THE RECORD

Published by the National Tooling and Machining Association



The Value of Membership - pp 18-19

Top 10 Cybersecurity Best Practices to Combat Ransomware - pp 20-21

The Importance of Conducting Workplace Investigations - p 22

and so much more ...

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THE RECORD

OPERATIONS & EDITORIAL

Roger Atkins, President Doug DeRose, Co-Editor John Stevens, Co-Editor

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Upcoming NTMA National Events



Chapter Leadership Summit 2022

Sunday, January 30 — Tuesday, February 1 Savannah, GA



Engage Summit West

Monday, March 21 – Wednesday, March 23 Costa Mesa, CA



Engage Summit East

Monday, June 6 – Wednesday, June 8 Philadelphia, PA



Emerging Leaders Conference

Monday, August 29 – Wednesday, August 31 Indianapolis, IN



Manufacturing Engage 2022

Tuesday, October 25 — Friday, October 28 Kansas City, MO

What's Your Story?

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 Carrie Marsico at cmarsico@ntma.org

Upcoming Themes for The Record

February

Working "ON" or "IN" Your Business. Where Should You Focus?

March

Sales & Marketing...Is Your Plan in Place?



PRESIDENT'S UPDATE

To begin the year for 2022, we are focusing on the "Benefits of NTMA."

For me, I have seen our organization's benefits from two different perspectives. The first was from the perspective of a young son, watching his father's involvement in NTMA. My Dad joined NTMA in 1967, and I watched my father immerse himself into an organization of his industry peers and competitors. I remember him telling me that it was NTMA – both the organization and his peers – that was teaching and helping him to become a better manufacturing business owner. Even as a young man I could understand what he meant - I knew he could already manufacture the most complex of parts himself. Not only did I watch him utilize the networking of his peers, but also the benchmarking reports and surveys provided by NTMA. He consistently used those reports to analyze his company's performance against that of other NTMA companies, always committing to use that information to make his company better. Each year, I watched him take these business condition and performance reports to his bankers - who utilized them in the annual review of the company's performance. They admitted they had no manufacturing knowledge or comparisons to use, and therefore depended on the reports NTMA would provide my dad. These reports showed both the bankers and my dad the good times and the bad times, but ultimately, it gave them the information and confidence to continue to finance my dad's company.

My dad went on in NTMA to attend conferences and get involved at both the local and national levels. It was the networking at the conferences, plus the exposure to new technology, fresh business management, sales & marketing approaches, and trends of the industry, that captivated his involvement. The Houston Chapter's Apprentice Training School was always a contributor to his workforce development for apprentices in the shop. However, it was his appreciation for NTMA's political advocacy that drew my dad's full attention: he knew

the government's regulations, taxes, and lack of understanding of the importance of US manufacturing was one of the largest threats to our industry. He led the way against the major push to offshore products from the US - knowing that one day we would pay the price. While my dad has passed since then and did not have to witness the recent results of his predictions about offshoring, his ideas still ring true.Little did I know that after college I would follow my dad's footsteps into the manufacturing industry, much less that I would also get involved in NTMA. When I started working for my dad (of course, on the shop floor) he told me to bring some nice clothes to work the next day, because he was going to take me to an NTMA meeting. On the way to that meeting, he told me the following:

"I'm going to introduce you to people tonight that will teach you more about manufacturing than I'll ever be able to teach you."

Never did he tell me truer words. Through the many people I have met over the years while at NTMA, I can honestly say they have taught me more and exposed me to more about manufacturing than I could have ever imagined. I later moved on from my Dad's company and over my career worked for two other NTMA member companies where I was a part of some exceptional growth. It's incredible to think that later in my manufacturing career, it would lead me to be Chairman of NTMA in 2012 — and now to be President in 2020 to present. What I have learned is my greatest NTMA Benefit is "YOU THE MEMBER."

So, when you ask me about the Benefits of NTMA, the question becomes very personal. My dad's company and the companies I later worked for grew because of our NTMA network both locally and nationally, and we enhanced our technology through NTMA's introduction of us to industry partners — who were invested in supporting our success. It was the continued use of benchmarking information that guided our success or influenced the need for our mid-course corrections. It was the training materials and opportunities from

NTMA that helped support our internal workforce development training efforts. I was constantly reminded of the importance my dad gave to industry advocacy - the value of advocating on our behalf and our companies, while allowing us to work on and in our companies. Simply look no further back than 2020-2021 and the critical role NTMA's advocacy played in the survival of many member companies. Over my manufacturing career, I have worked at companies from \$3M to \$156M in revenue and I can tell you regardless of size it was NTMA Benefits that helped support us at every level. Regardless of one's size, the benefits of NTMA memberships depend on your willingness to utilize them. The question is: will you utilize them - and enhance yourself and your business personally and professionally? We live in a business environment that wants to convince young and old alike they can do it themselves and do not need to be part of a combined industry community. It brings back the memory of raising kids, when as little ones they would tell me, "I can do it myself." As they grew, they eventually realized they could not do everything by themselves and that they did need help and support. I contend that part of the reason industry is encouraged to go it alone is because it dilutes our combined importance and strength as an industry.

I believe it is NTMA's time and small-to-medium sized US manufacturers' time to join together with one combined "VOICE." Utilizing the BENEFITS OF NTMA (Networking, Operational Excellence, Technology, Workforce Development, and Advocacy) to strengthen our businesses and each other, to show the US and the world our manufacturing importance, our economic importance, and our contribution to the US employment. Let's take our seat at the table.

Big companies or small companies, **"We Are Stronger Together."** So 2022, here we come ready or not.

Roger Atkins, President – NTMA



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NTMA Western Massachusetts Chapter Presents Funds for Workforce Training

Board Members of the NTMA Western Massachusetts
Chapter presented the Lower Pioneer Valley Career
and Technical Education Center administrators and
staff with proceeds — split with Westfield Technical
Academy — from their summer golf tournament.
The funds will enable the program to advance its
mission to train and place high school students in
local advanced manufacturing companies and also to
position them for success in college and beyond.

Pictured from left: Scott Wolfram L.P.V.E.C. Career and Technical Education Center Advanced Manufacturing Instructor, Elizabeth Paquette President and Owner of Rock Valley Tool LLC, President - Western Mass. Chapter NTMA, Clifford Long L.P.V.E.C. Career and Technical Education Center Advanced Manufacturing Instructor, Kristin Carlson President - Peerless Precision, Inc. Trustee - Western Mass. Chapter NTMA, John J. Michaels Coordinator of School Counseling L.P.V.E.C. Career and Technical Education Center, Donald Jarvis Principal/Director L.P.V.E.C. Career and Technical Education Center, Hazel Rodriguez L.P.V.E.C. Career and Technical Education Center Advanced Manufacturing Instructor, Angie Beavis, Western Mass Chapter Executive Director, and Roland R. Joyal, Jr. L.P.V.E.C Executive Director.



Stay Connected to Fellow Members

As the manufacturing industry continues navigating successfully through recovery, staying connected with your peers and fellow NTMA members has never been more important. To help our members continue to come together to address key concerns and issues — NTMA Member Drop-Ins are back!

NTMA is hosting monthly "Member Drop-Ins" — unique opportunities for our members to meet and discuss complex problems, and to brainstorm ideas and solutions alongside fellow NTMA Members. These Drop-Ins, using Go-To-Webinar, have been fantastic ways to keep our members connected — and for each session, we will be joined by proven industry experts

bringing important knowledge, key information, and perspectives that are important for our member shops to learn about.

Our February Drop-In will focus on taking a look at working "On," not "In," Your Business. Learn where you can best focus your efforts to foster growth at your shop and create sustained, long-term success.



DROP-INS

Upcoming Member Drop-Ins are scheduled on the following dates:

Tuesday, February 8 – 2PM EST Tuesday, March 8 – 2PM EST

Please check your email and our social feeds for future invites, or contact NTMA's Member & Chapter Relations Manager Carrie Marsico, at cmarsico@ntma.org or (216) 264-2835

We hope to see you on the next Drop-In!

New Member Highlights



HIMES MACHINE INC. Northwestern Pennsylvania Chapter

Himes Machine, Inc. is a high-precision tooling manufacturer specializing in machining precision parts and components for many types of manufacturers and industry including plastic injection molding, high-speed progressive dies, forming, stamping and blanking dies, automation tooling, and short-run production and prototyping.

Their state-of-the-art machining facility utilizes machining processes such as full CNC milling, CNC grinding, CNC lathe, CNC hard turning, CNC wire, and Ram EDM. Their existing facility was recently expanded by twice the size to service several new customers. The manufacturing environment inside the facility resembles hospital-like cleanliness. Himes explains, "A clean manufacturing environment is important to the integrity of the work we do. Our goal is to deliver extremely high-end products and superior finishes in all of our work."

The knowledgeable team at Himes Machine, Inc. offers experience in precision machining all types of tool steels, alloy steels, stainless steels, aluminum, copper, brass, plastic, and all grades of carbide. They commonly practice meeting part tolerances as close as (+ - .00005") and they have a thorough understanding of geometric configurations and tolerances presented by their customers.

9842 Espy Road Espyville, PA 16424 (724) 927-6850

www.himesmachine.com

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www.linkedin.com/company/ntma



www.youtube.com/channel/UCWz78MHNBXqkxAHKqbUArzg

Pendarvis Manufacturing Celebrates 40th Anniversary



Congratulations to NTMA Los Angeles Chapter Member Pendarvis Manufacturing Los Angeles on celebrating their 40th anniversary! Pendarvis Manufacturing prides itself on running a flexible shop and efficiently meeting the needs of its customers — able to handle production processing of any size and any quantity. In addition to machining and metal fabrication, Pendarvis Manufacturing also has additional capabilities for hydraulic assembly, glass-beading, and more — acting as a reliable, long-time, one-stop shop, serving the Los Angeles area.

NTMA Foundation Presents \$10,000 Check to AWT Transformation Training Center



NTMA President Roger Atkins recently presented a \$10,000 check from the NTMA Foundation to past NTMA Chairman Roger Sustar for the AWT Transformation Training Center.

The \$3M Transformation Training Center will provide manufacturing workers in Northeast Ohio with key technology and technical training, tackling a dire need for the next generation of manufacturing jobs. Programs will include Science, Technology, Engineering, and Mathematics (STEM)-to-career programming for K-12 students, pre-apprenticeships for high school juniors and seniors, and apprenticeship training for those who are unemployed and incumbent workers.



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2022 NTMA Executive Committee Updates

Chairman's Letter



As we move forward into 2022, we are still facing unusual challenges. For most of us, our businesses are doing well, and our industry has been reporting mostly good news; however, we are still dealing with supply chain issues.

I am honored to have been elected to serve as your NTMA Chairman for another year. During this past year, I have learned much more about the work being done, and the people doing it, at our National office in Cleveland. I have also had the opportunity to visit a few of our Chapters, meet many of our members, and tour some of your amazing businesses. I hope that I will do more of this in the coming year. Our Vision, Mission, and Strategic Focus areas are unchanged for 2022. We all know that growing NTMA membership and our Chapters needs to be our primary goal. We all know that new members join because current members invite them to join. We need your help. The National office will be continuing to increase our marketing efforts (both through traditional methods and social media) and our new Association Management Software (AMS) will help us better manage the needs of our current and future members. Why are you a member — and why should your peers join NTMA?

- Advocacy We have a strong and effective voice ONE VOICE in Washington. Through its
 efforts, we have helped our lawmakers understand what works and what doesn't work for
 small-to-medium sized manufacturing businesses.
- Networking Meeting in-person and/or virtually is vitally important for small-to-medium sized business owners to make and maintain industry connections. Those connections can be customers, suppliers, vendors, or competitors, and are all valuable to know.
- Learning NTMA provides several opportunities for Leadership Development and for equipping
 our Workforce with Education and Skills. These include NTMA-U, Apprentice Programs &
 Mechanical Aptitude Test, support for NIMS standards, Emerging Leaders Conferences, and our
 other in-person and virtual seminars and conferences.

Please join me in inviting all our business connections to join us at NTMA.

Thank you for entrusting me to serve as your Chairman for another year. I promise to do my best to help our National office, our Chapters, and you — our members. I look forward to meeting more of you in 2022 and working together to grow our membership.

Sincerely,

Alan C. Ortner

Alan E. Ortner - 2022 NTMA Chairman

NTMA Welcomes Kevin Ahaus as Executive Committee Member

Kevin is a 4th-generation manufacturing professional, and we are excited to welcome him and his vast and valuable experience to the committee.



Kevin has been active in the
NTMA since 1994, serving
on a variety of committees, including the Indiana
Tooling and Machining Association Board. In 2004,
Kevin took over as President of his family business,
Ahaus Tool and Engineering, Inc. He currently serves
on the Purdue University College of Technology
Richmond Advisory Board, as well as the Ivy Tech
Community College of Indiana Foundation Board.
In addition, he has also served as a Board Member
on the Wayne County Chamber of Commerce and
Economic Development Corporation of Wayne County,
as well as the Indiana Manufacturers Association and
the Purdue TAP Program.

Special Thank You to Mark Lashinske



We must also offer our thanks to Mark Lashinske, who will be leaving the NTMA Executive Committee this year. Mark began on the Executive Committee in 2016, completing two terms over six years. During that time, he served as Vice Chairman from 2017 to 2018, and as Chairman from 2019 to 2020. For his invaluable contributions to NTMA, Mark was presented with the L.A. Sommer Memorial Award at Manufacturing Engage 2021, honoring his long and outstanding service to the association.

In Memoriam: David R. (Ray) Kennedy Jr.

Long-time NTMA Member and Chairman David R. (Ray) Kennedy Jr. passed away on November 15, 2021. Ray's impact in manufacturing and on NTMA was



immeasurable, and his loss will be felt throughout the NTMA community. Ray began working at Kennedy & Bowden Machine Co., Inc. in 1955, then ascending to become President in 1964 and sole owner shortly thereafter. In this role, he guided the firm into becoming one of the leading Tool and Die Manufacturing firms in the region, remaining active in the operations of the business well into his eighties.

Throughout his career, he robustly supported an apprenticeship program that allowed promising high school students in Nashville to receive the training leading to careers as machinists and mold builders. Ray later became Chairman of the Board of the NTMA for 1993. A Navy veteran and with a profound love for his family, Ray is survived by his sons David, Peter, and Joseph, as well as his grandchildren and great-grandchildren. NTMA offers its condolences to the Kennedy family and Kennedy & Bowden Machine Co., Inc.

Donations may be made to the Tunnel-to-Towers Foundation (t2t.org) or Wounded Warriors Project (woundedwarriorproject.org) in his memory.

In Memoriam: Jim Selway

Long-time member of the NTMA San Francisco Bay Area Chapter, Jim Selway passed away on December 12, 2021. Jim had been a key member of the manufacturing

community in the San Francisco area and he will be deeply missed.



With deep roots in family and faith, Jim is survived by his brothers Pat, Chuck, Daniel, Dell, and Joe, sister Helen, wife Agnes, and his nine children and numerous grandchildren. NTMA offers its condolences to the Selway family and CNC Solutions.

Donations may be made in his memory to Daughters of Mary through the address: P.O. Box 205, Round Top, NY 12473

Global Shop Solutions Releases New Corporate Website

Software websites typically focus on the features and capabilities of a company's products. Global Shop Solutions, a leading developer of ERP software for manufacturers around the world, takes a more usercentric approach with the launch of its new website.

Designed to provide a richer, more immersive online experience, the site focuses on the needs of manufacturers wanting to learn how ERP software can simplify their businesses.

"Since day one, we have built our
ERP software based on the needs
and feedback of manufacturers, and
we do the same with our website,"
says Marketing Project Manager
Hilary Parchman. "We listen to the
voice of our customers and prospects
and constantly monitor the data our
website provides us. All three of these areas signaled
it was time to make our online experience simpler,
deeper, and more direct."

The new website's primary goal is to educate visitors about our company and our product while showing how Global Shop Solutions, ERP software can help manufacturers go from good to great. The website helps manufacturers understand why ERP will be their most valuable asset for satisfying their customers' needs and keeping up with the rapidly changing manufacturing industry.



The simple but elegant layout and intuitive navigation provide a cleaner experience with Global Shop Solutions' ERP software and the modules built into it. With one click, visitors can start an experience based on where they are in their ERP journey — researching, browsing, buying, or a current Global Shop Solutions customer — and quickly access the information they need to take the next step.

"Purchasing ERP software is one of the most important decisions a manufacturer can make for their future," says Senior Communication Specialist Ashley Calderon. "Our new website simplifies the research and educates manufacturers about the

entire process — from that first question to implementation to continuous improvement — and all supported by success stories so they can make the best decision for their company."

Global Shop Solutions, ERP software provides the applications needed to deliver a quality part on time, every time from quote to cash and everything in between including shop management, scheduling, inventory, accounting, quality control, CRM, and 25 more.

Available in the Cloud or on premise, our manufacturing customers benefit from real-time inventory accuracy, improved on-time delivery, lower administrative costs, increased sales, and improved customer service.

www.globalshopsolutions.com

Tolerance Tool Acquired by Beanstalk Collaborative Community Wealth

Beanstalk Collaborative Community Wealth acquired Tolerance Tool — a precision manufacturing firm operating in North St. Paul, MN since 1992.

Beanstalk Collaborative Community Wealth (www. beanstalkccw.com) acquired Tolerance Tool (www.tolerancetool.com), a highly skilled manufacturer of high-end injection mold tooling servicing demanding medical device and automotive customers, from co-founders Rich White and Tom Hoffer.

Beanstalk's mission is to maintain and grow community wealth by partnering with like-minded manufacturing owners who wish to preserve their legacies and keep their businesses, jobs, and economic benefits in their local communities.

Greg Kolbeck, General Manager, and Roland Hart,
Engineering Manager, with over 50 years of combined experience with Tolerance, will continue to lead the Tolerance team.

"Tolerance has a strong management team and staff, and we will continue to invest in people, process, and capital investment to maintain Tolerance's position as a high-quality American manufacturer of injection mold tooling," said Bill Smith, Beanstalk's Co-Founder. To support Tolerance's continued sustainability, and growth in the North St. Paul community, Beanstalk partnered with Platinum Bank,



a local community bank, to fund the transaction. "As a local, Twin Cities community bank, we are delighted to have helped fund this acquisition. We share Beanstalk's mission to keep these types of manufacturing businesses in our community," said David Faust, Platinum Bank CEO.

Beanstalk Collaborative Community Wealth is seeking high-quality precision manufacturing acquisition opportunities that support Aerospace & Defense, Medical Device, Automotive, Electronics, and Industrial Equipment Industries, with revenues of \$3-20M and/or \$500K+ in EBITDA.

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NTMA Northwestern PA Chapter President's Legacy Award

Lon Sippy was recently presented the President's Legacy Award by Ashleigh Wehrle, Chapter President, on behalf of the Northwestern PA (NWPA) Chapter of the NTMA. Lon has been a member of the NTMA for 42 years through Sipco, Inc. (1979-2009) and Highpoint Tool (2009-present). He has attended numerous NTMA conferences over the years. Lon served on the NWPA Chapter Board of Directors from January 2003-December 2012, the NWPA Chapter Marketing team from 2003-2011, and continues to serve on the Blue-Collar BASH Committee and the Greater Meadville Tooling Center Board.

During his tenure on the NWPA Chapter Marketing team, the team created and managed The Source from 2003-2008 and Top in the Shop from 2006-2011. The Source was a collective effort that provided Chapter members the opportunity to participate in trade shows as a group while representing their individual companies.

There was also a catalog and website for helping members to grow their customer base. Top in the Shop was a partnership between the Chapter and a local newspaper where members had the opportunity to feature a key employee to market positions available in the trade.

This committee also kicked off the Blue-Collar BASH as a way to recognize the Top in the Shop nominees. It grew into such a popular event, that after the Top in the Shop ran its course in 2011, the BASH has continued. It was not originated as a fundraiser, but the committee has morphed the Blue-Collar BASH into a major fundraiser that has raised \$145,740 for the Chapter since its inception in 2006.

Most recently, Lon founded the Sippy Historic Machine Shop to preserve a local historic belt-driven machine shop. It is set up as a replica of the shop Fred Davenport founded in 1906 and Frank Foriska owned and operated from 1962 to 1995. To provide some background, Albert Foriska made the difficult decision to put the contents of his family's vintage belt-driven machine shop up for auction in 2020. Lon stepped



forward and volunteered to move and preserve the equipment in a building he had custom built for this purpose. The NWPA Chapter of the NTMA purchased a full line of equipment and other artifacts that a designated team opted to acquire.

Lon coordinated moving the equipment and has spent countless hours getting it operational in its new home within eight months' time. He not only preserved the equipment, but also every minute detail from the flooring to the office, work benches, interior, and exterior of the building. It is absolutely incredible!

He is currently working on documenting the history he has uncovered throughout the process of setting

up the shop. Members of the NWPA Chapter NTMA community, the Davenport family, and the Foriska family appreciate Lon's passion for this project and cannot thank him enough for his generosity of time, money, and service to the industry.

"I believe this is one of the most important accomplishments of the last 40 years. The future of the tooling and machining industry will be impacted greatly thanks to Lon's vision and hard work."

- Bill Starn, Starn Tool and Manufacturing Company

"Our family really enjoyed seeing everything set up ... Lon did a great job ..."

- Pam Bell, Granddaughter of Frank Foriska

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Being Intentional When it Comes to Workforce Development

By: Bill Padnos, Executive Director, AMPED & National Tooling & Machining Foundation



Being Intentional is about bringing a commitment, focus, and attention to something important to you. It allows you to move forward — with intention - every day, working towards achieving the result or outcome you want.

Intention helps to increase your focus, time, and energy on your strengths — and stops you from letting fear hold you back. Intentional people are action-oriented and have an unshakeable determination and strong mindset to accomplish what they've set out to achieve.

The question is: are you being intentional when it comes to workforce development at your shop?

Do you have a strategy for employee training and the transition of institutional knowledge from one generation to the next? Do you have a focused playbook on how you are recruiting your new workforce — in particular, one that does not include an outside banner or a standard job posting?

For 2022, Make the Commitment to Being Intentional by:

BEING DELIBERATE WITH YOUR DAY

Identify the three important activities that will help you achieve the workforce development outcomes you want. There are so many directions that you can take when it comes to workforce development. Concentrate on just those three and then align them to your actions to ensure that you focus your time on these biggest priorities. This will ensure you feel proud

about what you've achieved, which boosts confidence and self-esteem.

BEING CLEAR ON THE RESULT YOU WANT

Align your workforce development vision with measurable goals to ensure you are motivated and focused to take action. Picture yourself having achieved your goal to understand the importance of your goals. When you have an emotional investment in your greater purpose and goals, you are intentional about taking action. Seeing what your shop would look like once you've achieved these goals increases your confidence and ensures you feel motivated every day.

BEING PURPOSEFUL WITH YOUR TIME

Understand the importance of your time by looking to achieve goals in the simplest, easiest, and fastest way possible. It is easy to over-complicate the process, particularly with the challenges presented by building your future workforce; set boundaries around your time, set aside time for self-care, and plan around your energy levels. Starting and ending each day with gratitude will help you protect your time and ensure you end each day feeling proud of what you've achieved instead of feeling that you are stuck in the mud.

BECOMING FOCUSED ON YOUR GOALS

Set goals and give yourself a plan and path to work towards every day and ensure you start your day with focus and purpose. Goals give you the motivation and focus to achieve your priorities at your shop.

This clarity gives you the confidence to structure your time and helps you invest that time and energy in your biggest priorities, particularly in workforce development.

Being mindful of your most important relationships brings deeper meaning to your most important relationships including your employees, as well as the institutions and individuals that are engaging your potential future ones. When you appreciate and take the time to understand why the relationship is important, you experience greater gratitude, abundance, and self-awareness. When you express gratitude to someone, their value to you grows — and that value in the manufacturing workforce development is key. Identifying what you want from a relationship ensures you are clear about the best result you want from that relationship.

Be more purposeful and deliberate when it comes to workforce development this year. There are now over a million open positions in manufacturing and that number continues to climb. 53% of your workforce will be at retirement age in eight years. NTMA has the resources to support your efforts, from training programs to recruitment strategies to outreach tools—and to help you take focused, clear, and goal-oriented action, building on that all-to-key idea of being intentional.

Please feel free to reach out to me at bpadnos@ntma.org or (216) 264-2828 for more information on all of these best practices and more.

Boosting Manufacturing Efficiency With New Version of HEIDENHAIN StateMonitor

Version 1.4.0 Now Available in Response to Manufacturers' Requests



In answer to requests from machine tool users around the world, HEIDENHAIN introduces version 1.4.0 of its popular StateMonitor software platform, enabling remote monitoring and data evaluation during real-time manufacturing. First introduced in 2019, StateMonitor has become an important option with HEIDENHAIN TNC controls to digitally connect and evaluate machine tool data on company networks as part of the Industry 4.0 initiative to boost efficiencies. Connected devices could include CNC control systems of varying brands as well as PCs and web-based mobile devices such as tablets or smartphones.

Designed to highlight data usage and encourage time-saving workflow methods using clear-cut charts and graphs, the new StateMonitor V1.4.0 now offers even more benefits. One of the many new features often requested and now available in StateMonitor V1.4.0 is the ability to monitor tools within a connected machine. This now allows users to collect current tool usage data and avoid unnecessary costs

due to premature tool replacement. The new software also now can view countdowns for any programs running.

Other important new functions include the ability to now view monitored signals on the Machine Status page, as well as String Signal data. Also, users can now customize the machine status by adding additional ones and changing to their liking when the machine is considered "Productive." All these were added per past users' requests.

And, unlike in the past, an interested customer now has the option to purchase a single machine license and can add on the more common five-machine license (StateMonitor Option 1) later, if desired. The StateMonitor Single Machine license already contains the "OPC UA Interface" so machines with third-party CNCs can be connected as well.

Another significant offering with this new version is a provision of additional StateMonitor Software Maintenance and Support from HEIDENHAIN. This software maintenance plan gives customers the ability to easily upgrade the software each time a new release is available. Also, a new direct international email support line is now available for highly technical or development questions at digitalshopfloor@heidenhain.de.

About HEIDENHAIN

DR. JOHANNES HEIDENHAIN GmbH, headquartered in Traunreut, Germany, develops and supports motion control feedback solutions for the machine tool, semiconductor, electronics assembly and test, metrology, automation, medical, energy, biotechnology and other global markets. HEIDENHAIN employs approximately 6,000 people worldwide in its core business activities. The North American subsidiary is HEIDENHAIN CORPORATION, headquartered in Schaumburg, IL, and San Jose, CA, and has been serving the US industry for over 50 years. Here nine company brands are represented. More information

at: www.heidenhain.us/about-us

BIG KAISER Changes Name to **BIG DAISHOWA**

BIG KAISER Precision Tooling, Inc. is excited to share important news concerning the name of its company. BIG KAISER Precision Tooling Inc. has changed its name to BIG DAISHOWA, Inc., effective January 1, 2022.

"BIG DAISHOWA is a global leader of tooling systems, and we have been a member of the BIG DAISHOWA group of companies for many years," said Jack Burley, President & COO. "The name change is a natural

evolution in this relationship. Being known as BIG DAISHOWA in North America will strengthen our corporate presence on a global scale.

"Our customers won't notice any change in our business day-to-day," Burley said. "They will receive the same superior products, personal support, and performance guarantee we've been delivering for more than 30 years."

The name change will not impact operations, product lines, staff, distribution, or licensing agreements in North America. The company will continue to offer the same high-precision tool holders, cutting and boring tools, workholding, tool measurement systems, and accessories manufactured in Japan, Europe, and US.



As a member of the BIG DAISHOWA Group
(Osaka, Japan), BIG DAISHOWA, Inc. has grown
into a recognized global tooling provider, with
manufacturing facilities in North America,
Switzerland, and Japan. In addition, BIG DAISHOWA
is the North American representative of Speroni tool
measuring machines, Sphinx high-performance drills,
mptec measuring stands, Tekusa spindle cleaners,
and the UNILOCK zero-point workholding system.







The Value of Membership

By: Carolyn Spector, Bracewell

Throughout the COVID-19 pandemic, manufacturers have seen their business rise and fall, the labor market tightening with both new and ongoing struggles making it difficult to find workers, and a shift in power in Washington, DC that created a wave of new challenges and opportunities for the manufacturing industry. Manufacturing remains the backbone of the US economy and NTMA has never faltered in our dedication to help members grow and achieve business success in the changing world in which we live.

At NTMA, we believe that success can only be found if our members, large and small, are thriving. We help you succeed through our advocacy initiatives, training and education programs, networking opportunities, and other initiatives to help achieve your business development goals.

NTMA is dedicated to helping its members succeed.

The following is a sampling of the comments from members about their experience and the value of their NTMA membership.

WORKFORCE DEVELOPMENT

The pandemic has only exacerbated the yearslong problem facing our members and the entire manufacturing sector of workforce development. Recruiting and training the next generation of manufacturing workers is consistently identified in surveys as the greatest challenge facing NTMA members. The manufacturing industry simply cannot grow without finding the next generation of workers. NTMA has made workforce recruitment and development its top priority through programs such as AMPED, NTMA-U, the National Robotics League, and more.

"The reason we went with NTMA-U is the natural progression of the material from basic or beginning machining concepts to advanced," said Darren Block, Statewide Department Chair for Precision Machining Technology at Texas State Technical College. "NTMA's material is extremely thorough and complete ... even with the books added to the cost it was still cheaper than the next closest competitor. To me, it was an easy choice and all of my instructors unanimously voted for NTMA."

"It is hard to put a price tag on the full benefit
Overton has seen from our involvement in the
NTMA, but I can assure you it is at least a
hundred-fold over what the membership costs."

Scott Buje CFO of Overton Industries

NETWORKING

NTMA provides opportunities for members to come together and learn from peers, leaders, and industry experts. Networking through NTMA allows members to develop new opportunities, brainstorm common business challenges, and share experiences to help one another grow. Members often report that some of the greatest value of NTMA membership comes from their peers.

"United Centerless Grinding & Thread Rolling reaps the benefits of the great networking opportunities [of NTMA]," said Normand Goulet III, COO of United Centerless Grinding & Thread Rolling. "Particularly, the close relationships formed within our local manufacturing community, as well as the services and benefits offered by members and associate members alike."

"What you put into [NTMA], you will get 2x out of each experience," said Amy Primrose, Assistant General Manager of Denver Precision Products.
"The networking with other trusted business owners is invaluable."

NTMA successfully adapted to a remote environment after the onset of the COVID-19 pandemic and provided new online learning and networking experiences to members. These programs attracted thousands of members. In October 2021, NTMA was able to bring members back together in person at its Manufacturing Engage 2021 conference in Alexandria, Virginia. As environments change, "Joining the NTMA has been an integral part of the success of JD Machine," said Matt Wardle, President & CEO of JD Machine. "I have learned so much, gained valuable relationships in networking with my peers across the country. I truly believe we are stronger together."

BUSINESS DEVELOPMENT

NTMA is dedicated to helping its members achieve profitable growth and success. Whether it's sharing the latest information on new technologies, developing workforce training and education programs for employees, or organizing opportunities for executives to meet and learn from their peers, NTMA works daily to provide its members with programs that help its members grow and thrive.

"Overton has found our membership in NTMA to be very beneficial," said Scott Buie, CEO of Overton Industries. "Recently we took part in an online webinar put on by NTMA and learned of a grant from the Indiana Economic Development Council. Overton was able to qualify for this grant and purchase over \$120K in equipment and use the grant for about half the costs."

"Involvement in the NTMA has led Overton to investigate and implement everything from the R&D Tax credit to Marketing and website development grants and projects," said Buie. "It is hard to put a price tag on the full benefit Overton has seen from our involvement in the NTMA, but I can assure you it is at least a hundred-fold over what the membership costs."

"[NTMA] has been vital to the success of [Focused on Manufacturing]," said Justin Quinn, President of Focused on Manufacturing. "Every benefit is worth taking advantage of. Industry partner savings on insurance, IT, coaching, and education have more than paid for my membership dues."

ADVOCACY

NTMA's One Voice advocacy team in Washington, DC is recognized as a major voice for small-and-medium sized manufacturers across the country. NTMA's team ensures that members' voices are heard on the association's top priorities — workforce, taxes, regulations, trade, and other issues. When the COVID-19 pandemic started in the US, NTMA, working with its One Voice advocacy team, immediately took action to help members meet the challenges they were experiencing. The advocacy team has hosted more than 50 webinars to share the latest information related to essential business operations, COVID-19 relief efforts, and more.

"Sirois Tool is a member of CTMA and NTMA because we believe it is important to join with other like companies to promote our needs to our local, state, and national leaders," said Alan Ortner, President of Sirois Tool Company.

NTMA's COVID-19 response information and webinar recordings are available online at https://onevoiceinfo.org.

www.NTMA.org

TOP 10 CYBERSECURITY BEST PRACTICES TO COMBAT RANSOMWARE

If you're like most IT professionals, the threat of a ransomware attack might keep you up at night. And you have a valid reason to worry — ransomware doesn't discriminate. Organizations across every industry, public or private, are potential victims if they haven't been victims already.

In fact, recent Veritas Technologies research suggests that the average organization has had 2.57 ransomware attacks that led to significant downtime in the past 12 months, with 10 percent experiencing downtime that impacted business more than five times.

Although ransomware can cause serious damage to your business and reputation, it's not invincible. In fact, it's only as strong as your organization's weakest link. The good news is that there are clear steps your organization can take to prevent being a cybercrime target and diminish the likelihood that an attack could take down your business.

Let's look at the 10 most impactful best practices you can implement today to protect your data and ensure business resilience.

1. Prompt Systems Upgrades and Software Updates

Using out-of-date software can allow attackers to exploit unmitigated security vulnerabilities. To reduce your attack surface, ensure you patch and upgrade all infrastructure, operating systems, and software applications frequently. It's also important to update your backup application. Don't fight today's ransomware with yesterday's technology.

2. Implement the 3-2-1-1 Backup Rule

If you back up your data, system images, and configurations frequently, you'll always have an up-to-date place to resume operations if ransomware does strike. Better yet, go one step further and avoid a single point of failure, by dispersing your data using the 3-2-1 backup rule.

This means keeping three or more copies in different locations, using two distinct storage mediums and storing one copy off-site. This will reduce the chances of an attacker gaining access to everything. This 3-2-1 approach also ensures that a vulnerability in one of those doesn't compromise all your copies, and it provides options if an attack takes out an entire data center. Many organizations are also now going one more step to 3-2-1-1, by keeping at least one copy on immutable (can't be changed) and indelible (can't be deleted) storage.

3. Implement the Zero-Trust Model

The zero-trust model is a mindset that focuses on not trusting any devices — or users — even if they're inside the corporate network, by default. Instead of just requiring a password (yes, even if it's long and complicated), also require multi-factor authentication (MFA) and role-based access control (RBAC), monitor for and mitigate malicious activity, and encrypt data both in-flight and at-rest, which renders exfiltrated data unusable.

It warrants sharing loudly and openly that you should never use factory passwords anywhere. Also, if you limit access to backups, you'll shut down the most common entry method for ransomware. Many

organizations are moving towards a just-in-time (JIT) security practice where access is granted on an as-needed basis or for a predetermined period of time, which is something to consider for crucial and business-critical data.

4. Network Segmentation

Attackers love a single continuous, flat network. That means that they can spread throughout your entire infrastructure with ease. An effective way to stop attackers and significantly reduce their attack surface is with network segmentation and microsegmentation. With this model, networks are divided into multiple zones of smaller networks and access is managed and limited, especially to your most crucial data.

It's also a common best practice to keep the most vital infrastructure functions off the web. Additionally, as part of your company's zero-trust model, consider segmenting third-party vendors, as there have been many notable attacks to supply chains resulting from vendor mismanagement. The Sunburst hack and Colonial Pipeline attack are two great examples.

5. Endpoint Visibility

Most organizations have a severe lack of visibility into remote endpoints. It has now become a common practice for bad actors to get past front-line security and hang out — staying dormant long enough to locate weaknesses and find the opportune time to attack. It is vital that you implement tools that provide complete visibility across your entire environment, detect anomalies, and hunt for and alert you to malicious activity on your network, giving ransomware no place to hide. This will help you to mitigate both threats and vulnerabilities before the bad actors have the opportunity to take action.

6. Immutable and Indelible Storage

As mentioned earlier, one of the best ways to safeguard your data against ransomware is to implement immutable and indelible storage, which ensures that data cannot be changed, encrypted, or

deleted for a determined length of time. However, the term "immutable storage" has become somewhat of a buzzword across backup vendors these days. Look for immutability that is not just logical but also includes physical immutability, and it's important to include built-in security layers.

The industry is moving towards two types of immutability. At Veritas, we call them Enterprise Mode and Compliance Mode. Enterprise Mode is known as a "four eyes" approach — meaning you need two sets of eyes to validate any change. For example, the first pair of eyes is the backup admin's, and the second pair of eyes is the security admin's. Without both providing approvals, no alteration is possible. Compliance Mode refers to un-alterable immutability, which is data that is not changeable under any circumstances. Both modes include a Compliance Clock that is completely independent of the OS so that if the OS clock is spoofed, it does not affect the release of the data.

7. Rapid Recovery

Most ransomware attackers hope for two things: Time for the attack to spread; and money (from you) to make it stop. Historically, recovery could take weeks or even months when it was an extremely manual and labor-intensive process that extended across multiple stakeholders within an organization. Now, recovery can be orchestrated and automated with flexible and alternative options — such as rapidly standing up a data center on a public cloud provider — that can shorten downtime and provide alternatives to paying a ransom. With the right systems in place, recovery times can be reduced to seconds if necessary.

8. Regular Testing and Validation

Creating a comprehensive data-protection plan doesn't mean your job is finished. Testing ensures your plan will work when you need it. And although initial testing can confirm all aspects of the plan actually work, it's critical to test regularly, because IT environments are constantly in flux.

Importantly, any plan is only as good as the last time it was tested, and if you don't test, then there is no guarantee that you can recover quickly! It's also vital to implement solutions that test to a non-disruptive, isolated recovery or sandbox environment.

9. Educated Employees

It's common knowledge that employees are often the gateway for an attack. Don't blame your employees — mistakes happen. Modern phishing attacks and social engineering are now so advanced that they often fool security professionals.

Instead, focus on training employees to identify phishing and social engineering tactics; build strong passwords; browse safely; utilize MFA; and always use secure VPNs, never public Wi-Fi. Also, ensure that employees know what to do and who to alert if they fall victim.

10. Cyberattack Playbooks

Imagine if everyone in your organization knew exactly what to do and when, in the face of a ransomware attack. That's not impossible if you create a standard cyberattack playbook that clarifies roles and aligns and empowers cross-functional teams with clear communication paths and response protocols in the event of emergencies.

A great piece of advice is to set up an emergency communication channel on a secure texting app for senior leadership of your organization to communicate in the event of a cyberattack, as company email or chat systems may also be down as a result of the attack. It is also a great idea to hire a third-party agency to audit your team's strategy and check your work.

You have the power to take important steps to combat ransomware and flip the tables on cybercriminals. By putting together a multi-layered ransomware resiliency strategy that includes the best practices above and impeccable cybersecurity hygiene, you can stop attackers before they gain a foothold.

Threatpost InfoTec Insider

This article was originally published on Threatpost InfoSec Insider. Enjoy additional insights from Threatpost's InfoSec Insiders community by visiting their microsite.

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The Importance of Conducting Workplace Investigations

By: Stephen B. Maule, Partner, McMahon Berger

Recent high-profile cases of workplace harassment have reinforced the need for employers to ensure they are properly trained in how to conduct investigations of alleged misconduct. For example, professional hockey's Chicago Blackhawks have been accused of failing to investigate and address allegations of sexual assault by a coach, resulting in the team's General Manager resigning and the organization being fined \$2 million. Significantly, an independent investigation concluded the organization became aware of the allegations but put off investigating them until after the playoffs had concluded, despite having in place a policy which required a prompt investigation into such allegations. Even after the playoffs were concluded, the organization never conducted an investigation into the allegations; instead, it allowed the coach to resign from his position.

Other big-name employers, such as Amazon,
Bloomberg, Fox News, Goldman Sachs, Johnson
& Johnson, and Warner Brothers, have faced
lawsuits in recent years alleging harassment.
Further, in Fiscal Year 2020, the Equal Employment
Opportunity Commission, the federal agency
responsible for investigating such claims,
received 6,587 charges of discrimination alleging
harassment based on sex, nearly ten percent
of all charges received by the agency.

There are many lessons employers should take from these cases. It is critically important, and required by law in most jurisdictions, to have a well-drafted policy prohibiting harassment in the workplace. Such a policy should include, at a minimum, a statement prohibiting such conduct, a description of the type of conduct that is prohibited, a detailed procedure of to whom complaints should be made, a clear expectation that complaints will be investigated, and a prohibition against retaliation.

Equally as important is conducting regular training on the organization's policy to management and supervisors as well as all other employees. As with the requirement of having a harassment policy, some states require annual training on harassment (i.e., California, New York, Illinois, to name a few). In the absence of effective training, managers/supervisors will not appreciate their obligation to refrain from

STOP

engaging in certain inappropriate behaviors as well as to recognize and take necessary actions to stop unlawful behavior in the workplace. Further, without proper training, employees may not understand what is improper and how they can report misconduct to the appropriate company representative.

Finally, employers must be aware of their responsibility to investigate reports of unlawful conduct and, if proven, take effective action to make sure it stops and does not happen again. If an investigation discloses the occurrence of unlawful harassment or discrimination, an employer can take prompt remedial action to significantly reduce its liability in the event a charge of discrimination or civil lawsuit is filed. Alternatively, if the investigation concludes there is no evidence of wrongful conduct, or that the alleged victim was a willing and active participant, then the employer will have a defense to future claims.

Conducting an internal full and fair investigation, or hiring an independent investigator where appropriate, will always be in the best interests of the organization to minimize liability. Employers are well-advised not to ignore allegations of harassment or discrimination raised by employees, but to act swiftly so that the issue is addressed and, hopefully, resolved to the satisfaction of all parties involved.



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Opening Keynote:Will 2022 Be the Year That Things Get Back To Normal?





Michael Guckes, Chief Economist for Gardner Intelligence will reveal the present state of manufacturing using Gardner's proprietary Business Index along with macroeconomic research. This presentation will further discuss the nexus of supply chains, production and employment. It will also explore the state of the consumer nearly 1-year after the end of the paycheck protection plan which boosted disposable income and sent demand for durable goods soaring in 2021. Gardner Intelligence's presentation will provide attendees with a clear picture of today's metalworking manufacturing landscape, actionable insights, and practical resources (some even freely available) that you can use to monitor changing business conditions for yourself.

General Session:

The Reshoring Surge – Learn the Benefits for Your Shop **Presented by Harry Moser**



Reshoring is surging nationally. For decades, we lost 10,000s of business and millions of jobs to offshoring. It is now clear that shorter supply chains are lower risk and are more profitable for OEMs for 20 to 30% of products that are now imported. Over 1 million jobs have been announced reshoring since 2010. Find how to benefit from the trend. Takeaways include how to:

- · Identify the products most eligible to reshore.
- · Quantify the costs and risks of offshoring.
- · Find companies that import what you make.
- · Convince companies to reshore and buy from you.

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Let's Talk About Value and Vision for 2022

By David Capkovitz, EBITDA Growth Systems

As Mike and I look over the last year we think of how thankful we are for all this is going on in the machining industry right now. Even in a time where we have to work against another COVID-19 variant and whatever social tension may come our way, there is so much to be thankful for. We have seen record amounts of job availability in the market, a larger number of projects being awarded from large customers along with more company owners focusing on building strong cultures. This mixed with a ton of enjoyment working with many owners has us really encouraged about what is to come in 2022.

WE HAVE MORE VALUE TODAY THAN WHAT WE PERCEIVED IN THE PAST.

The owners of many NTMA member companies are driving into 2022 with a clear understanding of their value. This has been encouraging as this has not historically been "the norm" that we have seen over the past 10 years. Many companies' owners value themselves at when they perceive as "what the market will bear.æ The truth is that making a good part on time is so coveted in our industry that it is okay to pay a premium for reliability. There are three things that customers pay for: Quality (always non-negotiable), Delivery (negotiable), and Price (negotiable). I have always said that the customer can pick any two with Quality being non-negotiable. There is value here! If you purchase a new machine at \$300k it will take you approximately 8,100 hours, or 4 years to pay for that machine using a \$65/hr. rate and approximately 4,100 hrs., or 2 years using a rate of \$100/hr. (applying standard rates). A \$100/hr. rate is totally acceptable with our obligation to take care of our employees

and assure that the customer is getting the highest quality possible with a quality piece of equipment. Our customers expect us to be consistent and reliable without aging equipment.

VISION IS HOW WE GET TO OUR GOALS.

As owners, we have the opportunity every year to look at our mission, vision, and values and give ourselves a gut check to see if we are on the same set of train tracks that we laid out for ourselves when we set our goals. This vision is what we need to keep our employees engaged, keep our revenue targets within reach, and to keep product flowing through our shops as we expect. This starts with a solid plan around our business from sales to production to our finances. As we build these series of plans, we align them with our financial goals, operations goals, sales goals, etc. We use this as our roadmap to share with our team, share with our customer's and with those who hold us accountable. Often times we manage by looking in the rearview mirror at what just happened. I want to encourage you to manage to look through the windshield, a clean, clear windshield that provides vision to your roadmap that is in place.

As we cast our our vision into 2022, be encouraged, you have a bright future ahead of you. Realize the value of what you provide, what your employees bring to the table, and the need for YOU in the market. Continue to drive your success with a clear plan, and strength in your vision to get up every day and accomplish your plan. In this, you will set an example for your team, your family, and your peers. We are all in this together and know that we have some great times ahead!





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The Latest Trends and Investment Insights

By: Anna Rathbun, Chief Investment Officer, CBIZ

COVID-19 continues to propagate itself through the global population, however, US markets still managed to post double-digit returns for 2021, perhaps a little on the defensive side to round out the year.

HIGHLIGHTS

- The S&P 500 Index ended 2021 having reached a 70th record high, returning 4.5% for the month of December and a 28.7% gain for the year.
- Amid the uncertainties rising from the new omicron variant to conflicting policy directions from global central banks, December revealed a market that is desperately looking for some clarity.
- International markets benefited overall from a slightly weaker US dollar, with the currency having traded mostly sideways during the month.
- Developed market equities provided strong returns despite some policy restrictions on mobility as a response to the Omicron variant.
- This month in the fixed income markets, the US
 Treasury yield curve shifted up, posing a



headwind for fixed income investments with higher duration profiles.

Despite the upward movement of the yield curve, the 10-year Treasury yield finished the year at 1.5%, and the 30-year yield below 2%, contrary to what the markets anticipated during the first quarter 2021 when we realized how effective the vaccines were at preventing hospitalizations.





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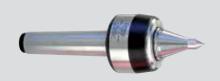
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Excitement is growing for IMTS 2022 - The International Manufacturing Technology Show, taking place Sept. 12-17, at McCormick Place in Chicago, Illinois.

IMTS 2022 will encompass all levels and all four buildings of McCormick Place. More than 1,200 companies are exhibiting covering 1.1 million square feet of exhibition space.

Check out the show at: MTS.com/show22 See who's exhibiting at IMTS.com/floorplan.

In addition to the exhibits, the six-day event will feature close to a dozen conferences and workshops including the IMTS Conference and tailored programs for job shops, women in manufacturing, and design and application engineers.

Technology Highlights

The theme for IMTS 2022 is Digital Manufacturing. Implemented. "As manufacturers wrestle with supply chain and workforce challenges, they are increasingly searching and adopting digital manufacturing practices and products," says Peter Eelman, AMT vice president and CXO. "IMTS 2022 will be replete with CNC and additive machine builders; CAD-CAM, modeling, and simulation software; metrology systems; and other digitally-enabled tools."

"We can expect to see transformative technologies embedded within much of our industry's traditional machines using automation and robotics, additive manufacturing, augmented and virtual reality, digital twin, generative design, and more," says Tim Shinbara, AMT vice president and chief technology officer.

IMTS 2022 will again host AMT's Emerging Technology Center presenting advancements from the Manufacturing Demonstration Facility at the U.S. Department of Energy's Oak Ridge National Laboratory.

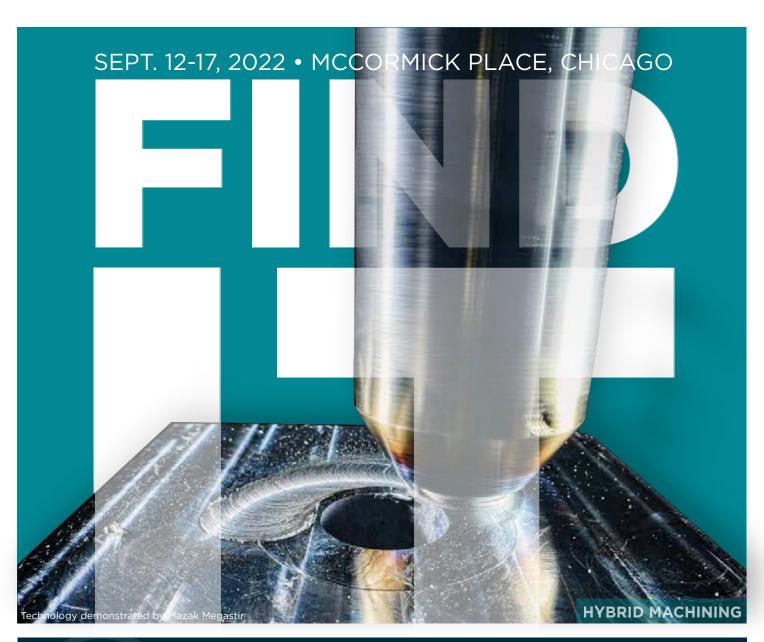
The Onshoring Project

For the first time at IMTS 2022, on Friday, September 16, the Onshoring Project will host an event for OEMs, subcontractors, and job shops to convene on achieving and maintaining agile supply chains for North American companies. For more information, visit TheOnshoringProject.com.

Expanding Industry

"Digital technologies and the positive economic outlook have spurred industry innovation and adoption to gain new efficiencies," says AMT President Doug Woods. "As the demand for manufacturing technology surges, IMTS 2022 will introduce technologies that will thrust the industry ahead by leaps and bounds."

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