JUNE 2017

THE RECORD

PUBLISHED BY THE NATIONAL TOOLING AND MACHINING ASSOCIATION



MADE BY AMERICAN FAMILIES.

NOT JUST MADE IN AMERICA, BUT MADE BY AMERICAN FAMILIES

The strength behind manufacturing in the United States

Inside this issue

ONE VOICE IN WASHINGTON:

See how American manufacturers are helping to shape the political agenda. - $\mathsf{p}.11$

GENERATIONS OF MANUFACTURING:

See how a third-generation manufacturing company continues to thrive. - pp.12-13

FALL CONFERENCE 2017:

We're bringing the best in the nation together for a top-notch conference focused on building American manufacturing. Get registered. - p.28

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2017 NATIONAL EVENTS AND TECHNICAL SEMINARS

June 14

Workforce Development Roundtable - Chicago, IL

August 23

Emerging Leaders Roundtable: Financial Management for Non-Financial Managers St. Louis, MO

August 24

How To Be A Top Shop Seminar - St. Louis, MO

September 5-7

MMS Top Shops Conference - Indianapolis, IN

September 13

Financial Managers' Roundtable - Philadelphia, PA

September 17-22

EMO, Hannover, Germany

September 26-27

PMA Sales & Marketing Summit - Milwaukee, WI

September 28

PMA Sourcing Solutions - Milwaukee, WI

October 24-27

Fall Conference - San Antonio, TX

November 9

Plant Managers' Roundtable - Detroit, MI







THE NTMA WELCOMES NEW NATIONAL ASSOCIATE MEMBER HEIDENHAIN CORPORATION

HEIDENHAIN

The Schaumburg, Illinois company manufactures precision measurement and motion control equipment. Their enabling technology is utilized in high precision motion control and machining systems worldwide. Their primary industries are: metalworking, machine tool, semiconductor and electronics, motor/drive, general automation and medical.



PRESIDENT'S UPDATE

DAVE TILSTONE / NTMA PRESIDENT



As you have probably noticed, each edition of The Record has a theme. This month we are focused on Made by American Families, which is our national theme for 2017 and one that will be our center piece for the Fall Conference.

Most NTMA member companies have been started by an entrepreneur and supported by his or her family. The roots run deep, and in many cases, the businesses are passed along to children or some other member of the family. Like you, we are proud to advertise that we have third and fourth generations managing NTMA companies. You, our members, also speak quite often about your extended family. I hear owners talk about their employees as part of their family with many proud that they have helped nurture and care for them over the years. As such, you also feel very responsible for your "extended" families as if they were blood relatives. This is one way NTMA members recognize the dedication and hard work of their employees that have helped them become successful. They have also weathered the good times and bad which you appreciate.

The sense of pride and stewardship

also extends to the communities where our member companies have their businesses. For many of you, giving back to the communities is inherent to your corporate responsibility.

With politics aside, one of the main reasons we decided on our theme, Made by American Families, is the pride of NTMA members. NTMA members are very proud to say that their products are made in the USA. These products are made for U.S. customers and those across the globe. The reputation of American made products continues to be admired by the most demanding customers with the very best finding it difficult to keep up with demand. This sense of pride is very obvious when you ask a member to tour their shop. The shop floor is the canvas for the craft they have mastered with sophisticated equipment, ingenuity, sweat equity and innovation that transforms raw materials into precision components. They can tell you how these products are used in the medical, auto, aero, oil and gas as well as heavy equipment industries. But, the best part of the tour is seeing the enthusiasm and pride members have when asked how they produce their parts. For me, taking a tour of an NTMA member shop is the best part of my job.

Our 2017 Fall Conference being held in San Antonio, Texas from October 24 through October 27 will focus on our national theme. We will dedicate a significant part of our Fall Conference to technology, education, our Emerging Leaders, introducing our new "members only" healthcare program and of course networking. Please look for the Fall Conference brochure arriving soon in the mail. I encourage you to take a closer look at this information and to hold on to it for future reference.

In closing, I can't imagine a more meaningful and appropriate theme for our association; Made by American Families. We look forward to seeing you in San Antonio.

DAVE TILSTONE / NTMA PRESIDENT





THE RECORD

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Design & layout by Z Graphics dave@daveZgraphics.com



NATIONAL TOOLING & MACHINING ASSOCIATION

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Volume 38 / No 6



NTMA

WELCOMES NEW MEMBERS

G H CUTTER SERVICES, INC.

Toledo Chapter Ms. Mary Hodapp 6203 North Detroit Avenue Toledo, OH 43612

HALL MACHINE COMPANY

Akron Chapter Mr. Michael Ameling 1209 North Lisbon Street Carrollton, OH 44615

HEIDENHAIN CORPORATION

National Associate Mr. Gisbert Ledvon 333 East State Parkway Schaumburg, IL 60173

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OPEN POSSIBILITIES





NTMA IS NOW ACCEPTING APPLICATIONS FOR 6S AWARD

The NTMA Technology Team is committed to improving the perception of American manufacturing by promoting and recognizing excellence in member shops. The 6S Excellence Award is specifically designed to honor shops that display excellence in organization and efficiency.

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Recipients of the 6S Award are presented with a Certificate of Excellence at the NTMA Fall Conference which will be held in San Antonio, Texas, October 24-27.

For the 6S audit worksheets and application go to http://www.ntma.org/resources/ documents/6S-excellence-program/ or contact Pam Wightman at 216-264-2824 or pwightman@ntma.org

The deadline for applications for the 6S Award is September 15, 2017.

The Technology Team looks forward to presenting the 6S Award to you this year!

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8.24.17 St. Louis, MO



HOW TO BE A TOP SHOP SEMINAR



Learn what it takes to make your shop a Top Shop. Gardner Media and Modern Machine Shop will provide an interactive seminar on the industry standard benchmarking practice that can help elevate your business to the top of the industry. This seminar will focus on best practices to increase productivity, integrate business strategies, enhance safety and better manage human resources.

Additional topic information to include:

- Financial Management
- **Human Resources**
- **Shop Floor Management**
- Machining Technology

8.24.17 - St. Louis, MO

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Non-Member - \$300

Each Top Shop Seminar includes breakfast and lunch, educational sessions, plant tour and closing cocktails and networking.

TOP SHOP LA

In May, the informative Top Shops seminar series visited LA. The Los Angeles event was hosted by +GF+ and sponsored by +GF+ and MEMEX.

Created in partnership with Modern Machine Shop, the seminar provides companies with benchmarking standards and best practices for success in the precision manufacturing industry. A balanced mix of discussion and presentations addressed everything from what makes a top shop to best practices in financial planning and management, to human resources to shop floor management.

Following the seminar sessions, attendees toured the +GF+ piping facility then enjoyed cocktails and networking.

If you missed the Top Shops event in Cleveland or LA, join us for the final stop on the tour: St. Louis. Please see the full page ad opposite this article.







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ONE VOICE MEMBERS "FLY-IN" TO CAPITOL HILL TO MAKE THEIR VOICES HEARD

By Caitlin Andrews, Bracewell LLP

Manufacturers from around the country recently came to Washington to make their voices heard and advocate for common sense legislation and regulations. The eighth annual One Voice Legislative Conference, held in Washington, DC on May 2-3, attracted more than 70 NTMA and PMA members. These manufacturers held more than 120 meetings with mem-

The timing of our advocacy could not have been better as Congress is about to tackle what could be the largest tax reform effort in more than three decades.

According to the 2016 One Voice survey, the majority of members—71 percent of our companies—are pass-through businesses (S-corporations, LLPs, LLCs and ESOPs), paying over 40 percent in total

federal taxes. Manufacturers emphasized members Congress that there must be parity between these pass-through businesses C-corporations. The latest annual survey also showed that 93 percent of our manufacturers claimed Section 179 Equipment Expensing

2016 and that equipment/machine purchases last year by those surveyed averaged \$467,913. Approximately 51 percent of members surveyed deducted net business interest loans. The obvious conclusion is that these tax incentives are important for our members in planning and investment in growth. Our members told Congress that tax reform should ensure that existing loans are grandfathered and that small/medium manufacturers should be allowed to fully deduct loan interest.

Members also discussed how Washington impacts their businesses through regulation and the challenges faced by rising costs in health care and energy. The annual survey showed that a third of our members expect health care premiums to rise between 11 percent and 20 percent and that members expect their energy costs to rise in the next year by seven percent. Manufacturers urged their representatives to pass several pieces of legislation that would make it easier to overturn unnecessary regulations.

On trade, NTMA manufacturers discussed with members of Congress the need for globally and fairly priced raw materials. Members are concerned about unfair trade practices by U.S. trading partners but also stressed that trade cases filed to protect one sector of the supply chain shifts the injury from one industry to another.

Manufacturers did not limit themselves to lobbying Congress. Bracewell, NTMA's public relations firm in Washington, DC, took advantage of our members being in town to organize an hour-long interview with two national reporters from the Associated Press. The interview touched on key policy issues including taxes, workforce and trade, and led to Ken Kuhn being quoted in an AP story later in the week. More stories from these interviews are expected, as well.

The Legislative Conference shows that our voices are being heard in Washington and that we must continue to be actively engaged with our Congressional representatives. All NTMA members can help this effort. Plan to participate in next year's conference. Also, 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 Bracewell Additionally, NTMA members can make limited personal donations to the Committee for a Strong Economy (CFASE) PAC, which supports pro-manufacturing Congressional candidates.

Manufacturers have a great deal at stake in the upcoming policy debates on taxes, regulations and trade. We can make a difference in Washington, but those who know the industry best must participate in the process. Keep up with One Voice advocacy efforts and find ways to get involved on the One Voice website - www. metalworkingadvocate.com - and by following @onevoiceformfg on Twitter.

NATURAL AMERICA'S FUTURE

bers of Congress and staff over the course of two days to share the industry's views and their own company's experiences on a wide variety of issues including tax reform, workforce recruitment and training, regulations and trade.

The conference, an annual highlight of our One Voice advocacy efforts in Washington, is a unique and important opportunity for our members to meet with our elected representatives and key staff members whose decisions impact NTMA member businesses. According to recent survey results, 97 percent of Congressional staffers said that constituent visits to Washington have "a lot" or "some" influence on a legislator. Inperson meetings in Washington were ranked as more influential than any other method of communication.

This year's visit to The Hill was especially important with a new Congress and a new presidential administration. In the meetings, NTMA members shared their own stories and discussed real-world consequences of legislation and regulations that directly impact their businesses across the country.





PROFILE OF A FAMILY BUSINESS:

AN INTERVIEW WITH MATT BAKER, CEO, VERSATOOL



WHAT IS YOUR COMPANY'S HISTORY?

My father Don Baker finished his Tool & Die apprenticeship at Louis Vigh Tool & Die in late 60's. He pursued purchasing the company after he graduated. The company had started in 1942 locally in Beloit, WI. As the company changed focus from small machined parts and building small compound dies to larger machining and progressive dies up to 156" he built a new facility in 1981 in the Beloit Industrial park. Since then we

have added 7 additions to a c c o m m o - date for the

growing business. I began purchasing stock in the company in 2010 and completed the purchase in 2015.

HOW HAS YOUR FAMILY BEEN INVOLVED IN THE BUSINESS? HOW MANY GENERATIONS? FAMILY MEMBERS?

My brother, sister and I all grew up doing odd jobs around the shop. Like



most family businesses this involved all the jobs no one wanted to do. Clean toilets and machines, yard work and small machining projects. My brother, Brian Baker, and I also completed our Tool & Die apprenticeships at different times and worked together for about six years. We both started on the floor and moved through different departments including CNC, Programming and upper management. There have been several family members involved with the success of our business. Some of them are my father, grandmother, mother, step-mother, brother, sister, three uncles, aunt and cousins. I am a second-generation owner but we have had three generations involved with the business.

WHAT ARE THE BENEFITS OF A FAMILY BUSINESS?

I think the one of the benefits is that no matter what you truly have some skin in the game. It creates a different kind of bond and closeness with one another. There is something to be said about being in the trenches with your family and succeeding and failing together.

WHAT ARE SOME OF THE CHALLENGES OF A FAMILY BUSINESS?

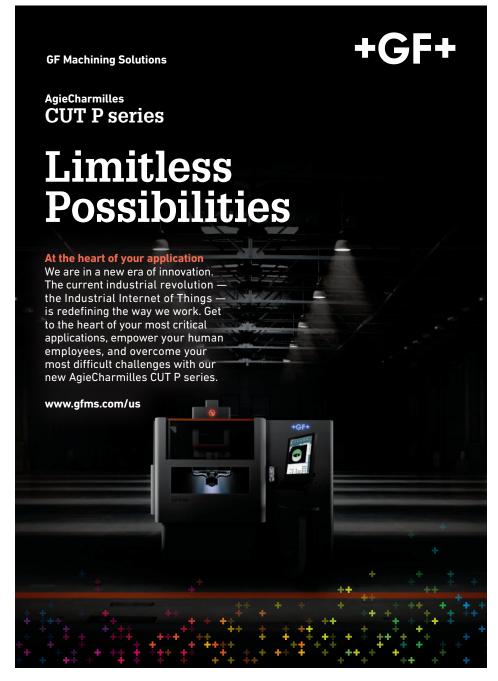
Oh boy where do I start! Like any business there will always be highs and lows but I think the biggest problem with a family business is no matter how hard you try to keep some separation between work life and home life you truly can't. This can be very stressful on close relationships. It can be challenging on where to draw the line.

HOW DOES BEING A FAMILY BUSINESS AFFECT THE WAY YOU CONDUCT BUSINESS IN YOUR SHOP?

I think since I grew up around my family members in this business, it has created a closer bond to non-family employees. In my opinion everyone kind of melts together and becomes one big family. A family atmosphere in a business can really shape the culture of a business. Sometimes this can be a positive and a negative.

HOW DOES BEING A FAMILY BUSINESS AFFECT YOUR COMPANY'S POSITION IN THE INDUSTRY?

There is a lot of shared knowledge



FEATURE





Matt Baker, CEO, VersaTool

that is passed down by family. Our family business has made it over 50 years, and that alone says something. With family comes competition and it has been strong. This competitive environment has kept us growing and pushing into the future.

THE NTMA'S THEME THIS YEAR IS MADE BY AMERICAN FAMILIES. WHAT DOES THE THEME SAY TO YOU?

This sounds cheesy, but it gives me the same proud feeling as when I hear the national anthem. Family always comes first in our world and what better way to experience your life but with your family on a professional level, as well.

WHY DOES BEING "MADE BY AMERICAN FAMILIES" MATTER?

I think it matters because in the world today things are so diluted and you don't always know who to turn to or who to trust. Family businesses are being bought out by larger companies and the idea of family continues to get diluted. Our country was founded by families coming here and are building their dreams together. In my experience, family-run businesses are more loyal to their customers and employees because of the family atmosphere. Most companies nowadays may not be family-owned, but they were most likely started at some point by a family with a dream. That's what makes me proud to be part of a family business.

VersaTool is a family-owned business based in Beloit, Wisconsin specializing in the design and building of progressive stamping dies and precision machining. The wide variety of equipment and experienced staff makes VersaTool & Die a versatile shop capable of handling an array of machining aspects from tools, dies, jigs, and fixtures to production machining, short run stampings, emergency breakdown repaired parts and high volume assembly work.

Their Motto:

STRIVING TO PRODUCE HIGH QUALITY TOOLING & MACHINE PARTS.







INTERNATIONAL TOUR 2017

BY DANA SUPER, BIG KAISER

In early May, a group of 20 manufacturing executives traveled to Germany and Switzerland for the 2017 NTMA International Technology Tour. They joined the trip to see world-class manufacturing facilities, learn about new technology and gather ideas to improve their U.S. operations.

Southern Germany and northern Switzerland are important regions of the world for precision manufacturing of machine tools and related equipment. During one week, the group visited machine tool builders DMG MORI and GROB Systems, precision tooling companies BIG KAISER and Sphinx, and cutting fluid producer Blaser Swisslube.

"What our members learn about the capabilities of the National Associate Members really makes an impression on them. They gain a deeper understanding of how these companies can partner with them to solve manufacturing problems," says Tiffany Bryson, National Accounts Manager for NTMA.

While machinery and production strategies are the focus, there is even more to learn for those willing to break from routine for a week and join an International Tech Tour.

"We can learn a lot from different manufacturing environments around the world," said Dave Tilstone, President of NTMA. "For example, European shops are really constrained by the high cost of space, of energy, of people. Seeing how they maximize those resources can help us reduce costs here in the U.S."

In between the factory visits, the group enjoyed Bavarian and Swiss hospitality, a walking tour of Zurich, and networking with new NTMA friends from across the U.S.

NTMA

Members had an opportunity to network and experience a taste of Germany.









Blaser Swisslube welcomes attendees to their Hasle-Ruegsau, Switzerland facility. Marc Blaser, CEO shared the benefits of the 'Liquid Tool'

TOUR HIGHLIGHTS

The DMG MORI facility in Pfronten, near the border with Austria, produces 5-axis machining centers on the monoBLOCK®, duoBLOCK® and Portal platforms. The impressive "XXL" machines accommodate giant parts up to several meters in length. The tour included an introduction to DMG MORI's capabilities in additive and ultrasonic machining technology, as well as metalcutting demonstrations.

• The next stop was at GROB Systems world headquarters, 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 guide explained the importance of vertical integration of all manufacturing processes to control product quality. The company also has a model apprenticeship program.

- The group traveled on to BIG KAISER, near Zurich, to learn about the Swiss obsession with precision manufacturing. A hands-on demonstration in the Tech Center showed the many benefits of digitally-adjusted tools for boring applications. An operational "Smart Factory" was the highlight of the tour, showing the integration of material storage, robot loading and production scheduling in the newest machining cell.
 - On the same day, guests visited BIG

KAISER partner Sphinx Tools to learn about the manufacturing process for micro-tools used for medical/surgical, aerospace and electronics applications.

• At the Technology Center of Blaser Swisslube, the focus was on demonstrations using various machines, materials and tools to show the impact of cutting fluids – the "Liquid Tool" – to the overall process. Intensive product testing and laboratory trials are conducted with the goal of improving part finish, tool life, machine uptime and quality of the overall work environment.

NTMA





FROM OUR MEMBERS:

"If you're looking to expand your knowledge of manufacturing, this type of event is a must."

Ted Toth, Senior Technical Advisor Rosenberger North America

"I was very happy my son, Will, was able to attend with me. As always, the trip, the people, and the content were first class!"

Mark Vaughn, President Vaughn Manufacturing

"I would highly recommend joining the NTMA Tech trip. For the small investment of cost and time, getting to see these types of companies and having personal interactions with high-level managers and owners was priceless."

Tom Busse, President Rockford Toolcraft Inc.



CONNECTICUT CHAPTER NTMA VISITS DUNKIN' DONUTS PARK

SUBMITTED BY DEE BABKIRK

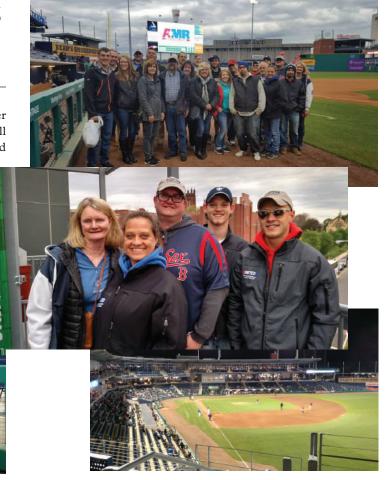


Forty members of the Connecticut Chapter NTMA enjoyed a Hartford Yard Goats baseball game at their May meeting. The evening offered members a chance to enjoy the all-Ameri-

can pastime, an all you-care-to-eat buffet and networking with other manufacturing professionals.





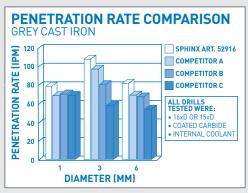


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SAN FERNANDO CHAPTER PARTICIPATES IN THE MANUFACTURING CHALLENGE

SUBMITTED BY DAVID GOODREAU



On April 22 in Los Angeles, California, the NTMA partnered with the Small Manufacturers Institute

(SMI), Small Manufacturers Association of California (SMA), and Goodwill Southern California (GSC) for the Manufacturing Challenge and Exposition.

This international event brings together universities, colleges and high schools from the U.S. and Mexico to demonstrate manufacturing projects with entrepreneurial applications developed and built by student teams. This unique opportunity offers students and their families an overview of manufacturing careers and the lifelong learning opportunities associated with its broad-based career

The Challenge has been held in Los Angeles since 1988. The event works with students on taking their projects to market by having breakout sessions for the contestants on patenting their products and on entrepreneurial development.

The Manufacturing Challenge has truly grown into its "Exposition" title including higher education recruiters, student and youth organizations, industry associations promoting apprentice programs as well as manufacturers with job openings and military recruiters. Students may also attend workshops on important topics like interview preparation, career guidance and tuition assistance.



BARBE BENNETT NAMED NEW CHAPTER EXECUTIVE IN ARIZONA



Barbe was born and raised in a small hamlet on the banks of the Mississippi River in west central Illinois. In 1983 she

moved to Phoenix, Arizona, to pursue the Travel Industry trade. Working first with leisure clients, she went on to specialize in group travel, which included programs to Mexico and Hawaii along with sports travel for the ASU Sun Angel Foundation. In 1998 she purchased her own agency, doing incentive programs and corporate conference planning based in Scottsdale, Arizona.

Barbe was named chapter executive of the Arizona Chapter NTMA in May. Please join us in welcoming Barbe to the NTMA.



SAVE THE DATE: SEPTEMBER 14-16, 2017

NTMA SOUTHWEST REGIONAL CONFERENCE

Innovate... Educate... Create

KEYNOTES

HOLLY GREEN INNOVATING EVERY DAY:

CEO and Managing Director The Human Factor, Inc.



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OMAR WHAT'S HAPPENING IN WASHINGTON: HOW IT WILL AFFECT MFG

> The changes are happening hourly, daily, weekly. With so much in flux, it's hard to plan ahead. Omar will give you the long view about what is likely to happen over the next four years.

TOPICS INCLUDE The Future of Machining

Robotic Integration | Machine Monitoring

State of the Economy

Financial Literacy | R&D Tax Credit

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You can't miss this event.

Go to our website for more information. www.ntma-swrc.org



HOW TO TURN 29 PERCENT TO 47 PERCENT

BY BILL PADNOS, NTMA DIRECTOR OF YOUTH ENGAGEMENT

My daughter Elana is currently working on a group project in her fifth grade class. Her team is designing a notification system to improve the communication between teachers in their classrooms and the school nurse. As a fifth grader, over the past six years, Elana has seen that this is an issue and she wants to solve that problem. Elana has no idea that she is using all of the knowledge that she has learned since Kindergarten in order to work as a team to design, build and present their solution.

In manufacturing, there is a skills and interest gap. Each year this problem is just getting larger and not just one solution will fix it, we must look at multiple options. For



instance, women constitute one of the U.S. manufacturing's largest pools of untapped talent. According to the Bureau of Labor Statistics, women totaled about 47 percent of the US labor force in 2016, but only 29 percent of the manufacturing workforce. The National Center for Education Statistics states that women earn more than half of all associate's, bachelor's and master's degrees. Women are also advancing in their careers, holding more than half of all U.S. managerial and professional positions according to the Bureau of Labor Statistics. So, if there are plenty of qualified women in the workforce, why aren't they in manufacturing?

Deloitte conducted a study for the Manufacturing Institute on women in manufacturing. What is remarkable about the number of women that want to be a part of the manufacturing industry is the perceived gaps that were outlined in the Deloitte study. Manufacturers have made progress in recruiting women into industry, but there is room for improvement in their efforts to attract, retain and develop women.

• Less than 15 percent of women surveyed



believe their industry is very accepting of family and personal commitments and allows them to meet these commitments without impairing their career.

• Nearly three quarters (72 percent) of women surveyed believe they are underrepresented in their organization's leadership team, with a significantly higher share of junior management (78 percent) believing they



FEATURE NATIONAL TOOLING AND MACHINING ASSOCIATION



are underrepresented when compared to senior management.

 Women standards of performance are equal. Seventy-one percent surveyed believe standards of performance for men and women. Eighty-seven percent of these believe the standards are higher for women. Of those who believe standards differ, 42 percent of those believe the pay gap between

men and women in the manufacturing industry has been significantly/moderately shrinking over the last five years.

The Deloitte study outlines seven opportunities for manufacturing companies to deploy to attract, retain and advance talent women.

- 1. Start at the top and lead by example.
- Foster an innovative and inclusive culture that encourages genderdiverse teams at all levels.
- 3. Tackle workplace diversity issues head-on and create strong signals of change.
- 4. Drive organizational accountability.
- 5. Promote professional development.
- 6. Define an aspirational brand.
- 7. Partner with the community.

Right off the bat, it is important for companies to "start at the top and lead by example." Seventy-two percent of the women surveyed believe that they are underrepresented in their organization's leadership team and 41 percent of women will leave their company due to a lack of promotion opportunities. In order to retain and recruit a talented workforce, females at your company need a "seat at the table."

Please check out https://www2.deloitte.com/us/en/pages/manu-facturing/articles/women-in-manufacturing-industrial-products-and-services.html for a complete description of all seven steps. In addition, check out your local high schools for your future female leaders. When you engage a high school girl in the NRL program, a star is born. As women have seen a difference over the past years about opportunities in manufacturing, I have also been fortunate to witness that same change in the NRL program.

More girls are taking leadership and active roles with their NRL team. Over the past four years, I have seen so many talented girls involved in the NRL program. I wished that more of these young women were recruited by NTMA member companies. This February, it was amazing to watch Margaret Schiffer and Rosie Sirk from the Beaumont School in Cleveland describe what they have learned by their participation in the NRL program in front of 5,000 people at the SolidWorks Conference. I was also so impressed by the all-girls BotsIQ team from Clairton High School in Pittsburgh. I was impressed not just by watching their bot destroy others, but by observing how they volunteered their time to help other teams figure out why their bots were having issues.

In four years, Elana will be able to join the Fox Chapel Area High School BotsIQ team, and you better believe that I will be encouraging her along the way. As a parent, I am going to do what I can to make sure that Elana would be one of those girls qualified to work at a modern manufacturing company. The NRL provides an opportunity for girls to be engaged in the manufacturing process and learning the skills that NTMA members need in their future workforce. However, as NTMA's director of youth engagement, I only have the ability to influence career choices. It is up to the NTMA members to change the labor statistics so that 29 percent starts to look more like 47 percent. If that happens, we will not be talking about the manufacturing skills gap in 2025.

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JOB DESCRIPTION CREATION AND THE JOB POSTING PROCESS

Tuesday, July 11 - 2:00pm (EST)

Presented by Doug DeRose, Stacey Schroeder, & PRG Group

- This session will explain the job description creation process, and its linkage to the job posting process.
- Attendees will review a simple job description template, and hear examples of how job descriptions were created within an organization.
- Participants will learn about key components to include in job descriptions, as well as guidance on job titles and job families.

RECRUITING AND CANDIDATE SOURCING

Tuesday, August 8 - 2:00pm (EST)

- This session will provide techniques for finding appropriate candidates for the main job roles / functional areas within your company.
- Attendees will learn how to utilize different sources to find and communicate with candidates, and how review resumes and profiles to determine if a candidate should proceed to the interview stage.

INTERVIEWING TECHNIQUES AND SPOTTING A GOOD FIT

Tuesday, September 12 - 2:00pm (EST)

- This session will provide specific interviewing methods and approaches to identify candidates that would be a good fit for your company - both in terms of skills, and cultural fit
- Attendees will go beyond the antiquated interview process to learn a framework that
 provides better outcomes through more targeted efforts up-front.

ONBOARDING AND TRAINING & DEVELOPMENT PROGRAMS

Tuesday, October 9 - 2:00pm (EST)

Presented by Stacey Schroeder

- This session will detail the elements needed in a successful onboarding program, including who needs to be involved in the process for your organization.
- Attendees will also learn the features of a productive training and development program structure, as well as the roles that should be involved in that program.
- Participants will learn the basics of identifying skills or competency gaps in employees, and will hear numerous strategies for filling the gaps.

PERFORMANCE MANAGEMENT PROCESS

Tuesday, November 14 - 2:00pm (EST)

Presented by Stacey Schroeder

- This session will explain a streamlined approach to managing performance that relies on four areas - results, operational excellence, relationship management, and leadership / team membership.
- Attendees will learn how to articulate "what good looks like" in the four areas, for the roles
 in their organizations.
- Participants will also receive guidance on how to communicate the process and intent to employees, as well as recommendations on how to conduct performance 'touch-points' throughout the year.

To register, contact: Kristen Hrusch at khrusch@ntma.org or Brittany Belko at bbelko@ntma.org

EMOTIONAL INTELLIGENCE AND THE HIRING PROCESS

By Stacey Schroeder, NTMA, Director of Workforce Development

Greetings! I hope you enjoyed last month's article about emotional intelligence (EI). This article explains how to assess for EI in interviews. Choosing the wrong person is often much more damaging to morale, culture and team dynamics than leaving a role vacant for a bit longer to find the right fit. I would encourage you to consider candidates holistically (education, experience, skills and emotional intelligence) when determining fit. Research has shown that it's better to err on the side of high EI and lower technical experience, because it's often easier and quicker to teach a 'hard' skill than it is to develop and coach for soft skills. People with high EI remain calm under pressure, admit to (and learn from) mistakes, are optimistic and positive, are adaptable and great at building networks and relationships. Updating your interviewing process to include a focus on EI is valuable, but simply asking the questions is not enough. Evaluating the answers, reading the candidate's body language and knowing when / how to probe deeper are the true skill sets you need to get that best fit.

- 1. Tell me about a time you made a mistake at work. What happened? What did you learn? How would you do it differently now?
- 2. Tell me about a time you lost your temper. What happened? What was the outcome?
 - 3. What bothers you most about others?
- 4. Here's a thorny situation (describe a situation that appears win/lose). Can you offer a win-win solution?
- 5. Can you explain something to me? (profess ignorance / inability to understand something and ask them to teach you)
- 6. Tell me about a time you had a conflict with someone at work. How was it resolved?
- 7. Explain a situation in which you needed to influence others to achieve a goal.

Pay attention to body language, tone, words and attitude. Are they humble? Did they learn from what went wrong? Do they take ownership for their actions, or do they place blame upon others or external factors? Let's break down each question - what

it tells you, and what a good answer is.

- 1. A candidate should come up with a detailed answer fairly quickly. A high EI person will admit their role, accept ownership of their behavior, describe how they respectfully got the details needed to resolve the situation and describe the change they made to prevent a recurrence.
- 2. The candidate should be able to come up with a good example quickly. A

ing things forward and driving for a positive outcome for all parties involved. They solicit feedback, listen and work with stakeholders to create a new, better solution in a positive manner.

5. This is an unusual question, but can be useful. This can work as a follow-up about a situation or task they are explaining. If the candidate shows frustration (negative changes in tone, facial expressions, body language), chances are they would act the same with others. A person with high EI takes responsibility for explaining

something satisfactorily to another person, and will ask questions to pinpoint the areas of confusion, and attempt

> to explain in multiple ways, consistently checking in for understanding. They see opportunities to teach and share their knowledge as exciting, not stressful.

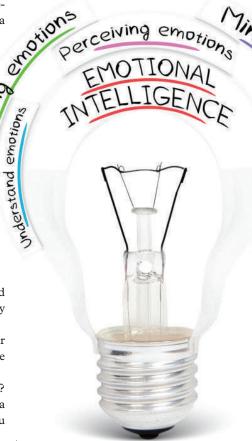
6. This question gives insight about a candidate's tendencies, behaviors and openness to feedback and change.

A person with high EI will take accountability for their role in conflict, describe how they collaborated to resolve conflict in a productive man-

ner and explain how they modified their approach to make that conflict less likely in the future.

7. The ease with which a candidate answers this question tells you the value they place on building relationships, and how receptive others are to working with them. If the candidate struggles, they may strongly prefer to work in a silo. If they state they have influenced effectively, but never mention specific actions taken, they may be overstating their ability to influence. A candidate with high EI will provide details on the stakeholders, the history of the relationships and how they were able to leverage relationships to achieve the goals.

I hope you've found these questions and debriefs helpful! When balanced with the right recruiting strategy, job descriptions and questions around technical skills, I think you will find your confidence in your ability to pick the right candidate dramatically improves.



high EI person will own up to their mistakes quickly, describe it clearly and feel humble about losing their temper.

- 3. If this question seems off-the-wall, consider working in an example of a person that annoys you. Then transition into a question. A candidate with high EI will focus on solutions, such as how they've adapted to work with the person effectively. This question will also give insight as to the types of behaviors they prefer in colleagues, so you can probe deeper if you see any potential fit issues.
 - 4. People with high EI are good at mov-

MITTLER BROTHERS MACHINE & TOOL ANNOUNCES THE PURCHASE OF CELLULAR CONCEPTS

Mittler Bros. Machine & Tool, a 30-year member of the NTMA, is pleased to announce the purchase and acquisition of Cellular Concepts, CellCon, of Detroit, Michigan. CellCon will immediately relocate operations to the existing Mittler Bros. facility in Wright City, Missouri and continue operating under the established CellCon name.

CellCon, founded in 1987, is a leading USA manufacturer of high value 3-axis horizontal and vertical CNC production modules, for use in special machine builds and as standalone machining centers. The products have evolved into two major product lines of 3-axis

CNC units, with numerous options for horizontal and vertical spindles, which can accommodate various options.

Mike Mittler, President of Mittler Bros. and past NTMA chairman, comments, "We are excited by the opportunity to continue building this product line in the USA. We have been a CellCon customer for many years and understand the value the machines deliver in quality and long-term production capability. We have used these modules in very demanding applications for over a decade, virtually trouble free. Mittler Bros. plans to continue development to expand the line, including various tool changers and spindle options to meet customer requirements."

Paul Simon, President and second generation owner of CellCon said, "We are proud to have Mike and Paul Mittler continue the legacy of our product line. A big factor in our decision was their commitment to USA manufacturing."

Mittler Bros. looks forward to serving the existing CellCon customer base with parts and service as well as the opportunity to seek new business and build additional machines.

For more information on the product line you can visit CellCon.com, email CellCon@mittlerbros.com or call 1-800-467-2464.





CellCon H-30 CNC Shelf Unit





NATIONAL ASSOCIATE MEMBER OFFERS COMPLIMENTARY EVALUATION

By Jennifer Groff, Alliantgroup

NTMA's national associate member, alliantgroup, is giving members an opportunity to learn if they qualify for major tax breaks that could translate into cash refunds! The team at alliantgroup recently sponsored the NTMA luncheon at the MFG Meeting in Florida and is now offering gratis assessments for all NTMA members, in which the team will identify the amount of credits your business could be looking at this year. As part of this assessment, the team will also share major legislative changes that directly impact our members, their businesses and our industry. To date, alliantgroup has helped NTMA members identify \$28 million in credits! To learn more, contact alliantgroup's NTMA representative, Jennifer Groff, at jennifer. groff@alliantgroup.com or 713-552-5657.

CHECK OUT WHAT YOUR FELLOW NTMA MEMBERS Are saying about alliantgroup:

"Through the years, we've worked with other providers in identifying R&D Tax Credits. Since working with alliantgroup on our study, we've received four times as many credits than what previous providers have identified and have been four times more comfortable with their process. Their team is highly knowledgeable of our industry, and are the experts in this field. I'd be happy to speak with any of our members about alliantgroup."

John Dalrymple Hamill Manufacturing Company



NJ MANUFACTURER HAILED FOR "LEADERSHIP THROUGH DISRUPTIVE CHANGE"

John Lohse, President of Betar, Inc—a New Jersey specialty manufacturer serving the aerospace, energy, military, medical and pharma industries, among others – has received the "2017 TAB Leadership Award" for transforming the company through a multi-year, multi-project effort.

The award detailed Lohse's efforts to change the business by:

- Upgrading Betar's marketing efforts, which led to a significantly increased client base
- Shedding pieces of the business that were unproductive or had limited upside
- Repositioning the organization internally to enhance company culture and engagement
- Favorably resolving long-standing zoning challenges affecting Betar's bottom line

These and other efforts have resulted

in increased profit and cash flow for the company. As a result, Betar is optimally positioned for continued growth and exceptional service to the customers it serves.

The TAB-Central NJ organization identifies outstanding com-

panies that demonstrate strong management and determination in their ability to achieve stated goals, and honors them with its Leadership Award.

NTMA member company, Betar, Inc. is a specialty manufacturing company located in Somerset, NJ. Founded in 1968, the company specializes in deep hole gun drilling, honing, complete machining,



John Lohse, President of Betar, Inc, received the 2017 TAB Leadership award from Vicky Richards of TAB-CNJ, for transforming the Somerset, NJ-based company through a multi-year, multi-project effort.

surface grinding, machine building & repair. Industries served include aerospace, agriculture, auto/truck/transportation, energy, machine tool, medical, military, nuclear & pharmaceutical with on time deliveries.

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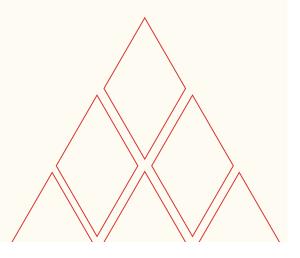
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MEMBER NEWS

ACE WIRE SPRING & FORM WINS FAMILY BUSINESS AWARD

Ace Wire Spring & Form, an industry leader in the manufacturing of Compression Springs, Extension Springs, Torsion Springs, and Wire Form, has been family owned and operated for over 78 years. The McKees Rocks, Pennsylvania company was recently awarded the Family Business Award from the Pittsburgh Business Times. The award honors the Pittsburgh region's multi-generational, family-owned businesses for overall excellence, innovation, ethics and philanthropy.



In 1939, Ace Wire Spring & Form started out in the industry with a small coiling machine making garter springs by hand. The owner, Joseph Vodvarka, was a machinist, working hands-on in the upstairs room of his house, which was converted into a small office / shop to produce the garter springs needed at the time. Through the years, Ace Wire Spring & Form grew, and the belief of family was always a part of it. In 1976, Joseph Vodvarka's daughter, Linda, and her husband Rich Froehlich, bought the company and continue

to keep Ace Wire Spring & Form a family owned and operated business. Rich and Linda Froehlich have a strong belief in family, and carry over that belief into the Ace Wire Spring & Form culture when doing business. Customers benefit from this by receiving



personalized customer service, engineering assistance, and a quality final product suited to meet their needs.

Ace Wire Spring & Form offers a wide variety of custom precision springs. The company has a first-class team of on-site engineers to assist customers with developing solutions for a

large variety of applications, along with their on-site quality control staff. Their veteran craftsmen working in the shop are trained in the latest and most advanced forms of mechanical and CNC wire forming machines and techniques, and have a combined 100 years of experience and success within the industry.



EMERGING LEADERS WELCOME NEWEST TEAM MEMBER

By Matt Gilmore, NTMA, director of membership and business development

The NTMA is pleased to welcome Phil Harris as the newest member of the Emerging Leader team. Harris is the marketing manager for Paulo. Paulo is a familyowned and operated heat treating, brazing, and metal finishing company. In business since 1943, the company is headquartered in St. Louis with locations in Kansas City, Nashville, Murfreesboro, and Cleveland. Paulo works with everyone from the smallest machine shops to Tier 1 suppliers and OEMs. Harris's role and goal:

to help the Paulo sales team identify new opportunities while maintaining brand and leveraging technology. Harris says, like most small businesses this is a role that requires a "large hat wardrobe." He works on a variety of projects such as developing the Paulo website and content, email marketing and decid-

ing which events and trade shows to attend. Harris says, by far, his favorite responsibility is working with organizations like the NTMA.

"Many times, industry events are missing the younger perspective," Harris noted. "NTMA has done an excellent job engaging a group of younger people who are committed to improving themselves and their businesses. Being a part of that process is what I like best."

Harris attended his first NTMA event in 2015 and has become a regular at Emerging Leader events.

He says he likes the feeling of comradery in the manufacturing industry and points to the people who are generous with their time and experience.

"Our mission is to help our customers succeed. By preparing the next generation



of leadership, the Emerging Leaders group is not only ensuring that NTMA member businesses are successful, but also the suppliers like Paulo that depend on them."





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MEET OUR NATIONAL ASSOCIATE:

WEILER North America — Interview with Stefan Goldberg





WHAT IS YOUR COMPANY SPECIALTY?

Building of high precision teach lathes, also referred to as the E-Series Precision Lathes. These lathes can operate in manual, cycle or full CNC mode. Best for small batch, one-offs, or prototyping applications.

V-Series 4-Way precision lathes that allows for economic machining of both long and thin workpieces weighing up to 8t without needing to reclamp as the sides overrun the steady rest and tailstock.

WHAT IS YOUR COMPANY HISTORY? WHEN/HOW DID YOU START?

Founded in 1938 in Germany; acquired by VOEST-Alpine Steinel, restructured in 1991 and Mr. Friedrich K. Eisler took over management. In 1995, WEILER became a family-owned company, again with Mr. Eisler as the sole managing shareholder. His two sons, Mr. Michael and Alexander Eisler, entered the management board signaling the next step in the long-term development of the company.

WHO ARE YOUR CLIENTS? WHAT TYPE OF WORK SHOULD A COMPANY CONTACT YOU ABOUT?

Our customers are oil and gas industry / defense / energy / job shops

High precision, high value, low quantity part manufacturers.

Who should contact us?

- A company should contact Weiler if it is looking to reduce waste and redo.
- A company that wants to be assured their manufacturer will be in business for many years; stock spare parts for the machines they buy- regardless of age- and adhere to high quality standards.
- A company that has the work that requires a machine to operator in a manual mode as well as automatic/programmable mode;
- A company that has a limited number of programmers on staff- therefore needing an easy-to-learn and easy to use control interface.



WHAT COMPANY ACCOMPLISHMENT ARE YOU MOST PROUD OF?

- Inventor of the teach lathe (E-series lathe), still producing machine tools in Germany
- Strong promoter/supporter of vocational training
- Europe's best known machine tool manufacturer
- In-house development of the controllers user interface- conversational and easy to program our lathes

WHAT SETS YOUR COMPANY APART?

- Longest history in building lathes.
- WEILER machines are for life... built to last.
- Robust product line: manual lathes / teach lathes or precision lathes / full CNC lathes.
- WEILER acquired Kunzmann (Germany), 50-year-old producer of highest quality milling machines, to complete our product portfolio of offering high quality turning and milling machines. Already sold our first U.S. customer.
- Strong promoter/supporter of vocational training.
- WEILER machines are rarely found in the resale market. Our customers keep them.

• Spare parts for our machines, regardless of age.

WHAT IS YOUR COMPANY MOTTO?

Precision in all dimensions
Built in GERMANY= High Quality

WHAT ELSE WOULD YOU LIKE OUR READERS TO KNOW?

WEILER is family owned and has sold over 150,000 lathes worldwide; employs over 500 people and has its own apprenticeship program.

WEILER has become one of Europe's largest and best known manufacturers in its field.

WEILER North America, subsidiary of WEILER Werkzeugmaschinen GmbH, incorporated in 2006 and partners with distributors to meet our US customer needs.

NTMA



OKUMA CORPORATION COMPLETES DREAM SITE 2 PARTS FACTORY

By Paula Lalli, Okuma America Corporation

SMART FACTORY IMPROVES ABILITY TO RESPOND TO CUSTOMER NEEDS BY SHORTENING LEAD TIMES.

Okuma Corporation, a world leader in CNC machine tool manufacturing, announced the completion of the company's new Dream Site 2 (DS2) parts factory in Oguchi, Japan. This facility improves the company's ability to respond to customer needs by shortening lead times and adding value through high-efficiency production. Parts produced will be used for machine tool production and also to stock service inventory. The DS2 commenced production in March 2017. OKUMA'S SECOND SMART FACTORY

DS2 is a self-contained start-to-finish production facility for small and medium lathes and grinders. This is the second smart factory built at Okuma's headquarters, following the Dream Site 1 (DS1), which was completed in May 2013. The DS1 was one of the first self-contained

start-to-finish smart factories.

BUILDING FUTURISTIC FACTORIES

Okuma is building its smart factories based on the goal of building futuristic factories that interweave automation with skilled techniques. These smart factories combine cutting-edge automation, technologies for unmanned operation, advanced IIoT (Industrial Internet of Things) and workplace know-how to achieve high-mix low-volume production while maintaining production efficiency equivalent to that of mass production.

DS2 HIGHLIGHTS

DS2 uses the most advanced IIoT to achieve highly efficient ultra-high-mix, low-volume production of machine tools.

• More Advanced Automation by Using Smart Machines and Robots That Consolidate Processes: At the DS2 Parts Factory robots are utilized in advanced ways to build a completely automated parts machining system.

- Accurate and Quick Work Instructions Using IIoT: All parts have workpiece identification tags (IDs) attached so the locations of the parts can be accurately known and controlled. This allows quick instructions to be given in machining and logistics.
- Progress and Operation Monitoring That Promotes Improvements for Overall Optimization: The progress of production throughout the entire factory and the operation status of machines are all made visible, and data analysis is carried out in real time. The goal is a factory that evolves on a daily basis through the ability to improve in the work place.

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