

The sustainable and global innovator in the manufacturing industry

DMG MORI – THE FUTURE OF MANUFACTURING TECHNOLOGY



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Table of Contents

President's Update 4

IN THE NEWS

ACU-RITE Offers New Features via Free Upgrade

Download for its Popular DROs 6

We Need Your Help to Set Industry Standards 6

How NTMA Members Stay Connected During Unprecedented Times 9

New Member Highlights 14

The Answer is Stronger & Better Trained Managers 15

FEATURES

Emerging Leaders Rising 2020	16-19
NTMA ENGAGE 2020 Featured Speakers	20-21
NTMA ENGAGE 2020 Sponsorship Opportunities	22-23
AMPED's One-Minute Challenge	24
Leveraging the Innovation Behind Tool &	
Die. Precision Manufacturer Operations	26-27

CHAPTER NEWS

AccuRounds Team Member Completes Massachusetts

Apprenticeship Program 28

Manufacture Your Future Workforce 28

In Memoriam - Terry Wilson Burch 29

RMTMA Hosts its Annual Educational Fall Conference 29

MEMBER BENEFITS

Why Automation + Geometry = Quoting of the Future	30
Members Can Save IIn to 73% at Batteries Plus Bulbs	38

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 for advertising and editorial content.

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Vaughn Manufacturing Co., Inc. — Nashville, TN

Gillen Young, Board Member Custom Tool — Cookeville, TN

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



Welcome New Members

More information on our new members can be found on page 14.

Raymond Howard

Copeland-Gibson Products

General

www.copeland-gibson.com

Kayla Cox

Optimum Metrology, LLC

General

www.optimummetrology.com

Travis Lane

Thompson Manufacturing, Inc.

dba Rock Exotica

Northern Utah Chapter www.rockexotica.com

James Weishaar

Tessy Plastics

Central New York Chapter

www.tessy.com

EDITOR'S NOTE

In the July Issue of The Record we recorded incorrect information for Tessy Plastics. Above is the amended member information.

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 reflect on the unprecedented times of the past few months, hoping and praying we could move through this pandemic to more normal times, our country has finally begun to reopen and manage COVID. However, we have stepped right into civil unrest as a result of poor decisions made by some of our law enforcement officers. This has opened round two of attacks on us personally and professionally. Regardless of one's position on the issue, it is another unplanned disruption.

That being said, one of the greatest disruptions to our industry is the coming retirement of a generation of our workforce and the advancement of the next generation workforce. The difference in these three disruptions is that the generational change will be no surprise. The real question will be, Are we prepared for the coming disruption that we have known about all along?

This month we will focus on what we used to call "30 under 30," which has been renamed "Emerging Leaders Rising." This will encompass all Emerging Leaders that are and will be transitioning into leadership roles throughout our industry. For those of us who have emerged and find ourselves a part of the generation starting to step out, I ask, Have we done our job to prepare the next generation? For many of us who think back to our early careers, we are reminded of the names and faces of those who took the time to mentor and invest in us. For me, it was names like Don, Tommy, and Bruce. For the previous generation

of leaders, I'm sure they saw potential in some of us, challenges with others, and maybe no hope in a few. Yet, their investments paid off for their companies and our industry as we were the next generation to lead.

So, I ask, Who is going to take over our companies and industry? Who will lead the next generation and spend the time to mentor and invest in them?

I remind each of us of our critical, unspoken responsibility to prepare the next generation of owners, managers, engineers, programmers, machinists, and other critical positions. NTMA is committed to leading the way in this generational transition for our new "Emerging Leaders Rising."

For those Emerging Leaders Rising who are in the process of this transition, I encourage you to meet the challenges that come with transition. I assure you it will be worth your time and effort. Your passion, knowledge, and desire will be what continues the long legacy of U.S. manufacturing. It will be you who trains the next generation—the generation that might seem untrainable, might lack desire, and might truly be a challenge. I hope, like many of us who are stepping out, that you will have a good laugh as you look into the mirror of your own career and remember the challenge you may have posed to those that invested in you.

I encourage today's Emerging Leaders Rising to continue your quest to lead our companies and our industry into the future. You are the key link to continuing the generations of advancement of the U.S. Precision Manufacturing Industry.

I also implore you, our Emerging Leaders Rising, to continue your company's involvement in our Association. Yes, information today is instantly available online; however, there is nothing like face-to-face or peer-to-peer interaction. For many of us, our associational involvement has played major roles in our success, as well as helped us through some of our most difficult times. What I have learned in my career is that two heads are better than one; in my experience, most challenges I have faced, if shared with my NTMA peers, have been solved with their help. Trust me when I say, online information is extremely valuable, but peer-to-peer interaction is the icing on the cake.

As I continue to promote, we are stronger together. In our ever-changing industry environment, change can be overwhelming and difficult to go it alone. There is strength in numbers, and I say let's do it together. We need critical mass, and your NTMA involvement can make it happen for the good of all U.S. manufacturers. Let's continue to move forward together.

The TIME is now!!!

Roger Atkins, President - NTMA

NTMA MEMBERS

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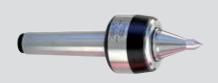
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ACU-RITE Offers New Features via Free Upgrade Download for its Popular DROs

SCHAUMBURG, IL (March 2020) — Further enhancing the already extremely popular digital readouts (DROs) found in machine shops across the world, HEIDENHAIN'S ACU-RITE brand is now making available free downloadable upgrade software with new features. This free upgrade promises to assist all users of current model ACU-RITE digital readouts to be more productive and efficient in their manufacturing, as well as continuing its tradition of ease-of-use.

ACU-RITE's current family of DROs includes models 100, 200, and 300. The new software version is titled "v1.4.0" and is available online on the ACU-RITE website / Software Updates. This new version includes several new and exciting enhancements.

Here Are a Few of Those Highlights

Axes Q - The letter Q has been added to the axes' names list specifically at the request of our customers using their DROs on Optical Comparators. Available in DRO 100/200/300.

Zoom Timeout - A "Zoom Timeout" time delay has been added to the Dynamic Zoom & Highlight feature so that users can set the amount of time that the Zoom or character color change stays active when an axis stops moving. Of course, if the user starts moving another axis before the delay time is reached, the delay is ignored in about a half a second.

Available in DRO 200/300.



"Send Position" Soft Key - A "Send Position" soft key has been added so users that want to record the Screen Displayed can send the data via a USB cable to a computer program of their choice. The computer program that HEIDENHAIN offers for FREE is the QC Wedge Software program on the HEIDENHAIN.com "Software" tab; then click on Evaluation Electronics/QUADRA-CHEK Wedge. Available in DRO 200/300.

About HEIDENHAIN

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

More information at: www.heidenhain.us/about-us

ACU-RITE is a brand of HEIDENHAIN consisting of digital readouts, linear scales and the MILLPWRG2 control. ACU-RITE DROs and control are manufactured in the U.S.

www.acu-rite.com

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Product contact:

John Parker, HEIDENHAIN jparker@heidenhain.com



We Need Your Help to Set Industry Standards

By Bill Padnos, NTMA Workforce Development Manager

As a founding partner of the National Institute of Metalworking Skills (NIMS), NTMA fully supports the organization's mission and efforts to prepare our incumbent and future workforce.

NIMS has been working to reorganize the framework of our standards into a smarter, more user friendly role-based vs. full occupation-based format, to better reflect current industry priorities and emerging technologies. These new Smart Standards reflect our stackable model, are easier to interpret and use in the classroom, and can easily stack on top of one another to help build a masterful career.

Specifically, NIMS has restructured existing performance requirements and credentials to create several new machining roles. These roles are accompanied by new duty areas and duty titles. NIMS has also developed a new standard in Dimensional Metrology. This new standard consists of two roles; Quality Engineer and Quality Technician. The standard defines what is expected for each of these roles to perform.

On behalf of NIMS, we would greatly appreciate your feedback on assessing the accuracy and validation of these new roles. All instructions are listed in the surveys.

The survey questions will require you to view a role alongside its component duty areas and duty titles. You will have the option to view the entirety of the role - including all responsibilities, resources, and skill sets - if you choose. You will then be asked to rate the accuracy of the role. You will also be given an opportunity to provide additional feedback, if applicable.

We thank you for your time and support of the NIMS mission.



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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 Bill Padnos, our Workforce Development Manger. Bill Padnos bpadnos@ntma.org (216) 264-2828

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.

66

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:

July 22, 2pm EDT - August 11, 2pm EDT August 25, 2pm EDT

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

We hope to see you on the next call!



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New Member Highlights

COPELAND-GIBSON

Central At-Large Region

Raymond Howard, President

Copeland-Gibson Products Corp. has been in business 26 years and is one of the longest-serving waterjet cutting job shops in the country. They are a prototype and production waterjet cutting facility and house a highly qualified staff with nearly 100 combined years of abrasive jet cutting experience.

They have four state-of-the-art abrasive waterjet systems, full CAD/CAM capabilities and extensive lift equipment including a 15-ton crane, all of which makes them the perfect choice for your waterjet cutting source. Copeland-Gibson serves numerous industries but the heaviest involvement is with automotive, aerospace, defense, machine tooling, nuclear, robotics, and signage.

www.copeland-gibson.com



Central New York Chapter

James Weishaar, Plant Manager

Founded in 1973, Tessy Plastics is a global contract manufacturer headquartered in Skaneateles, NY, specializing in injection molding and custom automated assembly solutions. They have facilities in New York, Virginia, Pennsylvania, and China. All facilities are FDA/GMP compliant and add up to more than 1.7 million square feet, including 147,000 square feet of ISO Class 7 & 8 clean room manufacturing.

Through comprehensive engineering, and research and development, Tessy provides superior quality and speed to market. Supplying to both medical and consumer markets allows them to leverage their expertise over a wide range of products. Their capabilities include product design and development, rapid prototyping, tool design and build, medical automation design and build, plastic injection molding, and complex medical & consumer assembly.

www.tessy.com



Western At-Large Region

Optimum Metrology Chris Cox, President

Based in Las Vegas, NV, Optimum Metrology was established in 2018 offering precision manufacturing and metrology solutions across aerospace, transportation and defense industries. Optimum Metrology offers a unique blend of traditional manufacturing expertise with leading-edge technology and software specializing in complex parts and assemblies requiring tight tolerances.

Chris Cox, founder of Optimum Metrology, has held various levels of responsibility in quality, design and manufacturing. He brings over 16 years of industry experience contributing to successful builds of world-renowned projects handling each task with the highest level of quality and care.

www.optimummetrology.com



Northern Utah Member

Thompson Manufacturing, Inc. dba Rock Exotica
Travis Lane, President

Rock Exotica is a manufacturer and distributor of fall protection and safety equipment used in work-at-height, fall protection, and rescue industries.

Thirty years ago our founder, Rock Thompson, started the business in his parents' garage. At an early age Rock spent time learning to woodwork with his father.

Later he discovered a passion for rock climbing and was able to combine his two loves to create a company. Rock's first introduction to CNC programming started with a vertical mill he bought at auction. He was able to find a manual and with the help of pencil and paper he taught himself to draw circles. Today Rock Exotica produces

3, 4, & 5 axis CNC parts that are assembled and sold domestically and in 23 international markets. Quality and innovation drive the company culture to produce products that save lives.

www.rockexotica.com

The Answer is Stronger and Better **Trained Managers**

The question: What are the primary keys to engaging and retaining employees with a war for talent upon us?

The Deptartment of Labor says that labor force churn, the number of people that leave jobs and start new jobs, is at all time lows. Generally speaking, more churn signals a healthier labor market.

Labor force churn, baby boomer exits, and the millennial propensity to change jobs, place a tremendous amount of pressure on managers to be as productive as possible. Unfortunately, Gallup data also reports that 71% of the workforce is not engaged or actively disengaged, and therefore not productive. In the foreseeable future, all indicators point to a very tight, transient, and fluid workforce. How does a company get any leverage out of its workforce in an environment where it is easier to find a new client/ customer than to find a good employee?

Gallup reported that only 29% of employees are engaged at work. Our theory is that across industries there will always be roughly 29% of the population that is engaged. It has nothing to do with the quality of an organization, or its managers. Statistically, there will always be 29% of the workforce that is engaged.

At the other end of the spectrum, the study revealed that approximately 16% of employees are actively disengaged at work. Actively disengaged employees are typically out to damage their company. They monopolize time; have more accidents; account for more quality defects; contribute to "shrinkage" or theft; are sicker; miss more days; and quit at a higher rate than engaged employees.

The real battle is for the middle 55% of the workforce that are not engaged. These employees are generally satisfied but are not mentally and emotionally connected to work; they will usually show up to work and do the minimum and will quickly leave their company for a slightly better offer. However, all these not engaged employees have the potential to become engaged!

Gallup estimates that the manager accounts for 70% of the variance in employee engagement, 70% of the time, those that are sitting on the fence are doing so because of their manager. The good news from the research is that the manager represents an amazing opportunity for machine shops. Get the right manager in place, and they will provide the leverage necessary to move thousands of employees that are not engaged to being engaged. Research indicates that engaged employees deliver -

3X - profit growth

2X - customer loyalty growth

2X - productivity increases

2X - less turnover

Labor Force

EBITDA Growth Systems' mission is to help business

owners and executives substantially increase the

profitability and value of their companies. We work with clients that have achieved some level of

operational success but have not yet crossed the

chasm to reach maximum profitability (EBITDA).

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executives. The secret to unleashing that promise lies

in a dynamic perspective of business that is typically

missing in small-to mid-sized companies. Our business

growth experts have traveled many miles in the shoes

Baby

Millenials

Churn The War AL SECU 1946 - 1964 **Baby Boomers Boomers Talent** Gen Y

Only 16% of managers are naturally good managers. The remaining 84% of managers have to be trained in order to be effective. Unfortunately, most managers at SMB manufacturers are not receiving ANY MANAGEMENT OR LEADERSHIP TRAINING. As a result, their managers tend to micro-manage with excessive oversight; they lack communication and decision making skills; they are stubborn and unwilling to listen and adapt; they are unproductive; and they have a bad attitude or lack of honesty at work.

If this sounds like your shop, it is time to act. People don't leave bad companies; they leave bad managers. While the "perfect storm" for talent continues to rage, SMB manufacturers cannot afford to lose good people.

of their clients, learning and growing with each and every step. Today, they have dedicated themselves to sharing their valuable knowledge and business acumen honed through decades of relevant financial and operational experience.

Our system works. If we don't double your profits in three years, we will give you your money back. That's a promise you can take to the bank.

Contact EGS

Michael Watkins **EBITDA Growth Systems** Principal (720) 352-3675

Emerging Leaders Rising 2020



Jaylen ScottHamill Manufacturing Co.

Achievements and contributions:

- Started as a temp employee in AutoCAD/drafting
- Self-taught Vericut software and now resident expert on program verification of all MasterCAM programs
- Self-taught WINTOOL software and now primary tooling creator/designer - supporting MasterCAM and Vericut
- Attended and successfully completed MFG 2000 machinist training at New Century Careers (working nights/weekends) with no prior experience
- Teaching himself MasterCAM under supervision and is beginning to program some parts and tooling fixtures.

Fun Facts:

- Quiet but motivated
- Works well with machinists
- Quick study and very intelligent



Kevin RitchieHamill Manufacturing Co.

Achievements and contributions:

- Increased profitability on a product class by 20% by the machine processing as well as creating standard processes to allow first year machinists to run the parts
- Eliminated the 2% scrap rate on a product line due to setting up a standard by calculating the usage of each tool
- ESOP Committee Leader with influence among new employees and passing along best practices.
- Introduced and led lights out machining on specific product line due to his knowledge of the machine and tools

Fun Facts:

- One of the fastest learners that ever went through the Hamill apprenticeship program
- His mechanical ability and attention to detail helped him develop into a to truly skilled young machinist
- He has been challenged with operating one of Hamill's most complicated 5 Axis machining centers and has performed very well



Andrew IgI
Reata Engineering & Machine Works, Inc.

Achievements and contributions:

- Has a Bachelor of Science Degree in Manufacturing Engineering Technology. Early in his career, Andrew started developing the leadership skills required to manage a job shop in the changing and developing advanced manufacturing world we are living in today.
- Has implemented lean strategies
- Developed a shop scheduling system
- Established leadership teams throughout the shop.
- Improved Reata's on time delivery
- Shop KPI's are reported to the teams and new changes to help visualize the production process and flow
- Recently became became a board member of the RMTMA and is learning about the position's responsibilities as well as becoming a leader of his peers

Fun Facts:

- Outside of work Andrew has his private pilot license and loves the engineering and science behind flight
- His vanity license plates on his car spell out the word "CARBIDE"!! To do that you have to love our industry.



Esme MartinCompetitive Engineering Inc. (CEI)

Achievements and contributions:

- Participates in weekly management meetings concerning acquisitions, financials, leadership, and management
- Created expedited schedules for hot jobs, performed floor audits, and assisted in machine setups
- Operates lathes and mills
- Currently leading projects for fixture reorganization, accuracy of shop data entry, productivity improvement, and new employee training
- She is a natural leader with excellent people
 skills
- Focused hard worker with a broad perspective

Fun Facts:

- Completed her first year at Northeastern University (Boston, MA), and is on track to graduate before she turns 20
- She will make an excellent successor when the time is right
- Loves cooking, yoga, reading, and leading

Ashley Totin

National Center for Defense Manufacturing and Machining (NCDMM)

Achievements and contributions:

- Holds a Bachelor's Degree and a Master of Science Degree in Engineering
- Currently managing a \$24 M program focused on developing a digital additive manufacturing supply chain for the US Army
- Manages technical programs as Regional Point of Contact
- Supports America Makes Education/Workforce Development
- Contributes to the Innovation Facility and Regionalization Efforts
- Ambassador for the Youngstown Women in 3D Printing Chapter
- Leads tours/presentations on additive manufacturing (images of these can be seen in the NTMA.zip file)
- Co-developed and is a regular guest on local TV segment Tech Belt Today, a bi-weekly news segment featuring emerging technology in the region

Fun Facts:

- 2019 Mahoning Valley Young Professional of the Year
- America Makes Ambassador
- YSU STEM Intern of the Year

Trent MaynardGlobal Shop Solutions

Achievements and contributions:

- Holds a degree in Mechanical and Manufacturing Engineering Technology from Texas A&M
- 2016 Began his career at Global Shop Solutions as an Operations and Technical Consultant
- 2019 Promoted to the role of Business Analyst within the New Implementations Custom Development Group
- Traveled around the world working on nearly 200 new customer implementations and has spent over 500 days onsite at customer facilities
- Recieved the New Implementations 200K
 Revenue Award three years in a row
- Recieved the Consulting Employee of the Quarter Award 3 times since he's been at Global Shop Solutions
- Speaker at our ERP User Conferences where our customers travel from around the world to learn how to optimize their use of the software 2020 - Promoted into the new position of R&D Program Manager

Fun Facts:

- Oversees the operations of the entire R&D department to ensure that a high quality product is delivered on time and improve communications internally within R&D and externally with our customers
- The Global Shop Solutions R&D department consists of 87 people and 16 managers that now report to Trent



Fred Ruic
Alexandria Industries / Alexandria Extrusion
South LLC location

Achievements and contributions

- Learned to manage outside service providers and related purchasing practices
- Led and grew a Quality Control department to improve product quality
- Led and grew our 1st shift production team
- Improved data collection accuracy of routing details and time
- Improved our on time delivery by 22%
- Improved our Sales per Labor hr. by 46%
- Is currently managing all production shifts for our facility
- Special focus on developing 5 individuals to advance from CNC operators to CNC Setup, Shift Leads and Supervisors



Clay Adcock Custom Tool, Inc.

Achievements and contributions:

- Completed OEM training in several areas:
 - Machine tools
 - CAM programming
 - Robotics
- Came in with no experience in the industry and worked his way up to his current position of Manufacturing Manager

Fun facts

 Attended the 2018 NTMA Emerging Leaders Conference

Emerging Leaders Rising 2020



Douglas Garcia SilvaSouthern Manufacturing Technologies, Inc

Achievements and contributions:

- 2016 enrolled at Brewster Technical College where he learned his machining fundamentals
- Inducted into the National Technical Honor Society
- Started in our quality department learning how to inspect precision parts
- Transferred into our tool room department as a Toolmaker Apprentice
- After just 3 years, he is able to complete his own fixtures from start to finish; fixtures need to be very precise, often to a .0002" tolerance
- Ran the Tool Room, including training an inexperienced new employee

Fun Facts:

- Currently working towards his registered
 Toolmaker Apprenticeship Certificate
- He has already received 8 NIMS credentials for machining and is ahead of schedule for graduating from the program
- Previously worked at a family-owned tea shop, where he was in charge of new employee training, managing daily business operations, and customer service



Mellanie de MataSouthern Manufacturing Technologies, Inc

Achievements and contributions:

- Has a Green Belt Certification from the University of South Florida's Corporate Training and Professional Education
- First hired to be an inspector her inspection skills and Geometric Dimensions and Tolerance (GD&T) knowledge surpassed our expectations.
- She Has experience with coordinate measuring machines (CMMs)
- Trained to program the automated Mitutoyo CMM

 She is one of two employees at SMT that can program the CMM
- Manages the Internal Corrective Action team and the Certified Operator program
- Upholds strong customer relations
- Monitors SMT's quality metrics with customers
- Prepares First Article Inspection Reports (FAIR) for certification packets
- Leads the SMT Internal Audit and the certification audit with the registrar
- Learned how to prepare a Production Part Approval Process (PPAP) packet

Fun Facts:

- Always had a desire to see how things work and how they are manufactured
- Studied Industrial Engineering at the University of South Florida



Nick Goellner Advanced Machine & Engineering

Achievements and contributions:

- Sales and Marketing Director for Advanced Machine and Engineering
- C.M.T.S.E. (Certified Machine Tool Sales Engineer)
- Holds a Bachelor of Science in Entrepreneurial Marketing from the Florida Institute of Technology

Nick combines his passion for content marketing and metalworking as a partner at MakingChips. As a long-time listener, guest, and friend of the podcast, Nick became partners with Jason and Jim in the Summer of 2018 to expand on the mission to Equip and Inspire the Metalworking Leader. Nick collaborates with a team of dynamic industrial marketers that serve the MakingChips clients with results-driven marketing programs.

Nick is a part of the team that is inspiring others to succeed in the challenging world of manufacturing.

Fun Facts:

- Attended the Florida Institute of Technology
- MakingChips believes that manufacturing is challenging and is working to connect manufacturers to a community of leaders who can help to elevate skills, solve problems, and grow businesses.



Travis Hellmann Homeyer Precision Manufacturing

Achievements and contributions:

- Been a part of the Homeyer Team for 10 years
- Began as a machinist. Transferred to the Quality department so he could broaden his knowledge of the overall process
- Worked as a one man show in our Quality department for a number of years
 - Learned how to inspect parts, program the CMM, and run the department effectively
- Training to take over the plant manager role when our current Plant Manager retires
- Drives new technologies and, most importantly, implements processes to keep our young core of skilled labor motivated and driven to future success

Fun Facts:

- Travis is what one would call a "gear-head" he is ALWAYS tinkering with something
- He has a large shop at his house that is constantly full of boats and cars that he is fixing and reselling



Cristina PattonGlobal Shop Solutions

Achievements and contributions:

- Holds a degree in Marketing with a minor in ERP Software from the University of Arkansas
- 2016 began her career at Global Shop Solutions as a Customer Success Manager
 - Her normal job duties include:
 - Managing over 300 customer accounts
 - Reaching out to each customer at least once a quarter
- Traveling to 30+ customer facilities each year to make sure customers are happy, have everything they need, and so she can learn more about how they operate so that she can better serve them
- Has become CEO Dusty Alexander's right-hand person for many of the premier training opportunities that Global Shop Solutions has to offer
- Producer of the company's weekly training webinar and Friday Features
 - Friday Features averages more than 600 live connections each week and has over 8,500 registrants
- Played a crucial role in launching Game Day
 - A new training event that travels from city to city for a half-day conference giving customers the chance to network with other users and learn new features within the software
 - After the COVID-19 pandemic forced stay-at-home orders across the country, she successfully pivoted the events to a 100% virtual environment so that none of Global Shop Solutions' customers would miss out on their opportunity to learn
- Won Employee of the Quarter 3 times
- Won the company's Above and Beyond award 2 years in a row

Fun Facts:

 Twice a year she organizes and coordinates a company blood drive where employees have the opportunity to donate blood to local hospitals to help save lives

NTMA ENGAGE 2020 FEATURED SPEAKERS OCTOBER 27-30, 2020 - KANSAS CITY, MO



Brandon Dempsey, EMCEE Wednesday, October 28th 9:30am-10:30am

An adventurer, entrepreneur and father. Brandon is a serial entrepreneur and driving force behind his marketing firm goBRANDgo!, specializing in outsourced marketing services for privately held \$10-100 million growth oriented companies. Brandon is a featured thought leader in numerous online and print outlets, such as Forbes, Inc., and Huffington Post. When he isn't working, he spends his time training for Ironman triathlons and motorcycling through countries around the world. Brandon lives in St. Louis with his wife, Adriene, their daughter, and two dogs.



Omar Nashashibi Wednesday, October 28th 10:45am-11:45 & 2:30pm-3:30pm

For nearly ten years, Omar Nashashibi has worked with clients, members of Congress, agency officials, public policy foundations, non-profits, and media in Washington, D.C. A founding partner of The Franklin Partnership, Mr. Nashashibi works with members of Congress on behalf of his clients on a variety of issues from trade to federal funding opportunities to telecommunications.



Harry Moser Wednesday, October 28th 1:15pm-2:15pm

Harry is the founder of the Reshoring Initiative. He was inducted into the Industry Week Manufacturing Hall of Fame in 2010 and was named Quality Magazine's 2012 Quality Professional of the year and FAB Shop Magazine's Manufacturing Person of the Year. Harry participated actively in President Obama's Insourcing Forum at the White House, received the Manufacturing Leadership Council's Industry Advocacy Award in 2014 and the Made in America 2019 Reshoring Award. He was named to the Commerce Department Investment Advisory Council in August 2019.



Caitlin Sickles
Wednesday, October 28th
2:30pm-3:30pm

Caitlin Sickles has a decade of experience in strategic communications. Her focus is on the design and implementation of comprehensive, multi-platform communications campaigns for a range of companies and associations in sectors, including manufacturing, consumer products, national security, health care, energy and the environment. Caitlin leads the Policy Resolution Group's digital communications program, providing comprehensive brand development counsel, including sophisticated social media management and its use for effective advocacy. Caitlin was recognized by PR News on their list of 15-to-Watch in 2011.



Paul NathansonWednesday, October 28th
2:30pm-3:30pm

With more than 25 years of experience in strategic, crisis, and corporate communications, Paul Nathanson's focus is on reputation management, message development and implementation, public policy analysis, media relations, and strategic counseling services for a range of U.S. and international clients. He assists clients in formulating arguments in persuasive ways and ensures that clients' views are heard and understood by their target audiences, including members of Congress, policymakers, the news media and the public.



John Guzik Wednesday, October 28th 10:45am-11:45 & 2:30pm-3:30pm

John Guzik is a founding partner of The Franklin Partnership with over 20 years of Capitol Hill and campaign experience. Previously, John served as Chief of Staff for Ways and Means Chairman Dave Camp. He was the top legislative strategist working on tax, trade, health care, transportation, and agriculture issues. John also works closely with the Senate Finance Committee on health care, tax, trade and many other issues important to his clients.



Alex Becker Thursday, October 29th 3:30pm-5:00pm

Alex is a manager and cybersecurity consultant in the CLA Cybersecurity 8
Advisory Services Group. Alex is currently performing penetration testing, vulnerability and risk assessments, and controls reviews for a wide range of industries, including financial institutions, manufacturing and distribution, health care, non-profit, insurance and government agencies.

Alex currently holds multiple certifications including the CISSP, OSCP, OSWP, and CISA.

Prior to working for CLA, Alex worked under the Department Head of the Cyber Security, Virtualization, and Forensics department at Century College working as an ad hoc Systems Administrator in addition to creating lab environments for student exercises.



David Anderson Thursday, October 29th 3:30pm-5:00pm

David is a principal and information security consultant with eleven years of experience in the Information Technology field. He has experience in networking, Linux, and managing a Microsoft Windows domain. Currently, he performs, and provides project management for network penetration testing, internal vulnerability assessments, and social engineering engagements within a wide range of industries. These industries include banking and finance, health care, electric and utility, state and local government, and more.



Dr. Chris KuehlFriday, October 30th
8:30am-9:30am

Dr. Chris Kuehl is a Managing Director of Armada Corporate Intelligence and one of the co-founders of the company. He has been Armada's economic analyst and has worked with a wide variety of private clients and professional associations in the last 18 years. He is the Chief Economist for the National Association for Credit Management. He prepares NACM's monthly Credit Managers Index and is also the Economic Analyst for the Fabricators and Manufacturers Association and writes their bi-weekly publication, Fabrinomics, which details the impact of economic trends on manufacturers.

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October 27-30, 2020 - Kansas City, MO

- **** For more information, please contact
- **\ KRISTEN HRUSCH**
- **** 216.264.2845
- **** KHRUSCH@NTMA.ORG

THE PRECISION MANUFACTURING CONFERENCE

ENGAGE TO POWERED BY NITMA



*Deadline to sponsor - September 30, 2020

*Sponsorship Opportunities for Manufacturing Engage 2020 do Not Include Registration to Event

☐ Livestream Sponsor - \$8,000

- · Logo on livestream landing page
- · Logo on pre-conference promo materials
- · Sponsorship highlighted in conference app
- · Post event visibility in The Record
- · More visibility options to come

□ EL Rising Award Winners & Emerging Leaders Reception (1 available) \$3,000

- · Logo recognition on any print or web material
- Podium recognition at manufacturing engage when EL Rising Awards are presented
- Funds conference registration and hotel accommodations for one el rising recipient
- Logo on screens during awards luncheon at Manufacturing Engage 2020
- · Sponsorship highlighted in conference app
- Post event visibility in The Record

☐ Networking Break Sponsor (5 available) \$3,500

- Branded napkins
- Signage
- Coffee, water & tea and snack
- Opportunity to place banner stands and collateral throughout the break area
- · Recognition at general session to thank sponsor
- · Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ Wellness Sponsor (2 available) \$3,000

- Signage
- Logo'd water bottles/thermoses
- Logo'd pens and notepads
- Logo'd face masks
- · Logo'd hand sanitizer
- · Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ General Session Speaker Sponsor (6 available) \$4,000

- Logo on both large screens at the start and throughout the session
- Signage
- Opportunity to introduce the session
- · Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ Cornhole Tournament: NRL Fundraiser (1 available) \$4,500

- Branded drink tickets 1 for each attendee
- · Logo'd koozies
- Signage
- · Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ Conference App (1 available) \$6,000

- · Logo'd splash page that appears any time attendees open the app
- 1 customized rotating banner ad (provided by sponsor)
- 3 push notifications
- · Logo on app download instruction page
- · Logo in pre-conference email to attendees
- Sponsorship highlighted in conference app

☐ Conference App Ad Sponsor (10 available) \$1,000

- Customized rotating banner ad
- · Links to your website
- ${\boldsymbol{\cdot}}$ Sponsorship highlighted in the conference app
- · Post event visibility The Record

☐ Regiception (1 available) \$6,000

- Branded napkins
- Signage
- Opportunity to meet and greet attendees as they arrive and make a first impression
- · Sponsorship highlighted in conference app
- Post event visibility The Record

☐ Breakfast Sponsor (3 available) \$6,000

- Branded napkins
- Signage
- Recognition in app
- ullet Sponsorship highlighted in conference app
- · Post event visibility The Record

Sponsorship Opportunities October 27-30, 2020 • Kansas City, MO

☐ Conference Emcee Sponsor (1 available) \$6,000

- · Logo on screens in general session room
- · Opportunity to introduce the emcee and closeout conference
- · Recognition in the event app
- · Post event visibility in The Record

☐ Closing Keynote Speaker (1 available) \$6,000

- Logo on both large screens at the start and throughout the session
- Signage
- Opportunity to introduce the session
- · Sponsorship highlighted in conference app
- Post event visibility The Record

☐ Podium/Stage Sponsor (1 available) \$7,500

- Branded podium sign
- Recognition of sponsorship at podium
- Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ Hot Lunch Sparer (1 available) \$8,000

- · Logo'd menus at 30 /st
- Recognition of sport or plin at pr
- · Rotating logo on 2 large state noting ont of room
- Sponsorship highlighted in conference app
- Post event visibility in The Record

☐ Conference Wi-Fi (1 available) \$8,000

- · Ability to name the network and create the password
- Email promotion to attendees prior to conference with logo and network information
- Onsite promotion with logo'd information cards
- Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ Exhibitor (20 available - Only 8 left!) \$1,500

- Includes a 6' table, 2 chairs & table linen
- · Logo on signage as exhibitor
- Logo on website, pre-conference promos and print materials
- · Sponsorship highlighted in conference app

☐ Awards Assembly Sponsor (1 available) \$10,000

- 3-5 minutes to speak before the awards
- Logo on screens
- Logo'd podium
- · Sponsorship highlighted in conference app
- · Post event visibility in The Record

☐ Evening Event Lead Sponsor (1 available) \$15,000

- · Logo on signage & branded napkins
- Additional branding opportunities based on venue (tv screens, logo'd tables, gobo etc.)
- Logo on website, pre-conference promos and print materials
- Opportunity to speak for 3-5 minutes during the event
- Post conference recognition in our record newsletter

☐ Evening Event Supporting Sponsor (2 available) \$5,000

- Logo on signage
- Additional branding opportunities based on venue (Photo booth, dj/band, beverage sponsor)
- Recognition in conference app
- · Logo on website, pre-conference promos and print materials
- · Post conference recognition in our record newsletter

■ Additional Exposure Opportunity \$500

• Have an appetizer or beverage served from your table during our wednesday reception

FOR SPONSORSHIP INQUIRIES AND DISCUSSIONS PLEASE CONTACT: KRISTEN HRUSCH - 216.264.2845 / KHRUSCH@NTMA.ORG

AMPED's One-Minute Challenge

By Bill Padnos, Workforce Development Manager

How do you open your doors to students when a pandemic is forcing you to keep them closed?

In this moment, we are not sure what K-12 education is going to look like at the start of the 2020-21 school year. Will all students be allowed in the classroom at the same time, or will there be a hybrid of online and in-person instruction? While we do not have the answers now, there is no harm in preparing for what might be coming. In business, you always need to have contingency plans; why not have plans for engaging manufacturing's next generation?

AMPED is working with its partners in continuing to connect with students, even if new challenges may limit their participation in the NRL program at their schools. I am disappointed that we will not be able to showcase the NRL program at the IMTS Student Summit this year. We had been working with a partner company avout hosting awesome Bot building sessions for students, which would have been the highlight of their experience at IMTS. Unfortunately, those plans have changed and we need to come up with new ways to promote the NRL program and pathways to careers in manufacturing.

The COVID-19 pandemic should not be used as an excuse to stop our work to inspire, attract, and prepare America's precision manufacturing workforce. The growing skills gap leaves us with no choice but to continue moving forward to connect with the new generation of manufacturing workers. It will be their ingenuity that will our country face the unprecedented challenges of the future.

As we continue to navigate the unknown, even assuming that MFG Day 2020 and the remainder of the year will not include in-person shop tours by students, we do not have to abandon our campaign to engage manufacturing's next generation.

Zoom has proven to be an incredible resource when it comes to staying connected, even if it's just to wish a loved one a "Happy Birthday" from a distance. If my

family can have a game night with us in Pittsburgh, my parents in Chicago, my cousins in Milwaukee and New York, and my nephew overseas, then you can still serve as an industry advisor for an NRL team. Organize Zoom video calls to interact with the team. Similarly, utilize technology that allows for access to CAD drawings online through an app, allowing students to virtually meet and collaborate while apart.

Facility tours can be done virtually as well. Thankfully, this doesn't require a full digital and electronic overhaul—using a phone or camera to take the students on a tour of your shop is more than capable of engaging those in "attendance." Show them your machines in action, have them meet your employees, and help them get a sense of what it means to work at your shop. While it might not be the same as an in-person tour, it is easier to set up than contacting the school to order the bus, collecting the parent permission forms, and having the students leave campus for hours.

Beyond anything else, the best way to promote careers in manufacturing is by being personal. Generation Z is not looking at careers based on the paycheck; they want to make a difference, and to have a meaningful role as part of a team. For a generation that utilizes social media to express how they feel at any given moment, relating your stories in a way that can be shared across various platforms is an invaluable way to open those doors, not only to students but their parents as well.

So, we are asking for your help to provide that personal touch to students and parents, with what we are calling our One-Minute Challenge. In one-minute, can you describe:

Why you are working in manufacturing? What attracted you to select a career as a precision machinist, engineer, welder, quality control, or industrial maintenance technician? Why did you decide to be an accountant at a manufacturing company or the office manager? How has working in manufacturing



changed your life? What is your company doing in the fight against the COVID-19 pandemic, or beyond that, what you are doing to recycle chips and fluids? What was your pathway to this career? Did you earn while vou learned?

I challenge you to put down this magazine, take your phone out of your pocket, turn on your video setting, and provide that new open door for the next generation of manufacturing. Find a backdrop at your shop that showcases your company, perhaps a banner or CNC machine, and ask your co-workers to do the same, highlighting your different, impactful experiences and reasons for working in manufacturing.

Certainly, this One-Minute Challenge has the potential to turn into five or ten minutes, but I hope we can keep our messages concise, direct, and poignant. Once you have created a video that you want to share with us to inspire the next generation, upload your video to https://form.jotform.com/BPadnos/whyMFGvideo. We will also share this link in the NTMA Update emails, as well as on our website and social media channels.

We have over 30,000 employees at our NTMA member companies, and while we would love to receive 30,000 videos, we understand that is not realistic. Therefore, our goal is to receive 1,100 videos, each representing at least one per NTMA member company. Of course, we welcome and hope that companies will submit more than one video.

So take out your phone, turn to the camera app, and prepare the message that will inspire manufacturing's next generation.

We are just asking for one minute of your time to film, and then one more minute to upload your video to https://form.jotform.com/BPadnos/whyMFGvideo.

With our combined efforts, I hope the One-Minute Challenge can not only make a difference for students, but continue to keep the doors open towards a future in manufacturing.



Metals and Plastics Manufacturing and Machining



Protection for Your Specialized Industry

The metalworking industry faces many unique risks – from damage to specialized equipment to safety incidents caused by the dangerous tools used in the profession. These potentially hazardous work conditions require a comprehensive risk management program specifically designed for metalworkers.

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, programs are written on 100% admitted paper and you will have the support of dedicated specialists who know your business.

Broad Solutions

Whether protecting a small, local shop or a national production facility with hundreds of employees, this program provides access to specialized coverage options:

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- · Product Liability
- · Commercial Auto
- Workers' Compensation
- Umbrella
- Loss of Business Income
- Equipment Breakdown
- Inland Marine
- Crime

Optional Coverage and Endorsements

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

- Aviation product liability (available subject to underwriter review)
- Manufacturers E&O Coverage (availability varies by state)
- Loss control and risk management services, including four online defensive driver courses
- Endorsements to enhance your standard policy coverage for property, auto liability, and equipment breakdown.

With the Safehold Special Risk program, you will receive service from someone who knows your business, as each policy is underwritten by knowledgeable professionals who are specialists in the metalworking and plastics industry. In addition, the program offers flexible payment options and claims are administered quickly and efficiently.

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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 to take advantage of, including approximately \$320 billion in additional funds for the Paycheck Protection Loan 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 funds borrowed.

Not knowing when this pandemic will finally simmer out 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 pay back. 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 in 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 the 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.

Qualifying tool & die and precision manufacturing activities have included:

- 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? What's better is that 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 port 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 came when 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 fit to qualify 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.

Our country is facing uncertain times.

This credit has the potential to open opportunities for businesses to not only survive these difficult circumstances, but to thrive.

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GRAINGER.

AccuRounds Team Member Completes Massachusetts Apprenticeship Program

An AccuRounds team member completed a one year Massachusetts Apprenticeship Program for Advanced Manufacturing. Anderson Varela has been employed at AccuRounds as a CNC machinist since April of 2019. Shortly after he started working at the company, the opportunity for the apprentice program was presented and Varela was eager to participate.

Apprenticeships are work-based training programs that allow employers to foster talent and develop their workforce by giving employees hands-on experience in a structured environment. The programs are registered with the Division of Apprentice Standards (DAS). The Advanced Manufacturing program is part of the Expansion Industries segment which also includes

healthcare and technology. It is one of many available in a variety of industries. Anderson's training consisted of 2,000 on-the-job training hours and 150 hours of related technical instruction for CNC Machine Operators. In addition, he recently became certified for MACWIC Level II in CNC Machine Operation.

"The apprenticeship program was a very exciting experience," says Varela. "The program has assisted me greatly in developing my skills in the advanced manufacturing field."

Also involved in the coordination and execution of Varela's apprenticeship and certification were Robin Dion, Manufacturing Consortium Manager of the



Northeast Advanced Manufacturing Consortium; Lindsey Harding, Instructor, Old Colony Regional Vocational Technical High School; Andrea Kingman, Manager of Business Service, MassHire Greater Brockton Workforce Board; and Wendy Storm, MACWIC Vocational Coordinator from MassMEP.



Manufacture Your Future Workforce

NTMA Pre-Apprenticeship Program

By Bill Padnos, Workforce Development Manager

NTMA's Pre-Apprenticeship program is designed to develop entry-level skills for employment at a manufacturing company and enhance the skills set for existing employees. Program participants will benefit by learning skills and behaviors that will lead to success as an apprentice at your shop. YOU will benefit by providing your company with the opportunity to attract and engage new talent in a cost-effective and flexible manner.

The NTMA Pre-Apprenticeship program combines four of our in-depth online training course via NTMA-U with relevant material, hands-on exercises, and either the physical parts or the blueprints to make the physical parts for the hands-on exercises.

Only YOU Can Solve Your Skilled Talent Shortage

Topics Covered:

- Basic blueprint reading and shop math
- Quality process and procedures
- Manufacturing processes
- Manual and electronic measuring instruments
- Basic shop equipment operation

Visit tinyurl.com/NTMA-PreApp for more information For questions or to get started, contact Bill Padnos at bpadnos@ntms.org



www.ntma.org/initiatives/education



In Memoriam - Terry Wilson Burch



Terry Wilson Burch was born November 14, 1943, in Wichita Falls, Texas to Frank Wilson and Loma Lee (Richardson) Burch. He passed away on Tuesday, June 23, 2020, in Oklahoma City. He was 76.

Terry was a graduate of Wichita Falls High School. He married Mable J. Speice on November 17, 1962, in Waurika. They raised three children - Cynthia, Frank, and Katherine. Terry could always be counted on and he was up for anything. He loved adventure. He had his private pilot's license, and he once flew with his dear friend Steve Elliott all the way down the west coast of Mexico "as far south as his insurance would let him" which was almost Guatemala.

Terry and Mable had a home in Red River, New Mexico and enjoyed the mountains there as much as possible. He had recently begun fishing again, a joy rediscovered. Terry was never a huge sports fan...until Thunder basketball came to OKC. He and Mable were supporters of the team from their initial year and were avid fans, attending whenever possible.

Terry was a longtime friend of Bill W. for 34 continuous years, and he made many valued friendships during that time. Terry viewed this as a calling, and he would gladly offer his wisdom, experience, and service to anyone needing his help. His famous pecan pies, keen analytic mind, loyal friendship and treasured advice,

Alaska; Bennett Burch of Duncan; Jay Harrison of Lawton; and sisters: Harriet Harvey of Dallas; Christy Mitchell of Weatherford, Texas. He was preceded in death by his parents.

A memorial service is being planned for a later date.

Arrangements were entrusted to Whitt Funeral Home/
Oakcrest Cremation Center of Duncan. Memorial
contributions can be made to the Cal Farley Boys
Ranch online at:

https://www.calfarley.org/boysranch/ or to The Salvation Army online at http://salvationarmyaok.org/.

Online condolences can sent to the family at www.whittfh.com.



The RMTMA will be hosting its annual educational Fall Conference on Thursday, October 8th

The RMTMA will be hosting its annual educational Fall Conference on Thursday, October 8th at Hartwig in Aurora, Colorado. This annual event brings together members for networking, education, new opportunities, and so much more. Sessions and classes are being firmed up now and registration will be available soon on the RMTMA site.

National Associate members are welcome to submit sessions that may be presented at the conference to RMTMA Chapter Executive, Kaity Van Amersfort, that may be presented at the conference. Kaity can be reached at chapterexec@rmtma.org.





He was the owner of Southern Machine Works, having achieved 45 years of service there at the business he operated first with his father and then later with his son.

He loved to travel with his wife and family. He enjoyed his boat and being with family and friends at Lake Texoma. He was always drawn to water, enjoyed water skiing and scuba diving, and loved the ocean and beach — seemingly the only place where this energetic man would actually slow down and relax.

readiness to help others, and his loving support of his children and grandchildren will always be cherished and painfully missed by all of us.

Terry is survived by his wife of 57 years, Mable; children: Cynthia Ann and husband David Stringham of San Antonio; Frank Wilson and wife Misty Burch of Duncan; Katherine Lee Harrison of Duncan; grandchildren: Sarah McBride of San Antonio; Bethany Grace and husband Jason Frazier of Anchorage,

Why Automation + Geometry = Quoting of the Future

By Jason Ray, CEO and Co-Founder of Paperless Parts

Faster quotes, shorter lead times, and clear communication—these are the demands of the modern customer. Manufacturers have been under pressure to ensure that every aspect of their business, from the front end to the back end, is geared toward delivering these high expectations. That said, some processes may need more attention—and even TLC—than others. Quoting is a core pillar of any manufacturing business and an essential piece of the customer experience. Relying on manual or analog systems (including Excel and ERP) may have worked up until now, but will no longer satisfy today's buyers.

Manufacturers that want to deliver the ultimate competitive customer experience should look to automation and geometry to modernize their quoting. Automated steps in the quoting process improve efficiency, increase production speed, trim costs, and eliminate bottlenecks. Perhaps most important, it significantly reduces the data entry required of estimators, which allows these experienced employees to focus on more strategic work. With the power of automation and the ability to analyze the geometry in CAD models, manufacturers can turn their quoting process into a value-added experience for customers and employees alike.

Automation Fuels Efficiency

The goal of quoting is to spend the least amount of time and effort possible to return a quote to a buyer at a price that they are willing to pay and that generates adequate profit for the business. Many manufacturers lose sight of the costs along the quote-to-cash journey—there is a lot of manual work required to track, manage, and review each RFQ, and customer data is often spread across systems and people, which creates bottlenecks and inconsistencies.

When an RFQ gets to engineering, it takes time to determine if the shop can make the part, and mistakes can be expensive. Many manufacturers are over-engineering quotes, spending a significant amount of time engineering jobs that are never won. By the time manufacturers actually send the quote, they have wasted precious time and resources.

Many are losing jobs because they can't deliver quotes fast enough, and some are even ignoring RFQs because they don't have enough time to quote them. The more time job shops spend quoting, the less time they can dedicate to selling to new customers.

There are several modern solutions that address each barrier on the quote-to-cash journey. Centralized quoting allows customers to fill out a digital RFQ form that automatically takes information and feeds it into the quoting platform. Digital quotes make it easy to connect with customers and can provide purchase options to maximize the chance of offering a price a buyer will pay. Online collaboration tools make it easy for manufacturers to communicate within the shop, helping to eliminate bottlenecks.

Geometry Powers Precision

Geometry is at the root of all manufacturing, so it only makes sense that it is leveraged in the quoting process. A geometric CAD analysis engine makes automated quoting even faster and more accurate. Built into the quoting platform, the engine can analyze part files through the lens of a manufacturers' specific capabilities to identify potential issues like tight corners and deep holes, or areas that require special tooling. With this front-end insight, shops can assess manufacturability before wasting time engineering a quote for a part that they won't be able to make. This



also enables rapid design feedback to customers. Being the most responsive shop has been proven to drive new business opportunities.

The geometric engine classifies the part, then manufacturers can use historical geometric search to identify when they have produced the same or similar parts in the past, using that pricing as a reference point. Manufacturers can also leverage geometric features to power their pricing formulas (e.g. the overall size of this part requires a specific machine, or the features on this part require a certain number of setups and fixturing). With this capability, shops can improve accuracy with part-level operations and pricing templates—getting granular and adding yield rates, markups, and overhead costs. As a result, quotes become much more accurate, which helps manufacturers become more profitable.

Manufacturers that wield the power of geometry-driven, automated quoting will not only deliver a better customer experience, but also prepare their infrastructure for the future, whether that involves growth or sustainment through the loss of a key person due to retirement. As competition stiffens, it becomes more important to use resources optimally. By capturing the tribal knowledge of the quoting process in an automated system, a business' most experienced people will be able to focus on the areas that have the highest impact on their success.





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

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.

LA 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 September 1st, 2020

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

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HOW MUCH CAN YOU SAVE WITH VERICUT FORCE OPTIMIZATION?

FORCE OPTIMIZATION - MACHINE SAVINGS CALCULATOR

Hourly Machine Cost \$ (total burden)

50

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

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

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

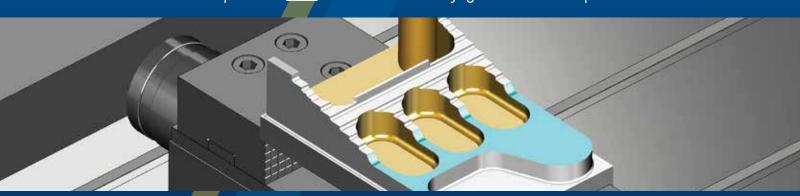
+50% increase

ANNUAL CUTTER SAVINGS

\$692,640

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WHAT'S THE BUZZ ALL ABOUT?

Quote Smarter. Win More.

Forbes

Move Your Back-Of-The-Envelope Custom Parts Quotes Into the 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



Paperless Parts Partners with Online Metals To Expand Its Quoting Platform



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

DAN VILLEMAIRE

President, C & M Precision Tech

Introducing a NEW, simplified benefits offering for a lower administrative cost



Health • **Dental** • **Vision** • **Life Insurance**

Because the NTMA is an affiliate member of the National Association of Manufacturers (NAM), NTMA members now have access to NAM Health Care: a new benefits offering that simplifies the health care experience for both you and your employees through a convenient, easy-to-use web-based platform. NAM Health Care allows smaller member companies to band together to take advantage of the enrollment efficiencies, administrative cost savings and product flexibility previously only available to larger manufacturing companies. Advantages include:

- Access to more competitive product bundles.
- Fully ACA-compliant.
- Quicker and easier-to-use online enrollment process.
- Simple and convenient ongoing benefits management and administration.
- Reduced administrative costs.

Learn more at 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 NTM is an affiliate member. Plans are not available to member employers in all states.





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Comprehensive Energy Management

APPI Energy provides our clients a comprehensive way to reduce energy expenses and create budget certainty. Through our procurement services, we negotiate with suppliers to ensure you are provided with ideal pricing and contract terms to fit your needs. Our holistic energy services provide financially and functionally vetted solutions to decrease energy costs, reduce demand, and improve resiliency and sustainability.

Analytic Process Analytic Pro

Client Benefits

Negotiate on your behalf - Always advocate for you, not the supplier or utility.

Minimize Risk - Analyze contracts and monitor regulatory changes.

Provide Customized Solutions -Comprehensive facility evaluations of demand and usage profile. We offer recommendations most impactful to your operations.

Save You Time - Evaluate local utility and government policies to ensure all incentives are captured.

"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

24 Years of Proven Experience

Since 1996, we have provided data-driven procurement and efficiency services to clients across North America. Our proprietary database of daily supplier prices enables us to benchmark and identify how to best manage your energy profile. Our holistic energy solutions focus on decreasing costs and increasing sustainability for our clients.

160+ Endorsements

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.

All Things Energy

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.

Energy Efficiency and Sustainability

With the APPI Energy Solutions Suite, we've gone beyond procurement with our advanced services that enhance energy management, benchmarking, and sustainability. Our solutions are product and technology agnostic, ensuring your facilities are utilizing the most productive energy efficiency measures.



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Data-Driven Procurement & Consulting Contact Carrie Shepard:

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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:
- Safety
 Shine
 Sort
 Standardize
 Set in Order
 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 lwarner@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

Members can save up to 73% off hundreds of items at Batteries Plus Bulbs

Whether reopening your doors or you've been operational the whole time, Batteries Plus Bulbs and NPP can help you save on the items needed to keep your business running.

Members can now access big savings on batteries and bulbs of all sizes, as well as device repair at more than 700 Batteries Plus Bulbs stores nationwide. Make sure your thermometers are powered with alkaline or coin cell batteries. Stock extra batteries for automatic soap and hand sanitizer dispensers. Save on generators for large outdoor items and exterior lighting. Let Batteries Plus Bulbs bring your business to life.

Use this convenient checklist to help you prepare and keep critical items running.

You can enroll your business for FREE with NPP to activate this Batteries Plus Bulbs offer and more: https://mynpp.com/association/ntma/NPP is a member benefit provider of NTMA. Restrictions may apply.





Are You Ready?

LET'S GET BACK TO WORK.

As you prepare for your business to reopen, to have your team back in place, and to welcome customers again, we know you have a lot to consider. While you make sure everyone stays safe & healthy, let us help make sure your facility is ready to go.

Here's a quick checklist of items to keep in mind as you prepare to reopen:



Are your APC units operational? Have you reviewed your preventive maintenance logs?
Backup power systems & generators: Have you tested your batteries?
Automatic soap dispensers in the restrooms & kitchens: Are they slow to dispense? We recommend keeping a supply of batteries on hand.
Automatic towel dispensers in the restrooms & kitchens: We recommend keeping a supply of batteries on hand.
Thermometer batteries for associate temperature checks: Maintain an adequate supply of backup alkaline or coin cell batteries.
Is your scrubber/sweeper ready to go? Have you checked the fill levels? Have you charged the batteries?
Exit and emergency lighting: Is everything working the way it should?
Outdoor lighting: Make sure to maintain a safe environment for your customers and employees and that may be working late shifts.

If you need any assistance - battery testing or even an in-person or virtual site walk - to ensure you have all of your power and lighting needs accounted for, we're here for you. Just give our team a call.

Carol Ridgeway, NPP ____ 206-531-5269



NATIONAL TOOLING AND MACHINING ASSOCIATION

1357 Rockside Rd. Cleveland. OH 44134

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.

Upcoming Record Themes:

August Automation in Manufacturing

> September MFG Day

October Threats to Industrial Base

What's Your Story?

