

## TRAINING: THE KEY TO TOMORROW'S WORKFORCE

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We're filling the workforce pipeline-- are you tapping in? — p.3

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If you think training is expensive, try the alternative — p.10

#### DOING IT RIGHT:

Members with successful Training Programs tell us how. — p.21





# 2019 NATIONAL EVENTS

For more information visit: [www.ntma.org/upcoming-events](http://www.ntma.org/upcoming-events)

## BACK BY POPULAR DEMAND: TOP SHOPS SEMINARS

February 20 Dallas, TX | May 22 Phoenix, AZ | August 21 Hartford, CT

Tap into your company's full potential and learn how your shop can become a Top Shop. Expand your knowledge in multiple facets of your shop. Topics will focus on Shop Floor Management, Shop Technology, Human Resources and Financial Analytics.

IN PARTNERSHIP WITH:



## CHAPTER LEADERSHIP SUMMIT

January 30 - February 1 Nashville, TN

Connect, Learn, Lead. Chapter Leadership Summit is all about maximizing your NTMA membership at the local level. Learn ways to engage your chapter and build your regional coalition for stronger companies and a stronger industry.

## THE MFG MEETING

March 6 - 9 Tucson, AZ

NTMA partners with the Association for Manufacturing Technology (AMT) for this interactive 4-day discussion of technological advances, innovative strategies and real-life case studies. It's the perfect platform for manufacturers to gain and share industry knowledge.

## EUROPEAN TECH TOUR

March 31 - April 6 Munich to Milan

Take this opportunity to learn and observe global best practices that can be applied in your own company. We've scheduled strategic stops and tours to highlight some of Europe's most successful manufacturing companies.

## LEGISLATIVE CONFERENCE

April 8 - 10 Washington, D.C.

There's power in our collective voice. Join NTMA member companies from across the country as we converge in Washington to meet with legislators and policy makers.

## EMERGING LEADERS CONFERENCE

April 29 - May 1 Louisville, KY

To insure the future successes of our businesses and our industry, we have to build the future today. NTMA gathers the best and brightest up-and-coming industry leaders to network, share knowledge and brainstorm about tomorrow's manufacturing industry.

## NATIONAL ROBOTICS LEAGUE COMPETITION

May 17 - 18 California, PA

Crunching metal, flying sparks-- it's a gladiator-style competition between robots designed and built by students. Come witness tomorrow's workforce in action today. It's a battle of epic proportions that truly is a win for both students and industry.

## FALL CONFERENCE

October 15 - 18 Austin, TX

NTMA's signature event is not to be missed! Our annual conference pulls together all that is great about NTMA into three days packed with networking, advocacy and learning. You'll enjoy nationally acclaimed speakers, roundtable discussions, social events and sessions designed to educate and inspire—consider it an opportunity to recharge both personally and professionally.

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RELATED TO THIS MONTH'S FEATURED TOPIC.

WELCOMES  
NEW MEMBERS

**ADVANCE TOOL COMPANY**  
Florida West Coast Chapter  
Mrs. Brandy Miller  
940 Harbor Lake Ct.  
Safety Harbor, FL 34698

**BRACALENTE MANUFACTURING CO.**  
Philadelphia Delaware  
Valley Chapter  
Mr. Dave Borish  
P.O. Box 570  
Trumbauersville, PA 18970

**CONNECTICUT CENTER FOR  
ADVANCED TECHNOLOGY, INC.**  
Educational Organization  
Ms. Thienly Nguyen  
222 Pitkin St.  
East Hartford, CT 06108

**FIVE STAR TOOL COMPANY, INC.**  
General  
Mrs. Renee Lalonde  
125 Elmgrove Park  
Rochester, NY 14624

**MATT MACHINE & MANUFACTURING,  
INC.**  
Pittsburgh Chapter  
Mr. Mike Jezek  
820 Unity Center Rd  
Pittsburgh, PA 15239

**VARIAN MEDICAL SYSTEMS, INC.**  
San Francisco Bay  
Area Chapter  
Mr. Hideyuki Tatsumi  
911 Hansen Way  
Palo Alto, CA 94304



## WHERE WERE YOU?

BY BILL PADNOS, WORKFORCE DEVELOPMENT MANAGER, NTMA

On Saturday, April 6, hundreds of students in Dayton, Milwaukee and Kansas City engaged in FULL CONTACT INNOVATION. Over the past year, they worked as teams to design, build and test their bots to get ready for their competition. They tried new weapon designs, utilized different materials and employed creative ways to power and move their bots. In the end, some of these innovations worked and other times, they failed spectacularly.

In a future article, I will highlight the winners of our new NRL Innovation Award sponsored by the alliantgroup. One of the winners from Xtreme Bots in Dayton designed a brand new weapon system. The organizer for the competition, Bryan Jackson at Ohio Robotics, was excited to tell me about this new design from one of his teams. In the end, it did not work the way that it was planned. However, their teacher and the students were so proud that they researched, designed and fabricated a new system. That was more important to them than the 1st place trophy. It does not hurt that they received a \$500 award check from the alliantgroup for winning the NRL Innovation Award.

Let's go back to the question in my title. Where were you? Are you living within an hour of Wright State University or Waukesha County Technical College or KC Tech Academy? If yes, then where were you? Ninety seven percent of our membership has a moderate or severe shortage of workers. Additionally, 53 percent of the manufacturing workers will be retired by 2028. Hundreds of students with the skills and aptitude for a career in manufacturing were on display in an enclosed area for hours. Did you come by to see the students in action and to pass out your business cards? It was the perfect opportunity to say, "Come work for me!"

SEE "NRL" PAGE 5





## PRESIDENT'S UPDATE

DOUG DEROSE / INTERIM PRESIDENT-NTMA

I would like to personally thank each of you for being a member of NTMA. We greatly value your membership and hope to show you just how much as we move through 2019. NTMA is going through a lot of change, which you know as a business owner is not easy. However, with the strong leadership of the Executive Committee and our Chairman Mark Lashinske, NTMA will move forward and get stronger from this experience. I want to thank Dean Bartles for the work he has done in his brief tenure with NTMA. Dean focused on reducing overhead costs and eliminating programs that brought little member value. His insight has helped the association target an operating surplus for this year and beyond.

As we move forward in 2019, the focus of the staff will continue to be on membership and our chapters. During May you will see new marketing pieces that will highlight our Membership Value Proposition — an elevator

pitch that succinctly describes our association; a one-page member benefit infographic that shows the value of membership and a chapter marketing piece that has the Value Proposition on one side and editable chapter-specific information on the other. Later in May we will be sending out a Member Value Statement that will be personalized for every member. This statement will show the value of membership based on your participation in NTMA programs. It has been over seven years since a statement like this has been sent out. Moving forward we will send this twice a year, once in the spring and again in the fall.

An NTMA staff member will reach out this year and thank you for being a member, discuss the benefits you utilize the most and find out what type of benefit or program you think NTMA should add to improve member value. The goal is simple, find out what we are doing well and what we need to improve on — from the member's perspective — your

perspective.

This is just some of what we are doing in 2019 for you, our members. We will promote our other efforts we are working on (new website!) through E-Trends and The Record as the year moves forward and plans are finalized. Our goal is to be the best precision manufacturing trade association staff in the United States. While we know we have work to do to live up to that goal, we believe we are on the right track, with the right staff in place. Know that I am honored to be the Interim President of NTMA.

Thanks for listening. I hope to see you soon at an NTMA event, and I hope you enjoy the rest of your spring.

DOUG DEROSE / NTMA INTERIM PRESIDENT



## NTMA DUES INVOICE ADDS DONATION FOR NATIONAL TOOLING & MACHINING FOUNDATION

Did you know that over the past six years the NTMF has awarded more than 63 scholarships to deserving candidates interested in furthering their education in manufacturing? Did you know those scholarships totaled approximately \$96,000? Help continue this effort!

Starting in April, NTMA's membership dues invoices will include a block at the bottom to allow members to make a contribu-

tion to the educational foundation (NTMF).

Just complete the box at the bottom of the form and add the amount to your dues payment. In return, you will get a letter acknowledging your contribution to the foundation, a 501(c)3 organization. You can contribute any amount, or you can select a box that is conveniently located on the form for either \$100, \$150, \$250, \$500 or \$1,000. **Any gift of \$1,000 or more will result in recognition**

**for you and your company in The Record, NTMA's monthly membership publication.**

Please consider donating to the NTMF today and help fund the future of manufacturing. More contributions mean more scholarships!





# THE RECORD

## OPERATIONS & EDITORIAL

Doug DeRose, Interim President  
Molly West, Editor

## NTMA EXECUTIVE COMMITTEE

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*Modern Industries Inc. – Phoenix, AZ*

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## ADVERTISING INQUIRIES

To advertise in The Record, or for information on publishing your corporate newsletter or sales literature, contact NTMA at (216) 264-2847 or [jmayer@ntma.org](mailto:jmayer@ntma.org) for advertising, [mwest@ntma.org](mailto:mwest@ntma.org) for editorial content. Layout by Z Graphics [dave@DaveZgraphics.com](mailto:dave@DaveZgraphics.com)



## NATIONAL TOOLING & MACHINING ASSOCIATION

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Volume 40 / No 5



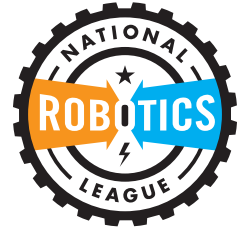
## NTMA NEWS

"NRL" CONTINUED

This month, the theme for the NTMA Record is Education and Training. My other article this month is about investing time in training and educating your current employees. I will make the commitment to you to invest my time with each and every NTMA member company to explain why the NRL program is worth your efforts. Let me explain why these students can be the future leaders of your companies. Most of all, I want to show you how to get these students to want to come work for you.

The school year may be ending, but it is never too late to start preparing for

next season. Reach out to me at [bpad-nos@ntma.org](mailto:bpad-nos@ntma.org) or call me at 216-264-2828 and I will be glad to help you to build your own workforce talent pipeline. Now is the time to educate yourself about how to ensure your company's future.



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## 2019 INTERNATIONAL TECH TOUR IS A WRAP

Manufacturing executives from 18 North American companies traveled to Europe for the 2019 International Technology Tour in early April. The annual trip is organized by technology providers and is designed to help manufacturers break away from the daily routine and discover new technologies and strategies to improve their operations.

Arriving in Munich, the group spent six days visiting world-class manufacturing facilities in Germany, Switzerland and Italy. This region is home to many leading suppliers of precision machine tools, tooling and related equipment. In one week, they visited HEIDENHAIN, GROB Systems, BIG KAISER, Blaser Swisslube and Speroni. Each daylong visit was comprised of technical seminars, live demonstrations and behind-the-scenes facility tours.

"We discovered something new every day," said James Mayer, national accounts manager, National Tooling and Machining Association (NTMA). "Not only about the products and expertise offered by our national associate members, but also how manufacturers around the world approach our common challenges. They gave us new insight into training, improving workflows and integrating automation, for example."

In between the factory visits, the group enjoyed Bavarian, Swiss and Italian hospitality, sightseeing, and networking with new friends from across the U.S. and Canada.

HEIDENHAIN Tech Center

"It was an absolute privilege to visit and experience five world-class companies as a means of understanding the evolution of their technology, history, training, values and culture," said Robert Cattle, executive director, Canaian Tooling & Machining Association (CTMA). "This was an incredible opportunity to be with a group of business owners from all across North America who have an unparalleled passion for precision manufacturing at a world class level. Traveling together for a week not only created a high level of camaraderie but also produced an environment conducive to freely exchanging business ideas and philosophies."

### FACILITY TOURS & HIGHLIGHTS

The HEIDENHAIN facility, south-east of Munich, produces a range of CNC controls, drives and measurement systems. The TNC series controls have a

user-friendly keyboard and touch screen interface and are known for maintaining geometric accuracy and surface definition at higher speeds, which is ideal for 5-axis and mill/turn applications. A "connected machining" demonstration showed how HEIDENHAIN can apply a StateMonitor to record, evaluate and monitor one or multiple controls on machine tools at any location in real time in order to increase manufacturing productivity.

The next stop was at GROB Systems world headquarters and the largest machine tool manufacturing plant in Europe. GROB is a third-generation, family-owned company building horizontal and universal machining centers and automation systems. The tour, which covered only a portion of the enormous campus, highlighted the importance of vertical integration of manufacturing processes – including all

major components – to control final product quality. The G-Series machines were in action in the technical center, showing how the retractable spindle and swivel-rotary table improve access to part features and enable upside-down machining.

The group traveled on to BIG KAISER, near Zurich, to learn about the Swiss obsession with precision manufacturing. A hands-on demonstration in the technical center showed the benefits of digitally adjusted tools for boring applications plus the smartphone/tablet app that communicates with

SEE "TECH TOUR" PAGE 9



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# 2019 CONFERENCE

SEPTEMBER 9-11, 2019 | CINCINNATI, OH

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## "TECH TOUR" CONTINUED

connected tools and stores tool data. With an emphasis on the "technology" theme, BIG KAISER revealed development of a new boring head capable of fully automatic adjustments as part of the machining program. A highlight of the facility tour was the "smart factory" cell, showing a full integration of material storage, robot loading and production scheduling in one machining cell, with fully integrated tool management and presetting from Speroni.

At Blaser Swisslube, guests toured the laboratories and learned about the science behind metalworking fluids and the many factors involved in developing optimal cut-



BIG KAISER Tech Center



ting and grinding oils, as well as emulsions, starting even with local water quality. In the technology center, the focus was on live demonstrations using various machines, materials and tools to show the impact of Blaser cutting fluids – the "Liquid Tool" – on the overall process. Intensive product testing and trials are conducted with the goal of improving part finish, tool life, machine uptime, and quality of the shop environment for both machines and people."

Finally, the group weathered an April snowstorm and travel delays to arrive in Milan and tour Speroni SPA, a manufacturer of tool-management systems offered by BIG KAISER in North America. Before and during the facility tour, the Speroni team explained how offline tool measurement increases spindle uptime, extends tool life and improves part quality. For optimal tool management, Speroni's INTELLIGO software solution delivers Industry 4.0 connectivity, sharing tool data between

the presetter and machines, CAM systems, and tool storage in a central knowledge database.

"The Technology Tour was an informative and packed six days in Germany, Switzerland and Italy. My international travel jitters were quickly put to rest by the

hospitality and attention to detail of our gracious hosts. Each sponsor showcased cutting-edge technology, expertise and talents in precision manufacturing and how that will bring value to our bottom line. This trip is one of the exclusive opportunities for members to attend and bring back to each of our businesses innovation, technology and enthusiasm filled with new thought. Thanks again to the sponsors. May we all make precision manufacturing the best it can be!" said Mark Lashinske, chairman, NTMA.

## FUTURE TECHNOLOGY TOUR EVENTS

This 5th annual International Technology Tour was possible due to the support of the participating sponsors, the National Tooling and Machining Association (NTMA) and the Canadian Tooling & Machining Association (CTMA). For information about upcoming events, visit [www.ntma.org](http://www.ntma.org) or [www.ctma.com](http://www.ctma.com).



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# WHAT IS THE TRUE COST OF NOT PROVIDING YOUR EMPLOYEES WITH TRAINING?

BY BILL PADNOS, NTMA, WORKFORCE DEVELOPMENT MANAGER



At the Manufacturing & Technology Show in Pittsburgh, I attended a session on apprenticeship. During the presentation one of the panelists stated that by providing more training and education opportunities to your employees, you'll decrease your turnover rate.

I asked the follow up question, "What is the percentage of employees that will stay with a company after completing an apprenticeship program?" He did not have the exact number. The panel moderator chimed in and said that there was a report that showed 80 percent of apprentices will stay with their initial company out of loyalty and appreciation for the investment in their education. I

will admit that I am looking for that report, but I did trust that the moderator was not just pulling the number out of thin air.

I completely understand that 20 percent is not an ideal turnover rate. However, what do untrained employees truly cost your company? You can see the numbers of what it costs for the related instruction through NTMA-U for a registered apprentice. What you do not know is the cost of not training your employees.

In the book "The Great Principle of Management," Michael Leboeuf warns of the dangers of ignoring training:

*"If you believe that training is expensive, it is because you do not know what ignorance costs.*

*Companies that have the loyalty of their employees invest heavily in permanent training programs and promotion systems."*

Does your company see training as a bottom-line expense or as an investment? An untrained employee will eventually lack the knowledge to use your company's resources properly. That will lead to waste, lost productivity and even worse, it will affect meeting the ever-increasing demands of your customers. Because of this, your employees, your company and your customer will all suffer.

Training will keep your employees ahead of the curve — ahead of your competition. It also will make them happy and encourage them to stay with your company. A study by PwC asked Millennials, "Which of the following characteristics make an organization compelling to work for?" Opportunities for career progression was at 52 percent and excellent training/development programs garnered 35 percent. Those were the first and third highest answers to the question. Competitive wages/other financial incentives scored at 44 percent. Yes, pay is important to an employee, but not as valued as knowing that a company is invested in your growth. I can attest to that personally; it is better when you have the numbers to back it up.

An IBM study revealed that

employees who feel they cannot develop in the company and fulfill their career goals are 12 times more likely to leave the company. Untrained and unhappy employees who feel that they are underutilized are more likely to leave because they do not see their company as loyal to them. As a result, employees will jump at the opportunity to make more money at the machine shop down the street because it is just another job — not in a career.

Think about the benefits to your company when you have employees that are invested in their future at your place. A trained employee will research ways to improve productivity and decrease the time a machine is not in service. I still remember an example of a member company that increased their profit margin from 10 percent to 40 percent on a product because an employee suggested using a different type of cutting tool. That employee was being paid regardless of how fast that part was coming out of that CNC machine. Imagine the pride that employee felt using the knowledge he has acquired over the years through education and training to make that such a difference in his company's profits on this one part.

Just think of the costs to your company when an unhappy employee leaves. A study conducted by Right Management stated nearly 70 percent of organizations say staff turnover has a negative financial impact due to the cost of recruiting, hiring, and training a replacement employee as well as the overtime work required of current employees until the organization can fill the vacant position. According to the article "Why Retaining Staff is better than Hiring New," it can cost up to 30 percent of the job's salary to hire a new employee. It could cost \$12,000 to hire someone new for a \$40,000 a year job.

Imagine the impact is you just invested a fraction of that \$12,000 per employee for training. According to HR Magazine, companies that invest \$1,500 on training per employee can see an average of 24 percent more profit than companies that invest less. A study by the National Center on the Educational Quality of the Workforce (EQW) supports this with its finding that a 10 percent increase in educational development produced an 8.6 percent gain in productivity.

Some leaders are concerned they may lose an employee if they are encouraged to

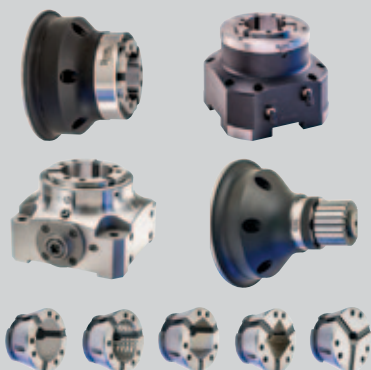
SEE "TRAINING" NEXT PAGE





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## "TRAINING" CONTINUED

earn their journeyman papers, NIMS credentials or even attend an NTMA chapter or national educational program or event. Instead, consider how much more expensive it will be to your company to not train that individual. Consider the overall productivity loss, not just about the time spent away from the shop floor. Consider the cost of employee turnover and lost customers when mistakes are made by improperly trained employees. Your employees' training and personal satisfaction is as much an asset as the workers themselves.

At the national and chapter level, NTMA provides the educational and training resources that you need for your employees. You should not be the only person representing your company at an event. Bring multiple employees with you to learn from the experts and from their peers. Do not be afraid to let others know that your employees are the best and the brightest by seeing them in action outside of your shop. Send them to the NTMA Emerging Leaders Conference or provide them with the opportunity to volunteer at an NRL competition so they can recruit your next generation. If time is an issue, NTMA-U provides online training at a low cost and can be taken at an employee's own pace and schedule and our NAMs provide excellent webinars and training programs.

Trained employees will work smarter, be happier and in the end, increase your profitability as a company. Isn't that worth the investment? Remember, an untrained employee at your company is just an untrained person that is on your payroll. If saw something special in them during the hiring process, shouldn't you try to get the best out of them for as long as they are working for you?



[www.ntma.org/initiatives/education](http://www.ntma.org/initiatives/education)

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

Topics covered:

Basic blueprint reading and shop math  
Quality processes and procedures  
Manufacturing processes

Manual and electronic measuring instruments  
Basic shop equipment operation

Visit <http://tinyurl.com/NTMA-PreApp> for more information.

For questions or to get started, contact Bill Padnos at [bpadnos@ntma.org](mailto:bpadnos@ntma.org).



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# 2018 NTMA SAFETY AWARD WINNERS ANNOUNCED

The NTMA's Annual Safety Award Survey is based on the OSHA Form 300A, which Federal law requires companies with more than 10 employees to complete and post visibly in their plant February 1 through April 30 of the year following the year covered by the form.

The purpose of the survey is to present the top-performing companies with an NTMA Safety Award Certificate that can be proudly displayed in their company, as well as provide NTMA the composite data that will allow them to represent the member with OSHA and other regulatory agencies. A company's eligibility to receive this award is determined by a calculation using the number of injuries versus the total number of man-hours worked in that calendar year.

## Company ..... Chapter

Colonial Machine Co, Kent, OH ..... Akron  
 Masters Precision Machining, Inc., Kent, OH ..... Akron  
 Reuther Mold & Manufacturing Co., Cuyahoga Falls, OH. .... Akron  
 Continental Precision, Inc., Phoenix, AZ ..... Arizona  
 R & D Specialty Manco, Phoenix, AZ ..... Arizona  
 Boston Centerless, Woburn, MA ..... Boston  
 Custom Group, Inc., Woburn, MA ..... Boston  
 North Easton Machine Co., Inc., North Easton, MA ..... Boston  
 O-D Tool & Cutter, Inc., Mansfield, MA ..... Boston  
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 Tri-Craft, Inc., Cleveland, OH ..... Cleveland  
 Valley Tool & Die, Inc., N. Royalton, OH ..... Cleveland  
 Component Repair Technologies, Inc., Mentor, OH ..... Cleveland  
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 Trec Industries, Inc., Brooklyn Heights, OH ..... Cleveland  
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 Gibbs Die Casting Corporation, Henderson, KY ..... General  
 Palma Tool & Die Co., Inc, Lancaster, NY ..... General  
 RS Precision Industries, Inc., Farmingdale, NY ..... General  
 Teton Machine Company, Payette, ID ..... General  
 Win-Tech, Inc., Kennesaw, GA ..... General  
 Youngers & Sons Manufacturing Co., Inc., Viola, KS ..... General  
 The Lloyd Company, Houston, TX ..... Houston  
 Anita Machine & Tool, Inc., Lafayette, IN ..... Indiana  
 Apex Tool & Manufacturing, Inc., Evansville, IN ..... Indiana  
 Boyer Machine & Tool Co., Inc., Columbus, IN ..... Indiana  
 Major Tool & Machine, Inc., Indianapolis, IN ..... Indiana  
 C & R Manufacturing, Inc., Shawnee, KS ..... Kansas City  
 Huhtamaki, Inc., Machine Shop Division, De Soto, KS . . . Kansas City  
 KC Machine, LLC, Excelsior Springs, MO ..... Kansas City  
 Great Western Grinding, Inc., Huntington Beach, CA. . . . Los Angeles  
 Hager Manufacturing, Inc., La Mirada, CA ..... Los Angeles  
 Metric Machine, Riverside, CA ..... Los Angeles  
 Wire Tech EDM, Inc., Los Alamitos, CA ..... Los Angeles  
 Salteydog Metal Fab, Albuquerque, NM ..... New Mexico  
 Applegate EDM, Inc., Farmers Branch, TX ..... North Texas  
 H. H. Mercer, Inc., Mesquite, TX ..... North Texas

Those eligible to receive this award are among the best in the industry and something the owner and employees should be proud of.

Please join the NTMA in congratulating the NTMA members for receiving the award for their company's excellent safety performance!



## Company ..... Chapter

Manda Machine, Dallas, TX ..... North Texas  
 JD Machine Corp., Ogden, UT ..... Northern Utah  
 Area Tool & Manufacturing, Inc., Meadville, PA . . . . NW Pennsylvania  
 Highpoint Tool and Machine, Saegertown, PA . . . . NW Pennsylvania  
 Kuhn Tool & Die Co., Meadville, PA ..... NW Pennsylvania  
 Laser Tool, Inc., Saegertown, PA ..... NW Pennsylvania  
 Micro Mold Company, Inc., Erie, PA ..... NW Pennsylvania  
 Ripley Machine and Tool Company, Ripley, NY . . . . NW Pennsylvania  
 X-Cell Tool & Mold, Inc., Fairview, PA ..... NW Pennsylvania  
 Beaver Tool & Machine Company, Inc., Feasterville, PA . . . Philadelphia  
 Delaware Valley  
 Betar, Inc., Somerset, NJ ..... Philadelphia Delaware Valley  
 Brewster Washers, Fairfield, NJ. .... Philadelphia Delaware Valley  
 Rosenberger North America Pennsauken, Inc., Pennsauken, NJ .....  
 Philadelphia Delaware Valley  
 VEP Manufacturing, Inc., Jackson, NJ ..... Philadelphia  
 Delaware Valley  
 Alle-Kiski Industries, Inc., Leechburg, PA ..... Pittsburgh  
 Chick Machine Company LLC, Butler, PA ..... Pittsburgh  
 J.V. Manufacturing Co., Inc., Natrona Heights, PA ..... Pittsburgh  
 Jatco Machine & Tool Co., Inc, Pittsburgh, PA. .... Pittsburgh  
 Latrobe Foundry Machine & Supply Co., Latrobe, PA . . . . Pittsburgh  
 Stellar Precision Components, Jeannette, PA ..... Pittsburgh  
 Kitagawa-Northtech Inc., Schaumburg, IL ..... Rock River Valley  
 Frontier Metal Stamping, Inc., Frederick, CO. .... Rocky Mountain  
 Hirsh Precision Products, Boulder, CO ..... Rocky Mountain  
 Reata Engineering & Machine Works, Inc., Englewood, CO . . . . Rocky  
 Mountain  
 R.M. Machining, Inc., San Carlos, CA ..... San Francisco Bay Area  
 Austin Machine Company Inc., O Fallon, MO ..... St. Louis  
 Component Bar Products, O Fallon, MO ..... St. Louis  
 Homeyer Precision Manufacturing, Marthasville, MO . . . . St. Louis  
 Mittler Brothers Machine & Tool, Foristell, MO ..... St. Louis  
 Patterson Mold and Tool, Saint Charles, MO ..... St. Louis  
 Nolte Precise Manufacturing, Cincinnati, OH. .... Tri-State Tooling &  
 Manufacturing Association  
 The Metalworking Group Inc., Cincinnati, OH. .... Tri-State Tooling &  
 Manufacturing Association  
 Tomak Precision, Lebanon, OH. .... Tri-State Tooling &  
 Manufacturing Association

# 11TH ANNUAL LEGISLATIVE CONFERENCE BRINGS MANUFACTURERS FROM ACROSS THE COUNTRY TO THE NATION'S CAPITAL

Mark Lashinske on Capitol Hill.

The first United States Congress met to consider and address the issues facing the nation in 1789. In the 230 years since, both the issues and the methods of advocating for interests on those issues have changed quite a bit. But one constant remains: If you want something from Washington, you have to talk to members of Congress directly.

Year after year, Beltway research shows that the single most impactful advocacy strategy is for a constituent to meet face-to-face with their member of Congress or his or her staff.

And so, year after year, members of NTMA and PMA come together as One Voice for the annual Legislative Conference in Washington, DC in April. It's a meaningful tradition, the highlight of the One Voice advocacy efforts in Washington and a unique opportunity to meet with the elected officials and integral staff members whose decisions impact NTMA member businesses.

This year, approximately 50 NTMA and PMA members participated in nearly 100 congressional meetings during their two days in Washington. They also had time

for fun and fellowship during an evening reception on the rooftop at 2001 M St., home to One Voice public relations firm the Policy Resolution Group at Bracewell LLP.

On the agenda for Capitol Hill meetings this year were discussions about workforce and trade, both of which are critical issues for the manufacturing sector.

In meetings on both sides of the political aisle, attendees applauded Congress' commitment to boosting manufacturing sector workforce development initiatives. As The Record readers know, a large majority of One Voice members consistently report both having open positions and having difficulty filling those jobs. The Perkins Career Technical Education Bill, one effort to address these issues, was recently signed into law and funding for the included programs was increased. Additionally, Congress is working on a number of initiatives around Industry Recognized Apprentices Programs, for example, allowing associations to become "certifiers" of industry recognized apprenticeships and updates to the Higher Education Act specifically to make technical credentialing more equivalent to a

4-year degree. Attendees asked Congress to keep up the good work by pushing these and other pieces of legislation forward to promote careers in manufacturing.

This year's trip came at an important time, as the Trump Administration is continuing to hold firm on tariffs on imported steel and aluminum. Attendees called on Congress to maintain their support for the U.S. manufacturing sector by weighing in with the White House and asking that the tariffs be lifted as quickly as possible. One Voice members explained that tariffs on imported steel and aluminum raise the prices for both imported and domestic raw materials by making the U.S. an island of high steel and aluminum prices. As a result, attendees warned, the finished parts that downstream users make may simply be made overseas and imported into the United States.

The work done by One Voice members in Washington is significant because it reminds Washington of the real-world consequences of legislation and regulation that are felt in facilities across the country.

CONTINUED NEXT PAGE





From top to bottom:

- NTMA members meet with Representative David Schweikert of Arizona (second from left)
- Members make a stop at Arizona Senator Sinema's office.
- Arizona Representative Greg Stanton's office.
- One Voice fly-in participants meet with representatives from the office of Senator Dianne Feinstein (D-CA)



Did you attend the Legislative Conference and want to stay engaged? Or did you miss it this year and want to take action now? Consider visiting your representatives at home in their district offices or inviting a member of Congress to tour your facility. One Voice can assist with outreach and provide a step-by-step guide. And, connect with One Voice on social media (@OneVoiceforMFG on Twitter) and post about policy. Nearly every member of Congress is on Twitter and Facebook and most are on YouTube and Instagram, too.

Planning is already underway to ensure that next year's DC gathering keeps up the message to Washington that manufacturing matters. Remember that NTMA members can give unlimited corporate or individual contributions to the NTMA Government Affairs Administrative Fund, which supports the work done by The Franklin Partnership and Policy Resolution Group at Bracewell LLP. Additionally, NTMA members can make limited personal donations to the Committee for a Strong Economy (CFASE) PAC, which supports pro-manufacturing Congressional candidates.

Keep up with One Voice advocacy efforts and find ways to get involved on the One Voice website - [www.metalworkingadvocate.com](http://www.metalworkingadvocate.com).



## THE BIG QUESTION – SHOULD I GO?

BY BILL JORDAN, CEO

ALLIED TOOL & DIE CO., LLC, PHOENIX AZ

The answer to this question will vary based upon the value you place on networks and the human connection. If you feel that these two items are worth your time, then the answer is yes. If you feel that a personal face-to-face connection makes the network stronger, then the answer is a YES with an exclamation point!

One year ago, I attended this conference for the first time, not knowing what to expect. This year I knew our schedules were already made for us by the conference organizers. I knew that we would meet with some actual Congressmen and Senators while only meeting the staff members of others. I also knew that these staff members play a critical role in shaping the priorities of their respective leaders and deserve just as much, if not more, attention than our actual elected officials.

This year our main topics of focus were workforce development and tariffs. It was a repeat of last year, but with better results. Everyone likes to “talk” about workforce development, but there are some specific bipartisan bills marinating in the DC stew that will actually help manufacturing education. Additionally, after a year of tariffs all the members and staff of both parties we met with are seeing and constantly hearing about the tariff effects on companies. To learn more about the specifics go to [onevoice.org](http://onevoice.org).

What struck me as critical again during this second tour is having a physical presence in the offices of Congressman and Senators. Sitting with one or two business owners makes an impression. But, if five or six business owners from the same state are professionally crowding their office

with a unified message, the impression becomes indelible. We want to be seared onto their subconscious so that when they hear the words “workforce development” and “tariffs” they think back to our faces staring at them from across the desk in their office.

I had the opportunity to sit next to one of our Congressmen for lunch. The discussion varied over many topics, including new manufacturing technologies. I told him about the weaknesses, strengths and best applications for one technology, and he now sees its application in a new light. I believe he will remember my face and what I said. I can't remember names of people to save my life, so I don't expect the same from others, but I know he will remember our conversation. That is the birth of a network opportunity.

I ask that everyone who can go to the conference next year does. I don't know the exact number of participants this year, but it seemed quite small compared to the size of our association. Numbers make a difference and a network with elected officials will never exist if we don't go and make one.

There are people that think I wasted my time and money to go to DC. The comments are usually a one-sided view in this bitterly divided political time. The truth is, it doesn't matter which party any of us belong to when it comes to the cold hard fact that we need more young people to enter our industry. If we don't engage with all politicians on behalf of our industry, then we have no right to complain. If you have ever once muttered, opined, or gnashed your teeth about what your Senator or Congressman did or didn't do that hurt your business, I hope you ask yourself, “What have I done to let them know about our needs?”

# A HIGHER LEARNING

BY GEOFF MORTIMORE AND ANDREW BUTLER, SANDVIK COROMANT



The rigorous and comprehensive Sandvik Coromant E-Learning program helps apprentice engineers keep up with the latest developments in metalcutting.

As the level of technical innovation in the metalcutting sector increases, so too does the need to train future engineers in the latest methods.

For subcontract machining specialist Metaltech Precision Ltd. in England, the introduction of the Sandvik Coromant E-Learning program has added a new dimension to its apprenticeships as it looks to meet ever more strenuous demands on quality, productivity and delivery.



Workshop Manager Steve Larcombe has been at Metaltech Precision Ltd. for 18 years. Responsible for overseeing the apprenticeship program, he sees benefits for both the students and the company.

“The colleges don’t cover the tooling side in depth,” Larcombe says. “They can’t afford the machinery or tooling we can here, and they don’t cover the new innovations. In the past four or five years we have seen new innovations, new grades, chip breakers and different thought processes on how to machine using new programming techniques, so this is a way of getting that into our training.”

Before the apprentices took the E-Learning program, Larcombe completed it himself.

The next step will be for team leaders and management to do the program, as well.

“I found it good to refresh my memory, and I was seeing things in it that I’d either forgotten or not covered for a while,” Larcombe explains. “The program is not too time-consuming or difficult to understand. The content is good, and it fits with what I want to do rather than having two or three apprentices in a room, trying to train them on something.”

The students tend to undertake the program early in their apprenticeship. They usually need around 20 hours to complete it, broken up into sessions of four to five hours. At the end of each ses-



sion is a test, and upon completion they are awarded a certificate.

“It’s very informative and there’s lots I didn’t know, especially about inserts,” said Geoff Peacock, a recent student. “I find having the videos is really useful, because it helps give me a better picture of what I am working with. It’s early days for me, but if I’ve got more information to help the company make better products with greater efficiency, then it is a helpful tool for me.”

For those who have completed the program, the opportunity to recap areas of knowledge that need attention is also a plus.

“I like the recaps and the mini tests,” said



apprentice Richard Padfield. “The hardest part for me was taking in so much knowledge. Tool cutting has changed and accelerated so fast over the past five years. I could take it home and recap over the course after I’d finished it, learn how to do something properly and then do the final test.”

On a practical level, students find that they can directly apply what they have learned online to their tasks in the workshop.

#### METALCUTTING TECHNOLOGY

Since its introduction, the E-Learning program, which is based on the Sandvik Coromant 360-page Metalcutting Technology training handbook, has been a huge success.

“The response has been very, very good,” said Sandvik Coromant Academy EMEA Manager Nils Hedar. “We already have more than 12,000 users, and we expect this number to increase a lot. We soon saw a demand to have it translated into more languages. As well as companies, several well-known universities are using it for their metalcutting training.”

Hedar said he can see benefits in the short- and long-term both for clients and for Sandvik Coromant. “It is important for us in terms of building relationships and helping people get more acquainted with Sandvik Coromant tools and ways of using them,” he said. “For us, students are future customers and employees.”

“Students at a well-known research center in the U.K. have been putting positive pressure on Sandvik Coromant to do a level 2 E-Learning program,” Hedar said. “Also, the teachers appreciate the eMCT as they continually try to find new ways of improving the learning.”

“Our aim is to provide a better understanding of metalcutting,” Hedar continues. “It is an easily accessible form of training and one that is interesting and fun. Ultimately, better competence leads to higher productivity. With the introduction of Badges & Awards, users can also very easily follow their training progress and achievements on their personal Achievement page.”

The E-Learning program is available in Chinese, French, German, Italian, Japanese, Spanish and Swedish.



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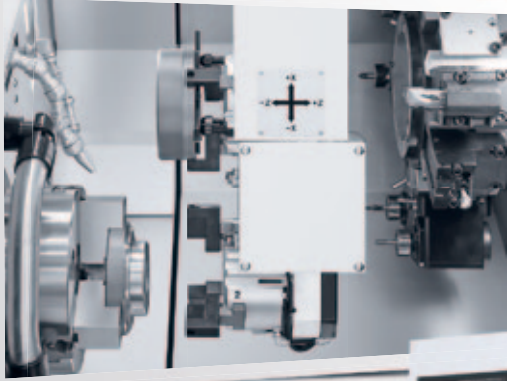
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# DMG MORI





Reshoring Initiative President Harry Moser presents the National Metalworking Reshoring Award to Greg Owens, CEO of Sherrill Manufacturing.

## NEW YORK-BASED SHERRILL MANUFACTURING/LIBERTY TABLETOP WINS 2019 NATIONAL METALWORKING RESHORING AWARD



Sherrill Manufacturing, Sherrill, N.Y., has received the 2019 National Metalworking Reshoring Award in recognition of the company's success bringing manufacturing back home to the United States. The award, given by the Reshoring Initiative, the Precision Metalforming Association (PMA), The Association For Manufacturing Technology (AMT) and the National Tooling and Machining Association (NTMA), honors a company that has effectively reshored products, parts or tooling made primarily by metal forming, fabricating, casting or machining, including additive manufacturing.

Sherrill was chosen as the award winner because its success demonstrates that

it is feasible to reshore completely lost product categories, including everyday products, such as flatware. When Oneida Limited ceased operations, all U.S. flatware production had been lost, primarily to Asia. Sherrill Manufacturing took over the Oneida flatware factory, launched innovative products under the Liberty Tabletop brand and found a more efficient way to market those products. Sherrill is now growing consistently.

"We are very pleased that after many years of hard work our efforts to re-establish the flatware industry in the United States are finally paying off. This is a big win for our employees, who stuck with us through thick and thin, as well as for our customers

who are those loyal folks who search for and insist on Made in America," said Greg Owens, CEO of Sherrill Manufacturing. "I was honored to accept this award for them, the dedicated silversmiths at Sherrill, and in recognition of our customers, who have

supported the comeback of flatware manufacturing in the USA."

The award was presented in Tucson, Arizona, at the MFG Meeting, organized by AMT and NTMA. A letter of congratulations also was announced from I.U.S. Commerce Department Deputy Assistant Secretary for Manufacturing Ian Steff.

The 2020 National Metalworking Reshoring Award will be presented next fall during IMTS 2020, the premier manufacturing technology show in North America that boasts more than 120,000 attendees. Additional details about the 2020 award will be available by June 2019.

"Reshoring 2010 thru 2018 totaled over 450,000 jobs, about 4 percent of total U.S. manufacturing employment," said Harry Moser, founder and president of the Reshoring Initiative. "Sherrill's success demonstrates that large categories of work considered to have been 'lost forever' are eligible to be reshored. Our goal is to reshore millions more jobs."



A variety of Liberty Tabletop's stainless flatware, the award-winning products





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# GROB APPRENTICESHIP: WHY IT WORKS

BY TIFFANY BRYSON,  
REGIONAL MANAGER, GROB SYSTEMS



Everyone agrees that apprenticeship programs are essential to developing our next generation workforce in manufacturing. A consensus on that point is reached far quicker than the graduation dates for skilled workers we desperately need now.



GROB Systems has dedicated nearly 30 years to the apprenticeship program at the company's North American headquarters in Bluffton, Ohio, and has graduated and hired nearly 350 employees since inception. As a result, many visitors to GROB are highly interested to understand how our apprenticeship program has flourished, and how they might replicate this success in their own companies.

Our German heritage underlies our commitment to the apprenticeship program, since vocational training and work/study programs are well regarded in Europe. As a family-owned company, it is easier for GROB to make a long-term commitment to employee training and education. That commitment is a necessary foundation for a successful program.

The program itself is highly visible within the Bluffton plant, with dedicated space for classrooms, manual and CNC machines and full-time instructors who lead the program.

"You can see the effort and expense the company is putting into the training," said Mark



Reed, apprenticeship training supervisor at GROB Systems.

In return, the apprentices – as many as 25 to 40 per year – are contracted to work at GROB for four years. During this time they will earn a full-time salary and an associate's degree in Manufacturing Engineering Technology or Electronic Engineering Technology from Rhodes State College.

Partnering with an educational institution has many advantages. Naturally, it allows us to integrate existing, fully developed curriculum into our program. Rhodes State College's accreditation status with the Higher Learning Commission and the associate's degree deliver lifelong value to the graduates of the GROB program, whether or not they continue their employment with the company (although most do). It is also a private/public partnership with many benefits beyond the apprenticeship program. If a company developing an apprenticeship program does not have access to a nearby vocational school, there are many high-quality online options including NTMA-U.

During the first two years at GROB, apprentices will progress from classroom study and theory to the factory floor, choosing a specialty and continuing their education under the guidance of senior employees.

"It's really hands-on learning. The employee is expected to teach the apprentice all that they

can and challenge them. Employees really enjoy passing down the information to the next group of workers coming on our floor," Reed said.

With a current enrollment of 92 apprentices, including all first to fourth year students, a considerable effort is given to attracting high-school graduates to fill the openings each year. Regular outreach to about 25 high schools in western Ohio and monthly open house events at GROB during the school year have been successful and helped build awareness of the program. The open house weekends are geared toward prospective apprentices, but parents, families, teachers and others interested in learning more about GROB are welcome to attend and join a facility tour lead by a GROB apprentice.

During the application process, the apprenticeship recruiters at GROB focus more on attitude and aptitude than on test scores. While math and mechanical skills are important, so is the student's high school attendance record, and a general interest in learning and problem solving.

"We are not necessarily looking for the highest grades or the highest scores on testing, but for people who work well with each other," Reed said.

As the number of open positions continues to outpace the availability of skilled workers, apprenticeship programs can help fill the gap. GROB has retained more than 60 percent of the

apprenticeship program workforce, including three managers, nine supervisors and 10 foremen who are graduates of the program. NTMA is a great resource to identify supporting resources and programs in your local area.

I invite NTMA members to contact me or register to attend an upcoming weekend open house. Follow GROB Systems on Facebook and LinkedIn to see event updates.







## BOTSSTL THIRD ANNUAL EVENT A SMASHING SUCCESS

Olathe NW HS wins Grand Champion Award

SUBMITTED BY LORRAINE NIEMANN, EXECUTIVE DIRECTOR, ST. LOUIS CHAPTER NTMA



The 3rd annual BotsStL was a spark-flying, gear-grinding, bot-battling event! Sixteen teams registered for the March 30 battle, which was hosted at Ft. Zumwalt North High School. The crowd was large and the bots were AMAZING. Prizes included: \$500 for best documentation, \$500 for best innovation, trophies and medals for the top three battle winners and one Grand Prize Champion who took home a trophy and \$1,000 to travel to the National Robotics League Competition in May. Organizers and volunteers said they were impressed with the participants in this year's event. A special thank you to the fantastic volunteers who helped with setting up, judging and safety inspections, as well as the NTMA members who have worked with teams to pro-

vide machining, parts and knowledge. Organizers' 2020 vision is to obtain grants or foundation sponsorship, hire a full-time coordinator, and double the size of the event.



Teutopolis HS winner of the Innovation Award



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# COMMUNITY COLLEGE OF DENVER BECOMES FIRST ATP OF HEIDENHAIN CONTROLS IN NORTH AMERICA

SUBMITTED BY KATHLEEN HERRMANN, PUBLIC RELATIONS MANAGER, HEIDENHAIN



HEIDENHAIN is proud to announce Community College of Denver's (CCD) Advanced Manufacturing Center (AMC) as the first HEIDENHAIN authorized training partner (ATP) focusing on its CNC controls in North America. Here, both students and industry stakeholders alike can now access and train on the latest in state-of-the-art manufacturing equipment.

To become a HEIDENHAIN ATP, CCD staff completed several rounds of advanced training on the 5-Axis HEIDENHAIN TNC machine controls and successfully passed an extensive exam.

"We are thrilled to be able to contribute to domestic manufacturing with these advanced capabilities," said Matthew Sweeney, AMC director. "It's exciting to see what can now be done just by knowing what buttons to push on these conversational and effective HEIDENHAIN controls. And, we are just scratching the surface of what these HEIDENHAIN controllers can do. Even the most experienced machinist can benefit from these advanced capabilities."

HEIDENHAIN'S TNC Business Development Manager Gisbert Ledvon said the company has a longstanding partnership with the college.

"HEIDENHAIN has been in a rela-

tionship with CCD and their Advanced Manufacturing Center in Colorado since 2015, including participating in multiple joint workshops held at CCD for 5-axis machining covering theoretical and practical parts." There are multiple HEIDENHAIN TNC controls in operation at the AMC, and they currently offer classes from basic to advanced control programming and training.

Other North American institutions are now invited to apply to the ATP program, as well. More information about ATP program partnership is available from HEIDENHAIN.

This expanded HEIDENHAIN ATP program is part of a larger North American TNC support initiative. This new support includes increased control+ training the at HEIDENHAIN offices in Schaumburg, IL, an establishment of a controls application group with dedicated contact information (TNCApplications@heidenhain.com), as well as a hotline for on-the-go technical support (847-490-0351, Ext. 2).

More information on

HEIDENHAIN control training opportunities at CCD can be obtained from CCD Machining Instructor Eric Miller at 303.352.3060 or online at [CCD.edu/Machining](http://CCD.edu/Machining).



## HEIDENHAIN

Technical qualification and continuing training are indispensable for achieving technological improvement and securing the future of a company and its employees.

HEIDENHAIN CORPORATION in North America provides technical training covering installation, programming and PLC programming as well as general training for distributors and end-users.

For more information about HEIDENHAIN's 2019 controls training classes list that anyone can attend in the Chicago area for a small fee, please visit: [https://training.heidenhain.com/en\\_US/](https://training.heidenhain.com/en_US/) These classes are offered at HEIDENHAIN's exciting new TNC-CNC Academy.



HEIDENHAIN announces that Community College of Denver (CCD) is its first Authorized Training Partner for HEIDENHAIN TNC controls in North America. Pictured here (from left to right) are: HEIDENHAIN's Julian Renz, CCD's Eric Miller, HEIDENHAIN's Joe Pizzoferrato and CCD's Matthew Sweeney.



## ARIZONA CHAPTER HOLDS ANNUAL CASINO NIGHT

SUBMITTED BY BARBE BENNETT, EXECUTIVE DIRECTOR, ATMA



The Arizona Chapter NTMA held their annual Casino Night last month at the Phoenix Airport Hilton. The special event was hosted by five premier sponsors and Arizona Chapter associates and featured 19 company display booths complete with swag giveaways. Prizes were awarded to the best Associate Display (won by Consolidated Resources Incorporated) Best Casino Outfit (won by Marnie Hunt of JRT Hunt) and Top Chips (won by Greg Whalen of Arizona CNC).

The Arizona Chapter hit the jackpot with this event, which was a big win for all who attended!



## ROCKY MOUNTAIN CHAPTER NTMA HOSTS STUDENT TOUR

SUBMITTED BY JAMES DUGGINS



The Rocky Mountain Chapter has a concentrated focus on workforce development. Recently, the chapter partnered with Bollman Tech (the STEM program for Adams 12 school district) to expose students to technical education and manufacturing. The group of 75 students toured Community College of Denver, Metropolitan State University and Geotech (Denver manufacturer of environmental

equipment). The event was a great way to introduce students (our potential future workforce) to the manufacturing world.



## FOUNDER OF MUELLER MACHINE AND TOOL PASSES AWAY

Mueller, Raymond "Ray" John Jr. of St. Louis passed at home on April 5, 2019 at the age of 81.

Raymond founded Mueller Machine and Tool Company in 1959 and built it into one of the countries premiere Tool and Die Companies.

He leaves behind his wife Sharon Mueller, children, grandchildren and great-grandchildren and many friends.

Memorial contributions may be given to American Diabetes Association or National Kidney Foundation.



## NTMA CONGRATULATES PENN UNITED FOR STATE AWARD



Congratulations to NTMA member, Penn United, awarded outstanding apprenticeship program at the first Pennsylvania Apprenticeship Summit for 2018. Pictured: Eric Ramsay, director apprentice and training office PA. Department of Labor and Scott Covert, training coordinator, Penn United Technologies

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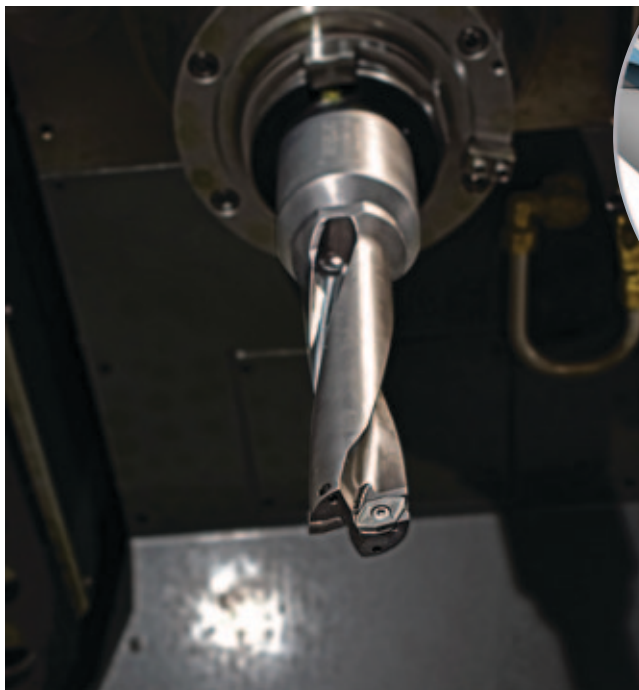


## ALLIED MACHINE EXHIBITS 4TEX DRILL AT EASTEC 2019

SUBMITTED BY DEBORAH FROELICH, ALLIED MACHINE

Allied Machine & Engineering, a leading manufacturer of holemaking and finishing solutions, showcases their new 4TEX indexable carbide insert drilling system in booth #5453 at EASTEC, a manufacturing technology event in West Springfield, Mass. Engineered to create optimal chip formation for efficient evacuation in holemaking processes, the drill outperforms other standard drills by delivering higher penetration rates in light-duty machines. 4TEX excels in challenging applications that include interrupted cuts or drilling high-temperature alloys and stainless steels. The indexable insert drill is ideal for making shallow 2xD, 3xD, and 4xD holes in the 0.472" – 1.850" (12mm - 47mm) range.

The 4TEX drill's unique design increases core strength, improving hole size and straightness. The flute space of the internal cutting edge side, where chips often cluster, is 1.6 times larger than typical IC drills. Dual twisted coolant outlets improve penetration rates by enhancing coolant flow and generating superior chip evacuation.



The insert geometries are optimized for wear resistance and are available in geometry/coating combinations for all ISO materials including steel, stainless steel, high-temperature alloys, non ferrous, and iron. The distinctive insert shape improves surface finish, hole quality and penetration rates, while eliminating issues from chips



winding around the tool. The drills are stocked in both imperial and metric shanks with standard fractional diameters, as well as every ½ mm diameter up to 26mm and every 1 mm up to 47 mm assuring fast delivery.

Allied Machine differentiates itself from other cutting tool manufacturers by focusing solely on holemaking and finishing. For more information on 4TEX or other holemaking solutions, stop by Allied Machine's booth #5453 at EASTEC or visit [www.alliedmachine.com](http://www.alliedmachine.com).



## NTMA CHAPTER PRESIDENT SHARES HER PASSION WITH THE NEXT GENERATION OF YOUNG WOMEN

SUBMITTED BY ANGIE BEAVIS, EXECUTIVE DIRECTOR,  
WESTERN MASSACHUSETTS CHAPTER NTMA

Western Massachusetts Chapter NTMA President Kristin Carlson was a keynote speaker at the 2nd annual She Works in STEM spring networking event on March



27 at the UMass Center in Springfield, Mass. The theme of the evening was Dominating a Male Dominated Industry. Kristin was able to share her story of rising to the challenge of running and growing Peerless Precision, Inc., her family's precision machine shop; becoming the only woman chapter president in the NTMA and learning how to thrive as a young woman in an extremely male dominated industry. She offered some empowerment and encouragement to the young women interested in entering STEM related fields. The Pioneer Valley Women in STEM hosted the event. The group is devoted to connecting high school and college women



with women in STEM industries and academia through powerful stories of success, challenges and persistence.

Holyoke Community College, Springfield Technical Community College, Greenfield Community College, Berkshire Community College and UMass Center of Springfield all participated in the event.



NATIONAL TOOLING & MACHINING ASSOCIATION

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### SUCCESSION PLANNING IN TOP SHOPS

Presented by Legacy Business Advisors

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Presented by SafestHires

### PULLING AND ANALYZING DATA IN TOP SHOPS

Presented by machinemetrics

### INDUSTRY 4.0 AND AUTOMATION IN TOP SHOPS

Presented by Protected Flow Management

**Plant Tour & Reception at the host site following the sessions!**

Unable to join us for this date, mark your calendars for our third and final Top Shops Seminar taking place August 21 in Hartford, CT.

