

THE RECORD

Published by the National Tooling and Machining Association

ADVOCACY PAY OR PLAY?

INSIDE THIS ISSUE

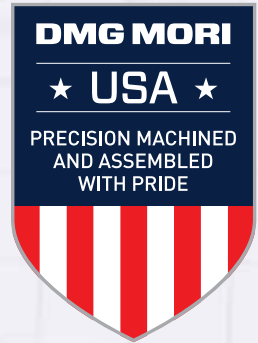
An Outsized Seat At the Table
pp 20-21

We Need a Culture Shift
pp 26-27

and so much more ...

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THE RECORD

OPERATIONS & EDITORIAL

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Upcoming NTMA National Events

PRECISION MANUFACTURING
ENGAGE
SUMMIT EAST 2022 POWERED BY NTMA

Engage Summit East

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



Emerging Leaders Conference

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

THE PRECISION MANUFACTURING CONFERENCE
ENGAGE
2022 POWERED BY NTMA

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

June

Industry 4.0 ... Does it Start With Your ERP System?

July

Emerging Leaders Rising 2022



PRESIDENT'S UPDATE

As we are well into the new year, we continue to see challenges and uncertainties that affect us personally, our businesses, our employees, and our customers. Staying ahead of the issues facing our industry and/or advocating for or against issues, seem in and of itself a full-time job. This is where NTMA comes in and provides a valuable resource to our members already stretched thin just mitigating the daily challenges of running a business in a turbulent economy. This month, our focus is on **“Advocacy ... Pay or Play?”** Honestly, it's a good question, do we as an industry pay for representation, advocacy, and support for those representing us in the House and Senate?

As Omar at Franklin Partners always reminds us, “If we are not at the table, we are on the menu.” Let that sink in ... are we in front of our challenges and ensuring we have a place at the table? Or, do we just play the wait-and-see game and hope for the best? One can argue that as small-medium-sized businesses we simply don't have the power to be heard and cannot change outcomes. But is that really true? While the media, political representatives, and other pundits may want you to believe this narrative, it simply is not true. So you have to step back and ask; why would they want us to believe we are too small to matter? The reason is they do not want us to know the true power of small-medium-sized companies in our nation. They work to influence our country to believe it is only big businesses and corporations that carry the economy and drive employment. Pushback on that narrative is one way NTMA supports and fights for our members.

Do you realize that small-medium-sized companies with less than 100 persons make up 98% of “all companies,” while employing over 5M persons? Manufacturing businesses with less than a 100 persons are 93% of all companies. **Specifically, in the manufacturing/machining sector in which we participate, 96% of manufacturing companies are less than 100 persons while 92% are less than 50**

persons. Top those numbers off with the fact that for every dollar of value-added output, the total multiplier effect is \$3.60. So if someone wants to tell you or report to you that we don't matter ... call BS. The fact of the matter is: **we as an industry matter.** The advocacy of NTMA provides not only matters, but advocacy does also influence positive change for manufacturing, and very importantly, advocacy, influences negative changes from being implemented. On our own, as individual companies, big or small, with money or no money, we do not produce the influence that equals the needed change. Only as a collective, unified voice can we expect to influence laws and regulations that are good for US manufacturers.

NTMA is so fortunate to have partnered with **Franklin Partners and Bracewell Policy Resolution Group** to stand in the gap to advocate on our behalf. Our creation of **One Voice** which represents both NTMA and PMA has given us even greater influence as a result of more companies joining together. However, influence comes with a cost, and I encourage you to donate to our PAC or CFASE funds which strictly go to benefit you and our industry.

I recently visited with one of our younger NTMA member owners, I asked him how involved he was, or how much he kept up with politics. He answered very little. I congratulated him and told him he was the perfect constituent for his local, state, and national leaders. I explained that many political representatives believe all business owners have and make money and I also explained political representatives are on the hunt for ways to tax or gain access to that money. For those who are not involved or engaged, politicians can get the money out of your hands so smoothly you won't even know it is happening. However, once you get involved and pay attention, these same representatives are held much more accountable for how they spend “we the people's” money.

However, that is not to imply we all have to become political junkies. This is exactly why NTMA is so important to our members, we know your focus must be on running your business, through our research and advocacy partners our members and our industry are represented and heard. One of the greatest values of being an NTMA members is being a part of a like-minded community.

I was reading an old NTMA article today from 1993 and it referenced 3,000 member companies and today we have 1,000. Don't be fooled, it is a strong 1,000 members, but none the less, “There is Strength in Numbers.” For NTMA and small-medium-sized manufacturers, the only way for us to have a greater influence, to have a seat at the table, and to get off the menu, is **GROWTH.**

Our goal for growth is not to be a big Trade Association, but rather an impactful, powerful Trade Association with influence. Influence to advocate on behalf of **you, our members, and our industry.** The power to protect the interests of our companies and our industry for the next generation. **The real power of advocacy comes in numbers. If every member brought just one new member to NTMA, we would double over night.** Our voice becomes even stronger on the national stage, and our local Chapters have a stronger presence in their regions. A great combination.

Remember, “There Is Strength in Numbers” which equals GROWTH and INFLUENCE.

Roger Atkins, President – NTMA

You can help today simply refer a member to NTMA.



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WHAT IS HAPPENING AT NTMA NATIONAL

By: Doug DeRose, Vice President - NTMA



NTMA's newest membership tool, **Impexium**, will go live in-house at the end of May. We are really excited to get this platform up and running. Our goals were simple: streamline and improve the efficiency of our data management and improve the member experience. For members, the first experience with the new software will occur with either your next membership billing, or receipt of a monthly account

statement. Those will be generated by the new software so invoice numbers and sequences will be changed. The big date for member launch is targeted for **June 15th**. Stay tuned for more details as we roll out Impexium.

In addition to Impexium, we have taken more steps to create more member value through an online community. NTMA has contracted with **Higher Logic** to deliver this member engagement tool at both the national and the chapter levels, for those chapters that are interested. Development of the platform will kick off in June with a rollout date of early September for members. We are excited about this platform and think it will further enhance the "networking experience" that is a hallmark of NTMA membership. Membership growth is the focus of 2022, so we are

excited to tell you that the finishing touches are being put on a member incentive program that we think will help generate growth. In a nutshell, the program will reward members that successfully refer new members to NTMA. Look for more details soon!

We are getting on the **On Ramp** this summer. Not for vacation, but for workforce development! Our workforce team has created a program that will introduce individuals to manufacturing who otherwise would not have a "lane" to get there. This program will utilize parts of the exiting NTMA-U program and the aptitude test. 92% of high school students graduate without ever taking a manufacturing technology course. These are the perfect candidates for this new program.

ONE VOICE: FEDERAL GOVERNMENT ADVOCACY PROGRAM

As US manufacturing continues to navigate the unique challenges and changes brought on by the last year – and a change in administrations – it remains important to have a partner in advocacy. NTMA helps provide this support by working closely with the team at One Voice: the combined federal government advocacy program representing small-and medium-sized business manufacturing in the US.

With regulations, policy, and shop safety all constantly evolving, One Voice has a wealth of fantastic resources, developed to help keep your shop informed and prepared for whatever comes next. In addition to ongoing COVID-19 response information – in line with any and all changes that our industry may need to know – the team at One Voice also provides informative policy webinars, news releases, educational materials, video recaps, and much more.

Don't forget about the Talking With One Voice podcast – every episode, the One Voice advocacy team breaks down how the latest news from Washington impacts manufacturing businesses across the country.

It's yet another way your shop can get quick, concise information on everything from tax development to loans and even workforce development issues. You can send in your key questions to be answered by emailing onevoice@policyres.com.

We hope you continue to utilize this key partner in One Voice – one that ensures that millions of manufacturers across the country have their voices heard.

Please visit www.metalworkingadvocate.org for more information.

www.OneVoiceInfo.org
ONE VOICE COVID-19 (CORONAVIRUS) RAPID RESPONSE WEBSITE

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- Find resources for workers
- Get tax and loan information
- Stay on top of government directives

A JOINT EFFORT BY NTMA AND PMA

NEW MEMBER HIGHLIGHTS

ADVANCE MANUFACTURING TECHNOLOGY Northern Utah Chapter Member



In 1976, Keith Barney founded Advance Manufacturing Technology in the family garage in Salt Lake City, Utah. Since then, AMT continues to be a family-owned business and has grown over the last 46 years into an industry leader in producing precision machined components and complex assemblies. Focused primarily on Aerospace, Defense, Medical, and oil and gas, AMT continues to grow utilizing the values that helped it achieve its initial successes; technology, process, and customer focus. An ISO 9001 company certified under AS9100, AMT utilizes CNC technologies with multi-axis lathes, 3, 4, and 5 axis mills, and screw machines along with CNC inspection capabilities to produce high-precision parts to our customers' demands. Our engineering team works closely with our customers utilizing DFMA/Lean/Six Sigma principles to reduce costs, improve process and quality, and deliver quality parts on time.

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(801) 973-9462
www.advancemfgtech.com

L & K MACHINING, INC. At Large Member



L & K Machining, Inc. was started in 1997 with the sole purpose of making tooling and small quantity runs. Our main focus is on tooling, but also run small production jobs up to 500 pieces. Everyone asks what you make. I like to tell them, "We make the tools to help our customers make their parts." Our customers include the automotive industry, rock drilling, pharmaceutical, textiles, printing, and water treatment, just to name a few. Our top machinists have more than 75 years of combined machine shop experience. We have CNC and manual lathes and mills, surface and cylindrical grinding, and Wire and Plunge EDM capabilities. We also have small electric furnaces to do our own heat treating and tempering.

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SEILER INSTRUMENT St. Louis Chapter Member



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Mayday is a direct supplier to both Boeing Commercial and Military and also is an approved supplier to the largest landing gear companies in the world including Safran, Collins, Heroux, and Fokker. Hi-Tech Metal Finishing has an extensive list of approvals from the aerospace OEM's for Cad, Zinc Nickel, Anodize, Chem Film, NDT, and Prime & Paint, and other processing.

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(940) 898-8301
www.maydaymfg.com

CHAPTER BEST PRACTICES – Q&A WITH DALE DAVIS, PRESIDENT NTMA WESTERN LAKE ERIE CHAPTER



president, I want to bring energy and passion to anyone willing to listen that our trade can be as good and as rewarding as any career path out there. I want to show that the work that we do is awesome, and, with advancements in technology, can be cool.

You made a commitment to grow membership when you took the helm as President of your chapter – what has enabled you to be successful in doing so?

We recently sat down with Dale Davis – President of NTMA Western Lake Erie Chapter and Mechanical Engineer at Dundee Manufacturing Company – to discuss what has enabled the Chapter to see such tremendous growth over the past year. Below are some excerpts from that conversation.

How long have you been an NTMA member and what made you want to join in the beginning?

Dundee Manufacturing Company joined NTMA in 2013 when my brother met Mike Pasch of Quality Tool – and former president and current Trustee of the WLENTMA – at a networking event. Networking helped us meet a lot of the other members who we now do business with. It is really a group of individuals who understand and grasp the concept of networking and helping each other out.

“The 25% growth we have had the past year has come from relationships”

How long have you been the President of your Chapter and why did you volunteer for this role?

I have been President since January 2021. I am at a point in my life where I can commit to this role and give back to my trade in an impactful way. As

One of the biggest impacts on our chapter has been assembling some new energy to the board and stabilizing our Chapter Executive position. Having this team has allowed me to focus on guiding the chapter in our growth model and vision. We have built our value model around 3 pillars: Networking, workforce development, and our trade school.

NETWORKING

In December, we lay out our calendar of events – 4 major events, with 1 each quarter utilized as “fun-and-family,” including sporting events and an annual golf outing. We hope to use these events to bring out potential members and associates. We’ve also begun a number of fitness-focused challenges and events, including a 5K that has helped create strong bonds among people in our company.

WORKFORCE DEVELOPMENT

We are taking a different route on workforce development – seeing how our Chapter can help our schools and community promote our trade. In connecting with the community, our focus has been on how our chapter can: get students interested and then into the CTE programs; and then into one of our members’ companies and an apprenticeship program.

OUR TRADE SCHOOL

Our school brings incredible value to our members – nearly 80% of the membership utilizes our school.



Todd Krell – the director and one of the instructors – has been part of the school for over 25 years and is a big reason our school is so successful. Our instructors work in the industry during the day and bring real-world expertise. The school has been putting out Journeymen since the 70’s and we have between 50 to 70 students going through the program every year.

“Having this team has allowed me to focus on guiding the chapter in our growth model and vision”

How do you leverage your relationships with other manufacturers to grow membership within your Chapter?

The 25% growth we have had over the past year has come from relationships – in the context of growing a Chapter, they really give you an opportunity to present your value proposition. Our plan helps provide a platform for members to engage and be part of the association that will have a seat at the table. Having a clear message showing how value is created, energy, and action behind it is equally as important.

NTMA WELCOMES NEW DIRECTOR OF MARKETING



NTMA is excited to announce that Rena Montedoro has joined the NTMA team as Director of Marketing, assuming her new role on April 4.

Montedoro started her career in traditional print media, expanding into digital and integrated marketing and communications to drive sales and growth.

She has an extensive background in defining and articulating brand strategy through creative content marketing, sales promotions, and advertising.

A Cleveland native, Rena has won numerous industry awards over the course of her career including six Ohio Press Club awards for content and creative direction.

She will be a part of the NTMA executive leadership team, leading NTMA's overall marketing strategy and direction with a strong focus on amplifying the NTMA brand across all channels.

Please feel free to reach out to Rena at her email – rmontedoro@ntma.org – and welcome her to NTMA!

“

We all have heard the phrase “Be Prepared,” but relating “Be Prepared” to manufacturing is a tall order. The challenges of working, managing, and growing a machine shop are innumerable – [determining] not only what to prepare for, but how to prepare.

One of the best resources to help being prepared is membership in the National Tooling and Machining Association. Help has come because of our collaboration within [the Northern Utah] Chapter and National as shop owners and associate members.



– Bry Davis – President, Brendell Manufacturing Inc



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Tool Measuring

PLANTMONITOR FROM HEIDENHAIN TO AID DIGITAL MANUFACTURING

Now multiple production sites can be monitored simultaneously

HEIDENHAIN's new PlantMonitor is a digital solution to aid the manufacturing shop floor. Now available for companies interested in simultaneously monitoring and analyzing production data at multiple sites utilizing machine tools where at least one is equipped with a HEIDENHAIN TNC control/StateMonitor software combination per site, this new PlantMonitor can aggregate the data onto one screen for review. Machine tools using even non-HEIDENHAIN controls can be included and monitored.

By connecting multiple StateMonitors within the new PlantMonitor software umbrella, a company's entire production environment will become transparent to users, enabling them to react appropriately to problems and changes. This also contributes to enabling users to achieve long-term process optimization.

On a single PlantMonitor screen, network data is displayed by groups via a customizable dashboard.

The monitoring function displays machine data in real-time. The machine status bar, utilization rate, and availability for every machine connected to PlantMonitor can be shown in a clear format on the single page and, if needed, as a tile added to the dashboard. Other highlights of the new PlantMonitor system include the new Production and MTBF (Mean Time Between Failures) calculations, as well as the ability to set reference values for productivity. Plant Monitor is a progression to the next level of monitoring, viewing machine data, and analyzing pertinent data that is of interest to companies both large and small.

Currently, PlantMonitor is available as a rental license with a minimum duration of six months.

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 8,000 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

HEIDENHAIN

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NTMA CONNECTICUT CHAPTER HOLDS PLANT TOUR AT PRECISION PUNCH & TOOLING



On March 8th, 2022, the NTMA Connecticut Chapter had its first plant tour in nearly five years at Precision Punch & Tooling in Berlin, CT. Precision Punch & Tooling opened its doors to over 50 attendees, including both existing and prospective members.

The tour started with a history of the company – presented by Kevin Gregoire, the president. Precision Punch staff stayed attentive and prepared for attendees, questions and made the tour a great success – and attendees were able to enjoy a reception afterwards! Here's to more future tours and more successful events from our NTMA Chapters!



SANDVIK ADDS SANICRO® 625 BAR TO FAMILY OF HIGH-PERFORMING NICKEL ALLOYS FOR SUSTAINABLE BUSINESS

In another first, Sandvik is adding super alloy Sanicro® 625 bar (UNS 06625) to its growing family of high-performing nickel-alloys. The bar will be used to machine advanced components that are exposed to acids, alkalis, seawater, and other wet corrosive conditions in both cryogenic environments and temperatures up to 593°C (1,100°F).

“This is great news for customers who are looking for a reliable supply of high-quality 625 bar stock,” says Henrik Zettergren, global product manager. “625 is among the toughest of nickel-based alloys and really sets the gold standard for safety, reliability, and performance. When you’ve got a flange, valve, or fitting that simply cannot fail, it ensures high strength, extraordinary corrosion resistance, good fabricability, and excellent welding properties.”

“The decision to manufacture Sanicro® 625 bar and build up local stocks with trusted distributors and at its own mills in the US, Europe, and Asia was largely prompted by customers experiencing sourcing challenges during the pandemic,” says Zettergren. Local stocks were (and are) often scarce, production complicated, and maintaining inventory costly. Yet the need for extreme safety and reliability is high among energy producers, refineries, chemical processors, and marine companies.

“We’re also seeing strong interest from geothermal power plants, solar farms, waste heat recovery plants, and other renewable energy providers where molten salts, minerals, and other deposits can create corrosion issues,” says Magnus Brink, technical marketing specialist. “Many tell us they also appreciate that Sandvik is making the shift towards more circular business models, reducing energy consumption, using 84% recycled steel and fossil-free energy. It’s becoming a decision-making criterion, even for bar, and a way to support our customers’ sustainability objectives.”

The new bar material, which has an ASTM classification of Grade 1, is provided in the soft annealed and quenched condition in 3-to 7-meter

lengths (9.84 – 22.96 feet) with an outer diameter of 3 to 9 inches (76.2 to 228.6 mm). OD tolerances are +/- 0.8, according to ASTM B637.

The chemical composition has a very high 62% nickel content, making Sanicro® 625 bar virtually immune to wet corrosion. A high 21% chromium content also offers superior corrosion resistance to oxidizing (acid) environments, and a high 8.5% molybdenum content ensures high resistance to pitting and crevice corrosion. Uniquely, the new addition of 3.5% niobium creates a stiffening effect with the molybdenum and provides good stabilization against intergranular corrosion. Ductility and toughness are also very high, and the material is approved by all key relevant standards (ISO, ASTM, ASTM E, EN, etc.).

Sandvik will also support fabricators with machining and welding expertise and guidance through its well-known business unit Coromant, part of Sandvik Machining Solutions. Over the years, the company has built up extensive knowledge in cutting, turning, and machining of nickel-based alloys.

The arrival of Sanicro® 625 bar follows the successful launch in 2021 of Sanicro® 825 (UNS

N08825) bar and hollow bar, with two new high-strength grades in the pipeline (718 and 925). “This is all part of our strategy to extend the possibilities for our customers for higher safety, reliability, consistency, and to drive down production costs with bar,” says Marcus Hillbom, technical marketing manager. “Customers know and trust us from our tube portfolio, so this is a logical next step,” he concludes.



ABOUT SANDVIK MATERIALS TECHNOLOGY

Sandvik Materials Technology, a part of the Sandvik Group, is a world-leading developer and manufacturer of products in advanced stainless steels and special alloys for the most demanding environments, as well as products and systems for industrial heating.

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Fifth Ring

Andy Groundwater – andy.groundwater@fifthring.com



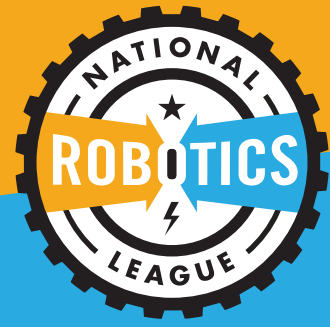
Magnus Brink



Sanicro bar

Engaging Manufacturing's Next Generation.

FULL CONTACT INNOVATION IS BACK!



**NRL 2022 National Championship
& College Invitational**

**May 20-21
Robert Morris University**

Join Us In the Name of Maximum Carnage!



Open and Free to the Public!

Sparks will fly and metal will crunch again at the NRL 2022 National Championship & College Invitational at the UPMC Events Center on the campus of Robert Morris University, in Moon Twp., PA, coming May 20-21.

The best NRL Bots from across the country will battle in a double elimination gladiator-style competition to see who is the best of the best. You are invited to witness **FULL CONTACT INNOVATION** live and in-person!



Opening Round—Friday, May 20 / 7:00—10:00 PM - Competition Continues—Saturday, May 21 / 9:00 AM—5:30 PM

[Visit gonrl.org](http://gonrl.org) for more information

NTMA MEMBERS GATHER ON THE WEST COAST, CELEBRATE STRENGTH OF INDUSTRY

“We are stronger when we are together.” That was the message from NTMA President Roger Atkins at the opening of the NTMA ENGAGE SUMMIT WEST held in beautiful Costa Mesa, CA, on March 21 - 23, 2022. The SUMMIT marked the third time NTMA members at a national level have been able to gather in-person since the COVID-19 pandemic began, and the energy and enthusiasm among the 90 member attendees were palpable.

NTMA is known for top-quality programming and the SUMMIT was no exception. Keynotes included an overview the current state of the industry from AMT's Chris Chidzik based on Gardner's proprietary Business Index and macroeconomic research, an assessment of the reshoring trend from industry expert Harry Moser, and a guide to marketing manufacturing in the digital

age from Shawn Fitzgerald of Thomas – A Xometry Company.

The SUMMIT also included nine breakout sessions where members tackled a wide range of subjects including the digitalization of manufacturing, how to build a sales culture, expanding and diversifying talent, and more. Members also heard from NTMA's team in Washington on how the latest government action including taxes, tariffs, and OSHA mandates are impacting their business.

During the event, attendees were able to tour two member shops, Moseys Production Machinists and Ricaurte Precision, both based in Orange County, CA. The tours allowed attendees to connect with one another in the California spring weather and visit

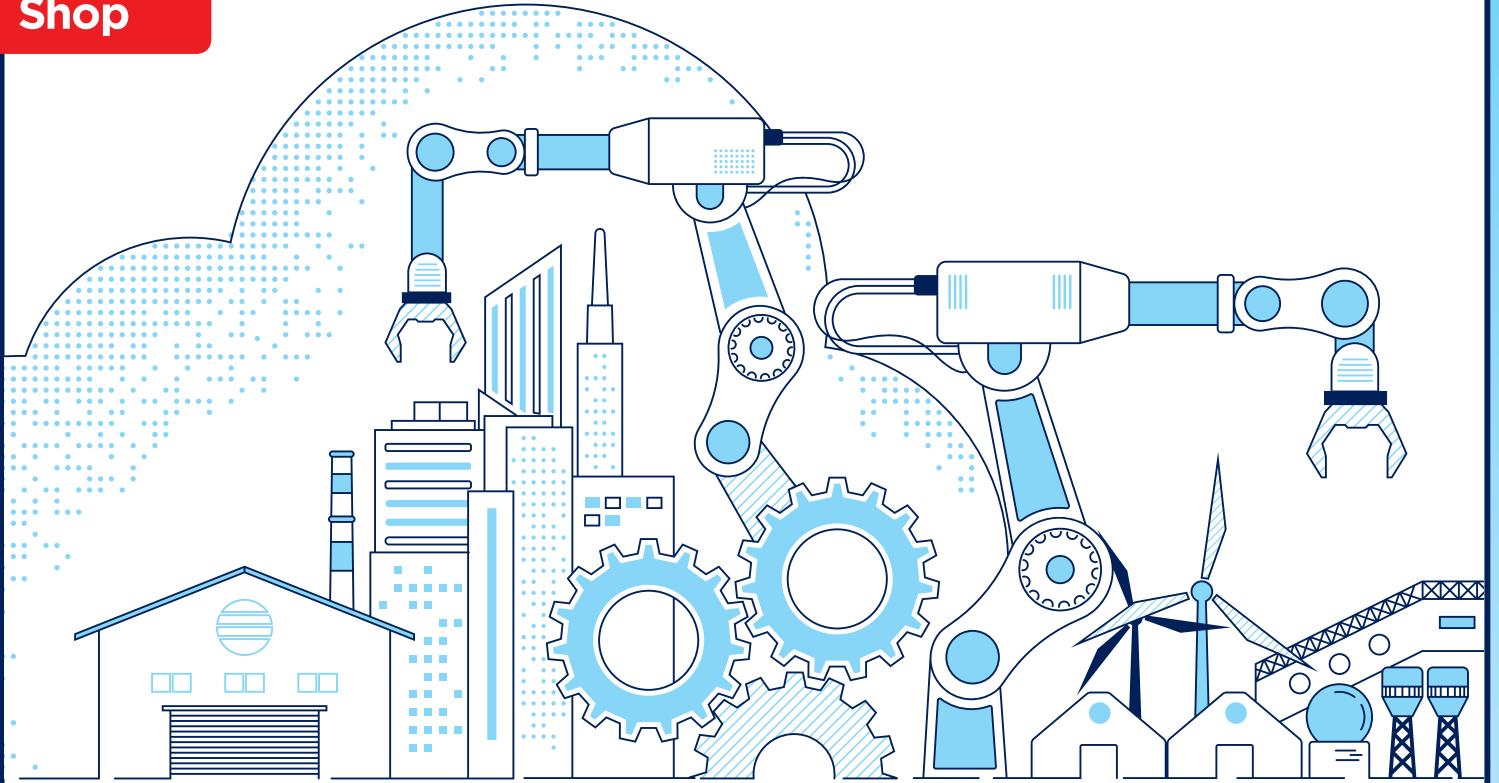
two experienced member shops that have been in business for over 35 years.

“We Are Stronger When We Are Together”

NTMA members will have the opportunity to gather on the other side of the country – the east coast – for **NTMA's ENGAGE SUMMIT EAST** this summer, June 6 - June 8, 2022, in Philadelphia, PA. The Summit will have another great line-up of informative speakers, engaging roundtable discussions, and off-site opportunities. Make sure to keep checking the NTMA website as more details are released about the event.



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EMERGING LEADERS RISING CLASS OF 2022 NOMINATIONS – DUE MAY 31

We are now taking nominations for the EL Rising Class of 2022! Managers and supervisors of these young, talented, and emerging manufacturing professionals, submit your nominations today!

We will be selecting up to 15 individuals for this prestigious award. The selected individuals will be recognized in the July issue of The Record, with their photos, professional information, and accomplishments. Individuals selected for the EL Rising Class of 2022 will be invited to attend the Engage 2022 at a special rate and will be recognized on stage during the awards ceremony. This will offer them an opportunity to connect with one another,

gain valuable recognition, and develop their skills and knowledge. They will also be invited to attend the 2022 Emerging Leaders Conference, where they can continue to grow and learn in this great profession.

As a leader for your company that is focused on the future, you have already identified your future leaders. Now you need to make sure they are being recognized for their work and accomplishments. Please do not hesitate: enter your outstanding emerging leaders today!

Nominations for the EL Rising Class of 2022 are open to all regular members, including our National Associates.



The Process to Nominate Is Simple:

Email Kristen Hrusch (khrusch@ntma.org) with the following information by May 31, 2022.

- Name of nominee
- Company name
- Contact information for the nominee
- Achievements and contributions
- Any additional information that is pertinent

The group will be notified by the second week of June, in order to obtain more details for the July issue of The Record.

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THE PITTSBURGH CHAPTER NATIONAL TOOLING AND MACHINING FOUNDATION: GROWING THE FUTURE OF OUR INDUSTRY

By Molly West, NTMA Pittsburgh Chapter

Members of the NTMA Pittsburgh Chapter have always been a forward-thinking group – looking for ways to streamline processes, integrate innovation, and lobby for legislation. One of the most important decisions Pittsburgh Chapter leaders ever made was establishing the Pittsburgh Chapter National Tooling & Machining Foundation (NTMF). Pittsburgh's very own 501(c)(3) took root with a very clear purpose: to help advance our future workforce in the manufacturing industry and to provide this industry with a workforce that has obtained the best quality education and technical training available. Now, more than 20 years later, the foundation approved its first-ever \$1 million budget and is the parent organization for the Chapter's most vital programs: BotsIQ and Pittsburgh Chapter Apprentice Training.

That \$1 million budget began with seed money from William E. Truxal, president of Penn State Tool & Die from 1970 until his death. Penn State Tool & Die was one of the charter members of the Pittsburgh Chapter. Truxal and his family believed so strongly in the future of Pittsburgh manufacturing, that when he passed in 1998, his wife Edna donated \$10,000 for the purpose of starting an educational foundation.

It took several years to fully form the foundation. The organization raised additional funds through Pittsburgh Chapter golf outings which continue to be an important source of income today. Sponsorships and donations from two national apprentice competitions also served to build the foundation's account.

Around this same time, Southwestern PA BotsIQ came on to the scene. BotsIQ really took off in its second year with a grant from the Richard King Mellon Foundation, and the Pittsburgh Chapter NTMF began to see substantial growth. The foundation has boomed ever since. In 2014, that tremendous growth warranted a review of the foundation's generic bylaws. Chapter counsel, Jordan Blask (now of Frost Brown Todd, LLC), worked with the board of directors to craft bylaws that would see the organization into the future and meet the educational goals of future metalworkers.

Today, the foundation employs Michel Conklin, the executive director of BotsIQ, as well as four additional full-time employees and one part-time employee. BotsIQ is no longer just a regional robotics



competition. BotsIQ now encompasses the Cobot Challenge, Combat Robotics, BotsIQ Academy, and Close the Loop – additional programs that meet students at all levels and include training programs that develop future skilled manufacturing employees and leaders.

Since 1976, the Pittsburgh Chapter NTMA has provided regional manufacturers with a proven four-year apprenticeship training program, offering related instruction courses for individuals seeking metalworking educational opportunities with standards focused on world-class tooling and machining. The chapter has graduated hundreds of apprentices who have gone on to become the backbone of southwestern PA manufacturing. That successful training program is now also a part of the educational foundation's core.

An old Greek proverb says, "A society grows great when old men plant trees in whose shade they shall never sit." Truxal certainly planted that seed with the legacy he left the Pittsburgh Chapter. The NTMF continues to flourish and branch out in new directions that likely Truxal himself didn't even imagine – and the sky is the limit.





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An Outsized Seat At the Table

By: Omar Nashashibi, Partner – The Franklin Partnership



In 1791, U.S. Treasury Secretary Alexander Hamilton wrote in his Report on the Subject of Manufactures presented to the U.S. House of Representatives, “To leave industry to itself, therefore, is, in almost every case, the soundest as well as the simplest policy.”

Today, 231 years later, one could hardly say the federal government is leaving the industry to itself. Quite the contrary, Washington is a part of your business now more than ever before. **A pre-pandemic study in 2020 estimated that the cost of federal regulations totaled \$1.9 trillion annually.** The past two years have shown how increasingly involved politicians and government officials are in manufacturing, and yes, even in some positive ways. And just like anything else in life, succeeding in Washington is a pay-to-play game.

Whether you pay with your time, your influence, or your money, if you want results, you have to show up and

claim your rightful seat at the table. This is what the National Tooling and Machining Association (NTMA) does every day for its members and the industry, show up and speak up.

At the start of 2021, most expected significant tax increases on manufacturers, particularly on the thousands of small businesses structured as passthroughs paying at the individual tax rate. Sixty-five percent of NTMA members are passthroughs and were it not for the lobbying efforts on Capitol Hill of the advocacy team and others, both they and C-Corporations would have faced major tax hikes on January 1, 2022.

Having a seat at the table is earned, and you have to fight to keep it. Politicians have no obligation to listen to the calls for action, we have to give them a reason and do so convincingly. As NTMA's voice in Washington, we explain to lawmakers and regulators

the impact their decisions will have on the careers offered, the products made, and the wealth generated by the industry for the local and national economies.

NTMA is today working in Washington, D.C. to strengthen our long-ignored supply chain after years of large public corporations exporting jobs and factories. We are lobbying on a U.S. competition bill to help manufacturers against China, take back our share of manufacturing, and reduce our reliance on our competitors for critical inputs.

The House and Senate are currently negotiating a final measure that includes \$52 billion to incentivize domestic semiconductor manufacturing, provide billions for STEM and career and technical education funding, and establish a supply chain resiliency office at the Commerce Department to focus on U.S. manufacturing capabilities. As one Congressional Committee staffer recently told me, “As a

\$1.9 Trillion

THE COST OF FEDERAL REGULATIONS IN 2020



manufacturing lobbyist, this is like your Super Bowl.” And he was correct, the legislation in Washington on which we are currently working has the potential to support our industrial base in ways not seen in generations.

Rare is it that a bill moving through Congress not only focuses on the U.S. manufacturing supply chain but specifically mentions machining, tooling, casting, and forming. The House-passed China competition bill includes a section on building capabilities for domestic supply chain resiliency including critical and foundational manufacturing capabilities such as those just listed.

Much to no one's surprise, members of Congress do not on their own start thinking about machine shops and tooling. It takes years of NTMA using its seat at the table to demonstrate the outsized role the association and industry play in the nation's security and economy.

Washington is now not only focused on the products manufactured in the supply chain businesses, but also on the employees themselves. Our January 2022 survey of NTMA members revealed that 95 percent of companies have at least one job opening. The association has a direct connection to the U.S. Department of Labor and is working with policymakers to create and strengthen an employment supply chain. Lawmakers included billions in funding for workforce recruitment and training and are increasingly focused on encouraging younger students to explore manufacturing careers.

NTMA's influence and success in Washington, D.C. stopping tax increases, standing up to China, and building a workforce pipeline are derived from the engagement involvement of its membership. As effective of a lobbyist as I might be, without the NTMA members and leadership of their staff, policymakers would not view me as credible. Politicians especially

must know that behind my statements to them are facts provided by the manufacturers without whom, this economy would stop.

The federal government views NTMA members and the industry as critical essential infrastructure and these politicians now see how essential these businesses and employees are to the country. Legislation is moving on Capitol Hill focused on the industry and we have the attention of all office holders in Washington.

Alexander Hamilton knew over two hundred years ago that manufacturing was central to a young nation. While far from the caliber of a founding father, to their credit, today's government officials are making manufacturing a central focus and all NTMA members should take notice, or lose a seat at the table.



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 lwerner@ntma.org



For more information, please contact
Linda Warner at lwarn@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:

- 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
- 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



Affordable, High-Volume AM Systems Showcased at IMTS 2022

By: Tim Shinbara, Chief Technology Officer, AMT – The Association For Manufacturing Technology



With the AMBIT FLEX, a dockable tool carousel enables interchanging tools for different deposit widths or metals.



The WarpSPEE3D metal 3D prints parts up to 1,000 x 700 mm. It uses supersonic 3D deposition to print to 100 to 1000 times faster than traditional options.



The highly configurable XM2006G with single or dual-laser options meets the demands of high-performance use cases.

The democratization of additive manufacturing (AM) technology has arrived for some market segments and applications. Xact Metal (IMTS booth: 433041) can offer its XM200C printer for prototyping, tooling capabilities, or low-volume casting alternatives at a starting price of \$65,000. Its XM200G model meets the demands of high-performance use cases and starts at \$95,000, well within the reach of job shops, workforce development organizations, educational systems, and in-house tool and workholding production.

For shops that want to combine subtractive and additive processes in a single machining center, Hybrid® Manufacturing Technologies (HMT, IMTS booth: 433137) offers its AMBIT™ technology. The company's print-heads for laser metal deposition (LMD) fit into a standard tool holder. With the AMBIT FLEX, a dockable tool carousel enables interchanging tools for different deposit widths or metals. The AMBIT EDDY tool enables eddy-current inspection to confirm deposition quality, and the AMBIT LMD mPWR tool offers melt-pool monitoring. Applications include repair, correcting machining errors, and extending part life cycle by adding layers of high-performance materials such as Inconel®.

HIGH-VOLUME SOLUTIONS

Other AM Pavilion exhibitors help users manage affordability by increasing productivity. SPEE3D (IMTS booth: 433027) developed a process called Cold Metal Spray technology that uses compressed air to propel aluminum, aluminum bronze, or copper metal powders at supersonic velocity. The kinetic energy of striking the target fuses the particles into a homogenous solid with an integrity that exceeds that of cast parts and approaches that of forged parts (integrity has been

confirmed through extensive testing). The SPEE3D process is 100 to 1,000 times faster than DMLS and does not require post-printing curing because there is no need for a binder.

When it comes to high-speed direct digital production of non-metallic parts, the Figure 4@ technology platform from 3D Systems (IMTS booth: 433104) enables tool-less alternatives to traditional injection molding or urethane casting processes with direct digital production of precision plastic parts, as well as ultra-fast same-day rapid prototyping. The solution is scalable with a modular, expandable capacity to meet present and future needs.

Exploring the tech efforts from just a few of the 80+ exhibitors in the AM Pavilion at IMTS 2022 shows that the industry has been focusing on solutions that address capital expenditure, productivity, and order quantity issues.

Moreover, IMTS 2022 features AM technology throughout the show. Look for hybrid systems in the Metal Removal Pavilion, new tooling specifically for AM in the Tooling & Workholding Pavilion, breakthrough software in Control/CAD-CAM Pavilion and metrology solutions for inspecting internal structures in the Quality Assurance Pavilion.



**Register now for IMTS 2022,
which runs from September 12-17
at Chicago's McCormick Place.**

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As Mike Watkins and I continue to talk about the gaps we are seeing in the machine trades, we notice one thing that is very standard, the need for more qualified personnel. Most people we talk to are looking to add a Milling specialist, a Lathe specialist, a Wire EDM specialist, a Programmer, a Manufacturing Engineer, a Quality Engineer ... The list goes on and on. With the supply chain tightening up, the workloads in shops growing to critical mass, and the continued re-shoring of work, there are huge needs to grow our workforce.

HOW ARE WE GOING TO DO THIS?

We Need a Culture Shift

By: David Capkovitz – EBITDA Growth Systems



WE NEED TO START FROM THE INSIDE

One conservative statistic for the cost of replacing a key player in our company averages around 1.5 X the key player's annual wage. This can turn into \$500k really fast if we don't retain our top talent. With this said, not only do we need to add talent, but we need to keep the talent we have. This points out the importance of our internal culture. Imagine if you had HR, leadership, middle management, and all of your floor staff recruiting for you? This truly takes the phrase "many hands make light work" and uses it to tackle one of our biggest challenges. Now imagine people around town talking about how leadership at your company takes care of their people, and how people love working for your company. Now you have the whole town recruiting for you. We need to start thinking this way to bridge the employee gaps in the market. People want to work for good leaders in good companies.

HOW DO WE START THIS SHIFT?

The first thing we need to do is lean into our leadership. We NEED to be good leaders, otherwise people will not follow. We need to listen as much as we talk, and we need to be willing to change the way we have always done it. This start, by looking in the mirror and then talking to a mentor or someone that can hold us accountable. We need a dust-free mirror so we can work on becoming our best selves. When we do this, our team will notice, and then we can start passing these good lessons on to the next people in line.

The second thing we need to do is start investing in our team. This needs to be something meaningful and not just lunch or doughnuts (although, I am a fool for doughnuts). We need to take time and talk with our team one on one, get to know their personal goals, and help them accomplish their dreams. Yes, they may only be with you for a season, but that season could be one of the brightest of their careers. When we identify people who want to become leaders, we help them along, we educate them by sending them to training, and then we talk to them about what they have learned. When we ENGAGE the workforce where

they are, show an interest in their success, and let them share their passions, everyone starts winning. The third is accountability. When we start investing in people and they start growing toward their goals, we hold them accountable. This does not mean that we punish them if they miss a mark, it means that we stay in touch with them regularly and remind them why they are doing what they are doing. We lean in and help them succeed in life. This is the real reason why we engage others, to help them succeed in life. When we take a real interest in our people and invest in them, we start working on culture.

Culture is so much more than a catchy slogan, it's meeting people where they are, looking them in the eye, and helping them reach their personal goals. When people start reaching their goals (and they will when you invest in them), they will never forget you. They will remember the person that had faith in them and pushed them to be the best they could be. They will remember you for the rest of their career. That is the perfect picture of rewarding.

I know when my days are numbered, I strive to have people remember me not by what I accomplished monetarily, but by how I was a positive impact on others. I want to be remembered as a man who invested in others, believed in people that needed to be believed in, and helped others reach their goals both professionally and personally.

ISN'T THAT WHAT YOU WANT?

If so, you can grow your culture internally to a new height and your entire town will recruit for you. In fact, if I can be so bold, you may have more applications than you have positions to fill. This is where we need to be.



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Opening Keynote:

Where Is the Eye of the Storm?

Presented by: Chris Chidzik
Research and Survey Manager, AMT



Closing Keynote

Full Circle With an Eye on the Future

Presented by: Marlow Knabach
President, DMG MORI Manufacturing USA, Inc.



Economic conditions are generally strong, and manufacturers are benefiting from booming consumer demand, but it's not all smooth sailing as several prominent headwinds are threatening to push the recovery off course. This presentation will examine the current economic environment and how it impacts the general manufacturing industry. Conditions affecting key customer industries such as automotive, aerospace, energy, and several others will also be discussed along with their forecasted performance for the remainder of 2022.

The influences impacting manufacturing today are numerous and ever-changing. From workforce shortages to supply chain disruptions, and everything in between, success today seems to be defined by "Plan B." However, some businesses thrive on challenges and emerge with new business opportunities. What technologies should be embraced for success today, while positioning for prosperity in 2023 and beyond?

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ENERGIZE YOUR SHOP

GENERAL SESSIONS

General Session 1 Value of Partnership

Moderated by: *Dave Capkowitz*
Principal, EBITDA Growth Systems



Learn from our panel of industry experts about what they have been able to achieve by building partnerships within the industry. You'll hear their best practices, successes, and adversities and discover how the value of their partnerships ultimately benefit you. Come away with new insight and inspiration to create your own partnerships.

Panelists Include:

Lindsey Athanasiou – VP of Strategic Relationships, PaperlessParts
Rob Caron – President, Caron Engineering
Gabe Draper – Co-Founder & Chief Prospecting Officer, FACTUR
John Joseph – CEO, Datanomix



General Session 2 Inflation, War, Taxes, and Tariffs: The Latest From Washington, D.C.

Presented by: *John Guzik* – Partner, The Franklin Partnership
& *Paul Nathanson* – Senior Principal, Policy Resolution Group
at Bracewell LLP

Inflation, a global pandemic, war in Europe, and supply chain shortages are presenting unprecedented challenges for NTMA members and other manufacturers. What is the Biden Administration and Congress doing to address these challenges and will their proposals help or hurt manufacturers? Will Congress pass major legislation on taxes or the environment? Will Republicans win either the U.S. House or Senate in the November 2022 elections? Two members of NTMA's advocacy team in Washington, John Guzik from The Franklin Partnership and Paul Nathanson from the Policy Resolution Group at Bracewell, will provide an update on how policies and legislation related to taxes, regulations, and trade will affect your business in the year ahead.



General Session 3 Industry Roundtable Sessions

Moderated By: *Eric Hagopian*
Founder & CEO, Pilot Precision Products

Dive into hot-button issues with your peers in this fast-paced, solutions-driven session. Leave with ideas and inspiration to make the most of 2022!

General Session 4 Applying Smart Standards to Your Training Systems

Moderated by: *Montez King*
Executive Director, NIMS



Often, training systems will emerge through workforce development initiatives that are promoted as the "Gold Seal" for training. However, shops that work to adopt these models usually continue to struggle with training. The issue is that training methods are not the same for each organization, as each organization's circumstances are different. This is why the outcomes of training vary from one organization to the next, even when adopting the same system. The overarching reality is ... success is when shops empower themselves and analyze their training needs based on operational needs for peak productivity. Learn about NIMS's new innovative framework, Smart Training Solutions, and how you can modernize your training to keep up with ever-changing technological, workplace, and economic environments.

BREAKOUT SESSIONS

Break Down the Walls Between Manufacturing & Quality

Presented by: *Sam Golan*, CEO & Founder, High QA

CMMC For the Rest of Us

Presented by: *Scott Dawson*, President & Co-Founder,
Core Business Solutions, Inc.

Employee Retention Credit

Presented by: *Missy Waites*, Associate Director, alliantgroup

Fixing the Disconnect Between Industry, Education, & Government

Presented by: *Bill Padnos*, Executive Director, AMPED & NTMF
National Tooling & Machining Association

Automating Your 5 Axis Machining Process & Process Reliability Down to Lot Size One

Presented by: *John Joseph*, CEO & Co-Founder, Datanomix

From Myths to Moneymakers – Automating CNC Milling Machines

Presented by: *Nathan Turner*, President Fastems, LLC

How Production Monitoring Empowers Today's Workforce

Presented by: *John Joseph*, CEO & Co-Founder, Datanomix
& *Jack Russell*, CEO, Rolar Products

Latest Developments in Labor & Employment Law

Presented by: *Stephen Maule*, Partner, McMahon Berger

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

Opening Keynote will start Monday, 6/6 at 4 pm
Closing Keynote will wrap up Wednesday, 6/8 at noon

By: Rob Felber, President – Felber Public Relations & Marketing

How Much Money Are You Wasting on Website Marketing That Is Not Yielding Results?



Your Website Looks Great. However, if No One Sees it, What's the Point?

There is always talk about the holy grail of ranking, Google's #1 position. The higher your site ranks compared to your competitors, the more opportunities to convert qualified prospects into customers. Countless items can impact your ranking and ultimately what our manufacturing clients desire is the "real holy grail," lead conversion. If you are spending money on marketing to attract those leads, but your site is never found, that's the problem.

SEO audits are a great way to find out where your website stands and what you can do to improve its performance

A Website SEO Audit Can Turn That Around

An SEO audit evaluates several aspects of a website to uncover problems or errors that may result in your site not being shown in a Google search, and ultimately, not found by your target audience. SEO audits are a great way to find out where your website stands and what you can do to improve its performance. Our SEO audit covers five main areas: Technical review, Meta & Structured Data Analysis, Core Web Vitals, UX (user experience) Issues, and Site Results in Google Search. If you are planning any marketing program to attract prospects, whether paid advertising, newsletters, social posting, content marketing, or otherwise, it's critical to first have your website looking great, and functioning well.

Technical Review

Is analytics and Google Search Console installed and linked? If using HubSpot, are tracking reports linked? Make sure the URL is indexed and not blocked by robots. Check for broken links and if the sitemap is submitted. Without a sitemap, Google will not know where to look when scrolling and ultimately ranking your website.

Meta & Structured Data Analysis

Does your page contain a unique meta description and the one that always surprises us is when the Header Tags are not installed or worse, even relevant? How are your keywords ranking?

Core Web Vitals – Mobile Friendly

Now let's look at the website load speed. Who wants to wait for a site to load? Is the site mobile responsive? Yes, that is still a big deal. Also, make sure to check for hacked content and malware.

UX (User Experience) Issues

Is the site navigation clear and are there effective calls to action (CTAs)? Without CTAs, how will you ever convert leads? If you think a millennial will actually call based on your phone number listing, you and the Maytag repairman can keep waiting by the phone.

Site Results in Google Search

How is your Google my business listing? Is it accurate and built out or littered with just the photos from the Google drive-by car that took that ugly picture of your back alley (yes, that happened with a client, and we were able to delete that unflattering photo).

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ROLLED AND READY-MILLED
ALUMINIUM PLATES FOR
IMPROVED PRODUCTIVITY

Are You Participating in the Grainger Value Advantage Program?

If not, you are missing out on **additional savings!**

We can deliver 12 to 15%, or more, in total cost savings when you consolidate your MRO and Metalworking spend to Grainger.

HELPING DRIVE SAVINGS IN EACH OF THESE AREAS



CONSUMPTION

Increased inventory controls with SKU-level visibility to reduce consumption



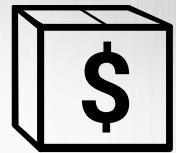
STANDARDIZATION

Product standardization optimizes and right-sizes inventory to reduce carrying costs



PRODUCTIVITY

Simplified processes help reduce POs & invoices, and hours spent looking for product



PRICE

Higher discounts, from increased spend, reduces item costs

Source: Grainger Consulting Services

VALUE ADVANTAGE PROGRAM = CUSTOMIZED OFFER EXCLUSIVE TO MEMBERS INCLUDING:

- **Documented cost savings**
- **Drive productivity with Metalworking** – Improve work cell efficiency, maximize tool output, optimize product application, and minimize scrap and rework
- **Deeper savings** on the leading **tooling** and **abrasives** brands in the industry
- 17 categories with additional discounts
- **Grainger pays all standard shipping**

Visit [Grainger.com/ntma](https://www.grainger.com/ntma) to take advantage of all your member benefits

*Standard ground freight is paid by Seller on all orders, unless otherwise stated, to Buyer's place of business anywhere in the contiguous United States. Other terms and conditions may apply for other than standard ground delivery ("Other Freight Services"), including expedited same day delivery, air freight, freight collect, sourced orders, export orders, hazardous materials, Buyer's carrier, shipments outside the contiguous U.S. or other special handling by the carrier. Charges incurred for Other Freight Services must be paid by Buyer.

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5 FOOLPROOF WAYS TO TAKE ON MANUFACTURING SHIPPING CHALLENGES

Manufacturers have to make sure products are shipped efficiently, arrive on time, and don't experience damage. In addition to rising costs, manufacturers face a unique set of logistics obstacles, including large, fragile shipments that are expensive and hard to handle. Services and equipment needs can vary day to day, so flexibility is important. Read on to learn five foolproof ways to take on these challenges.

1. PRIORITIZE THE SAFETY OF YOUR LOADS

Manufacturers ship a wide variety of commodities, from small components to oversized machinery. For any-sized load, safety and security should be emphasized to limit damage and loss. Start with regularly auditing your parcel and freight carriers to ensure their service levels meet your business expectations. Keep track of what's working, as well as any issues you are experiencing with current carriers. If necessary, try out new carrier options whose service matches your challenges. Lastly, ensure your preferred carriers are communicated to both your shipping department and any outside parties who are arranging your loads. Make sure your packaging is perfected, for both parcel and freight shipments. Use quality materials and remember the basics:

- Don't reuse packaging to ensure structural integrity
- Limit extra space to avoid shifting during transit
- Use pallet wrap to keep loose components together
- For larger loads, consider using custom crates

2. DOUBLE-DOWN ON SERVICE OPTIONS THAT ENCOURAGE TIMELY DELIVERY

Manufacturing any type of product typically involves several different parties who tackle specific steps during fabrication. If anything goes wrong logistically during that process, it can disrupt the entire supply chain. It's crucial that your business is using carrier options that prioritize timely delivery. Both FedEx and UPS offer different service levels depending on the urgency of your parcel shipment. If you're in a crunch, FedEx can speed up delivery with options like FedEx Priority Overnight® or FedEx 2Day A.M.®. UPS also offers expedited services, such as UPS Express Critical® and UPS Next Day Air®.

Always review delivery estimates before booking, and keep in mind, budget carriers should be avoided in emergencies, as they typically have longer transit times. Many LTL freight carriers offer a variety of expedited services. Just-in-time delivery options can also ensure your shipments are delivered as soon as possible. Keep in mind that these services often use dedicated trucks or air/ground solutions and may be pricey. Preventing shipping emergencies is ideal, but if they can't be avoided, rate shop with carriers to keep costs down.

3. CONFIRM YOUR FREIGHT CLASS BEFORE YOU SHIP

Manufacturers ship a wide variety of products; thus a huge shipping challenge is choosing an accurate freight class/NMFC code. Unfamiliarity with these codes can affect everything from your total freight cost to claim payouts. A common mistake many shippers make is using an outdated or blanket NMFC code. For example, the "machinery" group NMFC code is 11400. There are over fifty major categories that specify machinery type, ranging from class 50 to 500. That's hundreds of dollars difference in a final bill. Shipment class is determined by product type, in addition to density, dimensions and weight, packaging type, and more. Codes are updated regularly, so if you haven't shipped a product recently, you need to check it again, especially if any packaging specifications have changed. If your BOL contains the wrong class code, your freight will likely be flagged by the carrier. Inspection and additional fees may inflate your bill and delay your delivery. If you have any trouble finding the most accurate class code for your shipment, don't hesitate to call the carrier or work with a freight broker who can help you.

4. MAKE SURE THE VALUE OF YOUR LOAD IS COVERED

Freight shipping involves tons of handling and frequent stops at terminals. As a result, it's probably not a matter of if, but when, you'll get hit with damages. We don't want to jinx your shipment, but let's explore the event that your load encounters some damages or loss while on the road.

Freight damage is frustrating because it's expensive, can hold up the fulfillment of an order, and may complicate customer relationships. Because many



manufacturers' shipments are extra fragile, hard to maneuver, and of high-value, the risk is compounded. Shippers must prove the carrier is at fault for damage and often a carrier will try it's hardest to avoid responsibility. Even if you do receive reimbursement, there are limits to carrier liability payouts. They may not meet the entire value of your load.

A KEY TIP: Acquire your own freight insurance that covers the value of your load. Outside insurance doesn't require proof the carrier is at fault, just that the damage occurred. While there's an extra charge for the insurance, it's usually based on the declared value of your freight, and it's worthwhile should you experience damages.

5. USE A FREIGHT PROVIDER THAT OFFERS CUSTOM SHIPPING SOLUTIONS

Cutting costs is always at the top of the priorities list, and taking a fresh look at your shipping procedures can be a fruitful place to start. A 3PL can help leverage carrier relationships and buying power to acquire better shipping discounts for your business. Through the NTMA Shipping Program, members decrease costs with competitive rates with carriers who prioritize safety and better shipment handling.

Working with a freight broker can address many shipping challenges at once:

- Conducting carrier audits for better pricing and service
- Managing claims and acting as your advocate, communicating with carriers, and ensuring proper documentation is in order
- Determining whether you need expedited freight services, and helping to quote and schedule your day-to-day shipments
- Finding special equipment options that balance safety and cost for tough loads

Turn your manufacturing shipping challenges into full-scale improvements

NTMA manufacturers have a unique set of shipping obstacles that can be tough to navigate. PartnerShip has the experience and proficiency to help take on these challenges, so you can get back to business. Visit PartnerShip.com/54NTMA or call (800) 599-2902 to learn more.

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04

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03 MARKETING SERVICES

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