AUGUST 2022

THE RECORD

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5 Tips to Engage Visitors BEFORE and DURING Trade Shows pp 24-25

Tons to Discover at IMTS p 28 and so much more ...



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Emerging Leaders Conference '22 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 John Stevens at jstevens@ntma.org**

Upcoming Themes for The Record

September

MFG Day 2022 ... It's Our Day. Don't Miss the Opportunity!

October

Automation & Robotics ... Where are you on the Journey?

You can help today simply refer a member to NTMA.

THE RECORD

OPERATIONS & EDITORIAL

Roger Atkins, President Doug DeRose, Editor Rena Montedoro, Editor

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To advertise in The Record, or for information on publishing your corporate newsletter or sales literature, contact Linda Warner at (216) 264-2837 or via email at Iwarner@ntma.org for advertising and editorial content.

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PRESIDENT'S UPDATE

The year continues to fly by, and we find ourselves making plans and strategizing for the remaining two quarters. This year for most manufacturers and NTMA members, that strategy includes your potential involvement or attendance at the International Manufacturing Technology Show (IMTS) 2022. Yes, we are finally back to an in-person IMTS after 4 years—what a relief. Video conferences and Zoom calls can and have filled the gaps when necessary, but when it comes to high-tech and cutting-edge technology, nothing replaces face-to-face interaction and collaboration. On behalf of all of NTMA, we say **"WELCOME BACK IMTS 2022."**

This month's focus is **"IMTS 2022...Network, Educate, Purchase...What's your plan."** I think the key part of that focus is **"what's your plan."** Throughout my career, whether I was part of a small or larger shop, we always considered our attendance and associated plan for IMTS. I remember early in my career, IMTS was the "every other year meet-up place" where manufacturers gathered for a multitude of reasons. For some of you reading this, the internet did not exist early in my career, therefore owners and managers utilized IMTS as a place to connect with industry acquaintances. They walked the aisles to look and dream about the "what if," and then occasionally made a show floor purchase.

I give that history because the reasons and focus have changed over the years. Today, IMTS is seen as the technology center of our industry. We so often think and visualize that IMTS is all about machine tools, which is partially true. IMTS is focused primarily on machine tools while also focusing on all the ancillary support equipment, work holdings, tooling, software, shop-related products that maximize the use of the equipment, and management tools you currently have or plan to purchase. Today people who attend have higher expectations, desiring a show experience that transcends back to their shop floors, education and exposure to the new and future technology, and discussions about the ever-changing manufacturing landscape, expectations, and requirements. Today's IMTS attendees want to leave better than they came, becoming better educated and more prepared for the demands placed on our industry such as efficiencies, productivity, cost reductions, increased output while not adding more workers, and so much more. Thus, I go back to what I mentioned above as the key focus: "what's your plan." With a career in manufacturing and having attended numerous trade shows during that time, one thing I learned is you must have a plan. Otherwise, you will leave the show thinking it was good and interesting but you won't have any actionable tasks.

My most recent reminder of the importance of having a plan happened several years ago when I attended the EMO Show in Hannover, Germany. In layman's terms, it is the IMTS of Europe. It was my first international show. When I got to Germany, I received the show book with all the companies and their booth locations. The book was more than 2 inches thick. When I arrived at the show location the next day, I realized we were not going into a building for the show, but rather the show was made up of 22 buildings spread over one square mile. I had no plan and had little hope of accomplishing what I might have accomplished if I had been better prepared. Luckily in this case I had gone more to be exposed to the show, rather than going as a manufacturer on a mission. Either way, I was painfully reminded about the importance of having a plan.

I say all this to remind each of you, if you are planning to go to IMTS, start planning now. Talk to your employees and key leaders and ask them to analyze your internal needs, challenges, and potential opportunities. With that information, together, start identifying potential solution providers that might be exhibiting at IMTS. September will be here before you know it. As a friendly reminder, travel arrangements are key to your attendance. Hotels will fill up and with the current air travel challenges, I would suggest acting on both immediately.

Regardless of your shop's size, I believe IMTS 2022 is important for us all. After two years of being isolated, in many cases from face-to-face, technology-driven, and needed solutions discussions, one may call this an "urgent show" for the US manufacturing community. I encourage you to consider your company's attendance. **"Plan and Prosper"** at IMTS 2022. And don't forget to bring your most comfortable walking shoes.

In closing, NTMA continues its upward membership growth completing our fifth month out of six months of positive net growth for the association. As a Member and as a Chapter, continue to invite new companies to join. Our VOICE is being heard and the more members we have, the stronger that VOICE can be for small to medium size US manufacturers.

There is Strength in Numbers.

Roger Atkins, President – NTMA

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NEW MEMBER HIGHLIGHTS



GREENE, TWEED & CO. New Jersey, Philadelphia, NE Pennsylvania Chapter

Greene Tweed is a leading global manufacturer of high-performance elastomers, thermoplastics, composites, and engineered components that can withstand harsh conditions, such as extreme temperatures, pressures, and corrosion. Greene Tweed products and materials are used in commercial aircraft, oil and gas wells, semiconductor chip manufacturing, life science, defense, and other industries to solve some of the toughest sealing, connectivity, lightweighting, and wear challenges.

At the leading edge of product development for more than 150 years, Greene Tweed is known for collaborating with its customers to explore and test new materials and designs for critical applications—from concept collaboration to prototype testing to validation and production of finished parts. Its best-inclass portfolio includes Chemraz® perfluoroelastomers that ease concerns about seal failure due to chemical compatibility and high temperatures in a variety of applications across multiple industries, Arlon® thermoplastics that raise the bar for operating in high-temperature environments, and Xycomp® thermoplastic components that provide lightweighting solutions. Greene Tweed continues to push the boundaries of material science to enable their customers' critical equipment to survive and thrive in aggressive operating conditions.

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PETERSEN PRECISION ENGINEERING, LLC San Francisco Chapter



Petersen Precision has been manufacturing high-precision metal parts for more than 50 years. Petersen Precision has expanded its capabilities considerably over the years and currently specializes in fine blanking, wire EDM and CNC machining, CNC turning, Swiss CNC machining, and numerous precision grinding processes. They also work with a variety of materials for each of these services.

Petersen Precision has more than 55,000 square-foot of AS9100D/ISO 9001-certified manufacturing space between the plants in Redwood City, CA and Roseville, CA. This includes an in-house tool and die shop that provides design, fabrication, and maintenance of their fine stamping dies and CNC fabrication tooling. An on-site engineering staff supports production by offering solutions to make custom metal parts faster, easier, and less expensive to manufacture. The team's engineering expertise includes lean manufacturing, Six Sigma-based process analysis, DOEs, statistical process control, PPAP, and more to provide customers with value-added services.

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AZURE MICRODYNAMICS, INC. Los Angeles Chapter Member



AZURE MICRODYNAMICS

Azure MicroDynamics, Inc. is a Precision Micromachining Specialist, serving the medical device industry. Since 1997, they have built their reputation by providing customers with high-quality, complex, tight tolerance components and subassemblies. They are ISO 13486 certified and utilize a variety of CNC equipment including Multi-Axis Swiss-Style, 5-Axis Mill Turn, 3/5 Axis Milling, Wire EDM, and EDM Drilling. Their machining is supported with a variety of tumbling and deburring processes, abrasive blasting, citric passivation, laser marking, laser welding, and a state-of-the-art quality control lab.

None of this equipment can produce a single part without quality people. Over the years, they have cultivated a strong culture and team that support their Core Values: Quality, Team, Excellence, and Innovation. Azure MicroDynamics prides itself on machining parts that reach the limits of possible and looks forward to serving more customers as the company continues to grow.

19652 Descartes Foothill Ranch, CA 92610 (949) 699-3344 www.azuremd.com

MANUFACTURE YOUR LEGACY

"As a career long member of NTMA, I've been a beneficiary of industry talent funded in part by the NTMF. My business(s) have benefitted from the foundation and it is my desire to pay forward to future generations of precision machinists through a legacy donation. Including NTMF in my estate planning was easy and feels great. I'm comforted knowing that future generations of machinists will be possible through my lifetime and legacy commitments to NTMF."

Eric Hagopian, President/CEO - Pilot Precision Products

Do you want to make a significant impact to the metalworking community that will help to close the manufacturing skills gap and leave a legacy for generations to come?

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P: 216-264-2828 / E: bpadnos@ntma.org



ntma.org/about/foundation/

GIRLS EXPLORING ENGINEERING DAY: TAPPING INTO TOMORROW'S WORKFORCE TODAY

By: Molly West, Pittsburgh Chapter NTMA

There's a paradigm shift in the STEM fields. In the name of diversity and innovation, companies are seeking female employees to fill their ever-growing high-tech openings. Vibrant organizations are offering networking and educational events across the country to support women in science, technology, engineering, and math. Scholarships abound for young women interested in these fields of study. However, these opportunities are left unanswered unless that shift begins not just with women, but with girls.

Earlier this year, the Southwestern PA BotslQ team partnered with CCA Techworks and Women in Manufacturing (WiM) to offer Girls Exploring Engineering Day to female high school students. The February event brought teens from Southwestern PA high schools to the Commonwealth Charter Academy in Homestead, PA. The day was designed to spark the girls' interest in STEM—particularly, manufacturing. "This was the first time that BotslQ offered a girlsonly event, but because of the interest, excitement, and positive feedback, it certainly will not be the last! We are looking forward to hosting many more opportunities that introduce young women to a future in manufacturing," said Michel Conklin, executive director of BotsIQ.

The event hosted an impressive group of speakers including prominent women in the industry. Melissa Monarko of Metal Solutions Inc., Barbara Price from the American Association of University Women, Claire Niederriter a biomedical engineer from DePuy Synthes, Maddie Reineberg a design engineer at JV Manufacturing, and Stephanie Stoughton an environmental engineer from Domtar all clearly illustrated what success looks like for women in the engineering and manufacturing fields. The students learned about collegiate-level engineering programs and then tried their hand at the skills used in STEM careers.

Student participants built sewable circuits and programmed collaborative robots. The girls learned about metal castings and sand molding, as well as the basics of plastic injection and mold making through interactive lessons. Tech-savvy women and



men led the instructional sessions and offered insight into engineering and manufacturing careers that may be outside the scope of the students' usual biology and chemistry classes.

According to statistics from the US Department of Labor, the number of women in the STEM fields has grown 20% since 1970, but females still only represent about 28% of STEM workers in the United States. With STEM occupations projected to grow by 10.5% between 2020 and 2030 (US Bureau of Labor Statistics) America will need qualified workers to fill these well-paying positions—particularly those in the manufacturing sector. Many believe the key to future success starts with training and exposure that begins long before young people enter the job market.

Programs like Girls Exploring Engineering Day can pique a girl's interest in an otherwise unconsidered career field. Hands-on activities can highlight undiscovered talent and sessions like this can be a gateway to developing an untapped workforce.





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ENGAGE SUMMIT EAST – GIVING BUSINESSES A SPARK!

NTMA Members discovered how to continue the momentum for the manufacturing industry at NTMA ENGAGE SUMMIT EAST, held in Philadelphia, PA, on June 6-8, 2022. The 2021 SUMMIT marked the third in-person event from NTMA for 2022, and the clear excitement and enthusiasm from the 90 member attendees helped guide this SUMMIT to great success! NTMA continued to provide top-quality programming for all attendees at this summer SUMMIT.

Keynotes included an economic forecast from The Association for Manufacturing Technology's (AMT) Chris Chidzik, looking at the key impacts coming to manufacturing and various sectors in the second half of 2022; and an evaluation of key technologies from Marlow Knabach of DMG Mori USA, outlining how machine shops can mitigate future issues and disruptions, and find new business opportunities.







The SUMMIT also included nine breakout sessions where members tackled a wide range of subjects, including Cybersecurity Maturity Model Certification (CMMC) compliance requirements and certification considerations, leveraging marketing discussions to create quality sales lead generations, applying smart standards to training systems, and much more. Members also heard from NTMA's team in Washington on how the latest government action, as well as inflation and supply chain shortages, were affecting manufacturers; as well as an expert industry panel on the value of partnerships and how they can benefit machine shops. During the event, attendees were able to tour NTMA member shop Rosenberger North America, both based in Philadelphia, PA. The SUMMIT also featured a special evening event, "Ode to Philly", at the Craft Hall, giving attendees the chance to network and make new connections in a casual, social environment.







NTMA members will have the opportunity to gather again at NTMA's premier annual event – **MANUFACTURING ENGAGE 2022**—in Kansas City, MO, coming October 25-28, 2022. This year's Conference promises to provide attendees with Networking That Builds Business—plus a fantastic line-up of informative speakers, engaging roundtable discussions, and off-site opportunities.

To learn more and register, please visit: www.manufacturingengage.org









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DATANOMIX ANNOUNCES AUTOMATED DOWNTIME INSIGHTS™

Datanomix, maker of the industry's only Automated Production Intelligence[™] software platform, announced a major new capability: Automated Downtime Insights[™]. This capability furthers the company's mission to deliver the next generation of production monitoring and expands its lead as the industry's only hands-free production monitoring platform.

The Datanomix Platform is known for automating the collection and analysis of manufacturing data and delivering deep insights into production performance, both in real-time and over-time. Designed for growthoriented precision manufacturers, the Datanomix platform delivers industry-leading innovation of manufacturing productivity with no operator input required, and without burdening the end user with cumbersome analysis or data crunching.

Many first-generation monitoring systems require operators to enter reason codes when a machine has gone down, an approach that has resulted in the broad failure of many monitoring projects. The combination of labor shortage challenges, operator apathy towards manual data entry, and the general lack of utility of downtime reason codes has caused widespread industry frustration.

Automated Downtime Insights are a significant capability that Datanomix has added to an already impressive platform. Using advanced analytics techniques, Datanomix can automatically determine expected and unexpected downtime events and derive reasons for those downtime events during live production.

While the Datanomix platform has never required operator input or downtime reason codes to provide valuable insights, this functionality offers additional process improvement opportunities for companies that need to increase performance in the current labor- constrained and demand-heavy environment. "Automated Downtime Insights are yet another significant feature that is the direct result of deep customer collaboration, an approach that has been core to our identity since day one," said Greg McHale, Co-Founder and CTO of Datanomix. "Automatically determining expected vs. unexpected downtimes and annotating those with reasons that are derived from the machine data inside of the Datanomix platform is a major accomplishment for our team and provides a clear target for our customers on not just which processes to improve, but which steps in those processes provide the greatest opportunities for consistency and margin improvement."

Simply visualized and annotated within the Datanomix platform, Automated Downtime Insights offer a clear picture both real-time and over-time as to the sources of variance within critical processes. Existing Datanomix customers receive this capability via routine updates the company provides as part of its subscription service.

The Datanomix platform distances itself from first-generation production monitoring by offering a solution that focuses on the user experience with the following innovations:

- No Operator Input: Stop pulling operators away from machines for data entry— data is pulled directly from machine controllers to deliver contextual insights automatically
- Benchmarks, Scores, and KPIs: Automated job performance data for every single part made on every machine, with no configuration—just insights based on derived benchmarks
- Visualizes Existing Workflows: Production meetings, continuous improvement, margin opportunities, and more—matches the way manufacturers work

- Reports and Dashboards: From day one, standard reports and dashboards provide actual insights and direction—not raw data that still needs processing
- Best-of-Breed Integrations: Work with top partners to provide solutions to real problems not just simple data connections that may offer value
- Elevate Company Communication: Consistent, accurate metrics provide a common data language for the entire team—everyone is on the same page
- Workforce Training: Datanomix reports and trend charts show work cell improvement over time – it tells the complete story

To see Datanomix in action, please visit: www. datanomix.io/schedule-a-demo/



About Datanomix

Datanomix delivers Automated Production Intelligence for discrete manufacturers with no operator input required. Its core product set includes its flagship Production Monitoring system, along with Digital GEMBA Boards, and Condition Monitoring systems. Based in New Hampshire, Datanomix exists to provide manufacturers with out-of-the-box reports and workflows that align with the way manufacturing people already work, without the need for manual data crunching or workflow disruption.



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Emerging Leaders 22 Preview Caitlin Sickles

The Emerging Leaders Conference 22 is designed for up-and-coming professionals who are looking to advance their careers and companies through learning, engaging, and networking – and this summer, in Indianapolis, there will be plenty of opportunities for attendees to take part in all three!

NTMA is happy to be joined by Caitlin Sickles from The Policy Resolution Group at Bracewell LLP, who will not only be the emcee for this year's conference but will also kick things off on Monday, August 6 with a special.



Caitlin Sickles is a principal in the Policy Resolution Group at Bracewell LLP. For over a decade, she has supported major corporations, industry associations, and nonprofit organizations in advancing their advocacy priorities and achieving their business objectives by strengthening their brands, thus enhancing the way they communicate with their target audiences.

At her core, Caitlin is a writer and storyteller. She works closely with her clients to capture their unique perspectives and elevate their voices through traditional, new, and social media.

Caitlin has worked with NTMA for her entire career. Over the years, she has helped NTMA's leadership shape the association's public presence by managing media relations and supporting members with important national, local, and trade media opportunities.

As a millennial herself, a passion project for Caitlin is shining a spotlight on up-and-coming industry leaders. She is proud of her generation's approach to leadership rooted in authenticity, accessibility, and accountability.

Caitlin is a co-host of the Talking with One Voice podcast and is on Twitter and Instagram @caitlinsickles.

General Session:

Positioning Yourself for Leadership

Leadership looks different for every person, company, and scenario, but there are some tried and true techniques.

Led by Caitlin Sickles, who has provided strategic communications support to NTMA and major corporations, industry associations, and nonprofit organizations for over a decade, this session will focus on strategies for finding your voice as a leader and positioning yourself for success. Caitlin will share tips from her experience prepping executives for high-stakes public speeches, congressional testimony, and national media interviews. She will walk through her own analysis of leadership traits based on dozens of interviews she has done with current and future manufacturing industry leaders. This session is appropriate for anyone seeking a role in the C-Suite.

NTMA Emerging Leaders Conference Monday, August 29 - Wednesday, August 31

Location: Marriott Indianapolis Downtown 350 W Maryland St, Indianapolis, IN 46225 Negotiated Room Rate: \$165 Room Block Deadline: Friday, August 5th

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Topics & Speakers

Conference Emcee - Caitlin Sickles

Position Yourself for Leadership Presented by: Caitlin Sickles - Principal, Policy Resolution Group at Bracewell

How to Turn Community Engagement Into Your Competitive Advantage Presented by: Kristin Carlson - President, Peerless Precision, Inc.

Leaders are Not Born. Leaders Are Made. Presented by: Dave Capkovitz - Principal, EBITDA Growth Systems & Mike Watkins - Principal, EBITDA Growth Systems

How to Utilize Social Media to Advance Your Company and Yourself Presented by: Bill Skowronski - Senior Content Marketing Manager, Red Caffeine

Be the Voice of Emerging Technologies in Your Shop Presented by: Ben Barton - Solutions Engineer, Paperless Parts

*Sessions start by 3 pm on Monday, August 29, and wrap up by 11:30 am on Wednesday, August 31.

Campfire Chat Topics

Your chance to sit down in a small group setting and discuss the following topics peer to peer:

- Wage Inflation
- Time Management Strategies
- Retaining Employees
- Delegation & Communication

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Questions? Contact Kristen Hrusch – khrusch@ntma.org or 216-264-2845



NTMA SERVICE AWARDS 2022 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 12th, 2022. For a nomination form, contact Linda Warner at Iwarner@ntma.org



For more information, please contact

Linda Warner at Iwarner@ntma.org or 216-264-2824. Applications and self-assessment documents can be found here: https://ntma.org/resources/ntma-awards

Applications should be sent to 6Saward@ntma.org

NTMA 6S Excellence Award PURPOSE:

To improve the perception of American manufacturing by promoting and recognizing excellence in member shop organization and efficiency.

HOW IT WORKS:

- NTMA companies apply for the award by submitting a self-assessment based on criteria that demonstrate best-in-class practice in the six S's:
 - 1. Safety 2. Sort 3. Set in Order 4. Shine 5. Standardize 6. Sustain
- Certificates are awarded every year for the first five years based on self-assessments submitted. Once the recipients receive five certificates, they are also presented with a trophy.

SPONSORSHIP OPPORTUNITY:

- Conference exposure via introductions, etc.
- Promotional exposure: web, print, blogs, and emails that promote and support the award.

SUBMISSION DUE DATE:

Please submit your application by September 1, 2022 to be considered.

NTMA & AMT TECHNOLOGY AWARDS Nominations now open

The NTMA and AMT Technology Awards are designed to recognize and share excellence for those whose use of technologies are strengthening the precision manufacturing industry.

There are two award categories:

- Technology Excellence Award
- Leadership and Culture Excellence Award

If you would like a nomination form for either category, please visit: https://ntma.org/resources/ntma-awards.

Submission Deadline is December 2, 2022

WINNERS IN EACH CATEGORY RECEIVE:

- \cdot Social media exposure on NTMA and AMT platforms
- · Featured Article in The Record
- · Recognition at the MFG Meeting Spring 2023
- · Free Registration and Hotel at the MFG Meeting
- \cdot Plaque to be given out at MFG Meeting
- If applicable, National Associate Member (NAM) to provide social media exposure for winner
- · Hosted webinar in 2023



TECHNOLOGY

FEATURES



At IMTS 2022 You'll Find New Technology, Practical Learning, Networking, and Inspiration

In North America, industries ranging from automotive and aerospace to agriculture, construction, and medical depend on precision manufacturers because the parts they make are in everything we use. Year after year, our data reveals that International Manufacturing Technology Show (IMTS) visitors from job shops or contract manufacturers come to the show to see new technology and products, learn, network, and gain inspiration.

In recognition of the importance of these manufacturing businesses, IMTS is committed to making the show a valuable experience - one that grows businesses and profit margins, encourages industry resilience, and offers ideas to adapt to changing markets and workforce challenges. With 70-million pounds of metal eye candy from nearly 2,000 exhibiting companies covering all four buildings of McCormick Place, IMTS 2022 offers an abundance of opportunities on a scale like no other. Below is what you will see, what to expect, and steps to maximize your visit. Be prepared to be wowed at IMTS 2022, September 12-17.

NEW TECHNOLOGY

Excitement to engage face to face at IMTS has never been so anticipated. Exhibitors and visitors alike are sharing their enthusiasm to see each other and experience a new era of manufacturing, thanks to the technologies that bridge the gap between the digital and physical.

Digital manufacturing will be prominent throughout all of IMTS 2022. As manufacturers contend with workforce and supply challenges to compete globally, they are aggressively adopting digital manufacturing processes and products,— which are encapsulated within traditional machines that use automation and robotics, additive manufacturing, metrology, augmented and virtual reality, digital twin, generative design, connected factory, and more.

Exhibitors will be showing off plenty of augmented computerized numerical control (CNC) machines with digitally connected automation and robotics systems to enable a new generation of multi-tasking machines. Another trend in CNC systems is the single-set-up concept. Multi-tasking machines combine cutting with turning, milling, drilling, tapping, deep-hole boring, hobbing, skiving, broaching, grinding, and surface preparation.

Hybrid multi-tasking machines add laser hybrid, friction stir welding, additive, and hot wire electrical discharge machining (EDM). By performing all work in a single clamping, these machines cut set-up time, eliminate the risk of losing zero when parts move between workstations, and free operators to perform other tasks.

Advances in CAD-CAM software and simulation are empowering manufacturers to be even more productive by simplifying CNC operations. The digital twin in CAD-CAM and simulation software is driving change by streamlining work for programmers and machinists alike. As a solutions-based show for a solutions-based industry, dozens more products will be on display for tooling, workholding, abrasive machining, fabricating, gear generation, and machine components and cleaning.

PRACTICAL LEARNING + NETWORKING

Content is key in the information era, but personal connections are essential to helping businesses grow. Although IMTS features 12 conferences to expand your knowledge on dozens of topics, many also include networking. Here are some highlights.

IMTS Specialty Program: Job Shops Workshop is spread over two half-days and includes an exhibit hall pass, lunch, awards, presentations, and panel discussions to interact and share ideas. Powered by The Association for Manufacturing Technology (AMT) and Modern Machine Shop Top Shops, topics include workforce development and retention, taking your shop digital, marketing in manufacturing, the Top Shops Benchmarking Survey results, and the artificially intelligent machine shop. Visitors can register for one or both days. Visit IMTS.com/jobshops. IMTS Specialty Program: Women Make Manufacturing Move (WMMM) features three events to give women a chance to connect with each other, inspire authentic leadership, and celebrate women driving the future of manufacturing. Visit IMTS.com/women.

IMTS 2022 Conference: This conference, hosted September 12-15, features 71 different sessions focused on a range of topics that include process innovation, plant operations, quality inspection, and automation. The IMTS Conference addresses productivity and part quality improvements; as well as developing a stable, competent workforce to create new levels of market demand.

BE INSPIRED - ATTRACTIONS

In addition to marveling at all the technology available at IMTS, you'll also want to dedicate some time to experience the future of manufacturing at a number of attractions located among the pavilions. Find them all at IMTS.com/AM4U.

AMT's Emerging Technology Center (ETC)

Sponsored by AMT, the ETC highlights state-of-the-art and disruptive technologies. At IMTS 2022, the focus turns to the forward-thinking manufacturing efforts driving outer space projects for long-term presence on the moon and deep space exploration.

Visit IMTS.com/ETC

AM4U

New to the North American market and IMTS, the AM4U Area, presented by Formnext, will feature talks about adopting industrial additive manufacturing (AM) into your production process, as well as entrepreneurship and business models.

Visit IMTS.com/AM4U

"Our entire team was built literally thinking out of the box. We look at processes, technology, and people and take actions that help us evolve. IMTS is a huge element of that."

Scott Harms, President, and Chad Oswald, Director of Engineering, MetalQuest Unlimited

LIVE LAB - Digital Transformation. NOW.

A dynamic industry collaboration between AMT and the American Society of Mechanical Engineers (ASME), the LIVE LAB will deliver expert knowledge, hands on experiences, and interactive technology focused on the connected factory, digital twin, big data, artificial intelligence (Al), and machine learning.

Visit IMTS.com/LiveLab

Smartforce Student Summit

Inspire the next generation of manufacturers at the Smartforce Student Summit. Students will experience creative problem-solving, teamwork, and the technology that makes all things. Dozens of IMTS exhibitors will host hands-on activities for students to experience the manufacturing technology of the future. The summit is free and open to students, their parents, and educators at all levels.

Visit IMTS.com/Smartforce

EXPERIENCE IT ALL AT IMTS 2022

From software to hardware and from ideas to implementation, IMTS is the place for solutions. From September 12-17, you can experience the incredible advances in manufacturing that can

lead to new levels of efficiencies and prosperity, gain insight from industry experts, and expand your network to form new partnerships and business opportunities.

IMTS 2022 NEXT STEPS

- Register now at IMTS.com/register. (Groups of five or more receive discounted rates.)
- Visit IMTS.com/ExhibitorSearch to see new technologies and products.
- Register for MyShow Planner to tag booths you want to visit, connect with exhibitors, and set up meeting with experts.
- If needed, book your hotel room. <u>Visit IMTS.com/Hotel</u>

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The Pavilions by Building

Because of the extent of the floorplan at the McCormick Place complex, the community can experience IMTS by technology. Visitors not only come to see the new technologies on display but to meet with people from different companies to exchange ideas and find solutions.

East Building, Levels 2 & 3

Automation/Robotics Controls & CAD-CAM Machine Components/Cleaning/Environmental Quality Assurance

North Building, Level 3

Abrasive Machining/Sawing/Finishing Automation/Robotics Fabricating & Lasers Gear Generation

South Building, Level 3 Metal Removal

West Building, Level 3 Additive Manufacturing Tooling & Workholding Systems

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5 Tips to Engage Visitors BEFORE and DURING Trade Shows

By: David Capkovitz - EBITDA Growth Systems

So, you're headed to the International Manufacturing Technology Show (IMTS)? It's time to think about attracting and engaging visitors. You don't want to be lost in a sea of trade show booths, so what is the best way to draw visitors away from the competition and toward your business?

1. INVITE AND UTILIZE YOUR EXISTING CONNECTIONS

Trade shows can be a great way to interact with your current and potential connections. In fact, 79% of attendees believe going to a trade show helps them decide what to buy. (Source: Graphicolor Exhibits) Before the event, send an email to your current contacts and invite them to visit your booth. Be sure to include information about where to find your trade show booth and what they can expect from your exhibit. If they attend, interacting face-to-face is an excellent opportunity to network, make connections, and share mutually beneficial contacts.

2. RESEARCH AND CONNECT WITH THE MEDIA

Having a great trade show booth is useless if you have few attendees and visitors. A great way to

ensure you're spreading the word about your exhibit is to get the manufacturing trade press involved. Do some research about what media outlets will be present at the show and reach out to your industry bloggers, influencers, journalists, and trade publications. It's the perfect way to invite prospects, share exciting news or product launches, and promote your business before the trade show. Also, invite these journalists to your booth for one-on-one interviews. Taking the time to invest in advertising and press involvement could secure you more trade show booth visitors and viable leads.

3. PROMOTE YOUR EXHIBIT ON SOCIAL MEDIA

People from every industry are on social media, and these platforms can be a great way to promote your upcoming trade exhibitions. Sixty-one percent of businesses use social media to promote their attendance at an upcoming trade show. (Source: Brandon Gaille) Schedule social media posts to go out before and during the show to promote your booth and attract attendees. Don't forget to include information about any presentations, product demos, or contests you're hosting during the show. Scheduling the posts ahead of time will relieve some pressure and give you one less thing to worry about during the event. Building excitement online in the weeks leading up to the show will attract prospects to the trade show and encourage them to stop by your booth.

Live social media posts during the show also help you share your booth location and pictures of your exhibit. If your current contacts or followers are at the show, they will know where to find you and what to expect. Lastly, check the show website for their social media and any hashtags to maximize impact.

4. NAIL YOUR BOOTH DESIGN

Attracting prospects to the trade show is just one step. To generate leads, you've got to get them to engage with your exhibit during the show. The design of your booth is crucial for making a lasting first impression and drawing attendees to you. If you want to stand out among the other exhibitors your display should include engaging and interactive elements that make the encounter with your business fun. Seventy-four percent of attendees believe engaging with the exhibitors makes them more likely to actually buy the products/services on display. (Source: Hill & Partners) You can use photos and videos to draw the eyes of attendees to your booth. Touch screens and tablets can be used to collect contact information from visitors which will help you follow up after the show is over. Surveys and quizzes are another great way to get your booth visitors engaged and inform them of what your business has to offer. Ninety-two percent of attendees visit a trade show to learn about new and exciting products and services. (Source: SpinGo) Everyone loves gifts and freebies. Organizing a contest or giveaway can be an excellent way to capture attention and leave a lasting impression. Consider giving away branded merchandise, swag bags, or even food and drinks.

Using a company mascot is one of the most fun and effective ways to draw attention to your exhibit. A

mascot will make your trade show booth unmissable and provide a fun photo-op for visitors to share on social media.

5. DON'T ATTACK, ATTRACT

No one likes to be bombarded by salespeople, especially as you walk by every booth at a trade show. Stopping uninterested people as they walk by and pushing them to look at what's on sale is not the best approach. A better strategy is attracting them to you and your exhibit. But a great display is only the first step. You should make sure that your trade show staff is knowledgeable, personable and engaging. Eightyfive percent of an exhibitor's success at a trade show is dependent on the performance of the staff they bring. (Source: Highway 85 Creative) When a visitor approaches your booth, it means they are interested in what you have to offer, so it's important to have the first person from your staff there to help. Dressing professional and wearing company logo apparel is a must for making sure your staff is easily identifiable among the crowds. You should be sure that your booth provides its visitors with valuable information that is easily digestible and useful to them. Consider using presentations and product demonstrations to draw people in without having to attack them as they walk by.



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Minding Your Business Part 3 of 3

An Operational Shift is Paramount

By: David Capkovitz, EBITDA Growth Systems

In my 26 years of working for and owning machine shops, I have worked to be a student of what works and what does not. I remember my first job in a machine shop. I was so thankful to have a job where I could learn something, and that this specific employer took a chance on me, that I didn't care necessarily how they treated me. I just cared about the education and the pay, and that was enough.

I was thrown into plasma spray welding and then into running a lathe in a large part re-building process. I was not onboarded. I did not shadow. It was "sink or swim" after a 15 minute tutorial and one check in on my first day. (If you made it through your first day, they kept you.) We did not have a documented process, a quality lab, air conditioning, supplied uniforms, or anything computer numerical control (CNC).

I had to use my head to not get hurt, as this was not a clean organized 5S, or five step methodology, shop. I had to take notes to make sure I was correctly processing things so I didn't have to re-work my parts. Re-work meant I could lose my job. I had to buy my own measuring tools to ensure my work product did not get returned.

The job was mine as well as the onus of making sure my employer was successful, thus having a place for me to work. Everything we did was manual; nothing was automated or easy to change over. We didn't care about factory flow, LEAN, SMED, or any other current acronyms. We cared about getting the job done and working as hard as possible to make sure our employer was successful (profitable) so I could climb the ladder.

SOUNDS JUST LIKE TODAY'S ENVIRONMENT, DOESN'T IT? NOT!!

Simply put, we cannot do things the same way we have always done them and compete in today's advanced marketplace. The name of the game is profit, so how do we compete in today's market and make a strong profit? Everything starts with our culture, then leads to good customer relationships and expectations. The next and final leg to this 3-legged stool is the way we make product.

WE MUST EMBRACE 5S

My grandfather was full of great advice and he said, you need a place for everything and to have everything in its place. This was paramount for him in his job as a high-level chemist. My grandfather was an inventor of unique scents and had hundreds of essences in his shop. He was credited with almost all of Speed Stick's essences as well as perfumes like Gucci 1. To do this level of work he had to be able to go where he kept items and have them exactly where he left them in the correct order, as this was his livelihood. This seems like a far reach, but it's the same in our shops is it not?

In my first green belt project for setup reduction, we started with an average time of 42 hours for a new setup. The majority of this time was spent looking for items like paperwork, tooling, gages, tool holders, wrenches, measuring tools, and even the latest program. To remedy this, we spent extensive time building a very organized tool crib and hired a team member to manage the room. This alone reduced our setup times by over 20 hours, on average. This may sound like an unachievable task but imagine going to one place and getting your job folder with everything accurately in it along with a cart that has your material, tooling, gages, toolholders already pre-set for you, and an organized (and controlled) place for all of your programs to reside. Moral of the story: my grandfather was right, and it applies to all of manufacturing.

WE NEED TO STOP SHOOTING DOWN NEW IDEAS

We worked with a shop and a young man who thought of how to eliminate operations on a milled product. He designed a dovetail fixture, mounted it on a Hirschmann zero-point chuck, and found a way to machine all six sides of his project.

In the end, all he had to do was break it off and polish the back side. He met significant resistance with this mentality. The team questioned the rigidity of the setup, the extra time it would take by cutting down the depth of cut on some operations, the small tools he would need to use to get the back side so he could break off the part, and most of all the cost of the zero-point fixture. His answer was simple. He could afford for the cycle time to be about 25% longer. While in setup, he removed the fixture from the Hirschmann chuck so he could inspect the part before completion and prove his setup by using fewer parts, sometimes needing only one piece.

When in production he could do his inspections via his fixture on the coordinate measuring machine (CMM) and make in-process offsets that were 100% accurate. Not to be overlooked, he was able to run four machines with this process. The profitability of these parts skyrocketed, and they were able to break into a series of significant medical device jobs where they were competitive with very low scrap. These fixtures were quickly used on mills, lathes (chuckers), electrical discharge machines (EDM), and all inspection equipment. This company grew 300% with the same number of people, and it was amazing to see. The moral of this story: listen to all the ideas out there and pick some new ones to try; employees can have good ideas and insights.

WE NEED TO DISCUSS FLOW

A lot goes into an order: receiving the order, processing through programming or engineering, prototyping a part, generating all the documentation necessary to make a part traceable, and then finally manufacturing the part. With all of these tasks, we have hurdles to clear. We need to make sure the order is received in a timely manner. We need to make sure the order is entered into our enterprise resource planning (ERP) system accurately and swiftly. We need to make sure our engineers or programmers don't over engineer our process.

We need to make sure that the prototype is done swiftly, but with a solid process that we can scale. We need to make sure that our inspection plan is not overzealous and is as practical and effective as possible. (For example: don't use a CMM when a quick pin or comparator check could be quicker and meet the customer's standards.) Lastly and most importantly, we need to make good parts on time. For this to work, all of our people need to be able to work together, all pulling one rope, so we can be successful and continue to ramp up business. Pay attention to your teammates and make sure things not only flow on the floor, but between departments.

At EBITDA Growth Systems we have a mission to impact lives by improving business performance. If you embrace 5S, foster a culture where your people share new ideas, and work together for the best possible flow, your life and the lives of your people will most certainly be positively impacted. With a good culture, a healthy relationship with your customer, and an advanced way of thinking around working together in your operation, you will win. Everyone likes to win, so put your mind on your business, make a few shifts, and enjoy the success



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SPOTLIGHT



TONS TO DISCOVER AT IMTS

Industry professionals from around the globe will visit the International Manufacturing Technology Show (IMTS) to discover the latest innovations in digital and traditional manufacturing, experience more than 15,000 new machining technologies, and find processes that will help solve their manufacturing challenges and improve efficiency.



www.imts.com

Fastems to Exhibit its Innovative CNC Automation Solutions for High Mix Manufacturing *Booth 339186*

Fastems LLC will showcase its computerized numerical control (CNC) automation solutions for milling and turning machines at IMTS 2022. The highlight of the booth will be the world premiere of Flexible Pallet Tower (FPT), a compact automation solution for advanced process control (APC) and no-APC 4 and 5-axis machining centers with 300-630mm pallets. FPT accommodates up to 24 pallets in 113 square feet and its configurable storage allows for different pallet heights, helping to increase machine tool utilization and lights-out production capacity. FPT – like all Fastems automation systems – can be integrated with more than 90 different machine tool brands.

Fastems will also debut the newest version of Manufacturing Management Software (MMS). MMS Version 8 runs and monitors all Fastems automation systems and integrates with various other software and devices to enable flexible and cost-optimized production for any batch size. The highlight of MMS Version 8 is the new Insights module that gathers and digests production data and turns it to practical productivity-enhancing tips related to machine, tool, and fixture usage. Version 8 also offers an easy single-view user interface with drag-and-drop production orders for one-machine pallet systems, EasyRoute feature for introducing new workpieces into production in under 60 seconds, and an automatic Order Generator for recurring orders or maintaining a certain stock level.



For more, please visit: https://www.fastems.com/contact/



Newly Released Mastercam 2023 on Display Booths 133222 & 215200

Attendees at the International Manufacturing Technology Show (IMTS) 2022 will experience the most powerful machining software from CNC Software, LLC to date – Mastercam 2023. This year, visitors can investigate the latest functionality of Mastercam at booth 133222 and at the Student Summit booth 215200 at McCormick Place, Chicago, IL, September 12-17.

Stas Mylek, Partnerships Program Manager at Mastercam, will be presenting Digitalization of the Manufacturing Floor: Are SMEs Ready for the Next Wave? on Monday, September 12, from 3:15-4:10 p.m. in room W192-C. He will cover how emerging digitalization will impact small- and medium-sized machine shops, and how best to prepare for change. Meanwhile, in the main Mastercam booth, Mastercam partners, resellers, and employees will be giving presentations every hour Monday-Friday on many different topics and features. Manufacturers from all over the world got the chance to test-drive Mastercam 2023 during the Public Beta Program before it was released and provided valuable feedback to help shape the final 2023 product. Many of the improvements in Mastercam 2023 are directly driven by Mastercam users and shops. Feedback from Public Beta releases, shop visits, customer surveys, and consultation with our expert industry partners create the practical, shop-driven focus that helps ensure Mastercam users' success.



For more, please visit: https://www.mastercam.com/mastercam-2023/



ProShop ERP to Showcase Digital Ecosystem Booth 133027

ProShop ERP will exhibit The ProShop ERP digital ecosystem at IMTS 2022. It is a combination enterprise resource planning (ERP), manufacturing execution system (MES), and quality management system (QMS) solution developed to address the needs of job shops by people with first-hand knowledge of the shop environment. Integrating seamlessly with each other and nearly every other manufacturing software, this paperless digital operating platform (DOP) links every job shop department from those estimating projects to shipping. Engineered for small- to medium-sized manufacturing companies, ProShop can replace up to five software programs simplifying project management from start to finish.

Customized ERP modules help get jobs off to a cohesive start. The integrated MES system picks things up by tracking time, tooling, fixtures, work cells, personnel, part programming information, and more in real-time. The QMS function features numerous modules that grab data from the ERP/MES systems and create reports reflecting preventative and corrective actions and generate audits, capturing every aspect of the manufacturing process for complete quality reporting.

ProShop's 25+ dashboards provide shops with a big picture view of the entire operation, identifying waste and ineffective procedures in one smart digital ecosystem. The benefits are many. Customers report setup reductions of up to 50% and total labor savings of 25% or more. This means leaner production with the same number of employees – good news for those shops wishing to expand their capabilities and grow their shops without incurring extra costs and losing profits.



For more, please visit: https://proshoperp.com



NIMS Presents Smart Training Solutions for Employers and Educators <u>Booth 215618</u>

The National Institute of Metalworking Skills (NIMS) has new On-The-Job-Training (OJT) training solutions for employers to learn more about at IMTS 2022. The NIMS booth is 215618, located in the lower level of the North Building of McCormick Place where the Smartforce Student Summit takes place. Both employers and educators can learn all about NIMS "Smart Training Solutions" framework that is providing excellent results among employers that implement it. It's flexible for any employer's needs and is data driven to ensure that performance is measured and visualized.

"Technology is changing so rapidly that employers are being challenged to keep their employees up to speed," said NIMS Executive Director Montez King. "Our solution takes all of that into account without getting bogged down into a multi-year program. Employers benefit from a training solution that listens to their operations and tells them when training and evaluation opportunities arise. Now that's Smart!" In addition to Smart Training Solutions, NIMS also provides credentialing in roles for Industry 4.0, CNC machining, GDT, dimensional measurement, industrial maintenance, and more.



For more, please visit: http://www.nims-skills.org

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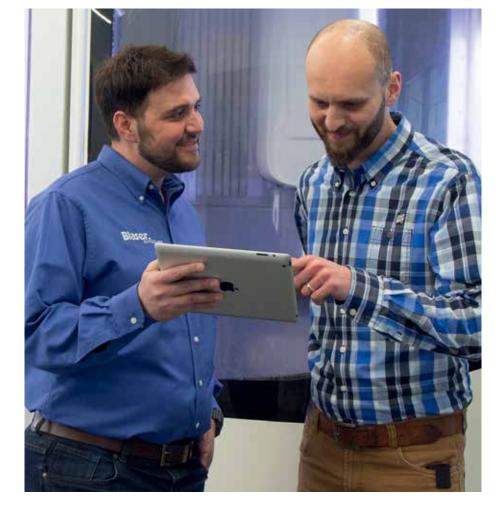
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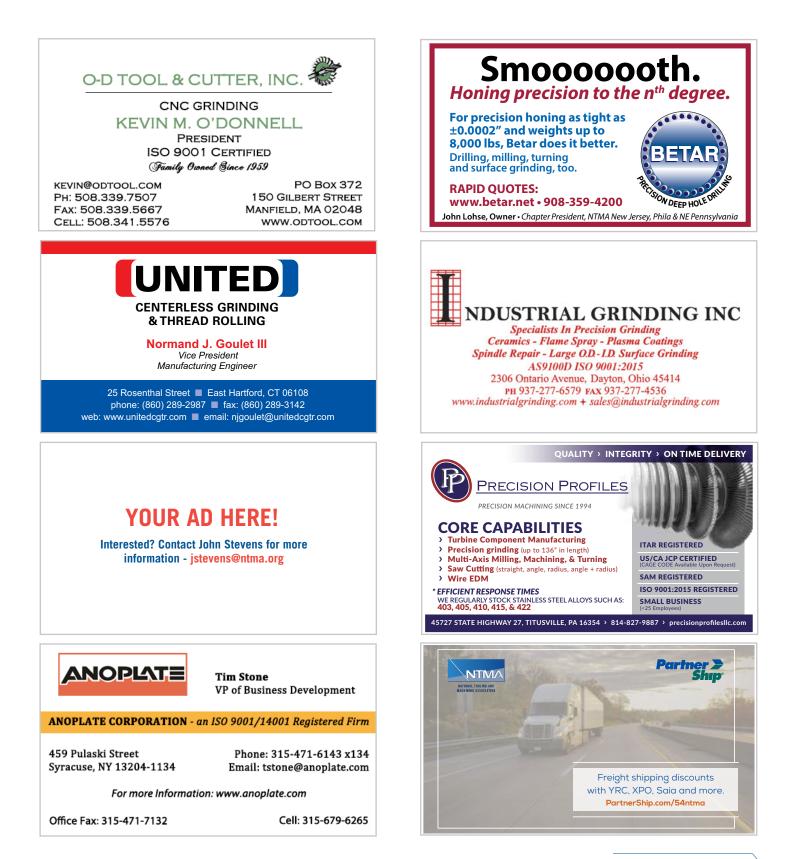


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