

2021 NEWSLETTER

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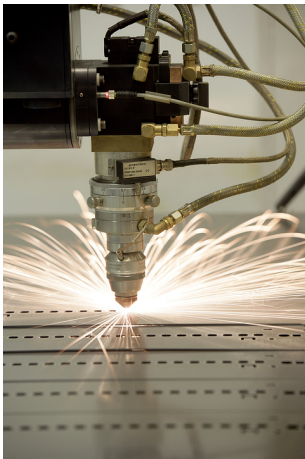


Fall is upon us and it is almost time to celebrate Manufacturing. **Regionally, we are hosting the GLBMA Annual meeting with Deke's Paradise and Casino.** The state and national levels are encouraging us to share our MFG story with the next generation. Ideas to share are a company video, host a tour for local high school students, or arrange for someone to speak in a classroom. We can help share your event or coordinate a speaker opportunity. Let us know how we can help you celebrate. [Join us in celebrating regional manufacturing](#) - see information below. We look forward to seeing what you do.

FEATURE ARTICLE



Predictive Maintenance - What is it Worth?



By MMTTC

Overall Equipment Effectiveness (OEE) is a ratio that demonstrates the number of parts produced by a machine versus its theoretical or optimal capacity.

Why OEE is Important

Every manufacturer needs to know how effectively their equipment is working. The ability to compare actual versus possible output provides valuable feedback regarding the equipment's operating condition. Managing a workflow process and seeing when problems arise based on this ratio makes it easier to detect issues before they become bigger problems. Production variances are investigated before creating a remediation plan.

Two key pieces of data are needed for OEE. The first is the theoretical capacity of the equipment. This often is different from the practical capacity of the machine. For instance, a machine operating around the clock for seven days a week could produce "x" widgets. However, the practical capacity is much lower, as repairs and maintenance will bring the capacity time down to a more realistic level. The second piece of data needed is what management deems an acceptable ratio to be. This will, of course, vary from industry to industry, and indeed from machine to machine.

An OEE Example in Action

For example, a machine producing 80 parts per hour when it has the capacity to produce 100 parts per hour needs management assessment and action. The manager needs to investigate why the actual numbers are below the target. This could be the result of several factors: insufficient training of the person operating the machine, poor overall production planning, lack of regular maintenance, and other such problems. OEE provides an objective metric of availability, performance, and quality for the actual operation of the equipment. It provides clues to improve processes, quality, consistency, and productivity.

How to Calculate OEE

The OEE accounts for availability, quality, and performance:

- **Availability**=Operating Time/Planned Production Time
 - Accounts for downtime loss such as maintenance, breakdowns, and changeovers
- **Quality**=Good Pieces/Total Pieces
 - Accounts for quality loss such as scrapped pieces, imperfections, and reworked pieces.
- **Performance**=Ideal Cycle Time/(Operating Time/Total Pieces)
 - Accounts for speed loss such as wear and tear and slower settings than intended.

Overall OEE = Availability x Performance x Quality

Six Types of Production Losses

After the ratios are computed and compared to their norms, the investigative process begins. Each possibility needs to be investigated in order to determine the cause of the problem. Normally, there are six main types of production losses that affect time, speed, or quality. They are:

1. Breakdowns
2. Set-ups and Adjustments
3. Small Stops
4. Reduced speed
5. Startup rejects
6. Production rejects

OEE does have its limitations. It can only be used to gauge equipment productivity for discrete processes that make individual parts. OEE should only be used when improvements will be made once all the numbers are calculated, otherwise working through the process is fruitless.

Originally published through [MMTC Blogs - October 2015](#)

GLBMA MONTHLY HIGHLIGHTS



Let's celebrate the Region's Manufacturing and have some fun with our annual Casino Night.

The Great Lakes Bay Manufacturers Association is pleased to announce our upcoming annual meeting with entertainment.

Please join us for an evening to celebrate 109 years of manufacturing.

This year we are combining our meeting with our casino night fun.



Agenda:

- 4:45 pm Registration and Table Assignments
- 5:00 pm Program starts
- 5:30 pm Dinner is served followed by a short program
- 6:30 pm Tables open
- 8:30 pm Tables close
- 8:45 pm Wrap-up and prizes

\$65 per person/6 pack for \$375/Table of 10 for \$600
Sponsor a banquet table for \$100

Register to Attend!



The GLBMA rollout our Region Industry 4.0 Readiness Webinar Series

The GLBMA is pleased to partner with many regional partners and the MEDC to provide continuing education on Industry 4.0. The webinars were designed to educate you on the nine nodes of Industry 4.0. You may choose to attend one or the whole series. Registration is open now for the series and the first several individual webinars. This series is available to all manufacturers in the region. Please feel free to share with your suppliers, customers, and friends within manufacturing.

Download the webinar series schedule and topics [here](#).
Register for the series [here](#).

For individual webinar registration, please visit the [GLBMA website](#).

These webinars were developed to help meet the State of Michigan's initiative of 50% of our Manufacturers adopting Industry 4.0 before the year 2025. This program is provided by a grant through the Michigan Economic Development Corporation (MEDC).

GLBMA Industry 4.0 Readiness Survey

The GLBMA and regional partners need 15 minutes of your time. We are in need of small to medium-sized manufacturers to complete our survey about your knowledge of Industry 4.0. This survey will help the MEDC gauge how much development and implementation has taken place within our region. GLBMA manufacturing members that complete the survey will be entered in a drawing to win a company treat day. Treat day consists of a day the GLBMA will show up at your company with a treat for your employees. Treats can be selected from the following items: homemade cookies, ice cream bars, or veggie cocktails. The deadline for the survey is October 1, 2021.

Take Survey Now!

MEMBER SPOTLIGHT



The GLBMA will be highlighting one manufacturer and one associate member each month. We want everyone to know about all the wonderful opportunities in the region.



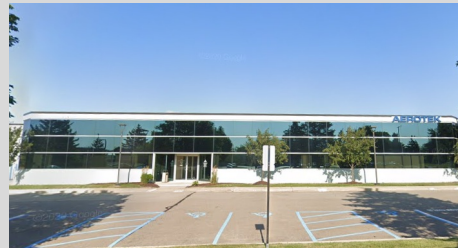
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Alro is your one-stop-shop for cut-to-size metals and plastics with next-day delivery to over 25,000 customers in North America. Alro is a metals service center with 70 locations in 12 states. Alro distributes metals, industrial supplies, and plastics. The metals inventory includes aluminum, alloy, carbon steel, cast iron, stainless steel, tool steel, brass, bronze, and copper.

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Integrity. Loyalty. Honesty. These principals have guided Alro Steel since our founding in 1948 by brothers, Al and Robert Glick. Focused on exceeding our customers' expectations, we build relationships with all our customers, large and small.

Thank you, Alro Steel for being a part of our community.



Aerotek

For over 35 years, Aerotek's people-focused, performance-driven culture has helped millions of men and women find rewarding work at leading companies that know an exceptional workforce demands both capability and character.

Now, we're focusing everything we've learned on the workers who form the backbone of our economy. Whether you work in Construction & Skilled Trades, Manufacturing & Production, Warehousing & Distribution or Facilities & Maintenance, we know you're looking for more than just a job or a worker. That's why we never stop investing in our people by adding skills and advantages to your work experience.

Whether you're looking for work that makes a difference — for you and others — or you're an employer looking for people who deliver, when you work with Aerotek you'll understand why we say "our people are everything."

PARTNER NEWS



Prometis Partners Offer Fireside Chat

"Owner's Fireside Chat" is being held virtually on 9/21 at 8:30a EST. This session will be on

“The 4-C’s,” and we’re looking for business owners to attend this informative event.

[Register to attend here.](#)

This session is provided for free by Prometis Partners.



CreatorsWanted? Join the MFG Day movement

Over the next decade, 4 million manufacturing jobs will need to be filled in the US. We’re joining the movement to fill the #skillsgap and inspire the future workforce by hosting an #MFGDay21 event! Register today: creatorswanted.org/find-events/

Planning an MFG Day event? Please register your event as requested above and let us know here at the GLBMA office so we can add it to our calendar of events. *We are proud to say that **Michigan Manufacturers host more events than every other state except California. We would like to beat California this year and be the top state, so please register your event whether it be a plant tour or a speaking engagement.***

If you would like to host high school students or speak in a local classroom, please reach to the GLBMA office and we can help coordinate this effort for you. 989-964-2881 or tblehm@svsu.edu. #MFGDay2021 #NAMpage #GLBMAMFGDAY21

Michigan's State Trade Expansion

Through Michigan’s State Trade Expansion Program (MI-STEP), the International Trade team offers financial assistance for exporting activities to eligible Michigan small businesses, enabling access to global markets and buyers while increasing the dollar value of Michigan exports. [Click for complete details.](#)

Hiring Now? Don’t Forget About the Work Opportunity Tax Credit

Unemployment benefits funded through federal programs will end in September, so your business or organization may find it easier to hire new employees. **If your new hires were unemployed for more than 27 weeks (or are members of other targeted groups), your business may be eligible for the Work Opportunity Tax Credit (WOTC).**

The WOTC is a federal credit available to for-profit businesses and many tax-exempt employers who hire from specific targeted groups of people who have experienced difficulty in securing employment.

Certification deadline extended

Before claiming the WOTC credit, the employer must obtain certification from the Michigan Unemployment Insurance Agency that an individual is a member of one of the ten targeted groups. On August 11, 2021 the IRS issued **Notice 2021-43** which **extends the 28-day deadline** for employers to request certification of employees hired between January 1 and October 8 of this year who are members of the Designated Community Resident or the Qualified Summer Youth Employee groups. Certain employers now have until November 8, 2021, to submit required certification requests.

The extension of the certification deadline will also benefit those businesses who may have hired summer help who are members of one of the targeted groups.

Read more about the WOTC, the targeted groups, and how to claim the credit. Contact your Yeo & Yeo payroll professional for assistance with completing the forms required and obtaining the credit.

MEP Supplier Scouting Opportunities

The following supplier opportunities are available through the MEP center. These are national MEP Center clients seeking domestic suppliers for the various items. Please contact Hali Motley with the Michigan Manufacturing Technology Center Northeast office for complete details on how to submit a Supplier Scouting form. Hali can be reached at hkmotley@svsu.edu.

Current Opportunities:

Opportunity: 2021-076 Pipe and Fittings for Furnaces closes Oct. 4
(part of Pennsylvania MEP)

Opportunity: 2021-077 Plate Burning for Furnaces closes Oct. 4
(part of Pennsylvania MEP)

Opportunity: 2021-078 Plate Rolling for Furnaces closes Oct. 4
(part of Pennsylvania MEP)

Opportunity: 2021-081 PVA Cloth closes Oct. 5
(Florida MEP Center)

Opportunity: 2021-082 6 or 7oz Plastic Containers for Butter closes Oct. 12
(Puerto Rico MEP Center)



MEP • MANUFACTURING
EXTENSION PARTNERSHIP®

Artificial Intelligence In Manufacturing: Real World Success Stories and Lessons Learned Webinar

Artificial intelligence projects improve equipment uptime, increase quality and throughput, and reduce scrap – resulting in healthier bottom lines and increased profits. South Carolina MEP's Andy Carr and Rick Oppedisano, Founder and CEO of Delta Bravo, will share cases featuring several manufacturers including Precision Global, Metromont, Rolls-Royce, JTEKT, and Elkem Silicones. You will hear these companies' Industry 4.0, stories including key drivers for success and the potential pitfalls encountered along the way.

This webinar will be held on September 22, 2021, at 2:00 pm. There is no charge to attend this webinar.

[Register to attend here!](#)

Manufacturers: Pre-Purchase Guide for Equipment

A survey from 2014 found that small and medium-sized manufacturers do not like to compromise on quality when it comes to communications devices, vehicles, or tea (yes tea – the survey respondents were probably British) but were more likely to skimp when it came to things like manufacturing equipment. Whether it is a new computer for the office or a welding station for the shop floor, purchasing new equipment is a decision about risk. A poor purchasing decision can result in a waste of resources and possibly a safety or cybersecurity incident.

[Continue reading this article](#)

Michigan's Great Lakes Bay Region Selected to host the International Convening of the STEM Ecosystems

“Planet, People, Prosperity” the first in-person convening of the STEM Learning Ecosystems Community of Practice is planned for June 20 to June 22, 2022, in Michigan's Great Lakes Bay Region, home of one of the nation's most successful Ecosystems, the Great Lakes Bay Region STEM Ecosystem.

“Planet, People, Prosperity” will explore practical strategies for how communities can use STEM to drive gains in equity, social mobility, and efforts to safeguard the environment.

Anchored by the Great Lakes Bay Region STEM Ecosystem, a host planning committee of all Michigan Ecosystems including the Michigan STEM Partnership Southeast Michigan

STEM Alliance and the MiSTEM Network, has worked to build an engaging conference that will offer hands-on learning opportunities curated from throughout the state as well as the nation.

Michigan was selected in a competitive process open to all 94 Ecosystems that are a part of the global network, which serves students in the United States, Mexico, Canada, Israel, and Kenya. “We chose Michigan because we believe that the state is leading the nation and the world in countless key areas related to STEM, including advanced mobility and their integration of technologies in the Industry 4.0 initiative,” said Jan Morrison, president of TIES, the organization that leads the STEM Learning Ecosystems. “And we’re thrilled to be going to the Great Lakes Bay Region, where innovation has been embraced and rallied by key stakeholders who make up successful Ecosystems.”

Look for more details in the future.



MMA News Updates

Check out the latest issue of the [MiMfg Magazine](#).

Join the MMA in Lansing for Legislative Day, September 28, 2021

Get “hands-on” lobbying experience, connect with key policymakers and learn about MMA’s efforts to develop a pro-manufacturing economy during MMA’s annual Capitol event in September. [Click for complete details and the registration link](#).

Interested in sponsorship?

Check out the [available sponsorship opportunities](#) and contact MMA’s Ashley Wakefield, at 517-487-8523 or wakefield@mimfg.org, to discuss the best investment for your brand.

Voting opens September 15

Look who made the list for round 2 of the "Coolest Thing Made In Michigan".

Voting starts today. [Vote here!](#)

3590 Towable Drum Style Whole Tree Chipper | Bandit Industries, Inc. • Remus
Oberon | Bell’s Brewery • Kalamazoo
The Receptor | DB Delivery Solutions • China Twp
The Mayfield Adapter | Domico Med-Device • Fenton
Duperon Dual Auger System | Duperon Corporation • Saginaw
World’s Largest Hydraulic Power Unit | Exotic Automation & Supply • New Hudson
Michigan Cherry BBQ Potato Chips | Great Lakes Potato Chips • Traverse City
Magliner Motorized U-Boat | Magline, Inc. • Standish
The NuStep UE8, Upper Body Ergometer | NuStep, LLC • Ann Arbor
GRIDCOOLER® Keel Cooler | R.W. Fernstrum & Company • Menominee

You can vote every day until voting closes Friday, September 24.

We look forward to seeing the winner at the next MMA Excellence Awards.

CURRENT EVENTS



September

October

28 Coffee Clutch
30 109th Annual Meeting Dinner
w/Deke's ParaDice and Casino

Check the [GLBMA website](#) for complete details.

1 National MFG Day
5 The Nine Nodes of Industry 4.0 and
How to Scale to Small Biz Webinar
19 Coffee Clutch
21 Quality SIG Meeting
26 Effective Change Management for
Industry 4.0 Webinar

QUALITY SIG



Our next Quality Special Interest Group Meeting

Topic: Management System Updates are coming soon - are you prepared?

Date: Thursday, October 21, 2021

Time: 8:00 am to 9:30 am

Location: Blended - TEAMS Meeting or in-person at SVSU - CCB313A
(link provided one week prior to the meeting)

Register Link: [Click to register now!](#)

The Quality Special Interest Group (SIG) is a professionally facilitated group of the Great Lakes Bay Manufacturers Association (GLBMA). This SIG focuses on providing a forum to discuss and review quality systems, validate the need, discuss industry updates, and new regulations. It will also serve as a place where Quality employees can discuss issues in a confidential setting.

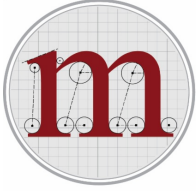
MFG CHAMPIONS

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Thank you to our MFG Champions!

If you want to become an MFG Champion, please contact Tanya at the GLBMA office for more details. (989)964-2881.



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