

THE RECORD

Published by the National Tooling and Machining Association

INSIDE THIS ISSUE

Building a DEI-Compliant Sales
Hiring Function pp 20-21

Move Over Monoculture Manufacturing
is Mixing it Up pp 24-25

and so much more ...

**DIVERSITY
EQUITY
INCLUSION**
COMING, READY OR NOT.



NATIONAL TOOLING AND MACHINING ASSOCIATION

DMG MORI Manufacturing USA

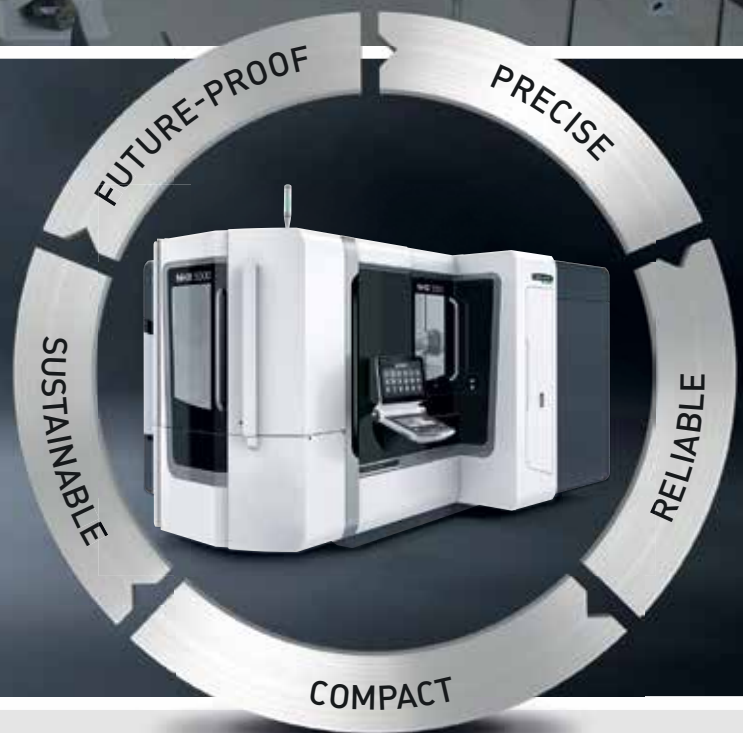
DMG MORI

DMG MORI's hub for Manufacturing
and Automation solutions
in the United States



- + 221,000 square foot
- + 100% carbon neutral
- + 100 machine per month production capacity
- + Fully integrated Industry 4.0 factory
- + Fully automated machining utilizing DMG MORI technology & software
- + Home to USA Horizontal Excellence Center and Spindle Rebuild Center

AUTOMATION EXCELLENCE



CHECK OUT OUR
EVENT PAGE!

[EVENT.DMGMORI.COM](https://event.dmgmori.com)



JOIN OUR TEAM!

DMG MORI Manufacturing USA, Inc.
3601 Faraday Avenue
Davis, CA 95618

Recruiting@DMGMORI-usa.com
DMGMORI.COM

OPERATIONS & EDITORIAL

Roger Atkins, President
Doug DeRose, Editor

2023 EXECUTIVE COMMITTEE

Chairman - Gillen Young
Custom Tool, Inc., Cookeville, TN

Vice Chairperson - Bonnie Kuhn
Kuhn Tool & Die Co., Meadville, PA

Board Member - Alan Ortner
Sirois Tool Co., Inc., Berlin, CT

Board Member - Eric Hagopian
Pilot Precision Products, South Deerfield, MA

Board Member - Kevin Ahaus
Ahaus Tool & Engineering, Inc., Richmond, IN

External Board Member -Debbie Holton
Converge Consulting, Wolverine Lake, MI

External Board Member - Barry Laughlin
Springfield, OH

DESIGN & LAYOUT

Bluebird Branding
www.bluebirdbranding.com



ADVERTISING INQUIRIES

To advertise in The Record, or for information on publishing sales literature, contact editor@ntma.org or call 800.248.6862.

© 2023 NTMA

THE RECORD

CONTENTS
MAY 2023

President's Update 4-5

New Member Highlights 6-7

IN THE NEWS

NTMA Welcomes Jenny Stupica 8

High-Flashpoint Fluids Reduce Risk and Maintenance 10

The Utah CNC Machinist and SkillsUSA Contest 12

NTMA/AMT 2023 Joint Technology Summit Recap 13

Ahaus Tool and Engineering / Inducted Into Hall of Fame 14

Empowering NTMA Emerging Leaders 16

If You See Him 16

Hang a Flag for Each Employees Country of Origin 18

NTMA Welcomes Dan Ott 18

FEATURES

Building a DEI-Compliant Sales Hiring Function 20-21

Moving on And Moving up 22

Move Over Monoculture Manufacturing is Mixing it Up 24-25

New Ways of Thinking About Your Talent Strategy 26-27

Partnering to Solve Manufacturing Workforce Challenges 28

MEMBER BENEFITS

What Does DEI Mean to Me? 32

SEND US YOUR STORY

Each issue of The Record will feature stories from members — and we want to hear from you. Send us stories of success, or those that fit the theme of the month's issue. The submission deadline is the first of the month prior to publication. contact.editor@ntma.org or call 800.248.6862.

FUTURE THEMES

June 2023: Supply Chain...
is Your Chain Linked?

July 2023: Emerging Leaders 2023

August 2023: Technology, Automation & Robotics...The journey Continues



UPCOMING NTMA EVENTS

International Technology Tour 2023
May 6-12 | Germany & Switzerland



Engage 2023
October 18-21 | Indianapolis, IN



PRESIDENT'S UPDATE

I have been writing articles for The Record for three years, and I must admit that this month's focus of "DEI...Coming Ready or Not" is the first time I have given pause in writing my article, as well as the first time I have written multiple versions.

It's also the first time I have reached out to others for their perspective on the subject. I contacted my dear friend, Andrew Crow, who was also asked to write an article for this month's subject focus. Many of you know Andrew, but if you do not, he is a young black man and is the Founder of "The New American Manufacturing Renaissance." We had both written our first drafts on the subject, and spent an hour on a Zoom call contrasting the perspective of a young black man (Andrew) and an older (mature) white man (myself). It was insightful to discuss a subject that is near and dear to our hearts, and for us both to see the subject from a trusted friend's perspective.

While insightful for us both, we realized that even though we may see the cause of the challenges from different perspectives, we agreed that glimpses of the past are good, but the focus must be on the future. We had multiple laughs contrasting our perspectives of the past, but we were totally united on the future and our combined passions to support US Manufacturing. I hope that this month, you will enjoy the variety of articles from those who have been asked to write on the subject.

Looking forward, I don't think our issue is actually Diversity, or Equity, or frankly Inclusion. Instead, I think our problem is we do not know how to change from what we have successfully done in the past. At that time, there were always enough workers who

looked like us to fill the open positions of the day, with a few exceptions over the years. Today the real story is that there is a shortage of workers for the open, available jobs. This trend may well be the trend of the future. The government, so-called employment experts, academia, and others have identified the issue as DEI – blaming industry for the lack of employees, saying they should be more focused on Diversity (considering people different than you when it comes to race, religion, ethnicity), Equity (treating everyone the same and paying the same), and Inclusion (welcoming all persons).

Whereas DEI is the identity given the issue today, I often ask myself, is industry's focus on DEI really going to make a difference or does it check a box on a piece of paper? For the precision manufacturing community, our need has always been to find people with a mechanical aptitude who have attention to detail and are team-oriented with a desire to make things that make a difference in our world.

Things that make airplanes fly, make rockets go into space, and extend people's lives like heart devices, surgical devices, and prosthetics that replace limbs that people have lost due to an accident, war, and/or disease. Things that help get oil out of the ground or convert wind and water into energy. The list could go on. There is no industry, research field, or product created that is not touched by the precision manufacturing industry at some point in time.

Again I say, is DEI really the issue, or have those of us in manufacturing painted ourselves into a corner over the years, not accessing other groups of people and now finding ourselves looking from the inside out to

those we never considered? Regardless of the answer to that question, most of us are still challenged on how to communicate our industry to others, how to tell our personal/company stories, or how to attract or retain new people when they enter our industry. We don't know how or where to get workers, but we all agree that we need workers. We cannot continue the methods we have used in the past when there were plenty of workers for open jobs and we must acknowledge the new world in which there is a shortage of workers.

If I were to tell you I could get you workers who knew how to run (computer numerical control) CNC and manual equipment, knew how to schedule your shop, knew how to manage your supply chain/procurement, knew how to fix your equipment, knew how to program your machines, and some who were willing to learn, would you ask me or frankly care about their race, creed, color, language, religion, or previous life history which may have included mistakes? I believe the answer would be **"NO"** and you would overwhelm me and do anything, for me to provide you with the list of candidates for your shops.

If you would do anything to get the list of candidates from me "if it existed," why are we not willing to do anything required to find these candidates and develop their skills ourselves? Thinking someone else is going to find/create these perfect candidates for us is unrealistic and a thing of the past.

So if things are going to change, the change is up to each of us, for the sake of our companies, our industry, and our nation. Manufacturing has always been the foundation and backbone of our country's

success here and abroad. Our personal successes have always been based on our country's dependence on us as manufacturers and not our dependence on our country. As President John F. Kennedy once said, "Ask not what your country can do for you; ask what you can do for your country." Our industry has always met the call to action. Today's call to action may look and be different than ever before; however, a critical call to action nonetheless.

I think the message for us as manufacturers is to heed the call to recruit, train, develop, inspire, and show people from all walks of life and next-generation workers pathways to personal, company, and our nation's success. By no means do I mean to communicate that DEI (Diversity, Equity, and Inclusion) are not important, but rather to say our

need is focused on workers that fit any letter of the DEI focus, especially the "I". To encourage growth for people in our industry, our willingness to "Include" all that are willing and able, will be the key to our future.

As the words of the simple Children's Bible song "Jesus Loves Me" goes: "...red and yellow, black, and white, they are precious...". This is what the shops of the future may look like. The "they" in that verse may mean women, people of color, people with disabilities, the previously incarcerated, different races, and other such identity groups.

It's time we broaden our "nets or tents" and bring everyone together for the sake of US Manufacturing. Looking forward, the people in our shops may look different than years past, but let us remember that

our need has always been people with a will and desire, not people based on what they look like. It is time we embrace the diversity of our country's workforce and unite people across this great land.

Let's grow our companies with people and grow our association with companies.

Together this will be the way we Advance Manufacturing's Future.



Roger Atkins, President – NTMA

FIVE REASONS FOR OKUMA 5-AXIS

It's proven! Shops that take advantage of an Okuma 5-axis machine quickly realize improved efficiencies and most importantly, revenue growth. Our 5-axis machine tools are technological marvels that deliver efficient part production for the tightest tolerances.

Learn more at okuma.com/5-axis-buyers-guide

1 AFFORDABLE MODELS

2 PROPRIETARY OSP CONTROL

3 SUPERIOR STRUCTURAL INTEGRITY

4 ROBUST TRUNNION CONSTRUCTION

5 LOCAL SUPPORT & TRAINING

125th
ANNIVERSARY

OKUMA
OPEN POSSIBILITIES

NEW MEMBER HIGHLIGHTS

ACCUDYN PRODUCTS, INC.

Northwestern Pennsylvania Chapter



Accudyn Mold & Engineering (AME) was born out of a desire to expand our US-based tooling capability and a need to increase the level of support to our customers. The investment in our injection mold manufacturing capabilities allows Accudyn to offer our customers enhanced options for tooling and our employees more opportunities to grow and contribute to our success; both positioning Accudyn as an industry leading plastics technology company.

Originally established in the mid-1990's as Crusade Tool, Accudyn Mold & Engineering is now a full-service injection mold manufacturing operation. From the start, the focus for AME was on developing both the most sophisticated mold manufacturing capabilities and a shop floor management system that serves to make us as efficient and cost effective as possible. The 12,000 sq. ft. plant, connected to our main molding operation in Erie, PA, is the home for our skilled mold makers, machinists, and designers along with the state-of-the-art machining capabilities.

2400 Yoder Dr., Erie, PA. 16506

(814) 833-7615

www.accudyn.com

HWR WORKHOLDING USA, INC.

National Associate Member



HWR Workholding USA, Inc. located in Noblesville, IN is not your average run-of-the-mill clamping device manufacturer. As the US subsidiary of HWR Spanntechnik, a renowned German specialist in clamping deformation-sensitive work pieces and components of any shape, HWR Workholding has established itself as a leading innovator in the metalworking market since its inception in 1989.

Understanding the variety of needs of our customers internationally, HWR provides a variety of solutions from fully manual clamping technology, to automated technology ready for any lights out operation. As a part of our automated solutions, HWR offers the CLAMPBOOSTER, a pneumatically operated device that can be used by a Robot to open and closes vises and chuck on a machine tool.

605 Sheridan Rd., Noblesville, IN 46060

(317) 798-6599

www.hwr-usa.com

GENUINE MACHINE PRODUCTS, INC.

Arizona Chapter



Genuine Machine Products, Inc. is a leading provider of high-complexity machined components and sub-assemblies for the Commercial Aerospace and Defense industries. We are proud to be recognized as being in the top 20 percent of ultra-precision machining facilities in the United States. As an ultra-precision facility, we have the ability to push beyond typical expectations to maximize product outcome with extreme quality and precision.

Our capabilities include build-to-print manufacturing and assembly services. Our specializations include mid-to-high complexities, close tolerances and precision machined components, mechanical assembly and design support for Commercial Aerospace and Defense industries. Serving most major OEM organizations across the industry, Genuine is expanding capabilities, continuously improving our processes, and strategically aligning to our customers' needs. Our highly qualified Program Managers are ready to assist you with all your customized manufacturing needs. Today, we proudly occupy a 63,500 square foot facility that employs over 70 work staff.

1433 North Tech BLVD. Suite 101, Gilbert, AZ 85233 USA

(480) 813.3816

www.genuinemachine.com

MVC WIRE, INC.

Los Angeles Chapter



MVC Wire is a well-established machine shop that has been providing high-quality machining services since 1989. We specialize in wire EDM but also offer a variety of other machining services, including 3-axis CNC milling, manual lathe, and surface grinding. With a team of highly skilled machinists and state-of-the-art equipment, MVC Wire is capable of producing precision parts for a wide range of industries.

As an ISO 9001:2015 and AS9100D certified company, MVC Wire is committed to providing its customers with the highest level of quality and customer service. We have a rigorous quality control system in place to ensure that all parts meet their exacting standards. Whether you need a single prototype or a large production run, MVC Wire has the expertise and equipment to meet your needs.

23352 Madero, Suite F, Mission Viejo, CA 92691

(949) 454-2180

www.mvcwire.com

RPM MACHINE & TOOL LLC
Indiana Chapter



RPM Machine & Tool, located in Evansville, IN, has 13 years of industrial & motorsports machining & fabrication experience. With our experience, we have the capability to offer guidance to help steer your project or idea in the right direction. Whether your design is ready to be manufactured or just in the idea stages, RPM Machine & Tool can help bring your vision to life using items such as custom tooling design and 2D/3D CAD/CAM. We offer the following manufacturing and reworking:

- Vertical Machining Center
- Prototype Work
- Part Modification, Rework, or Repair
- Tooling and Fixtures
- Low & High-Volume Production
- Industrial Equipment Repair
- Manual Turning & Milling
- Fabrication services
- Mig Welding
- Tig Welding
- Sheet Metal Fabrication
- CNC Plasma Cutting

4907 Temple Avenue, Evansville, IN 47715
(812) 305-1827
www.rpmmachineandtool.com

NORTHEAST TOOL & MANUFACTURING
Southern at Large Member



Founded in 1964, Northeast Tool & Manufacturing is a preferred supplier of precision machined components and complex assemblies for the Commercial Aviation, Defense, and Space industries. Certified to AS9100, ISO9001, and ITAR standards, Northeast Tool specializes in exotic material manufacturing of rocket engine components, commercial and military aircraft hardware, and defense rockets and missiles.

Northeast Tool has invested in world-class 5-Axis milling and multi-axis turning technology from DMG Mori to turn our customers' next generation ideas into the most innovative and cost-effective solutions. Our facility is equipped with fully-automated robotic systems that are capable of milling and turning part envelopes up to 1250 mm. A Charlotte Business Journal Family Business of the Year winner, Northeast Tool is positioned to ensure its vision of advancing the future of flight continues into the next decade.

15200 Idlewild Rd, Matthews, NC 28104
(704) 882.1187
www.northeasttool.us

XPAND YOUR WIRE EDM CAPACITY

PARTNER WITH ONE OF THE LARGEST WIRE EDM FACILITIES IN THE COUNTRY WHEN YOU NEED EXTRA CAPACITY

XACT

Wire EDM Corporation

- Wire EDM Services
- Small Hole EDM
- Laser Part Marking



Proud Member



ISO 9001:2015 Certified

800.798.9228
www.xactedm.com

NTMA WELCOMES JENNY STUPICA AS OUR NEW WORKFORCE DEVELOPMENT DIRECTOR

Jenny Stupica is the Workforce Development Director at the National Tooling and Machining Association (NTMA) and has nearly 20 years of experience in Human Resources and Workforce Development specifically related to Manufacturing.

She has spent the past eight years working to build a Manufacturing Sector Partnership in the Greater Akron, OH area by bringing a variety of partners together to build a talent pipeline for local industry, developing and enhancing training opportunities, addressing barriers, and increasing diversity and inclusion in recruiting and hiring practices.

Jenny has been an active member of the Ohio Manufacturers' Association Intermediary Workforce Committee, Ohio Manufacturing Workforce

Partnership, and the Society for Human Resources Management (SHRM) for many years, promoting the opportunities and benefits of careers in manufacturing. She also serves on Business Advisory councils for multiple high schools and career centers, connecting them to industry partners and helping to build programs and pathways for younger students to explore STEM careers.

She has earned multiple HR certifications and served on several Boards of Directors, including Kent State's Center for Corporate and Professional Development, Tri-C's Manufacturing Technology Program, and the Summit Medina Workforce Development Board.

Jenny has been quoted in the Wall Street Journal, Crain's, Smart Business, and other print publications regarding the importance of manufacturing and its



Jenny Stupica - Workforce Development Director, NTMA

career opportunities and was interviewed on NPR to discuss the aging workforce and share some unique approaches to retaining talent and experience.

PROSHOP

REAL SHOPS. REAL RESULTS.

30-40%
Increase

ON-TIME DELIVERY

50%
Decrease

SET-UP TIMES

93%
Decrease

EXPEDITING FEES

25%
Increase

SHOP THROUGHPUT

www.ProShopERP.com

The House of Intelligent Automation



**Less idle times,
higher and more
stable quality
and integrated
production
processess**



**High quality combined
with fast and reliable
lead times supply the
customers with the
right parts, right time
and right measures
while keeping you
profitable.**



**Intelligent Automation
means an increase in
capacity, decreases in
labor and machine tool
investment costs per
part equaling
higher profits**

**To see how efficient your machines are running, call our automation
experts today for a free Productivity Audit - 513-779-4614**

**Fastems delivers intelligent factory automation solutions that
help metalworking manufacturers to increase their productivity.
Learn more about Fastems and visit www.fastems.com**

HIGH-FLASHPOINT FLUIDS REDUCE RISK AND MAINTENANCE

Polycrystalline diamond (PCD) is an ideal material for cutting tools due to its extreme hardness and wear resistance, potentially outlasting solid carbide tools by 10 times or more. That very desirable characteristic also makes PCD cemented carbide very challenging to machine.

Ceratizit, a tooling manufacturer in Schaumburg, IL, applies wire electrical discharge machining (EDM) to achieve very tight tolerances on its line of PCD end mills. Manfred Haemmerle, Facilities Maintenance Manager, recently reached out to Blaser Swisslube to troubleshoot safety and maintenance issues around this process.

"With the old product we were having a lot of fires in the machines," explained Haemmerle. "That cost us a lot of repair work, a lot of replacement parts, and a lot of downtime."

After consulting with the team at Blaser, Haemmerle agreed to test Blasospark, a synthetic paraffin oil based on gas-to-liquid technology (GTL). GTL fluids start out as natural gas, which eliminates the impurities that come from crude oil. The process to transform it into a liquid creates a base oil that is a clear and clean fluid with a very high flashpoint. If there is any mist with the gas-to-liquid oil, the droplets dissipate faster and do not remain airborne. "The biggest benefits are the high flame point and the lack of evaporation," Haemmerle said. "There are no more fires, and we save a tremendous amount of money by using less product overall."

Blaine Bill, sales engineer at Blaser Swisslube, explains that lower viscosity is key to reducing fluid evaporation, and this goes hand in hand with lower consumption.

"We reduced consumption by 50% at Ceratizit. It was a combination of reducing evaporation with the right product, simultaneously reducing liquid drag out on the parts, and proper maintenance," Bill said.

On the maintenance front, Ceratizit was previously changing out filters three times per year in the EDM machines, and then topping off the sump with more product. With a more stable product and process from Blaser, they reduced filter replacement to just one time per year, saving on parts, labor, and downtime.

"When you do a filter change, more product is also taken out of the machine and fresh product must be installed," Haemmerle said. "It's the labor too. Changing filters is not a half-hour job, it's a half-day job."

MAINTENANCE ROI

An important factor in extending product life is how the sump is cleaned, maintained, and monitored.

Blaser offers training for machine operators and maintenance personnel. Haemmerle said all machine operators at Ceratizit were trained by Blaser on how to manage the metalworking fluids in their machines.

"We go to all stations throughout the building and check daily the concentration of coolant in our machines," he said. "Each operator is responsible for the condition of the fluid in their machines, and we follow the training to extend the life of the product and avoid a lot of maintenance downtime."

"Ceratizit followed all of our recommendations from the start, especially cleaning and monitoring," Bill said. "Blaser has high-performance products, we offer a full situation analysis and technical support, but how you clean and maintain is critical to improving the shop environment."

The company achieved similar benefits in their own cutter grinders by both optimizing the metalworking fluid and paying careful attention to maintenance.

"We have a unit behind the machines which cools and filters the oil. Our old product had a filter life of about two years, and a cost of about \$10,000 dollars each time we had to change the filter and replace 250 gallons of the product. Not to mention it takes full day

of downtime for the maintenance," Haemmerle said. Since Ceratizit started using Blaser HC 5 five years ago, the filtration system filters have never been replaced. They were also able to increase the grinding feed rate to make more carbide parts in the same amount of time.

According to Blaser, HC 5 is a clear and colorless synthetic product used for both cutting and grinding. Like the EDM fluid, it is formulated to have a very high flashpoint. It also has low viscosity, which is the rating of 5 in the product name. The product has a cobalt deactivator for carbide machining. It prevents cobalt from leaching out of the part and into the oil. "Also, the evaporation, the drag out, is slim to none compared to the old product," Haemmerle said. "So, I believe HC 5 is one of our biggest successes."



About Ceratizit:

We develop and manufacture innovative solutions for tool manufacturers. This includes rods and preforms for solid carbide tools as well as carbide components for various applications, for example for the medical industry. An extensive range of semi-finished tools with high availability provides you with decisive competitive advantages. Products not covered by the standard range, are developed by our carbide experts on an individual basis and in close collaboration with the tool manufacturers. With CERATIZIT, you receive a unique complete package that comes with maximum performance in all fields - from the development of the product to delivery and service.

Follow up interview and photos on request.

Contact Dana Super (dsuper@axel.marketing)



HEIDENHAIN



Reliable processes for exact,
dynamic and efficient production

Machine tools that are equipped with controls, encoders, drive technology and machine monitoring software technology from HEIDENHAIN provides that clear competitive edge you've been looking for.

**Ask for
HEIDENHAIN
on your next
machining
center**

THE UTAH CNC MACHINIST AND SKILLSUSA CONTEST – BIGGEST ONE YET!

Mountainlands Technical College (MTECH) hosted Utah's largest SkillsUSA CNC Machining Contest on Friday, March 24, 2023. Nineteen young people from local high schools and technical colleges gathered to participate in this historic event.

This year's winners were Northridge High School and Bridgerland Technical College! Participants traveled from Davis Technical College, Bridgerland Technical College, Northridge High School, Rich High School, Utah Valley University, Salt Lake Community College, and the Ogden-Weber Technical College.

A new tradition commenced at the contest. Revolving Trophies were presented to the Utah SkillsUSA CNC Machining Overall Tech College and High School Winners.

Members of the Northern Utah Chapter of the National Tooling and Machining Association (NUNTMA) have been working on this contest for more than a year. Art Santana, of Paramount Machine and the NUNTMA SkillsUSA Chair, said "It gives me great hope in the future to see so many young people excited about a future in machining. Utah has a great need for machinists, and I think the participants realized their career opportunities today by seeing how many local shops came out to support this contest."

MSC Industrial Supply, Stanley Black and Decker, and the NUNTMA donated prizes for the winners, including Rolling Toolboxes, Mechanics Tool Sets, and more. Each participant also received a SWAG Bag, with items donated from NUNTMA Members (SilencerCo, Paramount Machine, JD Machine, Skydandee

Manufacturing, Inc., Centric Precision, Reninshaw, LeanWerks, Star Metal Fluids, J.M. Grisley, and others).

The Technical Team consisted of Art Santana (Paramount Machine), Wes Michie (Skydandee Manufacturing, Inc.), Andy Ward (JD Machine Corp.), Travis Minnig (Centric Precision), Devin Adams (Reninshaw), Mark Darley (SilencerCo), Bryson Williams (MSC Industrial Direct), Jason Larsen (Paramount Machine) and Corey Bates (MTECH). This team spent countless hours preparing and executing the contest.

The NUNTMA would like to extend a huge thanks to MTECH for hosting! They had the ideal facilities for the contest; Corey Bates was a wonderful partner, ensuring everything went smoothly.



NTMA/AMT 2023 JOINT TECHNOLOGY SUMMIT RECAP – APRIL 12TH –13TH

By: Linda Warner, Executive & Membership Support – Tech Team Liaison

The NTMA and AMT Technology Teams joined forces once again for their annual meeting near Atlanta at the host site Mazak Southeast Technology Center in the Suwanee, GA area. This year's Summit included members of the AGMA (American Gear Manufacturers Association) Emerging Technology Team.

The purpose of the Summit is to share technology, use cases, and collaboration amongst associations. The packed agenda featured content-rich technology as well as time for an interactive roundtable.

Dave Kennedy, General Manager of Mazak, and Benjamin Moses of AMT welcomed the group of 25 to day one of the Summit. After individual association introductions, speakers from Delta TechOps, AutoForecast Solutions, FANUC, and KnowBe4 entertained content on Additive Use Cases, The Global Automotive Outlook, Automation for the shift in the EV market, and Cybersecurity, respectively.

The groups continued networking at the evening reception and dinner at Frankie's The Steakhouse. The evening allowed the members of each team a more relaxed time for further introductions and technology discussions.

Day two kicked off bright and early with a tour of Mazak's phenomenal facility and a gracious breakfast. The teams interacted with speakers from Lumafield and Wauseon Machine and Manufacturing on the topics of Accessible CT Scanning and the Ever-changing Landscape of Automation.

Noel Gries of Kinefac moderated the roundtable on Technology Barriers and Hurdles to complete the sessions of the Summit. The 2024 Joint Technology Summit is already in the works for early next year and is anticipated to be another successful meet-up.



Dave Kennedy (Mazak) Host – National Associate Member Benjamin Moses (AMT) – Roger Atkins (NTMA)



Speaker – Tony Muller, Delta TechOps



Speaker – James McQuiggan, KnowBe4



Roundtable – Moderator Noel Gries, Kinefac



Reception and Dinner



Speaker – Drew Parrett, Lumafield



Speaker – Louis Finazzo, FANUC

MORE INFORMATION

If you want more information on the technologies presented or have a topic to consider for the next Summit, please contact Linda Warner at NTMA or Benjamin Moses at AMT.

Linda Warner
lwarner@ntma.org

Benjamin Moses
bmoses@amtonline.org

AHAUS TOOL AND ENGINEERING, INC. OWNERS INDUCTED INTO THE EASTERN INDIANA JUNIOR ACHIEVEMENT HALL OF FAME

In March of 2023, Ahaus Tool and Engineering, Inc. owners Kevin Ahaus and Jeff Sheridan were inducted into the Eastern Indiana Junior Achievement Hall of Fame. Ahaus and Sheridan were honored that evening, surrounded by family, friends, and Ahaus coworkers past and present.

Ahaus graduated in 1983 from Richmond High School. He attended Purdue University graduating in 1988 with a Bachelor of Science in Mechanical Engineering Technology. In 2000, he received a Master of Science in Management from Krannert at Purdue. After college, Ahaus worked for Wells Electronics and Plaskolite, Inc. before returning to his hometown of Richmond, Indiana to join Ahaus as a Sales Engineer in 1992. After 10 years in sales, Ahaus worked as the Manufacturing Manager for two years before assuming the role of President when his father, Rick, retired. Over the past 30+ years of being with the company, there have been several hundred projects designed and built – from making fixtures for heart valves and knee implants to automobile engines and large excavators, and their customer base has developed and matured over the past 30+ years, including companies like Ford, Caterpillar, Kitchen Aid, Advanced Drainage Systems, and many others.

“Kevin is a willing and effective leader. All you have to do is take a tour of Ahaus with Kevin and hear him talk about his employees – the team, the apprentice program, and the work that they do. Listen to him talk about the projects they are building, and you will see that he is committed to his people and the work,” said business advisor and accountant Jeff Jackson. “He is dedicated to improvement and growth, and he is very protective of the company, the reputation of the brand, and the reputation of his employees.”

There have been many great moments for Ahaus at the company during his tenure. They've celebrated 50- and 75-year milestones and successfully moved from the 2nd and 3rd generation to the 4th generation of management and ownership. Working in a town where he knows the company makes an impact on good

families is a driving motivation for Ahaus to keep giving and doing more. They have employed as many as 144 team members at one time. He feels privileged to have worked with his grandpa, Loren, granduncle, Galen, and dad, Rick. He has also been fortunate to work alongside his brother-in-law, Jeff Sheridan.

Sheridan attended E.A. Johnson High School in Mt. Morris, MI and graduated valedictorian of his class in June 1985. He then attended GMI Engineering and Management Institute (now Kettering University) in Flint, MI where he received a Bachelor of Science in Electrical Engineering and graduated Summa Cum Laude in June 1990. One year later, June 1991, he received a Master of Science in Manufacturing Systems Engineering from Stanford University.

After college, Sheridan worked for General Motors in Michigan until 1997, when he decided to join his wife Tricia's family's business in Indiana. He started at Ahaus as Project Engineer in 1997, then became a Project Engineering Manager in 1998, and was promoted in 1999 to Engineering Manager. He kept this position through 2005 when he became Vice President of Ahaus Tool and Engineering.

Assuming leadership of the company has allowed Ahaus and Sheridan to take it from being a very strong and successful company to one that is more professionally managed and has continued to grow and prosper so that it is positioned to be successful for decades to come. Sheridan says that right now seems like the most exciting time for the business as they see incredible growth and development that will help the company thrive for many decades.

Monica Koechlein, President of the Stamm Koechlein Family Foundation, said of Jeff: “I would love to have so many of the qualities that Jeff has. I would love to have his quiet calmness, his ability to reflect internally, and his ability to always be focused on the people in the room, and what they need.”

“When it comes to transformational leadership, Jeff is the person that comes to mind.” Ahaus and Sheridan have given hundreds of hours to local causes that are important to them, like the Boys and Girls Club, Ivy Tech Community College, the Chamber of Commerce and Economic Development Corporation, Richmond Civic Theatre, United Way, NTMA, and the Indiana Manufacturers Association.



Photo caption: Ahaus owners Kevin Ahaus (left) and Jeff Sheridan (right) were inducted into the Eastern Indiana Junior Achievement Hall of Fame in March 2023, joining previous owner and inductee Rick Ahaus (center).

COMPLETE TOOLING CAPABILITIES



EXCLUSIVE Promotion for NTMA Members!

We're running an exclusive promotion on our TetraFeed & DOMX products for NTMA members.

Scan the QR code to browse our catalogs & request a quote to claim the promotion!

lp.pilotprecision.com/tetrafeed-and-domx



DOMX PROMO

Get a Free Holder buying one of the following options:

- ▶ 50 inserts 3/4" or 20mm Holder
- ▶ 70 inserts 1" or 25mm Holder
- ▶ 90 Inserts 1-1/4", 32mm or Capto Holder

TETRAFEED PROMO

Buy 10 Inserts/Pocket, Get a FREE Tool Body!

15 Merrigan Way • South Deerfield, MA 01373 • T: 413-350-5200 • www.PilotPrecision.com



HIGHER PERFORMANCE. GUARANTEED.

You don't compromise and neither will we. Our mission is to find the best solution for you and deliver it with a personal commitment of efficient and measurable performance improvements.

Tool Holders
Boring Tools
Cutting Tools
Workholding
Tool Measuring



(224) 770-2999 | bigdaishowa@us.bigdaishowa.com | www.bigdaishowa.com



EMPOWERING NTMA EMERGING LEADERS – RECAPPING THE 2023 EMERGING LEADERS CONFERENCE

The NTMA Emerging Leaders Conference is an annual gathering of company leaders from across the country. This year, the conference took place in Knoxville, Tennessee from March 8-10 and was attended by over 60 individuals.

New this year at the front end of the conference, the Emerging Leader Cohorts gathered for their first face to face meeting of the year and had wonderful discussions on effective communication techniques led by Mike Watkins and Dave Capkovitz, EBITDA Growth Systems. This two-hour session gave new and aspiring leaders the foundation to create a collaborative workplace. It provided an introduction to the knowledge, skills and abilities required to build confidence, productivity and the ability to get things done through other people. The conference was then officially kicked off with the opening keynote, AMT's President, Doug Woods, who discussed influencing the future of the industry. This was followed by campfire chats, where emerging leaders were able to share best practices and bounce ideas off each other on trending issues they face.

Throughout the conference, emerging leaders attended a series of valuable presentations. Lisa Ryan, founder of Grategy, kicked off day 2 with ways to create a corporate culture that rocks! Other high points included the tours of the Oak Ridge National Laboratory and Tennessee Made. A special thank you



to Scott Smith, Jaydeep Karandikar, and Tony Schmitz for their presentations and facilitating the tours!

Everyone had a fun evening touring local breweries and learning many fun facts about each brewery that was visited. Things wrapped up the next

morning with our final session on Leadership Development strategies. The 2023 NTMA Emerging Leader Conference was a big success and provided a platform for growth of all leaders. We are already looking forward to gathering again next year!

IF YOU SEE HIM...

Please join us in Congratulating Brandon Hough lifetime resident of Meadville PA as the new president of Prism Plastics, Inc. Brandon began his career with Tech Molded Plastics, in 1998 which was acquired by Prism Plastics in 2016.

Brandon was hired as a Tooling Designer in 1998 and worked his way to Engineering Manager, General Manager of Molding Operations, and his most recent position as Vice President of Engineering in 2020. Brandon has been instrumental in the development

of Prism's strategy and customer development throughout his tenure with the company. Brandon will be responsible for overseeing Prism's six manufacturing facilities located throughout the US and Mexico as well as one tooling facility. We are excited to see Brandon's vision for Prism unfold. Congratulations on your accomplishment, we are so proud of you.



"Simply effective."

We've developed our B-Cool MC 600 to help you minimize your process costs. Whether you produce large or small series, this water-miscible coolant with its economical formulation ensures stable and robust performance in universal machining applications. It keeps workpieces and machines clean and is gentle to people and the environment.

Test us. It's worth it.

blaser.com/bcoolmc600



Our Liquid Tool. Your Success.

Dr. Olivia Bossart and Stefan Freudiger
R&D Chemist and Area Sales Manager
Blaser Swisslube AG

Qualified Tool and Gage Makers are Critical to Your Success!



169 White Oak Drive • Berlin, CT 06037

**Your manufacturing
environment demands skilled
tool and gage makers ready to
take on every day challenges
without delay**

We have the TEAM to help you!

MADE IN AMERICA AT AN



COMPANY

 **Sirois Tool**
www.siroistool.com
(860)828-5327
info@siroistool.com

 **Dow Gage**
www.dowgage.com
(860)828-2450
sales@dowgage.com

HANG A FLAG FOR EACH EMPLOYEES COUNTRY OF ORIGIN

"We initiated the practice of hanging a flag for each employee's country of origin around 20 years ago. As we began to grow rapidly in the early 2000s, we noticed that we were building a very diverse workforce. We had employees from all over the world, and we wanted to celebrate that. As time went on, and we hired employees from new countries, we would buy their country's flag and try and get it up on the wall within a couple of weeks of their start date. We received lots of feedback that these new employees immediately felt included, and part of an eclectic Boston Centerless team. We now have International Food Day once per year where everyone brings in their cultural specialty for all to try.

We want our team members to know that no matter where they're from or what their background is, as long as they adhere to our Core Values, they will be accepted as part of our team!"

- Steve Tamasi, Boston Centerless



www.bostoncenterless.com

NTMA WELCOMES DAN OTT AS OUR NEW CREATIVE CONTENT MANAGER

As the Creative Content Manager for NTMA, Dan Ott helps generate and oversee marketing communication efforts. From social media and digital user experience to brochures and post cards, Dan will be helping manage it all.

Dan brings 16 years of manufacturing industry experience and expertise to NTMA. He began his career on the manufacturing floor at the coating division of KYOCERA SGS Precision Tools. Over 11 years, he worked his way from delivery driver to head coating technician allowing him to gain a deep understanding of all aspects of machining and tools. While working full time and coaching middle school football coach in his hometown of Cuyahoga Falls, Dan earned a

Bachelor of Business Administration in Marketing from Kent State University. Thus, allowing him to transition into his most recent role of Marketing Content Specialist for KYOCERA SGS Precision Tools. His responsibilities included all the company's internal and external marketing communications, social media, email marketing, website management, e-commerce, advertising, and overall digital user experience. Servicing and supporting the markets in over 60 countries.

When Dan isn't working, he loves spending time with his wife, Millie and 3-year-old son, Sammy. He is an active member of the Cuyahoga Falls Gridiron Club, raising scholarship money for local student athletes. In his spare time you can find him on the golf course



Dan Ott - Creative Content Manager, NTMA

or with friends watching local sports. Dan is a self-proclaimed cinephile and has an extensive knowledge of movie and film trivia. His favorite movie is 'Major League' because of its nostalgia and representation of Cleveland sports. "Forget about the curveball, Ricky. Give him the heater!" - Lou Brown 'Major League'

NTMA MEMBERS

Optimize Your Machine Tool Performance, Productivity and Profits with Royal Products!



For over 70 years, Royal Products has been helping manufacturers squeeze every last drop of performance out of their CNC machine tools. Our broad range of tooling, workholding, automation, and mist-control products help reduce setup times, increase throughput, improve part accuracy, and enable unmanned production. Optimize your production today with Royal Products.

Royal Quick-Grip™ CNC Collet Chucks



- Ten-second collet changes
- Ultra-precision accuracy – 0.0002" TIR or better
- Industry-leading gripping range – 0.062"
- Superior rigidity, gripping torque, and tool clearance

Royal I.D. Workholding Systems



- Internal gripping offers full machining access to the entire length of the workpiece O.D.
- Parallel expansion for optimum accuracy and gripping torque
- Custom systems available – up to 25" diameter

Royal Mist Collectors



- Low-cost, highly efficient mist and smoke collectors keep your shop clean and your workers healthy
- Over 150,000 units operating in over 50 countries worldwide
- Exclusive Royal Risk-Free Performance Guarantee

Royal Rota-Rack™ Parts Accumulator



- Safely collects a large volume of finished parts for hours of unmanned production on bar-fed CNC lathes
- Heavy-duty design handles up to 700 lbs. of parts
- Easy to setup and install – no interface with CNC control is required

For Additional Performance Solutions, visit www.royalproducts.com





Building a **DEI-Compliant** Sales Hiring Function That Drives Superb Sales Results

By: Ed Marsh - Growth & Strategy Consultant

21 sales-specific competencies predict with 91% accuracy who will succeed in a specific sales role.

Companies embrace DEI for various reasons. Some support the initiatives outright. Others posture for buyers who make DEI-based buying decisions. And others believe that DEI will help them build stronger organizations that will perform better for the benefit of all stakeholders.

I agree with the third group. I'm tired of seeing sales departments hamstrung by poorly performing reps who were hired for the wrong reasons. Common (bad) reasons include a shared alma mater, work with a certain competitor, and a so-called "great personality" or someone who "loves people."

Sometimes candidates are chosen over others who had different names, might take maternity leave, or don't have years in the industry.

Those are bad reasons because they don't statistically correlate to sales success. Worse, when a company overlooks other candidates because they hire based on bad reasons, that costs them results. Better candidates are missed.

So let's flip that model on its head and create a search for sales excellence that actively drives diversity and performance.

Here's how...

Understanding Sales Excellence – Who Can Sell and Who WILL Sell

If you want to build a great sales team you must identify people who have the skills, traits, and competencies that enable sales excellence. You won't find that in resumes, even the rare ones that are honest portrayals of the candidates. It's not available through personality or behavioral screenings. And conversation, with all our embedded biases, isn't the answer either. Each will play a role in your hiring decision, but all must be built around a predictive tool.

Sales success isn't a black box. Deep research validated by assessments of >2MM sales people, has identified 21 sales-specific competencies which, in the aggregate, predict with 91% accuracy who will succeed in a specific sales role. Based on a candidate's Will to Sell, Sales DNA, and tactical sales capabilities, you can accurately identify those who not only can sell, but those who will sell in your environment.

Think of the power of this.

Knowing who will sell allows you to narrow your focus on capable candidates to find those who will best match your culture, geographical requirements, experience profile, etc. What's the point of considering a rep who's in your industry and lives in the right city if they ultimately won't produce?

This lets you engineer a recruiting and hiring process that will drive results, remove unconscious biases, and help you comply with Equal Employment Opportunity Commission (EEOC) regulations.

A Properly Engineered Recruiting and Hiring Process

In big companies, large HR departments handle much of the hiring work. Need a new sales rep? You submit a work order after the planning and approvals are in place. Then they search for a candidate while you go back to work.

That's not how it works for most of us. HR may handle compliance, benefits, and hiring for high turnover positions, but sales recruiting and hiring often falls to managers who don't have time and rarely recruit. The process is a drag. Recruiters are expensive. Candidates that seem strong often disappoint. Therefore managers hesitate to replace underperformers to avoid the hassle, and when turnover happens, territories are empty until the hole can be plugged.

You don't follow that sort of haphazard approach on the shop floor. You shouldn't for recruiting either.

Instead, carefully engineer a process that makes recruiting so efficient and economical that it can run continuously with little administration and limited management involvement.

Here's what an efficient recruiting process looks like:

1. Craft a carefully written job posting (not a dry, internal job description) that speaks to your ideal candidates.
2. Actively post on the right online platforms, then refresh and edit as required.
3. Ensure that every candidate completes a predictive online assessment – eliminating any bias during the initial review.
4. Invite candidates who excel on the assessment, and who meet specific educational and experience criteria according to their resumes, to a 10-minute phone interview that is scored on an objective matrix.
5. Invite top performers to a 45-minute Zoom/Teams interview with the hiring manager. Questions should be shaped by the assessment insights (to be particularly incisive) and should also be scored on an objective matrix.
6. Invite successful candidates to the office for in-person team interviews, subject to reference checks and negotiated agreements.

Managers may spend one hour on the posting. An administrator can manage the postings, log resumes and assessments, and use email templates with calendar links to coordinate phone and Zoom interviews. The only management time investment is blocking a couple of hours every two weeks for phone interviews, occasional Zoom interviews, and rare in-person meetings.

Continuous DEI-Supportive Sales Recruiting and Hiring

When recruiting is this efficient and economical, it's logical to run the process continuously. You catch top talent even if you're not looking. A flow of candidates ensures you won't hesitate to make changes to the current team, and you have the right of first refusal on superstars when you meet them.

You can preclude bias and support DEI by building your sales recruiting and hiring process around a data-driven assessment that measures sales-specific competencies, tailored for your market, industry, and product.



Ed Marsh - Growth & Strategy Consultant

Consilium
www.consiliumglobalbusinessadvisors.com

MOVING ON AND MOVING UP.

Two Women
Who Are Making
Manufacturing Move.

By: Catherine Ross, Director of
Smartforce at AMT - The Association
For Manufacturing Technology

Women in Manufacturing Progress

30%

Of the manufacturing
workforce is FEMALE
Compared to **47%** of the
total workforce.¹

1 of 4

Manufacturing
management positions is
held by a woman.¹

16%

Manufacturing
management positions is
held by a woman.¹



LAST, BUT BEST CHOICE

**Ashley Brockman, robotic system engineer,
Aciena, Council Bluffs, Iowa.**

Manufacturing was not Ashley Brockman's first career choice. Or second. Or third. But it was her best.

"I started majors in accounting, math, motorsports, fishery and wildlife, and emergency medicine," she recalls.

That's when her father went to a conference and learned about robotics programs. Ashley found a program less than an hour from home and graduated with a degree in robotics, automation, and mechatronics technology from North Dakota State College of Science (NDSCS) in Wahpeton, ND.

She began an internship with Aciena, an industrial automation leader. She now works full-time, on-site in a large industrial equipment manufacturing facility integrating, programming, servicing, and maintaining 99 FANUC robots. Recently, Ashley became the first female at Aciena to achieve the FANUC master certification.

Ashley's only regret? All those partial degrees. "If I had known this was an option, I would have done this right out of high school," she says. "We need to do a better job in schools of exposing everybody, especially girls, to careers like this. Let them know how cool this is. Awareness at an early age is key."



BORN TO BUILD

**Rebecca Kurfess, Ph.D. candidate in mechanical
engineering at Massachusetts Institute of
Technology and research staff member at Oak Ridge
National Laboratory, Oak Ridge, Tennessee**

"It's genetic," says Rebecca when asked about her career path. Her father, Dr. Tom Kurfess is a mechanical engineering professor at Georgia Tech. Her mother, Adriana Kurfess, is also a mechanical engineer who taught middle and high school math and science.

While Rebecca was exposed early and often to potential careers in engineering and manufacturing, she recognizes that is not always the case. "I think the shortage of women in manufacturing is a pipeline issue," she says. "It is more stressful to go into a field if you don't see people who look like you."

The lack of representation is intensified at the higher levels of the field. "At MIT, in undergrad, the ratio of males to females was 50/50. It was an opportunity to grow and feel comfortable that you weren't alone," Rebecca recalls. "When I walked into my first graduate class, I wondered where all the girls went."

Rebecca notes that seeing other female researchers at her level is encouraging and that she believes the next generation of women are more aware of their opportunities — meaning change is coming!

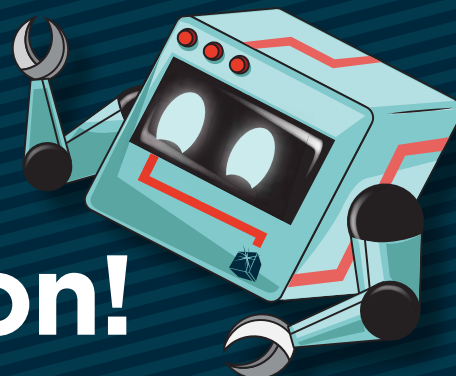
Read about more young women in manufacturing at [IMTS.com/ReadMovingUp](https://www.imts.com/ReadMovingUp). Learn more about how IMTS is striving to expand the role of women in manufacturing through our Women Make Manufacturing Move specialty program.

Sources: 1. More Women in Manufacturing Jobs in Every Age Group ([census.gov](https://www.census.gov))



IMTS+

Explore a New Digital Destination!



WATCH.

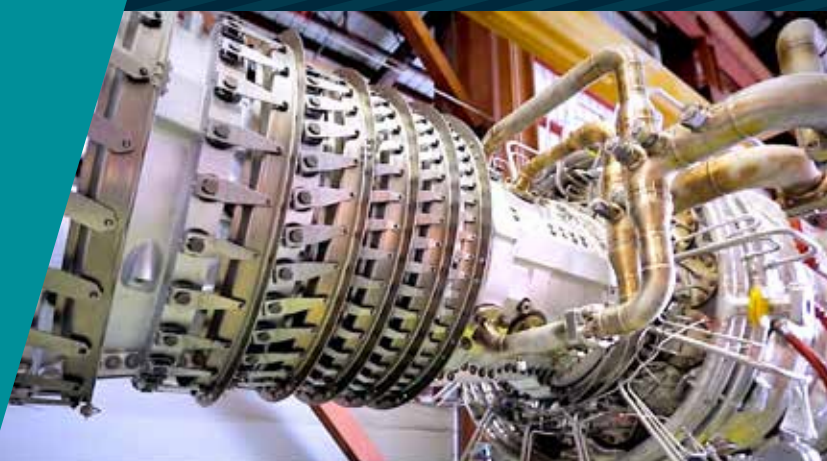
Discover the people behind the latest advances in manufacturing technology.

READ.

Dive into stories at the heart of manufacturing innovation.

JOIN.

Experience world-class manufacturing events.



*LOG IN RIGHT NOW AT **IMTS.COM***



MOVE OVER MONOCULTURE MANUFACTURING IS MIXING IT UP

Why diversification has been the secret sauce to a New American Manufacturing Renaissance and a much-needed Innovation Injection!

29%

Of the manufacturing workforce are woman.

By: Andrew Crowe, Founder of The New American Manufacturing Renaissance

The American manufacturing sector has a long-standing history of lack of diversity. Despite efforts to improve inclusivity and equity, the industry has historically failed to reflect the true makeup of the American population. A report by the National Institute of Standards and Technology shows that women and people of color are underrepresented in the sector. Women make up only 29% of the manufacturing workforce, while people of color represent only 24%.

This lack of diversity has resulted in a narrow range of ideas and perspectives, which has limited innovation and hindered progress. This lack of diversity has also had far-reaching effects, including inner-city decay, offshoring and the loss of a tax base, a historic skills gap, and rising crime rates due to a lack of good jobs. One of the main reasons why the manufacturing sector has failed to diversify is the historic bias against hiring minorities and women. This bias has perpetuated a culture of exclusion that has made it difficult for underrepresented groups to enter and succeed in the industry. The result is an industry that is predominantly white and male, even though women and people of color make up a significant (and rapidly growing) portion of the American population.

The lack of diversity in manufacturing has also contributed to the decline of inner-city communities. As manufacturing jobs have moved to suburban areas, inner-city communities have been left with few job opportunities. This has resulted in a loss of tax revenue for cities and a rise in crime rates as people struggle to make ends meet. This lack of

diversity has far-reaching effects on our economy and society. Data from the U.S. Census Bureau shows that inner-city neighborhoods have higher poverty rates and lower median household incomes than suburban areas. For example, in Detroit, the poverty rate in the city is 35.7%, compared to 10.3% in the suburbs. In addition, the median household income in Detroit is \$31,283, compared to \$63,421 in the suburbs. This stark contrast is a result of the decline of manufacturing jobs in inner-city communities.

The lack of diversity in manufacturing also contributes to the offshoring of jobs and the loss of a tax base. When companies move their manufacturing operations overseas, they not only take jobs away from American workers but also decrease the tax revenue generated by the industry. According to a report by the Economic Policy Institute, the U.S. lost 3.4 million manufacturing jobs between 2001 and 2017 due to trade with China alone. This loss of jobs and tax revenue has had a significant impact on the economy, particularly in rust belt states like Ohio, Pennsylvania, and Michigan.

The historic skills gap in the manufacturing industry is another factor contributing to the lack of diversity. Many manufacturing jobs require specialized training or certification, which can be difficult to obtain for people who lack access to educational resources. This means that underrepresented groups are often left with low-paying jobs or no jobs at all. According to a report by the Manufacturing Institute, there will be an estimated 2.4 million unfilled manufacturing jobs in the U.S. by 2028 due to the skills gap.

But that's old news. The new wave of creators, influencers, open minded shop owners, and executives are making strides in changing the way American Manufacturing has operated historically, and its WORKING. With social media influencers like myself, Meaghan Ziemba, and the bevy of others who are not only bringing the issues to the forefront, but giving real actionable ways for companies and communities to get involved, a groundswell of energy is vibrating through our industry. But it doesn't stop there. The world is taking notice.

One reason is that manufacturing has been the tide that lifts all boats during times of economic and political uncertainty. Our sector has historically been a source of good-paying jobs for Americans, providing opportunities for upward mobility and economic stability. As the country emerges from the pandemic-induced economic downturn, political unrest, and potential threats of World Wars, the manufacturing sector is once again poised to play a critical role in driving economic growth.

But this time, things are different. The sector is increasingly less and less dominated by a single demographic group. Women, people of color, and members of the LGBTQ+ community are now taking on leadership roles and bringing new ideas and perspectives to the table. This diversity is not just good for the industry; it is good for the country as a whole. As American manufacturing becomes more diverse, it has the potential to re-unite a divided America. Manufacturing jobs have historically been seen as blue-collar jobs, but in reality, they require



24%

Of the manufacturing workforce are people of color.

3.4M

U.S. manufacturing jobs lost between 2001 - 2017 due to trade with China

2.4M

Unfilled manufacturing jobs in the U.S. by 2028 due to the skills gap.

a wide range of skills and expertise. As a result, they provide opportunities for people from all walks of life to come together and work toward a common goal. This shared sense of purpose can help bridge the divide that has been plaguing the country in recent years. And manufacturers are taking note. One example is 3M, a multinational manufacturing company. The company has implemented several initiatives to promote diversity and inclusion, including a program to recruit and retain employees from diverse backgrounds and a program to mentor women and people of color.

Another example is PPG Industries, a manufacturer of paints, coatings, and specialty materials. The company has a goal to increase diversity in its leadership roles by 2025. To achieve this goal, PPG has implemented several initiatives, including a diversity and inclusion council and a training program to help managers promote diversity and inclusion. But the true hero of this story is the small and medium-sized manufacturers and mom and pop shops. It's their ability to implement changes quicker on a local community that gives them the highest impact and ROI of the diversification efforts.

Small and medium-sized manufacturers often have less bureaucracy than larger companies, allowing them to be more nimble and agile in their efforts to promote diversity and inclusion. This flexibility enables them to take swift action and implement changes that lead to a more inclusive workplace. For example, these companies can adjust their recruiting and hiring practices to ensure a diverse

candidate pool and create employee resource groups that foster a sense of community and belonging for underrepresented groups. A study by the National Bureau of Economic Research found that companies that invest in diversity and inclusion outperform those that do not. This investment includes not only hiring diverse candidates but also creating a culture of inclusion and belonging that retains these employees. By creating a diverse and inclusive culture, these companies can attract and retain top talent, increase innovation, and drive growth.

By continuing to create and foster a diverse and inclusive culture, American Manufacturers can attract and retain top talent, increase innovation, and drive growth. The future of the advanced manufacturing sector lies in its ability to embrace diversity and inclusion, and small to medium-sized manufacturers are leading the way. Change is on the horizon. Moreover, American Manufacturing is bringing people together and helping to heal a divided America. Let's continue to unite and lead the way in creating a more inclusive and prosperous future for all.



Andrew Crowe, Founder of The New American Manufacturing Renaissance

Want an example of a small manufacturer reaping the benefits of diversity?

Look no further than **Technimark**, a plastics manufacturer based in North Carolina. The company has a **workforce that is 60% female and 43% minority**, and it has seen significant growth in recent years. Technimark credits its diverse workforce for its success, stating that it has enabled the company to bring a wide range of perspectives and ideas to the table, leading to better decision-making and innovation.

New Ways of Thinking About Your Talent Strategy

By: Jenny Stupica, Workforce Development Director – NTMA



We've all heard the saying **"If you keep doing the same thing, you'll keep getting the same results."** The biggest concern

I hear from manufacturers is that they can't find people to fill their open positions. And yet, they keep recruiting and hiring the same way they always have. It's no wonder they can't find who they need.

Workforce is the new buzzword. It's not a new concept – companies have been recruiting, hiring, and training for decades. But it's become a critical issue in recent years as fewer students are encouraged to pursue a manufacturing pathway, other industries have become more appealing due to flexibility, autonomy, and pay, and the number of retirements has risen dramatically. The status quo will no longer work. We must think differently before we can act differently. The phrase “we’ve always done it this way” isn’t going to cut it anymore.

We constantly hear about diversity, equity, and inclusion, and most of the time our minds go to race and gender. But diversity and inclusion are much bigger than two physical traits. While race and gender are certainly important, it's also about ability, background, and life experiences. When you think about increasing diversity in your workplaces, you need to first think about diversity in your candidate pool.

In recent years, particularly since COVID, we have found we have to reach out to populations of people we've never considered before in order to find the employees necessary to keep the business running. But who are they and how do we reach them? Why is it beneficial to us to consider populations of people who might look or act differently than our existing employees? These are excellent questions, and the answers are going to take some effort.

Some of this is playing the long game. We need to encourage more young people to explore career opportunities in manufacturing and help their parents understand the many benefits for their students. We need to build a pipeline of students choosing manufacturing and engineering pathways so we will have a constant flow of people to fill the jobs you will have in the coming years. However, you can't wait for that 8th grader to graduate. You need to fill jobs now. So where do you start? Below are some ideas you can explore to expand your candidate pool while keeping the pipeline alive.

- **Build a relationship** with local community organizations that work with groups of job seekers you normally wouldn't be able to reach.

Understand the barriers they face in getting to your jobs and work on solutions together. Examples are Urban Leagues, immigrant networks, housing authorities, and food banks.

- **Get involved** with local schools to offer internships and tours or start a summer camp. Schools are always looking for partners to provide their students with new learning opportunities.
- **Reach out** to the Girl Scouts to host a program for the girls to earn their manufacturing, engineering, or robotics badges.
- **Design a “mom” shift** that allows mothers of school-aged children to work while the kids are in school.
- **Partner with schools**, career centers, and organizations in your community to create a program to engage women to learn about and pursue a career in manufacturing. Offer mother/daughter programming or talk to girls getting ready to graduate high school who don't have a plan in place post-graduation.
- **Work with local veteran groups** – many times these individuals have a skill set that is easily transferable to manufacturing. Military and veteran spouses are often looking for job opportunities, too.
- **Contact local and state agencies** that work with disabled individuals. Many of these individuals have a skill set that is perfect for hard-to-fill jobs with high repetition and attention to detail and they are usually eager to show they are capable.
- **Talk with your local re-entry and transitional programs** for individuals coming out of incarceration and/or dealing with background challenges. These individuals are looking for someone to give them the opportunity to become a contributing member of their community and many times will end up being the most loyal employee because you gave them a second chance.
- **Look in-house** to “grow your own” talent for those jobs you have the most difficulty filling, such as maintenance techs. Identify an employee who is eager to learn and willing to tackle a new opportunity and provide online or classroom training along with on-the-job learning to promote from within.

IF THE BOTTOM LINE IS WHAT DRIVES YOU, CONSIDER THIS TRUE SCENARIO:

A machine sits idle for a week because there aren't enough employees to keep it running full-time. The company is losing, conservatively, \$10,000/day or \$50,000/week. Hiring someone at \$20/hour, plus benefits, will cost roughly \$1,200/week. You don't have to be a math prodigy to see that you are losing much more by leaving that machine idle. Imagine the situation if you have five machines idle. Or 10. You can't find the people you need with the approach you've been using in the past, so why not try something new?

You may not like or agree with the current landscape of finding the right people for your company, but it's today's reality. And it's here to stay. Change is always uncomfortable and sometimes downright painful. The good news is that you don't have to face this change alone. NTMA is here to help and share ideas and resources that can make this new way of facing workforce issues a little easier. There will be some discomfort as we begin to work differently to staff our companies appropriately so they can flourish and grow, but in the end, it will be worth it. So, I ask you this – are you willing to think differently about your approach to diversity, equity, and inclusion in your recruiting and hiring practices? If so, then let's get to work.



Jenny Stupica

Workforce Development Director - NTMA

Partnering with the Community to Solve Manufacturing Workforce Challenges

By: Mary Delaney, Jergens Operations Manager

Manufacturing is a driving force in the local economy in Northeast Ohio. The steady growth in this sector has led to labor force challenges including an aging workforce, difficulty attracting candidates, and trouble staying competitive in relation to other industries. Creating community partnerships to address workforce development is a strategy Jergens Inc. has relied on over the years with tremendous success for the organization, the individuals, and the community. Jergens President, Jack Schron, has supported and led local, regional, and national efforts to partner with organizations that develop manufacturing workforce initiatives.

The Cuyahoga East Vocational Education Consortium (CEVEC) approached Jergens back in 2015 to become a business partner. CEVEC offers a variety of half-day programs with the goal of giving students real-world training at business partner locations. Students experience various jobs that match their interests or preferences, preparing them for the world of work and enhancing their independent living skills.

Jack Schron explains, “This is their classroom for the entire school year. The schoolteachers joined together with our employees, and they teach the skills to the individual. The employees loved it. They became mentors and they became part of the family of Jergens that took care of these young men and women when they come in here. Sometimes you don’t measure things by dollars and cents, you measure by what it does to your corporate culture.

What does it do to your employees? As far as the benefit, we’ve got more benefits than if we put it against the dollars and cents.”

Welcoming the CEVEC students has become a familiar back-to-school ritual. “We think it’s important that God presented everybody with an opportunity here and we want them all to have a place in this big tent we call Jergens. We’ve always been a very inclusive place where everybody is welcome in our tent,” adds Jack.



Jergens Head Quarters



Former CEVEC Student Nick Veccione and Jack Schron



ACCESS to Manufacturing participant Mario Gross

Jergens has successfully employed several individuals from CEVEC after they graduated from the program.

They are proud, productive team members today. The second partnership Jergens has successfully tapped into is Towards Employment’s, ACCESS to Manufacturing. Towards Employment is a proven leader in workforce development that connects people to careers, thus changing lives, advancing businesses, and strengthening communities in Northeast Ohio. ACCESS to Manufacturing Careers is a 3-week program designed to teach career readiness and technical skills, allowing students to advance in a manufacturing career.

“The ACCESS program has provided us with trained individuals who come to us with their soft skills, ready to work and ready to be part of our team. Some of the ACCESS individuals have come even from a second chance where they were formerly incarcerated. These individuals are willing to say I’ve got a future that’s something different. If you take an individual and put them to work, they have gone from being an expense to society to being a contributor to society. The delta is over \$100,000 per individual - Look at what the benefit is to individuals, as an organization, as a company, and as a society. For us to see that future start to take place from the day they walk in here and they learn a skill,” says Jack.

Jergens’ approach to workforce development challenges is rooted in community partnerships. No one faction can do it alone. Through the alignment of strategy and resources, community partnerships can help strengthen the manufacturing engines that support our regional economies. As Jack says, “Give them a job, take a chance. Go for it.”

Jergens
MANUFACTURING EFFICIENCY

www.jergensinc.com

ALPLAN | EXCEED
YOUR LIMITS

ULTIMATE STABILITY

DISCOVER THE WORLD'S MOST STABLE ALUMINIUM

ROLLED AND READY-MILLED
ALUMINIUM PLATES FOR
IMPROVED PRODUCTIVITY

Is Your **Brand** Showing Decades of Wear?

Research shows **60%** of consumers avoid brands with logos they find odd or unappealing.

We know how the story goes: Your manufacturing business was the dream of past generations. Or it started out of a garage or small shop. And once the business took hold, your logo – your brand – may have been drawn up on the back of a napkin. It's still there today. We certainly understand the importance of legacy and value your history. But that doesn't mean your brand has to feel dated. At Bluebird Branding, we help businesses like yours **evolve**, **stand** out and **achieve long-term growth** and **success**.

CONTACT US TODAY FOR YOUR FREE CONSULTATION



bluebirdbranding.com | 303.997.8329

BEFORE



AFTER

Moseys



*Statistics by Zippia 2021



High QA quality management software brings quality and manufacturing together.

Manage, monitor, document and share the manufacturing quality process internally and throughout your supply chain.



**IMPROVE
QUALITY
COLLABORATION
COMMUNICATION
COMPLIANCE**



GET A FREE DEMO

www.highqa.com/NTMAdemo



www.highqa.com



[/highqa](https://www.linkedin.com/company/highqa)



info@highqa.com



888.727.1266



GREGORY A. KASZEI
President

14459 Foltz Parkway
Strongsville, Ohio 44149
Email: CARDINALMACHINE@aol.com

Phone: (440)238-7050
Fax: (440)238-7051



PRECISION PROFILES

PRECISION MACHINING SINCE 1994

CORE CAPABILITIES

- › Turbine Component Manufacturing
- › Precision grinding (up to 136" in length)
- › Multi-Axis Milling, Machining, & Turning
- › Saw Cutting (straight, angle, radius, angle + radius)
- › Wire EDM

* EFFICIENT RESPONSE TIMES

WE REGULARLY STOCK STAINLESS STEEL ALLOYS SUCH AS:
403, 405, 410, 415, & 422

ITAR REGISTERED

US/CA JCP CERTIFIED
(CAGE CODE Available Upon Request)

SAM REGISTERED

ISO 9001:2015 REGISTERED

SMALL BUSINESS
(+25 Employees)

45727 STATE HIGHWAY 27, TITUSVILLE, PA 16354 › 814-827-9887 › precisionprofilesllc.com



Freight shipping discounts
with YRC, XPO, Saia and more.
PartnerShip.com/54ntma

Drill, baby, drill!

THAT'S WHAT WE DO, ALL DAY EVERY DAY.

For precision drilling diameters
as small as 0.078" and up to 180"
deep, Betar does it better.

Honing, turning, milling
and surface grinding, too.



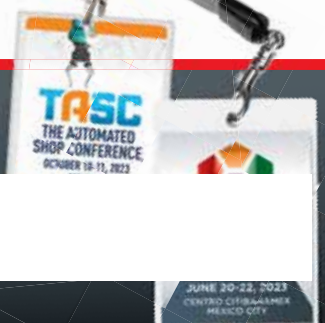
RAPID QUOTES:

www.betar.net • 908-359-4200

John Lohse, Owner • Chapter President, NTMA New Jersey, Phila & NE Pennsylvania

Modern Machine Shop

Your All-in-One
Resource for the
Latest Innovations
in Metalworking



Subscribe, follow and
join us – it all starts at
MMSONline.com



Diversity Equity Inclusion

WHAT DOES DEI MEAN TO ME?

By: Dave Capkovitz, Principal EBITDA Growth Systems

As a manufacturing consultant, I have worked with various companies in different industries to help them improve their manufacturing processes and increase efficiency. However, in recent years, I have noticed a growing emphasis on diversity, equity, and inclusion (DEI) within the manufacturing industry. In this article, I will share my thoughts and insights on the importance of DEI in manufacturing and how companies can leverage DEI initiatives in their operations to add talent.

First, let's define what DEI means. Diversity refers to the presence of differences within a group, such as differences in race, gender, age, and religion. Equity means ensuring that everyone has equal access to opportunities and resources. Finally, Inclusion refers to creating an environment where everyone feels valued and respected.

NOW, WHY IS DEI IMPORTANT IN MANUFACTURING?

The manufacturing industry has historically been dominated by white males, with limited opportunities for women and people of color. The importance in regard to business growth lies in the fact that we need employees. Making sure we include people from all the aforementioned groups when we search gives us a much better chance at fulfilling our employment needs. Additionally, an inclusive workplace can improve employee satisfaction and retention, leading to a more productive and efficient workforce.

DEI can help you fulfill your need for more employees in a number of ways. Here are a few examples:

1. Attracting a wider pool of candidates: When you prioritize DEI in your recruitment efforts, you expand your candidate pool to include individuals from underrepresented groups. This can help you find candidates with a wider range of skills, experiences, and perspectives that you may not have considered otherwise.

2. Reducing turnover: A workplace culture that is inclusive and values diversity can help improve employee satisfaction and reduce turnover. When employees feel valued and respected, they are more likely to stay with a company for the long term, reducing the need to constantly recruit new employees.

3. Increasing productivity: A diverse workforce can bring fresh perspectives and innovative ideas to a company. This can lead to increased creativity and productivity, which can help you meet your business goals more effectively.

4. Meeting customer needs: As the demographics of the workforce and customer base continue to shift, it's important to have employees who can relate to and understand the needs of a diverse customer base.

Overall, prioritizing DEI can help you attract and retain top talent, increase productivity, and better meet the needs of your customers. This can ultimately help you fulfill your need for more employees by building a strong, diverse, and inclusive workforce. In today's competitive job market, manufacturers who prioritize diversity, equity, and inclusion (DEI) have a strategic advantage when it comes to acquiring top talent.

By fostering an inclusive workplace culture, manufacturers can attract and retain employees from underrepresented groups, leading to increased creativity, innovation, and productivity, which can help manufacturers stay competitive and achieve their business goals. Therefore, manufacturers who prioritize DEI are more likely to attract and retain top talent, leading to a stronger and more successful organization overall. If you are serious about taking your business to new heights, it's time to lean into diversity, equity, and inclusion.



www.ebitdagrowthsystems.com



NTMA SERVICE AWARDS 2023

NOW ACCEPTING NOMINATIONS

The Service Awards are given out each year at the Manufacturing Engage Conference.
We need your help finding the best candidates for these awards.

Award categories are:

MEMBER AWARDS

HONOR AWARD

Nominate a member for continuing meritorious service and dedication to the industry and/or the Association by a regular member; traditionally awarded for longevity of service in dedication, as opposed to a single act or service in a short-time industry or Association position.

L.A. SOMMER MEMORIAL AWARD

For outstanding and continuing service of the highest magnitude; emphasis is placed on service to the Association by a regular member, both of the highest order and over a period of time, connoting excellence in a particular role in NTMA, rather than as a participant in a single event.

WILLIAM E. HARDMAN AWARD FOR EXCELLENCE IN TRAINING

For a company or individual (regular member or education member) which consistently demonstrated strong support and active participation in structured training for the precision custom manufacturing industry.

NON-MEMBER AWARD

DISTINGUISHED SERVICE AWARD

For outstanding service to the industry by a person outside the NTMA regular member companies.

Help us recognize deserving individuals and/or companies that have supported and advanced the industry and the Association.

Submit your nomination(s) by Friday, August 11th, 2023.

For a nomination form, contact Linda Warner at lwarners@ntma.org

ADVERTISE IN THE RECORD

The NTMA Record is a high gloss publication that has grown from a member newsletter to one of the industry's leading sources of manufacturing insights, technology and industry trends. Every month The Record delivers important industry knowledge through curated content, timely articles and opinion pieces. When you advertise in The Record your product or service will be seen by thousands of qualified industry targets and premier precision custom manufacturers in the US.

PRICE PER AD

Premium Full Pages

	Available Per Issue	Annual	Quarterly	Monthly
- Inside Front Cover	1	\$9,550.00	\$2,500.00	\$900.00
- Back Cover	1	\$9,550.00	\$2,500.00	\$900.00
- Inside Back Cover	1	\$8,800.00	\$2,300.00	\$850.00
- Opposite President Letter SOLD	1	\$9,550.00	\$2,300.00	\$850.00

All Other Pages

- Full Page	4	\$7,800.00	\$2,000.00	\$900.00
- Half Page	8	\$5,000.00	\$1,300.00	\$550.00
- Quarter Page Ad	6	\$4,900.00	\$1,200.00	\$450.00
- Business Card Ad	20	\$1,000.00	NA	NA

SPECIAL ADVERTORIAL SPREADS 2

BEST DEAL \$2,000

Showcase your product with rich editorial and images that tell your story.



THANK YOU TO OUR SPONSORS

PLATINUM SPONSOR



DMG MORI

GOLD SPONSOR



HEIDENHAIN



SILVER PLUS SPONSOR



BRONZE SPONSOR



NATIONAL TOOLING AND MACHINING ASSOCIATION



O-D TOOL & CUTTER, INC.



CNC GRINDING
KEVIN M. O'DONNELL
PRESIDENT
ISO 9001 CERTIFIED
Family Owned Since 1959

KEVIN@ODTOOL.COM
PH: 508.339.7507
FAX: 508.339.5667
CELL: 508.341.5576

PO Box 372
150 GILBERT STREET
MANFIELD, MA 02048
WWW.ODTOOL.COM



**CENTERLESS GRINDING
& THREAD ROLLING**

Normand J. Goulet III
Vice President
Manufacturing Engineer

25 Rosenthal Street ■ East Hartford, CT 06108
phone: (860) 289-2987 ■ fax: (860) 289-3142
web: www.unitedcgtr.com ■ email: njgoulet@unitedcgtr.com



Tim Stone
VP of Business Development

ANOPLATE CORPORATION - an ISO 9001/14001 Registered Firm

459 Pulaski Street
Syracuse, NY 13204-1134

Phone: 315-471-6143 x134
Email: tstone@anoplate.com

For more Information: www.anoplate.com

Office Fax: 315-471-7132

Cell: 315-679-6265



INDUSTRIAL GRINDING INC

*Specialists In Precision Grinding
Ceramics - Flame Spray - Plasma Coatings
Spindle Repair - Large O.D.-I.D. Surface Grinding
AS9100D ISO 9001:2015*

2306 Ontario Avenue, Dayton, Ohio 45414
PH 937-277-6579 FAX 937-277-4536
www.industrialgrinding.com + sales@industrialgrinding.com



NATIONAL TOOLING AND MACHINING ASSOCIATION

1357 Rockside Rd.
Cleveland, OH 44134

Manufacturing America's Future



CELEBRATING 80 YEARS!

THE PRECISION MANUFACTURING CONFERENCE

**ENGAGE
2023**

POWERED BY



TM

PLAN AHEAD

OCTOBER 18-21, INDIANAPOLIS, IN