing

When it comes to your metallographic preparation and testing solutions, Struers delivers...

Powerful Equipment  
High-Quality Consumables  
Intelligent Support  
Outstanding Service

Contact Struers Account Representative  
Jeff Wiswary at +1 616.323.3483  
[jeffery.wiswary@struers.com](mailto:jeffery.wiswary@struers.com)  
[struers.com](http://struers.com)



### COMPLETE LINE OF THERMAL PROCESSING EQUIPMENT



Batch ■ Continuous ■ Atmosphere ■ Vacuum ■ Rebuilds  
Upgrades ■ Alloy Fabrications ■ Replacement Parts

734.656.2000 | 12250 Belden Court, Livonia MI 48150 | [GasbarrelFS@gasbarre.com](mailto:GasbarrelFS@gasbarre.com)



[www.gasbarre.com](http://www.gasbarre.com)



Intellectual Property Attorneys

300 River Place Drive | Suite 1775 | Detroit | Michigan | 48207-4291  
[burrisiplaw.com](http://burrisiplaw.com) | 313-393-5400

# 2023 Joint ASM Detroit and DWAFS Golf Outing: A Resounding Success!

The 2023 Joint ASM and AFS golf outing, held at Canton's Fellows Creek Golf Course this past August, was an absolute hit! The weather was picture-perfect, adding an extra layer of enjoyment to this year's event. Witnessing 96 enthusiastic golfers showcasing their best shots and claiming fantastic prizes was a true highlight. A heartfelt "BIG" shoutout goes to our incredible volunteers: Nikki Tiernan, Tristan Brohm, David Masha, Kae Poor, Nicholas Lessnau, Tim Stachowski, Trisha Rouse, and Allison Tyler.

Following the golf action, an excellent steak dinner was served at the banquet, leading into the exciting awards ceremony. The generous sponsors, whose support was invaluable, were rightfully recognized. To add to the excitement, many other companies contributed additional prizes to the raffle, making multiple participants exceedingly happy winners. Our sincere thanks go out to these companies for their remarkable contributions.

The funds garnered from the outing will be put to excellent use, benefiting both ASM and AFS in enhancing their scholarship programs and community initiatives. We eagerly anticipate seeing everyone again next year for another round of camaraderie, competition, and community spirit!

## WINNING TEAMS



Mark Harper, Alan Johnson, John Chau, and Brandon Konja.



Mike Blazejewski, Clifford Grupke, Gary Berwick and Dan Burdo.



**LONGEST DRIVE**  
Dan Burdo



**CLOSEST TO THE PIN**  
Ken Minoletti

## Premium Sponsorships

Vegas Hole .....	Perkin Elmer
Lunch Cart .....	Air Products
Beverage Cart .....	Element
Closest to the Pin ....	Humtown Products

## Hole Sponsors

Exone  
Gasbarre  
ASK Chemical  
Carpenter Brothers  
Novis Works/MT Systems  
Nucor Automotive  
Inductoheat  
Voxeljet  
DIMAC graphics  
Auto/Steel Partnership  
Autokiniton  
Kolene

## Raffle Prizes and Giveaways

ASM	Cooper Hawk	Belle Tire
AFS	Autokiniton	Fire Keepers
LECO	Ask Chemical	Ford Rouge Factory Tour
Royal Oak Golf Center	Slows Barbecue	Livonia Marriott
Ghermack	Outdoor Adventure Center	Benihana
Rotterdam Jewelers	Ford House	