

NTMA

THE RECORD

> SERVING THE NEEDS OF
MANUFACTURING COMPANIES
FOR 71 YEARS

THE MFG MEETING: THE POWER OF MANUFACTURING

See summaries and photos from 2015 MFG Meeting and NTMA meetings & events, March 4-7, Orlando FL. — pp8-12

EMERGING LEADERS

Emerging Leaders. They are the future of manufacturing. — pp14-15

OCEC BENCHMARKING

The NTMA Operating Costs and Executive Compensation (OCEC) is a benchmarking process of comparing the costs of what one precision machining shop does against what another shop does. — p17

NRL LEADERSHIP UPDATES AND REGIONAL COMPETITION DEVELOPMENTS

NTMA-NRL introduce new NRL leadership and report on regional NRL competitions. — pp20-21



AUTHENTIC LEADERSHIP ★ 2015 ★



EMERGING LEADERS

"THROUGHOUT THE YEAR I WILL OFFER OBSERVATIONS ON AUTHENTIC LEADERSHIP. ONE CRITICAL PART OF LEADERSHIP IS DEVELOPING TOMORROW'S LEADERS. I'M EXCITED ABOUT NTMA'S EMERGING LEADERS TEAM AND THEIR UPCOMING MAY CONFERENCE! MY CHALLENGE IS THIS: ASK IF YOU (OR SOMEONE IN YOUR COMPANY) IS AN EMERGING LEADER — AND THEN GET INVOLVED IN THIS NEW AND DYNAMIC GROUP. SEE DETAILS THROUGHOUT THE RECORD AND IN E-TRENDS FOR MORE INFORMATION."

HERB HOMEYER, 2015 NATIONAL CHAIRMAN

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MEMBER

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WELCOMES NEW MEMBERS

ANSCO MACHINE
Akron Chapter
Mr. Thomas Cook
60 Cuyahoga Falls Industrial
Parkway
Peninsula, OH 44264

DENVER PRECISION PRODUCTS
Rocky Mountain Chapter
Ms. Amy Knuepfer
11710 Teller Street
Broomfield, CO 80020-2926

FUSION FORMATICS CORPORATION
Los Angeles Chapter
Mr. Frank Speck
631 Wakefield Court, Unit 101
Long Beach, CA 90803

PAULO
National Associate
Mr. Will Rassieur
5711 West Park Avenue
St. Louis, MO 63110

PRECISION MACHINISTS COMPANY, INC.
Boston Chapter
Mr. Dirk Kuyper
299 Littleton Road
Chelmsford, MA 01824

**RICE UNIVERSITY/RESEARCH
SUPPORT MACHINE SHOP**
Education Institution
Mr. Eliberto Batres
6199 Main Street
Houston, TX 77005-1827

UNITED TOOL AND ENGINEERING
Michiana Chapter
Ms. Sueann Penn Barnes
337 Campbell Street
Mishewaka, IN 46544-2898

UNIVERSAL QUALITY MACHINE, LLC
Western Massachusetts
Chapter
Mr. Larry Grenier
650 Beaulieu Street
Holyoke, MA 01040-5439

ZRM ENTERPRISES, LLC
Pittsburgh Chapter
Mr. Zachary Marella
1178 Walnut Hill Road
Smithfield, PA 15478

NTMA WELCOMES NEW NATIONAL ASSOCIATE MEMBER PAULO

Paulo delivers innovative, engineered solutions in heat treating, brazing and metal finishing. Paulo employs state-of-the-art equipment for accuracy, repeatability and precise control. Each process is strictly controlled in order to meet stringent quality requirements. Paulo's mission is to help their customers succeed. For more information visit www.paulo.com.



NTMA'S 2015 MEMBERSHIP DIRECTORY – ONLINE

ACCESS THE DIRECTORY ANY TIME, ANY PLACE - WWW.NTMA.ORG

Did you know this important tool is available online? Just log into the Members Only section of the website and look under "Resources." NTMA members: you can even sign up now to receive your membership directory online or to request information on advertising in the 2016 directory. Contact Sandy Bailey (sbailey@ntma.org) for more information.



CHAIRMAN'S CORNER

HERB HOMEYER / NTMA CHAIRMAN OF THE BOARD

In recent years, the NTMA Executive Team has made an effort to have each annual theme consistent with the NTMA strategy and with our core values as Chairman.

This year's theme is Authentic Leadership.

You might ask, "What is Authentic Leadership?"

According to Google, the definition of authentic is "of undisputed origin." Dave Ramsey defined leadership as "the ability to lead other people." William Shakespeare defined authentic as "to thine own self be true."

My interpretation is to never compromise your be-

liefs. Ronald Reagan was an authentic leader. His belief that the Soviet Union was the evil empire was unpopular with mainstream media and Washington insiders. However, President Reagan did not budge from his belief; he was true to himself. The Wall came down, and the rest is for the history books.

No one can be authentic by trying to imitate someone else. While we learn from others' experiences, there is no way you can be successful when trying to be someone else. People trust you when you are genuine and authentic, not a replica of someone else.

Throughout the year to come you will have the chance to hear and read about my thoughts on more characteristics of Authentic Leadership.

We are all works in progress. You will have the opportunity to observe me as a work in progress as your Chairman. And now I have the honor to represent us all as a team, a role I never imagined. I am humbled. Thank you.

I look forward to greeting each and every one of you at your manufacturing plant or at your chapter meeting – and last, but not least, at the Fall Conference held in my home town of St. Louis, October

21st through 24th! (With any luck we'll have the World Series going on at the same time and you can all be part of the excitement of post-season baseball.)

HERB HOMEYER / NTMA
CHAIRMAN



NTMA BOARD OF TRUSTEES MEETING MARCH 5, 2015



The Board of Chapter Trustees met on Thursday, March 5 while in Orlando for The MFG Meeting. A summary of their actions:

Mark Vaughn (Vaughn Manufacturing Company, Inc., Nashville, TN) was approved by a confirming majority vote of the Trustees as

an Executive Team member for a three-year term. Mark was immediately sworn in by Chairman Herb Homeyer.

The Board of Trustees approved the dissolution of the SE Florida Chapter.

The Board of Trustees approved a bylaw motion that allows trustees to attend

and vote during all annual, fall and special meetings via web presentation coupled with telephone conferencing or similarly acceptable electronic communications.

The Board of Trustees approved all ratifications and motions that were approved by the Executive Team since

the last Board of Trustees' meeting, which was held on October 23, 2014.



OPERATIONS & EDITORIAL

Dave Tilstone, President
Sally Safranski, Executive Editor

NTMA EXECUTIVE TEAM

Herb Homeyer, Chairman
Homeyer Precision Manufacturing – St. Louis, MO

Matt Wardle, Vice Chairman
J D Machine – Ogden, UT

Ken Seilkop
Seilkop Industries – Cincinnati, OH

Mark Vaughn
Vaughn Manufacturing Co., Inc. – Nashville, TN

Theodore O. Toth, Jr.
Rosenberger-Toth – Pennsauken, NJ

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



NATIONAL TOOLING & MACHINING ASSOCIATION

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Cleveland, OH 44134
1-800-248-6862
www.ntma.org

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IN MEMORIAM - THEODORE O. TOTH, SR. (TED)

On February 17, Theodore O. Toth Sr., 87 of Weymouth, NJ passed. Ted was an accomplished machinist and successful second-generation owner of Toth Inc. Ted was the first employee of Louis Toth & Sons started by his father in 1948. Ted and two brothers purchased the company from their father in 1965, changing the company's name to Toth Inc. Begun as a tool & die shop, over the years it morphed into a precision manufacturer, machining parts and assemblies for the communication and space industries. Ted Sr. sold his business in 1993 to his 3 sons, Ted Jr., Tim and Tom, who changed the name to Toth Technologies. The company was recently purchased by their custom-

er, Rosenberger North America, and is now Rosenberger-Toth. Although Ted Sr. was not active in the local NTMA he attended MFG Meeting 2014. Our condolences to Ted, Mickey and the entire Toth family.



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PRESIDENT'S UPDATE

DAVE TILSTONE / NTMA PRESIDENT

I first want to thank Ted and Mickey Toth for devoting their time and energy into making 2014 another successful year at the NTMA. As 2014 Chairman, Ted visited 23 chapters, speaking on the NTMA toolbox, based on his theme, "Re-Tooling Manufacturing." He spoke about all the membership tools the NTMA offers business owners and their employees. As Ted reinforced in every chapter meeting, you won't get the value of your NTMA membership unless you know and use the tools that membership provides.

I also want to personally introduce our new 2015 Chairman, Herb Homeyer, and his wife, Lisa. They started Homeyer Precision Manufacturing in 1990 and have focused on innovation and supporting the dedicated employees who have helped them grow the business over the past 25 years. Herb has invested heavily in new technologies and the company is a recognized premier supplier to many of their customers.

Herb's theme this year is "Authentic Leadership"—and for those of you who know Herb, this is exactly the way he conducts himself in business and in all other aspects

of his life. He is an Authentic Leader, indeed!

Their children, Justin and Gretchen, are both involved with the business and are members of the Emerging Leaders Team.

As chairman, Herb is very focused on supporting the NTMA chapters and the members being a strong industry advocate. Noting the challenge of the skilled labor shortage during his tenure as Team Leader of the Education Team, Herb led the Team to launch NTMA-U, first introduced as a pilot program in Fall 2012. I'm pleased to report that 556 NTMA modules are educating students this Spring.

Although The MFG Meeting has a separate section devoted to this event in this edition of The Record, I cannot write my update without observing that it was a huge success with 600+ attendees (almost 200 NTMA registrants) and some of the best speakers ever assembled for The MFG Meeting. The buzz about the venue, the meeting content, etc. was the best I've ever experienced. The theme of innovation was right on the mark, per feedback received from our members. Keynote speakers stressed

the importance of innovation to our industry, the challenges of being an innovator, as well as the huge benefits of adopting new technologies for growth and competitiveness. Additive Manufacturing (AM) was a highlight, with a panel of subject matter experts who had implemented AM during its early stages of development and who briefed the audience on the practical applications they have implemented and/or developed. Panelists answered questions from the audience and reinforced that AM is still evolving as an emerging technology, so be mindful that it's only a threat to your business if you don't understand it. Other highlights for AM included the International Additive Manufacturing Award reception featuring a tool holder adaptation to provide AM capabilities to a standard machine tool. One of our keynote speakers, Local Motors' co-founder and CEO, Jay Rogers, made a grand entrance by driving the 3D printed car produced at the 2014 IMTS Show into the ballroom.

Upcoming Events: April, May and June are very busy months on the NTMA calendar. By the time this edi-

tion reaches your desks the HR Roundtable in Phoenix, hosted by Modern Industries, will have concluded. A special thank you to Mark Lashinske from Modern Industries for accommodating the event at their world class manufacturing facility, as well as to our partner Aerotek for their sponsorship. With over 460 employees, Modern is one of NTMA's largest members and is still owned and managed by the Yahraus family. Dan Yahraus is a renowned leader within our industry and devoted supporter of the NTMA. Dan is a past chairman of the NTMA; his son, Andy is leading the company today.

The first International Technology Tour in Switzerland happens in early April. The "Swiss Tour" had all 25 openings filled by early March. I want to thank our hosts BIG Kaiser, Blaslers Swisslube and +GF+ for their support and sponsorship. Tour details and photos will be in the May edition of The Record.

Later this month, we will be gathering in Washington, DC at the One Voice Legislative Conference (April 21st and 22nd). I personally promote this to all members

I visit. It's the annual event singularly focused on our advocacy efforts, with personalized meetings set up with legislators and their staff. The meetings afford us the opportunity to discuss how laws and regulations under consideration by Congress affect our members' businesses. These meetings are very impactful and important to the future of our industry, so please find the time to attend...you won't be disappointed! Key areas of focus this year include the tax extenders (Section 179, Accelerated Depreciation and the R&D Tax Credit) and discussions relating to proposed revisions to the corporate tax structure.

Immediately following the Legislative Conference, on April 29th, will be the third in a series of CFO Roundtables, which is taking place in Philadelphia and is sponsored by our national associate

member and program partner, CBIZ. As a follow-up to the CFO Roundtables held in 2014, the content and subject matter will be focused on the best practices and developing trends of NTMA members' financial operations. The target audience for the event isn't necessarily CFO's, but rather any person in NTMA shops who does the bookkeeping or accounting/finance functions. I'd encourage you to see the latest program developments at www.ntma.org/events.

Our first Emerging Leaders Conference is being held in Cleveland on May 15th and 16th, which coincides with the NRL Competition on the 16th. We anticipate this will be an innovative opportunity for members' emerging leaders. Seeds are being planted for learning, networking and growth in May and beyond – all delivered in ways the next generation of our industries'

leaders interact – in traditional and non-traditional ways. Behind them will be the next, next generation of leadership – students who will be in Cleveland at the same time participating in the NRL Competition. Last year 54 teams and 350 students competed to hold the national title – this year's competition will be even more exciting (www.gonrl.org)!

Following the Cleveland events, on May 27nd the second Plant Managers Workshop will be held in Southern California. Chapter leaders will participate in a Leadership Summit, taking place in Cleveland this year on June 11th and 12th. Then later this summer we have another CFO Roundtable in Cleveland, scheduled on June 24th.

As you can see, there are many opportunities planned for you in the coming months.

Please try to take advantage of the many regional programs designed to minimize the time away from your business while maximizing the value you receive from the NTMA.

As always, the best way to keep your finger on the pulse of upcoming event details is by visiting our website at <http://www.ntma.org/events/upcoming-events/> and watch for program details and registration links each Wednesday in E-Trends.

DAVE TILSTONE /
NTMA PRESIDENT

Dave Tilstone



Register Now!



Continental Breakfast & Lunch Included

*Welcome Reception & Dinner:
Tuesday, April 28 - 6:00pm*

Date | Wednesday, April 29

Where | Hilton Philadelphia City Avenue
4200 City Avenue
Philadelphia, PA 19131

Cost | NTMA MEMBERS

\$400 - Early Bird Member Rate *Deadline 4/8/15*

\$475 - Regular Member Rate

2nd attendee from same company:
\$100 off current registration rate

NON-MEMBERS

\$525 - Non-Member Rate

**CFO Roundtables
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John R. MacKay, President, MacKay Research Group
- O** • **Changes in Workers Compensation/Employee Health & Safety**
Bruce Walsh, Vice President, CBIZ Benefits & Insurance Services
- P** • **Benefits and Usage of 13 Week Cash Flow Forecasting**
Luke Snyder, Manager, CBIZ MHM Transaction Advisory Services
- I** • **Pros and Cons of the Corporate Structure in the Current Tax Environment**
Kevin McCreery, Managing Director, CBIZ MHM Tax & Advisory Services
- C**
- S**

For more information or to register contact Brittany Belko (bhelko@ntma.org) or phone 216-264-2848

< THE MFG MEETING: THE POWER OF MANUFACTURING

The 2015 MFG Meeting, March 4-7, hit a new mark in excellence! Organized by AMT – The Association For Manufacturing Technology, the National Tooling and Machining Association (NTMA) and the Precision Metalforming Association (PMA), this fifth edition of The MFG Meeting brought together the manufacturing community to learn, network and be inspired. This year's meeting focused on the power of manufacturing, which is driven by innovation, design, insight and people. The presentations from industry leaders provided attendees creative ways to optimize the drivers of manufacturing and provide solutions to strengthen their businesses. For details on the keynote speakers go to www.themfgmeeting.com.

192 NTMA members and spouses were among the 700+ MFG Meeting attendees, representing 24 different NTMA chapters and manufacturers throughout the U.S. While keynote speakers were inspiring the thought-provoking, there are many more takeaways and experiences that highlighted the Orlando event. Here are a few!

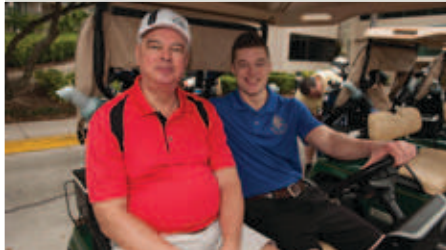
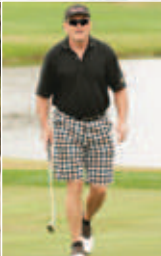
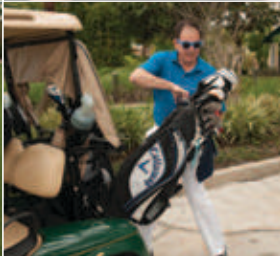


< THE POWER OF INNOVATION



< THE POWER OF RECREATION

Golf



Miles for Manufacturing 5K



< THE POWER OF CELEBRATION

Welcome Reception and Dinner



Gala Dinner



Technology Awards



Technology Category I Award
UMC, Inc. (Monticello, MN)
Eric Gibson, President



Business/Cultural Best Practice Award
LeanWerks, LLC (Ogden, UT)
Reid Leland

The Technology Awards were presented by Mike Hirsh, Technology Team Leader and were sponsored by AMT.

The William E. Hardman Award



2015 William E. Hardman Award for Excellence in Training
Michael Tamasi (AccuRounds, Avon, MA)

Distinguished Service Award



2015 Distinguished Service Award
Doug Woods
(Association of Manufacturing Technology, AMT)

Honor Award



2015 Honor Award
Mark DiLorenzo
(Phoenix Manufacturing, Inc., Enfield, CT)

The L.A. Sommer Memorial Award



2015 L.A. Sommer Memorial Award
Ron Overton (Overton Industries, Mooresville, IN)
 Note: An Atmos Clock is traditionally presented to the recipient of this award. Ron has chosen instead for NTMA to donate funds toward the American Jobs for America's Heroes program and the Brock Babb Scholarship.



Team Leaders Recognized for their Service

From left-right: NTMA Chairman Herb Homeyer, Dave Dysinger (National Tooling & Machining Foundation Board, 2011-2014), Alice Overton (Education Team, 2011-2014), Reid Leland (Manufacturing and Technology Team, 2012-2014), Paul Bonin (Government Affairs Team, 2013-2014), Zoi Romanchuk (Industry Advocacy Leadership Team, 2011-2014) and Roger Atkins (Nominating Team, 2014)

GENERAL ASSEMBLY AND INAUGURAL LUNCHEON



Ted Toth was awarded a plaque of appreciation for his year as National Chairman.



Herb Homeyer thanked outgoing first lady, Mickey Toth for her dedication and service.



Herb welcomed Mark Vaughn as new member of the Executive Team.

Matt Wardle was sworn in as Vice Chairman of the Executive Team.



GRAINGER®
FOR THE ONES WHO GET IT DONE

Grainger generously sponsored the General Assembly, represented here by Eugene Kim.



< THE POWER OF NETWORKING



MEMBERSHIP AWARDS: YEARS OF SERVICE



Bachman Machine Company, Inc.
(Bill Bachman, Jr.) – 70 years



Vaughn Manufacturing Company, Inc.
(Mark Vaughn) – 60 years



Chelar Tool & Die, Inc.
(Jared Katt) – 50 years



Fredon Corporation
(Roger Sustar) – 45 years



Strohwig Industries
(Mike Retzer) – 30 years



Overton Industries
(Ron Overton) – 25 years

UMC and LeanWerks presented with NTMA's Category 1 and Category 2 Tech Awards – Sponsored by AMT



Ultra Machining Company (UMC) was selected as the recipient of the National Tooling & Machining Association's Category 1 Technology Award. The award is given out to a company that displays and exemplifies Advanced Technology Development and/or Integration. This can be defined as advanced manufacturing technologies that are strategically targeted or developed in order to achieve improved results in the following core fundamentals: market development, throughput, scrap and/or safety. UMC's internally developed computerized dimensional assist (CDA) process has allowed the company to increase speed to market for complex products while maintaining the exacting standards and zero defects required in the highly regulated industries in which it serves (with less skilled labor hours). UMC has integrated this technology into 15% of its production and has plans to expand the use of CDA to 50% within the next 18 months. UMC has pursued advancement

of additive manufacturing by purchasing a Stratasys Fortus 250. UMC is a premier manufacturer of complex, precision machined parts and assemblies for customers across medical, aerospace, commercial, energy and industrial markets. UMC has built a strong reputation for their exceptional quality standards, advanced machining capabilities, value-added services, integrated systems and processes.

LeanWerks was presented with the Technology Category 2 Award. This award is given to a company that displays and exemplifies "Leader-Associate Partnerships for World-Class Performance." The company that receives this award has leaders and employees who have found new ways of defining their roles and function as a partnership to meet company objectives and goals. LeanWerks has won this award for its unique and powerful practice of Open Book Management in which a daily profit and loss statement of the prior day's performance is posted in the middle of



Dynamic Fabrication, Inc.
(Mike Kartsonis) – 25 years

the shop for all to see. Their practice of open book management includes financial training, weekly feedback huddles and profit sharing, and has created a very flat organization with a highly engaged workforce in which process improvement is the focus from end to end. LeanWerks is a manufacturing and engineering company that specializes in manufacturing and designing components for operations such as drilling, pumping, high speed manufacturing and sustaining heavy loads.

NTMA would like to recognize and express our appreciation to AMT for their generous sponsorship of these two awards.



HERB HOMEYER 2015 NATIONAL CHAIRMAN

March is transition time for NTMA – with the inauguration of a new national chairman. On March 5, the gavel was passed from Ted Toth to Herb Homeyer at the Inaugural Luncheon held in Herb's honor. Ted instituted the oath of office for both new Executive Team member, Matt Wardle (JD Machine Corporation, Ogden, UT) and then Herb as the 2015 National Chairman.

Following the official business, Herb's wife, Lisa shared a bit of history on Herb, his family and his business, Homeyer Precision Manufacturing, complete with photos and a video tribute by his mother. Two brothers offered a little bit more (sometimes humorous) family perspective, followed by comments from St. Louis Chapter President, Nick Berilla (Hartwig, Inc., St. Louis, MO).

Congratulations, Herb!



St. Louis Chapter President, Nick Berilla presented Herb with a shadowbox plaque, which featured logos from all the St. Louis Chapter members.



Hartwig, Inc. friends flew into Orlando for the luncheon to honor and congratulate Herb.



Ted Toth instituted the oath of office, making Herb Homeyer 2015 National Chairman.



Herb introduced his theme "Authentic Leadership."



Mike Mittler, former National Chairman (2006) and Herb



The gavel is passed from Ted to Herb.



Herb and Lisa Homeyer with their daughter and son, Gretchen and Justin. Both Gretchen and Justin are part of the team at Homeyer Precision Mfg.



Herb and Lisa Homeyer with Herb's brothers, Dale and Dave and their wives, Kathy and Sarah

The St. Louis delegation attended the luncheon and congratulated Herb on his leadership role at NTMA.



+GF+

GF Machining Solutions generously sponsored the Inaugural Luncheon. Herb with Gisbert Ledvon, GF Machining Solutions.





The Future of Manufacturing Begins May 15

Emerging Leaders Conference

...We
ARE
Manufacturing!

Event Details

May 15-16, 2015

Aloft Cleveland Downtown

1111 West 10th Street

Cleveland, OH 44113

Hotel Room Rate - \$129 plus tax per night

Questions or for more Information contact:

Brittany Belko

bbelko@ntma.org

216-264-2848

To Register:

www.ntma.org/events/upcoming-events/

Event Highlights

Personal & Professional Development Workshops

- Financial Management for Non-Financial Managers
CBIZ
- Building a Stronger, Cohesive Team
Ron Kaminski, CultureShoc
- Preparing for the Next Level of Leadership
Erik Skie, Managing Partner, CliftonLarsonAllen
- Sales & Marketing – Finding Your Strengths
Dan Bagley, Strategist, NTMA

Only \$325

Members:

Early Bird \$325

Early Bird 2nd Attendee \$250

Must register by 4/15/15 to receive the early bird rates

Regular \$375

Regular 2nd Attendee \$300

Non NTMA Members \$450

To my owner,

I am the future of American Manufacturing. More importantly, I am your future. I am your operations manager, machining team leader, your new hotshot salesman. I am your son, your daughter, your right-hand-man. With me, the future of our company is bright. In your career, you have demonstrated what it takes to be prosperous, engaging, and a steward of our industry. Our employees (and their families) are looking to you to institute a strategic plan that will continue this prosperity, even after you are gone from the day-to-day decision making. So my question for you is, "What are you doing to cultivate the talent and leadership of our company"?

I will be honest, I need direction. I need you to impart upon me the years of experience that you have gained in the industry. More importantly (and possibly more difficult), I need for you to allow me to go out and seek the information for myself. The NTMA provides me a community of thought leaders, technical experts, and brilliant business minds that are willing to work together for the common goal: personnel development. Even outside of NTMA, there is a wealth of information and programming that is available to make sure that I am ready to step into the next role of our company.

In 2014, an NTMA group called the Emerging Leaders Team has transformed its energies to provide just this. By assembling a group of like-minded individuals from NTMA membership and otherwise, they are creating a cohesive network of up-and-coming executives, technical managers, and machining experts. This group is going to become the fabric of our organization as it grows, and I don't want to miss this opportunity. In May, they are having an inaugural Emerging Leader Conference in Cleveland, an event that will put me in on ground floor of the development of the next generation of manufacturing.

The connections I make there will last me a lifetime. It will give me the opportunity to have a group of peers to rely on as I develop. It isn't just about the connections either; it's about a thirst for knowledge. By providing a high level menu of topics such as 'Building a Stronger, Cohesive Team', 'Financial Management for Non-Financial Managers', and 'Preparing for the Next Level of Leadership', it gives me the information I need to come back to work the next day and immediately implement new ideas and to operate at a higher level. This event is something that I cannot afford to miss. This event, more importantly, is something that YOU cannot afford for me to miss.

I am excited about our future. You have allowed me the opportunity to work in the fast-paced and exciting industry of manufacturing. I want dive-in, with both feet, not looking back. Give me the opportunities to learn, mature, and grow in my leadership by empowering me to learn from the best. Give me the wings, and I will soar.

Respectfully,
Your Emerging Leader

Written by Zac Overton
Team Leader of the NTMA Emerging Leaders Team
(zac@overtontind.com)



NTMA Emerging Leaders Conference

Cleveland, OH

May 15-16, 2015

NTMA Member Registration Rates as low as \$325

For more information, please visit the Events tab at www.ntma.org.



#NTMAEL2015

NTMA FALL CONFERENCE

St. Louis , MO

October 21-24, 2015



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OCEC BENCHMARKING STUDY

The NTMA Operating Costs and Executive Compensation (OCEC) is a benchmarking process of comparing the costs of what one precision machining shop does against what another shop does. The result is a business case for making changes in order to improve profitability.

Each OCEC participant receives an individual company Financial Performance Report (FPR) analyzing your company. This report compares your financial performance to industry benchmarks, to others in the same line of business category: Tools & Dies, Molds, General Precision Machining, Aerospace Machining, Special Machines, Production Operations and Sheet Metal Fabrication.

One of the first pages in the individual Financial Performance Report is this Scorecard graph. This page of the individual report gives you a quick, visual view of strengths and weakness and ratios to dig deeper into in the rest of the report.

In order to protect your confidential data, Mackay Research Group receives your survey, analyzes the data and sends this report

directly to you.

A company can speculate about its own performance, but it does not know factually about performance without a standard.

You need to not only recognize standards, but isolate what is best practice performance.

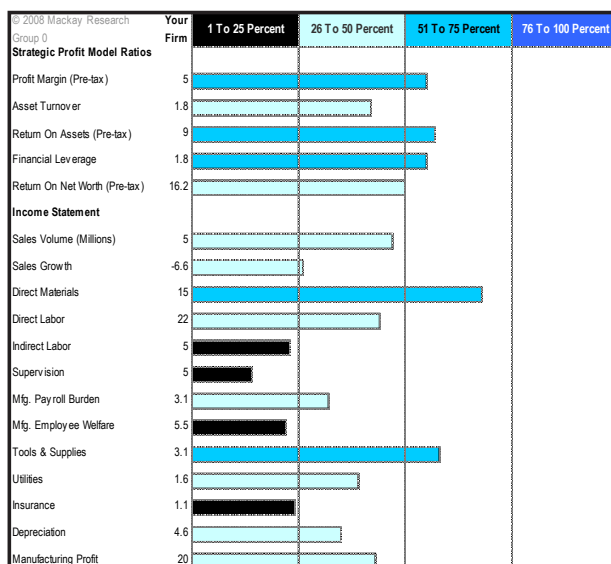
You must also identify what changes are needed for your company to achieve "high profit" financial performance.

Finally, your company must determine what magnitude of change is required to close the performance gap, through individual company feedback like the Financial Performance Report.

The OCEC study provides you with the tools you need to identify industry financial performance benchmarks, to identify the best practice performance based on the top twenty-five percent of the companies in the industry, and to identify your

company's strengths and weaknesses versus those industry benchmarks.

To ensure a comprehensive report, NTMA needs your participation. Be sure to send in your OCEC response by May 1st. And it's free to you through NTMA!



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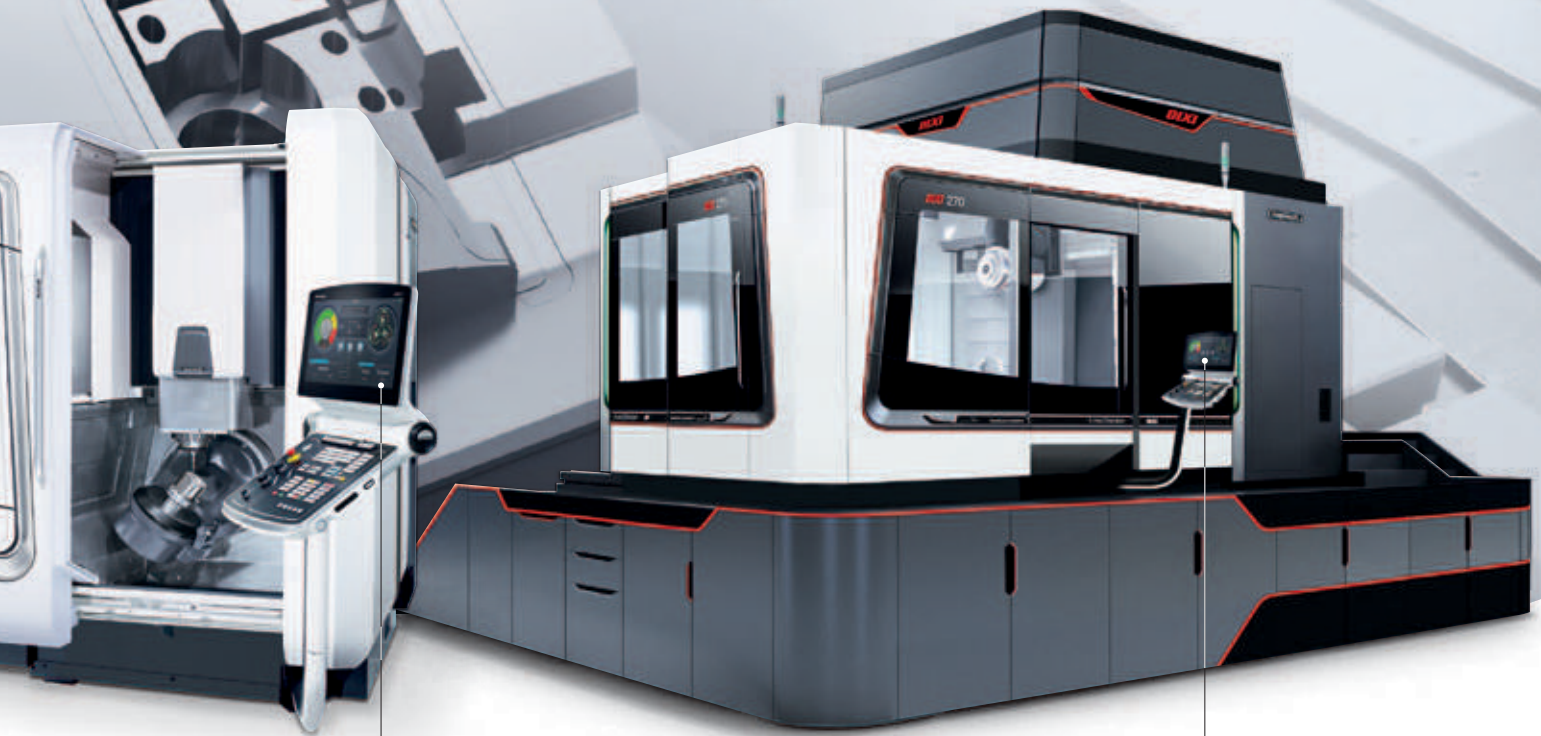


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Headlight injection mold //
Automotive
Material: 1.2312
Dimensions:
26.8 × 15.7 × 13.8 in.
Machining time: 16 hours



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- + **Temperature-controlled** machine components
- + Highest rigidity for optimal milling performance (GGG-60 castings)

Mold insert for bumper //
Automotive
Material: 21CrNiMo2
Dimensions:
98.4 × 39.4 × 55.1 in.
Machining time: 33 hours





NEW NRL LEADERSHIP WILL TAKE THE COMPETITION TO A WHOLE NEW LEVEL

NTMA announced at the Annual Meeting General Assembly held during the MFG Meeting in Orlando that an agreement has been reached with the NTMA Pittsburgh Chapter to bring on two new team members to lead the National Robotics League. Bill Padnos and Sarah Brooks joined NTMA on March 16th to help take the program to the next level. Bill and Sarah have been instrumental in working with the Pittsburgh BOTS IQ program over the past few years and have helped making it one of the most successful in the country. Through an arrangement with the Pittsburgh Chapter of NTMA, we will have access to their talents in an effort to accomplish the same thing with the national program. Dave Tilstone introduced Bill to attendees at the General Assembly and commented "The

addition of Bill and Sarah to the NRL is another step in NTMA's efforts to address the lack of skilled labor in our industry. Through the NRL program, we continue to increase awareness of the careers offered in manufacturing so that we can attract young talent to our industry. This is the single biggest issue our members face. Bill and Sarah will bring best practices they used in Western Pennsylvania and leverage their talents nationally to our 25 regional representatives and to all of our NTMA Chapters. Expanding the NRL is a key initiative of our industry advocacy program and to the longevity of our industry. The NRL has realized significant growth over the past few years thanks to the funding by the NTMF and the efforts of the NRL team under the leadership of Steve Tamasi. NTMA had wanted to expand and accelerate the growth of the NRL programs but didn't have the resources but now we do



Sarah Brooks and Bill Padnos

with Bill and Sarah supporting the team." Bill will come on board as the Director of Youth Engagement and Sarah will provide essential support as Program Manager. Both individuals will continue to support the Pittsburgh Chapter's program but their main focus will be the NRL. Eventually NTMA will contract with a third individual to provide grant writing support to the program to access additional funding.

In their new roles, Bill and Sarah will report to Doug DeRose.



THE PREMIER NATIONAL ROBOTICS COMBAT LEAGUE

Join us for a test of students' ingenuity as their own mechanical creations duel in robotic combat.

This event, brought to you by the National Tooling and Machining Association, demonstrates how aligning industry and education can introduce students to the benefits of high-tech careers.

The National Robotics League is powered by:



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KC CHAPTER COMPLETES NRL COMPETITION ARENA

The Kansas City Chapter is ready to launch into NRL in 2015. Led by Craig Schroer (Unitech, Inc.) the 12'x13'x8' arena features Lexan panels, lighting and camera ports. The arena was funded by the KC Chapter with generous donations of time, material, hardware and work from Unitech, Advanced Coatings, Ronson Mfg., EMJ, Allied Plastic Supply and Deco Tool.

Several NRL teams are working in their robots in the KC area with help from NTMA members, preparing for the first area competition that was scheduled for late March. The May issue of The Record will include updates on this and many other regional NRL competitions.



Craig Schroer, Owner, Unitech, Inc. in Lee's Summit, MO. He donated his time and engineering to build the cage at his facility. Craig is a long-time NTMA member and KC Chapter Trustee.

BATTLERS LEARN IMPORTANT LIFE, CAREER SKILLS IN TRENCHES OF ROBOTS BATTLE



TWO NW PA CHAPTER MEMBERS QUOTED ON THE VALUE OF NRL

BY KEITH GUSHARD

The best part of the annual RoboBOTS competition doesn't necessarily take place in front of the audience at Meadville Area Senior High School, according to its backers. RoboBOTS is a robot-building competition for area high school and middle school students where teams build robots that can weigh no more than 15 pounds. The robots then battle against each other in an arena during a daylong round-robin competition at MASH. This year's competition is March 28 and has 40 teams from 17 schools from around northwest Pennsylvania.

"For me, the real focus of the action isn't watching the RoboBOTS do battle within the arena, but in the pits where students are working on their robots," said Ken Kuhn, a volunteer with the annual competition. "They're learning how to problem solve, how to fix a problem with their robot on the spot when it's been damaged," Kuhn said. "That's the real beauty of the program — they're thinking on their feet, working out a problem and putting things into action." Kuhn is president of Kuhn Tool & Die of Meadville and a past president of the northwestern Pennsylvania chapter of the National Tooling and Machining Association, a tooling industry trade group.

The local RoboBOTS program was started in the 2006-07 school year by the local NTMA chapter as a creative way to attract students toward technical careers. It was suggested by Scott Hanaway, who was the local NTMA chapter president at the time, after Hanaway had seen it used in another area of the country.

The area's tooling and machining industry is facing an aging work force, according to the local NTMA chapter. The chapter estimates it needs about 250 new skilled workers a year for the next decade to replace current workers who will retire as well as fill new worker slots from business expansion and the integration of new technology into area firms.

Manufacturing is important to Crawford County since there is a heavier reliance on it here than in other parts of Pennsylvania and the country. About 22 percent of the jobs in the county are related to manufacturing, compared to 10 percent for the state and 11 percent nationally. Many of the area's tooling and machining shops are suppliers of tools, equipment and parts to major manufacturers.

The RoboBOTS program feeds the pipeline of developing new workers, according to local industry leaders like Kuhn. "We're

getting kids interested in mathematics, manufacturing, engineering and science," Kuhn said. "These are valuable assets to our industry." Rob Smith, executive chairman of Acutec Precision Machining Inc., an aerospace manufacturing firm with about 390 employees, agrees. "We're awakening an interest in young people to a love of science and technology with RoboBOTS," Smith said. "While making science and technology fun, interesting and challenging." Smith and Kuhn both said the program helps showcase various opportunities within the tooling and machining industry.

"Young people who were on teams are starting to join our businesses — as engineers, machinists, in quality control," Smith said. "They're finding something they like to do and want to continue it." The competition draws not only students, but their families and the general public to watch it. "We're putting 1,000 people in the (MASH) gym to watch," Smith said. "That's really kind of cool. They're cheering on intellect."

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Meadville Tribune



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**" TO SUM IT UP, WE'RE RUNNING
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THE 2015 GRAINGER SHOW FEATURES SOLUTIONS AND PRODUCTS TO HELP CUSTOMERS INCREASE PRODUCTIVITY AND STAY SAFE

BIGGEST GRAINGER SHOW TO DATE WITH MORE THAN 17,000 ATTENDEES



Grainger, the leading broad line supplier of maintenance, repair and operating (MRO) products serving businesses and institutions, welcomed more than 17,000 attendees to its annual Grainger Show in Orlando, February 16-17. Among those in attendance were Courtney Wagner (Wagner Machine, Inc.), Herb Homeyer (Homeyer Precision Mfg.), Ted Toth (Rosenberger-Toth) and Dave Tilstone and Ken McCreight (NTMA) – all hosted by Grainger's Eugene Kim.

The event brought together customers, suppliers and Grainger team members nationwide to demonstrate how Grainger is uniquely positioned to serve its customers. "Grainger's mission is to help our customers keep their operations running and their people safe," said Deb Oler, vice president and general manager of Grainger. "These hard-working individuals trust Grainger to provide them with the right products, services and solutions. This show enabled attendees to learn how Grainger partners with them to examine their challenges and MRO spend, and how we develop comprehensive and proven strategies to help them save time and money."

In its 11th year, the 2015 Grainger Show was the largest to date. The event included more than 750 exhibitors on a 367,000 square-foot trade show floor, along with several seminars, workshops and networking sessions. Show attendees learned the latest solutions, services and best practices in areas such as inventory management, safety and

eCommerce, with a focus on key industries, including manufacturing, health-care and hospitality.

Products, solutions and best practices came to life in an interactive setting called Grainger Town. Through this 20,000 square-foot exhibit, customers learned about inventory management options in the "General Store," safety in the "Building Under Construction" and all things "e" in the "eCommerce Store." The "Library" featured solutions to reduce MRO costs and the "Theater" showcased experts highlighting the areas of safety, inventory management, eCommerce



and much more.

In addition, show attendees got a first-hand look at Grainger's latest solutions and services, including:

E-COMMERCE

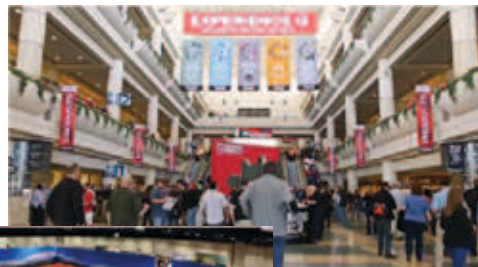
Location-Based Lists

Location-based lists allow customers to find specific products based on their smartphone's current GPS location. Using the Grainger smartphone app, a customer standing in his or her facility can pull up a customized list of products needed to maintain that exact location. A customer then can buy the appropriate

products, manage the product list and save time by having the shipping address automatically populate based on the specific location. This is especially useful for customers who manage multiple locations.

Enhanced Search on Grainger.com

Grainger is focused on enhancing the Grainger.com experience through improved search solutions. Customers typing in a search term on Grainger.com now will see keyword(s) display that match their previous search



history. There also is a suggested list of relevant products and categories making it easier to quickly narrow a search

and find what's needed.

Self-Service on Grainger.com

Grainger now offers access to past invoices on Grainger.com. Customers can search and filter invoices in a variety of ways, including by invoice, purchase order number, order confirmation number, date and invoice amount. Invoices are available online for Grainger orders no matter how they are placed.

INVENTORY MANAGEMENT

KeepStock App

Customers can now manage their KeepStock inventory through the Grainger smartphone

app. The KeepStock feature is in the menu section of the app, and users can click on the icon and log in with their KeepStock credentials to begin.

KeepStock Trailers

Customers with short-term planned projects can now have Grainger provide a trailer onsite that's stocked with the right products to help keep their jobs on schedule. When the product list is determined and the job is ready to begin, Grainger delivers the stocked trailer ready to use and provides replenishments throughout the project. Grainger's KeepStock reporting software also provides product use data by item and worker.

SAFETY

Safety Resource Center

Grainger recently launched its online Safety Resource Center giving customers access to the latest safety news, trends and regulatory issues. This all-access site is designed to help customers identify, control and prevent workplace hazards through quick tips, safety data sheets, newsletters and click-to-chat support.

Field Safety Specialists

Grainger continues to expand its Field Safety Specialist team nationwide. These experts are OSHA 30-Hour General Industry trained and certified as Qualified Safety Sales Professionals (QSSP) who help customers solve safety challenges, offer cost-saving proposals and recommend program standardization strategies. Grainger's more than 600 safety suppliers are an additional source for customer support.



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- Improve Communication

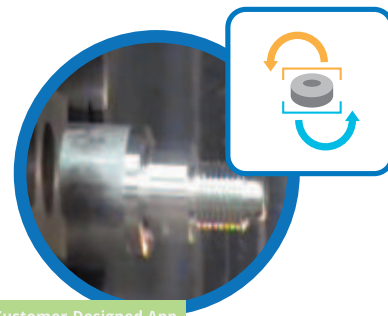


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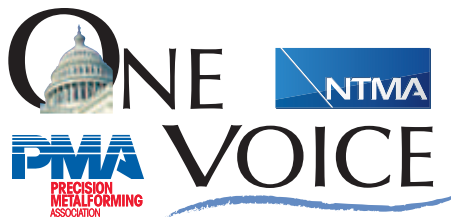
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DIVE IN TO ADVOCACY ACTIVITIES IN 2015



Advocacy in Washington, DC is especially important this year as Congress is expected to tackle some tough issues in 2015.

One item on the agenda? Tax reform. Some leaders in Washington want to lower the tax rate for C-Corporations to 28%, while leaving the top 39.6% rate intact for most small businesses. This is a significant issue for NTMA members, many of whom are structured pass-through businesses. Under some plans being discussed, policymakers would not include these companies in tax relief.

And that is not the only tax-related issue facing manufacturers this year. As NTMA members know, purchasing and building new machines is the lifeblood of the manufacturing industry. Many NTMA members depend on valuable tax benefits to keep their facilities humming. According to the 2015 One Voice Advocacy survey, 40% of One Voice members reported using the Section 199 domestic production activities tax deduction this year. At the same time, 45% reported using the R&D tax credit, 89% reported using bonus/accelerated depreciation, and a full 91% reported using Section 179 expensing. These tax provisions which are relied upon by NTMA members will be on the chopping block again this year as the extension passed at the end of 2014 will only last for one year.

It is clear that there is a lot at stake for manufacturers. To make a difference in Washington, you have to participate in the process. Funds contributed to advocacy efforts help to ensure that the voices of small and medium-sized manufacturers are heard. It is important to work with members of Congress to be sure that a reform of the tax code works for all business, regardless of structure and type, and helps to keep American manufacturing strong and competitive.

At The MFG Meeting in Orlando, FL last month, NTMA members raised significant money for advocacy efforts. In a show of gratitude and enthusiasm, new NTMA chairman, Herb Homeyer was joined by

Bill Smith, the new chairman of the Precision Metalforming Association (NTMA's One Voice advocacy partner), and manufacturing industry lobbyist John Guzik of The Franklin Partnership for a dip in the resort pool following the event's black-tie gala.

Remember that NTMA members can give unlimited corporate or individual contributions to the NTMA Government Affairs Administrative Fund which supports the work done by The Franklin Partnership and Policy Resolution Group at Bracewell & Giuliani LLP. Additionally, NTMA members

can make limited personal donations to the Committee for a Strong Economy (CFASE) PAC, which supports pro-manufacturing Congressional candidates.

Stay tuned to advocacy activities by following NTMA and One Voice on Twitter - @NTMATalk and @OneVoicefor Mfg.

For more information about NTMA's Political Action Committee, please visit www.ntmapac.org



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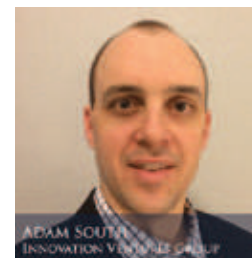
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THE NTMA EMERGING LEADERS TEAM



Some NTMA leadership happens at the Team level, as member volunteers drive many of the projects and events that happen each year. Throughout 2015 The Record will feature overviews of the various NTMA Teams.

The Emerging Leaders Team has redefined itself. Led by Team Leader Zac Overton (Overton Industries, Mooresville, IN), the team has adapted its focus to provide more programming tailored to the needs of the manufacturing's new generation. The Emerging Leaders Team is a sub-team of Member Value.

The purpose and mission of the Emerging Leaders Team is to assist NTMA member companies in the development and support of new and future leaders to ensure the company's successful operation and succession.

The future of business and its leaders is taking industry leadership a level up. For today's leadership, it is a challenge to make sense of the ever-changing business environment. The image of Emerging Leaders is about more than just demographic change – it's about new generation leadership styles, new generation business models and new generation customer experiences.

The Emerging Leaders Team is committed to improving identification and participation of leading individuals within NTMA member companies by guiding and providing necessary resources and tools to attain desired leadership excellence and engagement in programs. An additional objective of the Team is to highlight best practices for attracting, advancing and retaining strong manufacturing leadership talent.

Since 2014, the Emerging Leader Team has been working to evolve with the changing needs of NTMA membership. The first step was changing the team name, from Next Generation (or NextGen, as it was casually called) Team to Emerging Leader Team. Why? First, the name Next Generation was too familiar. Many felt that if you weren't family or a part of the ownership team, you weren't allowed to participate. Second, some thought "Next Generation" was

those who were 35 years of age and younger, which isn't the case. As the Emerging Leader Team, we are now all about preparing NTMA members and their employees for their next level of leadership. Whether leadership is going from a Shop Floor Manager to COO, Salesperson to Sales Manager, or from being the Owners Kid to the Owner, this team will provide the best tailored programming that can be found.

The Team has been working for nearly a year on our first (of many, hopefully) Emerging Leaders Conference. The 2015 conference will be in Cleveland, May 15-16. Focusing on leadership transition, sales and financial management, the conference is specifically designed for up-and-coming NTMA leaders. Some attending may be 23 years old, some right out of college and still others might be in their 40s and transitioning into an ownership role.

Our 2-day event offers up-and-coming leaders the opportunity to gather in an intimate setting to learn, share insights and discuss issues that matter

most to them and their leadership position. The Emerging Leaders Conference is a high-impact, fast-paced event that includes a variety of concurrent professional development sessions, workshops, networking opportunities and moderated discussions.

EMERGING LEADERS TEAM MEMBERS:

Zachary Overton, Team Leader
Ben Belzer
Frank Burch
Gretchen Homeyer
Dave Ponegalek
Peter Schott
Jim Stevenson
Vince Westendorp
David Weyreter
Andrea Wosel
Paul Sapra (Member Value Leadership Team)

Kenneth Seilkop (Executive Team Liaison)

EMERGING LEADERS TEAM STAFF LIAISON:

Kelly Kasner



SCHOLARSHIPS

NTMA SCHOLARSHIP APPLICATIONS

NTMA offers two scholarship opportunities: The Brock Babb Memorial Scholarship and The Edwin Vobeda Memorial Scholarship. Applications are still being accepted – with an extended application deadline of May 29, 2015. For scholarship and application details, see the back cover/very last page of the February and March issues of The Record (you can find

on website: [www/ntma.org](http://www.ntma.org) – go to the Make Connections section of the home page, then to "The Record Newsletter Archives"). Or contact Ken McCreight (kmccreight@ntma.org) for more details.



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NTMA AFFINITY PROGRAM SPOTLIGHT

AFFINITY PROGRAMS - A SIMPLE DEFINITION

NTMA is able to save members significant amounts of money on products and services they are already using. These cost-savings programs are what we call "Affinity" programs and they are among the most tangible benefits of NTMA membership. Over the course of 2015 we are going to highlight the companies and their products and services so members better understand the benefits our Affinity Partners offer.

NTMA is proud to be able to help our members save millions of dollars each year on products and services essential to the operation of their business. Who isn't looking to save money, right? Look right here each month.

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Kelly LaMarca, Executive Assistant, NTMA

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Is a secure, file and content sharing solution specifically built for businesses who need to manage and share data and files.

• GOTOMYPC

Gives you the ability to access and work remotely on your PC or Mac from any web browser — including from your iPad, iPhone or Android device — so you can be productive wherever you go.

• GOTOASSIST

Remote support and service desk tools empower IT professionals and support teams to provide technical assistance and easily manage IT services from anywhere.

• PODIO

Offers a collaborative work platform that

enables people and teams to work the way they want to in a social, online setting.

To take advantage of this Affinity Program offer, first register for a complimentary evaluation of Citrix SaaS solutions at <http://more.citrix.com/NTMA>. Then ask the sales representative for the NTMA discount to get 15% off your final plan price.



NTMA Member Offer:
15% off

Register at
<http://more.citrix.com/NTMA>

Then ask a Citrix rep for your discount

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with NOVO.”**

— Machine Tool Builder Project Engineer



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IS YOUR APPROACH TO HIRING VETS HOLDING YOU BACK?

FREE AJAH ON-DEMAND WEBINAR CAN HELP YOUR TEAM AVOID MISTAKES

BY TODD YOUNG, CENTER FOR AMERICA



National Guard and veteran unemployment and under-employment continues to be above national unemployment levels, yet according to the U.S. Labor Department, available unfilled jobs – particularly in the industrial and manufacturing sectors – reached a 14-year high in January.

So, what's the missing connection? Small and mid-size employers often hit snags when seeking to hire trained and experienced veterans and National Guard members. Challenges include efficiently connecting with qualified military job candidates, understanding how military experience meets or exceeds civilian job requirements and conducting productive interviews with veterans who don't go through interviews in the military.

To help employers and HR recruiters overcome these problems, the Center for America, the non-profit coordinating the American Jobs for America's Heroes military hiring campaign, and the Maryland State Council of the Society for Human Resource Management (SHRM) have produced a free on-demand webinar, "How to Achieve Greater Success in Hiring National Guard and Other Veterans." This program gives employers practical advice on hurdles they may encounter in the military hiring effort and specific action steps that will help employers find qualified job applicants. Here is the link: <http://www.CenterForAmerica.org/webinar2.html>

The 45-minute program features three experts who work in the military hiring arena: Brig. Gen. (ret.) Marianne Watson, the former Director of Manpower and Personnel (J1) for the National Guard Bureau; Stacy Bayton, a retired U.S. Marine and Chief Operating Officer for Corporate America Supports You (CASY) and the Military Spouse Corporate Career Network (MSCCN), a 2014 Call of Duty Endowment award-winner for excellence in military hiring; and Erin Voirol, the CASY-MSCCN Executive Director and military spouse. In 2014, CASY and MSCCN placed more than 5,000 Guard members and vets in jobs with employers.

The webinar details specific action steps and best practices that help employers and HR professionals streamline the recruiting and hiring process with the objective to retain veterans once hired. Tips include how to update job postings using language that will attract candidates and fit the top skills they have attained in the military and how to identify veteran organizations that work inside the military that can best provide access to candidates.

In one anecdote, Bayton describes preparing a 20-year old Marine Reservist for a job interview. During the initial phase, the young Marine responded with clipped answers that yielded little insight into his valuable experiences.

By utilizing performance-based questions, Bayton discovered the Marine ran multiple operations in Afghanistan and had been in charge of \$20 million equipment and a team of Marines. He knew supply-chain manage-

ment in detail, and offered high-level insights into leadership and teamwork. None of these experiences were revealed in his resume, underscoring the need to connect with job candidates using questions that seek to understand the specific nature of their "mission-first" experience and training in the military.

Employers can register with the American Jobs for America's Heroes campaign to post jobs and get free help on job descriptions and connect with CASY's experienced employment counselors – free of charge – by visiting www.CenterforAmerica.org. AJAH provides a host of information and resources to help employers navigate the military hiring effort, including guides written by industry experts for AJAH on taking advantage of available tax credits for hiring veterans and understanding new OFCCP guidelines for federal contractors requiring veteran hiring.

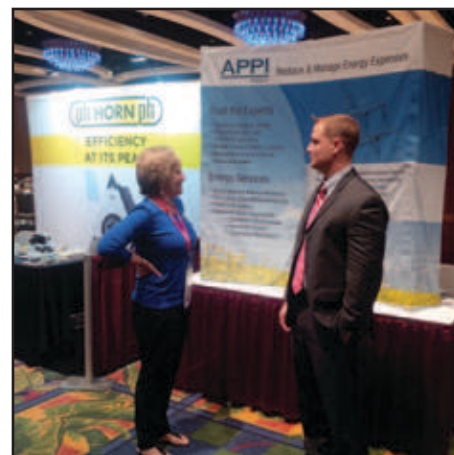


NTMA MEMBERS REDUCING ENERGY COSTS



Since 2001, NTMA has endorsed APPI Energy to provide data-driven energy procurement solutions to members. "APPI Energy helped make the deregulation process so much easier for us at Manda Machine Co., Inc. While we concentrated on our jobs, they concentrated on managing our electricity," said Andy Ellard, owner of Manda Machine Company, Inc. (Dallas, TX). "They shopped for a supplier, made the best selection and clearly presented the offer and contract to me. Now I'm saving money for our electricity. Thanks APPI Energy for making this process so easy."

APPI Energy is a longtime exhibit sponsor of the MFG Meeting. At the 2015 MFG meeting in Orlando, APPI Energy's Director of Consulting, Jeff Sherman (pictured), ranked second place for men 30-39 years old in the Miles for Manufacturing 5k Run/Walk. In addition, Jeff met with many NTMA members interested in learning more about reducing electricity and natural gas costs. To take advantage of this impor-



APPI Energy's Director of Consulting, Jeff Sherman here with an MFG Meeting attendee, ranked second place for men 30-39 years old in the Miles for Manufacturing 5k Run/Walk.

tant NTMA membership benefit, contact APPI Energy at 800-520-6685.



Although manufacturing production is growing at its fastest pace in over a decade, 302,000 manufacturing jobs remain unfilled today — and that number could rise to 875,000 by 2020 for many of these types of jobs. Why? Well, many of the skills needed for these blue-collar jobs are increasingly rare, and are found particularly in traditional manufacturing jobs such as machinists and mechanical engineering technicians — jobs which Americans are being trained in less and less.¹

Success stories! To date there are 52 NTMA-U graduates — with 38 more by the end of the 2015 winter/spring semester.

The average age of American skilled workers is 55 years old. These essential workers will retire soon, and there's not enough young people coming through the skilled training pipeline to fill the gap. This gap is already costing us billions from the American gross domestic product.²

Modules successfully completed in the last 4 years = 1074

Why NTMA-U?



For more information
on NTMA-U
please contact
NTMA Vice President,
Ken McCreight at
(216) 264-2834
(kmccreight@ntma.org).

20 module options available, providing NTMA members the flexibility to match skillset development with their company's needs.

"The skills shortage pervades all stages of manufacturing — from engineering to skilled production," said Jennifer McNelly, president, The Manufacturing Institute. "This challenge will only grow as the demographics of our workforce evolve with retirements, new technological advances requiring a higher level of training and certification, and our K-12 education system, which continues to lack the necessary focus on STEM education."³

NTMA-U students will be better prepared as employees with higher skills within their employer's workforce — this is a win-win for both members and students.

NTMA members report that workforce development is their #1 challenge. At a strategic planning conference in Miami, NTMA leadership identified "NTMA-U and Workforce Training" as the second highest reason for joining the NTMA (the first reason "Networking").

¹Career Builder. <http://thehiringsite.careerbuilder.com/2014/10/13/5-hard-to-fill-manufacturing-jobs/>

²Center for America. http://www.centerforamerica.org/pledge/gr/AAMGA_Magazine_Ratzenberger_CFA_Article_8-11.pdf

³"Manufacturers Looking at a Big Shortfall of New Workers," Industry Week, February 25, 2015

NTMA U NOW OFFERS METROLOGY

This course focuses on metrology, the science of measurement, and shop safety. It is intended for anyone who wishes to learn the basic tools and techniques required for manufacturing. The course covers a variety of related topics that apply to measurement principles with "best practices." This on-line course will provide opportunities that demonstrate the proper use of common hand-held measuring tools and presents fundamental considerations for the proper selection, application and care of typical precision measuring tools such as gage

blocks, micrometers and calipers.

Course objective - to develop awareness, knowledge and the basic skills that are necessary for manufacturing measurement applications. Technical manufacturing terms and principles will be covered in depth. Basic measurement applications for Geometric Dimensioning and Tolerancing (GD&T) and assessment of measurement quality will be introduced. This course will cover the basic uses and interpretation of geometric dimensions and tolerances as specified for machine trade blueprint.

The new NTMA-U course also includes the following topics: introductory probability and statistics including organization of data, CMM, Probes, Precision Gages, Word Document Tricks and Tips, Surface Finishes and Calibration-Verification-Validation.

Cost \$249.

For enrollment information please contact Ken McCreight – NTMA Vice President – kmccreight@ntma.org or phone: 216-264-2834.





KENNAMETAL NAMED ONE OF THE WORLD'S MOST ETHICAL COMPANIES FOR FOURTH CONSECUTIVE YEAR

RECOGNITION DEMONSTRATES KENNAMETAL'S COMMITMENT TO ETHICAL LEADERSHIP

Kennametal Inc. announced in March that the company has been named for the fourth consecutive year among the World's Most Ethical Companies® by the Ethisphere Institute, a global leader in defining and advancing the standards of ethical business practices. The World's Most Ethical Companies designation recognizes organizations that lead in the standards and practices of ethical business conduct by cultivating a culture of ethics and transparency at every level, and performing to the highest standards.

"This honor goes to the credit of Kennametal employees everywhere who uphold the highest standards of ethics and integrity, while also giving generously in the communities where we work and live,"

said Kennametal President and CEO Don Nolan.

Kennametal is one of only four companies in the machine tools and accessories category honored by the Ethisphere Institute this year. Highlights of Kennametal's recognition this year include:


- World-class ethics and compliance programs with universal employee engagement
- Best-practice corporate governance
- In-depth risk management across the supply chain
- Consistent support for STEM education and communities by the Kennametal Foundation, with record contributions and volunteerism by Kennametal employee

"The World's Most Ethical Companies

use ethics as a means to further define their industry leadership, and understand that creating an ethical culture and earning this recognition involves more than just an outward facing message," said Ethisphere Chief Executive Officer Timothy Erbllich. "It involves the collective action of a global workforce. We congratulate everyone at Kennametal for this extraordinary achievement."

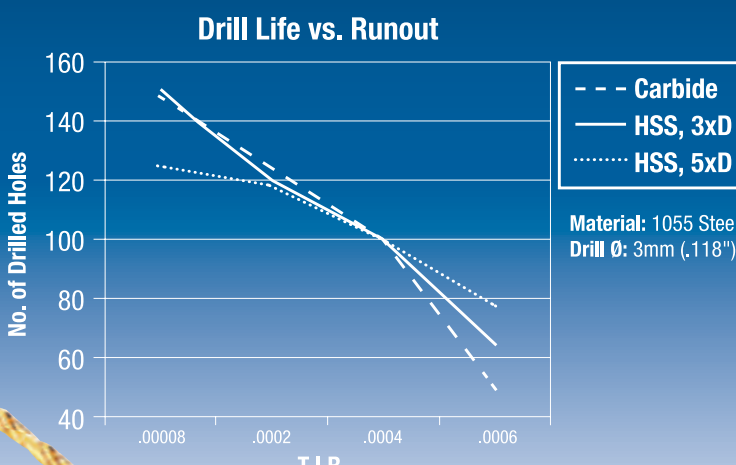
See more at: <http://www.kennametal.com/en/about-us/news/kennametal-again-named-among-most-ethical-companies.html#sthash.vT8lIZun.dpuf>





HIGHER PERFORMANCE GUARANTEED

Drill Life vs. Runout



Material: 1055 Steel
Drill Ø: 3mm (.118")

T.I.R.	Carbide (No. of Holes)	HSS, 3xD (No. of Holes)	HSS, 5xD (No. of Holes)
.00008	150	125	125
.0002	130	115	115
.0004	100	100	100
.0006	70	70	70

VIRTUALLY ELIMINATES RUNOUT FOR LONGER TOOL LIFE AND

WE'LL PROVE IT.

The **Mega Micro Collet Chuck** offers the industry's highest runout accuracy—especially critical for micro cutting tools. Since .0005" is generally considered good runout, tool life could double or even triple with a quality holder with guaranteed runout of ≤ 3 microns. Don't believe us? Test the Mega Micro Chuck in your shop to see the proof.

Visit BIGKaiser.com/TestUs to request your Mega Micro Chuck free trial today.

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MAZAK MIDWEST EVENT TO SPOTLIGHT METALWORKING ADVANCEMENTS FOR ALL INDUSTRIES

Mazak
Your Partner for Innovation

Mazak will host a Discover More With MazakT event at its Midwest Technology Center in Schaumburg, IL, June 2 through 4 from 10 a.m. to 6 p.m. The advanced manufacturing event will showcase more than 20 of Mazak's latest machine tools, with several featuring the company's new SMOOTH TECHNOLOGY platform. Special presentations on additive manufacturing, ancillary machine tool equipment and MTConnect will round out the event.

The broad range of machine tool demonstrations at the event will allow attendees to experience the latest advancements in Multi-Tasking, 5-axis, milling, turning, automation and CNC technologies for all metalworking sectors. Mazak applications experts will also be available during the demonstrations to discuss part-processing optimization.

Designed for small parts production, Mazak's new UNIVERSAL products redefine the quality and productivity standards of value-based CNC milling and turning machines. Event attendees will get to see several of these machines in action, including the VERTICAL CENTER UNIVERSAL 400A 5X, VERTICAL CENTER UNIVERSAL 400T and VERTICAL CENTER UNIVERSAL 500A with a twin-pallet changer.

Larger part processing will be demonstrated on machines that include the INTEGREGX e-1600V/10S, HORIZONTAL CENTER NEXUS 6800-II, MULTIPLEX 6300Y, SLANT TURN NEXUS 500M and VERTICAL TRAVELING COLUMN 200C.

Mazak will also showcase its new MAZATROL SmoothX CNC on the INTEGREGX i-200, VARIAXIS i-600 and INTEGREGX e-1600V/10S. The company engineered the CNC to offer maximum speeds that are four times faster than previous-generation controls. It also coincides with Mazak's new SMOOTH TECHNOLOGY process-performance platform that spans the entire part-production landscape, from programming to metal removal to data collection. As a result, manufacturers can dramatically shorten machine cycle times, enhance simultaneous 5-axis operations and more.

A special additive manufacturing display will focus on the company's recently announced INTEGREGX i-400AM HYBRID

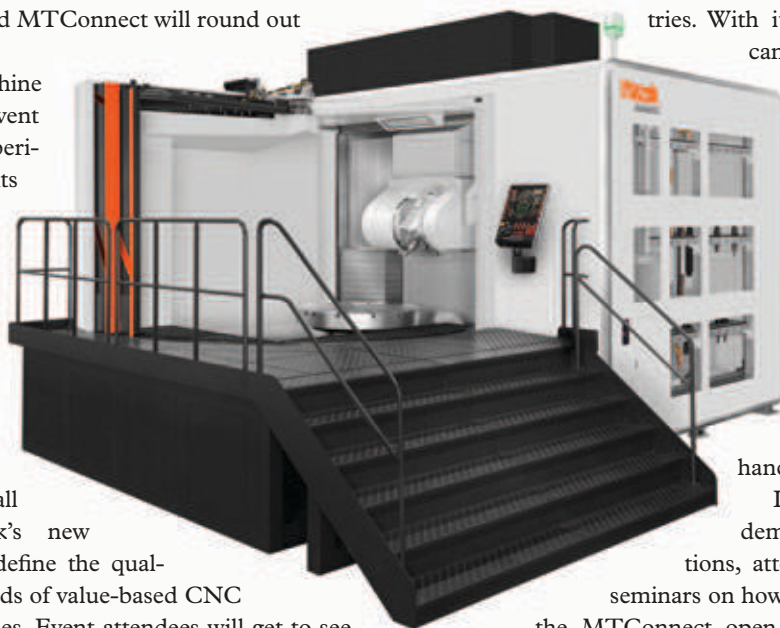
Multi-Tasking machine. Attendees will see how this forthcoming turnkey solution represents an innovative alternative to conventional part processing in terms of design and machining.

Mazak designed the INTEGREGX i-400AM primarily for small lot production of very difficult-to-machine materials such as those used in the aerospace, energy and medical industries. With its additive capability, the machine can easily generate/clad near-net-shape component features then quickly complete them via high-precision finish machining operations.

Throughout the event, attendees will be able to connect with several of Mazak's Value Inspired Partners to discuss the latest ancillary machine tool equipment for creating total manufacturing solutions. These partners will also host a variety of sessions on ways attendees can enhance productivity via their equipment.

In addition to the machine tool demonstrations and partner presentations, attendees can participate in technical seminars on how to improve factory utilization using the MTConnect open-source, royalty-free manufacturing protocol.

Registration for the Discover More With Mazak event at the Midwest Technology Center is now open at www.mazakusa.com/moremidwest.



SAVE THE DATE



PLANT MANAGERS
ROUNDTABLE

NTMA PLANT MANAGERS ROUNDTABLE

WEDNESDAY MAY 27, 2015

CYPRESS/LOS ANGELES, CA

8:00AM - 4:30PM

Registration Rates:

Early Bird Member	\$425
Deadline 5/6/15	
Regular Member	\$500
Non-Member	\$550

Topics

- Metrics: Machine up time, production throughput, gross margin, etc.
- Inspection Management
- Tooling Management
- Equipment Purchase Justification
- Laser Technology

Hosted by:



* Plant Tour followed by
Welcome Reception & Dinner
on Tuesday May 26th

For more information, contact:

Kristen Hrusch 216-264-2845 or khrusch@ntma.org

NATIONAL TOOLING & MACHINING ASSOCIATION

1357 Rockside Rd.
Cleveland, OH 44134

NTMA 2015 Events

April 6-12, 2015

International Technology Tour
Switzerland

April 20-22, 2015

NTMA/PMA Legislative Conference
Washington, D.C.

April 29, 2015

CFO Roundtable
Philadelphia, PA

May 15-16, 2015

National Robotics League
National Competition
Cleveland, OH

May 15-16, 2015

Emerging Leaders Conference
Cleveland, OH

May 27, 2015

Plant Managers Roundtable
Cypress/Los Angeles, California

June 11-12, 2015

Chapter Leadership Summit
Cleveland, OH

June 24, 2015

CFO Roundtable
Cleveland, OH

July 29, 2015

Sales & Marketing Workshop
Hartford, CT

September 15, 2015*

Sales & Marketing Workshop
Indianapolis, IN

September 16, 2015*

NTMA Contract Manufacturing
Purchasing Fair
Indianapolis, IN

September 30, 2015

CFO Roundtable
Los Angeles, CA

2015

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October 4-11, 2015

EMO Milano 2015
Milan, Italy

October 20, 2015

Plant Managers Roundtable
St. Louis, MO

October 21-24, 2015

NTMA Fall Conference
St. Louis, MO

November 11, 2015

CFO Roundtable
Kansas City, MO

November 18, 2015

Human Resources Roundtable
Boston, MA

*Discounted rate available for those who register for both the Sales & Marketing Workshop and the Purchasing Fair