

Advanced Manufacturing Expo



WEDNESDAY - AUGUST 9, 2023

DEVOS PLACE - GRAND RAPIDS, MI
8:00 AM - 4:00 PM

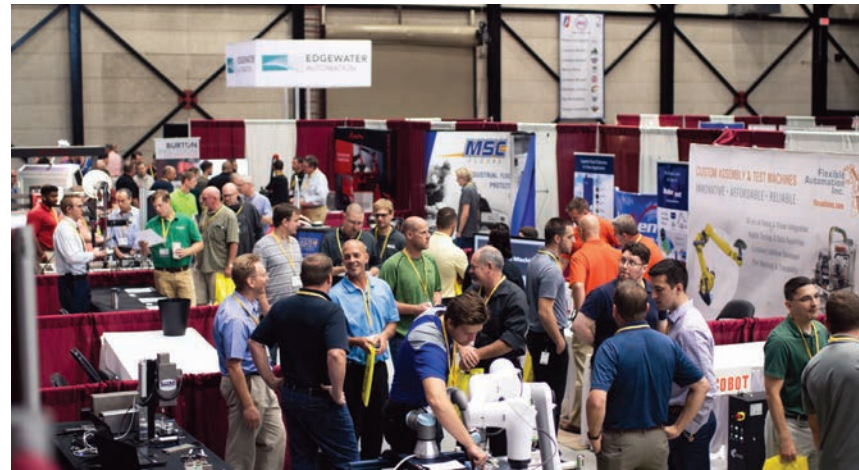
THURSDAY - AUGUST 10, 2023

DEVOS PLACE - GRAND RAPIDS, MI
8:00 AM - 4:00 PM

AUTOMATION HALL • MECHANICAL HALL • METALWORKING HALL
ADVANCEDMANUFACTURINGEXPO.COM



- **250+ EXHIBITORS**
- **MEET THE MANUFACTURING MILLENNIAL**
- **SEE THE AUTONOMOUS WHEEL**
- **MEET "SPOT" THE ROBOT DOG**
- **SPARKS FLY: REA RIPPLE LIVE DEMO**
- **LIVE CNC MACHINES**
- **FREE TO THE PUBLIC**



SPONSORED BY:



SPONSORED BY:



SPONSORED BY:





ONE SOURCE. ENDLESS SOLUTIONS.

Booth #1210

Advanced industry solutions. One source.

Full Lifecycle Support

MCE is one call away—from idea, to engineering, to repair and replacement

Local Feel, National Footprint

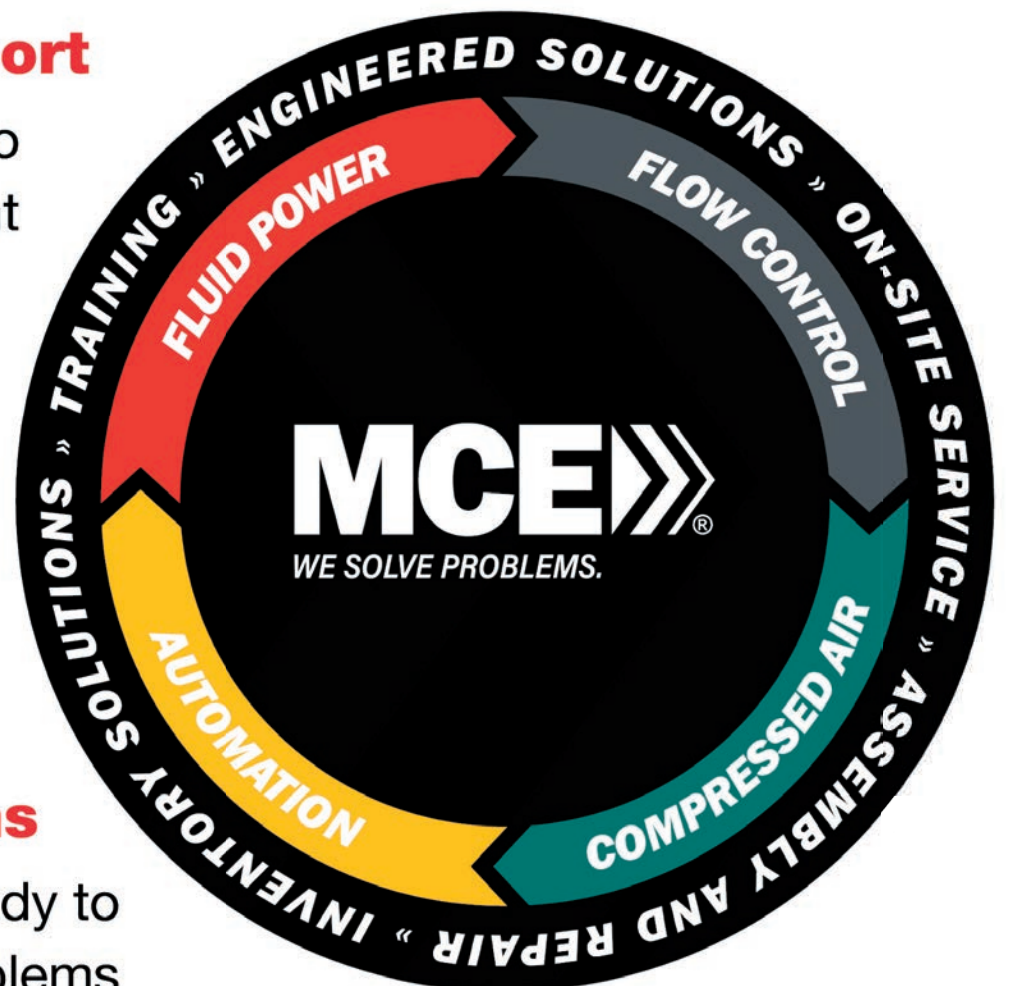
Access local, regional, and national experts no matter your location

Premium Product Portfolio

Representing the top manufacturers you want to work with

Engineered Solutions

Highly technical experts ready to solve your most challenging problems



Experience the difference at www.mceautomation.com

INSIDE



4. HOW IS AI CHANGING THE FACTORY FLOOR?

AI technology is poised to change manufacturing, but what do West Michigan experts and manufacturing leaders think of the new technology?

5. PRODUCT SPOTLIGHT

A look at one of VaporTech's coating systems.

6. INVENTORY MANAGEMENT IN MANUFACTURING COMPANIES

Properly managing inventory is one of the greatest challenges facing manufacturers in Michigan right now.

7. MEET JAKE HALL

Jake, the Manufacturing Millennial, will be bringing his popular podcast to the Expo halls, talking about the latest technology in automation and manufacturing.

8. i4.0 ACCELERATOR EVENT

The annual event includes pitch competitions, panel discussions and fireside chats. Check out the agenda!

8. SPOTLIGHT ON MOTION

This longtime supplier provides a wide range of industrial products and services to support industry in North America.

10. MMTc SMART MANUFACTURING ZONE

The Michigan Manufacturing Technology Center (The Center) invites you to the Smart Manufacturing Zone to meet with their team and get hands-on with technology that can help your business.

11. EXPO HIGHLIGHTS

Don't miss these expo headliners! "Spot," the robotic dog! A welding demo from artist Rae Ripple! And the amazing self-driving wheels of Wheel_Me!

12. EXPO AGENDA EVENTS & SPEAKERS

14-23. EXHIBITOR LISTINGS & MAPS

- 15-19 - AUTOMATION HALL
- 19-21 - MECHANICAL HALL
- 21-23 - METALWORKING HALL

Advanced Manufacturing Expo



SHOW INFORMATION

HOURS

WEDNESDAY, AUGUST 9: 8 AM - 4 PM
THURSDAY, AUGUST 10: 8 AM - 4 PM

LOCATION

DEVOS PLACE • GRAND RAPIDS, MI

FREE* PARKING

Free 2 hour parking voucher valid at City of Grand Rapids parking ramps, limited to the first 2,000 attendees between both days

Thank You AME 2023 Corporate Sponsors:

Platinum Sponsor: Veryable

Silver: Q-Mation

Silver: Biz-Stream + Kentico

VERYABLE



Media Partners:

Crain's Grand Rapids Business

Michigan Manufacturers Association

CRAIN'S GRAND RAPIDS BUSINESS





HEY AI, WRITE ME A STORY ABOUT HOW AI IS CHANGING THE FACTORY FLOOR ...



MARK ERMATINGER
Industrial Control /
MCE Automation

My entire life has been surrounded by automation. My parents started Industrial Control in 1975, and since then the changes in manufacturing have been amazing and profound.

Now, the latest development in technology, AI, or artificial intelligence, is about to change your life and industrialized processes again and fast!

One Sunday afternoon, I decided to have some fun and ask AI to write a story about how it would change the factory.

The AI system wrote a story about robots and humans working side by side, and how "the factory floor became a harmonious symphony of machines working at their peak efficiency, reducing downtime and increasing productivity." Sometimes, the

AI bot even used words like it was real, like this statement: "The factory floor became a living, breathing network of information." Nonetheless, I was amazed at how it came up with a story in 30 seconds. Although I have my own ideas of what automation will revolutionize the factory, you can see the actual story that the AI system wrote for me on that Sunday at www.Industrialcontrol/AI.

Not to be outdone by AI, I started to gather my thoughts and had this competitive sense to write my own story, but unlike AI, I decided to call some humans, friends and experts in the industry, and this is what I learned.

IS AI TAKING OVER MANUFACTURING?

"We're not at that point in our evolution, but I do see us seeing more uses for it," said Rick Blake, President and Founder of Edgewater Automation.

For his company, AI uses have been mainly about productivity improvements with incoming materials, and seeing if the "machine can learn the things its doing itself to deal with variations."

For example, Blake's team has used vision in part variation and have used AI to learn the variation to help process small parts in high speed. "It goes at an extremely fast speed, half a second apiece," he said. "At those speeds, you can't afford bad parts."

Blake's company is currently using an AI deep learning software on using Cognex vision inspection on an assembly machine. This is using (CIS Contact Image Sensors) to construct 2D images as the part passes under the scanners. "This

allows us to inspect and move our assembly robots as the trends change in the incoming materials. The AI helps us learn these parts."

The end result, he said, is less waste and more efficiency.

LOOKING INTO THE FUTURE

Steven Lopez, Business Development Specialist with The Center West, is West Michigan's lead industry 4.0 assessor, where he identifies technologies that help improve operational performance.

He said that as exciting as AI can be, manufacturers need to also be cautious about several

something that has to be given up and has to change, and AI is certainly going to go through with that." However, he said the benefits could be great. "I see it helping us get to the market with a product that is more agile and efficient."

Blake said engineers used AI to assist with repetitive aspects of applying software from one robot doing a project to seven more robots doing similar but not the same tasks.

"It's so cool," he said. "You still had to do something to it and it wasn't perfect by any means. By asking Chat GPT to take it and iterate it seven more times, it was able to do some of that."

"Do the research on what 'training' is required to provide usable models for the AI tools."

-Scot Lindemann, CEO of Mission Design and Automation

factors. "First and foremost is data privacy and security," he said. "Safeguarding sensitive information is crucial, and robust cybersecurity measures must be in place to prevent breaches and unauthorized access. Ethical considerations are also important, as AI systems should be designed and used ethically, addressing potential biases and ensuring decisions align with ethical and legal standards."

There's always new technology coming into the manufacturing space, and not all of the changes are comfortable or easy to adjust to, Blake said. Manufacturers will have to adjust to AI like anything else.

"With every new step there is

AI EVOLUTION

Scot Lindemann, CEO of Mission Design and Automation, said that manufacturers can see benefits for AI on the horizon, including making ease of use for setup or changing conditions easier and more robust.

AI technology can help keep "the manufacturing operations running, and more diagnostics available for diagnosing potential problems," Lindemann said. "We are all using 'simple AI' in our lives now — the 'hard AI' is what is evolving every day and becoming useful in new ways."

Lindemann said manufacturers really need to prepare their

staff before taking on new technology like AI, making sure they are ready for the tasks needed for implementation.

"Do the research on what 'training' is required to provide usable models for the AI tools," he cautioned. "Sometimes the AI will need a few hundred good parts and bad parts to 'learn' the required tasks. This can take time and planning to accomplish for a robust

His engineers are keeping up on what's going in the industry, and applying what they feel works for their systems. "I don't see Edgewater being an AI tech innovator, but I see us being excited by ways we can use it and apply it, particularly driven by our customers' needs."

Steven of The Right Place said what excites him most about AI applications in the future is the potential for transformative

"I see it helping us get to the market with a product that is more agile and efficient."

-Rick Blake, President and Founder of Edgewater Automation

AI implementation. Another possible hurdle is having the ability to validate what the AI tool is doing exactly — this is necessary in certain industries and medical or safety products."

HOW WILL MANUFACTURERS EMBRACE AI?

Lindemann said he's excited for what's ahead, and he's looking forward to seeing "solutions that were very difficult and can now, or in the near future, become more widely implemented."

Blake said he is approaching new technology with cautious optimism. "We like to be a quick second, not necessarily a first," he explained.

advancements, particularly in the manufacturing industry.

"AI can revolutionize manufacturing processes, leading to increased productivity, enhanced quality control, optimized supply chain management, and improved safety," Lopez said. "It can enable predictive maintenance, process optimization, and innovative product design. The integration of AI in manufacturing holds the promise of boosting efficiency, reducing costs, and driving innovation."

How will AI change the factory floor? Stay tuned because this topic isn't going anywhere!

SPONSORED CONTENT

BRAUN MACHINERY
Est. 1946

See the TRUMPF TruArc Weld 1000 on display!

VISIT HURCO AND PROCOBOTS IN BOOTH #814.

HURCO **TAKUMI** **TRUMPF**

MACHINE TOOLS • SERVICE • TRAINING • APPLICATIONS

WWW.BRAUNMACHINERY.COM
3876 East Paris Ave. SE • Grand Rapids, MI 49512 • 800-968-1000 • info@braunmachinery.com

PRODUCT SPOTLIGHT

The VT-1500i™ PVD & DLC coating system from VaporTech deposits a broad range of bright and dark metallic colors, our diamond-like carbon (DLC), and functional, highly wear-resistant coatings. The system includes both cathodic arc and optional magnetron sputtering technologies in the same machine – up to 3 PVD sources. With the ability to coat parts up to 100 cm long and 10 high-capacity racks, the VT-1500i™ is a high-volume, flexible, price-competitive coating system for manufacturers and coating service providers. Scan the QR code to watch a video overview of the VT-1500i™ PVD coating system at vaportech.com/pvd-process-in-vt-1500i-video.



VaporTech® designs, builds, and services thin-film deposition systems that deposit PVD and DLC coatings to make your great products even better. For more than 20 years, our thin-film coating equipment has been helping customers apply beautiful and durable hard coatings that enhance and differentiate the look, feel, and performance of home hardware, medical devices, industrial tooling, consumer electronics, sporting goods, and many other products. We are based in beautiful Longmont, Colorado, with global sales, service, and support.

6400 Dry Creek Parkway
Longmont, CO 80503
vaportech.com



SCAN ME

REAL IT SOLUTIONS™

WEST MICHIGAN'S EASY BUTTON FOR ALL THINGS I.T.
FOR MANUFACTURING BUSINESSES

About Us
Our utmost dedication lies in ensuring that business owners in West Michigan receive the most dependable and professional IT service. At Real IT Solutions, we hold an unwavering commitment to customer satisfaction, a commitment that has earned us a remarkable reputation, as evidenced by the glowing reviews shared by our partners. Our team comprises highly skilled IT professionals who can put an end to your IT nightmares one and for all.

SCAN ME

Call Now for your FREE Network Scan 616-209-8900

I.T. Consulting Network Security Cloud Services

Managed Services Cyber Security Co-Managed Solutions

www.realitsolutions.com

THE VITAL ROLE OF INVENTORY MANAGEMENT AND VENDOR MANAGED INVENTORY SYSTEMS IN MANUFACTURING COMPANIES

One of the greatest challenges facing manufacturers in Michigan right now is properly managing inventory to keep costs down and production running smoothly. Inventory management and the implementation of Vendor Managed Inventory (VMI) systems are one essential solution for manufacturing companies aiming to optimize their operations, reduce costs, and enhance customer satisfaction. By effectively managing inventory levels, collaborating closely with suppliers, and leveraging real-time data, manufacturers can streamline their supply chains, improve production efficiency, and respond quickly to changes in demand.

Embracing these practices is vital for the long-term success and competitiveness of manufacturing companies in today's dynamic business landscape. We sat down with Paul Hendricks, owner, and Scott Kudlack, sales manager, at Creston Industrial Sales, to discuss the value and importance of vendor managed inventory systems for today's manufacturers in Michigan.

"VMI is a real benefit for our customers, for a number of reasons," says Hendricks. "First, it's automating a process in their facility that many times before was done manually. On the logistical side of things, you can see labor reductions, because you're automating the process with a piece of technology. Secondly, you also get the visibility into what's happening

within your organization." VMIs help manufacturers "get a real sense of what it's costing to make a part."

Another benefit to having a relationship with a single vendor to manage inventory, Hendricks says, is that "with less vendors and less purchase orders, you have more efficiency in your operations."

"What matters" at the end of the day, says Hendricks, "is how do we get our manufacturers more productive?"

Creston's longtime sales manager, Scott Kudlack, agrees that productivity and efficiency are major benefits from VMIs. "In our current economic climate within manufacturing, it is very difficult to manage supply chain challenges effectively," he says. "By managing inventory with the assistance of a distributor through a vendor managed system, the onus of supply chain management is moved from the manufacturer to the distributor, making the supply chain easier to manage for a manufacturing customer."

How do VMIs help improve manufacturing efficiency?

"With a proper VMI system or tool management system, the customer should always have the product they need at their facility to make sure that they are always operating at capacity," says Kudlack, "which allows them to get more products out the door, makes them stay on time with their production schedule, and allows them greater flexibility in their production and production planning."



And that reduces costs as well, right?

Says Kudlack, "That will absolutely reduce some of their cost. With manufacturing, if you're properly managing your inventory from a tooling standpoint, you don't have shutdowns, which is going to help get more product out the door and make you more profitable. If you're properly managing that inventory, all those concerns go away, and you're a much more cost-effective business."

Hendricks agrees. "We can offer products at more competitive pricing, because we're driving labor costs" down, he says, "and automating this reordering process." Manufacturers can then "go focus on tackling their larger issues within their facilities."

How does using a VMI help improve customer service for the manufacturers?

"If they have the tools they need, they can meet their customers' expectations, without missed shipments and without delays," says Kudlack. "The customer that the manufacturer is selling to will be much happier and more likely to get that repeat business." Another benefit he finds is that properly managed inventory through a VMI "helps them plan better for those jobs that are coming in to make sure they have everything they need to produce on time before that job is going into the machine."

The pandemic and shutdowns really shed light on how fragile supply chains are. How does using a VMI help mitigate that?

"We spent a lot of time during the pandemic finding secondary, or sometimes a third or fourth vendor that has a similar product that will work for that customer in that application, and be able to get them that product with hopefully a little bit of prep time." A VMI, he says, "creates the predictability within the supply chain so they can see exactly what they have" and plan ahead.

"The resiliency in the supply chain goes back to the availability of inventory for the customer at their fingertips," he says. "The constant reporting and data that they can get from these systems...really turns it into a partnership" between vendor and manufacturer.

How does this work to reduce inventory holding costs?

"After you get a few months of really good data," says Kudlack, "you can then do predictive analysis and say, 'Okay, six months from now, I'm only going to need this much of this tool to run this job, so I can reduce my inventory.'"

For Creston Industrial Sales, it's all about staying lean on inventory — but having the data to be nimble. "In an ideal situation," says Kudlack, "I only want the manufacturer to have a month's worth of inventory at their facility. If you have a month there, and then I have a month at my facility we can build out an effective supply chain through a lot of communication, a lot of partnership. That customer's money isn't tied up in inventory."

Can you give us a concrete example of a successful, data-driven VMI partnership?

"They were having some spikes in usage on some of their tools," Kudlack says. "I've been going through that data to find the items that had spikes in use over the past few days. Then we can

dive in deeper and say, 'okay, it was only this one person that maybe had a usage spike so that person maybe needs more training, or they're not running a tool right, or there's some issue in the way they're applying it.'"

"That's where you find additional cost savings: in that data."

What does the future of VMI look like for manufacturers in Michigan and elsewhere?

"As a manufacturer, 20 years ago, it was kind of cookie cutter. It's come so far as a technology. The flexibility, the technology and the offerings that can be applied to a vast variety of different manufacturing environments is really there. Some of the manufacturers out there maybe aren't aware of the flexibility, or the way that the technology can be adapted to help them in their specific needs."

Both Kudlack and Hendricks see dynamic changes in the manufacturing landscape, with supply chain and labor shortages continuing to affect efficiency and productivity. Still, they're both confident that with a properly managed VMI and a solid vendor-manufacturer relationship, data-driven inventory management will put the right tools in the right hands at the exact right time for manufacturers to succeed in a changing world.

"With a proper VMI system or tool management system, the customer should always have the product they need at their facility to make sure that they are always operating at capacity."

- Scott Kudlack, sales manager, Creston Industrial Sales

COUNTERPART

MAKE MORE WITH LESS

COUNTERPART® ERP is a trusted source for industry-leading ERP software that provides your team access to all the live information they need to do their jobs better. With direct integration with SOLIDWORKS®, there is no longer a need to export BOMs, use spreadsheets, or manually enter data into your ERP. Share information with those who need it, see real-time progress, and allow your business to leverage the information to increase efficiencies in engineering, procurement, manufacturing, and more.

Visit booth 926 to learn what COUNTERPART® can do for you!

counterpart-erp.com sales@counterpart-erp.com
616.738.8922 Holland, MI - USA



MEET JAKE HALL: The Manufacturing Millennial

On his popular podcast, The Manufacturing Millennial, Jake Hall talks about the latest technology in the automation and manufacturing while making it engaging for all audiences. This year, Jake will be recording his podcast live from the Advanced Manufacturing Expo.

Jake graduated from Grand Valley State University with his bachelor's in Product Design and Manufacturing Engineering and a minor in Biomedical Engineering. He worked during college in the automation, furniture and product design industries as well as starting a company after receiving investments and winning business and pitch competitions.

Jake is an experienced sales professional with extensive knowledge in building lasting business relationships across

multiple accounts, designing sales strategies, and creating and accomplishing project goals. He has proficiency in creating new business opportunities with existing and new accounts by leveraging key strengths and maintaining customer relationships.

Industrial Control, the founder of the Advanced Manufacturing Expo, hired Jake Hall in 2003 as a Sales Engineer in West Michigan. After almost seven years of providing manufacturers some of the highest technology solutions, such as 2D & 3D machine vision, Laser Markers, and Robotics, Jake started making videos to flatten the curve during the beginning stages of Covid-19. He wrote and produced over 31 videos himself at home showcasing some of the coolest manufacturing products around. You can still find these videos on YouTube @IndustrialControl. Jake eventually created a brand as the Manufacturing Millennial and currently works for himself as an internet influencer and speaker.

At Industrial Control, we are proud to have the best engineers in the industry and see them become entrepreneurs!

— Mark Ermatinger, Founder - Advanced Manufacturing Expo

JOIN US! METALWORKING HALL



WEDNESDAY, AUGUST 9 | 8:30AM – 4PM
THURSDAY, AUGUST 10 | 8:30AM – 4PM
DEVOS PLACE – GRAND RAPIDS, MI

- 260+ Exhibitors, with the most NEW exhibitors ever
- 16 industry-leading presentation
- Live machine tool demonstration
- Latest tech from all manufacturing sectors
- Top manufacturing advocates
- Special guest Rae Ripple - renowned metalworker, artist, and author



**STOP BY THE CRESTON BOOTH #712
FOR A TICKET TO WIN ART BY RAE RIPPLE!**
Must be present to win.



SCAN TO REGISTER

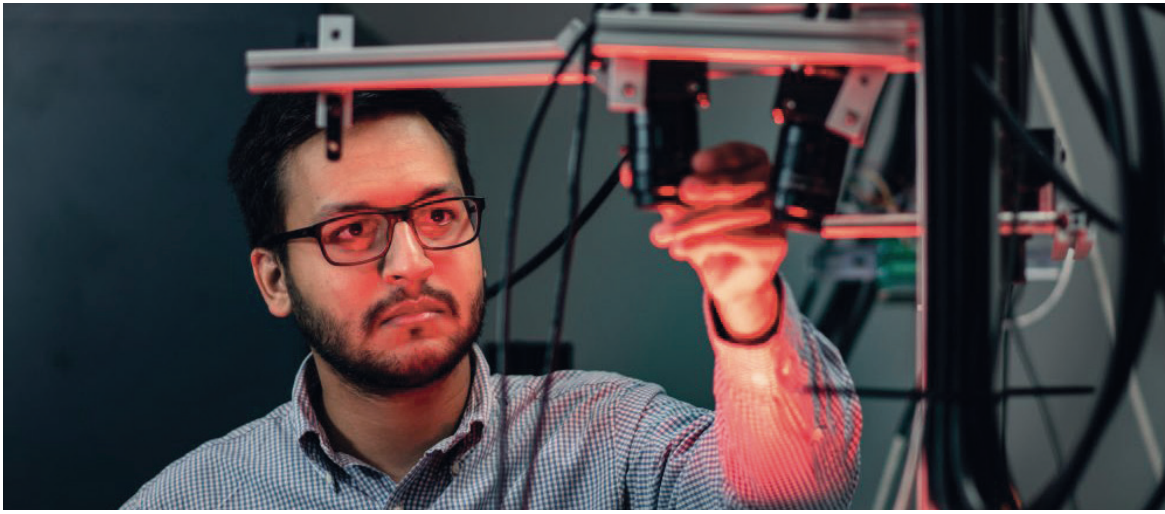
REGISTER FOR FREE TODAY

AdvancedManufacturingExpo.com/metalworking-hall-2023

Exclusive Metalworking Hall Sponsor



CrestonIndustrial.com | 800.999.9180



MOTION: SUPPLYING UNIQUE SOLUTIONS ACROSS NORTH AMERICA

As a longtime supplier, Motion provides a wide range of industrial products and services to support industry in North America, from automotive to food and beverage, to oil and gas. This includes new and innovative products designed to withstand tough environments and meet regulatory standards.

PRODUCT BREADTH

Motion has the parts from bearings to motion control to fluid power components to help you successfully operate in the most remote, rugged, and dirty industries. We provide customers instant access to more than 19 million unique MRO/OEM parts

expedited to customers through North America's best logistical MRO network. Motion serves its local markets with a network of over 600 locations, including 19 distribution centers and two fulfillment centers.

EXPERT ASSISTANCE

More than 2,200 fully trained account representatives support purchasing, maintenance, production, engineering and storeroom personnel in your operations. Bolstered by more than 200 product and industry field specialists, our local representatives can troubleshoot and offer technical and new product application support on-site to meet your operations'

(Automation Intelligence) and Mi Conveyance Solutions were formed to offer a wide range of specialized, related products and innovative solutions for many applications.

INNOVATIVE RELIABILITY

Predictive maintenance solutions are possible with P2MRO®, the comprehensive cloud-based software platform designed and provided by Motion. It is the ultimate cost-saving IIoT tool for plants and sites that want to improve uptime and efficiency. The platform leverages application-specific solutions that track machine health KPIs, such as vibration, temperature, oil condition, etc., and aggregates data within the P2MRO dashboard. When sensors detect an anomaly or impending failure, the P2MRO system automatically generates an email notification and a scheduled report to streamline maintenance, repair and operations workflow.

ENERGY ASSESSMENTS AND SOLUTIONS

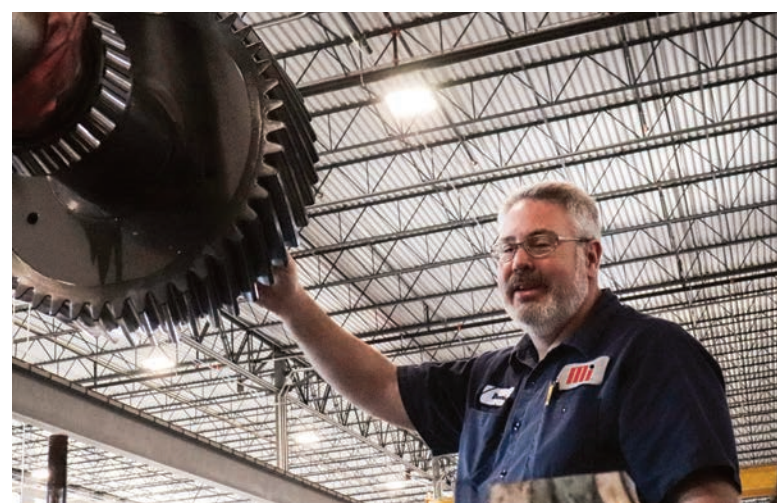
Motion can also help your facility reduce energy consumption and operating costs, improving your bottom line. Our team of dedicated energy professionals will evaluate your operations' compressed air, lighting, electrical system and steam system inefficiency, recommending simple and effective solutions.

YOUR PARTNER FOR COST-SAVING SOLUTIONS

Whatever your application, Motion has the products and services to keep your industrial site in motion.

Partners. The best part of all.

Motion is a wholly owned subsidiary of Genuine Parts Company (NYSE: GPC). Visit our website at www.Motion.com.



through our vast distribution network, sourced from a global manufacturing base. Our broad and deep inventories offer known, quality brands.

Products include:

- Bearings
- Electrical/Automation
- Hose/Belting/Gaskets
- Hydraulics
- Industrial & Safety Supplies
- Linear
- Material Handling
- Power Transmission
- Pneumatics
- Process Pumps & Equipment
- Seals & Accessories

QUICK DELIVERY, 24/7

Motion's extensive inventories are

urgent demands. These representatives can address key industry concerns such as safety, reducing downtime and maintenance expenses, and increasing productivity.

VALUE-ADDED SERVICES

Motion's fully qualified technical experts provide timely repair solutions from strategically located shop facilities throughout North America. Using the latest testing and diagnostic equipment, our factory-trained technicians have extensive fluid power, electrical and mechanical knowledge. Other services include engineering and Industry 4.0 solutions across these product groups. In addition, Motion Ai

industry 4.0

Accelerator

The i4.0 Accelerator's annual Corporate Partner event will take place during the Advanced Manufacturing Expo! Don't miss the pitch competitions, panel discussions, and fireside chats. Connect with industry leaders and gain insights on the newest tech impacting manufacturing. Don't miss this chance to be part of the conversation as i4.0 continues to advance!

WEDNESDAY 10:30-11:00 A.M. EVENT KICKOFF

Learn about services and programs to assist Michigan Manufacturers
Presenters: Dan Radomski - Centrepolis Accelerator; Brandon Marken - Lean Rocket Lab; Scott Phillips - Industry 4.0 Accelerator

11:00-11:45 A.M. PANEL: INDUSTRIAL DECARBONIZATION

Learn about industrial decarbonization related to regulations, innovative technologies and strategies being used to achieve sustainability goals while maintaining competitiveness in the industry.
Presenters: Dan Radomski - Centrepolis Accelerator; Francis Vatakencherry - Siemens; Tyler Roberts - Borg Warner

12:00-12:45 P.M. PITCH COMPETITION 1

Come see state of the art solutions to improve manufacturing efficiency
Moderator: Brandon Marken.
Teams: DeepHow; Lincode; Andonix; LaunchPad. Judges: Matt Myrand (Forvia); Natalie Chmiko (MEDC); Dan Drouin (Lear Corporation)

1:00-1:45 P.M. PANEL: INDUSTRY 4.0 ADOPTION STRATEGIES

Learn about Industry 4.0 Adoption strategies from some of

the leading manufacturers discussing their i4.0 technology adoption roadmaps, where are the biggest opportunities, what are the organizational challenges when implementing Industry 4.0 technologies to improve efficiency, reduce costs and enhance products.
Moderator: Scott Phillips - i40 Accelerator. Panelists: Matt Myrand - Forvia; Sanjay Kumar - Siemens; Steve Jones - Steelcase

2:00-2:45 P.M. PITCH COMPETITION 2

Come see state of the art solutions to improve manufacturing efficiency.
Moderator: Brandon Marken.
Teams: Squint; DeepView; Wheel Me; PicoMES; Judges Matt Myrand (Forvia); Natalie Chmiko (MEDC); Dan Drouin (Lear Corporation)

3:00-4:00 P.M. FIRESIDE CHAT -DRIVING INDUSTRY 4.0 ADOPTION IN MICHIGAN

Learn how Michigan economic development organizations are coordinating programs, resources and services to support Michigan Manufacturers implementing Industry 4.0 technology to improve global competitiveness.
Moderator: Dan Radomski - Centrepolis Accelerator
Panelists: Natalie Chmiko - MEDC; Ingrid Tighe - MMTC; Tom Kelly - Automation Alley; Rob Lanes - The Right Place

4:00-6:00 P.M. MATCHMAKING RECEPTION

THURSDAY 9-9:45 A.M. PANEL: THE FUTURE OF GENERATIVE AI IN MANUFACTURING

Join industry experts for a panel discussion on the cutting-edge technology of generative AI and its limitless possibilities to revolutionize the manufacturing industry.



Digitizing Manufacturing Operations

Digitize, standardize, and manage your operational processes.

- HMI and SCADA Software for Operations Control
- MES Solutions for Performance, Operations, and ERP integration
- Enterprise Asset Management
- Engineering Design
- Minimize Waste & Loss
- Ensure Quality & Compliance
- Increase Productivity
- Scheduling Optimization
- Advanced Analytics
- Visibility & Traceability



VISIT US IN BOOTH

#1208



q-mation.com

(877) 900-4996

Moderator: Brandon Marken - Lean Rocket Lab. Panelists: David Yanez - Andonix; Muriel Clauson - Anthill; Nadir Khoja - ATS Global

10-10:45 A.M. PITCH COMPETITION 3

Come see state of the art solutions to improve manufacturing efficiency. Moderator: Voice of God (Brandon Marken). Teams: CrossBraining; Losant; Gig and Take; Detect-It; Judges: Matt Myrand; Natalie Chmiko; Paul D'amato; David Bloom

11-11:45 A.M. IT/OT SYSTEMS INTEGRATION - WHO TO TRUST IN A RAPIDLY EVOLVING LANDSCAPE?

Explore alternative approaches to system integration for manufacturers in light of modern low/no-code systems and open standards, and how the value chain ecosystem is changing, featuring a range of solution providers from different backgrounds.

Moderator: Ryan Cahalane-Axiom Systems. Panelists: Rob Simmons- Sandalwood Engineering; Dan Goss - Augury (no need for SIs... supposedly); Jon Hagan - Ambe Engineering; Dave Goodenough - Edgewater Technologies

12-12:45 P.M.- PITCH

COMPETITION 4

Come see state of the art solutions to improve manufacturing efficiency Moderator: Voice of God (Brandon Marken). Teams: PPAP Manager; Anthill; InXpect; DT4o. Judges: Matt Myrand - Forvia; Natalie Chmiko - MEDC; Paul D'amato - Michigan Capital Network; David Bloom

Sponsored by:



Mi TIME MEANS MORE ME TIME

With the broadest mix of industrial products and technical expertise at your fingertips, the only downtime you'll need to worry about is **yours.**

motion.com





BizStream + **Kentico**

**BETTER WEBSITE
BETTER BUSINESS**

Experience digital transformation
with BizStream and Kentico

Visit us at booth #1116

 bizstream.com  kentico.com

MMTC SMART MANUFACTURING ZONE

The Michigan Manufacturing Technology Center (The Center) invites you to the Smart Manufacturing Zone to meet with our team and get hands-on with technology that can help your business. Alongside our partner technology suppliers, the Zone will be filled with various ways your organization can leverage automation that will impact the bottom line and drive improvements. From cobots to additive manufacturing to system integration, the Smart Manufacturing Zone has the solutions you need to remain competitive.

THE CENTER TEAM:

ROBERT SCIPIONE, APPLICATIONS ENGINEER

In his role, Bob facilitates the transfer of knowledge in Smart Manufacturing Technologies to small and medium-sized manufacturers and assists with their Industry 4.0 implementations and strategies.

CHUCK WERNER, MANAGER OPERATIONAL EXCELLENCE/LEAN SIX SIGMA BLACK BELT

Chuck has been a team member at The Center since 2016. His areas of expertise include Lean, Six Sigma, Industry 4.0 and Quality. Chuck has devoted many years to practicing Six Sigma methods, ultimately earning a Six Sigma Master Black Belt in 2011.

JEFF WILLIAMS, CYBERSECURITY PROGRAM MANAGER

Jeff leads The Center's efforts to educate and equip small and medium-sized manufacturers to guard against the growing threat of cyber-attacks. He has over 20 years of experience in implementing and supporting network systems and infrastructure components.

Technologies featured in the Smart Manufacturing Zone:

- Cobots and Autonomous Mobile Robots
- Additive Manufacturing
- Augmented and Virtual Reality
- Big Data and Information Systems
- Digital Work Instructions
- Machine Monitoring/Control Systems



STRENGTHENING

THE FUTURE

OF MICHIGAN

MANUFACTURING.

AT THE MICHIGAN MANUFACTURING TECHNOLOGY CENTER...

We know business growth is the work of a thousand details. The Center is dedicated to supporting Michigan businesses to work smarter, to compete and to prosper. We are here to assist you with:

- Operational Excellence • Technology Implementation
- Leadership Development • Research Services • Growth
- Skill Development • Food Processing • Sustainability

The Center has five offices across the state, including Plymouth and Grand Rapids. 616.301.6247
thecenterwest.org

MICHIGAN

MANUFACTURING

TECHNOLOGY

CENTER

From high-tech to highly creative, don't miss these headliners at the 2023 Advanced Manufacturing Expo!

MEET THE GOOD BOY: SPOT

The Gray Solutions Team is showcasing "Spot" the Boston Robotics robotic dog at the Advanced Manufacturing Expo! Spot is an agile mobile robot that navigates terrain with unprecedented mobility, allowing you to automate routine inspection tasks and data capture safely, accurately, and frequently. The results? Safer, more efficient and more predictable operations.



Formed in 2018, Gray Solutions is a leader in automation and process integration for customers in Food & Beverage. As part of the Gray family of brands, they continue to creatively address customer challenges in projects small to large. Whether you need a simple modification or a new facility, their services will increase efficiencies in your system through the power of data and information technology.



WELDING DEMO WITH RAE RIPPLE

The Advanced Manufacturing Expo is very excited to host sculptor Rae Ripple demonstrating her welding skills in the Metal Working Hall sponsored by Creston Industrial Sales. Metal materials have been donated by JR Automation of Holland, MI.



Rae's childhood was filled with adversity, and she was homeless at age 14, struggling to find stability and purpose. Then she discovered her sense of creativity through painting. That led to ultimately picking up a plasma cutter and beginning welding, where she finally found her purpose - to create and share art with the world. Now, she spends her days painting murals, creating metal sculptures and sharing her passion everywhere she goes.

Rae has been featured on the "Down to Business" podcast, "Monster Garage" on Discovery Channel, and has been published in "Welder" magazine. She is partnered with AlumaReel, Hypertherm, Lincoln Electric, FastCut CNC, Flame Technologies Inc. and Benchmark Abrasives. She has painted murals all over Texas and has installed metal work all over the world.

Find Rae demonstrating her artistry live from 12:45-1:45 p.m. and 2-3 p.m. Wednesday and Thursday at Booth 1320 in the Automation Hall, sponsored by Creston.



AUTONOMOUS ANYTHING: WHEEL_ME

Check out Wheel_Me in the Automation Hall demo area, sponsored by Industrial Control. These self-driving wheels are the first and only autonomous wheel in the world!

The innovation transforms anything into an autonomous mobile robot with minimal effort and without the need to alter its design. Simply build the frame, mount the wheels and watch it crab crawl right to left and move forward and backward. Teach the wheels with your phone or tablet by driving it around to create an internal map.



Wheel_Me makes robots accessible by offering autonomous wheels as a service. The monthly subscription cost includes hardware, software and service, so there is no need to buy the robots, no high risks involved and high flexibility.

Wheel_Me, from Oslo, Norway, came to Michigan with the help of Centropolis Accelerator in Southfield, MI. Centropolis — a hardtech and manufacturing business accelerator based at Lawrence Technological University (Lawrence Tech) in Southfield, Mich. — has capacity to help 100 companies each year, thanks in part to grant funding from EDA.



Train Locally for Industry 4.0



Thompson M-TEC in Holland offers customized training at our facility or yours in many Industry 4.0 areas including:

- FANUC Robotic Welding, Programming, Electrical and Mechanical
- Hydraulic/Pneumatic Controls
- Allen-Bradley/Siemens PLC

mtec.org
616.738.8935

Schedule a free training consultation today!



The **One Workforce for West Michigan Manufacturing (1WF)** program is tasked with creating and strengthening the talent pipelines for Michigan manufacturers.

1WF partners with employers and community organizations to identify individuals who are unemployed, or underemployed who may benefit from developing new skills to help them enter the manufacturing workplace.

GRCC and our partners are increasing the skill level of available workers to fill existing job openings in well-paying, middle- and high-skilled, and high-growth jobs.

This program provides financial assistance as well as personal and professional support for those who are working to improve their family's quality of life.

GRCC Tassell MTEC
622 Godfrey Ave SW • Grand Rapids, MI 49503
grcc.edu/oneworkforce

SPEAKER/BREAKOUT ROOM AGENDAS

Wednesday, August 9

AUTOMATION BREAKOUT ROOM

9:00 AM - 10:00 AM

A COMMON SENSE SOLUTION FOR OEE

Speaker: Chuck Ridgeway
Presented by: Horner Automation

10:30 AM - 11:30 AM

HOW TO TURN YOUR AUTOMATION FOMO INTO ACTION AND JUST GET STARTED

Speaker: Sami Birch
Presented by: Mission Design

12:00 PM - 1:00 PM

IIOT REMOTE MONITORING SIMPLIFIED

Speaker: Tyrone Visser
Presented by: WAGO

KEYNOTE

1:30 PM - 2:30 PM

WHY IT'S CRUCIAL TO EMBRACE INNOVATION RATHER THAN FEAR IT

Speaker: Walker Mattox
Presented by: Gray Solutions



MECHANICAL BREAKOUT ROOM

10:30 AM - 11:30 AM

OVERCOMING MARKETING OBSTACLES IN THE MANUFACTURING INDUSTRY

Speaker: Thomas Blanck
Presented by: TMBPartners

12:00 PM - 1:00 PM

NITROGEN GAS SAVES - NITROGEN TECHNOLOGY AND ITS APPLICATIONS

Speaker: Mike Kinnucane
Presented by: MCE

1:30 PM - 2:30 PM

DISRUPTING BEARING LUBRICATION - RETHINK HOW YOU LUBRICATE YOUR BEARINGS

Speaker: Jeremy Bey
Presented by: UE Systems

METALWORKING BREAKOUT ROOM

9:00 AM - 10:00 AM

SCHOOL VISITS AND SPEAKING EVENTS, WHAT IT MEANS TO ME AND WHY I LIKE DOING IT!

Speaker: Rae Ripple
Exhibitor: Creston Industrial Sales

10:30 AM - 11:30 AM

FIND YOUR PASSION IN MANUFACTURING

Speaker: Jacob Sanches & Ian Storck
Exhibitor: Creston Industrial Sales

2:00 PM - 1:00 PM

BUILDING A STRONGER WORKFORCE

How Manufacturers Can Collaborate with Schools to Engage Young People in Manufacturing
Speaker: Malachi Greb & Jenna Vessel
Presented by: Creston Industrial Sales

1:30 PM - 2:30 PM

THE STATE OF MANUFACTURING

A panel discussion covering topics of supply chain, labor/talent, inflation/recession, technology, and industry 4.0.
Speaker: Danielle Schneider
Presented by: Creston Industrial Sales

GENERAL MANUFACTURING BREAKOUT ROOM

9:00 AM - 10:00 AM

DIGITIZATION STARTS WITH DITCHING CLIPBOARDS - ENABLING SMALLER FACTORIES AND THE SUPPLY CHAIN

This presentation will focus on how mid-sized factories can easily and affordably harness improvements on the shop floor and begin their digital transformation. It all starts with data.
Speaker: Ryan Kühlenbeck
Presented by: Pico MES

10:30 AM - 11:30 AM

FLEXIBLE LABOR MODEL DRIVES OPERATIONAL EXCELLENCE!

Speaker: Patrick Dippel
Exhibitor: Veryable

1:30 PM - 2:30 PM

NEXT GENERATION ENGAGEMENT IN YOUR WORKFORCE, LEADERSHIP AND OWNERSHIP

Speaker: Robin Burns & Laura Preuss
Exhibitor: Family Business Alliance

The way you work today, won't work tomorrow.

On-Demand Labor for Manufacturing and Distribution

Rigid hiring practices are costing you time and money. You need flexibility and operational agility that can only be achieved by addressing your key constraint: labor. That's where on-demand labor gives you more options.

You can instantly flex labor capacity up or down to meet demand in real time. You don't have to do things the way they've always been done.

Do something different.

Scan the QR Code
to learn more



VÉRYABLE
Make. Your Way.



EXHIBITORS

Advanced Manufacturing Expo 2023

DEVOS PLACE - GRAND RAPIDS, MI | AUGUST 9-10, 2023 | Wednesday & Thursday



LEGEND

Please note that the dotted lines are visual aids, not physical walls.


Mechanical Hall
Metalworking Hall
Automation Hall
Power & Water
Power



Advanced Manufacturing Expo



AUTOMATION HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER	
Active Release Techniques	910	Edgewater Automation 905 Edgewater Automation designs and builds custom automation equipment for a wide variety of industries. The company has five locations in Michigan and South Carolina, where engineering, machining, and building all take place. Featured on the Inc. 5000 list of fastest-growing companies in America, Edgewater Automation is constantly improving and growing in talent, experience, and technology. ISO 9001:2015 Certified Quality Management System and an RIA Certified Robotic Integrator. 481 Renaissance Drive, St. Joseph, MI 49085 www.edgewaterautomation.com 		
Air Components, Inc.	1302			
Altech Corporation	1023			
American Feeding Systems, Inc.	1310			
Andonix	932			
APG Vision	1111			
Applied Control, Inc.	1213			
Asyrl	1205		Encoder Products Company	1110
Automation Alley	1316		Epson Robots	1014
Axis Automation	916		Essential Robot Products, Inc	925
BBC Bircher Smart Access	923		Extol, Inc.	915
Bihl+Wiedemann	1100		Gig and Take	1321
BizStream + Kentico	1116		HighGear	1313
BUSINESS INTELLIGENCE SOLUTIONS LLC	908		HighPoint Automation	1021
Canon USA	1002		Hokuyo Automatic USA Corporation	1304
Cetec ERP	1301C		Horner Automation	1004
Clients First Business Solutions	1122		Hyperion Automation	1108
Cone Drive	1105		IAI	1011
COUNTERPART ERP	926		Industrial Control	1114
Coval Vacuum Technology Inc.	924		Interactive Training Systems	1128
CrossBraining	1228	INXPECT	1012	
Datalogic	1117	item America LLC	1218	
DeepHow	1134	Kassow Robots ApS	1016	
DeepView	1112	Kiuey by PPAP Manager	931	
Detect-It LLC	1130	Koops Automation Systems	1306	
DIAMTS	1317	Launchpad	1131	
Diverse Global Industrial Solutions	1309	Leuze electronic, Inc.	1005	
Doeren Mayhew	1315	Lincode Labs Inc.	1031	
DT4o	1028			
EAC Product Development Solution	1007			
EDGE-SWEETS COMPANY	1008			

(Continued on next page)

EXHIBITORS

Advanced Manufacturing Expo 2023

DEVOS PLACE - GRAND RAPIDS, MI | AUGUST 9-10, 2023 | Wednesday & Thursday



LEGEND

Please note that the dotted lines are visual aids, not physical walls.

Mechanical Hall
Metalworking Hall
Automation Hall


 Power & Water

 Power





AUTOMATION HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
LMI Technologies "As the global leader in 3D scanning and inspection, LMI Technologies works to advance quality and productivity with 3D sensor technology. Our award-winning, FactorySmart laser, snapshot, and line confocal sensors improve the quality and efficiency of factory production by providing fast, accurate, reliable inspection solutions that leverage smart 3D technologies. Unlike contact-based measurement or 2D vision, our non-contact solutions add 3D shape information that is critical to achieving 100% quality control. To learn more about how LMIs inspection solutions can benefit your business, we invite you to contact us at contact@lmi3d.com or visit us at www.lmi3d.com to explore the possibilities of smart 3D technology." 9200 Glenlyon Pkwy, Burnaby, British Columbia, CA V5J 5J8 https://lmi3d.com/	1003		
		 LMI TECHNOLOGIES	
Logicraft Industrial Systems	1301G	Purity Cylinder Gases, Inc. / Lincoln Electric / Hypertherm	1318
Losant IoT	1227	Q-mation	1208
Mag Daddy	922	QSI Automation.com	1220
Mayser USA, Inc.	930	R+W Coupling Technology	1301B
MBI Automation	1018	Rae Ripple	1320
MCE	1210	Rapid Control Service, Inc.	920
MFP Automation Engineering	902	Rapid Robotics	921
Midwest Automation Supply	917	Re:Build Manufacturing	1301D
Mission Design & Automation	912	Real IT Solutions, Inc.	906
Mobile Industrial Robots - MiR	900	REIKU NORTH AMERICA	1026
Morrell Group	1200-1202	Reliance Design Inc.	1020
Motion Index Drives	1000	RFID, Inc.	1123C
MVB Improvements	1030	RoboJob USA	826
Nabtesco Motion Control, Inc.	914	Rock Interface Systems	903
Nysus Solutions	1222	SensoPart	901
Onyx Renewable Partners L.P.	927	SMAC	1212
Phoenix Contact USA, Inc.	1303	Smith Automation	1319
Pico MES	1132	SPINULA ENGINEERING	1215
Proficient Machine and Automation	1006	Steute Technologies, Inc.	1119
Progressive Handling, Inc.	1118	Sumitomo Drive Technologies	1106
Promess Inc	1104	SunSource/Electro-Matic	1224
PTR SALES	918	Superior Integrated Systems Inc	1216
PULS	1009	SWYFT Solutions	1121
		Synergy Additive Manufacturing	1214
		TACK Electronics	1126
		TeamViewer	1217
		Tech Rim Standards LLC	1225
		THG Automation	1024
		TMI Supply Company	1109
		Total ETO	907
		Ulendo Technologies, Inc.	928
		UNIMOTION USA INC	1010

(Continued on next page)

EXHIBITORS

Advanced Manufacturing Expo 2023

DEVOS PLACE - GRAND RAPIDS, MI | AUGUST 9-10, 2023 | Wednesday & Thursday



LEGEND

Please note that the dotted lines are visual aids, not physical walls.

Mechanical Hall
Metalworking Hall
Automation Hall
Power & Water
Power



Advanced Manufacturing Expo



AUTOMATION HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
Visual Components North America	1226	Wheel_Me	1314
WAGO Corporation	1113	Wieland Electric Inc.	1301E
Ward Law Office LLC	929	Yaskawa America Inc., Motoman Robotics Division	904
Weiss North America, Inc.	1305	Youngblood Automation	1022

MECHANICAL HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
3DXTECH	402	Harvest Solar	516
ABB Motors and Mechanical, Inc	420	H-TL perma USA	412
AMI Bearings, Inc.	302	Hydraulex Inc	410
Ansell Healthcare LLC	424	Hydraulic Parts Source	316
Avetta	307	IMS SUPPLY	522
BDS / BMC	430	Iwis Drive Systems, LLC	306
Bestorq Inc.	304	LED in Action	419
BOPLAN USA	301	Lubriplate Lubricants	427
BUILT Systems	309	Machine Guard & Cover Co.	509
Burton Precision Inc.	506	Martin Sprocket and Gear	409
CARTER Mfg.	511	Master Lock Company	404
Consumers Energy Business Efficiency Program	222	Maxco Chain, Ltd.	517B
DELRAY Systems	500	Merkur Innovation	434
ecojiva, LLC	505	Michigan Manufacturers Association	318
Electromedia Incorporated	531	Midwest PT Sales	517A
ErectaStep	300	Motion	416
Evergreen Tool Group	526	Nachi America - Bearings	429
Fluid-Aire Dynamics	406	New London Engineering	440
Gates	425	New Pig Corporation	311
GMS Manufacturing Solutions	438	North Coast Components	508
Graco Inc.	319	NPR of America	524B
Grand Rapids Community College	518	NTN Bearing	501
GRAPHALLOY	530	NSK Americas - Ann Arbor, MI	414
Group Marketing Services, Inc.	510	Ottawa Area ISD/ Thompson M-TEC	527

(Continued on next page)

EXHIBITORS

Advanced Manufacturing Expo 2023

DEVOS PLACE - GRAND RAPIDS, MI | AUGUST 9-10, 2023 | Wednesday & Thursday



LEGEND

Please note that the dotted lines are visual aids, not physical walls.

Mechanical Hall
Metalworking Hall
Automation Hall
Power & Water
Power





MECHANICAL HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
OilSafe	314	State of Michigan: MIOSHA	520
Praeco Skills	315	Tacmina USA	312
QA1	403	Tap Magic	524B
Radicon Drive Systems, Inc.	432	Tech Spec Inc.	303
RBC Bearings and Dodge Industrial	418	The Timken Company	411
Regal Rexnord	310	THK America	422
Robert's Ballscrew	408	TMBPartners	515
RVI, Inc.	308	Top Talent Search Experts, LLC	519
Schaeffler Group	322	Tsugami America	534
Select Store	523A	UE Systems, Inc.	529
SKF Lincoln	423	UnitX	321
SKF USA Inc.	421	US Tsubaki / KabelSchlepp	514
Smith Industrial Group	442	VaporTech	503
SMC Corporation of America	512	Veryable	400
Stalwart Safety	504	Yunsheng USA	502

METALWORKING HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
Achteck America	618	CNC Tooling Solutions, LLC	611
ACSC	823	Creston Industrial	712
Allied Machine & Engineering	604	D.P. Brandel Company -> Carmex Precision Tools / Crystallume /	
ANCHOR LUBRICANTS LLC	719	Eight Tool Co. / Michigan Drill & Cutting Tools / RobbJack	716
Ashburn Chemical Technologies	617	De Boer Tool	807
Batteries Plus Bulbs	628	Dynabrade Inc.	818
Bison USA Corp.	606	Dynamic Machine	700
Blue Photon	720	Eastern Oil Company	808
Braun Machinery Company	814	EH & Associates, LLC -> Riten Industries / Bilz	803
Broadview Product Development	623	Everede Tool Company	802
Castrol Industrial BP Lubricants USA Inc.	714	Family Business Alliance	704
CERATIZIT USA, Inc.	615	Fastmill USA	608D
CH Hanson - Palmgren - CSV Marketing	624	Fettig.jobs	605
CIMSOURCE GmbH	608A	FIRST Robotics Competition	625

(Continued on next page)

EXHIBITORS

Advanced Manufacturing Expo 2023

DEVOS PLACE - GRAND RAPIDS, MI | AUGUST 9-10, 2023 | Wednesday & Thursday




LEGEND

Please note that the dotted lines are visual aids, not physical walls.





METALWORKING HALL

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
Forerunner 3D Printing	601	Premier Factory Safety	820
GARR TOOL	801	QualiChem, Inc.	702
Gorilla Mill	705	Quality Spraying Technologies	819
Gosiger Machine Tools, LLC	810	Reid Supply	809
GradCo Inc. -> IMCO / Precision Cutting Tool / Rego-Fix	813	Royal Products	817
GRS Stohler -> Adenna / Edge Eyewear / MK Morse / Wiha Tools	709	Sales & Marketing Dynamics, Inc.	824
Guhring Inc.	710	Sandalwood Engineering and Ergonomics	729
GWS Tool Group	616	SCHUNK	603
H&R Mfg.	706B	SFM Group, LLC	717
Haimer USA	607	SFM Group has been helping businesses achieve operational excellence through a unique approach where sustainability & productivity matter, for over 35 years. We are passionate about helping businesses achieve operational excellence and improving the quality of work life for their employees. Our core service is to rapidly transform organizations to thrive on using the essential tools of Lean, Continuous Improvement, Quality, and Leadership. https://www.sfmgroup.com/ 300 S. Rath Ave. Suite 102, Ludington, MI 49341	
Horn USA, Inc.	801B		
Industrial Magnetics, Inc. (IMI)	805	SJA Solutions	
Jergens, Inc	718	724	
KORLOY AMERICA Inc.	608C	Squint	726
KYOCERA SGS Precision Tools Inc.	722	STOR-LOC	621
Lach Diamond Inc.	804	Sumitomo Electric Carbide, Inc.	713
LMT Tools USA	608B	Swoosh Technologies	821
Machine Ethics	723	The FactoryLink -> 5th Axis / Flextur / Haydale / Insize / NexGen / NSK	602
MAPAL	806	Tsugami America	534
Marketing Metal Creator Space	610	US Hydraulics	715
Martindale Electric / Gaylee Saws	622	Vander Ziel Machinery	614
Master Fluid Solutions	721	Vargus USA	708
Merle Boes Inc.	620	VOLLMER of America Corp.	822
Metalloid Corporation	728	Walter USA	612
Midwest Metrology	725	Willis Machinery	800
Millennium Machinery	600	Women In Manufacturing Western Michigan	609
Monaghan Tooling Group	703	YG1 USA	812
Nachi America	802B		
Oemeta - The Coolant Company	707		
OSG USA, Inc.	701		
Pferd, Inc	613		
PIONEER Premium Tool & Work Holding	706		
Precision Metalforming Association	731		

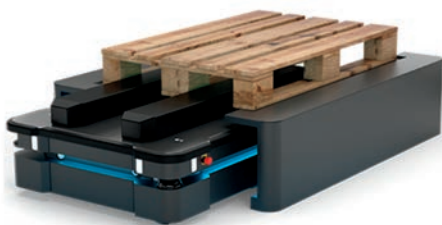
ONE SOURCE. ENDLESS SOLUTIONS.

Accelerating your smart factory strategy.

Smart Conveyors,
Integrated Motors



Autonomous Mobile
Robots



Sensors, Cables, I/O,
PLC, HMI, RFID



2D, 3D, AI Machine
Vision Experts



Robotics, Motion
Control, Robocylinders



Safety Lightscreens,
Floor Scanners, Radar



Experience the difference at booth #1114 or learn more
online at www.IndustrialControl.com