

JUNE 2020

# THE RECORD

Published by the National Tooling and Machining Association

## INTRODUCING

THE PRECISION **MANUFACTURING** CONFERENCE

### INSIDE THIS ISSUE

Members Making a  
Difference - p 16

The NTMA Fall Conference  
Manufacturing Engage 2020  
pp 20-21

Keeping CTE Moving Forward  
in Indiana - p 24

*and so much more...*

# ENGAGE<sup>TM</sup> 2020

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THE NTMA FALL CONFERENCE HAS A NEW NAME

October 27-30, 2020 - Kansas City, MO



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## THE RECORD

### OPERATIONS & EDITORIAL

Roger Atkins, President  
Doug DeRose, Editor

### ADVERTISING INQUIRIES

To advertise in The Record, or for information on publishing your corporate newsletter or sales literature, contact Kelly LaMarca at (216) 264-2837 or via email at [klamarca@ntma.org](mailto:klamarca@ntma.org) for advertising and editorial content.

### DESIGN & LAYOUT

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### NTMA EXECUTIVE COMMITTEE

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*Modern Industries, Inc. - Phoenix, AZ*

Alan Ortner, Vice Chairman  
*Sirois Tool Co., Inc. - Berlin, CT*

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*Kuhn Tool & Die Company - Meadville, PA*

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Tom Sothard, External Board Member  
Debbie Holton, External Board Member



## Welcome New Members

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Northwestern Pennsylvania Chapter  
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Jeff Passilla  
Tessy Plastics  
Central New York Chapter  
[www.tessy.com](http://www.tessy.com)

## Upcoming NTMA National Events



### Legislative Conference **RESCHEDULED**

*Please see the Calendar of Events  
(page 9) for additional details*



### Annual Fall Conference

October 27-30, 2020  
Kansas City, MO





# PRESIDENT'S UPDATE

As I write this month's article in the midst of the largest pandemic in our nation's recent history, I remain optimistic about the future of you, our members, and the future of NTMA. Together we have worked to navigate uncharted territory, and we continue to move forward. The discussions I have had personally, as well as the stories that you have written or have been written about many of you, tells the true story of the manufacturing entrepreneurial spirit. We have, we are, and we will overcome. We will overcome together as long as we all stay and work together. I must say that as President of this great association, there is nothing I have been more proud of than the exceptionalism that I have seen in you, our members. While some members struggle less than others, the idea that we share our experiences and challenges with each other gives us all a better chance to come out on the other side of this pandemic ready for the future.

#### **The FUTURE – what is it and what will it look like?**

#### **How will we adjust? What will be the new challenges?**

**How will our shop layouts look? How will our workforce interact? How will we deal with sales and marketing? Will there truly be an onshoring/reshoring of product opportunities? What will be the cyber issues we face as we move closer to industry 4.0?**

#### **How will the next generation machinist be trained?**

**How do we prepare now for the next industry disruption?** These are just a few of the many questions we face as an industry about our future. Questions that if answered and addressed correctly, could assure the future of each of our companies. I believe that personal ingenuity, coupled with associational support, could be a winning formula for the future.

How would we have navigated COVID without support from NTMA and our industry partners? It has been encouraging to hear the many comments we have received on NTMA's importance to member companies during these challenging times, proving **"We Are Stronger Together."**

We unfortunately had to cancel many of our scheduled NTMA industry meetings where we network and get exposed to many things that help improve and support our businesses. That said, I wanted to let you know that your NTMA Staff is in full planning mode for our Annual Fall Conference. Yes, we are preparing for a post COVID environment which will make our Annual Fall Conference timely and critical as our nation's economy re-opens and begins to operate in what many call the new normal. It will be an opportunity for us to come together and be a part of developing what the new normal is for our industry.

We are planning for a content rich and information packed conference, addressing many of the questions mentioned above while allowing us to network together on developing each of our futures. Having been in the precision manufacturing industry my entire career, being a longtime member of NTMA and having attended years of conferences, I personally believe that this could be one of the most timely and important conferences for us to come together as an association to network, learn, listen, and build for the future success of our individual companies.

I briefly mentioned above that this October's conference is what we know as our Annual NTMA Fall Conference; however, I am excited to announce there is a new conference title branding rolling out for this year's conference in this issue of the Record. Make

sure to read ahead and see the new name (page 20.)

The new branding challenges us to action and involvement, both critical ingredients of any association. It also positions NTMA to be more inclusive of the entire U.S. precision manufacturing industry and more attractive to potential new members. This would allow NTMA to build the critical mass needed to further influence the importance of the U.S. precision manufacturing industry and the challenges that affect our businesses.

We realize that the stars will need to align and that we will need to be in a visible post COVID environment for this conference to take place in October as planned. I ask you to mark your calendar for October 27-30 in Kansas City and plan to attend. We monitor COVID related restrictions and openings on a regular basis and will keep you informed as the conference gets closer.

In closing, I want to say to each member company how much I appreciate your continued membership in NTMA and your faithful paying of your dues which helps support the staff which serves you. I believe this is the time to turn to associations rather than to run from them. Please take a minute and review the many services offered by NTMA, as they are there for you! If utilized, they can easily cover your dues costs and further benefit your company financially. Let's keep the faith that together we will overcome these current challenges created by COVID.

**For NTMA it remains;  
US-WE-TOGETHER-TEAM-THE FUTURE.**

Roger Atkins, President - NTMA

# NTMA MEMBERS

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# Home to Office and Back Again

Chris Kaiser on 30-Year Anniversary of BIG KAISER Precision Tooling

# BIG KAISER



It's been 30 years since I started KAISER Precision Tooling USA, and I never imagined I'd be running this company from home again. Like most BIG KAISER employees, I'm working remotely at least a few days each week to maintain required social distancing. I can relate to the experience many are having now as they juggle work and family at the same time. It's the experience of parents everywhere who are also entrepreneurs working to start a new business.

Back in 1990, after living and working in the U.S. for nearly a decade, I started this company out of necessity. I knew we needed to change how we were selling the boring tools manufactured by my father's company in Switzerland, Heinz Kaiser AG. I had a vision to increase sales with better marketing, product deliveries, and customer service, but my goals weren't shared by the agents and partners we had at that time.

That's how I found myself sequestered at home with two little boys regularly knocking on the door asking when I was going to come out and play. As much as I wanted to do that, I also needed to focus on setting up a new company from scratch. There was no building, no equipment, no staff.

Many late nights were spent working with a friend in his basement, writing a business plan, setting up systems for accounting and IT, and making the first boring tool catalog. During the day I sought legal advice, met with lenders, and looked for a facility that would house this new company.

In July of that year, I was joined by my long-time partner, and now BIG KAISER Vice President, Jack Burley. Operations Manager Tim Grosch also started in that first year. There were many other friends and influential people along the way, but these two have been with me on this adventure since the very beginning.

On August 1, 1990 – coincidentally also Swiss Independence Day – we opened the doors at our first facility in Elk Grove Village, IL. It was two minutes from my house so I could spend a lot of late nights at work after dinner with my family, just as my father did when I was little.

After 30 years, I'm proud to say we've had a good number of customers from the very beginning. Possibly the first was a Swiss-born machinist who carried Heinz Kaiser boring tools back from his vacation in Zurich to his job in the repair center at

United Airlines in San Francisco. United remains a customer of BIG KAISER today. Some of those old boring tools are repairable and in still in service!

Many U.S. companies in defense and other industries bought SIP jig-boring machines made in Geneva, Switzerland. They also invested in precision boring tool kits – packed in a wooden case – from Heinz Kaiser AG. We're grateful that companies like Bell Helicopter, Sikorsky, Caterpillar, John Deere, Metalex, Vermeer and Viking Pump – among others – are still with us to this day.

I look forward to reuniting with long-time customers, partners, and friends at a 30th anniversary celebration sometime later this year. In the meantime, I hope we can all get back to the office and a more normal routine very soon. Seeing my grandson on FaceTime and Zoom is just not as good as going outside to play!

Until then, stay well and stay positive - CK

*BTW, is there any chance one of our readers still has a "PICCOLO" boring tool in the original wooden box from that time? I would love to have a photo of it!*

# Safety & Health

## Heat Stress

### 1 The Problem

**Heat stress doesn't just slow you down; it can be deadly.** Exposure to excessive heat can directly or indirectly cause some illnesses and exacerbate many pre-existing conditions, such as heart and respiratory disease. Some employers fail to recognize and address heat stress hazards in the workplace due to a lack of monitoring and knowing the signs and symptoms of heat-related illness, which include:

- Headache
- Muscle cramping
- Nausea or vomiting
- Dizziness or fainting
- Fatigue

### 2 Solutions that Work



**Keeping your workers comfortable** during the workday is an important part of helping ensure their safety. A well-managed work safety program can help reduce injuries, improve regulatory compliance and manage risk. Here are some ways to help your employees deal with the threat of heat stress in extreme heat:

- Wear loose-fitting clothing
- Drink water frequently without waiting until you're thirsty
- Schedule hot jobs for cooler parts of the day
- Scheduled maintenance should take place in cooler seasons
- Schedule additional work breaks
- Reduce exposure times for crew members
- Allow workers to interrupt work when they're affected by heat
- Provide immediate first aid to any worker who appears to be affected by heat-related illness
- Monitor the work environment to identify danger areas and quantify heat levels
- Train employees to identify heat hazards, recognize the signs of heat-related illnesses and provide basic treatment

### 3 How Grainger Can Help

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<sup>1</sup> Centers for Disease Control

<sup>2</sup> CDC, Extreme Heat, June 2017

<sup>3</sup> NIOSH, Criteria for a Recommended Standard, Occupational Exposure to Heat and Hot Environments, 2016

#### Fast Facts

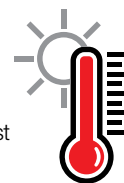


**6 MILLION**

Number of U.S. workers exposed to occupational heat stress, resulting in tens of thousands of injuries and hundreds of deaths each year.<sup>1</sup>

**600+**

People in the U.S. killed by extreme heat every year, most of which are preventable.<sup>2</sup>



**<59°F**

Drinkable water should be provided at a temperature of less than 59°F near employee work areas.<sup>3</sup>



Amount of water an employee should drink every 15-20 minutes when performing moderate work activities in the heat for less than 2 hours.<sup>3</sup>



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# 2020 NTMA CALENDAR OF EVENTS



NATIONAL TOOLING AND MACHINING ASSOCIATION

## Legislative Conference **RESCHEDULED**

**September 21-23 – Washington, D.C.**

*The Legislative Conference scheduled for September in Washington, D.C. is being rescheduled as a series of regional, virtual meetings. More details will be coming in the next few weeks, once dates have been coordinated with members of Congress, One Voice and NTMA Chapters. Expect a more accessible, impactful and affordable experience with more member involvement.*

**Please contact Kristen Hrusch, our Events Manager, for more information and to register: [khrusch@ntma.org](mailto:khrusch@ntma.org) 216-264-2845 or visit [www.ntma.org/upcoming-events](http://www.ntma.org/upcoming-events)**

## Manufacturing Engage 2020

**October 27-30 – Kansas City, MO**

*Manufacturing Engage 2020 will build on NTMA's long legacy of providing precision manufacturers and industry leaders with the invaluable experience of gathering together to network, learn, and advocate for the advancement and future of the industry. The conference name change is a part of a larger NTMA effort to evolve programming to better reflect the face of the industry and the expectations of conference attendees.*



## How NTMA Members Stay Connected During Unprecedented Times

Many NTMA members are looking for ways to stay connected during these uncertain times. While we are not able to gather together in person, we can still connect virtually and be together. To address this issue in May NTMA started hosting a bi-weekly "Member Drop-In" virtual meeting. This is a unique opportunity to check in with your fellow NTMA Members, discuss complex problems and get ideas or solutions from your peers.

This "virtual roundtable" has been very beneficial to the members who have attended and we encourage you to take advantage of this quick, easy and free networking opportunity.

“

NTMA "Member Drop-Ins" have allowed me to enjoy getting to know other NTMA members across the US who I may never have had the opportunity to meet otherwise. These "Drop-Ins" not only allow me the chance to share how my business is doing, but I also get to hear how other members are being affected by COVID-19. It's definitely reassuring to know I'm not alone out here and other members are facing the same challenges I am and there are members out there that I can lean on for support.

**Chris Flemming**  
General Manager, Alexandria Industries



**Upcoming Member Drop-Ins are scheduled at 1pm EDT on the following dates:**  
June 24 - July 8 - July 22

Please check your e-mail for future invites, or contact NTMA's Member & Chapter Relations Manager, Kelly LaMarca at [klamarca@ntma.org](mailto:klamarca@ntma.org) or (216)264-2837.

**We hope to see you on the next call!**



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# The Best People and the Best Products: Sixty Incredible Years in Business



During this difficult time, let's take a moment to celebrate and thank our staff and customers.

We're all living through an unprecedented time of fear and uncertainty—so, in the midst of it, it's good to take a few moments to celebrate the positive. That's what we're doing at Sirois Tool. On Monday, April 27th, we took time to celebrate our company's 60th anniversary.

We were founded in 1960 by Robert Sirois as a manufacturer of cutting tools. It wasn't long before the company expanded its capabilities to include precision tooling manufacturing for the bearing industry, including low-volume machine parts and assemblies. We have always prided ourselves on our flexibility and our capacity to change with the demands of the industry, and that's truer than ever today.

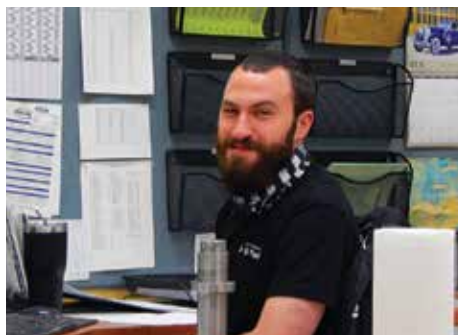
We are building on the Sirois legacy of high quality products, delivered as promised within the required lead times. Our modern 25,000-square-foot facility houses the most advanced machining technology for Sirois Tool as well as the Dow-Gage product line for precision gage manufacturing. We've also added North American Spring Tool's complete line of carbide and steel tooling for the spring industry.

At Sirois Tool, we treat people right—both our customers and our employees know they can count on that. We've also always demonstrated a commitment to our community through our fundraisers, food drives, and other community building events, and we're trying to expand on that during this crisis.

We've launched a Lunchtime Challenge, encouraging businesses to support local restaurants by buying takeout lunch for their crews one day a week. Of course, when we celebrated our anniversary, we brought in an amazing lunch from Portofino's Restaurant in Berlin.

For 60 years, it's been all about people for Sirois Tool. One of our favorite quotes is from Reid Hoffman, who said, "We believe that when the right talent meets the right opportunity in a company with the right philosophy, amazing transformation can happen."

**Thank you to our employees and our customers for 60 great years!**





# The Washington Post



May 18, 2020

Interview by: KK Ottesen



## Kevin Ahaus

55, president of Ahaus Tool and Engineering, Richmond, Ind. (pictured far right)

The face shield [idea] came up from our local salesperson and a friend of his who works at the company that designed the product. They said, "Hey, we need some help." We jumped on it, said sure. You know, we're seeing a little slowdown in business, so this would be good work to help keep everybody busy. And so we got our team together and said, "Let's figure out how to do this." [The face shields are] going to people who are on the front lines, in close contact with a patient or suspected-case patient. People were just saying, "How can I help? How can I chip in?" It's developed into two shifts pushing out 20,000 assemblies a day. We rotate [people] in and out so they don't get too burned out on doing this same repetitive motion thousands of times a day. Everybody's real upbeat, proud to be a part of the process. I'm proud of everybody working here because they stepped right in.

## Members Making a Difference



### Tessy Plastics Takes Initiative on PPE

Due to the shortage of personal protective equipment, Tessy Plastics, a global contract manufacturer headquartered in Skaneateles, NY, has been prototyping a variety of products related to the testing and treatment of COVID-19. Tessy took the initiative to invest in the injection molds necessary to produce face shields and has partnered with Onondaga County on this effort. The face shield is a three-piece assembly that is comprised of a headband, visor, and shield.



### SMT Races To Step Up Ventilator Part Production

Southern Manufacturing Technologies (SMT), in Hillsborough County, FL, has joined the fight against COVID-19. SMT produces precision parts, predominately for aerospace and military customers. They also make the valve housings for an important medical application – the ventilator. Orders have surged in response to the COVID-19 pandemic and SMT stepped up by tripling its weekly production in the early days of the outbreak. SMT aims to produce tens of thousands of valve housings for the ventilators, part of the national effort to manufacture some 50,000 ventilators. SMT shipped 3,383 housings in March, will make at least 4,000 parts in April, plans to double their output in May and has recently received an order for 30,000 more units. To keep up with the demand, the company spent \$70,000 retooling its machines. “We don’t have a clear idea of the demand,” says SMT owner and President Roy Sweatman. “It’s as many as you can as fast as you can.”

SMT continues to prioritize worker safety along with production by staggering shifts, renting another facility to keep workers apart, and cleaning and sanitization of workspaces.



### Ahaus Steps Up to Help with PPE During Pandemic

Ahaus Tool and Engineering, Inc. partnered with Primex Plastics to bring much needed personal protective equipment (PPE) to medical facilities. Ahaus, which traditionally manufactures workholding and automation solutions, has committed to assembling over 500,000 shields in the next few weeks. President and Co-Owner Kevin Ahaus is pleased with the opportunity. “Ahaus team members have jumped into this project to help make a difference,” he said. “I am proud of the willingness of everyone here at Ahaus to help. This is a great team that cares about how they can do good things together.”

Jeff Sheridan, Vice President and Co-Owner said, “This is a big change of pace for our team as we normally build automated equipment to support the production process. Now we get a chance to be immersed in the production process. The high volume production of these medical face shields is definitely taking us out of our normal mode of business, but I am proud to see our team step up to the challenge of helping our medical professionals.”



### Automation Tool & Die Producing Face Shields

During its more than 40 years in business, Automation Tool & Die (ATD) in Valley City, OH, has manufactured all types of safety critical components for automobiles and industry. In response to a public safety need during this pandemic, Cuyahoga Community College reached out to ATD to provide an innovative, economic option to address the PPE shortage. ATD did just that by making face shields, which they plan to continue producing and offering at a fair price for as long as they are needed.



### Jagemann Answers Call for PPE Assistance

Jagemann’s Murfreesboro, TN plant now is manufacturing disposable face shields. Not only does this help frontline healthcare workers, but it also enables Jagemann to continue to employ its 90 employees as they provide for their families. “We are pleased to be able to continue employing our staff while assisting in the fight against coronavirus, helping keep the country’s healthcare workers safe and protected,” said Nathan Dudney, Jagemann’s Director of Sales and Business Development. The company is working diligently to source sufficient material and capacitate lines that previously produced components for Ford Motor Company. Jagemann has committed to producing 1,000,000 face shields in the next 60 days.



### High Tech Laser & Polishing Makes Face Shields for Donation

High Tech Laser & Polishing is making up to 200 face shields a day and has donated quantities ranging from 25 to 100 to various facilities including local healthcare clinics, testing facilities, senior living facilities, and funeral homes. The company wanted to help with the PPE shortage and knew that they could cut out the clear polyester plastic material on their laser machines. Based on a shield from the shop, they redesigned it and with foam for the forehead and elastic for the strap. The company converted a conference room to an assembly line.

# WHAT'S THE BUZZ ALL ABOUT?

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## Forbes

Move Your Back-Of-The-Envelope Custom Parts Quotes Into the Cloud? Paperless Parts Says No Problem!



"Our shop is much more efficient, our throughput and revenue increased by 15% to 20% in 2019."

**JUSTIN QUINN**

President, Focused on Machining



"Our manufacturing customers loved our system so much, we referred them to Paperless Parts."

**JAMES TEUBER**

Partner, Re3dTech

## the fabricator

Technology Spotlight: A plan for better quoting in metal fabrication



"Our year-over-year revenue increased by more than 70%."

**ANDY REEVES**

Business Development & Department Manager, Vaupell



"We are now able to guarantee a 48-hour turnaround on all quotes."

**TOM GENDICH**

President, MetalMite



"We now spend less time engineering a quote and more time estimating one"

**DAN VILLEMAIRE**

President, C & M Precision Tech



Paperless Parts Partners with Online Metals To Expand Its Quoting Platform



# The Job Shop Show

A few of our members, as well as our own Roger Atkins, were recently guests on the podcast **The Job Shop Show**. Hosted by Jay Jacobs, former owner of RAPID Manufacturing and co-founder of Paperless Parts, **The Job Shop Show** talks with the owners, suppliers, partners and customers of custom manufacturers about the tools, techniques and backgrounds that have made them successful.

If you or someone you know is interested in being a guest on the show you can reach them at [thejobshopshow@gmail.com](mailto:thejobshopshow@gmail.com)

## THIS INTERVIEW HAS BEEN EDITED FOR CLARITY.

**Jay: It seems that your vision for the NTMA is to be a team member for the member companies. And you got involved almost right away, didn't you, when you joined your dad's company full time?**

**Roger:** Yeah, Jay, my dad would always say that he was a good machinist, he was not a good businessman when he started his business. He started it because he knew how to make parts and he went to his grave telling you that it was NTMA that taught him how to run and grow a business. He said I knew how to make parts but I didn't know how to run a business. And he said it was being part of NTMA and my NTMA peers that helped me run successful business and learn how to run a business. He said I could make the parts but they taught me that. So he joined in 1969 then I went to work for my dad in 1979. And, of course, I started in the shop. And within the first month, he came out to the shop and he said, Okay, I need you to bring your nice clothes on Wednesday night of this week because I'm taking you to a meeting. And I'll never forget just how clear it is to me. We were on Wayside Drive going to the Halina Hotel in Houston, Texas. And on that way he told me, he said, "Son, I'm going to introduce you to some people tonight that will teach you more about manufacturing and more about running the business than I'll ever be able to teach you." I'll never forget

that because you know what that's held true for my entire career. What I've learned in manufacturing, the things I've experienced, the network of people I've connected with, what success I've had in my career, I owe a lot to those people who have been there along the way to help me.

**Jay: Share everything that you think is important for a shop owner to know about the NTMA and what it offers to members.**

**Roger:** Well, I would just I would just start with, you know, what my goal as president was coming aboard and that is that NTMA will be the driver to lead our members through the disruptions of the industry. And you know it's hard enough to run a business today on a daily basis, and watch what you're making and you're meeting your customers demand and then also dealing with the unplanned disruptions of industry. And so my goal for NTMA is that we will be the big barge that goes out in front and busts through the waves of disruption of our industry, so our members stay focused on their daily businesses. And, you know, of course, that was a great plan but you know, little did I realize two-and-a-half months into the job that we would hit the largest pandemic our nation has ever faced in recent years, and now we're dealing with just how do we survive the midst of immediately changing times, literally overnight. And so today, I would say one of the greatest values for NMTA members today is we're putting out information industry specific manufacturers specific small to medium size specific information to our members every day, by state by local communities, informing them of what's going on in the government.

Government changes are coming out daily, we're keeping our members updated on a daily, basis and as we all know, we all get inundated daily with emails about the virus. And you know which ones should you read which ones don't read. And can look an NTMA

member in the face or any small to medium sized precision manufacturer and say, you can come here to this website for vetted out information specifically directed at your business. But I would say you know, right now that's a tremendous value.

We have two to three national meetings every year. And you know, regardless of the speakers, regardless of the technology that we bring in and cybersecurity and the different issues we all face on a daily basis. The interesting point is in every survey after every meeting, the number one valued part of that meeting is networking with my industry peers. We can't get a speaker or a subject matter that outpaces the fact that people value networking with your industry peers, and as always, when you run a small to medium sized precision manufacturing company, when you want to talk shop, it's really hard to find somebody you can talk shop with. I don't care if it's your brother, your next door neighbor, or my best friend. It's hard if they don't understand the precision manufacturing world that we all serve. It's hard for them to even have a conversation with you, or for you to be able to go to them for advice and share your problems and for them to understand it so I think that's why networking goes to the top of the list. You can come for three to five, three to four days and everybody there can talk shop talk with you. As I share with people, there's no problem that hasn't been solved already. There's no challenge that somebody hasn't already dealt with. And if you'll just share what your problems are, you're going to go home with answers instead of going through it alone. You're trying to figure all these things out. In most cases here, I would say, if it's not at a meeting, you can pick up members from around the United States And ask them the question.

**Jay: That is so important, because we tend to get myopic if we never travel out of our region, and I have been able to travel all over the country and in New England, there's not a lot of room for new**

construction. But I'm down in Texas and I'm just blown away with what's going on. Same thing if I'm in Florida or some of the other parts of the country, it's important because beyond your own region, there's different mindsets, There's different ways of doing businesses, for example, East Coast shows, for whatever reason, there are a lot less women and minorities at the shows, than if you go to LA. I had the pleasure of being at a chapter Leadership Summit in Orlando in January, where we got a chance to meet. And I was really happy to see the number of women who were participating at the national level. And everyone knew each other. There were so many conversations, I felt like an outsider. But by the time I left, I had had some really good conversations and had gotten to know a couple folks really well and I could see that that over time you make the commitment that's really going to extend.

**You offer so many ways to support the members in programs and resources; what are some of the ones that you have used or your favorites that are out there?**

**Roger:** We have what we call national associate members and that's a key portion of us. These are big machine tool dealers. These are the big tooling people. We're on a first name basis with these people. I mean, where they come to our meetings and small, medium sized businesses on a first name basis with the president of a major machine tool dealer in the United States – where are you going to get access to things like that? The NTMA was founded almost 80 years ago, around workforce development, and that's what brought these men during that day together was the need for a trained workforce. It thankfully, would have outgrown that but today we find ourselves in the same scenario that they started NTMA about. So we're heavily focused on a trained workforce. We have online training, especially right now where we're seeing schools and Trade Centers that can't go to school, the ability to do training online. We have exposure down in the high school and junior high level with what we

call the NRL, which is the National Robotic League. It allows students to put together battling robots. Our industry partners, like Master Cam and SolidWorks, give the school's free seats of their software to be able to design their robots assemble their robots, and then we give them opportunities to compete against each other. There are students of every color and gender at these events and it's so cool to watch these young people work together as a team and you know, bring in that environment into a shop. If somebody brings a team environment, the hands-on environment, you can teach them the rest. But if they don't have those skill sets, it's hard to teach them. I've gone to these events and, and without even interviewing half these kids, I would tell you, I would take them in our shop today, just because of their work ethic – working on a robot and working with a team and everybody knowing their job and everybody doing their job. You think the teams would fight over who's going to control the joystick for the robot that's actually what they fight about. everybody knows their job. And so it's pretty exciting. So those are things we do to try to draw younger people into the industry. And we're really convincing parents; we're really not convincing kids; that somebody's parent would be proud to be proud of their son or daughter going into a manufacturing career. Whether that be from a machinist to a designer to an engineer to whatever role within manufacturing and the networking obviously is key with your peers. And then, we have an advocacy piece.

Sometimes the last thing you really want to be a part of is advocating but I am so thankful today in the midst of our of this crisis we're in we have somebody advocating for small and medium sized businesses on stimulus bills to get down to help us at this level of business. Our team in Washington D.C. truly had an influence on getting the support for small to medium sized manufacturers across the United States.

**Jay: How have you seen shops handle social distancing and working at home in particular? Do you think we're well equipped to do that?**

**Roger:** Well, I think we've learned quickly. I don't think anybody would say they were prepared for it. I don't think anybody would say they had even given it a thought a month ago. But I would say that I'm making just an offhand comment. But I would say the majority of our members have been deemed essential businesses and are serving some critical part of our nation's products. And so I would say the majority of our members have meet that essential business threshold and are opening. People have rotated shifts to keep so many people from being in at one time, they're being more specific about the distance between machines; they won't run this machine on this shift but we'll run it on the next shift. So there's a lot of social distancing being done within the shop, cleaning, obviously, and wiping down has become essential in our companies. Sometimes as a stockholder, you don't realize that all but when you're an owner of a small business, but as I said earlier, that's your home. It's imperative that you do everything you can to protect your employees. And so from a safety factor, I think our members are putting every safety factor they can within their businesses. First for their people and second for their business. And so I think people have responded very quickly and very sensibly to try and to deal with the challenges that have been faced under the restrictions and guidelines and which have been fantastic guidelines, there's no doubt that you know, some of the guidelines put in place of really are helping, in this situation of the virus spread. And so I think our members are doing a great job and we talk to them daily, we send them updates daily. Somebody said "man, thanks so much for this information. This is so helpful to me." It's somebody that's already vetted it out and they don't have to spend time reading something they really know little to nothing about.



# The NTMA Annual Fall Conference is now **Manufacturing Engage 2020™**

**New name matches Association's efforts to broaden industry attendees, shape conference content**

The NTMA Annual Fall Conference, the signature annual event held by the nation's largest precision manufacturing association, has a new name. NTMA has rebranded the event as Manufacturing Engage.

Manufacturing Engage 2020 – The Precision Manufacturing Conference will premiere October 27-30, 2020 at the Marriott Downtown hotel in Kansas City, MO.

Manufacturing Engage 2020 will build on NTMA's long legacy of providing precision manufacturers and industry leaders with the invaluable experience of gathering together to network, learn, and advocate for the advancement and future of the industry.

The conference name change is a part of a larger NTMA effort to evolve programming to better reflect the face of the industry and the expectations of conference attendees.

**"The core mission of this conference has always been to engage our industry by highlighting new ideas, offering interactive sessions, and providing networking experiences that foster meaningful relationships and dialogue," said Roger Atkins, NTMA president. "This new name is an expression of our renewed commitment to that mission."**

Under Atkins' leadership, NTMA is seeking to broaden the attendance at this conference and all Association events, to include younger audiences as well as attendees from non-NTMA member companies and members of like-minded industry associations.

Manufacturing Engage 2020 is a three-day event featuring nationally acclaimed speakers, roundtable discussions, social events and multiple sessions designed to inform and inspire. Attendees also consider it an opportunity to recharge on both professional and personal levels.

**"The launch of Manufacturing Engage marks the start of a new and exciting future for NTMA events," Atkins added. "Across our nearly 80-year history, NTMA has proven time and again that nothing outperforms the power of relationships. Now, more than ever, it is important that industry conferences provide opportunities to build and maintain those relationships, and deliver engaging and impactful content that is immediately useful for attendees."**

Manufacturing Engage 2020 could take on additional significance as efforts to curb the spread of the COVID-19 pandemic caused the cancellation of nearly every industry event over the summer and into early fall. As a result, Manufacturing Engage 2020 is scheduled to be among the first in-person industry conferences as cities reopen.

NTMA is following all federal, state, and local guidance and taking maximum precautions to ensure the safety of all conference participants. Additional information will be made available in the coming weeks.

**"Manufacturing is the engine of the economy, and the pandemic has underscored the importance of producing the products which are essential to Americans' health, safety, and comfort," Atkins continued. "We have been reminded of the value of the work we do and should channel our collective challenges into opportunities for improvement and growth. This conference is about that necessary connection and collaboration and we are looking forward to welcoming everyone to Manufacturing Engage."**



October 27-30, 2020 - Kansas City, MO

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THE PRECISION MANUFACTURING CONFERENCE

# **ENGAGE** **2020**

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## One Voice Survey Results

The DC-based One Voice advocacy team administered a survey of NTMA and Precision Metalforming Association (PMA) members during the week of May 18th. Nearly 150 manufacturers participated in the survey, the results of which help our government relations and strategic communications partners advance our members' priorities in the federal government responses to the COVID-19 pandemic.

Stay tuned to participate in upcoming One Voice surveys which are distributed to members by email.

### Summary of Survey Results

**83%**

REPORT THE PPP HAS ALLOWED THE COMPANY TO RETAIN EMPLOYEES THEY WOULD OTHERWISE FURLOUGH, LET GO

**41%**

OF RESPONDENTS WILL FURLOUGH/LET GO EMPLOYEES WHEN THE PPP RUNS OUT, 30% NOT SURE

**53%**

OF RESPONDENTS REPORT CUSTOMERS ARE REQUESTING LONGER PAYMENT TERMS OR EXTENSION OF CURRENT TERMS

**30%**

REPORT THE PPP LOANS WILL COVER LESS THAN THIRTY MORE DAYS OF PAYROLL

**36%**

ACTIVELY RECEIVING NEW ORDERS WITH 52% RECEIVING SOME BUT WELL BELOW NORMAL LEVELS

**1 in 10**

MANUFACTURERS HAVE NO NEW ORDERS AND 65% EXPECT CUSTOMER DISRUPTIONS TO CONTINUE FOR THE NEXT 2-6 MONTHS

**91%**

OF ONE VOICE RESPONDENTS RECEIVED A PPP LOAN

[www.OneVoiceInfo.org](http://www.OneVoiceInfo.org)

ONE VOICE COVID-19 (CORONAVIRUS) RAPID RESPONSE WEBSITE

Your source for trustworthy information.



Keep your workplace safe



Find resources for workers



Get tax and loan information



Stay on top of government directives

## A New Partner For Workforce Development

NTMA has partnered with Tooling U-SME to offer even more options for our members to achieve profitable growth and business success.

Tooling U-SME's curriculum compliments NTMA-U, providing solutions on the most needed manufacturing topics not currently offered through our existing platforms.

These classes, developed by industry specialists, present an incredible opportunity to provide employees with critical skills and build competitive advantages for your company.

Through this partnership, our members will receive a discount on Tooling U-SME's online classes.\*

For more information, visit:

<https://partners.toolingu.com/ntma/>

or contact: [bpadnos@ntma.org](mailto:bpadnos@ntma.org)



# The Retooling of Education During a Global Crisis

By Bill Padnos, Workforce Development Manager

The COVID-19 pandemic has changed formal education and On the Job Training forever. Over the past months, educational institutions have been forced into a massive experiment with all teaching and learning in America, from K-12 through post-secondary, shifting online. Educators changed their entire system in the space of a few weeks and for an indefinite period of time. While this unprecedented moment has presented serious challenges, from outdated technology to mediocre material, the simple fact that instruction has been able to continue is a hopeful sign.

As a parent of a 5th grader and 8th grader, I have seen the highs and lows of this new normal in K-12 education. Education has changed dramatically in my household, my neighborhood, and globally with 1.2 billion children currently out of the classroom and learning at home. Research suggests that online learning has been shown to increase retention of information, and take less time, meaning the changes the coronavirus has caused might be here to stay.

Even before COVID-19, there was already high growth and adoption in education technology, with global Edtech investments reaching \$18.66 billion in 2019 and the overall market for online education projected to reach \$325 billion by 2025 according to Sam S. Adkins, Chief Researcher at Metaari and author of the White Paper which stated "A breathtaking \$18.66 billion flowed to edtech companies around the world in 2019." Whether it is language apps, virtual tutoring, video conferencing tools, or online learning software, there has been a significant surge in usage since COVID-19.

The coronavirus is sharply accelerating an evolution in manufacturing education. The need to train and upskill American workers will only grow as the country and the world continue to grapple with the effects of COVID-19. The pandemic has impacted every aspect of life for individuals and communities across the United States and the world, and will have far-reaching consequences for the economy, education, and work. It has raised new discussions about what defines an essential worker, and — in a very short time — has

changed what was considered possible for remote learning and work. There is uncertainty when it comes to what education is going to look like for the start of the new school year. Are students heading back into their classrooms or will they be participating in blended programs that include both in-person and online course work? Or, the worst case scenario, the continuation of only online learning for the next semester or two (the comment about worst case scenario is coming from a father who loves his children, but wants them to get out of the house.)

What is certain is that online education has proven to be a resilient system and there is no substitute now for it as long as the student has access to a computer or tablet and the internet. The coronavirus is actually giving us an opportunity to see how we as an industry can optimize the move to online learning and be a catalyst in creating a new, more effective method of educating students that focuses on critical thinking and adaptability, which is very important for manufacturing. While educators were forced to hastily transition to online learning, they now have more time to invest in determining their best paths moving forward.

This means that there needs to be a more robust and coordinated effort moving forward for industry to work with educators to build a strong 21st-century skills training system that will attract, inspire, and prepare America's precision manufacturing workforce. While high schools, colleges, and universities have long been considered divorced from the workforce fray, they are now being driven to play a significant role in reforming workforce education. It is critical for these educational institutions to be aware of industry-created online curriculum, like NTMA-U, and how it can be easily implemented into their programs to provide real-life training for their students.

In times like these, organizations look to develop new programs that they feel will reimagine workforce education. These shiny new programs gain a ton of attention as the only way to democratize education and workforce training. It is up to all of us to remind educators in our communities that they do not need

to reinvent the wheel. If they are looking for a proven and cost-effective online machinist training program that is approved by the Office of Apprenticeship, then NTMA-U is a perfect fit — please do not be shy about telling them that over and over again.

The coronavirus has intensified the need for high schools to engage students in pre-apprenticeship programs to help move them directly from graduation into manufacturing apprenticeship programs. It has also deepened the importance of connecting unengaged 18-24 year olds into short-term certificate programs that will help them secure much better paying skills jobs. The NTMA Pre-Apprenticeship program is the perfect solution for the education and training of those groups. Your help is needed to push this program to your local educators and workforce development organizations. The U.S. government is about to awarded millions of dollars in grants to support youth apprenticeship programs. Wouldn't you want to make sure that the youth in your community are enrolled in programs that support machining education?

With many stakeholders and moving parts, the task of continuing education is immense in the time of the COVID-19 pandemic. However, with all of the new technologies and advances in online educational delivery systems flooding the field, it is important for the precision manufacturing community to be out in front and educate the educators about our proven and cost-effective solution — NTMA-U. Please feel free to reach out to me at [bpadnos@ntma.org](mailto:bpadnos@ntma.org) and I will be glad to help support your outreach efforts to support online education and training in your community.

Also, we understand that at this time, your priorities are being able to keep your operations moving forward and your employees safe. Your need for mechanical aptitude tests, apprenticeship and incumbent worker training and textbooks is not on the top of the list. Please remember that when you are ready to enroll a worker into an NTMA-U Blueprint Reading course or utilizing our Tooling U-SME partnership for access to a welding training program, we are here to support your needs.



# Keeping CTE Moving Forward in Indiana

By John Stevens, Data & Communications Coordinator



NTMA-U Registrar Alice Overton

Much of how we perceive “normalcy” has changed in the last several months. COVID-19 has affected nearly every aspect of day-to-day life, and, in particular, how we are continuing to foster and educate our youth. Through these challenges, NTMA is always grateful to continue to work, both on a national and chapter-based level, with fantastic educators all across the country through the NTMA-U, Pre-Apprenticeship and NRL programs.

The Indiana NTMA Chapter, in partnership with AMPED, has been able to keep technology education moving forward by providing four free NTMA-U courses which do not require a textbook to high school students in the state. These courses cover key topics such as Quality, CNC, Metrology, and Shop Safety. We were very excited to learn that nine schools in Indiana had taken advantage of the offer, reaching 153 students to continue educating the future of the manufacturing workforce. What we were not prepared for, however, was the tremendous amount of feedback and support that we received from educators using the program—sometimes well above and beyond!

The NTMA-U Registrar, Alice Overton, received the flowers pictured here from Darryl Willoughby, an education professional in the state for over 30 years. Mr. Willoughby was extremely thankful for the program, noting how, with his school currently closed, as many others are, technology for developing class syllabuses was unavailable; and NTMA-U became an immediate resource to allow him to continue providing fantastic education to his students.

“With COVID-19 catching teachers by surprise, most of us were not prepared to deliver machining classes online for the rest of the school year,” Willoughby

said. “INTMA has stepped in offering free, well-prepared online classes to continue student learning for the rest of the school year and beyond. Thank You INTMA!”

Other precision manufacturing educators also expressed how beneficial NTMA-U had been, acknowledging Alice’s hard work. From Shannon Carson, Advanced Manufacturing Instructor for Hinds Career Center: “...when these school closures began, I was in a panic with no online courses currently being used, I wasn’t sure what we would do to keep the students engaged,” said Carson. “When my friend Alice Overton from NTMA called and said they would offer us access to some online courses I was delighted. With Alice’s help and the generosity of the Indiana Chapter of NTMA we will be able to finish this academic year strong. What a blessing.”

“

**It has made the teachers’s lives much easier by allowing the students to have access to a top notch curriculum online, and avoiding the task of developing assignments for what turned out to be an extended time period that we’ve never seen before.**

Accolades were also received from Mark Scott, a precision manufacturing educator for an Indiana high school: “...the students are learning subject matter that is an integral component of being a safe and knowledgeable machinist/toolmaker... We look forward to using the curriculum again in the fall, when (hopefully) things get back to normal and a new school year begins, and again, thank you to the NTMA and you for extending the availability... Words can’t convey how helpful this has been!”

Using chapter engagement to not only provide fantastic resources to the education community, but to continue building an active workforce pipeline, is invaluable as we navigate through a changing world.

We are extremely grateful not only for the efforts of these phenomenal educators, but also of Alice for helping the INTMA chapter achieve greater youth engagement; the kind words, and especially the flowers, are well earned.

*If you are interested in taking advantage of this unique opportunity to continue developing the workforce of tomorrow in your chapter area, **please feel free to reach out to Bill Padnos (bpadnos@ntma.org)** for more information on how NTMA-U can serve your manufacturing community, both today and into the uncertain tomorrow.*

## MEMBER BENEFITS

### FedEx is Giving \$1 Million to Small Businesses



Small businesses strengthen the economy and make the world more vibrant, creating jobs, as well as providing unique products, services and spaces. Communities depend on small businesses, especially in these trying times. Many small businesses are hurting right now. Whether you’re making the move to selling and shipping online or you’re ramping up your safety and cleanliness measures to keep customers and employees safe, you’re putting your all into not just surviving, but becoming more creative and resilient than ever.

To honor that spirit, FedEx is committing to provide \$1 million in grants for small businesses in the U.S. Each grant recipient will receive \$5,000, plus a \$500 credit from FedEx Office that can be used for printing banners, posters, floor graphics, custom branded boxes, and more. NTMA members can apply starting May 25 at [fedex.com/supportsmallgrants](https://fedex.com/supportsmallgrants). But first, make sure you’re signed up for FedEx discounts through the NTMA Shipping Program. If you’re not already taking advantage of this free benefit, enroll today.



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# Don't Believe These 3 Myths When Selecting a Digital Solution

By Jason Ray, CEO of Paperless Parts

Digital transformation is a wave job shops can no longer ignore. The COVID-19 pandemic has brought several looming trends and pressures to the surface—and expedited the stakes tenfold. The manufacturing industry has already been confronting the need to retire legacy analogy systems.

Today's customers expect digital systems and experiences with one-click purchasing and same day shipping. Shops that refuse to evolve may risk losing business, which few companies can afford in the current climate.

In addition to customer expectations, employee needs are also evolving. Industry 4.0 has brought to light the importance of digital and connected information. Siloed data is a barrier of the past. With connected, digitized systems, job shops can create a collective knowledge base and make more informed decisions. As job shops face the pressure to adopt Industry 4.0 technologies, many might feel daunted by the search. There are a growing number of solutions on the market targeted at manufacturers, all of which seem to offer the silver bullet to today's problems. As shops start their search, it will be important to weed out the good advice from the bad. Here are three myths that job shops should disregard when selecting digital solutions.

## Myth #1: Small Job Shops Don't Need to Worry About Cybersecurity

As job shops embrace digitization, cybersecurity must remain top of mind. The more sensitive data that job shops store—especially related to their customers—the more they must protect it. Many job shops believe that cybercriminals primarily target large manufacturers. However, in reality, hackers are more likely to steal sensitive data from small shops if they believe they have less protected internal networks. Unfortunately, most shops currently have outdated cybersecurity infrastructure.

They are still using on-premises systems, large file servers, and outdated versions of Microsoft Windows and Excel. Anyone who can access the network can also reach any file via a shared drive. With this level of vulnerability, cybercriminals can hack into and use the shop's network to deploy phishing emails. From there, they can exploit a weakness on the server and execute attacks throughout unprotected systems. If malware spreads through the shop's email contacts to reach its customers, their information could be compromised within an hour. The consequences of this can include betraying customer trust, a damaged reputation, and ultimately, loss of business. Job shops must choose solutions that protect information and support their cybersecurity strategy. This criterion should be a top priority in their search.

## Myth #2: Automate Everything!

The manufacturing industry is no stranger to the trend of automation. The goal of automation—and of industry 4.0 and digital transformation in general—is to enhance efficiency and implement better practices that reduce bottlenecks, increase production speed, and trim costs. However, job shops don't need to automate every single process all at once. Automating just one internal process, such as quoting, can impact the entire organization positively.

Quoting is a core pillar of a job shop's business. As such, any progress in that area can cause a domino effect. By automating quoting, job shops can significantly reduce the need for data entry—which is time consuming and prone to errors—and free up their most experienced employees for more strategic work. It also improves the consistency of quotes, so they are much closer to the true cost, benefitting customers and employees alike. Streamlined quoting even supports just-in-time manufacturing, which speeds up the customer experience to satisfy buyer demands. Job shops that can deliver quotes to customers within a matter of hours are able to process jobs faster and



ultimately take on more business. So, before job shops feel the pressure to automate their whole business, they should start with one or two core processes that will fuel multiple benefits.

## Myth #3: Invest in the Soup-to-Nuts Solution

With so many industry-specific products being marketed to manufacturers, it's difficult to discern which is right—i.e., most effective—for a particular business. Many solutions provide a wide umbrella of capabilities that may seem to solve every problem under the sun. Yet in reality, job shops may not need all those capabilities—or have all those problems.

Before investing in one of these solutions, job shops must ask themselves, "What am I trying to accomplish with this digital transformation?" The most helpful solution for job shops will be one that streamlines current processes and challenges, not makes them more complicated. In fact, job shops should not need to purchase a specific solution to address each of their challenges. For instance, a quoting solution should not just improve that one process—it must address all related processes, such as communications. If only the quoting itself is optimized, the job shop employee still has to walk the warehouse floors and find the engineers to ensure information is accurate. Solutions with built-in communications capabilities eliminate the need for that time and effort. If job shops understand the root of their problem, they can better identify where they need to invest and avoid any costly missteps.

Digital transformation is more important than ever for job shops. The manufacturing industry is critical to keeping work and life moving forward—always and especially during the COVID-19 pandemic. Understanding how to select and invest in the right digital solutions will make this journey easier and more fruitful for job shops.





## Comprehensive Energy Management

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"APPI provided us with not just one option, but several different options from which we could choose and saving us thousands over the term of the contract. Effort on my part was minimal and required no upfront cost, as APPI took care of all the necessary paperwork and will continue to provide ongoing customer service to my account. I would recommend APPI Energy to all NTMA members."

Steve Staszak  
President  
Esterle Mold and Machine Company  
NTMA Member  
Stow, OH

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APPI Energy is endorsed by 160+ national and state trade associations, and chambers of commerce. We help members reduce electricity and natural gas costs and provide energy solutions. This member benefit educates and renders value-added services to curtail expenses on an ongoing basis.

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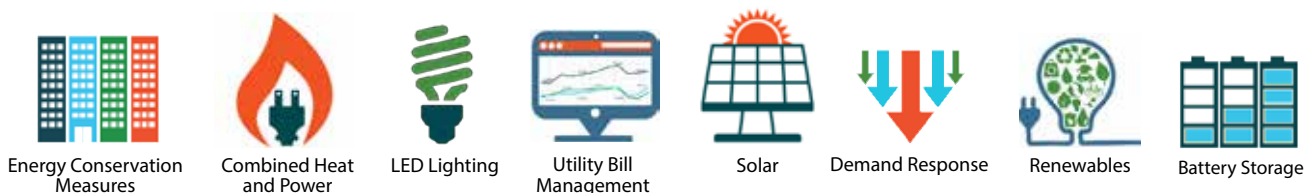
We learn about your organization, its operations and energy profile: energy consumption, costs, demand, objectives, and issues. We conduct an energy assessment and present solutions to reduce energy costs, reduce demand, and improve resiliency and sustainability to provide significant and ongoing savings. We manage all things energy allowing you to focus on your expertise.

### Ethical, Unbiased & Independent

We serve as an advocate for our clients only, never utilities or suppliers. Only **27%** of vetted suppliers meet our stringent standards. Our due diligence includes a review of financial stability, billing accuracy, customer service, competitive pricing, management experience, and optimal contract terms and conditions.

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Hourly Machine Cost \$  
(total burden)

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Number of Machine Tools

5

Weekly Machining Hours

80

Estimated Reduction in Machining Time  
Reduce machining time by as much as 15-25% or more

25% (typical reported savings)

ANNUAL MACHINE SAVINGS

**\$520,000**



## FORCE OPTIMIZATION - CUTTER SAVINGS CALCULATOR

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(average cutter cost/cutter life hours  
e.g. \$100/1 hour)

0 50 100

Number of Machine Tools

5

Weekly Machining Hours

80

Estimated Increase in Cutter Life  
Extend the life of your cutters up to 100% or more

+50% increase

ANNUAL CUTTER SAVINGS

**\$692,640**



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- **Simple and convenient ongoing benefits management and administration.**
- **Reduced administrative costs.**

**Learn more at [www.ntma.org](http://www.ntma.org) or 855-463-8856.**

It's easy to get a quote and we're here to help if you have any questions.

NAM Health Care is fully ACA-compliant, administered by Mercer and sponsored by the National Association of Manufacturers (NAM), of which the NTMA is an affiliate member. Plans are not available to member employers in all states.



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**NPP is a member benefit provider of NTMA.**

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\*Limited time offer. Subject to availability.

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To access Office Depot and OfficeMax discounts through NPP, enroll your business for FREE here: <https://mynpp.com/association/ntma/>

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## 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       | 4. Shine       |
| 2. Sort         | 5. Standardize |
| 3. Set in Order | 6. Sustain     |

- Certificates are awarded every year for the first 5 years based on self-assessments submitted. Once the recipients receive 5 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 before September 30 to be considered. For more information, please contact Linda Warner at [lwerner@ntma.org](mailto:lwerner@ntma.org) or 216-264-2824.

Applications and self-assessment documents can be found here <http://www.ntma.org/re-sources/documents/6S-excellence-program> Applications should be sent to [6Saward@ntma.org](mailto:6Saward@ntma.org)



## NTMA SERVICE AWARDS 2020

### 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 AWARDS

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

#### LA SOMMER MEMORIAL AWARD

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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

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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

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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 September 1st, 2020**

**For a nomination form, contact Linda Warner at [lwarners@ntma.org](mailto:lwarners@ntma.org)**

# Leveraging the Innovation Behind Tool & Die, Precision Manufacturer Operations

By Tracy Lustyan, alliantgroup National Managing Director

Despite the harsh health and economic environment our country currently faces, the U.S. manufacturing industry has continued to push forward. Just recently, Southern Manufacturing Technologies garnered media attention for producing integral valve housings for hospital ventilators in order to combat the ongoing pandemic.

These innovations truly show the agile and forward-thinking mindset that U.S. manufacturers embrace, and the ingenuity involved with day-to-day operations for tool & die and precision manufacturing companies.

During these difficult times, businesses across the U.S. are having to leverage that mindset to make it through this health and economic crisis. Congress has passed several phases of relief for U.S. taxpayers, including approximately \$320 billion in additional funds for the Paycheck Protection Program.

However, these loans are finite, and fail to adequately give American companies the resources they need to thrive. Business loan programs, including EIDL loans, have also been severely cut back, and ultimately leave businesses having to pay back those borrowed funds. Not knowing when this pandemic will finally end has left companies searching for other opportunities to access capital that can help with mounting business expenses in a time when cash flow has become a significant problem.

Luckily, there are existing incentives that provide immediate cash flow for businesses that can be taken year after year with no requirement for payback. To that end, the type of economic landscape we are currently facing isn't necessarily new. Our country has faced economic setbacks before, and the government has responded in kind to make sure American companies have what they need to thrive.

## Finding Alternative Measures

Businesses are looking toward the Research and Development Tax Credit, and several in the industry have found success tapping into this resource, including members of the National Tooling and Machining Association.

This incentive was created as a part of the Economic Recovery Tax Act of 1981. The wage-based credit was designed as a tool to help U.S. businesses recover from the recessions of the early 1980s by giving funds to those who embraced innovative practices, such as the improvement of products or processes.

The R&D Credit has gone through several iterations of change that have ultimately made the incentive available to companies large and small, and applicable to a wide variety of industries. In that same vein, there are certain industries that naturally tend to be a better fit for the credit simply based on the nature of their work, and U.S. manufacturers certainly fit that mold with nearly 40 percent of all credits claimed going to manufacturing businesses.

The credit initially was intended to reward companies who are working to improve their products or processes, and the ways in which tool & die and precision manufacturing companies develop new technologies fits the bill perfectly.

## Why NTMA Members Are a Perfect Match

So how, specifically, have U.S. manufacturers traditionally been able to qualify for the incentive? The examples are plentiful. Here are just a few types of activities that have qualified those in the field to claim the incentive.

- *Innovative product development using computer aided design tools*
- *Programming PLCs, CNCs, RTUs, DCS, PACs, CLCs, CNCs, SCADA, and more*
- *Designing innovative cellular manufacturing processes*
- *Integrating new materials to improve product performance and the manufacturing process*
- *Prototyping and three-dimensional solid modeling*
- *Designing innovative manufacturing equipment and/or programmable logic controllers*
- *Streamlining manufacturing processes through automation*
- *Achieving compliance with changing emissions laws and regulations*
- *Tooling and equipment fixture design and development*
- *Developing second generation or improved products*





Sound relatable? These activities simply need to involve improving a product or process. Let's take a look at a few specific examples to illustrate how applicable the credit can be for the industry.

## A History of Success

Take the contract manufacturer who needed to overcome original design flaws of a half-bore. The experimentation process led to a two-part clamped fixture. After 31 different prototypes, they were able to move forward with the production part approval process. Another project with the same company involved improving the deburring process of a product's internal intersection holes. A double-edged seal made these parts difficult to produce, but after more than two dozen efforts, the part features were fitted for new parts. These efforts ultimately led this company, with annual revenue totaling \$63 million, to take in \$1 million in federal and state credits.

Another example, a precision job shop for defense hardware developed fixtures for the defense and

aerospace industries. The company was tasked with increasing the strength and resilience of mass-produced weldments for military warfare. In order to satisfy the durability and quality requirements, the engineers conducted material evaluation to determine the optimal component composition. Soon after, custom tooling was tailored to meet the project's specifications. The manufacturer then tested each new product component to identify structural defects, tolerance deficiencies, design flaws, critical dimensions, and geometric characteristics of the independent parts. After an iterative quality assurance process, the team surpassed the client specifications with a combat-ready weldment.

This company, which has approximately \$16 million in revenue each year, eventually claimed \$787,000 in federal credits for that year.

## The Power Behind the Credit

There's no denying that as of now, business loan programs have either been severely cut back or have

had shaky launches. This incentive offers the chance for companies to take in much needed capital without having to pay a cent back.

There's also no denying that those who work in the U.S. manufacturing industry are particularly qualified for this incentive. These companies are some of the most innovative in the country based on their everyday work typically being custom in nature—including the constant testing and redesign of tools that will ultimately benefit the industry.

This is an incentive that can bring capital to tool & die and precision manufacturing businesses across the country to be used to hire and retain necessary talent, improve company infrastructure, and invest further in the innovation of products and processes—all of which will lead to a more robust and competitive industry. This credit has the potential to open opportunities for businesses to not only survive during difficult circumstances, but to thrive.

# Metals and Plastics Manufacturing and Machining

The Safehold Metals and Plastics program offers an ISO-based form with customized coverage endorsements to meet the needs of contract manufacturers in the precision tool and manufacturing industry. Our program is affiliated with the National Tooling and Machining Association (NTMA). When you work with Safehold, you will have the support of dedicated specialists who know your business on 100% Admitted paper.

## Lisa J. Campbell

Senior Programs Underwriter  
Metals and Plastics Manufacturing Program  
Direct (603) 570-5237  
lisa.campbell@safehold.com

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*In addition, the program offers flexible payment options and claims are administered quickly and efficiently.*



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Our program also offers industry-specific coverage not available through other underwriters, including:

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**NATIONAL TOOLING AND MACHINING ASSOCIATION**

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## **Manufacturing America's Future**

**Have an interesting story you would like to  
share with other NTMA members?**

Each issue of The Record will feature one or more stories  
from members that fit the month's theme.

The submission deadline will be the first  
of the month prior to the publication date.

Email to Kelly LaMarca at [klamarca@ntma.org](mailto:klamarca@ntma.org).

**Upcoming Record Themes:**

**July**

Emerging Leaders Rising 2020

**August**

IMTS Preview

**September**

Automation in Manufacturing

**What's Your Story?**

