NTMA THE RECORD

> SERVING THE NEEDS OF MANUFACTURING COMPANIES FOR 72 YEARS

100 YEARS OF SERVICE

Denver Machine Shop, a member of NTMA since 2005 located in Colorado, celebrates its 100th year in business. – pp. 14-15

MEET OUR NATIONAL ASSOCIATE MEMBERS: SCHUNK

A first-year NTMA member, SCHUNK is an innovation leader of a broad variety of workholding, toolholding and automation components to support manufacturing. Learn more about the family-owned company from their VP of Sales, Ron Wright. – p. 18

FALL CONFERENCE

Check out the schedule and get a preview of the topics and presenting companies coming to this year's Fall Conference, October 11th-14th, in Charlotte, NC. – pp. 23-26

FANUC AMERICA APPOINTS MIKE CICCO PRESIDENT AND CEO

As President and CEO, Cicco will have responsibility for all of the company's operations in North and South America. – p. 31



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CMI-SCHNEIBLE COMPANY Detroit Chapter Mr. Brian Schram 3061 W Thompson Rd Fenton, MI 48430

EMC PRECISION, INC. Indiana Chapter Mr. Samuel Tarantino 701 S Main St Sheridan, IN 46069

EMC PRECISION, INC. Cleveland Chapter Mr. Jeffrey Ohlemacher 145 Northrup Street Elyria, OH 44035

JONMAR GEAR & MACHINE, INC. Akron Chapter Mr. Larry Murgatroyd 13786 Warwick Drive NW Canal Fulton, OH 44614

Welcomes New Members

R & M MACHINE TOOL, INC. Detroit Chapter Ms. Jennifer Weathers 7920 Webster Freeland, MI 48623

TRUE-TECH CORPORATION San Francisco Bay Area Chapter Mr. Doug Hill 4050 Technology Place Fremont, CA 94538

WOLFE ENGINEERING, INC.

San Francisco Bay Area Chapter Mr. Michael Pearl 3040 N 1St St San Jose, CA 95134

NTMA WELCOMES NEW NATIONAL ASSOCIATE MEMBERS



Refresh Your Memory, Inc produces FactoryWiz Monitoring & DNC products which allow full machine/ event monitoring and managed file transfers on your plantwide network. RYM has over 33 years of experience in this industry and is the leader in open API Monitoring & DNC products which are interoperable with other systems.



Today, EpiCenter is an Epicor Platinum Partner, but we didn't start out that way. We began as a manufacturing company, using Epicor software to grow our business. We got so good at it, we sold our manufacturing company and started EpiCenter to help other manufacturers just like us. It's that understanding that lets us say "Your Business. Our World," and deliver on that promise.



PRESIDENT'S UPDATE

DAVE TILSTONE / NTMA PRESIDENT

NETWORK – LEARN - ADVOCATE

The Best NTMA Fall Conference is Just Around the Corner in Charlotte, North Carolina – October 11-14.

During the dog days of summer, the NTMA team has been working hard finalizing what promises to be the best Fall Conference EVER! In case you missed the Fall Conference details included in the August Record, our conference will be held at the downtown Charlotte Marriott City Center just a short 15 minute ride from the Charlotte Airport.



Fall Conference is your opportunity to meet with other members, National Associates and the Executive Committee to see and discuss what's new in manufacturing. With technology seminars, business development tracks, roundtables and networking events, this is one NTMA event you don't want to miss. Full descriptions of events can be found in this issue, but here's a sneak peek of what you can expect to see in Charlotte:

NETWORKING AND INFORMATION EXCHANGE

• Regiception: Registration and Reception

• Affinity Partner Lounge: A break station throughout the conference to recharge, grab a coffee, network with speakers, colleagues, etc.

• Charlotte Circuit: NTMA's first 5K Fun Run/Walk

• PAC Reception: Make a difference in DC

• Kennametal Event: Night out at the NASCAR Hall of Fame with joint sponsors Okuma and Paulo

• Cheers to Charlotte: A casual night of food, dancing and networking. Support the National Robotics League with a 50/50 raffle and the GAAF through an online auction and wine tasting, local craft beer tasting, and cigar rolling stations.

LEARN WAYS TO IMPROVE YOUR BUSINESS AND WORKFORCE:

• Learn from fellow NTMA members the challenges and successes they have had in their businesses with lessons learned in a 15 minute "Ted Talk" type format

• A special Emerging Leaders luncheon and breakout session

• Keynote speaker Chuck Underwood talks on the generational marketplace and workforce strategies to address the subtle and not-so-subtle differences between the babyboomers, GenX, Millennials and in some cases the Silent Generation

• President's Update on the NTMA and What's Trending

• NTMA Team and Board Meetings

• Membership and Service Award Ceremony

• Popular Industry Roundtables, including Precision Machining I, Precision Machining II, Aerospace & Automotive, Medical, and Tools, Dies and Molds

Business Tracks and workshops on:

o Employee Management & Benefits Track: Payroll, Tax Compliance, & Pay-as-you-go Workers Compensation Insurance

o Big Data for Small Business -Understanding Sales and Costs from your ERP data – Dan Bagley ; NTMA Strategist

o Maximizing the Value of Your Business

o Workforce Development – Apprenticeship Panel Moderated by Mark Lashinske of Modern Industries and NTMA Member Companies

o Open HR Roundtable

o Are you running your business or is your business running you? HOW ARE THE ECONOMY AND PRESIDENTIAL

ELECTIONS GOING TO AFFECT YOUR BUSINESS?

• Economic Forecast Update – Donald Broughton, Chief Market Strategist and Senior Transportation Analyst, Avondale Partners

• Franklin Partnership tag team with Bracewell for an Update on the Presidential Election and Potential Impact on Your Business

THE RECORD

OPERATIONS & EDITORIAL

Dave Tilstone, President Nikki Hunt, Writer and Publicist

NTMA EXECUTIVE TEAM Herb Homeyer, Chairman Homeyer Precision Manufacturing – St. Louis, MO

Mark Vaughn, Vice Chairman Vaughn Manufacturing Co., Inc. - Nashville, TN

Ken Seilkop, Board Member Seilkop Industries – Cincinnati, OH

Matt Wardle, Board Member J D Machine - Ogden, UT

Mark Lashinske, Board Member Modern Industries Inc. - Phoenix, AZ

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 tbryson@ntma.org for advertising, nhunt@ntma.org for editorial content. Design & layout by Z Graphics david.zablo@gmail.com



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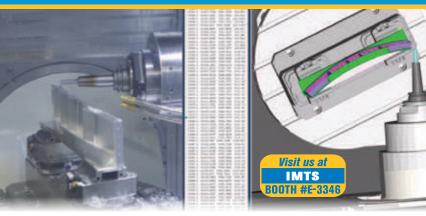


• KM4X & Quick Change Tooling



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• Driving Efficiency with Real-Time Manufacturing Monitoring and Analytics



• Protected Flow Manufacturing



• Mazak session to be announced



OPTIONAL ACTIVITIES

• Bike through Charlotte: Pedal through scenic parks and paths during our guided bike tour around Charlotte.

• Escape Challenge: You'll have to work as a team to piece together clues, solve riddles and unlock the door before time runs out.

Please join us! This is your chance to catch up with your NTMA colleagues, connect with industry leaders and take home valuable information to improve your business and bottom line. We're looking forward to seeing you there!

For more information or to register and make hotel reservations, visit the NTMA website at www.NTMA. org, or contact Kristen Hrusch at khrusch@ntma.org or Brittany Belko at bbelko@ntma.org.

DAVE TILSTONE / NTMA PRESIDENT



Our Cheers to Charlotte reception will give you the opportunity to support our GAAF. Are you familiar with GAAF? NTMA's Government Affairs Administrative Fund (GAAF) helps underwrite our advocacy and media efforts, educating elected officials on tooling and machining and the industry's priority issues, allowing us to join with like-minded coalitions to enhance our voice in Congress and when necessary in the courts when we challenge overreaching and unconstitutional regulations. To support the GAAF and their continued efforts, see the newly added donation box on our next dues invoice. If you have any questions about the GAAF or the donation process, please contact Kristen Hrusch, Government Affairs Team Staff Liaison, at khrusch@ntma.org.



OKUMA'S NEW GA26W GRINDER IS EQUIPPED WITH THE INTELLIGENT OSP-P300G CONTROL

Okuma's new GA26W high speed, compact grinder is now equipped with the intelligent OSP-P300G CNC control. Okuma's open architecture OSP-P control runs on a Windows®-based platform and fully integrates the machine, motors, drives and encoders, allowing for enhanced machine performance and true customization to suit particular machining needs. The Easy Operation control and touch screen increase efficiency by letting users easily and quickly toggle between machine operations, programming and wheel preparation screens. At IMTS 2016 this machine will be shown grinding a steel shaft.

The innovative wheelhead traverse structure gives this CNC grinder a solid, compact footprint that saves valuable floor space while the user-friendly design allows various workpieces to be loaded effortlessly for easy automation in high production environments. The extremely rigid foundation paired with Okuma's hydrodynamic wheel spindle allows for heavy-duty grinding.

The GA26W is equipped with standard chatter control function

that automatically adjusts wheel speed for accurate, stable machining. The powerful 7.5kW (15kW-optional) grinding wheel spindle is ideal for grinding mass produced parts with precision.

KEY FEATURES AND BENEFITS OF THE GA26W:

- Easy Operation OSP-P300G control
- IGAP+ Conversational programming
- Large 610mm(24") grinding wheel
- Tailstock quill stroke 50 mm

• Wheel spindle motor: 7.5 kW (10 hp) [15 kW(20hp) option]



• High feed rates X-axis ø30 m/min; Z-axis: 20 m/min

• Superior rigidity for powerful grinding

• Variety of loader patterns for easy automation

For more information on Okuma's GPW/GAW series visit http://www.okuma. com/gpga26w.



WORKFORCE DEVELOPMENT

NTMA continues our focus on Workforce Development and pursuing the next generation of manufacturing. See what some of our Chapters are doing to prepare their future workforce and learn how you can get involved.

CHANGING OPINIONS BY OPENING DOORS

By Bill Padnos, NTMA Director of Youth Engagement

At the NTMA NWPA Education Committee meeting, Toni Neary from the EdgeFactor said she believes "there is no manufacturing skills, just an awareness gap." She implied that the next generation of the manufacturing workforce would gain the skills needed if they knew how cool this career is.

Could it be this simple? Is promoting manufacturing as a viable career option to students the only thing we have to do to make the skills gap will go away?

Unfortunately, the answer is not as simple as investing in billboards and a spiffy new website; while these are both useful tools to utilize in communicating the message that manufacturing is a viable career option, that communication is only half the battle: **YOU NEED TO SHOW THEM**.

For 41 years of my life, I never stepped foot in a manufacturing facility. It wasn't until February 2013, while I was interviewing to be the executive director of the SWPA BotsIQ program, that I was able to tour Oberg Industries. My tour guide, Greg Chambers, changed my life that day. He opened my eyes to an industry and professional career opportunities that I knew existed, but had no idea what it was really about. That two-hour tour had more of an impact on my life than all the marketing classes I took at Indiana University. While Greg did not turn me into a precision machinist that day, he created an advocate for manufacturing careers.

Manufacturing Day, Friday, October 7, is your opportunity to make an impact to benefit your company and your community by opening your doors to students, parents and educators. I urge you to utilize this opportunity when the nation is focused on manufacturing to start engaging and recruiting your future workforce.

Manufacturing Day began with one very important goal: to bring the modern manufacturing industry into the mainstream. The only way that you are able to educate the public about a dynamic industry they do not understand is for them to see it in action. The statistics do not lie – only 17% of people view manufacturing as a personal top career choice.

Manufacturing Day provides you with the opportunity to spend an hour or two showcasing what industry has to offer and inspire the next generation of manufacturers. Learning the reality of day-to-day operations in a local facility helps these students to realize the potential for a manufacturing career. It also informs the educators and parents who will guide these students as they plan their futures and enter the workforce.

Overwhelmingly, the data from last year's Manufacturing Day shows that students who have attended an event are more aware of manufacturing jobs in their communities, more assured that jobs in the industry pay well, and more likely to tell friends, family, parents or colleagues about manufacturing.

• 90% stated that the activities/tours were interesting and engaging • 84% are more aware of manufacturing jobs in my community

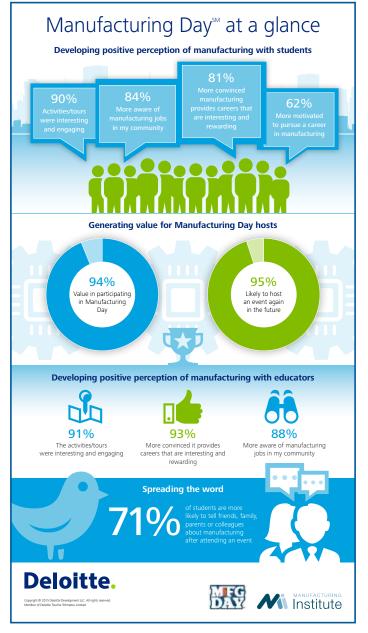
• 81% are more convinced manufacturing provides careers that are interesting and rewarding

• 71% are more likely to tell friends, family, parents or col-

leagues about manufacturing after attending an event

• 62% are more motivated to pursue a career in manufacturing

Think about it: 62% are more motivated to pursue a career in manufacturing after participating in a facility tour while the general SEE "OPINIONS" NEXT PAGE



WORKFORCE DEVELOPMENT

NATIONAL TOOLING AND MACHINING ASSOCIATION

THE FUTURE LOOKS BRIGHT: THE PITTSBURGH CHAPTER NTMA GRADUATES 34 APPRENTICES

By Molly West

June 19, 2016 at Strategio's Banquet Centre in North Huntingdon, PA was a celebration of commitment. It was a celebration of completion. It was a celebration of career choice. The Pittsburgh Chapter NTMA graduated 34 students from the Chapter's Apprentice Training Program.

The apprenticeship model is a two part program. Twothousand hours per year of on-the-job training with an apprentice's employer and 144



hours per year of related classroom training. The Pittsburgh Chapter maintains the curriculum and provides the training at four different locations around the Pittsburgh area. With the completion of the classroom training and employer certification of on-the-job training requirements, students receive their journeyperson's credentials. The theme of the evening: Creation of wealth and

innovation. "Your companies take raw

> material, they machine it into a part, combine them with other components and you have created a new product. This activity is the definition of manufacturing - you have created something that did not exist before - you have created wealth," said Chapter Executive Ed Sikora.

"Manufacturing is also important because it breeds innovation. It is our nature to always be looking for better and more efficient ways to do things. Innovation can be home-grown – just a simple idea that improves efficiency on your shop floor."

Dan Bagley, the CEO of Cepstral, LLC and the founder of B&B Management Labs offered the keynote presentation. He has held Sales and Marketing Positions with General Signal Pump Group and Robert Bosch Fluid Power. He was Chief Marketing Officer of Kennametal for seven years, and a Director in the Deloitte Consulting Manufacturing practice. Dan is also Chief Strategist for the national NTMA. He is the author of two forthcoming books, "B2B to We" and "Value-Stream Selling." Bagley message to the apprentices was clear: the sky is the limit. He shared his own personal manufacturing success story to illustrate his



message.

The Pittsburgh Chapter also maintains the tradition of a handson apprentice competition. Apprentice competition winners were also announced during the evening event with Josh Sanner of Hamill Manufacturing taking top honors for the second year in a row. Second place was awarded to Jacob Sanders, also of Hamill Manufacturing, Trafford, PA.

The Pittsburgh Chapter NTMA congratulates our graduates and thanks their companies for supporting the future of manufacturing.

NTMA

"OPINIONS" CONTINUED

population is only at 17%. In addition, 71% of the students are more likely to become advocates for the industry. One tour of a manufacturing facility does have a direct effect of the public perceptions of working in industry. All you need to do is **open your doors**.

Last year, only 35% of NTMA members participated in Manufacturing Day. If you were one of those companies that opened your doors last year – THANK YOU. If you are already planning to participate this year – THANK YOU. If you are planning to conduct business as usual – WHAT ARE YOU

WAITING FOR?

97% of NTMA members have indicated that you are having a difficult time finding qualified skilled employees. 77% stated that you currently have an opening for a skilled employee. That opening is costing your company 11% of your profits, according to the Manufacturing Institute. How can your company continue to stand on the sidelines? If not now, then when? The manufacturing skills gap is not going to disappear by wishing it away. Action is required.

If you are not sure how to get involved and engaged in Manufacturing Day, the MFGday.org web site is filled with resources and tips on how to invite a local school to visit your facility and what to do once they decide to come. The RockMFG toolkit includes exciting videos for your use to add an extra WOW and activities to help you interact with the students. In addition, the RockMFG toolkit includes resource guides on how to communicate the benefits of a career in manufacturing to parents and educators.

On October 7th (or anytime around that date), OPENYOUR DOORS to your community. Take this opportunity to show them what you are made of and why they should direct all of their energies to follow a pathway to a career in manufacturing. You have the ability to make a difference in the lives of the youth in your community while ensuring the future of your company. I would not be dedicating my professional life to promoting careers in manufacturing if it was not for Greg Chambers and his willingness to take two hours out of his extremely busy schedule to show me around Oberg Industries. Imagine what you could accomplish with a group of students.

Get Up, Get Involved, Get Engaged and Get Workers.

THE MISSOURI JOINT MEETING TRADITION CONTINUES: EMERGING LEADERSHIP AND LEADERSHIP DEVELOPMENT THE FOCUS

The St. Louis and Kansas City Chapter explored workforce development from a particular perspective at this year's Joint "Lake" Meeting: emerging leaders and how to strategically help develop leadership skills.

This meeting is a long-held tradition of the two Missouri Chapters - dating back more than 30 years. In that time, multiple generations of NTMA members, associate members and other partners (and their families) have gathered for a weekend of learning together, networking, recreation and fun always in one of the state's lake resort locations. St. Louis Chapter President, Mark Bockerstett, welcomed nearly 100 people to this year's Joint Meeting at Lake of the Ozarks in central Missouri.

The highlight of the conference was keynote speaker Rik Nemanick, founding partner of The Leadership Effect. Rik presented an overview of how tomorrow's leaders can and should be identified and then helped to develop skills and attributes necessary to grow successfully into their respective roles as tomorrow's leaders of the company. His colorful deck of cards helped participants identify and prioritize leadership skills and attributes - both for those they help grow into leadership roles and/ or for themselves to help grow as emerging leaders. One participant noted after the presentation that he appreciated "having a tool to use to move toward developing myself and others within their positions." A St. Louis company owner thought the most important take-away was "the use of the cards in determining what skill sets and attributes you are looking for in an employee" and others noted that they will definitely use the deck of cards tool in hiring, evaluating and mentoring as well as in their own professional growth.

Breakouts followed, with mentors digging deeper and discussing the concepts further together and emerging



leaders gathered elsewhere to discuss next steps for their own careers. At that emerging leaders' breakout, the St. Louis Chapter announced the launch of an Emerging Leaders group, with Kasner and Gretchen Homeyer were present from NTMA's



Above: Keynote speaker Rik Nemanick

Left: St. Louis Chapter President Mark Bockerstett welcomed everyone to the 2016 StL/KC Joint Meeting

Emerging Leaders Team and discussed past and upcoming NTMA (national) Emerging Leaders programs as well.

Mike Mittler and the Mittler Brothers (and families) hosted



Ten Chapter Presidents from Kansas City and St. Louis – current and past – have enjoyed the tradition of hosting a Joint Lake Meeting. This year's group included two NTMA Chairmen: Current Chairman Herb Homeyer and past NTMA Chairman, Mike Mittler

four breakfast-and-learn opportunities scheduled in the coming months. Zac Overton, Kelly a Friday BBQ at his condo clubhouse – with BBQ cooked, of course, on one of his famous custom grills. Attendees and their families enjoyed the time together in the relaxed environment, complete with a beautiful view of the lake. Mike always throws a great party!

Saturday's activities included a wine-tasting luncheon for some, boating, pool time, water skiing, golf and other leisure activities. The group gathered again Saturday evening to dine, network and hear from Info-tainer Chris Egelston with his unique presentation on success building – with a little magic built into his presentation for fun.

This year's Joint Meeting had attendees from five NTMA Chapters: St. Louis, Kansas City, Milwaukee, Indiana and Detroit. Six states were represented: Missouri, Kansas, Illinois, Indiana, Wisconsin, Ohio and Michigan. National Chairman, Herb Homeyer joined the crowd, with a crew of three generations from the Homeyer family. NTMA staff attending included Kelly Kasner and Matt Gilmore; and two NTMA Team Leaders were present: Chapter Executive Team Leader, Torree Pederson (Kansas City Chapter) and Emerging Leaders Team Leader, Zac Overton (Indiana Chapter).

The St. Louis Chapter (host of the 2016 meeting) would especially like to thank 2016 Joint Meeting sponsors, who made the many successes of this meeting possible: Federated Insurance, CliftonLarsonAllen, Paulo, Enterprise Bank, Mittler Brothers Machine & Tool and Superior Die Set Corporation.

Story and cover photos courtesy of David Lippe, Mid-America Commerce and Industry

NORTHERN UTAH CHAPTER FOUNDS MACHINE UTAH PROJECT



The Northern Utah Chapter of the NTMA (NUTNMA) was awarded state grant funding during the 2015-2016 fiscal year. With the awarded \$150k, the chapter founded the Machine Utah Project. The project consisted of a large-scale marketing campaign, training and development materials for participating shops, and building partnerships with local applied technology colleges.

The campaign has generated immeasurable interest within the manufacturing in-



dustry. The first year of M a c h i n e Utah had nine develop U.S. Department of Labor Registered Apprenticeship Programs. The program is expected to double in size with the additional funding received for the 2016-2017 grant cycle, and the generated interest. The forecasted number of apprentices by the end of 2016 is 25.

The NUNTMA has a large emphasis on workforce development. The Machine Utah Project is a long-term solution to a problem with few solutions. Matt Wardle, president of JD Machining, a local firm in the precision manufacturing and fabricating industry, said, when the campaign launched, "skilled machinists are the lifeblood for manufacturers but the local labor pool of skilled workers has been tight." He added, "We realized that many of us were competing to hire the same people."

"The Machine Utah Project has been essential to our chapter growth," says Maddie Dahl, NUNTMA Chapter Executive. "Workforce Development is so essential to the future of manufacturing – it has been a cause that all of our general and associate members have been able to get behind."

The large-scale marketing campaign consisted of over 50,000 emails, 10 large billboards along the Wasatch Front metropolitan area, a radio ad and campaign outreach, a social media campaign that reached over 1.5 million, and the machineutah. org website. For more information, visit http://machineutah.org.

NTMA

PROMOTING MANUFACTURING CAREERS WITH NTMA SCHOLARSHIPS

It's a barrier most students face – and those interested in manufacturing careers are no exception: how can I afford the education needed to enter my field? "For many Americans, a college degree is out of reach without some type of financial aid or a scholarships," says NTMA Vice President Ken McCreight, "For students interested in Precision Manufacturing careers, scholarships are hard to find and often are linked to specific STEM type programs." Through the NTMF, the NTMA is able to offer two scholarships, The Brock Babb Memorial Scholarship and The Edwin Vobeda Memorial Scholarship, to help students with an interest in a Precision Manufacturing career finance their education.

Named in honor of Sergeant Brock A. Babb, the son of long time member Terry Babb of Apex Tool & Manufacturing, Inc., **The Brock Babb Memorial Scholarship** is an annual tuition scholarship in support of students advancing their education and pursuing careers in manufacturing. Recipients of this scholarship receive a minimum award of \$1,000.00. **The Edwin Vobeda Memorial Scholarship** is an annual tuition scholarship created through a charitable donation to the NTMF from the Edwin F. and Mildred Vobeda Charitable Remainder Trust in support of students residing in the Central Time Zone advancing their education in a tool and die apprenticeship program. Recipients of this scholarship receive a minimum award of \$1,000.00 and a maximum award of \$5,000.00 annually.

The NTMA Education Team serves as the selection committee for both scholarships, and makes the final recipient selection from a list of those students who successfully reach all eligibility requirements.

TO BE ELIGIBLE FOR THE BROCK BABB MEMORIAL SCHOLARSHIP, ALL APPLICANTS MUST:

• Be at least 18 years of age at time of class start.

• Be a member of a high school senior class and planning to attend an accredited educational facility; or be a high school graduate enrolled to continue his or her education in a manufacturing industry related discipline.

• An individual that is recommended by an NTMA Member Company.

• Reside in the United States, and attend a trade school, technical college, apprenticeship, or an accredited college or university in the United States with the intention of enrolling into manufacturing coursework.

• Provide a high school or college transcript.

• Submit scholarship application and supporting documentation of the applicable year.

• Provide a written summary stating their career goals, describing interests, classes, and any work-related activities voluntary or paid.

The NTMA Babb Scholarship Fund will

be paid upon proof of acceptance into appropriate education facility as defined above.

TO BE ELIGIBLE FOR THE EDWIN VOBEDA MEMORIAL SCHOLARSHIP, ALL APPLICANTS MUST:

• Be at least 18 years of age at time of class start.

• Be an employee of and nominated in writing by an NTMA Member Company in Good Standing located in the Central Time Zone and enrolled in a registered tool and die apprenticeship program.

• Must be a high school graduate and achieved a minimum high school GPA of 2.5.

• Submit scholarship application and supporting documentation by April 1st of applicable year.

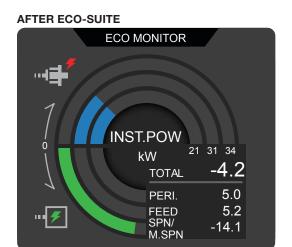
• Provide a written essay stating career goals, and why they should receive the Scholarship.

• Provide a written resume describing interests, classes, and any work-related activities voluntary or paid.

• Provide two (2) letters of recommendation from Business professionals (employer, teachers, clergy etc.) who are aware of their desire to pursue a career in manufacturing.

NTMA scholarship applications can be submitted year round. To apply, or for more information, contact Ken McCreight at kmccreight@ntma.org.





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OPEN POSSIBILITIES





Building on the industry-leading success of its top-performing horizontal machine platforms, Makino proudly introduces the newly updated a51nx and a61nx horizontal machining centers. With the same highly acclaimed rigid casting and axis designs of the original platforms, the updated a51nx and a61nx feature an expanded list of technology advancements, including increased spindle torque, innovative tool monitoring, advanced motion controls and the new Professional 6 control

"When it comes to uptime, reliability and productivity, manufacturers won't find a more robust pair of horizontal machining centers," said David Ward, horizontal product line manager at Makino. "The updated set of features on these machines unleashes a whole new level of productive capability that will greatly reduce cycle times and improve overall throughput, enabling companies to gain a competitive edge with the lowest possible cost per part."

The a51nx and a61nx models boast expansive axis travels to accommodate a wide range of parts and more parts per fixture. The a51nx has a 560-mm (22inch) X-axis and extended Y- and Z-axes of 640 mm (25.2 inches) for an industry-leading total axis volume of 8.1 cubic feet.

The standard a61nx has a 730-mm (28.7-inch) X-axis, 650-mm (25.6-inch) Y-axis and extended Z-axis of 800 mm (31.5 inches). An optional tall column on the a61nx expands the Y-axis to 730 mm (28.7 inches), allowing customers to process larger parts that may have previously required 50 taper machines. Thanks to the expanded Z-axis stroke, maximum tool length on the a51nx and a61nx models is increased to 430 mm (16.9 inch-

es) and 510 mm (20.1 inches), respectively.

Makino is set to debut the updated a51nx and a61nx machines in booth S-8700 of the South Hall during the 2016 International Manufacturing Technology Show (IMTS), Sept. 12-17, at McCormick Place in Chicago.

HIGH-TORQUE, HIGH-POWER SPINDLES

Industry-leading spindle reliability continues with the updated a51nx and a61nx models, featuring a standard 14,000-rpm (30-kW) spindle that has been upgraded to deliver 303 Nm of duty-rated torque. This design enables the machines to accelerate and decelerate from full rpm in 17 percent less time. When compared to previous models, the additional torque reduces rigid tapping time by 20 to 25 percent per hole. Large-diameter angular contact bearings ensure the highest level of rigidity for a variety of applications and processes.

An optional 24,000-rpm (80/60-kW) spindle is available on the a61nx model for extremely high metal-removal rates in aluminum part applications. A new 20,000-rpm (30/18-kW) spindle with direct-inject air-oil lubrication is also available, delivering improved reliability and greater power for enhanced productivity. **REDUCING NON-PRODUCTIVE TIME**

Several enhancements have been made to reduce non-cut time on the updated a51nx and a61nx machines. A vision-type broken-tool sensor (Vision B.T.S.) comes standard, supporting unattended operation by quickly validating the condition of cutting tools after each tool change. By creating a silhouette of the cutting tools, Vision B.T.S. is also able to detect the length, size and approximate weight of the tool. This information can

then be applied to automatically set the tool-change speed to the appropriate setting (fast, medium or slow). The Vision B.T.S. system has fewer moving parts and requires no physical contact with the cutting tool, allowing for enhanced, long-term reliability and less risk of chipping delicate tool materials, such as polycrystalline diamond (PCD).

Inertia active control (IAC) technology has also been expanded for greater efficiency on the updated a51nx and a61nx machines. In addition to optimizing positioning motion of the rotational B-axis, IAC technology is now able to improve acceleration and deceleration rates along the Z-axis-the most frequently moved axis during cutting processes. IAC has also been added to the rotation of the ring-type tool magazine. Each time tools are loaded into the magazine, IAC quickly evaluates the total weight held in the ring and adjusts acceleration to match the total load for reducing the time the tool magazine seeks tools. **PROFESSIONAL 6 CONTROL**

With a perfect blend of the proven stability of the FANUC hardware and MicrosoftWindows Embedded Standard 7 OS, the state-of-the-art Professional 6 (Pro6) control helps move operators fluidly through machine setup, empower them with easily accessible information and protect them with enhanced safety. Cycle-time saving and dynamiccontrol capabilities have been added to the control's GI functions to help lower costs per part.

Two forms of advanced motion-control GI are included with the Pro6 control:

• GI Drilling is a unique G-code drilling cycle that enables the spindle and tool to arc from hole to hole instead of following a square path. This simple change reduces non-cut time by as much as 15 percent on common holepattern drilling.

• GI Milling is designed to improve performance in 2-D milling. GI Milling lets the user define a corner-rounding tolerance on each milling path. Even a small tolerance enables the machine to quickly flow through the cut path, completing milling paths in less time.

On complex 2-D paths, testing has reduced cut time up to 35 percent. While not every tool can make use of these functions, advanced motion control GI is proven to reduce overall cycle time by 3 to 8 percent in typical production components. This reduction saves substantial cost in both high-volume and low-volume production environments by reducing the number of spindles required and freeing up machine availability to take on more work. **OPERATOR ENHANCEMENTS**

The exterior of the machines have evolved in an effort to make maintaining the machine easier for the operator. An L-shaped door, when open, allows more light to enter the machine and prevents fluid from dripping onto the operator during inspection and maintenance. The wide opening on the pallet-loading station doors lends easy access for loading of fixtures and large workpieces. This type of accessibility is crucial for part loading and unloading in robot-automated environments.

Chip and coolant management has been improved with the addition of a standard hydrocyclonic filtration system. This system cleans coolant down to a 20 μ m level, extending the maintenance life of the coolant. For more information, visit makino.com.

100 YEARS OF SERVICE EXCELLENCE

Denver Machine Shop, a member of NTMA since 2005 located in Colorado, celebrates its 100th year in business. The company was founded in 1916 by the Great Grandfather of the current owners, Scott White and Eric White.

The Whites' great-grandfather, Fred, bought out his partner and became the sole owner of Denver Machine Shop 100 years ago. The original shop was located on Arapahoe and 17th St. in downtown Denver. This shop was a two story building where motors on the floor powered ceiling mounted drive shafts, which extended across the shop, with leather belts. The shafts drove multiple leather belts that powered the lathes and mills below. Speed changes were accomplished by moving the belts to different sized sheaves mounted on the machines. The early shop served the local gold mining industry and also supported the blooming agricultural industry as well. Even though the transcontinental railroad had been complete for nearly 50 years, many rail com-



Clockwise from top left: Fred White became the sole owner in 1916 and ran the

shop until his retirement in 1950. Ed White ran the shop from 1945 to 1976. Jim and Lee White ran the shop from 1969 until 2006 and still works in a senior advisory position for the shop. Scott and Eric took over operations in 2002 and continue to run the shop to the present day.



Machine's services in the early days.

Fred moved the shop several blocks away to a newer building on 14th and Blake St. in 1931.

During WWII, Denver Machine aided the war effort by manufacturing Howitzer shell casings and many components for military vehicles such as Jeeps and 2-1/2 ton trucks.

Ed White, Fred's son, joined the shop in 1945 after returning from active duty in the Army. Since Ed was involved in the air compressor industry through his first job at Sullivan Machinery, he was able to secure a distributorship for LeRoi Pneumatic Equipment and that turned into a division of Denver Machine Shop and in 1956 a separate business, Denver Air Machinery Co., was formed. They focused on distribution and repair of pneumatic air

> equipment for the mining and construction industries. It was located a couple miles from the machine shop in Denver on 6th Ave and Bryant St. (middle building above.)

> Jim White, Ed's son joined the shop in 1969 and was joined by his wife Lee shortly thereafter. They took over the control of Denver Air Machinery Co. in 1976 allowing Ed to retire. When

> > the economy cycled in the early 1980s, and local mining and construction industries went into recession, Denver Air Machinery was involved with the closure of LeRoi Division, which was now a part of Dresser Industries. Jim and Lee made adjustments and were able to concentrate solely on Denver Machine Shop which was in a state of emergency since it too was tied so heavily to the

mining industry. Jim and Lee were able to shift focus to markets concentrating more on building maintenance and local construction as well as many infrastructure projects including support in the construction of Denver International Airport. Jim and Lee built the company into a thriving small business which concentrated on multiple diverse markets including local building maintenance, elevators, the local printing industry, steel making in Pueblo Colorado, equipment repair



for Colorado molybdenum and coal mines, construction projects, rail road locomotive maintenance, and food processing industries such as bakeries, canning operations, milk plants, and sugar mills. With the rejuvenation projects to rebuild lower downtown, Denver Machine Shop was forced to move due to the demolition of nearby buildings which affected the precision of the shop's machinery. A new location was found a couple miles to the North, still in Denver, on Denargo St. just North of Coors Field (second building from the right above).

Jim and Lee sold the business in 2002 to Scott White who was joined by twin brother Eric in 2003. Jim and Lee remained a big part of the business until 2006 after which they retired and Jim took on the role of Senior Advisor. In 2009 Eric and Scott purchased the major equipment from a company, Industrial Sales & Services which repaired large aggregate mining machinery including rock crushers, screening equipment, and concrete and steel recycling equipment. They subsequently hired key management, employees, and sales staff who worked for IS&S and successfully entered the market of Aggregates repair and wear item sales after the recession of 2009 ended. The new equipment was too big for the shop at that time so Scott and Eric leased a portion of a larger fabrication shop, Longero, Inc., a few miles from the machine shop.

When development started surrounding the shop with influx of 6 story downtown residences, Scott and Eric, with help from Jim and Lee, took advantage of the property value of the land the Denargo building stood on, and successfully moved the business 10 minutes North East of Denver in 2014. Its current address is, 9762 Hanover Ct. East, Henderson, CO (last building on the right above). The new facility has 30,000 Ft. of manufacturing space and overhead crane capacity of 60,000 lbs and easily houses the larger equipment that was operated at Longero.

With the construction market booming in Colorado throughout 2014 and 2015 the

panies still uti-

lized Denver



Aggregate market has steadily grown for Denver Machine as the need for gravel, concrete, and asphalt, has grown to support the construction. A new business has emerged for Denver Machine Shop selling wear parts to the customers who require. These parts include the manganese mantles which are used in cone crusher maintenance, Hardox ware plate for lining hoppers and heavy equipment blades, Rubber products for lining some hoppers and conveyors, and ceramics and wear alloys for other applications. The ware item sales have grown to 25% of Denver Machines' revenues and so a new business unit has emerged, DM Wear Parts.

On March 31, 2016, Scott and Eric purchased Kendo Inc., a 60 year old metal processing and fabrication shop located in Commerce City about 10 minutes

from Denver Machine Shop. It's location is at 5700 Fairfax St. The new acquisition positions Denver Machine Shop to increase its c a p a b i l i t i e s

for its existing customers, opportunities to develop both companies customer base by cross selling each company's unique products, and opportunities to service a more diverse market place for both companies. For the 100 Year Celebration Denver Machine Shop announces proudly an organization Denver Machine Service Centers with three separate business units operating within the organization: Denver Machine Shop, DM Wear Parts, and Kendo Inc.

Scott and Eric, with help from parents Jim and Lee, have managed to grow the business by double digit percentages every single year and now run a business many times the size of what it was when they joined the company in 2002. With the new facility's capabilities, the company continues to grow and shows much promise to be a successful business far into the 21st Century.

WHAT CONTRIBUTES TO THE SUCCESS AND SUCCES-Sion of a 100 year old machine shop?

The business model was established early in the company's history. "Back in the day, they had no way to buy spare parts," says Eric. In the early 1900s, Fred would use the main dining room of the Oxford Hotel across the street from Denver's Union Station, to conduct business with suppliers and customers – there were no telephones and suppliers and customers alike would meet there for lunch.

The company made spare parts for the agriculture, mining, steel, and railroad industries "before parts were available," says Scott. As much as things change, they also stay the same. "The big difference," he continues, "is today we focus on machines where parts are no longer available."

Planned obsolescence "works for toasters and TVs, but for large mining equipment, the machines are too expensive to throw out," Scott adds. In fact, an entire chapter

> in the book, "A Simple Path to Sustainability," was dedicated to Denver Machine

"We're seeing a change in the market," says Eric. "We went through the Great Depression, several major recessions, and everything else. "We've had to change industries a great many times". This is a lesson the Whites' have passed down through four generations.

That's something of an understatement. The company's history parallels Colorado's. Booms and busts in mining, construction, oil and gas, and now craft beer, and the development patterns in Denver.

A recent acquisition dovetails into the strategy. In March 2016, Denver Machine Shop acquired Kendo Incorporated, a Commerce City-based metal fabrication shop that's been in business since 1960. "They have capability to build all kinds of custom fabrications and specialize in forming steel," says Eric.

Challenges: Workforce. "We're creating jobs, but it's difficult to find people who want

manufacturing to be their career," says Eric.

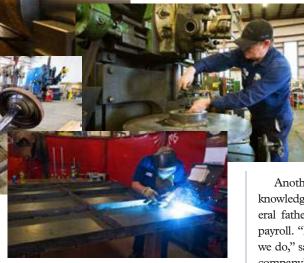
Education and training are critical factors, and strides are being made at the state and national level, the Whites say, but there's another strategy at Denver Machine Shop. "We don't retire people early," says Scott. "We let people work as long as they want."

Another challenge is having parents pass knowledge down to their kids. There are several father-son manufacturing teams on the payroll. "It's hard to train people to do what we do," says Eric, noting that it once took the company's apprentices seven years to become journeymen.

Eric and Scott are both excited about their Rocky Mountain Chapter of NTMA's recent decision to purchase the NTMAU portal so that they can cost effectively train their workforce the vital skills needed for a successful machining operation.

This article is dedicated to the 4 generations of the White family who have prospered through good times and struggled through hard times, and also to the future generations who will carry Denver Machine into the next 100 years. As the company turns 100, Scott, and twin brother Eric with their management team and employees, continue to service multiple industries with manufacturing support, heavy machinery repair, heavy industrial machinery, and general plant maintenance. Denver Machine has played an integral part of Colorado's growth in the industrial sector since 1916.

NTMA



Shop's notably green strategy of keeping old

machines going. "We make the usable life of

equipment longer," Scott says. Much of the

equipment the company services is at least 50

steel recyclers, the company's clientele remains

surprisingly similar to what they were in 1916.

The railroad work has been largely supplanted

by construction and property maintenance

business -- fixing 100-year-old Otis elevators

in downtown Denver is a specialty -- and oil

and gas work. The business has always been

low-volume -- lots of one or two or 15 parts,

Shop is pivoting again. "Some of our tradi-

tional markets are really dropping off," says

Eric. "It starts with coal." There's a domino

effect. Coal on the ropes means less work with

railroads, coal-fired power plants, and the steel

Today after 100 years, Denver Machine

not hundreds or thousands.

making industry.

Ranging from Pueblo steel mills to aggregate mines in the high country to concrete and

vears old.



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Founded in 1943, Paulo is one of the largest providers of heat treating, brazing, and metal finishing solutions in North America. Headquartered in St. Louis, Paulo operates five divisions servicing the mid-west, great lakes, and southeast regions of the United States.

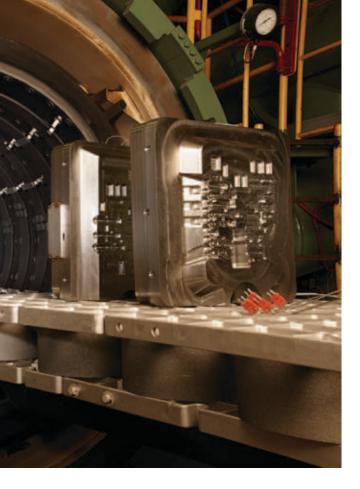
Paulo has supported local chapters in Kansas City and St. Louis for years, but in 2015 we took the next step and became National Associate Members. Attending national events like the Fall Conference and the MFG meeting were both educational and fun. We continue to attend local and regional events like the joint Kansas City and St. Louis chapter lake meeting in July.



This Fall we are excited to meet NTMA members on the tech tour at IMTS - booth #N-6373 - where Paulo's President, Ben Rassieur will share knowledge and experience as a third generation business owner.

In October the Fall Conference in Charlotte looks to be a blast, we hope to see many familiar faces and meet new NTMA members.





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Meet Our National Associate Members:







WHO IS SCHUNK?

"SCHUNK is a family owned company with a worldwide sales organization headquartered in Germany, with 30 fully owned subsidiaries and eight manufacturing facilities. We produce a broad variety of workholding, toolholding and automation components to support manufacturing and are an innovation leader in all of these product categories."

WHEN DID SCHUNK BECOME AN NTMA NATIONAL ASSOCIATE MEMBER?

"We have been a NTMA member for one year."

WHAT DREW SCHUNK TO BECOME AN NTMA NATIONAL ASSOCIATE?

"NTMA has an impressive group of members, and the initial draw for us to join was the opportunity to network with other influential members in our industry."

WHAT PRODUCTS OR SERVICES CAN SCHUNK OFFER Specifically to NTMA MEMBERS?

"The majority of products that SCHUNK produces are machine tool accessories that focus on the reduction of idle time in machining processes. From reduction of setup time on a machining center with quick change palleting systems to automation of the load/unload portion of the process, SCHUNK has the product to fit the need."

WHAT INDUSTRY INITIATIVES DOES SCHUNK SUPPORT?

"We have not taken advantage of the industry initiatives during our first year of membership, but the intent is to be more of a participant in 2017."

with VP Sales, Ron Wright

WHERE CAN NTMA MEMBERS MEET SCHUNK IN 2016?

"Come and meet our team at IMTS (booth W-2000) for an impressive display of what we can provide. If we miss you there we will see you at the Fall Conference. We found last year's Fall Conference very informative."

WHAT NEW IDEAS IS SCHUNK SHARING WITH NTMA Members this year?

"One key focus this year is to show

manufacturers how to improve efficiency and reduce lot sizes by investing in the time between cycle stop and cycle start. Most of the focus in our industry is spent trying to improve the process in cycle, but a lot can be done when focusing on the non-cycle time."

For more information, visit us.schunk.com.

+G =+

NTMA

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September 27-28, 2016

The Conrad Indianapolis Hotel

www.PMA.org/ManufacturingSalesSummit

About The PMA Manufacturing Sales Summit

The PMA Manufacturing Sales Summit is the only conference designed especially for sales and marketing professionals in the manufacturing industry. We want to inspire you and provide you information to grow your business and network with others who share similar successes and obstacles in manufacturing sales and marketing!

When: September 27 - 28, 2016

Where: Indianapolis, Indiana

What to Expect:

The conference will feature educational tracks facilitated by top-notch speakers providing tried and true examples for reaching new customers, main- taining current customers, negotiating successfully and establishing strong company brands.

Speakers:

- Richard Farrell President, Tangent Knowledge Systems
- Dan Gartlan President, Stevens & Tate
- Kristina Jaramillo
- Director of Marketing, Get Linkedin Help
- Bob Sherlock Consultant, Author & Speaker, MarketWerks

Register today to join us or visit us online for complete event details : pma.org/manufacturingsalessummit Contact Rosemary David at 216-901-8800 or <u>rdavid@pma.org</u> for more information.

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- Dr. Thorsten Schmidt CEO, DMG MORI USA



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+ Additive Manufacturing Conference, McCormick Place *New Approaches to Additive Manufacturing* Dr. Greg Hyatt

<u>Visit our</u> booth at IMTS

to win a tri Germany

- Tuesday, September 13th
- + IMTS Conference, McCormick Place Art of Hybrid Manufacturing Mike Panzarella Wednesday, September 14th



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Corrosion is the deterioration of metals due to oxidizing. Most commonly this is seen as rust. The key to proper corrosion care is stopping it before it starts. With metal corrosion, it is true that an ounce of prevention is worth a pound of cure.

HOW CORROSION HAPPENS

Corrosion can happen to any metal. Most frequently you will be dealing with corrosion on iron - that is, rust. In order for a metal to begin to corrode, it needs three elements: moisture, metal, and an electron acceptor. An electron acceptor is an element (usually oxygen) that steals electrons from the metal, which is what happening on a molecular level when a metal corrodes.

When water comes into contact with iron, a chemical reaction immediately begins to take place that quickly oxidizes the iron, turning the iron into iron-oxide (the chemical name for rust). While iron is the most reactive metal and therefore will corrode faster than most others, all metals are susceptible to this process. **HOW TO PREVENT CORROSION**

We already know that in order for corrosion to take place we need metal, moisture and an electron acceptor (usually oxygen). In order to prevent corrosion, we simply need to remove one of these three components from the equation.

The simplest component to remove is the metal surface. This can be done by coating the metal being used with paint or enamel. This prevents the metal from being exposed to oxygen, thus preventing corrosion.

Galvanizing is the process by which a metal, like iron, is coated with another metal, such as zinc. This coating of what is called a "sacrificial metal" protects the underlying metal from the factors that cause corrosion. The sacrificial metal then corrodes instead, leaving the unexposed metal intact. The galvanizing agent (the sacrificial metal) should last for a long time if done correctly; however, it will eventually corrode away, leaving the original metal again exposed and in need of a fresh galvanized coat.

CORROSION PROTECTION IN YOUR FACILITY

Many of the tools, machines and accessories in your facility are likely made of metal, therefore susceptible to corrosion. A few small changes can help reduce the likelihood of seeing corrosion in your shop, thus preserving your equipment and saving your organization money.

1. SEAL YOUR TOOLS

As we know, one of the components for corrosion is moisture. Opting to keep your tools in a sealed, plastic tool chest can help keep them from moist conditions on the floor of your plant. Also try adding a moisture absorbent to help keep the chest conditions as dry as possible.

2. DEHUMIDIFY

Keeping a humid environment increases the moisture in the air and could set your tools up to encounter corrosive elements. If your shop runs on the humid side, try installing a dehumidifier to make for a less rust-friendly environment. This is especially helpful if you have large, metal equipment that cannot be moved or sealed.

3. USE A CORROSION INHIBITOR

Galvanizing has been made easy with the availability of cold corrosion inhibitors. It is applied like a paint, but has all the same protection as heated galvanizing performed on galvanized products before they leave their manufacturing plants.

4. KEEP IT CLEAN

Having an excess of dust

can accelerate the corrosion process in your facility. This is because dusts absorb water. The more dust particles that settle on your equipment, the more water that could come into contact with their metal surfaces and promote corrosion. Be sure to clean your items regularly to prevent dust-activated corrosion.

THE BOTTOM LINE

Corrosion is an inescapable truth for anyone using metal. But knowing how it happens is the key to running interference on rust. Exposed surfaces are vulnerable, so treat them if you can. Reducing or eliminating water and moisture will greatly impact the likelihood for corrosion to occur and slow it down to a manageable, preventable pace.

For more information, visit www.grainger.com.



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WHEN YOU MAKE WHAT MATTERS





2016 FALL CONFERENCE

October 11-14, 2016 Charlotte, NC Follow us on Twitter: #NTMAFC16 www.ntma.org

2016 NTMA Fall Conference Schedule of Events

Tuesday, October 11 1:00p-5:00p Regiception spo

1:00p-5:00pRegiception sponsored by BIG Kaiser5:00p-6:00pFirst Timer's Reception

Wednesday, October 12

8:00a-5:00p	Registration
8:00a-5:00p	Affinity Partner Lounge
8:00a-5:00p	Exhibit Tables
7:30a-8:30a	Budget/Finance Team Meeting & Breakfast*
8:00a-8:30a	Continental Breakfast
8:30a-10:30a	General Assembly sponsored by Grainger
10:45a-11:15a	Knowledge Bars
11:30a-1:00p	Lunch Break
	GAT Team Meeting Lunch**
	NTMF Board Meeting Lunch*
	Emerging Leaders Lunch**
	Chapter Executives Lunch*
1:00p-2:00p	The Franklin Parternship Update
1:00p-3:00p	Emerging Leaders Session
2:15p-2:45p	Knowledge Bars
3:00p-5:00p	Industry Roundtables
	Precision Machining I
	Precision Machining II
	Aerospace & Automotive
	Medical
	Tools, Dies & Molds
5:00p-6:00p	PAC Reception

Thursday, October 13

6:30a	NTMA First Annual 5K
8:00a-1:00p	Registration
8:00a-5:00p	Affinity Partner Lounge
8:00a-5:00p	Exhibit Tables
8:00a-9:00a	Nominating Team Meeting & Breakfast*
8:30a-9:00a	WOW Breakfast sponsored by Paulo
9:00a-10:00a	Economic Update
10:15a-11:30a	Business Development Tracks
	Human Resources
	Sales and Marketing
	Financial Managers
	Workforce Development
10:15a-11:30a	Chapter Executives Session

Thursday, October 13 (continued)

Business Development Tracks
Earlier Tracks Repeat
Chapter Executives Session
Information Center
Optional Activity: Bike through Charlotte
Lunch
Tech Day 1
1:45p-2:30p Tech Session 1
2:45p-3:30p Tech Session 2
3:45p-4:30p Tech Session 3
Emerging Leaders Session
Knowledge Bars
NRL Team Meeting
Kennametal Event: Nascar Hall of Fame

Friday, October 14

8:00a-12:00p	Information Center
8:00a-3:00p	Affinity Partner Lounge
8:00a-1:00p	Exhibit Tables
8:30a-10:00a	Board of Trustees Meeting & Breakfast
9:00a-10:00a	Continental Breakfast
10:00a-12:00p	Optional Activity: Escape Room
10:15a-12:00p	Tech Day 2
	10:15a-11:00a Tech Session 4
	11:15a-12:00p Tech Session 5
12:00p-1:30p	Lunch
	Past Chair & Spouses Lunch*
	Tech Team Roundtable Lunch**
1:30p-2:45p	Business Development Tracks
	Open HR Roundtable
	Are You Running Your Business Or Is
	Your Business Running You?
3:00p-4:30p	Closing Keynote
6:00p-7:00p	Cocktail Hour
7:00p-10:00p	Cheers to Charlotte sponsored by Makino

Meetings Marked * are open to Team Members only

Meetings Marked ** have limited lunches available and are first come first served

Business Development Tracks

Thursday, October 13th, 10:15a-11:30a & 11:45a-1:00p

Employee Management & Benefits Track: Payroll, Tax Compliance, & Pay-as-you-go **Workers Compensation Insurance**

Presented by Randy Pumputis of Heartland Payment Systems

Compliance issues faced during tax season can really affect your bottom line. Understanding the guidelines and implementing the proper systems for payroll and tax compliance throughout the year can make sure that you don't suffer when the tax bill comes due. The session will also cover the benefits of a "pay-as-you-go" workers compensation insurance.

Financial Managers Track: Maximizing the Value of Your Business in Today's Economy Presented by Michael LoGiudice. CPA/ABV/CFF of CBIZ CBI7

Have you ever thought about how your business is looked at through the eyes of your customers and potential buyers? As a leader, you need to be able to step back and look at your business from that outside perspective. Understand the role you have in generating wealth while reducing risk in order to create a lasting legacy. Join us as we discuss tips and strategies to help you to understand these roles.

Sales & Marketing Track: Big Data for Small Business Presented by Dan Bagley, Strategist of NTMA

Many NTMA members would like to increase profitability, improve spending efficiency, establish customer profitability and make other improvements. Visualization can help solve these issues and help with priority setting and drilling through to detail. During this track, we will show a low-cost approach that can be used as a "bolt-on" to see this detailed data through visualization.

Workforce Development Track: Apprenticeship Panel

Moderated by Mark Lashinske of Modern Industries • Panelists: NTMA Member Companies

Workforce is the largest financial and time investment at any manufacturing company. Learn to recruit new employees who are ready to work and can hit the ground running. Hear other NTMA Member Companies discuss their apprenticeship programs and how they are growing their workforce. Whether you are looking to build on your current program, or start your own, these panelists will help guide you. Receive insight and advice to all of your questions.

Friday, October 14th, 1:30p-2:45p

Open HR Roundtable

Moderated by Tom McCarthy of McMahon Berger

Members are welcome to discuss any Human Resource related issues they are experiencing in their shops. Be there to talk about some of today's hot topics, including (but not limited too): overtime policies, communication across generations, attracting and retaining good employees and the Affordable Care Act.

Are You Running Your Business Or Is Your Business Running You? Presented by Ron Kaminski of CultureShoc

Even the most successful leaders and managers occasionally find running a business more challenging than they expected. Many work longer hours and get less return on their investment of time and money than they would like. If these problems seem all too familiar, you're not alone. It doesn't have to be that way. For more than 12 years, Ron Kaminski has been helping teams and leaders succeed. In this dynamic presentation, Ron will introduce you to the Six Key Components™ of successful businesses. He'll arm you with a set of simple, practical tools you and your team can begin using right away to get Traction in your business.









Networking Sessions

Regiception

Tuesday, October 11 1:00pm-5:00pm

A reception and registration wrapped in one! Come register for all your Fall Conference sessions and events while enjoying a drink and networking with all the NTMA attendees.

PAC Reception

Wednesday, October 12 5:00pm-6:00pm

Support the Political Action Committee while you enjoy a cocktail and enter to win a gift basket. Each PAC donation earns you an entry to different prizes varying by donation size. Come and see who will win big!

Charlotte Circuit – NTMA's First 5k

Thursday, October 13 6:30am (\$35 per person)

There's nothing like racing in Charlotte! Be part of NTMA's first 5k in one of NASCAR's favorite cities. Get in the competitive spirit by wearing your company logo and invite your whole pit crew to watch and network before and after the race. All participants will receive a race t-shirts. Be there to see who lifts the trophy when we award the top male and female runners! To register, make sure to check the box on the registration page.

Kennametal Event: Night at the NASCAR Hall of Fame KENNAMETAL APAULO

Thursday, October 13 7:00pm-10:00pm

Immerse yourself in the racing world when NTMA takes over the entire NASCAR Hall of Fame. In live-action exhibits, you'll get in the driver's seat during a race simulator, work as a team in your own pit crew experience and have access to the Moon Shine tasting room. Then celebrate the drivers, owners and mechanics while taking a walk through the iconic Glory Road exhibit featuring 18 cars from past and present generations of NASCAR premier series, and the brand new Heritage Speedway packed with artifacts and memorabilia illustrating NASCAR's most historic moments and legends decade by decade.

Cheers to Charlotte

Friday, October 14 7:00pm-10:00pm

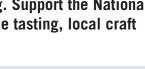
Join us as we close the 2016 Fall Conference with a casual evening of music and dancing. Support the National Robotics League with their 50/50 raffle and the GAAF through their online auction and wine tasting, local craft beer tasting, and cigar rolling stations. There's sure to be a little something for everyone!

Affinity Partner Lounge

Every day throughout the Conference

Stop by the Affinity Partner Lounge during breaks to recharge your batteries, refresh your drink, and get reacquainted with members and our Affinity Partners. Grab a coffee or water, check your email, and take part in our networking meet-and-greets with conference speakers.

For questions or more information, please contact: Kristen Hrusch at khrusch@ntma.org – 216-264-2845 or Brittany Belko at bbelko@ntma.org – 216-264-2848 • To register: visit www.ntma.org/upcomingevents





ENERGY









NTMA BUSINESS RESOURCE SUPPORTS OPERATION PAWS FOR HOMES

TRACY MCMENAMY, APPI ENERGY CUSTOMER SERVICE MANAGER, SERVES AS FOSTER MOM TO DOGS AT RISK OF EUTHANASIA

In October 2013, APPI Energy's Customer Service Manager, Tracy McMenamy was searching for a second dog to join her family. Through the 501©(3) organization Operations Paws for Homes (OPH), she adopted "Sweet Pea," a sheltie mix, who blossomed into a social butterfly from a scared dog at risk of euthanasia. Tracy and her husband of 19 years, Tom, decided to answer an OPH plea for foster families. The McMenamy family immediately began fostering more dogs.

Today, the McMenamy family has fostered 105 dogs from high-kill shelters in Maryland, Virginia, North Carolina, and South Carolina, with 50% to 90% euthanasia rates. "The best reward is seeing our foster dogs transition into good families that are often grieving loss, or have a tough story. These dogs, frequently with medical needs, complete the family circle," said McMenamy.

APPI Energy, an NTMA Business Resource provider since 2001, fully supports McMenamy. Four of her coworkers have adopted dogs. Kathryn Allen, Consulting Services Specialist, adopted a golden retriever named Sandy. Tasha Coleman, Customer Service Specialist, adopted a Great Dane mix named Stitch. Suzanne Hearn, Director of



Energy Markets & Procurement, adopted a terrier/shepherd mix named Starla. Jennifer Underwood, Chief Financial Officer, adopted a pit bull mix named Sunday. The APPI Energy team regularly donates dog food and supplies to Tracy. In March 2016, the firm held an in-house fundraiser for OPH.

McMenamy provides care to an average of six dogs at one time in her home, but has fostered as many as 16 dogs simultaneously when she has cared for puppy litters. Tracy and Tom, who is a police officer, always name their litters after a theme.

The story of McMenamy's most memorable foster litter begins with Century, the Tracy McMenamy maintains photo albums of every dog she fosters. Her bulletin board in her APPI Energy office displays each dog she has fostered so far in 2016.

100th dog she fostered in February 2016. "At the time, we felt like we were losing a police officer in the line of duty every day," recalled McMenamy. Her family decided to name the litter, "L.E.O. puppies," in honor of law enforcement officers that died in the line of duty in 2016. "We used last names, which is how

officers typically refer to each other, and we tried to match each puppy's personality to a fallen officer's personality," said McMenamy. She spoke to each fallen officer's family. Two of those family members, plus two officers and one coworker, permanently adopted puppies from the litter.

How many foster dogs has the McMenamy family permanently adopted? "Only four," said McMenamy. "Reese, the beagle; Baby, the basset hound; Kitty, the Chihuahua; and Sweet Pea, our original foster.

NTMA

DISCOUNTED SMALL PACKAGE DOMESTIC U.S. EXPRESS SHIPPING



As part of the NTMA Shipping Program, PartnerShip helps NTMA members save on their FedEx® small package shipments (under 150 pounds), whether express or ground, domestic or international, business or home deliveries. The PartnerShip setup process makes it simple and easy to get up and running quickly, and their shipping experts provide help every step of the way to ensure members maximize their small package savings.

Here are a few examples of the discounted domestic U.S. express shipping services and benefits that are available to NTMA members through the NTMA Shipping Program:

• FedEx SameDay®: Available 365 days a year for your most urgent shipments.

• FedEx SameDay® City: Get urgent cross-city delivery within several major U.S. metro areas.

• FedEx First Overnight®: When you need it there first thing the next-business-day morning.

• FedEx Priority Overnight®: Nextbusiness-day delivery by 10:30 a.m. to most areas (by noon, 4:30 or 5 p.m. to some rural areas).

• FedEx Standard Overnight®: When you need it there next business day in the afternoon.

• FedEx 2Day® A.M.: Second-businessday delivery by 10:30 a.m. to most areas (by noon to rural areas). • FedEx 2Day®: Second-business-day delivery by 4:30 p.m. to most areas (by 7 p.m. to residences).

• FedEx Express Saver®: Delivery is in 3 business days by 4:30 p.m. to most areas (by 7 p.m. to residences).

• Free FedEx shipping supplies: can be ordered and delivered to your business on FedEx.com.

This tip is brought to you by PartnerShip®, the company that manages the NTMA Shipping Program. For more information or to enroll, email sales@PartnerShip.com or call 800-599-2902.





Boston Centerless, a supplier of precision ground alloys and services to the medical device industry, is pleased to announce the appointment of HnG Medical as the exclusive sales agent to the medical device market for the People's Republic of China (PRC), the Republic of China/Taiwan (ROC), Vietnam, Singapore, Malaysia and Korea.

HnG Medical is a solution provider for advanced equipment and materials used to manufacture medical devices. "By adding Boston Centerless to HnG Medical's principal list, we enhance the products and services offered to our existing customers while helping them improve their products and reduce costs," said HnG Medical CEO, William Zhong.

HnG Medical will play an instrumental role in establishing a presence for Boston Centerless in the ever growing medical device industry in China. "There could not be a better partner for us in China," said David Smith, Boston Centerless Vice President of Business Development. "HnG Medical's knowledge of the Chinese medical device market, existing infrastructure and vast experience working with Western organizations is unsurpassed. HnG Medical also possesses the local resources and high quality service standards that Boston Centerless is known for."

"As part of our growth strategy, Boston Centerless has opened three additional US distribution centers over the past two years to service customers from the east coast to the west coast, and everyone in between. Growing and supporting our existing customer base in the People's Republic of China was a natural next step," added Steven Tamasi, CEO of Boston Centerless.

The Boston Centerless/ HnG Medical partnership will be officially rolled-out to customers in China at the International Component Manufacturing & Design Show (ICMD) in August and at MEDTEC China in October. Boston Centerless supplies customers worldwide with precision ground bar materials for close tolerance CNC Swiss machining applications. The company also provides grinding services for customer-supplied materials and components, provides CNC Swiss consulting services, and manufactures a line of ultra-precise gages. For more information, visit www.bostoncenterless.com.

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FANUC AMERICA APPOINTS MIKE CICCO PRESIDENT AND CEO

FANUC America Corporation, the leading supplier of CNC, robotic and factory automation technologies, announced Mike Cicco has been named the company's President and Chief Executive Officer (CEO). As President and CEO, Cicco will have responsibility for all of the company's operations in North and South America. In addition, Rick Schneider has been named Chairman of FANUC America and will continue in his role as a board member of parent company, FANUC Corporation.

"I am excited and honored to take on this role, and I look forward to working with Rick and our talented senior leadership team to achieve our future growth objectives," said Cicco.



Cicco joined FANUC in 1999 and has held a variety of management positions over the years including software/controls manager and district sales manager at the company's Southern California facility. In 2005, Cicco transferred to FANUC's headquarters in Rochester Hills, MI to take on the role of national account manager of the company's Authorized System Integrator sales group. As his career progressed, he was named general manager of several robot division groups including Material Handling Engineering, Authorized System Integrator sales and Domestic Automotive/Michigan Regional sales. In 2015, Cicco was promoted to vice president of FANUC's North and South American sales and execution. In April 2016, Cicco was named president and COO.

Before joining FANUC, Cicco served as lead automation engineer in Northrop Grumman's Automation and Information Systems group.

Cicco holds a Bachelor of Science degree in Electrical Engineering from Bucknell University in Lewisburg, PA.







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